

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 21060009  
1135 ACC

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: I46540562 thru I46540619

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



June 11, 2021

---

Liu, Xuegang

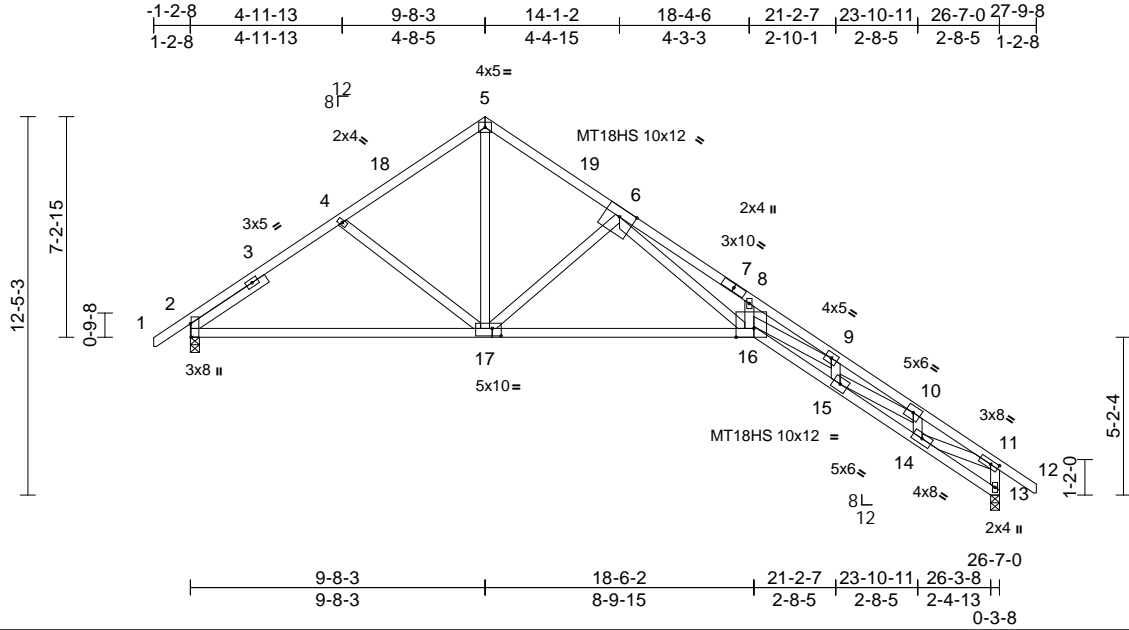
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 21060009	Truss A	Truss Type Roof Special	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540562
-----------------	------------	----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:46:59  
ID:qHV9pF\_zJYMejRQIVdogy8NK7-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:75.7

Plate Offsets (X, Y): [2:0-5-5,Edge], [11:0-3-3,0-1-8], [16:0-7-0,Edge], [17:0-3-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.70	16-17	>450	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.98	Vert(CT)	-1.22	16-17	>259	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.88	13	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 152 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 1-5:2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 16-13:2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 16-6:2x4 SP No.1, 15-10,14-11:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 3-0-1

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 1-11-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 13=0-3-8  
Max Horiz 2=230 (LC 7)  
Max Uplift 13=17 (LC 12)  
Max Grav 2=1414 (LC 1), 13=1427 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/41, 2-4=-1846/136, 4-5=-1554/125, 5-6=-1568/136, 6-8=-8004/231, 8-9=-8100/131, 9-10=-6397/236, 10-11=-3516/165, 11-12=0/102, 11-13=-1427/137  
BOT CHORD 2-16=0/2238, 15-16=-113/6350, 14-15=-103/3422, 13-14=-39/109  
WEBS 4-17=-254/135, 5-17=-45/1268, 6-17=-1367/134, 6-16=-91/5972, 8-16=-73/111, 9-16=0/1416, 9-15=-860/25, 10-15=-14/2541, 10-14=-1048/72, 11-14=-89/2857

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-0 to 1-10-0, Interior (1) 1-10-0 to 9-8-3, Exterior(2R) 9-8-3 to 12-8-3, Interior (1) 12-8-3 to 27-9-0 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only, except as noted.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) The Fabrication Tolerance at joint 16 = 0%
- 7) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) One RT7A MiTek 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.
- 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

**NOTES**



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



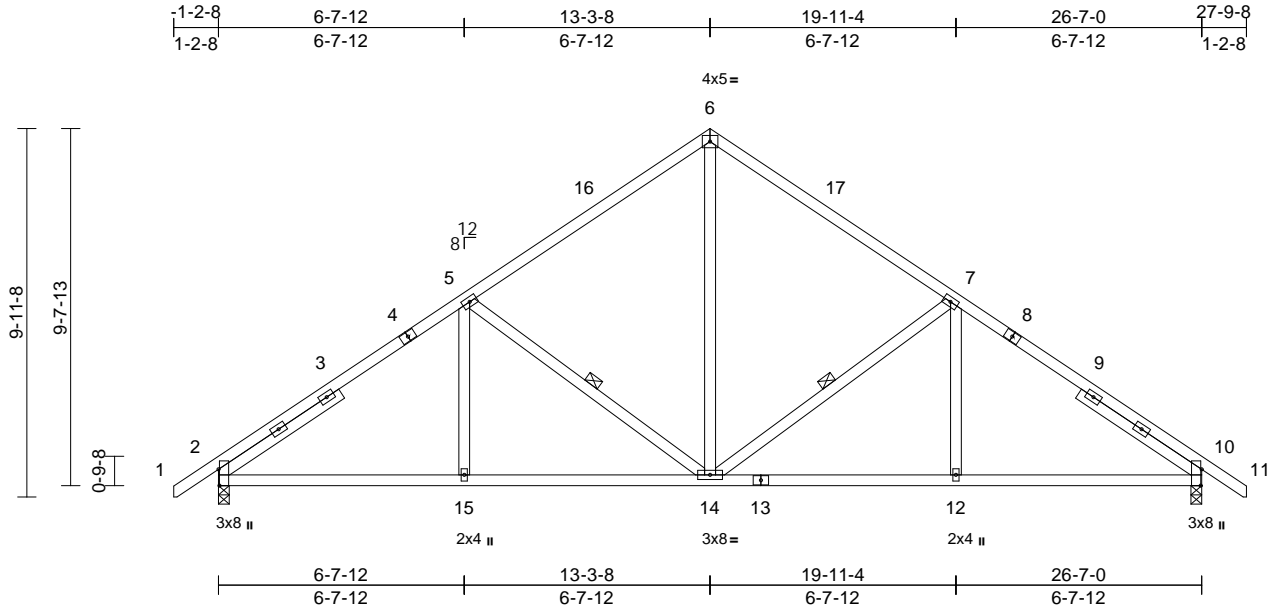
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss AA	Truss Type Common	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540563
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:02  
ID:JT3Y0b?bWdgDFpld\_?1sKuy8NK6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?#

Page: 1



Scale = 1:62.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.06	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.13	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 154 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 13-10:2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 3-11-14, Right 2x4 SP No.3 -- 3-11-14

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-1-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-14, 7-14

**REACTIONS**

(size) 2=0-3-8, 10=0-3-8  
 Max Horiz 2=181 (LC 10)  
 Max Grav 2=1422 (LC 1), 10=1422 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/41, 2-5=-1857/136, 5-6=-1316/186, 6-7=-1316/186, 7-10=-1856/136, 10-11=0/41  
 BOT CHORD 2-15=-15/1405, 14-15=-15/1405, 12-14=-10/1405, 10-12=-10/1405  
 WEBS 5-15=0/142, 5-14=-549/126, 6-14=-65/779, 7-14=-549/126, 7-12=0/142

**NOTES**

1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-0 to 1-10-0, Interior (1) 1-10-0 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 27-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.00; Cs=1.00; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- All plates are 3x5 MT20 unless otherwise indicated.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



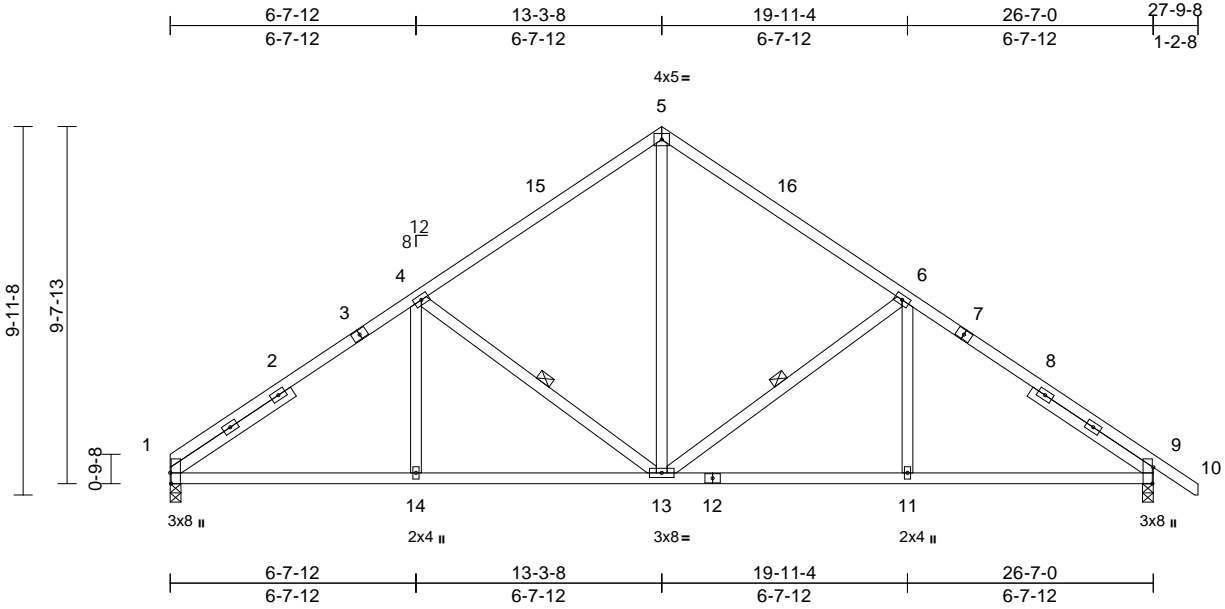
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss AB	Truss Type Common	Qty 3	Ply 1	1135 ACC Job Reference (optional)	146540564
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:03  
ID:JT3Y0b?bWdgDFpld\_?1sKuy8NK6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?#

Page: 1



Scale = 1:62.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.06	11-13	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 152 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 3-11-14, Right 2x4 SP No.3 -- 3-11-14

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-13, 4-13

**REACTIONS** (size) 1=0-3-8, 9=0-3-8

Max Horiz 1=-179 (LC 9)  
 Max Grav 1=1327 (LC 1), 9=1424 (LC 1)

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

TOP CHORD 1-4=-1865/139, 4-5=-1320/187,  
 5-6=-1320/186, 6-9=-1860/136, 9-10=0/41  
 BOT CHORD 1-14=-17/1416, 13-14=-17/1416,  
 11-13=-12/1408, 9-11=-12/1408  
 WEBS 5-13=-67/784, 4-14=0/142, 6-11=0/141,  
 6-13=-548/127, 4-13=-556/128

**NOTES**

- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
 and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to  
 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8  
 to 27-9-0 zone; cantilever left and right exposed ; end  
 vertical left and right exposed;C-C for members and  
 forces & MWFRS for reactions shown; Lumber  
 DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate  
 DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
 Cs=1.00; Ct=1.10

- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- All plates are 3x5 MT20 unless otherwise indicated.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



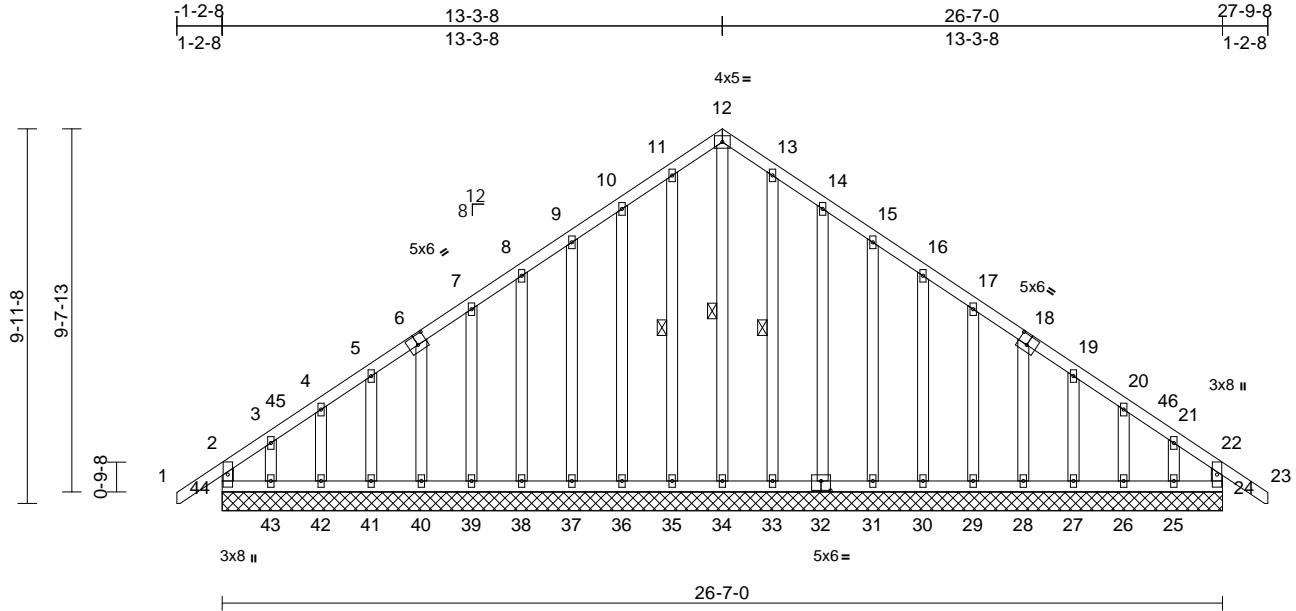
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss ACE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540565
-----------------	--------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:03  
ID:nfcwDx0DHxo4tztpYjY5t5y8NK5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?z

Page: 1



Scale = 1:61.2  
Plate Offsets (X, Y): [6:0-3-0,0-3-0], [18:0-3-0,0-3-0], [32:0-3-0,0-3-0]

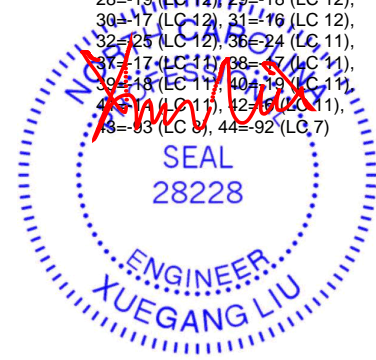
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	24	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 231 lb	FT = 20%

LUMBER		Max Grav	24=283 (LC 17), 25=102 (LC 10), 26=149 (LC 1), 27=121 (LC 1), 28=131 (LC 1), 29=143 (LC 1), 30=131 (LC 1), 31=134 (LC 1), 32=132 (LC 1), 33=139 (LC 1), 34=164 (LC 22), 35=139 (LC 1), 36=133 (LC 1), 37=133 (LC 1), 38=132 (LC 1), 39=143 (LC 1), 40=132 (LC 1), 41=121 (LC 1), 42=149 (LC 1), 43=132 (LC 9), 44=282 (LC 17)	WEBS	12-34=-204/85, 11-35=-113/19, 10-36=-106/62, 9-37=-107/50, 8-38=-105/50, 7-39=-116/53, 6-40=-105/53, 5-41=-95/44, 4-42=-119/54, 3-43=-80/74, 13-33=-113/18, 14-32=-106/62, 15-31=-107/50, 16-30=-105/50, 17-29=-116/53, 18-28=-105/53, 19-27=-95/44, 20-26=-119/54, 21-25=-80/74
TOP CHORD	2x4 SP No.2				
BOT CHORD	2x4 SP No.2				
WEBS	2x4 SP No.3				
OTHERS	2x4 SP No.3				

BRACING		FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	TOP CHORD	2-44=-255/75, 1-2=0/102, 2-3=-161/142, 3-4=-118/118, 4-5=-106/107, 5-7=-98/100, 7-8=-82/106, 8-9=-88/143, 9-10=-109/180, 10-11=-134/222, 11-12=-144/242, 12-13=-144/242, 13-14=-134/222, 14-15=-109/180, 15-16=-88/143, 16-17=-67/107, 17-19=-48/68, 19-20=-56/65, 20-21=-73/79, 21-22=-108/84, 22-23=0/102, 22-24=-255/37
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	BOT CHORD	43-44=-85/122, 42-43=-85/122, 41-42=-85/122, 40-41=-85/122, 39-40=-85/124, 38-39=-85/124, 37-38=-85/124, 36-37=-85/124, 35-36=-85/124, 34-35=-85/124, 33-34=-85/124, 31-33=-85/124, 30-31=-85/124, 29-30=-85/124, 28-29=-85/124, 27-28=-83/121, 26-27=-83/121, 25-26=-83/121, 24-25=-83/121
WEBS	1 Row at midpt		

REACTIONS	(size)	24=26-7-0, 25=26-7-0, 26=26-7-0, 27=26-7-0, 28=26-7-0, 29=26-7-0, 30=26-7-0, 31=26-7-0, 32=26-7-0, 33=26-7-0, 34=26-7-0, 35=26-7-0, 36=26-7-0, 37=26-7-0, 38=26-7-0, 39=26-7-0, 40=26-7-0, 41=26-7-0, 42=26-7-0, 43=26-7-0, 44=26-7-0
Max Horiz		44=196 (LC 10)
Max Uplift		24=-43 (LC 8), 25=-69 (LC 17), 26=-8 (LC 12), 27=-14 (LC 12), 28=-19 (LC 12), 29=-18 (LC 12), 30=-17 (LC 12), 31=-16 (LC 12), 32=-25 (LC 12), 36=-24 (LC 11), 37=-17 (LC 11), 38=-17 (LC 11), 39=-18 (LC 11), 40=-19 (LC 11), 41=-17 (LC 11), 42=-16 (LC 11), 43=-13 (LC 9), 44=-92 (LC 7)

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3E) -1-2-0 to 1-10-0, Exterior(2N) 1-10-0 to 13-3-8, Corner(3R) 13-3-8 to 16-3-8, Exterior (2N) 16-3-8 to 27-9-0 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
  - 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.



June 11, 2021

Job 21060009	Truss ACE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540565
-----------------	--------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:03  
ID:nfcwDx0DHxo4tztPjY5t5y8NK5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 3) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 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 1-4-0 oc.
- 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 44, 24, 36, 37, 38, 39, 40, 41, 42, 43, 32, 31, 30, 29, 28, 27, 26, and 25. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



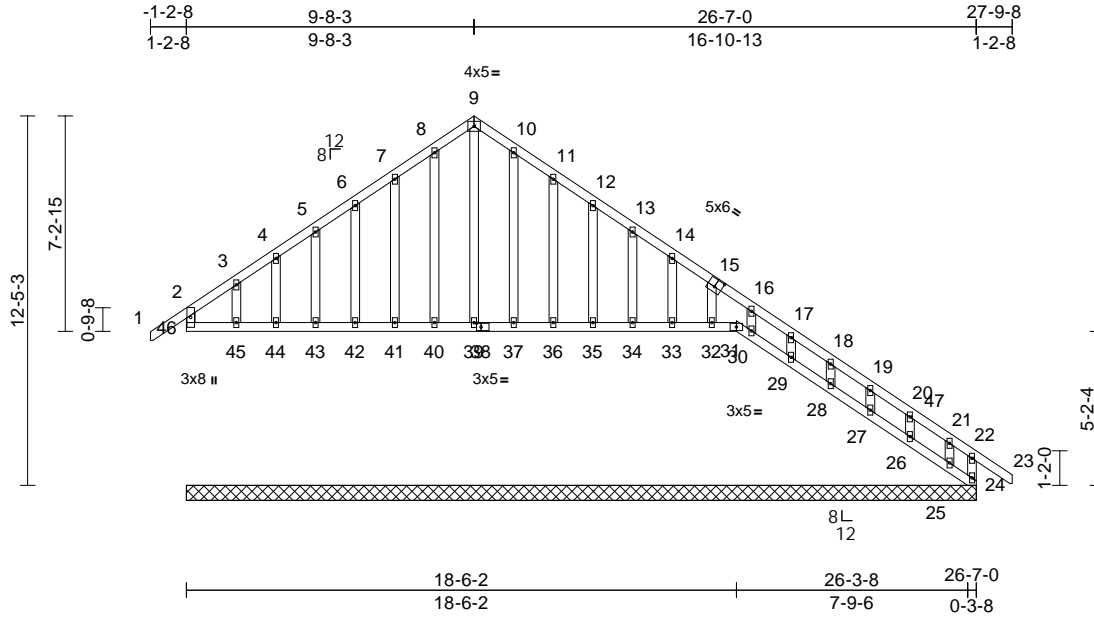
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss AE	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540566
-----------------	-------------	--	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:04  
ID:FrAIRH1r2EwxV7S06Q3KQJy8NK4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



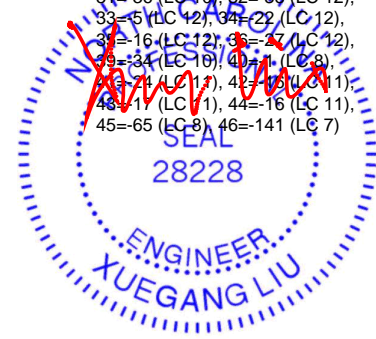
Scale = 1:77.5  
Plate Offsets (X, Y): [15:0-3-0,0-3-0], [38:0-1-13,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.01	24	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 178 lb	FT = 20%

LUMBER		Max Grav	24=319 (LC 17), 25=129 (LC 10),	WEBS	9-39=-301/140, 8-40=-114/17, 7-41=-105/64,
TOP CHORD	2x4 SP No.2		26=145 (LC 1), 27=131 (LC 1),		6-42=-107/50, 5-43=-105/49, 4-44=-114/62,
BOT CHORD	2x4 SP No.2		28=133 (LC 1), 29=136 (LC 20),		3-45=-111/54, 10-37=-114/15, 11-36=-105/64,
WEBS	2x4 SP No.3		30=120 (LC 1), 31=56 (LC 7),		12-35=-107/49, 13-34=-104/56,
OTHERS	2x4 SP No.3		32=130 (LC 20), 33=145 (LC 1),		14-33=-118/38, 15-32=-107/76,

BRACING		TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	FORCES	(lb) - Maximum Compression/Maximum Tension	NOTES	1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3E) -1-2-0 to 1-8-3, Exterior(2N) 1-8-3 to 9-8-3, Corner(3R) 9-8-3 to 12-8-3, Exterior(2N) 12-8-3 to 27-9-0 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
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)	24=26-7-0, 25=26-7-0, 26=26-7-0, 27=26-7-0, 28=26-7-0, 29=26-7-0, 30=26-7-0, 31=26-7-0, 32=26-7-0, 33=26-7-0, 34=26-7-0, 35=26-7-0, 36=26-7-0, 37=26-7-0, 39=26-7-0, 40=26-7-0, 41=26-7-0, 42=26-7-0, 43=26-7-0, 44=26-7-0, 45=26-7-0, 46=26-7-0	TOP CHORD	2-46=-236/182, 1-2=0/102, 2-3=-171/193, 3-4=-137/164, 4-5=-135/199, 5-6=-140/235, 6-7=-161/271, 7-8=-187/315, 8-9=-196/333, 9-10=-196/333, 10-11=-187/315, 11-12=-161/271, 12-13=-140/236, 13-14=-118/195, 14-16=-100/165, 16-17=-68/102, 17-18=-43/60, 18-19=-32/48, 19-20=-41/50, 20-21=-66/66, 21-22=-122/105, 22-23=0/102, 22-24=-292/64	BOT CHORD	45-46=-91/145, 44-45=-91/145, 43-44=-91/145, 42-43=-91/145, 41-42=-91/145, 40-41=-91/145, 39-40=-91/145, 37-39=-91/145, 36-37=-91/145, 35-36=-91/145, 34-35=-91/145, 33-34=-91/145, 32-33=-91/145, 31-32=-82/136, 30-31=-100/159, 29-30=-107/168, 28-29=-106/168, 27-28=-106/169, 26-27=-105/167, 25-26=-109/174, 24-25=-76/119
Max Horiz	46=-229 (LC 7)					
Max Uplift	24=-28 (LC 8), 25=-145 (LC 12), 26=-4 (LC 12), 27=-21 (LC 12), 28=-15 (LC 12), 29=-25 (LC 12), 31=-36 (LC 10), 32=-38 (LC 12), 33=-5 (LC 12), 34=-22 (LC 12), 35=-16 (LC 12), 36=-27 (LC 12), 37=-34 (LC 10), 40=-1 (LC 8), 41=-24 (LC 17), 42=-10 (LC 1), 43=-11 (LC 1), 44=-16 (LC 11), 45=-65 (LC 8), 46=-141 (LC 7)					



June 11, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss AE	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540566
-----------------	-------------	--	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:04  
ID:FrAIRH1r2EwxV7S06Q3KQJy8NK4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 2

- 3) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 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 1-4-0 oc.
- 10) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 46, 31, 39, 40, 41, 42, 43, 44, 45, 36, 35, 34, 33, and 32. This connection is for uplift only and does not consider lateral forces.
- 11) One RT7A 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.
- 12) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 29, 28, 27, 26, and 25. This connection is for uplift only and does not consider lateral forces.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 46, 31, 39, 40, 41, 42, 43, 44, 45, 37, 36, 35, 34, 33, 32, 30, 29, 28, 27, 26, 25.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

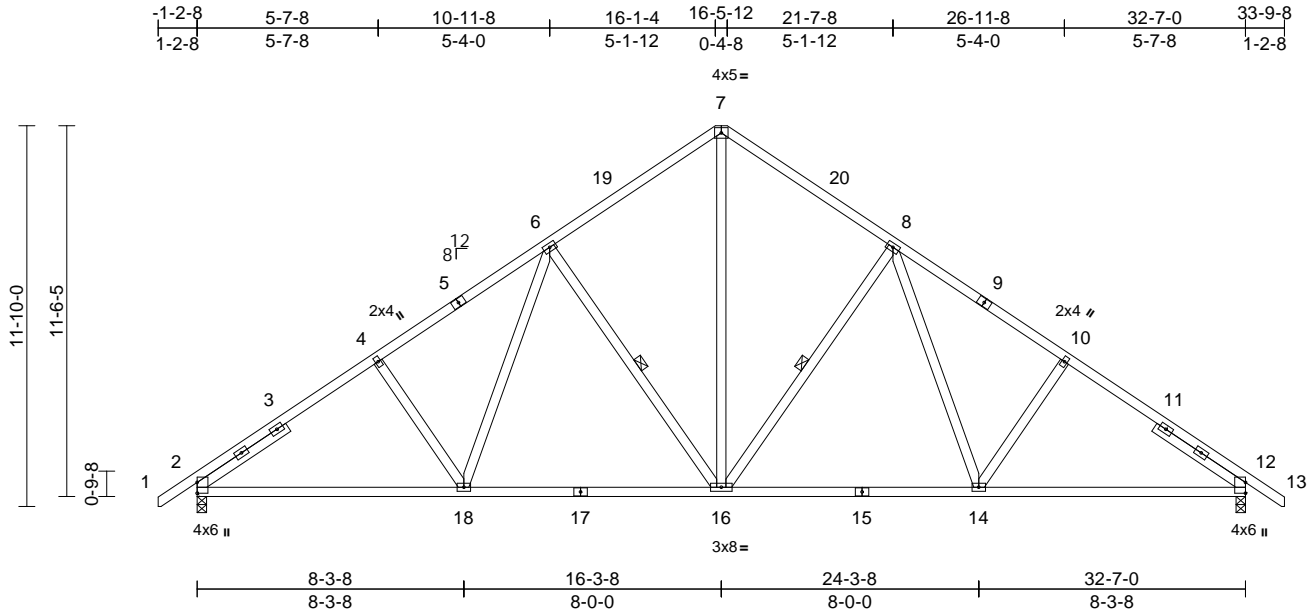


Job 21060009	Truss B	Truss Type Common	Qty 4	Ply 1	1135 ACC Job Reference (optional)	I46540567
-----------------	------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:05  
ID:FrAIRH1r2EwxV7S06Q3KQJy8NK4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:71.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.11	14-16	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.23	16-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.09	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 202 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 16-7:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 3-4-11, Right 2x4 SP No.3 -- 3-4-11

