

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 21050070-A

Cedar 2 A

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: I46242483 thru I46242491

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

North Carolina COA: C-0844



May 21, 2021

Sevier, Scott

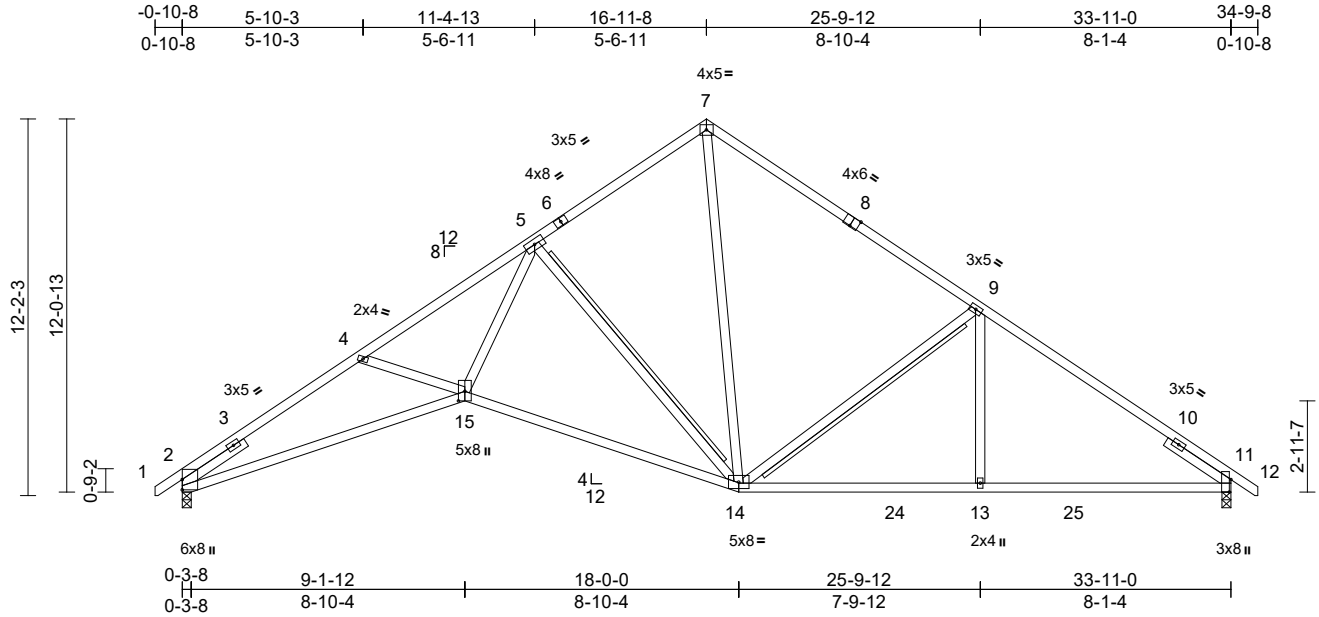
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 21050070-A	Truss A	Truss Type Roof Special	Qty 7	Ply 1	Cedar 2 A	146242483
Job Reference (optional)						

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

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Page: 1



Scale = 1:74.5

Plate Offsets (X, Y): [8:0-3-0,Edge], [11:0-4-15,Edge