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-11-2 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 8-16, 6-16

**REACTIONS**

(size) 2=0-3-8, 12=0-3-8  
 Max Horiz 2=218 (LC 10)  
 Max Grav 2=1722 (LC 1), 12=1722 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/41, 2-4=-2342/173, 4-6=-2104/209, 6-7=-1556/241, 7-8=-1556/241, 8-10=-2104/209, 10-12=-2342/173, 12-13=0/41  
 BOT CHORD 2-18=-52/1790, 16-18=0/1542, 14-16=0/1542, 12-14=-47/1790  
 WEBS 7-16=-149/1203, 8-16=-633/152, 8-14=-5/388, 10-14=-238/129, 6-16=-633/152, 6-18=-5/388, 4-18=-238/129

**NOTES**

1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
 and C-C Exterior(2E) -1-2-0 to 2-1-2, Interior (1) 2-1-2 to 16-3-8, Exterior(2R) 16-3-8 to 19-6-10, Interior (1) 19-6-10 to 33-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.00; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.
  - This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - All plates are 3x5 MT20 unless otherwise indicated.
  - 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



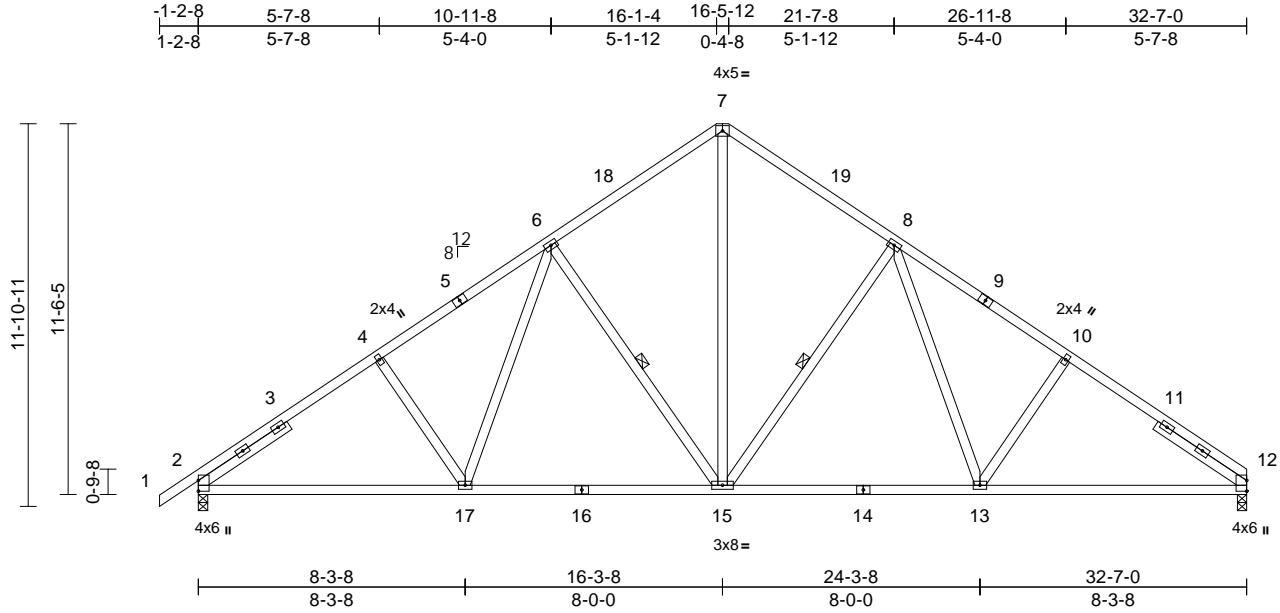
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss BA	Truss Type Common	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540568
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:06  
ID:FrAIRH1r2EwxV7S06Q3KQJy8NK4-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCoD0i7J4zJC?f

Page: 1



Scale = 1:71.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.11	15-17	>999	240	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.23	15-17	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.09	12	n/a	n/a	
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 200 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\* 15-7:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 3-4-11, Right 2x4 SP No.3 -- 3-4-11

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 8-15, 6-15

**REACTIONS**

(size) 2=0-3-8, 12=0-3-8  
 Max Horiz 2=217 (LC 10)  
 Max Grav 2=1728 (LC 1), 12=1627 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/45, 2-4=-2343/173, 4-6=-2106/209, 6-7=-1558/241, 7-8=-1558/242, 8-10=-2114/214, 10-12=-2357/177  
 BOT CHORD 2-17=-67/1792, 15-17=0/1544, 13-15=0/1547, 12-13=-65/1802  
 WEBS 7-15=-151/1206, 8-15=-637/152, 8-13=-7/396, 10-13=-245/133, 6-15=-633/152, 6-17=-4/387, 4-17=-237/129

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-8 to 2-0-10, Interior (1) 2-0-10 to 16-3-8, Exterior(2R) 16-3-8 to 19-6-10, Interior (1) 19-6-10 to 32-7-0 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 3) This truss has been checked for uniform snow load only, except as noted.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are 3x5 MT20 unless otherwise indicated.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



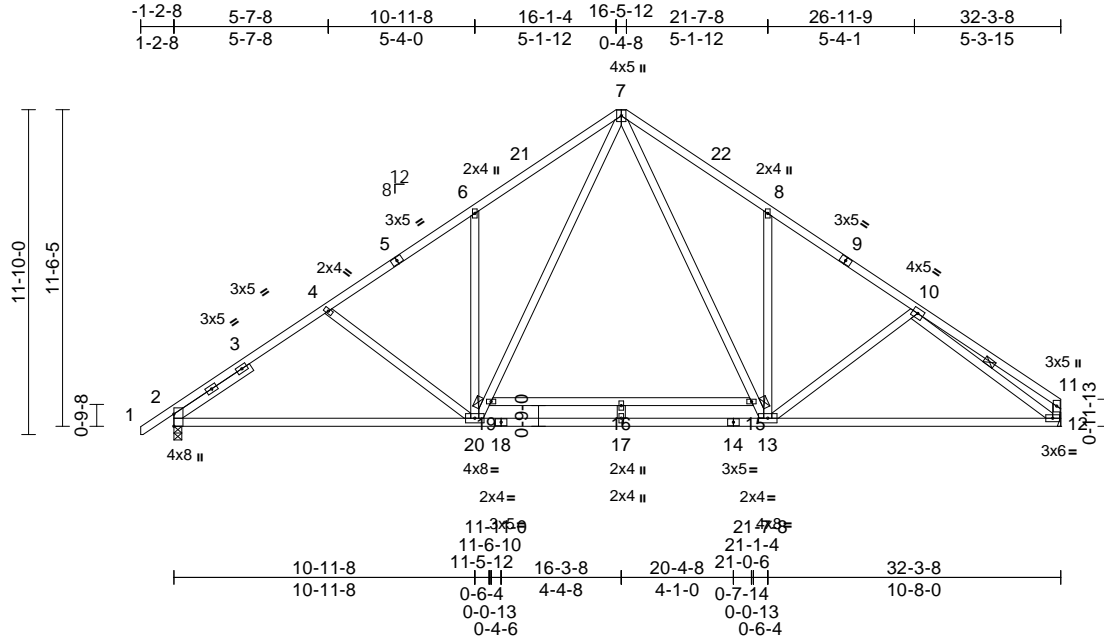
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss BB	Truss Type Common	Qty 8	Ply 1	1135 ACC Job Reference (optional)	146540569
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:06  
ID:j2kged1TpY2n6G1Cf8aZyWy8NK3-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCdoi7J4zJC?F

Page: 1



Scale = 1:83.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.11	17	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.48	16	>799	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.08	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 216 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 20-7,13-7:2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 3-4-10

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-7-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 10-12

**REACTIONS** (size) 2=0-3-8, 12= Mechanical  
Max Horiz 2=224 (LC 10)  
Max Grav 2=1799 (LC 1), 12=1705 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/41, 2-4=-2456/90, 4-6=-2132/81, 6-7=-2158/209, 7-8=-2114/210, 8-10=-2104/83, 10-11=-457/53, 11-12=-386/56  
BOT CHORD 2-20=-34/1878, 17-20=0/1164, 13-17=0/1164, 12-13=-27/1794, 16-19=-27/80, 15-16=-27/80  
WEBS 10-12=-1939/59, 6-20=-483/178, 19-20=-120/1029, 7-19=-72/1054, 4-20=-251/140, 7-15=-73/973, 13-15=-121/949, 8-13=-454/177, 10-13=-195/140, 16-17=-60/0

- TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.
  - This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - Refer to girder(s) for truss to truss connections.
  - 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**
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-0 to 2-0-12, Interior (1) 2-0-12 to 16-3-8, Exterior(2R) 16-3-8 to 19-6-4, Interior (1) 19-6-4 to 32-1-12 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



June 11,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

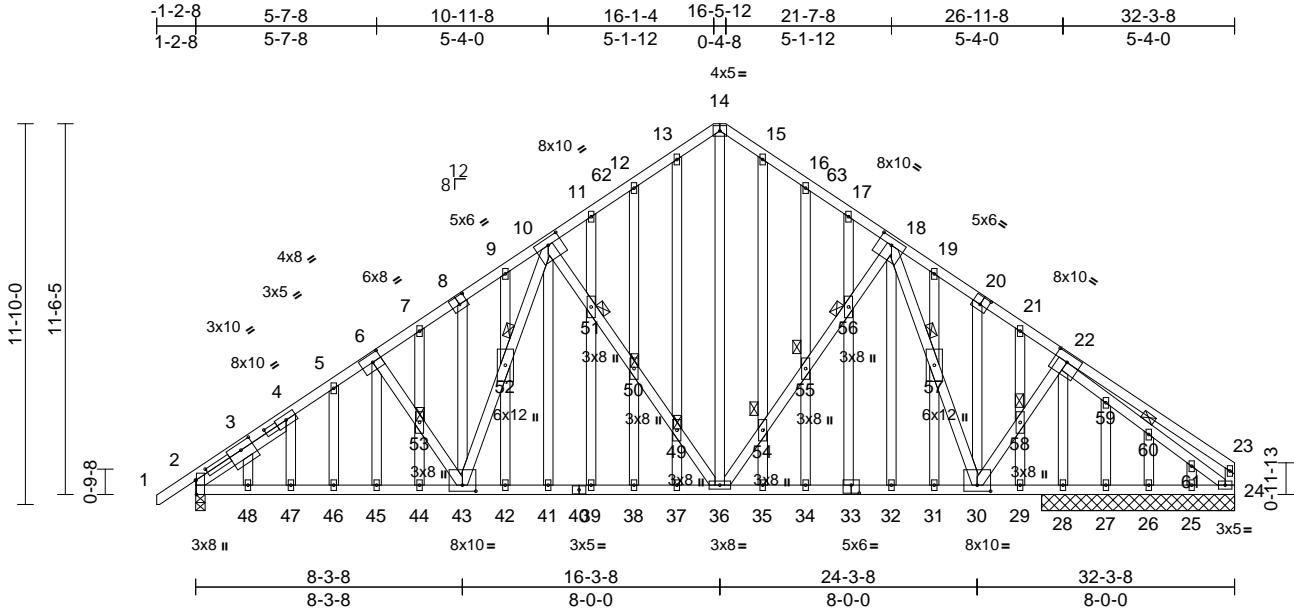


Job 21060009	Truss BE	Truss Type Common	Qty 1	Ply 1	1135 ACC	146540570
Job Reference (optional)						

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:07  
ID:j2kged1TpY2n6G1Cf8aZyWy8NK3-RfC?Psb70Hq3NSgPqnL8w3uITxBkGKWrCdoi7J4zJc?F

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	30.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.07	38-39	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.11	38-39	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.04	28	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 386 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 36-14:2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 3-5-9

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-5-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 29-30,28-29,27-28,26-27,25-26,24-25.

**JOINTS**  
1 Brace at Jt(s): 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60

**BOT CHORD** 2-48=-60/1403, 47-48=-60/1404, 46-47=-60/1404, 45-46=-60/1404, 44-45=-60/1406, 43-44=-60/1406, 42-43=0/1131, 41-42=0/1131, 39-41=0/1135, 38-39=0/1135, 37-38=0/1135, 36-37=0/1135, 35-36=0/702, 34-35=0/702, 32-34=0/702, 31-32=0/688, 30-31=0/688, 29-30=-145/69, 28-29=-145/69, 27-28=-86/59, 26-27=-86/59, 25-26=-86/59, 24-25=-86/59

**WEBS** 14-36=-182/664, 36-54=-68/161, 54-55=-83/143, 55-56=-54/173, 18-56=-55/142, 18-57=-838/3, 30-57=-681/3, 30-58=-19/1150, 22-58=-13/973, 10-51=-562/114, 50-51=-639/127, 49-50=-689/140, 36-49=-642/131, 43-52=-71/381, 10-52=-88/467, 6-53=-273/77, 43-53=-299/80, 22-59=-95/136, 59-60=-86/148, 60-61=-82/125, 24-61=-84/131, 13-49=0/34, 37-49=-42/28, 12-50=-88/45, 38-50=-27/30, 11-51=-105/42, 39-51=-5/25, 10-41=-8/109, 9-52=-66/30, 42-52=0/27, 8-43=-107/34, 7-53=-49/26, 44-53=-14/23, 6-45=-16/117, 5-46=-33/28, 4-47=0/46, 3-48=0/30, 15-54=-1/31, 35-54=-37/27, 16-55=-82/45, 34-55=-12/29, 17-56=-74/42, 33-56=-106/32, 18-32=-19/265, 19-57=0/38, 31-57=-134/23, 20-30=-165/40, 21-58=-1/46, 29-58=-171/8, 22-28=-1513/173, 27-59=-31/0, 26-60=-6/40, 25-61=-12/3

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-0 to 2-0-12, Interior (1) 2-0-12 to 16-3-8, Exterior(2R) 16-3-8 to 19-6-4, Interior (1) 19-6-4 to 32-1-12 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
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

**REACTIONS** (size) 2=0-3-8, 24=6-0-0, 25=6-0-0, 26=6-0-0, 27=6-0-0, 28=6-0-0  
Max Horiz 2=224 (LC 10)  
Max Uplift 24=-29 (LC 7), 27=-56 (LC 1)  
Max Grav 2=1424 (LC 1), 24=120 (LC 20), 25=65 (LC 1), 26=26 (LC 16), 27=21 (LC 12), 28=1748 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/41, 2-3=-1913/79, 3-4=-1809/99, 4-5=-1719/125, 5-6=-1685/149, 6-7=-1564/151, 7-9=-1527/201, 9-10=-1499/225, 10-11=-969/155, 11-12=-947/186, 12-13=-937/217, 13-14=-874/231, 14-15=-873/226, 15-16=-931/210, 16-17=-945/180, 17-18=-986/149, 18-19=-527/157, 19-21=-611/138, 21-22=-671/100, 22-23=-170/104, 23-24=-215/85

**NOTES**



June 11, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss BE	Truss Type Common	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540570
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:07  
ID:j2kged1TpY2n6G1Cf8aZyWy8NK3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24 and 27. 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

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

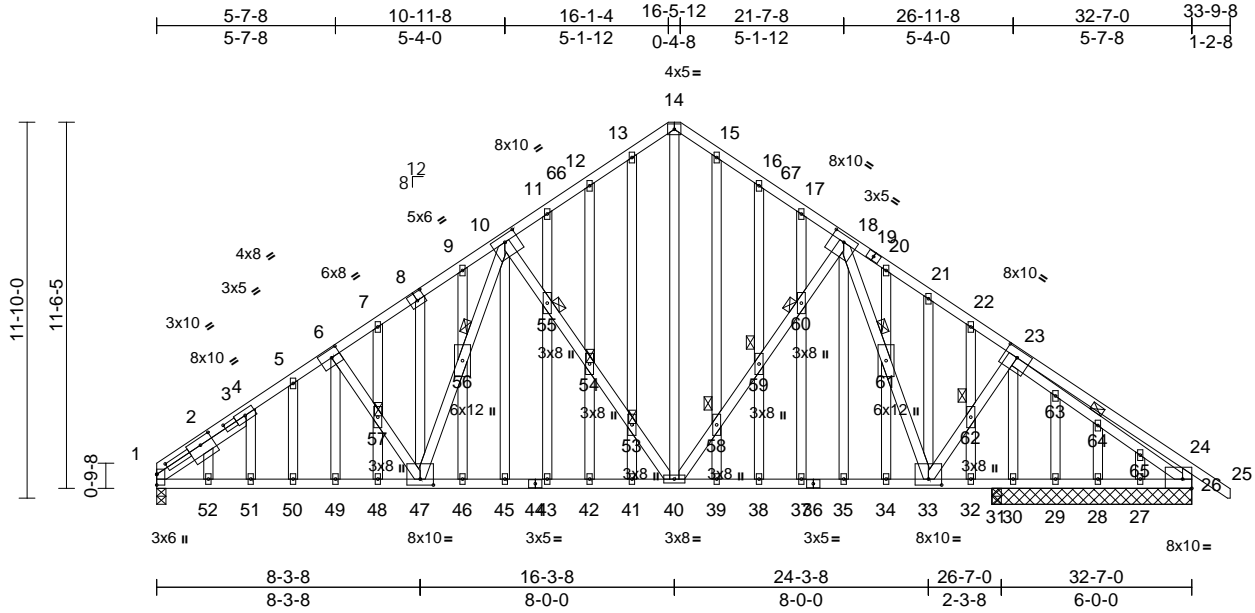
Job 21060009	Truss BSE	Truss Type Common	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540571
-----------------	--------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:08

Page: 1

ID:BE12sz26asAekQcODr5oVky8NK2-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWrCdoi7J4zJC?F



Scale = 1:72.5

[1:0-4-13,0-1-8], [1:2-7-2,0-1-8], [2:0-5-0,0-2-8], [6:0-3-8,0-3-0], [8:0-3-0,0-3-0], [10:0-5-0,0-2-8], [18:0-5-0,0-2-8], [23:0-5-0,0-3-0], [26:Edge,0-3-8], [33:0-5-0,0-2-4],  
Plate Offsets (X, Y): [47:0-5-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	30.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.07	42-43	>999	240	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.11	42-43	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.04	31	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 387 lb	FT = 20%

LUMBER		TOP CHORD	1-2=-1903/93, 2-3=-1788/103, 3-4=-1689/128, 4-5=-1747/139, 5-6=-1680/157, 6-7=-1560/159, 7-9=-1517/208, 9-10=-1489/231, 10-11=-955/160, 11-12=-933/191, 12-13=-922/222, 13-14=-861/236, 14-15=-860/231, 15-16=-917/216, 16-17=-928/186, 17-18=-977/156, 18-20=-468/168, 20-21=-559/149, 21-22=-546/120, 22-23=-597/108, 23-24=-221/140, 24-25=0/102, 24-26=-367/140	WEBS	14-40=-187/650, 40-58=-60/185, 58-59=-73/154, 59-60=-50/197, 18-60=-48/163, 18-61=-897/0, 33-61=-730/0, 33-62=0/1101, 23-62=0/911, 10-55=-566/114, 54-55=-644/128, 53-54=-693/140, 40-53=-646/131, 47-56=-73/385, 10-56=-90/473, 6-57=-293/80, 47-57=-318/82, 23-63=-111/205, 63-64=-98/198, 64-65=-95/183, 26-65=-97/189, 13-53=0/34, 41-53=-44/27, 12-54=-88/46, 42-54=-27/31, 11-55=-105/42, 43-55=-4/25, 10-45=-8/109, 9-56=-66/30, 46-56=0/28, 8-47=-102/32, 7-57=-44/25, 48-57=-13/22, 6-49=-14/115, 5-50=0/25, 3-51=-44/48, 2-52=0/55, 15-58=0/31, 39-58=-34/26, 16-59=-88/46, 38-59=-24/31, 17-60=-60/40, 37-60=-92/29, 18-35=-15/257, 20-61=0/61, 34-61=-117/20, 21-33=-130/38, 22-62=-35/7, 32-62=-269/12, 23-30=-1409/145, 29-63=-27/11, 28-64=5/38, 27-65=-12/3
TOP CHORD	2x4 SP No.2				
BOT CHORD	2x4 SP No.2				
WEBS	2x4 SP No.3 *Except* 40-14:2x4 SP No.2				
OTHERS	2x4 SP No.3				
SLIDER	Left 2x4 SP No.3 -- 3-4-11				
BRACING					
TOP CHORD	Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.				
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 32-33,31-32,30-31,29-30,28-29,27-28,26-27.				
JOINTS	1 Brace at Jt(s): 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64				
REACTIONS	(size) 1=0-3-8, 26=6-3-8, 27=6-3-8, 28=6-3-8, 29=6-3-8, 30=6-3-8, 31=0-3-8 Max Horiz 1=224 (LC 10) Max Uplift 26=41 (LC 12), 28=35 (LC 1), 30=22 (LC 12) Max Grav 1=1319 (LC 1), 26=238 (LC 1), 27=93 (LC 1), 28=21 (LC 12), 29=77 (LC 1), 30=1055 (LC 1), 31=603 (LC 1)				
FORCES	(lb) - Maximum Compression/Maximum Tension				



June 11, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss BSE	Truss Type Common	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540571
-----------------	--------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:08  
ID:BEI2sz26asAekQcODr5oVky8NK2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) 0-0-0 to 2-11-8, Interior (1) 2-11-8  
to 16-3-8, Exterior(2R) 16-3-8 to 19-6-10, Interior (1)  
19-6-10 to 33-9-0 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
- 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) TCELL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only,  
except as noted.
- 5) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 26, 30, and  
28. 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

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



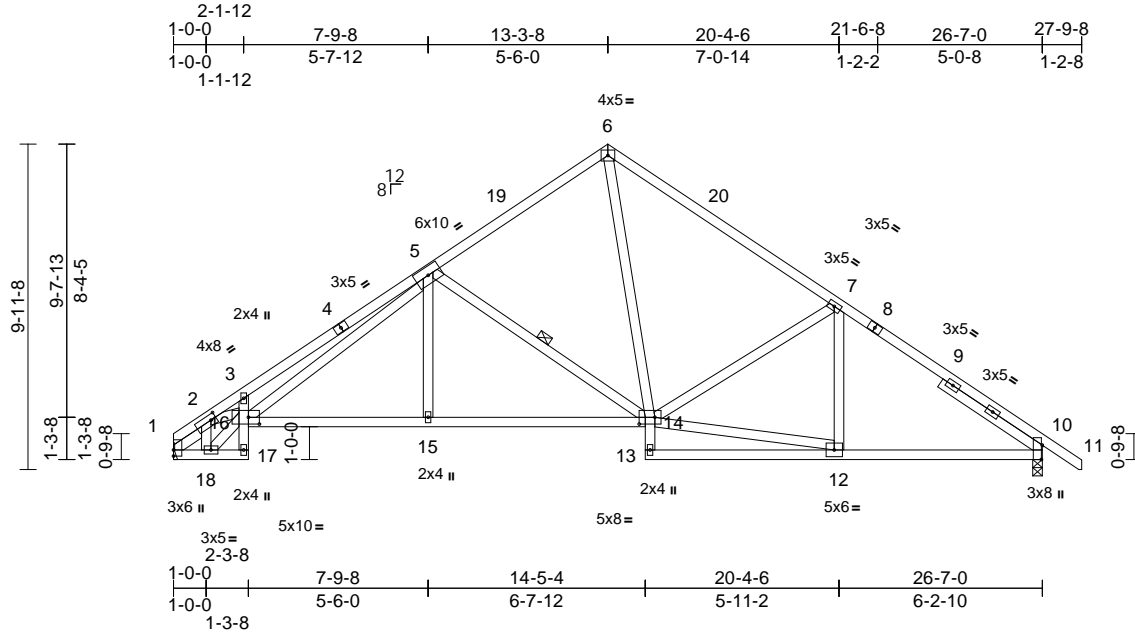
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss C	Truss Type Roof Special	Qty 3	Ply 1	1135 ACC Job Reference (optional)	146540572
-----------------	------------	----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:10  
ID:7dQpHe4M6TQMzkmnLG7Ga9y8NK0-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4JC?f

Page: 1



Scale = 1:70.5

Plate Offsets (X, Y): [2:0-2-0,0-2-0], [10:0-5-5,Edge], [14:0-5-12,0-2-8], [16:0-4-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.15	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.26	15-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 171 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.1 \*Except\* 1-4,8-11:2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\* 17-3,14-13:2x4 SP No.3  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-1-5, Right 2x4 SP No.3 -- 3-8-13

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-14

**REACTIONS** (size) 1= Mechanical, 10=0-3-8  
Max Horiz 1=-179 (LC 7)  
Max Grav 1=1327 (LC 1), 10=1424 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1666/93, 2-3=-3229/160, 3-5=-3477/292, 5-6=-1338/179, 6-7=-1551/179, 7-10=-1879/137, 10-11=0/41  
BOT CHORD 1-18=-39/1069, 17-18=-21/223, 16-17=0/72, 3-16=-338/143, 15-16=0/1647, 14-15=0/1647, 13-14=0/57, 12-13=-10/34, 10-12=-19/1431  
WEBS 5-16=-164/1534, 5-15=0/176, 5-14=-781/111, 6-14=-63/979, 12-14=-10/1418, 7-14=-363/133, 7-12=-122/82, 2-18=-809/35, 2-16=-69/1614, 16-18=-30/1135

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 27-9-0 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only, except as noted.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932



Job 21060009	Truss CA	Truss Type Roof Special	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540573
-----------------	-------------	----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:10  
ID:7dQpHe4M6TQMzkmnLG7Ga9y8NK0-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

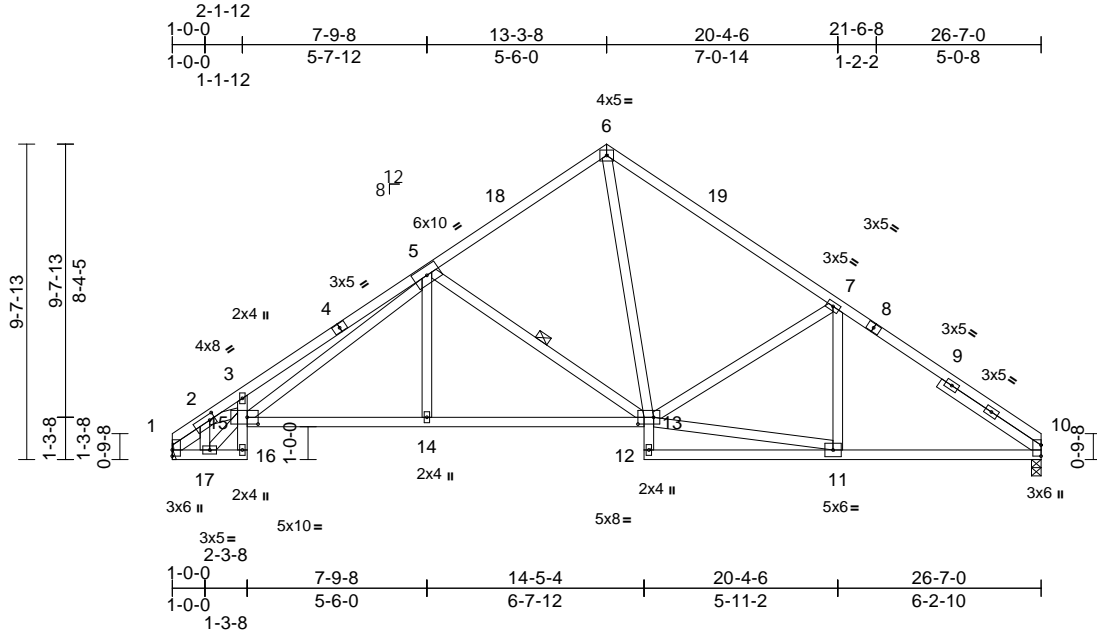


Plate Offsets (X, Y): [2:0-2-0,0-2-0], [13:0-5-12,0-2-8], [15:0-4-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.15	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.26	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 169 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 4-6,8-6:2x4 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\* 16-3,13-12:2x4 SP No.3  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-1-5, Right 2x4 SP No.3 -- 3-8-13

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-13

**REACTIONS** (size) 1= Mechanical, 10=0-3-8  
Max Horiz 1=-175 (LC 9)  
Max Grav 1=1329 (LC 1), 10=1329 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1669/93, 2-3=-3234/179, 3-5=-3482/308, 5-6=-1341/180, 6-7=-1556/184, 7-10=-1889/141  
BOT CHORD 1-17=-45/1071, 16-17=-23/223, 15-16=0/72, 3-15=-338/142, 14-15=-10/1650, 13-14=-10/1650, 12-13=0/56, 11-12=-10/33, 10-11=-34/1442  
WEBS 5-15=-178/1535, 5-14=0/176, 5-13=-781/113, 6-13=-69/985, 11-13=-24/1430, 7-13=-371/133, 7-11=-121/84, 2-17=-809/38, 2-15=-84/1617, 15-17=-34/1133

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 13-3-8, Exterior(2R) 13-3-8 to 16-3-8, Interior (1) 16-3-8 to 26-7-0 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only, except as noted.
- 4) Refer to girder(s) for truss to truss connections.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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

**ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



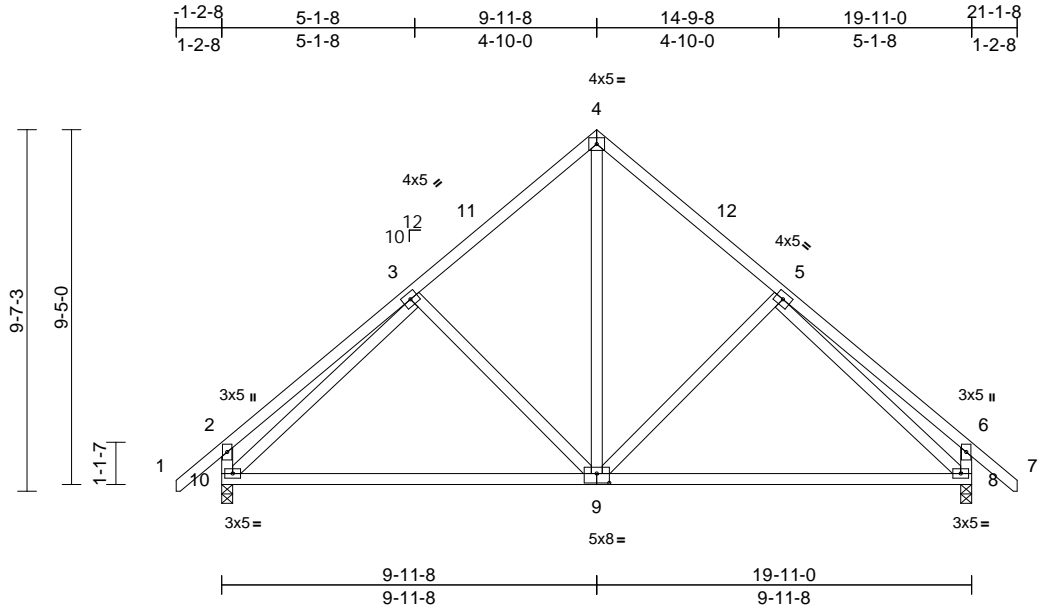
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss D	Truss Type Common	Qty 4	Ply 1	1135 ACC Job Reference (optional)	I46540574
-----------------	------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:11  
ID:4?YZIK5ce4h4D2v9ShAkfay8NK\_-RfC?PsB70Hq3NSgPqnL8w3u1TXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:61.2

Plate Offsets (X, Y): [9:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.03	9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.20	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 128 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 5-11-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 8=0-3-8, 10=0-3-8  
Max Horiz 10=198 (LC 10)  
Max Grav 8=1085 (LC 1), 10=1085 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/117, 2-3=-370/113, 3-4=-858/155,  
4-5=-858/155, 5-6=-369/113, 6-7=0/117,  
2-10=-453/130, 6-8=-453/130  
BOT CHORD 8-10=-18/734  
WEBS 4-9=-82/560, 5-9=-262/160, 3-9=-262/160,  
3-10=-765/39, 5-8=-765/39

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-1-14 to 1-10-2, Interior (1)  
1-10-2 to 9-11-8, Exterior(2R) 9-11-8 to 12-11-8, Interior  
(1) 12-11-8 to 21-0-14 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.

- 4) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



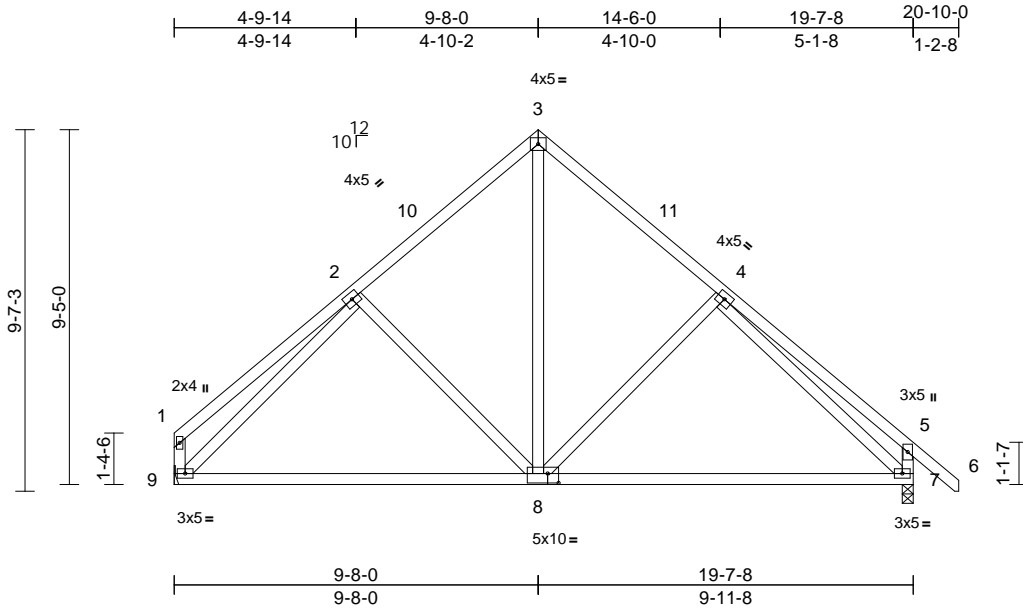
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss DA	Truss Type Common	Qty 3	Ply 1	1135 ACC Job Reference (optional)	146540575
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:11  
ID:u9vqyNANDwRExzNjpyH8vry8NJu-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:61.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.02	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.20	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 125 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 10-0-0 oc bracing.

**REACTIONS** (size) 7=0-3-8, 9= Mechanical

Max Horiz 9=-194 (LC 9)

Max Grav 7=1074 (LC 1), 9=963 (LC 1)

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

TOP CHORD 1-2=-271/83, 2-3=-842/154, 3-4=-842/154,  
4-5=-370/112, 5-6=0/117, 1-9=-266/70,  
5-7=-453/129

BOT CHORD 7-9=-23/712

WEBS 3-8=-82/541, 4-8=-264/161, 2-8=-241/157,  
2-9=-835/78, 4-7=-748/39

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) 0-5-4 to 3-5-4, Interior (1) 3-5-4 to  
9-11-8, Exterior(2R) 9-11-8 to 12-11-8, Interior (1)  
12-11-8 to 21-0-14 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.

4) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.

5) Refer to girder(s) for truss to truss connections.

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

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



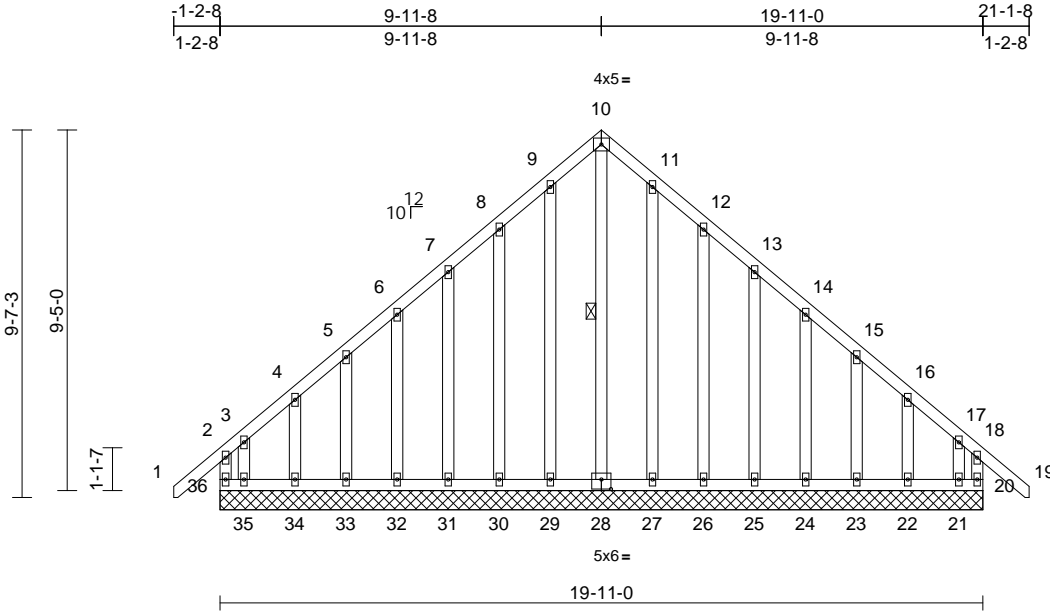
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss DE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540576
-----------------	-------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:11  
ID:YC5xvg6EPopqBUM0OhzCny8NJz-rfC?PsB70Hq3NSgPqnL8w3uITxBGKwRCD0i7J4zJC?f

Page: 1



Scale = 1:60.2

Plate Offsets (X, Y): [28:0-3:0,0-3:0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R								
											Weight: 181 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.

WEBS 1 Row at midpt 10-28

**REACTIONS** (size)

20=19-11-0, 21=19-11-0,  
22=19-11-0, 23=19-11-0,  
24=19-11-0, 25=19-11-0,  
26=19-11-0, 27=19-11-0,  
28=19-11-0, 29=19-11-0,  
30=19-11-0, 31=19-11-0,  
32=19-11-0, 33=19-11-0,  
34=19-11-0, 35=19-11-0,  
36=19-11-0

Max Horiz 36=198 (LC 9)

Max Uplift 20=155 (LC 8), 21=193 (LC 7),  
22=21 (LC 12), 23=27 (LC 12),  
24=25 (LC 12), 25=25 (LC 12),  
26=35 (LC 12), 27=2 (LC 12),  
28=3 (LC 11), 30=8 (LC 11),  
31=5 (LC 11), 32=35 (LC 11),  
33=27 (LC 11), 34=21 (LC 11),  
35=235 (LC 8), 36=213 (LC 7)

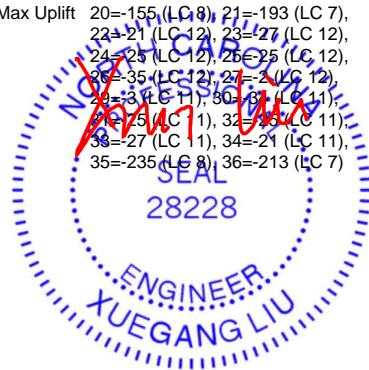
Max Grav 20=346 (LC 17), 21=189 (LC 10),  
22=137 (LC 1), 23=133 (LC 20),  
24=133 (LC 1), 25=133 (LC 1),  
26=134 (LC 20), 27=139 (LC 1),  
28=188 (LC 12), 29=139 (LC 1),  
30=133 (LC 19), 31=133 (LC 1),  
32=133 (LC 1), 33=134 (LC 19),  
34=137 (LC 1), 35=235 (LC 9),  
36=350 (LC 20)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-36=336/133, 1-2=0/117, 2-3=185/158,  
3-4=111/116, 4-5=98/101, 5-6=87/101,  
6-7=77/151, 7-8=103/207, 8-9=137/272,  
9-10=151/300, 10-11=151/300,  
11-12=137/272, 12-13=103/207,  
13-14=74/151, 14-15=58/96, 15-16=68/79,  
16-17=85/93, 17-18=147/115, 18-19=0/117,  
18-20=336/97  
BOT CHORD 35-36=96/121, 34-35=96/121,  
33-34=96/121, 32-33=96/121,  
31-32=96/121, 30-31=96/121,  
29-30=96/121, 27-29=96/121,  
26-27=96/121, 25-26=96/121,  
24-25=96/121, 23-24=96/121,  
22-23=96/121, 21-22=96/121,  
20-21=96/121  
WEBS 10-28=308/116, 9-29=113/27,  
8-30=106/87, 7-31=107/70, 6-32=107/71,  
5-33=107/71, 4-34=109/81, 3-35=92/154,  
11-27=113/27, 12-26=107/87,  
13-25=107/70, 14-24=107/71,  
15-23=107/71, 16-22=109/81,  
17-21=79/154

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3E) -1-1-14 to 1-11-8, Exterior(2N) 1-11-8 to 9-11-8, Corner(3R) 9-11-8 to 12-11-8, Exterior (2N) 12-11-8 to 21-0-14 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
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.



June 11, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss DE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540576
-----------------	-------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:11  
ID:YC5xvg6EP0pxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

- 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 1-4-0 oc.
- 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 36, 20, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, and 21.  
This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



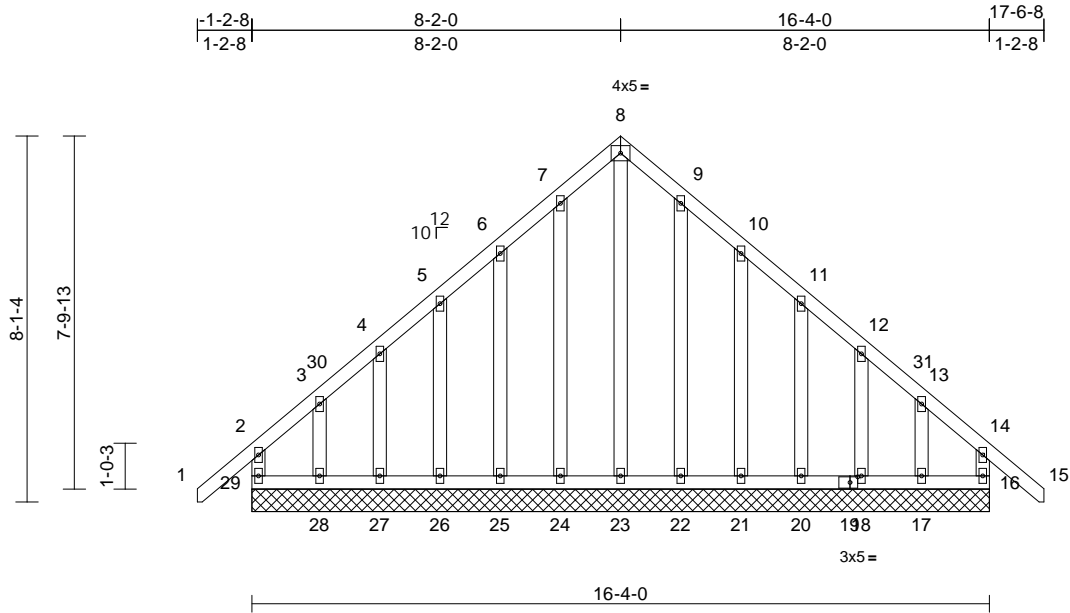
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss EE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540577
-----------------	-------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:12  
ID:BEI2sz26asAekQcODr5oVky8NK2-RfC?PsB70Hq3NSgPqnL8w3uITxGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:51

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R								
											Weight: 132 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)  
16=16-4-0, 17=16-4-0, 18=16-4-0,  
20=16-4-0, 21=16-4-0, 22=16-4-0,  
23=16-4-0, 24=16-4-0, 25=16-4-0,  
26=16-4-0, 27=16-4-0, 28=16-4-0,  
29=16-4-0  
Max Horiz 29=168 (LC 9)  
Max Uplift 16=62 (LC 8), 17=76 (LC 7),  
18=15 (LC 12), 20=27 (LC 12),  
21=32 (LC 12), 22=8 (LC 12),  
24=9 (LC 11), 25=32 (LC 11),  
26=28 (LC 11), 27=13 (LC 11),  
28=89 (LC 8), 29=84 (LC 7)  
Max Grav 16=237 (LC 17), 17=141 (LC 20),  
18=143 (LC 1), 20=134 (LC 20),  
21=132 (LC 20), 22=141 (LC 1),  
23=171 (LC 22), 24=141 (LC 1),  
25=132 (LC 1), 26=134 (LC 19),  
27=143 (LC 1), 28=153 (LC 19),  
29=237 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-29=-220/93, 1-2=0/117, 2-3=-113/110,  
3-4=-76/95, 4-5=-70/110, 5-6=-81/170,  
6-7=-115/240, 7-8=-133/279, 8-9=-133/279,  
9-10=-115/240, 10-11=-81/170,  
11-12=-52/110, 12-13=-55/80, 13-14=-90/85,  
14-15=0/117, 14-16=-220/93

**BOT CHORD** 28-29=-82/108, 27-28=-82/108,  
26-27=-82/108, 25-26=-82/108,  
24-25=-82/108, 23-24=-82/108,  
22-23=-82/108, 21-22=-82/108,  
20-21=-82/108, 18-20=-82/108,  
17-18=-82/108, 16-17=-82/108  
**WEBS** 8-23=-283/97, 7-24=-114/44, 6-25=-105/94,  
5-26=-106/79, 4-27=-115/83, 3-28=-100/94,  
9-22=-114/44, 10-21=-106/94,  
11-20=-106/79, 12-18=-115/83, 13-17=-94/94

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Corner(3E) -1-1-14 to 1-10-2, Exterior(2N)  
1-10-2 to 8-2-0, Corner(3R) 8-2-0 to 11-2-0, Exterior(2N)  
11-2-0 to 17-5-14 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
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only,  
except as noted.
- 5) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 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 1-4-0 oc.

- 10) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 29, 16, 24,  
25, 26, 27, 28, 22, 21, 20, 18, and 17. This connection is  
for uplift only and does not consider lateral forces.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



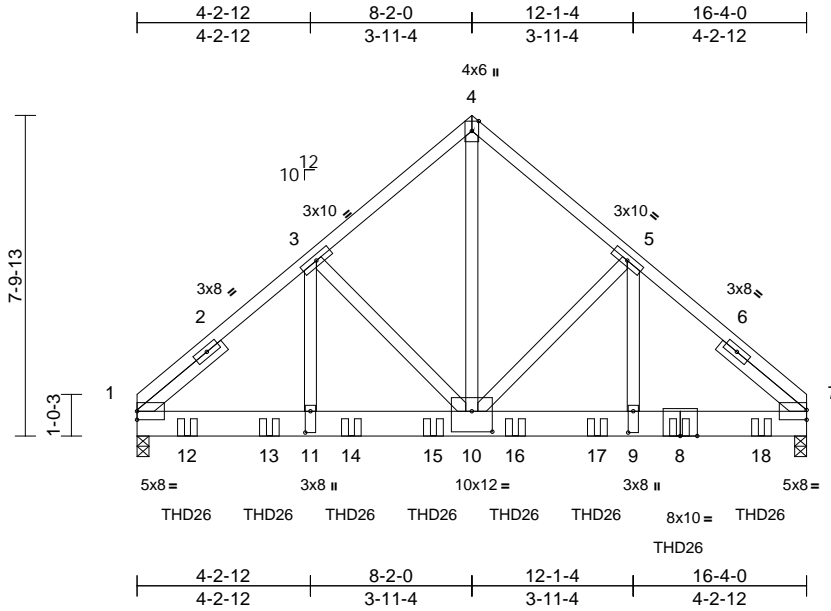
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss EG	Truss Type Common Girder	Qty 1	Ply 2	1135 ACC Job Reference (optional)	146540578
-----------------	-------------	-----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:13  
ID:bp\_BU\_5\_tnZDbuKzuzfv7My8NK?-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:56.2

Plate Offsets (X, Y): [7:Edge,0-2-14], [9:0-6-4,0-1-8], [10:0-6-0,0-6-0], [11:0-6-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.07	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.13	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 254 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 10-4:2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -- 2-8-2, Right 2x4 SP No.3 -- 2-8-2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-5-0 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=-138 (LC 5)  
 Max Grav 1=7503 (LC 1), 7=7610 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-8282/0, 3-4=-5869/0, 4-5=-5869/0, 5-7=-8282/0  
 BOT CHORD 1-11=0/5981, 10-11=0/5981, 9-10=0/5981, 7-9=0/5981  
 WEBS 3-11=0/3163, 3-10=-2111/0, 4-10=0/6907, 5-10=-2112/0, 5-9=0/3163

**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: 2x8 - 2 rows staggered at 0-5-0 oc.  
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.
  - 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 MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-2-12 from the left end to 15-2-12 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=-80, 4-7=-80, 1-7=-20  
 Concentrated Loads (lb)  
 Vert: 8=-1685 (B), 12=-1685 (B), 13=-1685 (B), 14=-1685 (B), 15=-1685 (B), 16=-1685 (B), 17=-1685 (B), 18=-1685 (B)



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



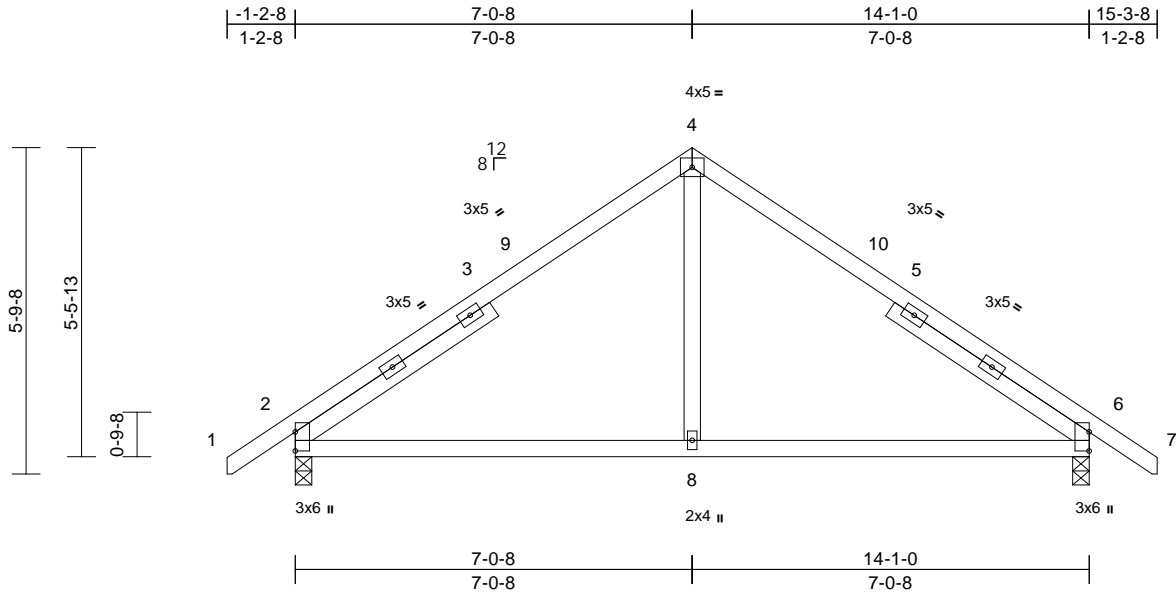
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F	Truss Type Common	Qty 2	Ply 1	1135 ACC Job Reference (optional)	146540579
-----------------	------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:13  
ID:BEI2sz26asAekQcODr5oVky8NK2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	0.02	2-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.07	2-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 71 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.3 -- 4-2-12, Right 2x4 SP No.3 -- 4-2-12

**BRACING**

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

**REACTIONS**

(size) 2=0-3-8, 6=0-3-8  
 Max Horiz 2=103 (LC 10)  
 Max Grav 2=797 (LC 1), 6=797 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/41, 2-4=-829/112, 4-6=-829/112, 6-7=0/41  
 BOT CHORD 2-8=0/532, 6-8=0/532  
 WEBS 4-8=0/197

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
 and C-C Exterior(2E) -1-2-0 to 1-10-0, Interior (1) 1-10-0  
 to 7-0-8, Exterior(2R) 7-0-8 to 10-0-8, Interior (1) 10-0-8  
 to 15-3-0 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
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate  
 DOL=1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
 Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
 except as noted.
- 4) This truss has been designed for greater of min roof live  
 load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
 overhangs non-concurrent with other live loads.

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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

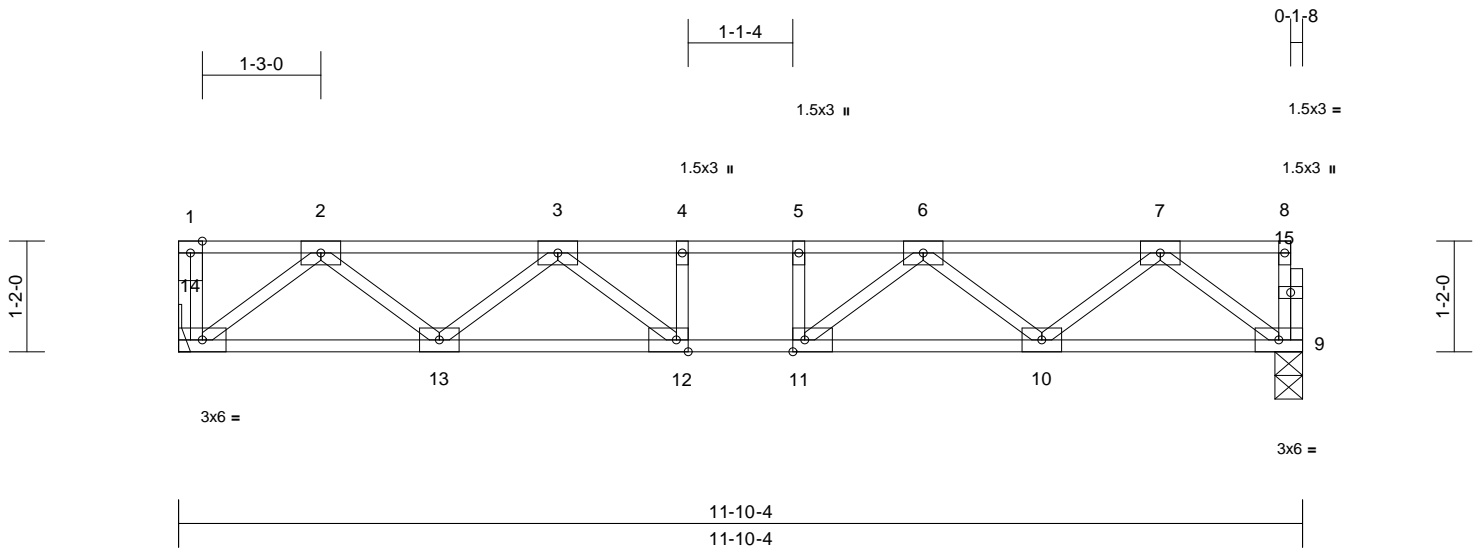


Job 21060009	Truss F1	Truss Type Floor	Qty 7	Ply 1	1135 ACC Job Reference (optional)	146540580
-----------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:14  
ID:YC5xvg6EPopxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:24.3

Plate Offsets (X, Y): [11:0-1-8,Edge], [12:0-1-8,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	0.28	Vert(LL)	-0.07	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.09	11-12	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 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= Mechanical  
 Max Grav 9=632 (LC 1), 14=638 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-14=-39/0, 8-9=-35/0, 1-2=0/0, 2-3=-1212/0,  
 3-4=-1758/0, 4-5=-1758/0, 5-6=-1758/0,  
 6-7=-1211/0, 7-8=-2/0  
 BOT CHORD 13-14=0/777, 12-13=0/1611, 11-12=0/1758,  
 10-11=0/1611, 9-10=0/776  
 WEBS 7-9=-971/0, 2-14=-974/0, 7-10=0/567,  
 2-13=0/566, 6-10=-521/0, 3-13=-520/0,  
 6-11=-28/362, 3-12=-28/362, 4-12=-161/0,  
 5-11=-161/0

**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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



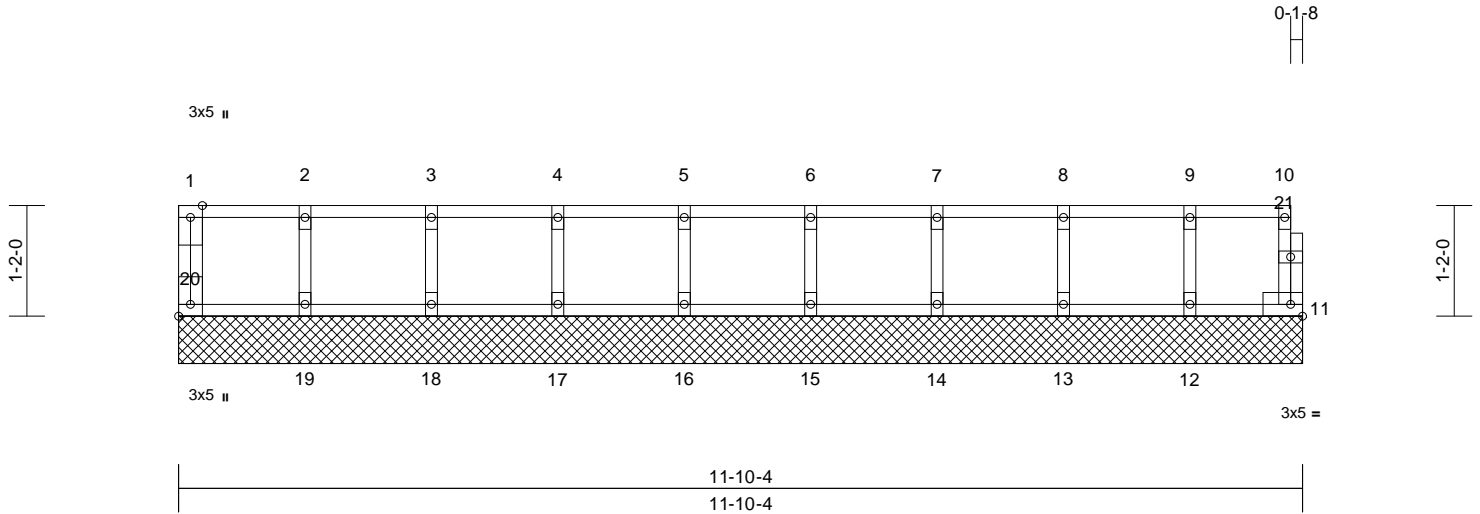
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F1GE	Truss Type Floor Supported Gable	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540581
-----------------	---------------	-------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:14  
ID:YC5xvg6EPopxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:24.3

Plate Offsets (X, Y): [20:Edge,0-1-8]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							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=11-10-4, 12=11-10-4,  
13=11-10-4, 14=11-10-4,  
15=11-10-4, 16=11-10-4,  
17=11-10-4, 18=11-10-4,  
19=11-10-4, 20=11-10-4  
Max Grav 11=48 (LC 1), 12=133 (LC 1),  
13=150 (LC 1), 14=146 (LC 1),  
15=147 (LC 1), 16=147 (LC 1),  
17=147 (LC 1), 18=147 (LC 1),  
19=145 (LC 1), 20=61 (LC 1)

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

TOP CHORD 1-20=-56/0, 10-11=-43/0, 1-2=-9/0, 2-3=-9/0,  
3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0,  
7-8=-9/0, 8-9=-9/0, 9-10=-9/0  
BOT CHORD 19-20=0/9, 18-19=0/9, 17-18=0/9, 16-17=0/9,  
15-16=0/9, 14-15=0/9, 13-14=0/9, 12-13=0/9,  
11-12=0/9  
WEBS 2-19=-131/0, 3-18=-134/0, 4-17=-133/0,  
5-16=-133/0, 6-15=-134/0, 7-14=-133/0,  
8-13=-136/0, 9-12=-122/0

**NOTES**

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.

- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



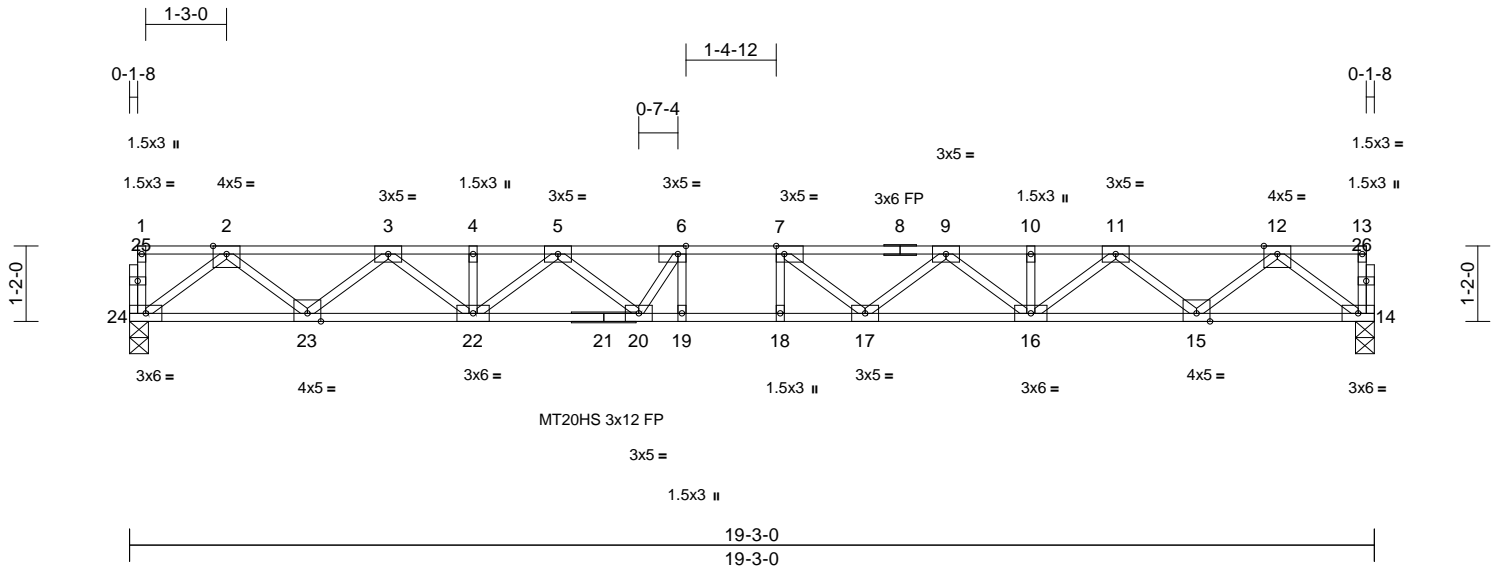
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F2	Truss Type Floor	Qty 4	Ply 1	1135 ACC Job Reference (optional)	146540582
-----------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:14  
ID:YC5xvg6EP0pxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.6

Plate Offsets (X, Y): [6:0-1-8,Edge], [7:0-1-8,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	0.87	Vert(LL)	-0.38	18	>595	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.53	18	>433	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.08	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 99 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.1(flat) \*Except\* 21-14:2x4 SP 2400F 2.0E(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 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 14=0-3-8, 24=0-3-8  
Max Grav 14=1039 (LC 1), 24=1039 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-24=-35/0, 13-14=-36/0, 1-2=-2/0, 2-3=-2231/0, 3-4=-3773/0, 4-5=-3773/0, 5-6=-4570/0, 6-7=-4740/0, 7-9=-4548/0, 9-10=-3762/0, 10-11=-3762/0, 11-12=-2231/0, 12-13=-2/0  
BOT CHORD 23-24=0/1309, 22-23=0/3119, 20-22=0/4288, 19-20=0/4740, 18-19=0/4740, 17-18=0/4740, 16-17=0/4315, 15-16=0/3120, 14-15=0/1309  
WEBS 12-14=-1639/0, 2-24=-1640/0, 12-15=0/1201, 2-23=0/1200, 11-15=-1157/0, 3-23=-1157/0, 11-16=0/820, 3-22=0/834, 6-19=-230/346, 10-16=-48/0, 9-16=-706/0, 9-17=0/442, 7-17=-534/133, 7-18=-222/176, 4-22=-82/0, 5-22=-658/0, 5-20=0/524, 6-20=-613/141

**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.



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



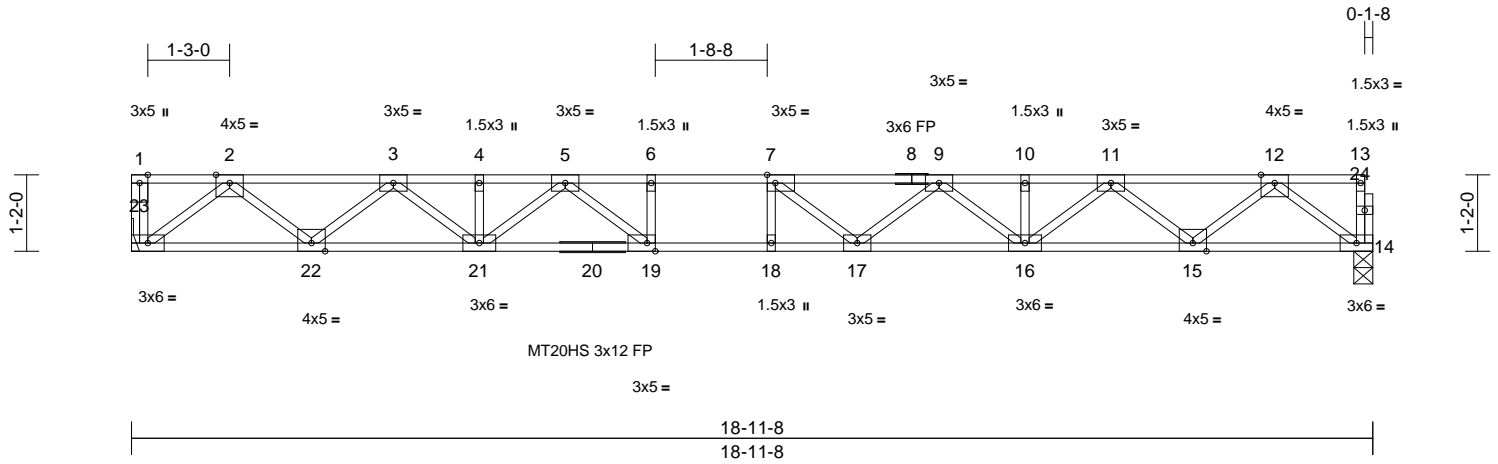
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F2A	Truss Type Floor	Qty 2	Ply 1	1135 ACC Job Reference (optional)	146540583
-----------------	--------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:15  
ID:YC5xvg6EPopxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.2

Plate Offsets (X, Y): [7:0-1-8,Edge], [19:0-1-8,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	0.90	Vert(LL)	-0.38	17-18	>592	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.52	17-18	>432	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.1(flat) \*Except\* 20-14:2x4 SP 2400F 2.0E(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

- 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

**BRACING**

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

**REACTIONS** (size) 14=0-3-8, 23= Mechanical  
 Max Grav 14=1023 (LC 1), 23=1029 (LC 1)

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

TOP CHORD 1-23=-39/0, 13-14=-36/0, 1-2=0/0,  
 2-3=-2193/0, 3-4=-3688/0, 4-5=-3688/0,  
 5-6=-4563/0, 6-7=-4563/0, 7-9=-4430/0,  
 9-10=-3681/0, 10-11=-3681/0,  
 11-12=-2192/0, 12-13=-2/0  
 BOT CHORD 22-23=0/1290, 21-22=0/3055, 19-21=0/4187,  
 18-19=0/4563, 17-18=0/4563, 16-17=0/4222,  
 15-16=0/3060, 14-15=0/1288  
 WEBS 12-14=-1613/0, 2-23=-1619/0, 12-15=0/1177,  
 2-22=0/1175, 11-15=-1131/0, 3-22=-1123/0,  
 11-16=0/792, 3-21=0/807, 10-16=-43/0,  
 9-16=-691/0, 9-17=0/432, 7-17=-516/192,  
 7-18=-229/133, 4-21=-103/0, 5-21=-638/0,  
 5-19=0/752, 6-19=-272/0

**NOTES**

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x5 MT20 unless otherwise indicated.
- Refer to girder(s) from truss to truss connections.
- 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.



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



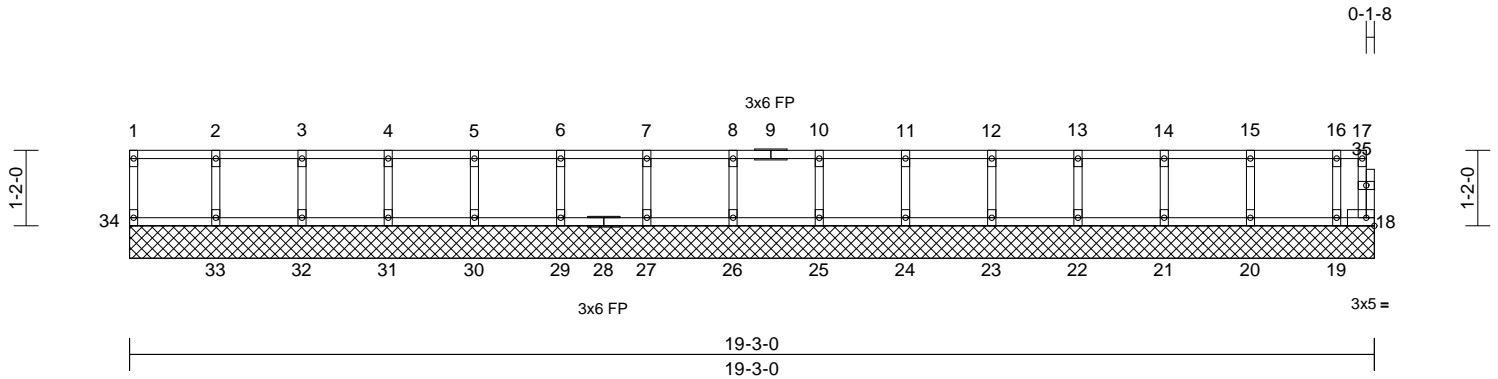
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F2GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540584
-----------------	---------------	-------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:15  
ID:YC5xvg6EPopxqBUM0OhzCny8NJz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.6

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							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 10-0-0 oc bracing.

**REACTIONS** (size) 18=19-3-0, 19=19-3-0, 20=19-3-0, 21=19-3-0, 22=19-3-0, 23=19-3-0, 24=19-3-0, 25=19-3-0, 26=19-3-0, 27=19-3-0, 29=19-3-0, 30=19-3-0, 31=19-3-0, 32=19-3-0, 33=19-3-0, 34=19-3-0  
Max Grav 18=9 (LC 1), 19=103 (LC 1), 20=153 (LC 1), 21=145 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=145 (LC 1), 33=153 (LC 1), 34=61 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-34=-55/0, 17-18=-1/0, 1-2=-6/0, 2-3=-6/0, 3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-10=-6/0, 10-11=-6/0, 11-12=-6/0, 12-13=-6/0, 13-14=-6/0, 14-15=-6/0, 15-16=-6/0, 16-17=-6/0  
BOT CHORD 33-34=0/6, 32-33=0/6, 31-32=0/6, 30-31=0/6, 29-30=0/6, 27-29=0/6, 26-27=0/6, 25-26=0/6, 24-25=0/6, 23-24=0/6, 22-23=0/6, 21-22=0/6, 20-21=0/6, 19-20=0/6, 18-19=0/6  
WEBS 2-33=-140/0, 3-32=-132/0, 4-31=-134/0, 5-30=-133/0, 6-29=-133/0, 7-27=-133/0, 8-26=-133/0, 10-25=-133/0, 11-24=-133/0, 12-23=-133/0, 13-22=-134/0, 14-21=-132/0, 15-20=-139/0, 16-19=-102/0

**NOTES**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) 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.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



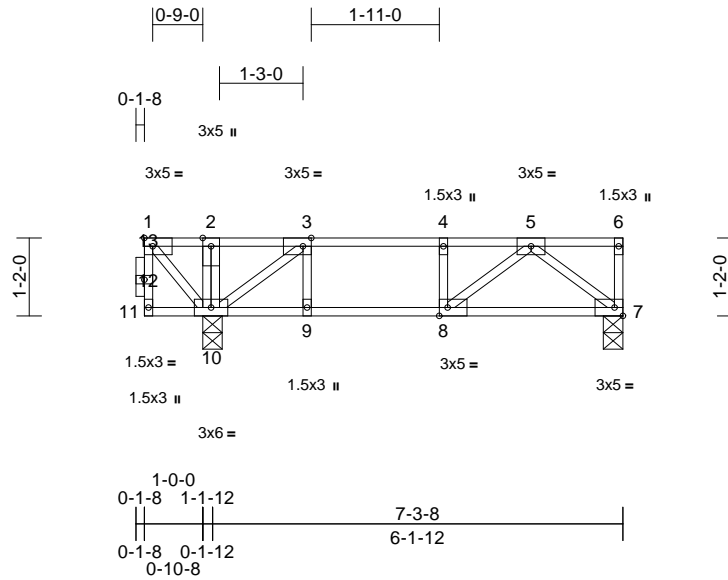
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F3	Truss Type Floor	Qty 2	Ply 1	1135 ACC	I46540585
Job Reference (optional)						

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:15  
ID:00fK607sAixoSL3Ya6Cck?y8Njy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.5

Plate Offsets (X, Y): [3:0-1-8,Edge], [8:0-1-8,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	0.70	Vert(LL)	-0.05	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.53	Vert(CT)	-0.08	7-8	>972	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 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) 7=0-3-8, 10=0-3-8  
 Max Grav 7=324 (LC 4), 10=679 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-11=0/17, 6-7=-47/0, 1-2=0/257, 2-3=0/256, 3-4=-411/12, 4-5=-411/12, 5-6=0/0  
 BOT CHORD 10-11=0/0, 9-10=-12/411, 8-9=-12/411, 7-8=0/321  
 WEBS 2-10=-55/31, 1-10=-381/0, 3-10=-686/0, 5-7=-410/0, 5-8=-61/171, 4-8=-96/31, 3-9=0/122

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

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 7-11=-10, 1-6=-100



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

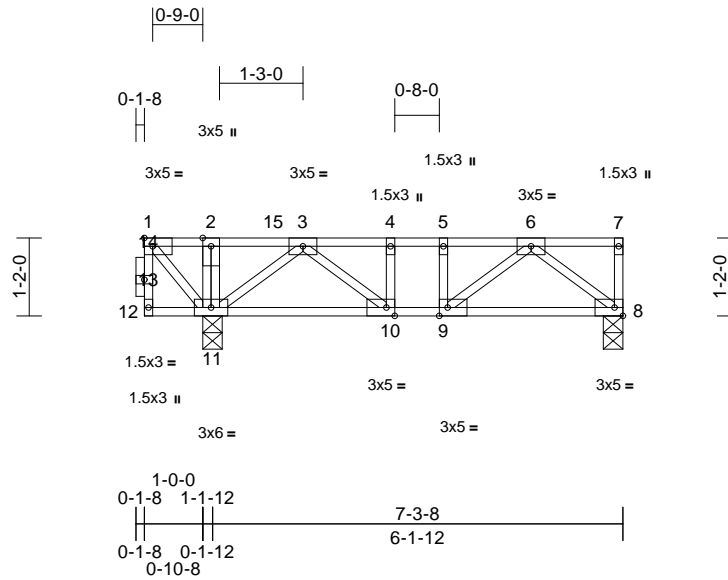


Job 21060009	Truss F3GR	Truss Type Floor	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540586
-----------------	---------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:16  
ID:OGuxQi9b?TbxwdTVRDieKtzVTDE-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:34.5

Plate Offsets (X, Y): [9:0-1-8,Edge], [10:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	-0.01	8-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.17	Vert(CT)	-0.02	8-9	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 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)

Vert: 8-12=-10, 1-7=-100  
 Concentrated Loads (lb)  
 Vert: 1=-250, 6=-54, 4=-54, 15=-54

**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, Except: 6-0-0 oc bracing: 10-11.

**REACTIONS**

(size) 8=0-3-8, 11=0-3-8  
 Max Grav 8=362 (LC 1), 11=824 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-12=-5/2, 7-8=-51/0, 1-2=0/261, 2-3=0/262, 3-4=-479/0, 4-5=-479/0, 5-6=-479/0, 6-7=0/0  
 BOT CHORD 11-12=0/0, 10-11=-123/293, 9-10=0/479, 8-9=0/375  
 WEBS 2-11=-161/0, 1-11=-387/0, 3-11=-605/0, 6-8=-478/0, 3-10=0/314, 6-9=-35/189, 4-10=-172/0, 5-9=-85/24

**NOTES**

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

**LOAD CASE(S)** Standard

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



June 11, 2021

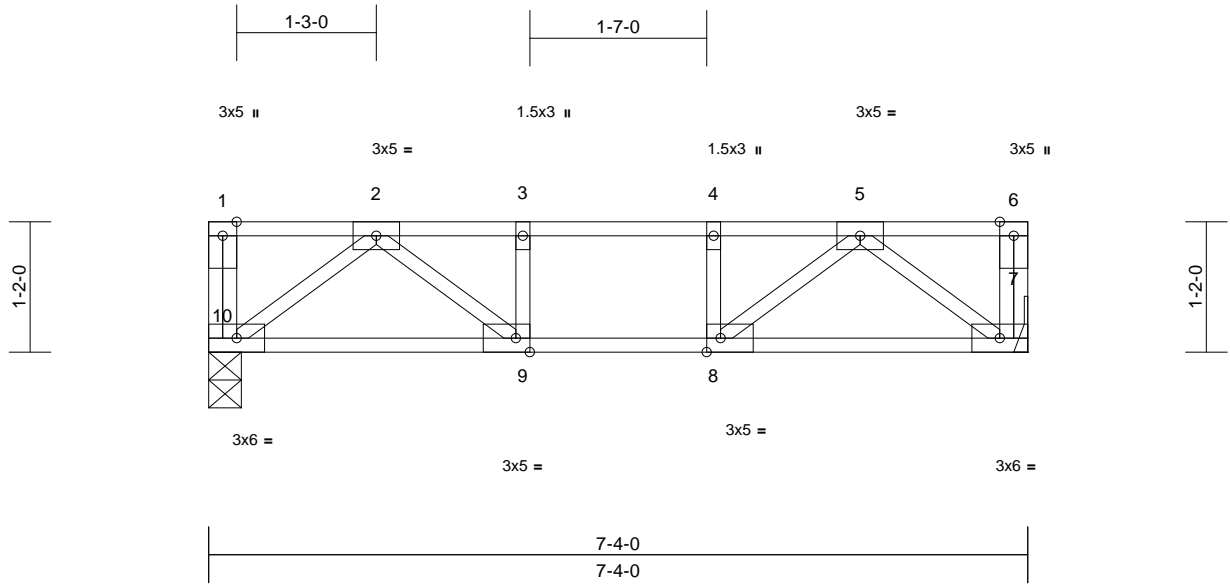
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F4	Truss Type Floor	Qty 1	Ply 1	1135 ACC	I46540587
Carter Components (Sanford), Sanford, NC - 27332,						Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:16
ID:00fK607sAixoSL3Ya6Cck?y8Njy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f						Page: 1



Scale = 1:20.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	-0.02	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.27	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 lb	FT = 20%F, 11%E

#### LUMBER

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

#### BRACING

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

REACTIONS (size) 7= Mechanical, 10=0-3-8  
 Max Grav 7=390 (LC 1), 10=390 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-57/0, 6-7=-57/0, 1-2=0/0, 2-3=-644/0, 3-4=-644/0, 4-5=-644/0, 5-6=0/0  
 BOT CHORD 9-10=0/423, 8-9=0/644, 7-8=0/423  
 WEBS 5-7=-530/0, 2-10=-530/0, 5-8=0/323, 2-9=0/323, 3-9=-156/0, 4-8=-156/0

#### NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

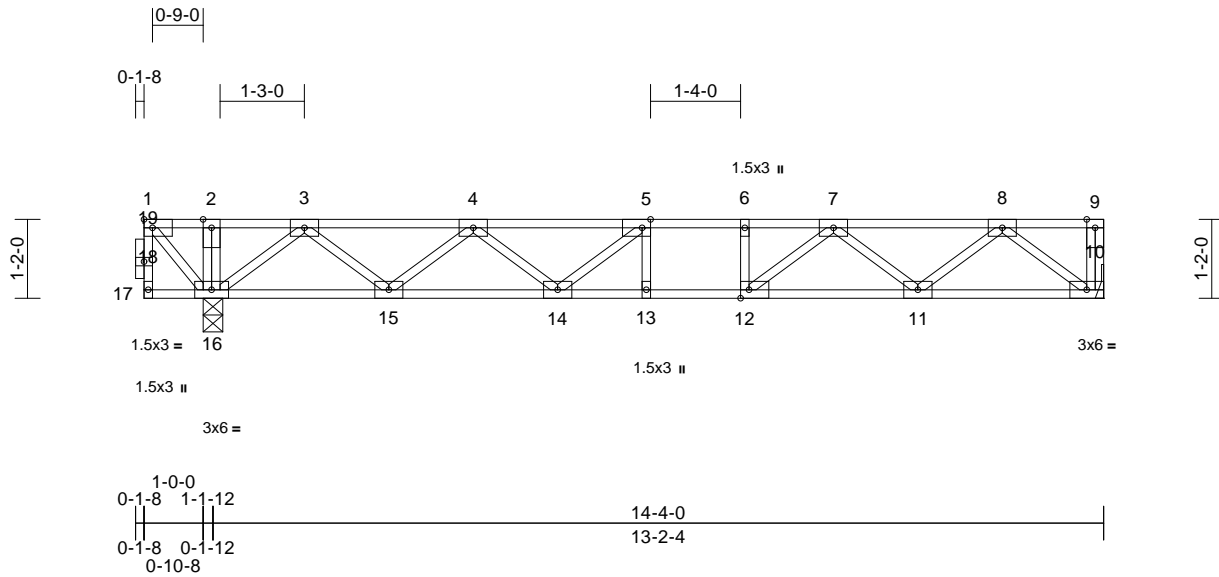


Job 21060009	Truss F4A	Truss Type Floor	Qty 2	Ply 1	1135 ACC Job Reference (optional)	146540588
-----------------	--------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:17  
ID:0Ofk607sAixoSL3Ya6Cck?y8Njy-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.1

Plate Offsets (X, Y): [5:0-1-8,Edge], [12:0-1-8,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	0.53	Vert(LL)	-0.12	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.16	13-14	>961	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 75 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= Mechanical, 16=0-3-8  
Max Grav 10=714 (LC 4), 16=1042 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-17=-5/0, 9-10=-39/0, 1-2=0/215, 2-3=0/216, 3-4=-1362/0, 4-5=-2071/0, 5-6=-2190/0, 6-7=-2190/0, 7-8=-1393/0, 8-9=0/0  
BOT CHORD 16-17=0/0, 15-16=0/812, 14-15=0/1888, 13-14=0/2190, 12-13=0/2190, 11-12=0/1895, 10-11=0/874  
WEBS 2-16=-119/0, 1-16=-319/0, 3-16=-1096/0, 8-10=-1097/0, 3-15=0/736, 8-11=0/675, 4-15=-705/0, 7-11=-654/0, 4-14=0/339, 7-12=0/536, 5-14=-364/49, 5-13=-140/73, 6-12=-202/0

**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

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 10-17=-10, 1-9=-100  
Concentrated Loads (lb)  
Vert: 1=-200



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



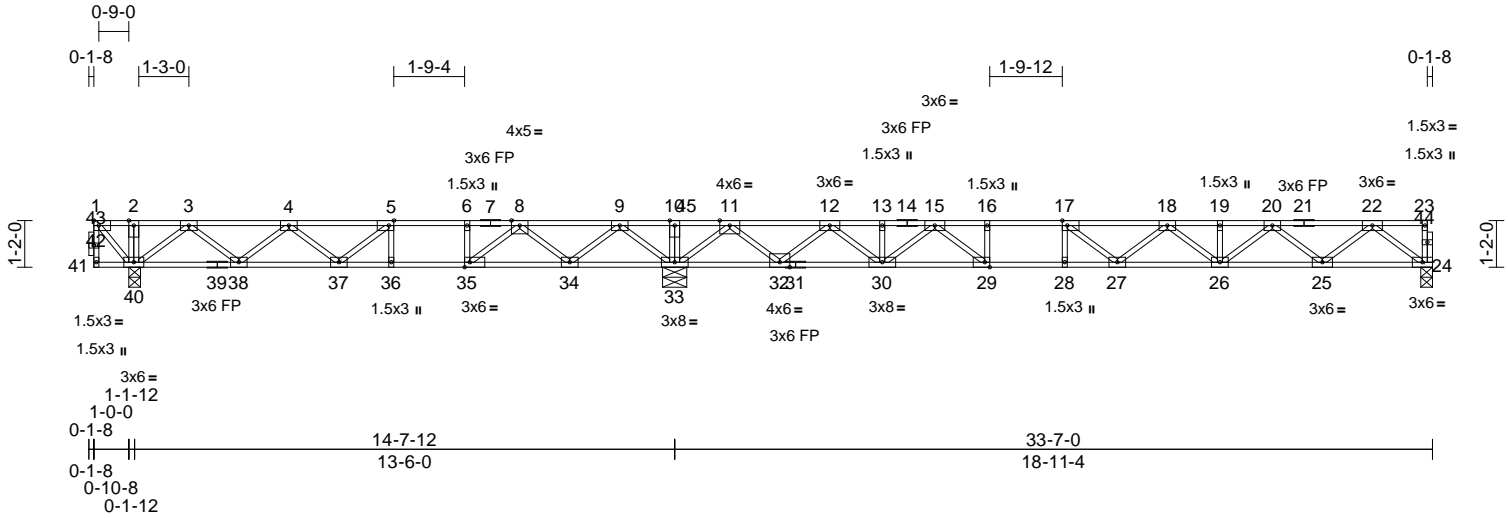
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F5	Truss Type Floor	Qty 4	Ply 1	1135 ACC Job Reference (optional)	146540589
-----------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:17  
 ID:00fK607sAixoSL3Ya6Cck?y8Njy-RfC?PsB70Hq3NSgPqnl8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:57.6

Plate Offsets (X, Y): [5:0-1-8,Edge], [17:0-1-8,Edge], [29:0-1-8,Edge], [35:0-1-8,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	0.94	Vert(LL)	-0.31	27-28	>723	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.42	27-28	>534	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.04	24	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 170 lb	FT = 20%F, 11%E

**LUMBER**  
 TOP CHORD 2x4 SP No.1(flat) \*Except\* 21-23:2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP 2400F 2.0E(flat) \*Except\* 41-39:2x4 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 5-4-14 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 24=0-3-8, 33=0-7-4, 40=0-3-8  
 Max Grav 24=908 (LC 5), 33=2122 (LC 4), 40=974 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-41=-6/0, 23-24=-36/0, 1-2=0/214, 2-3=0/215, 3-4=-1194/194, 4-5=-1740/351, 5-6=-1685/641, 6-8=-1685/641, 8-9=-483/1403, 9-10=0/2592, 10-11=0/2592, 11-12=-344/406, 12-13=-2139/0, 13-15=-2139/0, 15-16=-3457/0, 16-17=-3457/0, 17-18=-3579/0, 18-19=-3107/0, 19-20=-3107/0, 20-22=-1905/0, 22-23=-2/0  
 BOT CHORD 40-41=0/0, 38-40=-190/720, 37-38=-216/1651, 36-37=-641/1685, 35-36=-641/1685, 34-35=-1053/1152, 33-34=-1722/0, 32-33=-1129/0, 30-32=-104/1351, 29-30=0/2811, 28-29=0/3457, 27-28=0/3457, 26-27=0/3530, 25-26=0/2637, 24-25=0/1137

**WEBS**  
 2-40=-125/0, 10-33=-102/0, 1-40=-317/0, 3-40=-978/0, 9-33=-1423/0, 3-38=-5/636, 9-34=0/983, 4-38=-615/29, 8-34=-1078/0, 4-37=-176/139, 8-35=0/1075, 5-37=0/520, 5-36=-348/0, 11-33=-1836/0, 22-24=-1424/0, 11-32=0/1403, 22-25=0/1000, 12-32=-1350/0, 20-25=-952/0, 12-30=0/1046, 20-26=0/600, 6-35=-383/0, 19-26=-25/2, 18-26=-541/0, 18-27=-132/223, 17-27=-182/462, 17-28=-326/0, 13-30=-126/0, 15-30=-903/0, 15-29=0/1053, 16-29=-388/0

- 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  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 24-41=-10, 1-23=-100  
 Concentrated Loads (lb)  
 Vert: 1=-200



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



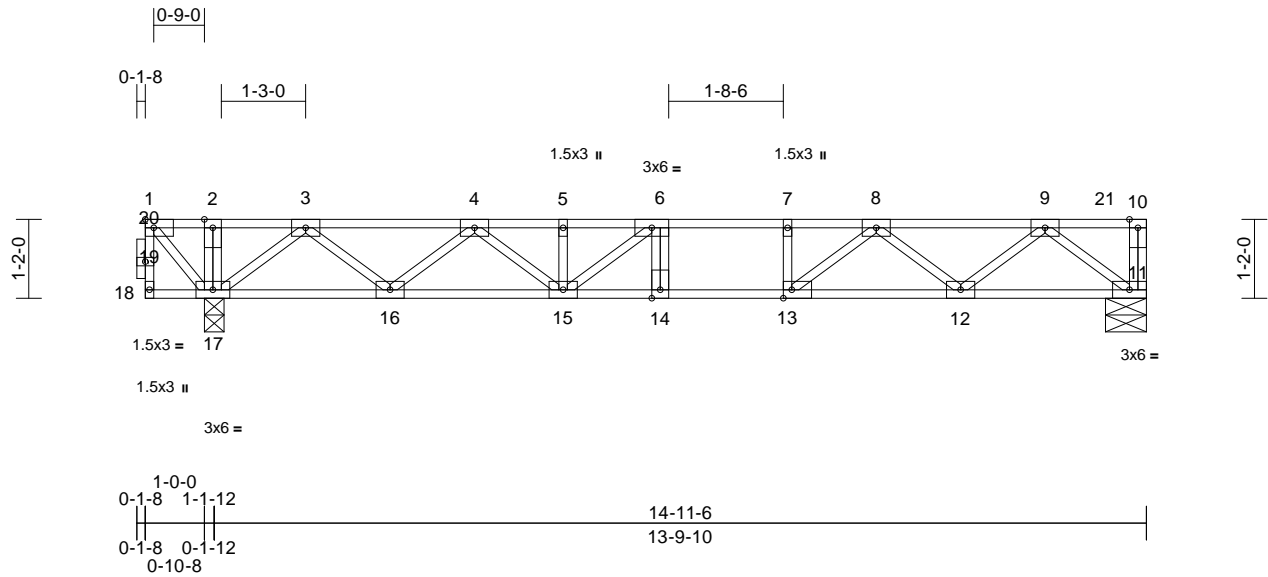
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F6GR	Truss Type Floor	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540590
-----------------	---------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:18  
ID:DXSf\_jDlx8ZcHp4FiQrFktzVTrA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.1

Plate Offsets (X, Y): [13:0-1-8,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	0.66	Vert(LL)	-0.14	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.19	14-15	>871	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.

**REACTIONS** (size) 11=0-7-4, 17=0-3-8  
Max Grav 11=732 (LC 1), 17=1128 (LC 1)

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

TOP CHORD 1-18=-6/0, 10-11=-39/0, 1-2=0/260, 2-3=0/260, 3-4=-1426/0, 4-5=-2288/0, 5-6=-2288/0, 6-7=-2370/0, 7-8=-2370/0, 8-9=-1466/0, 9-10=0/0  
BOT CHORD 17-18=0/0, 16-17=-2/853, 15-16=0/1976, 14-15=0/2370, 13-14=0/2370, 12-13=0/2011, 11-12=0/909  
WEBS 2-17=-110/0, 1-17=-385/0, 3-17=-1167/0, 9-11=-1140/0, 3-16=0/772, 9-12=0/726, 4-16=-741/0, 8-12=-710/0, 4-15=0/420, 8-13=0/623, 7-13=-259/0, 5-15=-173/39, 6-15=-458/141, 6-14=-126/75

**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

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 11-18=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 1=-250



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



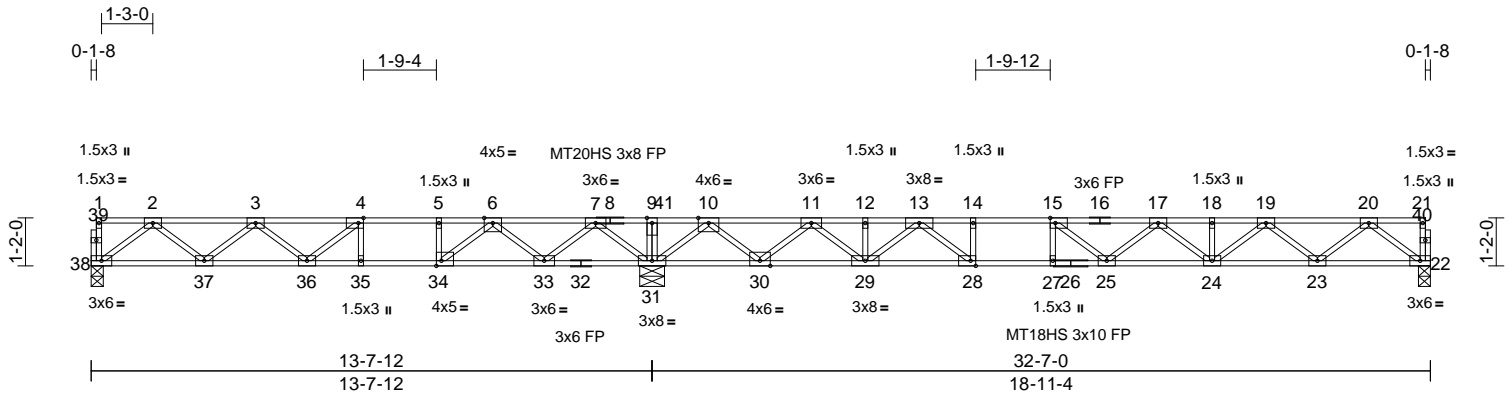
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F7	Truss Type Floor	Qty 5	Ply 1	1135 ACC Job Reference (optional)	I46540591
-----------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:18  
ID:00fK607sAixoSL3Ya6Cck?y8Njy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:56.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [15:0-1-8,Edge], [28:0-1-8,Edge], [34:0-1-8,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	0.89	Vert(LL)	-0.33	25-27	>681	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.45	25-27	>503	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.05	22	n/a	n/a	MT18HS	244/190
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S								Weight: 163 lb FT = 20%F, 11%E

LUMBER	
TOP CHORD	2x4 SP No.1(flat) *Except* 16-21:2x4 SP No.2(flat)
BOT CHORD	2x4 SP 2400F 2.0E(flat) *Except* 26-22:2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
REACTIONS	(size)
	22=0-3-8, 31=0-7-4, 38=0-3-8
	Max Grav 22=904 (LC 4), 31=2136 (LC 1), 38=645 (LC 3)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-38=-46/0, 21-22=-36/0, 1-2=-3/0, 2-3=-1250/22, 3-4=-1777/239, 4-5=-1709/579, 5-6=-1709/579, 6-7=-484/1424, 7-9=0/2663, 9-10=0/2663, 10-11=-278/418, 11-12=-2083/0, 12-13=-2083/0, 13-14=-3418/0, 14-15=-3418/0, 15-17=-3547/0, 17-18=-3087/0, 18-19=-3087/0, 19-20=-1895/0, 20-21=-2/0
BOT CHORD	37-38=0/780, 36-37=-71/1698, 35-36=-579/1709, 34-35=-579/1709, 33-34=-1040/1162, 31-33=-1768/0, 30-31=-1195/0, 29-30=-115/1291, 28-29=0/2761, 27-28=0/3418, 25-27=0/3418, 24-25=0/3503, 23-24=0/2619, 22-23=0/1132

WEBS	
	9-31=-102/0, 7-31=-1439/0, 2-38=-975/0, 7-33=0/998, 2-37=-36/611, 6-33=-1097/0, 3-37=-584/64, 6-34=0/1104, 3-36=-219/104, 4-36=0/549, 4-35=-360/0, 10-31=-1842/0, 20-22=-1418/0, 10-30=0/1408, 20-23=0/992, 11-30=-1356/0, 19-23=-943/0, 11-29=0/1052, 19-24=0/597, 18-24=-30/1, 17-24=-531/0, 17-25=-136/220, 15-25=-175/465, 15-27=-327/0, 12-29=-127/0, 13-29=-910/0, 13-28=0/1064, 14-28=-393/0, 5-34=-392/0

- 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 3x5 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.
  - 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



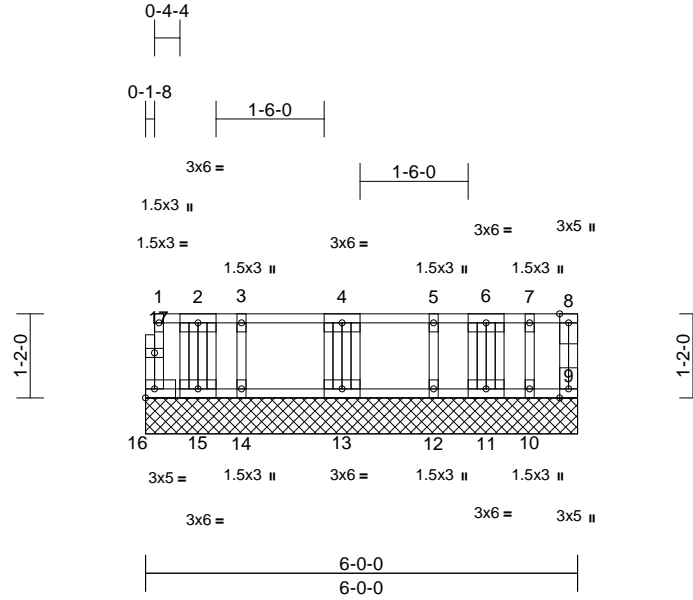
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F7GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540592
-----------------	---------------	-------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 E Jun 1 2021 Print: 8.510 E Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 15:15:46  
ID:MMTDAjB?\_EZ5Y6yWMfNR2y8NJt-5iZIk6JWgk75l9pM\_CLxkfuD2uSM3m\_4mPQ6O?z7JiB

Page: 1



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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 43 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** All bearings 6-0-0.  
(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 9, 10, 12, 14, 16 except 11=428 (LC 1), 13=523 (LC 1), 15=409 (LC 1)

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

**WEBS** 2-15=-404/0, 4-13=-508/0, 6-11=-421/0

- NOTES**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) 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.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 370 lb down at 0-8-12, and 366 lb down at 2-8-12, and 366 lb down at 4-8-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) 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: 9-16=-10, 1-8=-100  
Concentrated Loads (lb)  
Vert: 2=-370 (F), 4=-366 (F), 6=-366 (F)



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

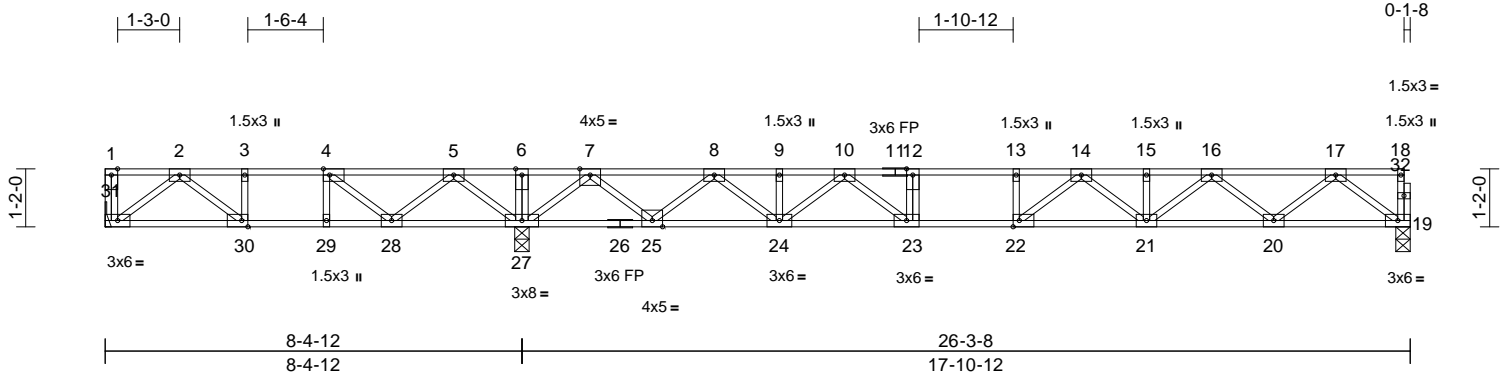
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F8	Truss Type Floor	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540593
-----------------	-------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:19  
ID:UaDiKM8Vx?3f4Vek7pjRHCy8NJx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46.4

Plate Offsets (X, Y): [4:0-1-8,Edge], [22:0-1-8,Edge], [30:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.28	21-22	>767	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.38	21-22	>559	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.04	19	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 135 lb	FT = 20%F, 11%E

LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 26-19:2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
REACTIONS	(size)
	19=0-3-8, 27=0-3-8, 31= Mechanical
Max Uplift	31=104 (LC 4)
Max Grav	19=865 (LC 4), 27=1817 (LC 1), 31=350 (LC 3)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-31=-54/7, 18-19=-35/0, 1-2=0/0, 2-3=-521/522, 3-4=-521/522, 4-5=-182/1013, 5-6=0/2093, 6-7=0/2093, 7-8=-526/138, 8-9=-2159/0, 9-10=-2159/0, 10-12=-3226/0, 12-13=-3226/0, 13-14=-3226/0, 14-15=-2923/0, 15-16=-2923/0, 16-17=-1793/0, 17-18=-2/0
BOT CHORD	30-31=-175/373, 29-30=-522/521, 28-29=-522/521, 27-28=-1391/0, 25-27=-734/0, 24-25=0/1456, 23-24=0/2718, 22-23=0/3226, 21-22=0/3199, 20-21=0/2481, 19-20=0/1080

WEBS	
	6-27=-123/0, 5-27=-1034/0, 2-31=-468/220, 5-28=0/722, 2-30=-443/189, 4-28=-840/0, 3-30=-101/179, 4-29=0/219, 7-27=-1705/0, 17-19=-1352/0, 7-25=0/1282, 17-20=0/928, 8-25=-1238/0, 16-20=-895/0, 8-24=0/928, 16-21=0/564, 15-21=-78/0, 14-21=-353/0, 14-22=-276/351, 13-22=-173/56, 9-24=-118/0, 10-24=-746/0, 10-23=0/875, 12-23=-369/0

**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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 31.
- 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.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



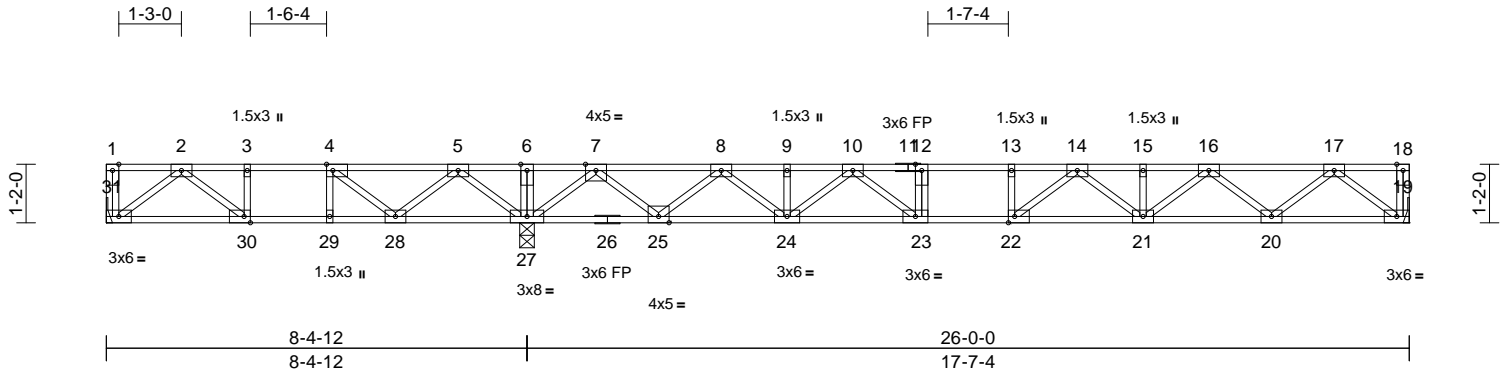
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss F8A	Truss Type Floor	Qty 5	Ply 1	1135 ACC Job Reference (optional)	I46540594
-----------------	--------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:19  
ID:UaDiK8M8Vx?3f4Vek7pjRHCy8NJx-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:46

Plate Offsets (X, Y): [4:0-1-8,Edge], [22:0-1-8,Edge], [30:0-1-8,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	0.89	Vert(LL)	-0.25	21-22	>831	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.35	21-22	>607	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.04	19	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat) \*Except\* 26-19:2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 19= Mechanical, 27=0-3-8, 31= Mechanical  
 Max Uplift 31=100 (LC 4)  
 Max Grav 19=855 (LC 4), 27=1799 (LC 1), 31=350 (LC 3)

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

TOP CHORD 1-31=-54/6, 18-19=-39/0, 1-2=0/0,  
 2-3=-519/511, 3-4=-519/511, 4-5=-179/994,  
 5-6=0/2077, 6-7=0/2077, 7-8=-513/151,  
 8-9=-2109/0, 9-10=-2109/0, 10-12=-3112/0,  
 12-13=-3112/0, 13-14=-3112/0,  
 14-15=-2841/0, 15-16=-2841/0,  
 16-17=-1753/0, 17-18=0/0

BOT CHORD 30-31=-171/372, 29-30=-511/519,  
 28-29=-511/519, 27-28=-1368/0,  
 25-27=-737/0, 24-25=0/1425, 23-24=0/2648,  
 22-23=0/3112, 21-22=0/3101, 20-21=0/2420,  
 19-20=0/1060

WEBS 6-27=-123/0, 5-27=-1031/0, 2-31=-467/214,  
 5-28=0/718, 2-30=-434/188, 4-28=-834/0,  
 3-30=-100/176, 4-29=0/216, 7-27=-1680/0,  
 17-19=-1329/0, 7-25=0/1258, 17-20=0/903,  
 8-25=-1217/0, 16-20=-868/0, 8-24=0/904,  
 16-21=0/537, 15-21=-79/0, 14-21=-332/0,  
 14-22=-291/322, 13-22=-154/69,  
 9-24=-113/0, 10-24=-722/0, 10-23=0/816,  
 12-23=-340/0

**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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 31.
- 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.
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



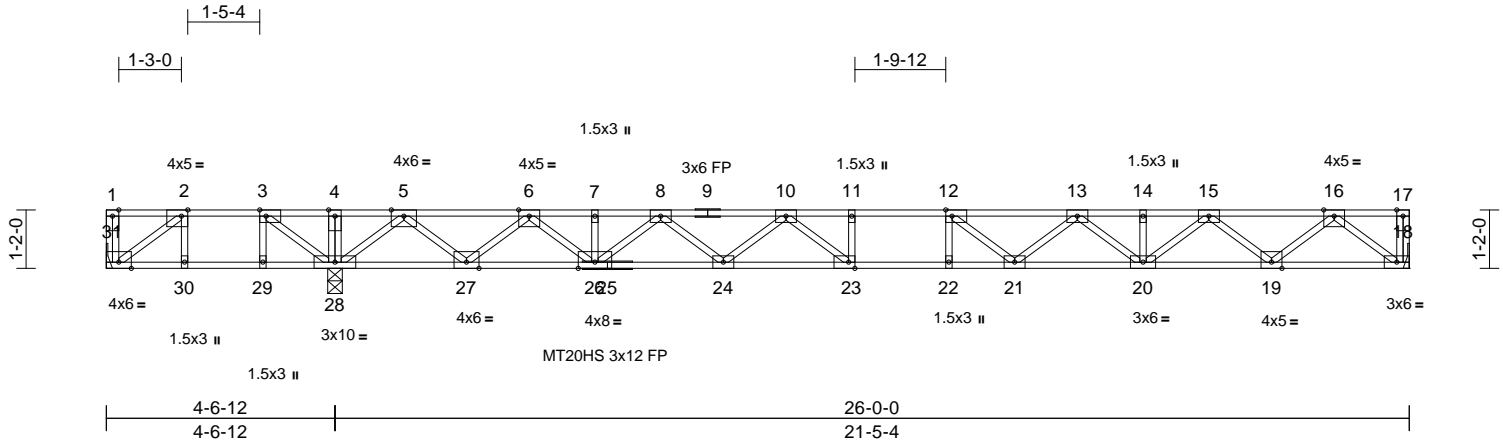
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss F8B	Truss Type Floor	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540595
-----------------	--------------	---------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:20  
ID:yynn4Xi87hJBWhfDxhXEgqQy8NJw-RfC?PsB70Hg3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [12:0-1-8,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	0.93	Vert(LL)	-0.46	22-23	>559	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.63	22-23	>408	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.07	18	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 133 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E(flat) \*Except\* 9-17:2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.1(flat) \*Except\* 25-18:2x4 SP 2400F 2.0E(flat)  
WEBS 2x4 SP No.3(flat)  
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
**REACTIONS** (size) 18= Mechanical, 28=0-3-8, 31= Mechanical  
Max Uplift 31=462 (LC 4)  
Max Grav 18=1064 (LC 7), 28=2058 (LC 1), 31=96 (LC 3)

**WEBS**  
4-28=-17/189, 3-28=-1769/0, 2-31=0/1294,  
2-30=-351/0, 3-29=0/400, 5-28=-2112/0,  
16-18=-1675/0, 5-27=0/1582, 16-19=0/1231,  
6-27=-1521/0, 15-19=-1185/0, 6-26=0/1214,  
15-20=0/851, 14-20=-48/0, 13-20=-740/0,  
13-21=0/487, 12-21=-599/172,  
12-22=-227/163, 7-26=-66/0, 8-26=-1076/0,  
8-24=0/679, 10-24=-669/0, 10-23=-76/742,  
11-23=-265/0

**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 3x5 MT20 unless otherwise indicated.  
4) Refer to girder(s) for truss to truss connections.  
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 462 lb uplift at joint 31.  
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.  
7) Required 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.  
8) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-31=-217/0, 17-18=-40/0, 1-2=0/0,  
2-3=0/1047, 3-4=0/2355, 4-5=0/2355,  
5-6=-630/0, 6-7=-2735/0, 7-8=-2735/0,  
8-10=-4088/0, 10-11=-4892/0,  
11-12=-4892/0, 12-13=-4692/0,  
13-14=-3857/0, 14-15=-3857/0,  
15-16=-2280/0, 16-17=0/0  
BOT CHORD 30-31=-1047/0, 29-30=-1047/0,  
28-29=-1047/0, 27-28=-679/0, 26-27=0/1790,  
24-26=0/3571, 23-24=0/4594, 22-23=0/4892,  
21-22=0/4892, 20-21=0/4436, 19-20=0/3191,  
18-19=0/1335



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

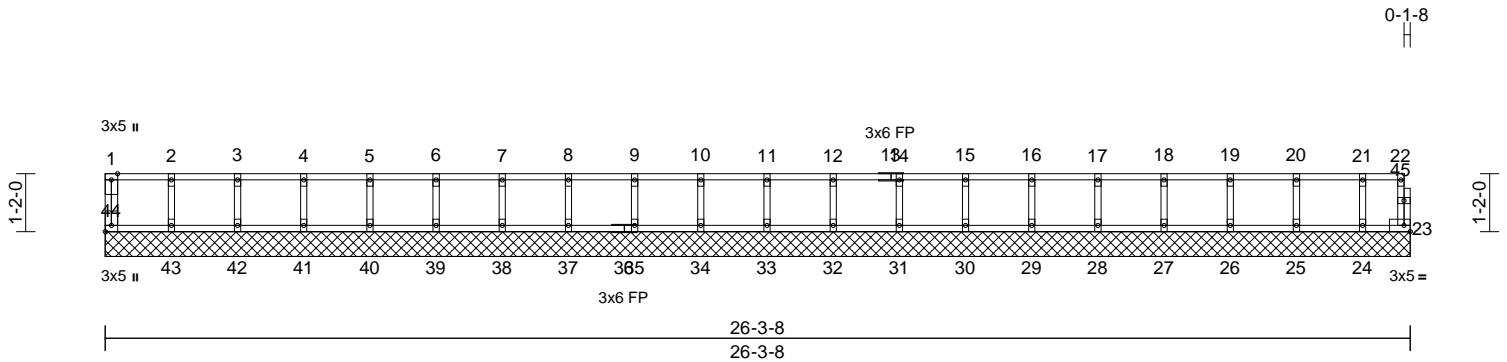


Job 21060009	Truss F8GE	Truss Type Floor Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540596
-----------------	---------------	-------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:20  
ID:yann4Xi87hJBWhfDxhXEgqQy8NJw-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46.4

Plate Offsets (X, Y): [44:Edge,0-1-8]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	23	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 109 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)

**BOT CHORD** 43-44=0/7, 42-43=0/7, 41-42=0/7, 40-41=0/7, 39-40=0/7, 38-39=0/7, 37-38=0/7, 35-37=0/7, 34-35=0/7, 33-34=0/7, 32-33=0/7, 31-32=0/7, 30-31=0/7, 29-30=0/7, 28-29=0/7, 27-28=0/7, 26-27=0/7, 25-26=0/7, 24-25=0/7, 23-24=0/7

**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** 2-43=-133/0, 3-42=-134/0, 4-41=-133/0, 5-40=-133/0, 6-39=-133/0, 7-38=-133/0, 8-37=-133/0, 9-35=-133/0, 10-34=-133/0, 11-33=-133/0, 12-32=-133/0, 14-31=-133/0, 15-30=-133/0, 16-29=-133/0, 17-28=-133/0, 18-27=-134/0, 19-26=-132/0, 20-25=-138/0, 21-24=-112/0

**REACTIONS** (size) 23=26-3-8, 24=26-3-8, 25=26-3-8, 26=26-3-8, 27=26-3-8, 28=26-3-8, 29=26-3-8, 30=26-3-8, 31=26-3-8, 32=26-3-8, 33=26-3-8, 34=26-3-8, 35=26-3-8, 37=26-3-8, 38=26-3-8, 39=26-3-8, 40=26-3-8, 41=26-3-8, 42=26-3-8, 43=26-3-8, 44=26-3-8  
Max Grav 23=34 (LC 1), 24=120 (LC 1), 25=152 (LC 1), 26=145 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 40=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=148 (LC 1), 44=59 (LC 1)

**NOTES**  
1) All plates are 1.5x3 MT20 unless otherwise indicated.  
2) Gable requires continuous bottom chord bearing.  
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
4) Gable studs spaced at 1-4-0 oc.  
5) 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.  
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-44=-55/0, 22-23=-28/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0, 10-11=-7/0, 11-12=-7/0, 12-14=-7/0, 14-15=-7/0, 15-16=-7/0, 16-17=-7/0, 17-18=-7/0, 18-19=-7/0, 19-20=-7/0, 20-21=-7/0, 21-22=-7/0



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



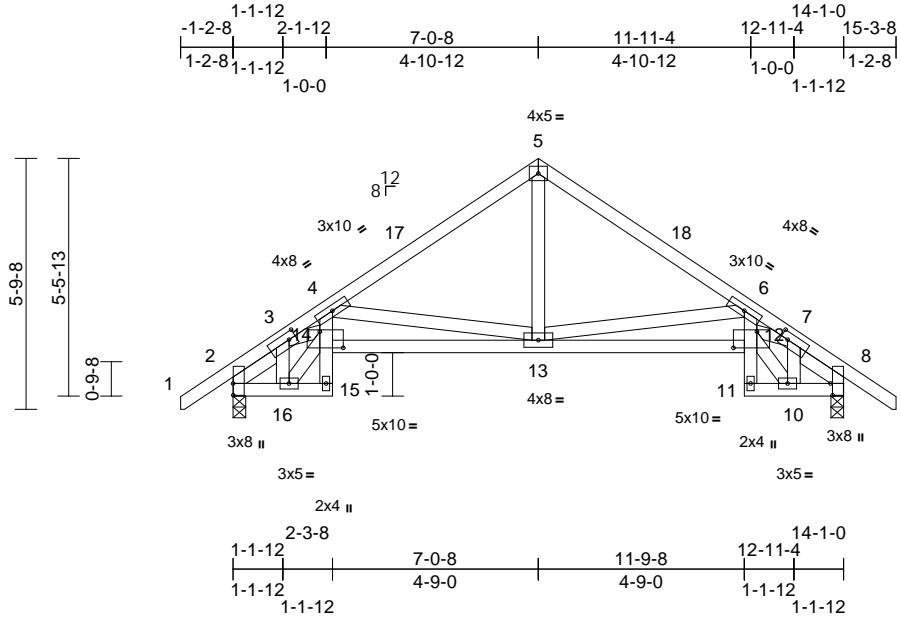
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss FA	Truss Type Roof Special	Qty 3	Ply 1	1135 ACC Job Reference (optional)	146540597
-----------------	-------------	----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:21  
ID:BEI2sz26asAekQcODr5oVky8NK2-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.1

Plate Offsets (X, Y): [2:0-3-4,0-0-1], [3:0-2-0,0-2-0], [7:0-2-0,0-2-0], [8:0-3-4,0-0-9], [12:0-6-8,0-4-8], [14:0-6-8,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.09	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.16	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.20	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 89 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\* 15-4,6-11:2x4 SP No.3  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x4 SP No.2 -- 1-3-7, Right 2x4 SP No.2 -- 1-3-7

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-11-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

Max Horiz 2=103 (LC 9)  
 Max Grav 2=797 (LC 1), 8=797 (LC 1)

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

TOP CHORD 1-2=0/41, 2-3=-841/82, 3-4=-2109/178, 4-5=-864/113, 5-6=-864/113, 6-7=-2109/178, 7-8=-841/82, 8-9=0/41  
 BOT CHORD 2-16=-12/515, 15-16=-17/138, 14-15=0/59, 4-14=0/757, 13-14=-172/2013, 12-13=-171/2013, 11-12=0/59, 6-12=0/753, 10-11=-17/138, 8-10=-12/512  
 WEBS 5-13=0/429, 6-13=-1397/231, 4-13=-1397/232, 3-16=-536/13, 3-14=-95/1240, 14-16=0/622, 7-10=-531/12, 7-12=-95/1240, 10-12=0/611

**NOTES**

1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-0 to 1-10-0, Interior (1) 1-10-0 to 7-0-8, Exterior(2R) 7-0-8 to 10-0-8, Interior (1) 10-0-8 to 15-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 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



June 11,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



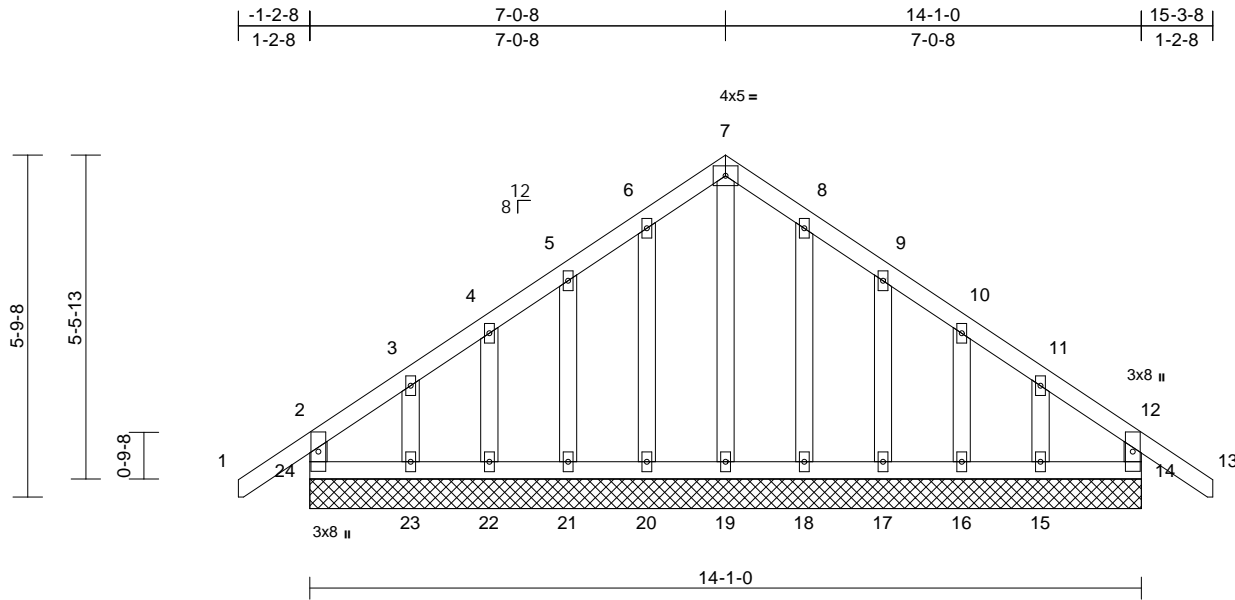
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss FE	Truss Type Common Supported Gable	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540598
-----------------	-------------	--------------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8:51 S Jun 1 2021 Print: 8:50 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:22  
ID:fQsR3lK9lVmaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwCRDoi7J4zJC?f

Page: 1



Scale = 1:39

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R								
											Weight: 91 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 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	
(size)	14=14-1-0, 15=14-1-0, 16=14-1-0, 17=14-1-0, 18=14-1-0, 19=14-1-0, 20=14-1-0, 21=14-1-0, 22=14-1-0, 23=14-1-0, 24=14-1-0
Max Horiz	24=118 (LC 10)
Max Uplift	14=17 (LC 8), 15=35 (LC 12), 16=12 (LC 12), 17=22 (LC 12), 18=10 (LC 12), 20=10 (LC 11), 21=22 (LC 11), 22=11 (LC 11), 23=40 (LC 8), 24=35 (LC 7)
Max Grav	14=233 (LC 17), 15=129 (LC 20), 16=140 (LC 1), 17=131 (LC 1), 18=141 (LC 1), 19=149 (LC 1), 20=141 (LC 1), 21=131 (LC 1), 22=140 (LC 1), 23=137 (LC 19), 24=233 (LC 17)

FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-24=-210/118, 1-2=0/102, 2-3=-71/82, 3-4=-49/93, 4-5=-52/92, 5-6=-77/144, 6-7=-98/185, 7-8=-98/185, 8-9=-77/144, 9-10=-52/93, 10-11=-29/93, 11-12=-50/64, 12-13=0/102, 12-14=-210/119
BOT CHORD	23-24=-65/95, 22-23=-65/95, 21-22=-65/95, 20-21=-65/95, 19-20=-65/95, 18-19=-65/95, 17-18=-65/95, 16-17=-65/95, 15-16=-65/95, 14-15=-65/95

WEBS 7-19=-143/40, 6-20=-114/56, 5-21=-104/79, 4-22=-113/73, 3-23=-98/81, 8-18=-114/56, 9-17=-104/79, 10-16=-113/73, 11-15=-94/81

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner(3E) -1-2-0 to 1-8-8, Exterior(2N) 1-8-8 to 7-0-8, Corner(3R) 7-0-8 to 10-0-8, Exterior(2N) 10-0-8 to 15-3-0 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
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 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 1'-4"-0 oc.
- 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, and 15. This connection is for uplift only and does not consider lateral forces.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



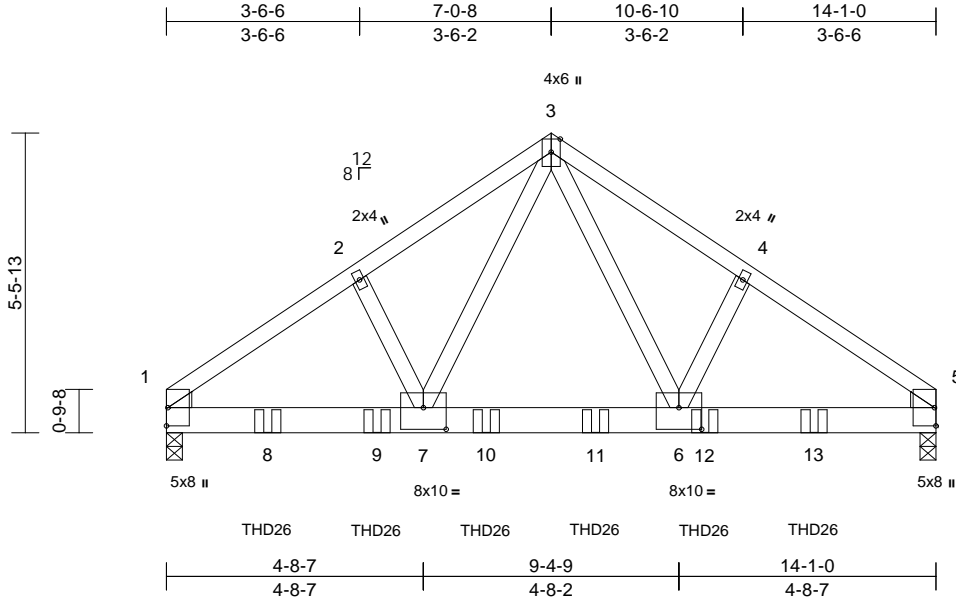
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss FG	Truss Type Common Girder	Qty 1	Ply 2	1135 ACC Job Reference (optional)	146540599
-----------------	-------------	-----------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:22  
ID:bp\_BU\_5\_inZDbuKzuzfv7My8NK?-RfC?PsB70Hq3NSgPqnL8w3ulTxGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:42.2

Plate Offsets (X, Y): [6:0-5-0,0-4-12], [7:0-5-0,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.07	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.11	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 167 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 1=0-3-8, 5=0-3-8  
 Max Horiz 1=95 (LC 20)  
 Max Grav 1=4718 (LC 1), 5=4506 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-6034/0, 2-3=-5819/0, 3-4=-5774/0, 4-5=-5990/0  
 BOT CHORD 1-7=0/4647, 6-7=0/3370, 5-6=0/4610  
 WEBS 3-6=0/3283, 4-6=0/347, 3-7=0/3371, 2-7=0/346

**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 0-7-0 oc.  
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.
  - 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 MiTek THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-10-4 from the left end to 11-10-4 to connect truss(es) to front 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: 1-3=-80, 3-5=-80, 1-5=-20  
 Concentrated Loads (lb)  
 Vert: 8=-1307 (F), 9=-1307 (F), 10=-1307 (F), 11=-1307 (F), 12=-1309 (F), 13=-1307 (F)



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



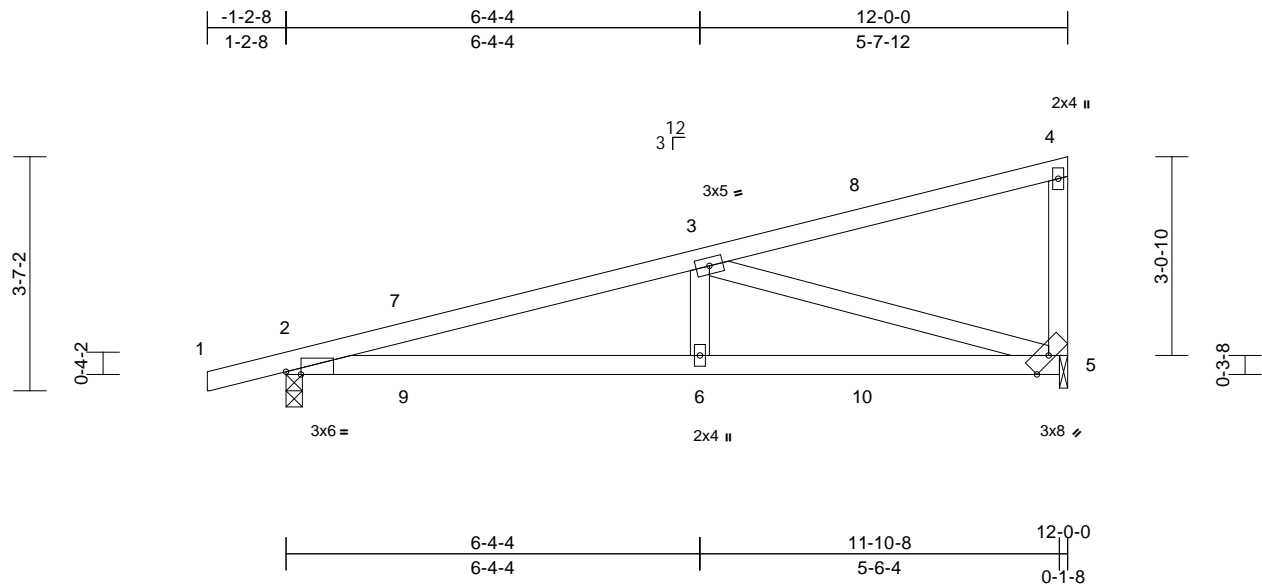
818 Soundside Road  
 Edenton, NC 27932

Job 21060009	Truss H	Truss Type Monopitch	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540600
-----------------	------------	-------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:23  
ID:fQsR3l3kL9lVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:35.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.14	2-6	>987	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.13	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 52 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 4-3-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 5-0-10 oc bracing.

**REACTIONS** (size) 2=0-3-0, 5=0-1-8

Max Horiz 2=86 (LC 7)  
Max Uplift 2=-137 (LC 7), 5=-119 (LC 7)  
Max Grav 2=698 (LC 1), 5=581 (LC 1)

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

TOP CHORD 1-2=0/35, 2-3=-1327/1079, 3-4=-95/12, 4-5=-175/117  
BOT CHORD 2-6=-1152/1228, 5-6=-1152/1228  
WEBS 3-6=-360/139, 3-5=-1249/1164

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-2-5 to 1-9-11, Interior (1) 1-9-11  
to 11-10-4 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.
- 4) This truss has been designed for greater of min roof live  
load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.

- 5) Bearing at joint(s) 5 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate at joint(s) 5.
- 7) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 2 and 5.  
This connection is for uplift only and does not consider  
lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



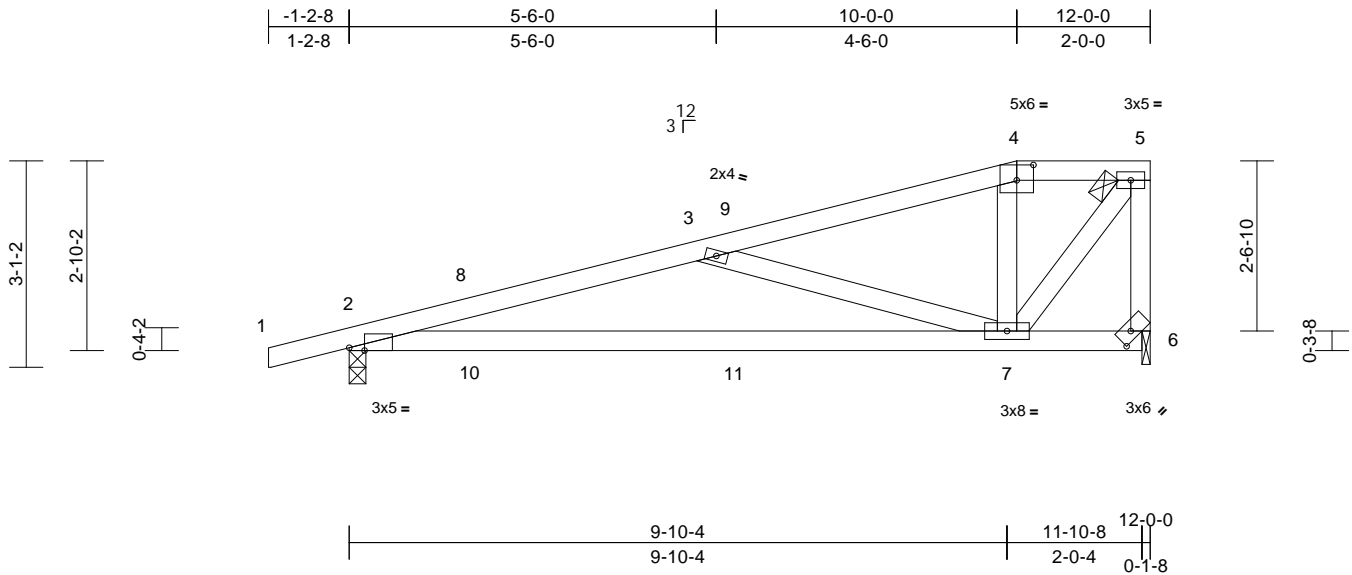
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss H1	Truss Type Half Hip	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540601
-----------------	-------------	------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:23  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	0.55	2-7	>258	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	0.40	2-7	>348	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 56 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 4-5-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS**

(size) 2=0-3-0, 6=0-1-8  
Max Horiz 2=75 (LC 7)  
Max Uplift 2=-140 (LC 7), 6=-116 (LC 7)  
Max Grav 2=698 (LC 1), 6=581 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-1340/1030, 3-4=-529/605, 4-5=-471/611, 5-6=-647/829  
BOT CHORD 2-7=-1101/1263, 6-7=-6/15  
WEBS 3-7=-834/511, 4-7=-154/52, 5-7=-1015/765

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-2-5 to 1-9-11, Interior (1) 1-9-11  
to 10-0-0, Exterior(2E) 10-0-0 to 11-10-4 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.

- 4) This truss has been designed for greater of min roof live  
load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) Bearing at joint(s) 6 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to  
bearing plate at joint(s) 6.
- 8) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 2 and 6.  
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.
- 10) Graphical purlin representation does not depict the size  
or the orientation of the purlin along the top and/or  
bottom chord.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



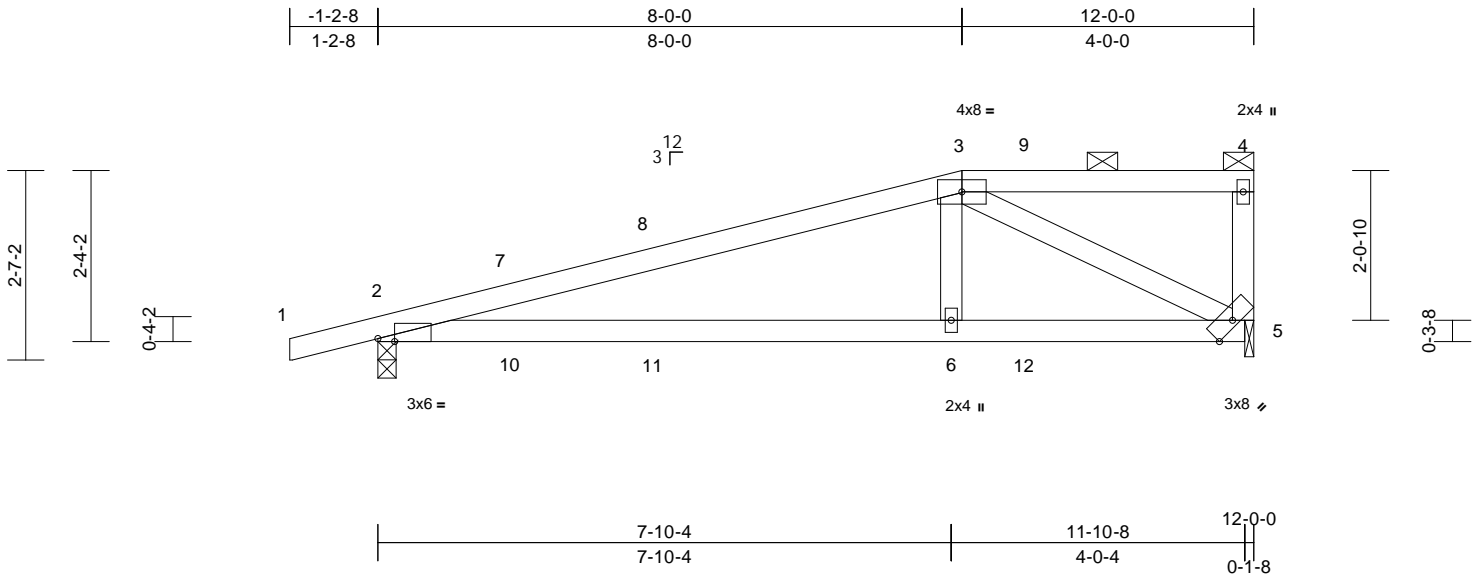
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss H2	Truss Type Half Hip	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540602
-----------------	-------------	------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:23  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:31.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.30	2-6	>463	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	0.23	2-6	>624	180		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 49 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 3-4:2x4 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, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 4-4-15 oc bracing.

**REACTIONS** (size) 2=0-3-0, 5=0-1-8  
Max Horiz 2=62 (LC 7)  
Max Uplift 2=-142 (LC 7), 5=-114 (LC 7)  
Max Grav 2=698 (LC 1), 5=581 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-1005/1000, 3-4=-10/14, 4-5=-108/77  
BOT CHORD 2-6=-1017/897, 5-6=-984/885  
WEBS 3-6=-466/178, 3-5=-990/1105

- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. 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

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-5 to 1-9-11, Interior (1) 1-9-11 to 8-0-0, Exterior(2E) 8-0-0 to 11-10-4 zone; porch 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



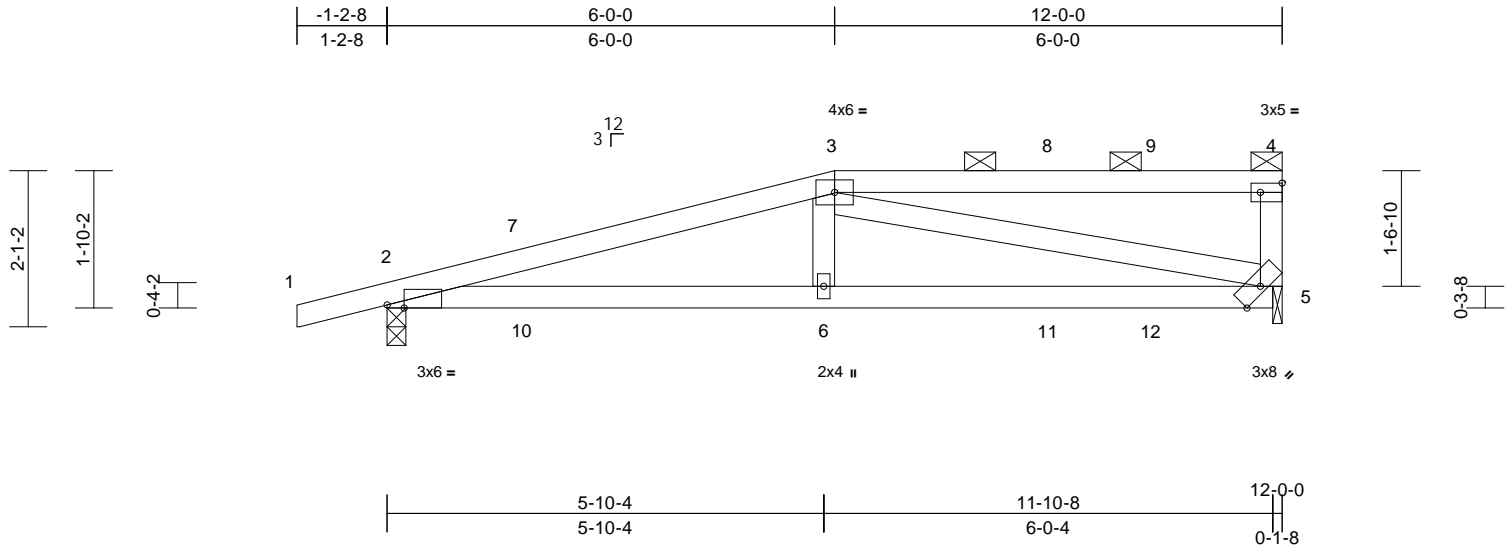
818 Soundside Road  
Edenton, NC 27932

Job T1060009	Truss H3	Truss Type Half Hip	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540603
-----------------	-------------	------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:24  
ID:fQsR3l3kL9lVmaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:30.9		Plate Offsets (X, Y): [2:0-2-12,Edge], [4:Edge,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.13	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.12	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 50 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 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 4-8-2 oc bracing.

**REACTIONS** (size) 2=0-3-0, 5=0-1-8  
Max Horiz 2=49 (LC 7)  
Max Uplift 2=-144 (LC 7), 5=-112 (LC 7)  
Max Grav 2=698 (LC 1), 5=581 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-1321/1330, 3-4=-112/113, 4-5=-233/138  
BOT CHORD 2-6=-1325/1220, 5-6=-1287/1207  
WEBS 3-6=-398/139, 3-5=-1132/1218

- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.
  - Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
  - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. 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

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-5 to 1-9-11, Interior (1) 1-9-11 to 6-0-0, Exterior(2R) 6-0-0 to 10-2-15, Interior (1) 10-2-15 to 11-10-4 zone; porch 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.



June 11, 2021

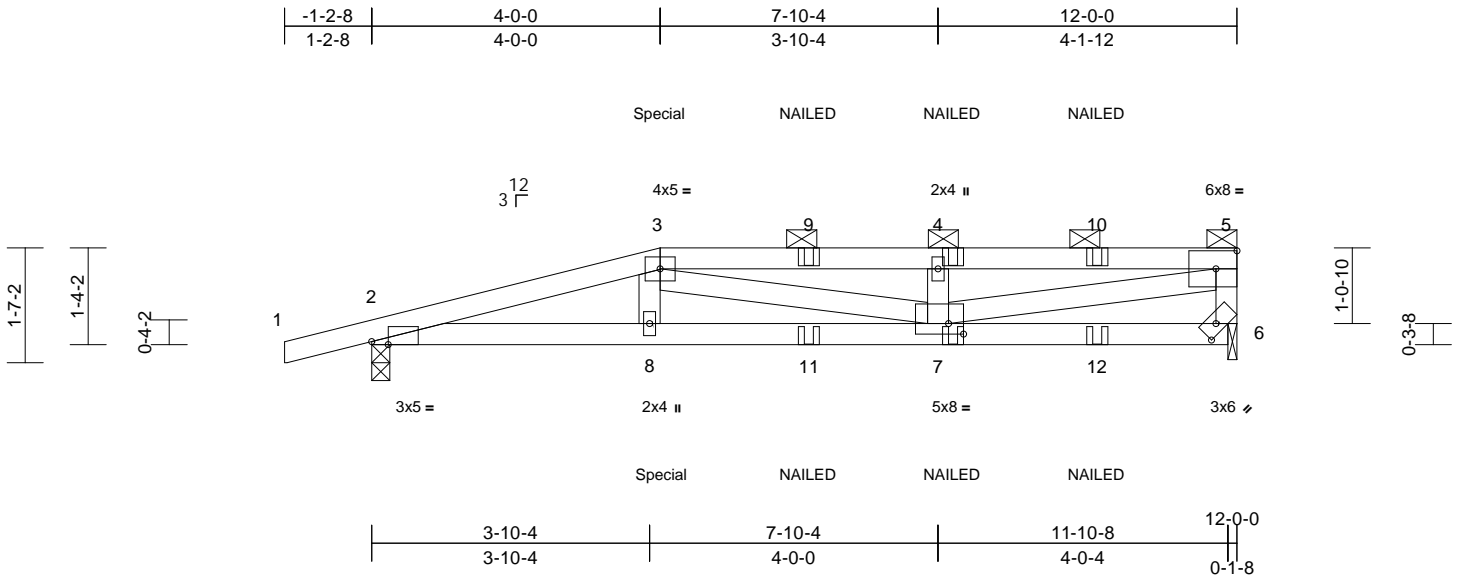


Job 21060009	Truss HM	Truss Type Half Hip Girder	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540604
-----------------	-------------	-------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:24  
ID:4?YZiK5ce4h4D2v9ShAkfay8NK\_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcD0i7J4zJC?f

Page: 1



Scale = 1:32  
Plate Offsets (X, Y): [2:0-2-12,Edge], [6:0-2-7,0-1-7], [7:0-2-8,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.11	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.19	7-8	>750	180		
BCLL	0.0	Rep Stress Incr	NO	WB	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 52 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 3-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-5-13 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 8-10-8 oc bracing.

**REACTIONS** (size) 2=0-3-0, 6=0-1-8  
Max Horiz 2=36 (LC 3)  
Max Uplift 2=-192 (LC 3), 6=-162 (LC 3)  
Max Grav 2=884 (LC 1), 6=782 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/35, 2-3=-2236/454, 3-4=-2129/445, 4-5=-2129/445, 5-6=-712/144  
BOT CHORD 2-8=-445/2116, 7-8=-440/2098, 6-7=-29/142  
WEBS 3-8=-35/130, 3-7=-59/75, 4-7=-437/83, 5-7=-430/2055

- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 176 lb down and 69 lb up at 4-0-0 on top chord, and 62 lb down and 54 lb up at 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-80, 3-5=-80, 2-6=-20  
Concentrated Loads (lb)  
Vert: 8=-43 (F), 7=-18 (F), 3=-128 (F), 4=-54 (F), 9=-54 (F), 10=-54 (F), 11=-18 (F), 12=-18 (F)

- NOTES**
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - This truss has been checked for uniform snow load only, except as noted.
  - This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - Provide adequate drainage to prevent water ponding.



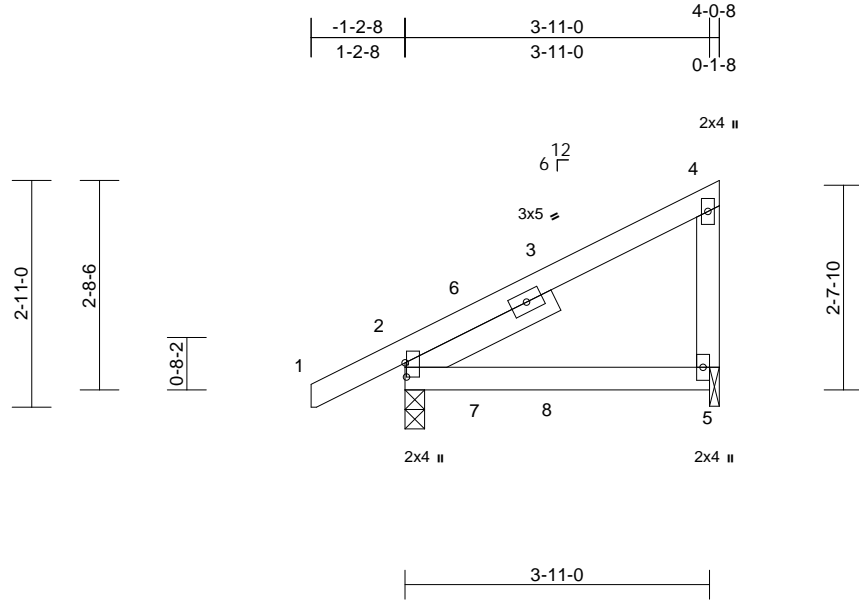
June 11, 2021

Job 21060009	Truss J1	Truss Type Monopitch	Qty 8	Ply 1	1135 ACC Job Reference (optional)	146540605
-----------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:25  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.03	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.03	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P								
											Weight: 21 lb	FT = 20%

**LUMBER**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x4 SP No.2
- WEBS 2x4 SP No.3
- SLIDER Left 2x4 SP No.3 -- 2-1-7

**BRACING**

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

**REACTIONS**

- (size) 2=0-3-0, 5=0-1-8
- Max Horiz 2=64 (LC 11)
- Max Uplift 2=-12 (LC 8), 5=-35 (LC 8)
- Max Grav 2=303 (LC 1), 5=181 (LC 1)

**FORCES**

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/30, 2-4=-98/48
- BOT CHORD 2-5=0/0
- WEBS 4-5=-142/137

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-2-1 to 1-9-15, Interior (1) 1-9-15  
to 3-10-12 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.
- 4) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.

- 5) Bearing at joint(s) 5 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate at joint(s) 5.
- 7) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 2 and 5.  
This connection is for uplift only and does not consider  
lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



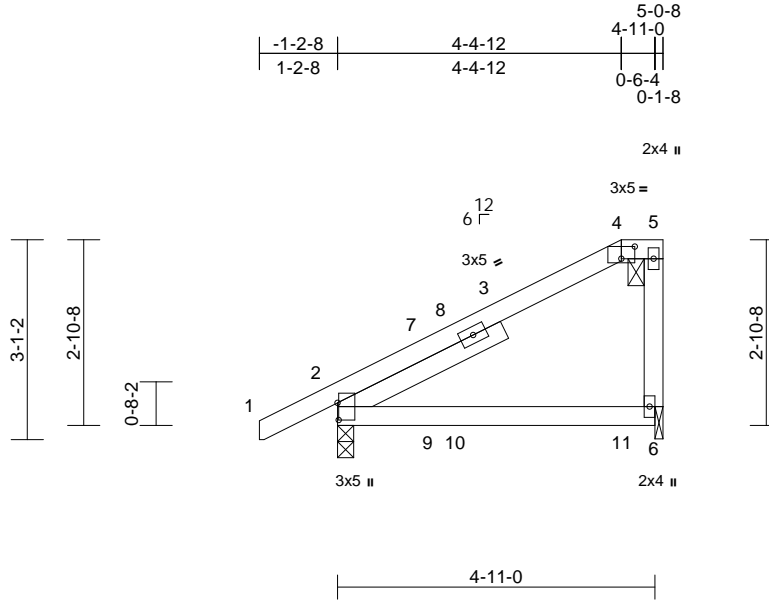
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss J2	Truss Type Monopitch	Qty 1	Ply 1	1135 ACC Job Reference (optional)	I46540606
-----------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:25  
ID:fQsR3l3kL9lVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:35.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	0.09	2-6	>657	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	0.07	2-6	>818	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 25 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-10-2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except 2-0-0 oc purlins: 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 6=0-1-8  
Max Horiz 2=70 (LC 11)  
Max Uplift 2=-18 (LC 8), 6=-45 (LC 8)  
Max Grav 2=350 (LC 1), 6=234 (LC 1)

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

TOP CHORD 1-2=0/30, 2-4=-116/47, 4-5=0/0  
BOT CHORD 2-6=0/0  
WEBS 5-6=-179/203

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-2-1 to 1-9-15, Interior (1) 1-9-15  
to 4-4-12, Exterior(2E) 4-4-12 to 4-10-12 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.

- 4) This truss has been designed for greater of min roof live  
load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) Bearing at joint(s) 6 considers parallel to grain value  
using ANSI/TPI 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to  
bearing plate at joint(s) 6.
- 8) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 2 and 6.  
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.
- 10) Graphical purlin representation does not depict the size  
or the orientation of the purlin along the top and/or  
bottom chord.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



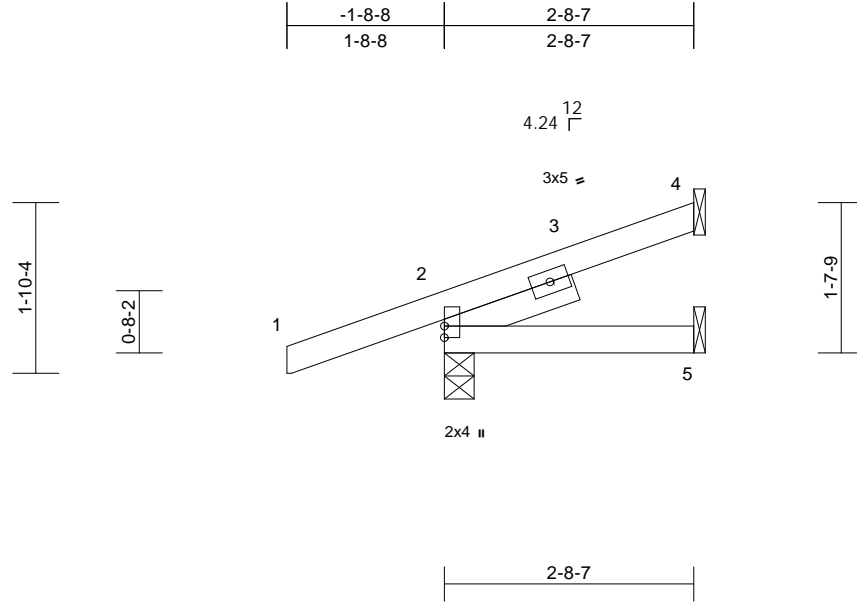
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss J3	Truss Type Jack-Open	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540607
-----------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:25  
ID:yann4Xi87hJBWhfDxhXEgqQy8NJw-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:25

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	0.01	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-5-12

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-14, 4= Mechanical, 5= Mechanical  
Max Horiz 2=42 (LC 7)  
Max Uplift 2=-74 (LC 7), 4=-49 (LC 17), 5=-7 (LC 7)  
Max Grav 2=364 (LC 17), 4=63 (LC 1), 5=26 (LC 1)

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

TOP CHORD 1-2=0/31, 2-4=-80/21  
BOT CHORD 2-5=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Corner (3) zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.
- 4) This truss has been designed for greater of min roof live  
load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.

- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 4.
- 7) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) One RT7A MiTek 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.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

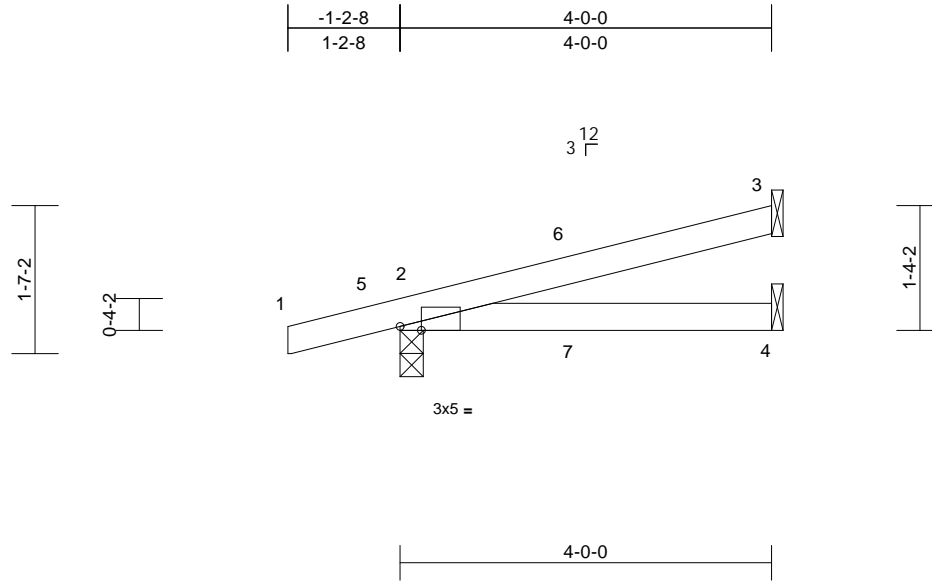
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss J4	Truss Type Jack-Open	Qty 4	Ply 1	1135 ACC Job Reference (optional)	146540608
-----------------	-------------	-------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:26  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:24.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.04	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	0.03	2-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P								
											Weight: 14 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=0-3-0, 3= Mechanical, 4= Mechanical  
Max Horiz 2=36 (LC 7)  
Max Uplift 2=-72 (LC 7), 3=-27 (LC 11), 4=-10 (LC 7)  
Max Grav 2=314 (LC 1), 3=134 (LC 1), 4=38 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-45/27  
BOT CHORD 2-4=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) -1-2-5 to 1-9-11, Interior (1) 1-9-11  
to 3-11-4 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only,  
except as noted.
- 4) This truss has been designed for greater of min roof live  
load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on  
overhangs non-concurrent with other live loads.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 27 lb uplift at joint  
3.
- 7) One RT16A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 4. This  
connection is for uplift only and does not consider lateral  
forces.
- 8) One RT7A MiTek 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.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

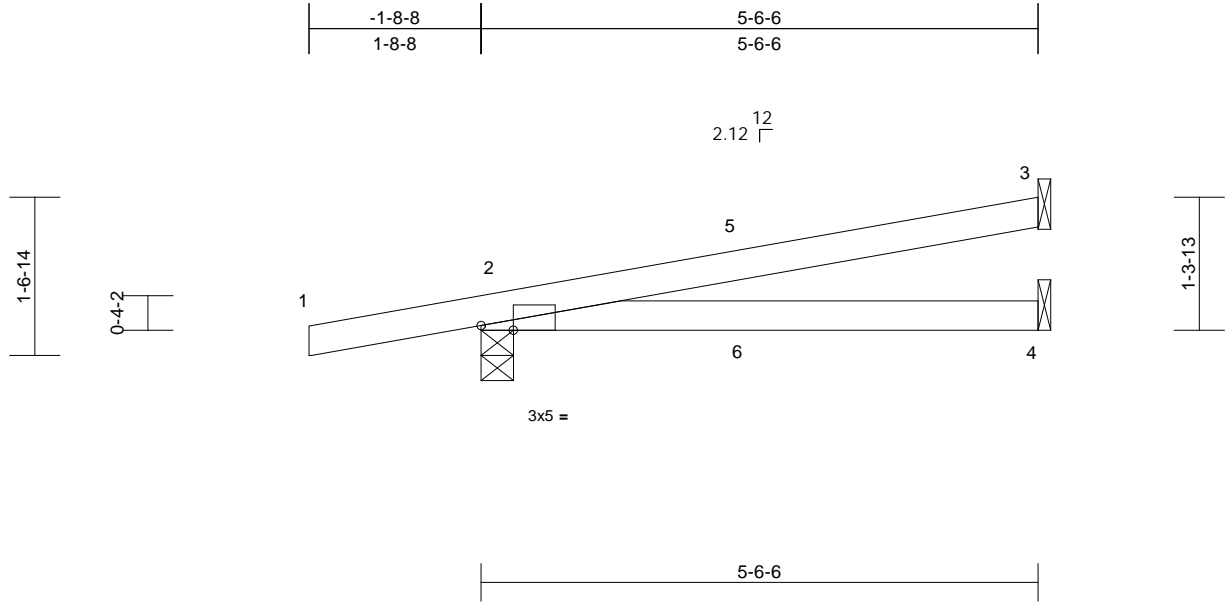
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss J6	Truss Type Jack-Open	Qty 1	Ply 1	1135 ACC	I46540609
Job Reference (optional)						

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:26  
ID:fQsR3l3kL9lVmaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:22.9

Plate Offsets (X, Y): [2:0-3-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.16	2-4	>408	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	0.13	2-4	>499	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P								
											Weight: 19 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 2=0-3-14, 3= Mechanical, 4= Mechanical  
Max Horiz 2=35 (LC 7)  
Max Uplift 2=-104 (LC 7), 3=-36 (LC 11), 4=-14 (LC 7)  
Max Grav 2=440 (LC 1), 3=186 (LC 1), 4=53 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-45/27  
BOT CHORD 2-4=0/0

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -1-8-6 to 2-6-9, Exterior(2R) 2-6-9 to 5-5-10 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been checked for uniform snow load only, except as noted.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 3.
- 7) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
- 8) One RT7A MiTek 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.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

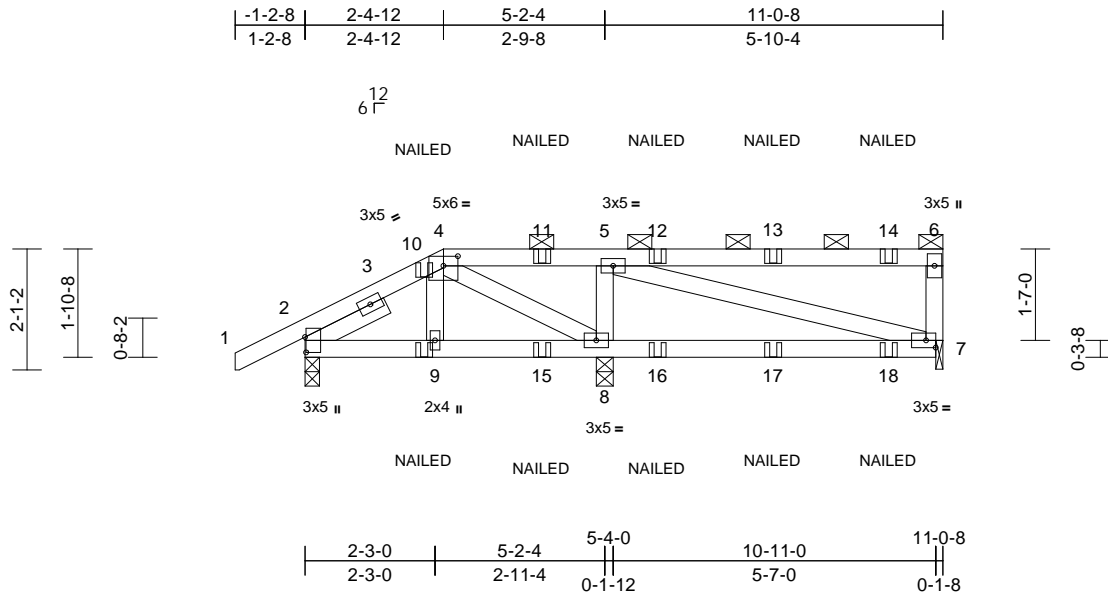
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss JM	Truss Type Half Hip Girder	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540610
-----------------	-------------	-------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:26  
ID:BaXos?ZFtRPNvK9EtVpkzVT5h-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:39.9  
Plate Offsets (X, Y): [2:0-3-0,0-0-3], [4:0-3-0,0-2-0]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	0.01	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-8

**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.): 4-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 7=0-1-8, 8=0-3-8  
Max Horiz 2=43 (LC 7)  
Max Uplift 2=-42 (LC 4), 7=-45 (LC 4), 8=-128 (LC 4)  
Max Grav 2=321 (LC 1), 7=249 (LC 1), 8=606 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-4=-234/56, 4-5=-39/9, 5-6=-80/14, 6-7=-202/53  
BOT CHORD 2-9=-54/136, 8-9=-51/133, 7-8=-9/39  
WEBS 4-9=-24/37, 5-8=-436/107, 4-8=-108/50, 5-7=-8/42

**NOTES**  
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope); porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60  
2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10  
3) This truss has been checked for uniform snow load only, except as noted.

- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-78, 4-6=-78, 2-7=-19  
Concentrated Loads (lb)  
Vert: 9=-9 (B), 10=-2 (B), 14=0 (B), 15=-4 (B), 16=-4 (B), 17=-4 (B), 18=-6 (B)



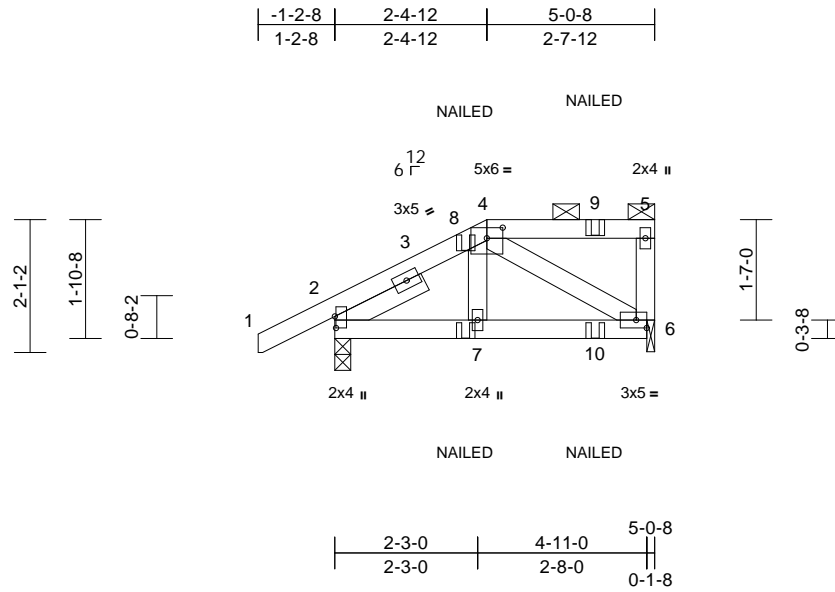
June 11, 2021

Job 21060009	Truss JM1	Truss Type Half Hip Girder	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540611
-----------------	--------------	-------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:27  
ID:1OKek6XoJCW8xWoeuzHtDzVTSF-RfC?PsB70Hq3NSgPqL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.3  
Plate Offsets (X, Y): [2:0-2-3,0-0-3], [4:0-3-0,0-2-0]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.00	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-6-8

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 6=0-1-8  
Max Horiz 2=43 (LC 7)  
Max Uplift 2=-45 (LC 4), 6=-68 (LC 4)  
Max Grav 2=346 (LC 1), 6=237 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/29, 2-4=-293/60, 4-5=0/0, 5-6=-97/26  
BOT CHORD 2-7=-58/186, 6-7=-56/180  
WEBS 4-7=-20/67, 4-6=-213/66

- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-78, 4-5=-78, 2-6=-19  
Concentrated Loads (lb)  
Vert: 7=-9 (F), 8=-2 (F), 9=0 (F), 10=-6 (F)



June 11, 2021

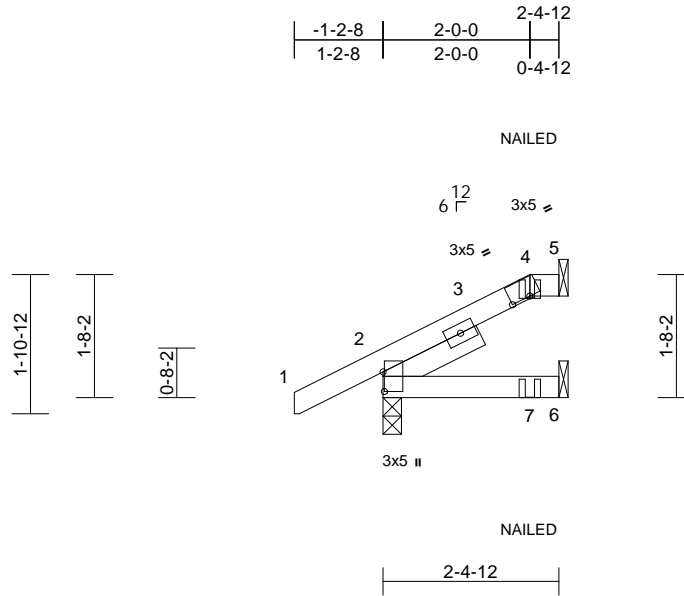


Job 21060009	Truss K1	Truss Type Half Hip Girder	Qty 2	Ply 1	1135 ACC Job Reference (optional)	I46540612
-----------------	-------------	-------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:27  
ID:QzLSt29ISdJNjpo7FEIvMdy8Njv-RfC?PsB70Hq3NsgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:31.4  
Plate Offsets (X, Y): [2:0-3-3,0-0-3], [4:0-3-3,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.00	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-5-5

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-4-12 oc purlins, except 2-0-0 oc purlins: 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 5= Mechanical, 6= Mechanical  
Max Horiz 2=40 (LC 7)  
Max Uplift 2=-15 (LC 3), 5=-28 (LC 4), 6=-9 (LC 4)  
Max Grav 2=254 (LC 13), 5=72 (LC 1), 6=29 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-4=-72/13, 4-5=0/0  
BOT CHORD 2-6=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) This truss has been checked for uniform snow load only, except as noted.
  - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.

- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 5.
- 8) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
- 9) One RT7A MiTek 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-80, 4-5=-80, 2-6=-20  
Concentrated Loads (lb)  
Vert: 7=-9 (F)



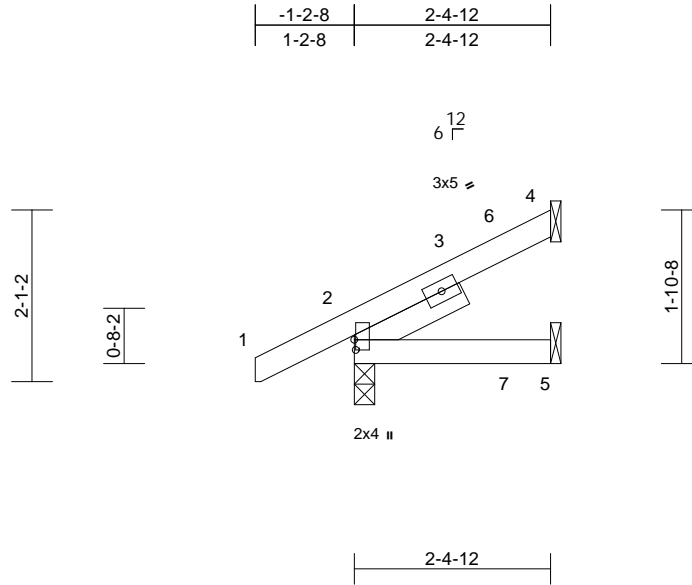
June 11, 2021

Job 21060009	Truss K2	Truss Type Jack-Open Girder	Qty 5	Ply 1	1135 ACC Job Reference (optional)	I46540613
-----------------	-------------	--------------------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:28  
ID:u9vqyNANDwRExzNjpyH8vry8Nju-RFC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:28.1  
Plate Offsets (X, Y): [2:0-1-8,0-0-3]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 12 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
SLIDER Left 2x4 SP No.3 -- 1-5-8

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-4-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-0, 4= Mechanical, 5= Mechanical  
Max Horiz 2=44 (LC 11)  
Max Uplift 2=-10 (LC 7), 4=-26 (LC 11), 5=-6 (LC 7)  
Max Grav 2=252 (LC 17), 4=70 (LC 1), 5=23 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/30, 2-4=-73/28  
BOT CHORD 2-5=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-2-1 to 1-9-15, Interior (1) 1-9-15 to 2-4-0 zone; 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) This truss has been checked for uniform snow load only, except as noted.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4.
- 7) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) One RT7A MiTek 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.
- 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



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



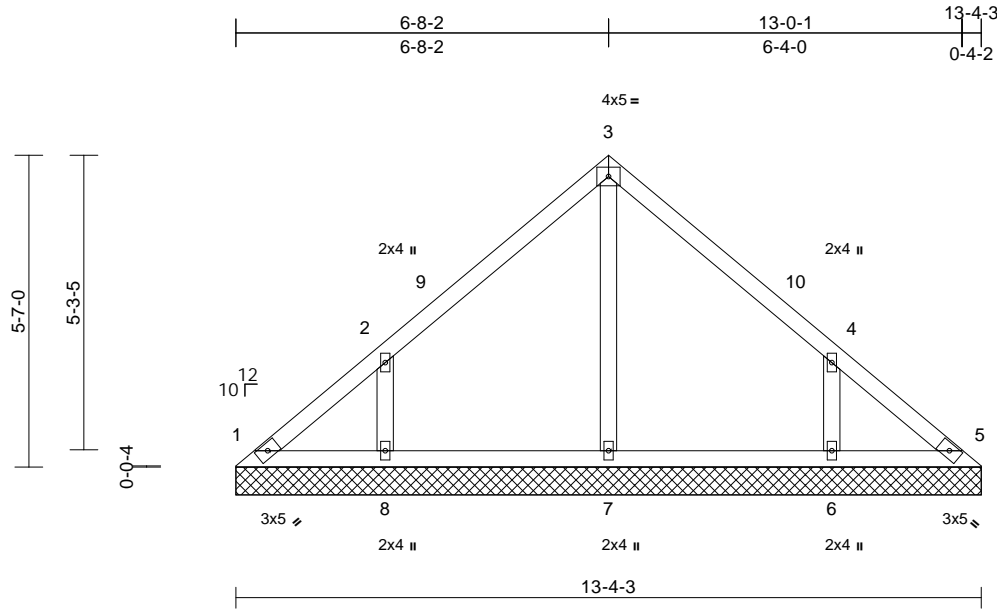
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss V	Truss Type Valley	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540614
-----------------	------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:28  
ID:fQsR3l3kL9lVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:41.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 57 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=13-4-3, 5=13-4-3, 6=13-4-3, 7=13-4-3, 8=13-4-3  
Max Horiz 1=-98 (LC 9)  
Max Uplift 1=-17 (LC 7), 6=-79 (LC 12), 8=-80 (LC 11)  
Max Grav 1=120 (LC 19), 5=106 (LC 18), 6=377 (LC 19), 7=297 (LC 1), 8=378 (LC 18)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-124/81, 2-3=-177/109, 3-4=-177/105, 4-5=-103/52  
BOT CHORD 1-8=-28/71, 7-8=-28/71, 6-7=-28/71, 5-6=-28/71  
WEBS 3-7=-213/0, 2-8=-307/198, 4-6=-307/198

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 6-8-6, Exterior(2R) 6-8-6 to 9-8-6, Interior (1) 9-8-6 to 12-11-15 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
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only, except as noted.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 8, and 6. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

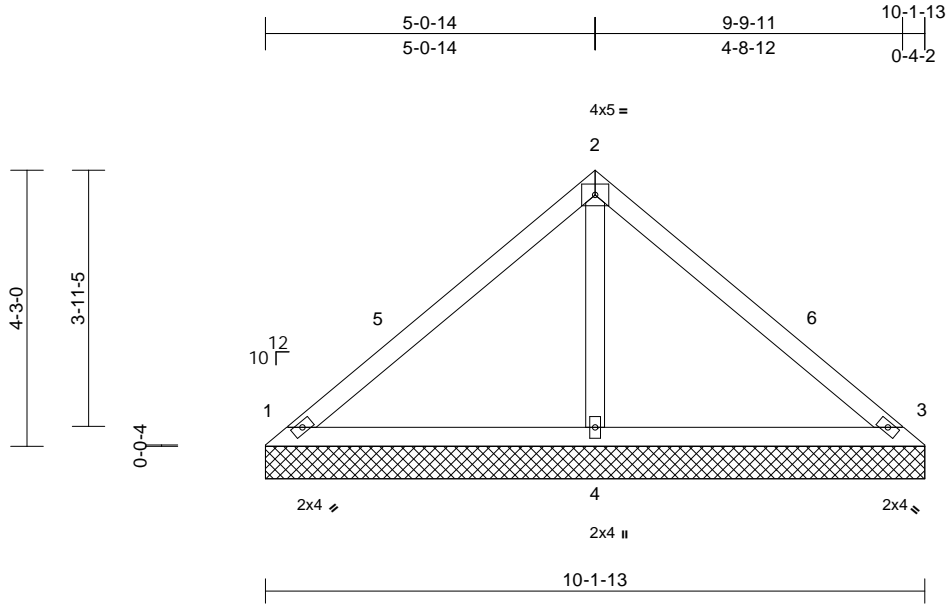
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss VA	Truss Type Valley	Qty 1	Ply 1	1135 ACC	146540615
Carter Components (Sanford), Sanford, NC - 27332,						Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:28
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f						Page: 1



Scale = 1:35.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.19	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-S								
BCDL	10.0											
											Weight: 39 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=10-1-13, 3=10-1-13, 4=10-1-13  
Max Horiz 1=-73 (LC 7)  
Max Uplift 1=-5 (LC 12), 3=-12 (LC 12)  
Max Grav 1=253 (LC 1), 3=253 (LC 1), 4=433 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-204/85, 2-3=-204/81  
BOT CHORD 1-4=-12/78, 3-4=-12/78  
WEBS 2-4=-284/90

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1)  
3-4-13 to 5-1-3, Exterior(2R) 5-1-3 to 8-1-3, Interior (1)  
8-1-3 to 9-9-9 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only,  
except as noted.

- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 1 and 3.  
This connection is for uplift only and does not consider  
lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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

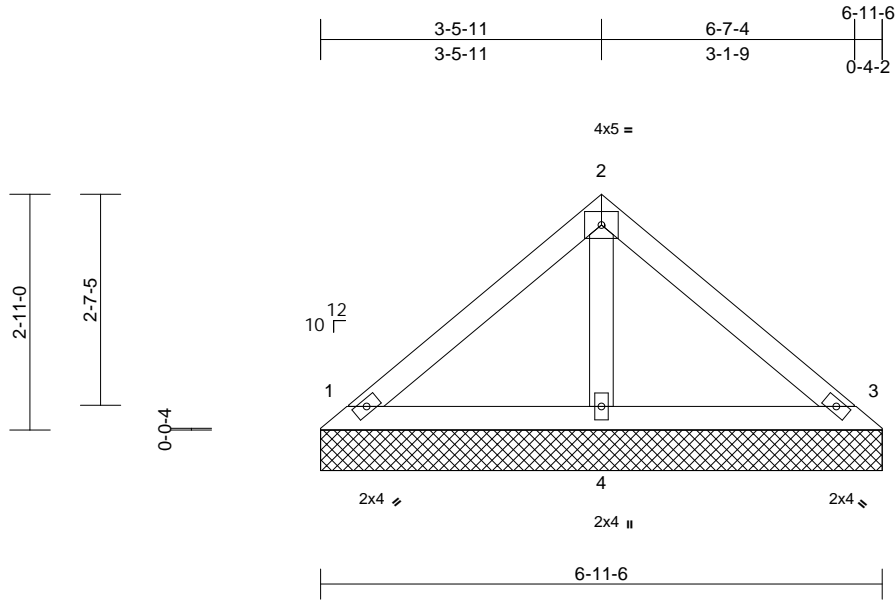
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss VC	Truss Type Valley	Qty 1	Ply 1	1135 ACC	146540616
Carter Components (Sanford), Sanford, NC - 27332,						Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:28
ID:fQsR3l3kL9lVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f						Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 26 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=6-11-6, 3=6-11-6, 4=6-11-6  
Max Horiz 1=-48 (LC 9)  
Max Uplift 1=-9 (LC 12), 3=-13 (LC 12)  
Max Grav 1=182 (LC 1), 3=182 (LC 1), 4=256 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-118/56, 2-3=-118/61  
BOT CHORD 1-4=-9/47, 3-4=-9/47  
WEBS 2-4=-178/71

- 7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been checked for uniform snow load only, except as noted.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 4-0-0 oc.



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

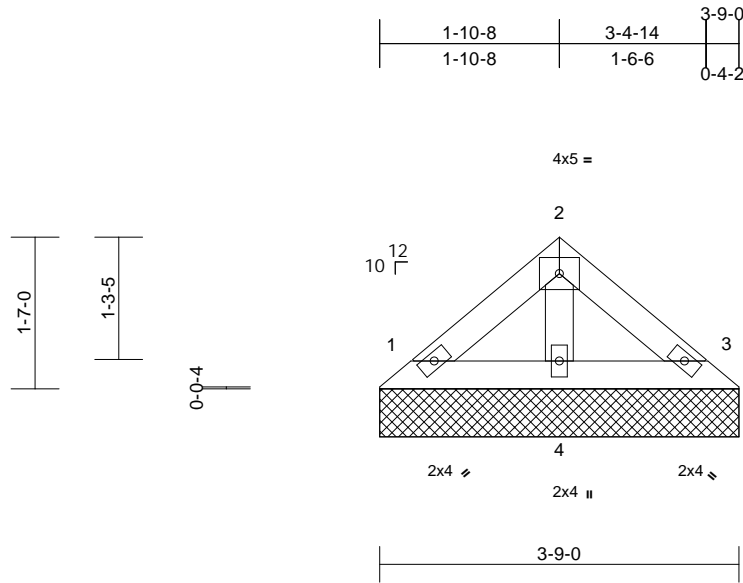
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss VD	Truss Type Valley	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540617
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:29  
ID:fQsR3lK9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 30.0)	30.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 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 3-9-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS**

(size) 1=3-9-0, 3=3-9-0, 4=3-9-0  
Max Horiz 1=23 (LC 8)  
Max Uplift 1=-4 (LC 12), 3=-6 (LC 12)  
Max Grav 1=88 (LC 1), 3=88 (LC 1), 4=124 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-57/31, 2-3=-57/34  
BOT CHORD 1-4=-5/23, 3-4=-5/23  
WEBS 2-4=-86/42

**NOTES**

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) zone; cantilever left and right  
exposed; end vertical left and right exposed; C-C for  
members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only,  
except as noted.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) One RT7A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 1 and 3.  
This connection is for uplift only and does not consider  
lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



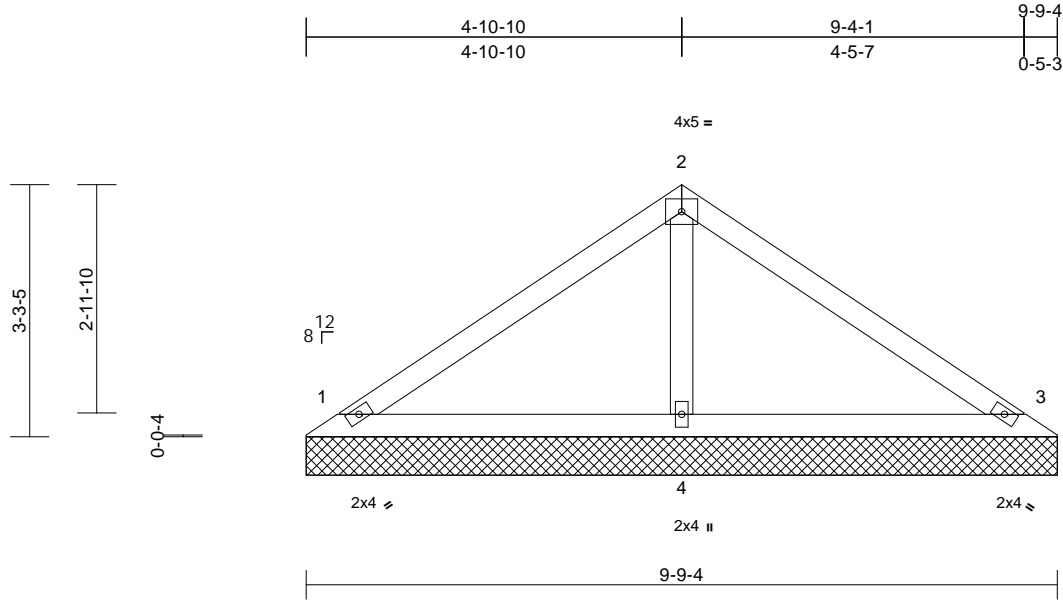
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss VF	Truss Type Valley	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540618
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:29  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.17	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-S								
BCDL	10.0											
										Weight: 34 lb	FT = 20%	

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=9-9-4, 3=9-9-4, 4=9-9-4  
Max Horiz 1=-55 (LC 9)  
Max Uplift 1=-6 (LC 11), 3=-12 (LC 12)  
Max Grav 1=221 (LC 1), 3=221 (LC 1), 4=444 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-160/62, 2-3=-160/62  
BOT CHORD 1-4=-8/61, 3-4=-8/61  
WEBS 2-4=-305/95

#### NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope)  
and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior (1)  
3-5-12 to 4-11-0, Exterior(2R) 4-11-0 to 7-11-0, Interior  
(1) 7-11-0 to 9-4-4 zone; cantilever left and right  
exposed; end vertical left and right exposed; C-C for  
members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60
- 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; Pf=30.0 psf (Lum DOL=1.15 Plate  
DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0;  
Cs=1.00; Ct=1.10
- 4) This truss has been checked for uniform snow load only,  
except as noted.

- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) One RT16A MiTek connectors recommended to connect  
truss to bearing walls due to UPLIFT at jt(s) 1 and 3.  
This connection is for uplift only and does not consider  
lateral forces.
- 8) This truss is designed in accordance with the 2018  
International Residential Code sections R502.11.1 and  
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

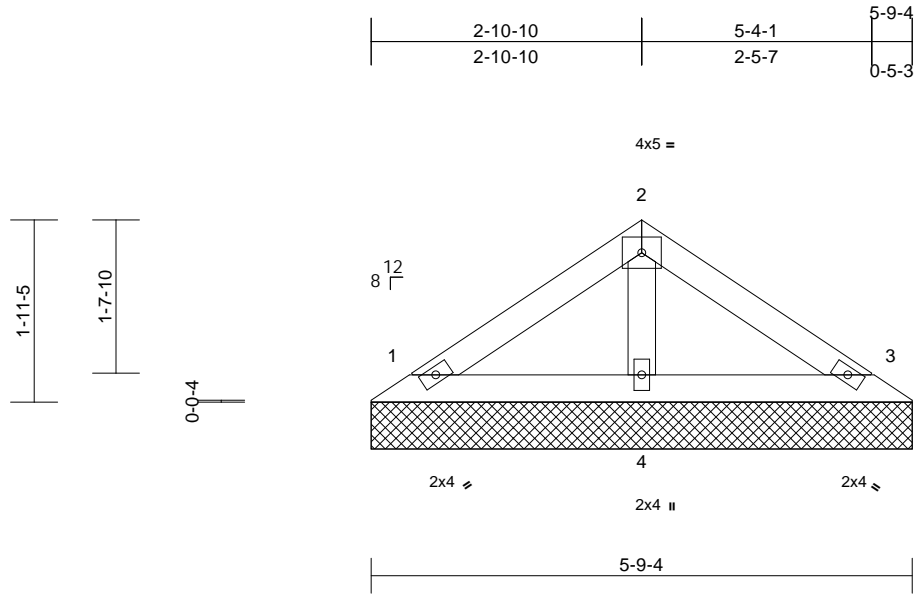
818 Soundside Road  
Edenton, NC 27932

Job 21060009	Truss VG	Truss Type Valley	Qty 1	Ply 1	1135 ACC Job Reference (optional)	146540619
-----------------	-------------	----------------------	----------	----------	--------------------------------------	-----------

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

Run: 8.51 S Jun 1 2021 Print: 8.510 S Jun 1 2021 MiTek Industries, Inc. Fri Jun 11 12:47:29  
ID:fQsR3l3kL9IVMaBbnZc11xy8NK1-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



<b>Loading</b> (psf)		<b>Spacing</b> 2-0-0		<b>CSI</b>		<b>DEFL</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>	
TCLL	30.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a - n/a	999	MT20	244/190
(Roof Snow = 30.0)		Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a - n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00 3	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P						
BCDL	10.0								Weight: 19 lb	FT = 20%

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

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

**REACTIONS** (size) 1=5-9-4, 3=5-9-4, 4=5-9-4  
Max Horiz 1=30 (LC 8)  
Max Uplift 1=7 (LC 11), 3=10 (LC 12)  
Max Grav 1=134 (LC 1), 3=134 (LC 1), 4=219 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-76/41, 2-3=-76/41  
BOT CHORD 1-4=-5/30, 3-4=-5/30  
WEBS 2-4=-158/69

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Ke=1.00; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 4) This truss has been checked for uniform snow load only, except as noted.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 4-0-0 oc.

- 7) One RT16A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 11, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

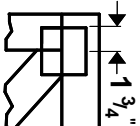


818 Soundside Road  
Edenton, NC 27932

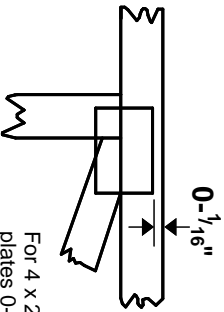


# Symbols

## 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 20/20 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



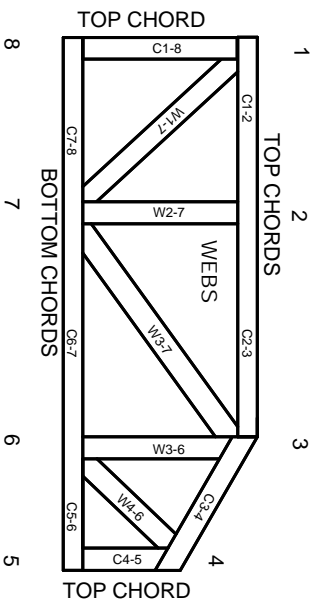
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



**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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITteK® All Rights Reserved



MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# General Safety Notes

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

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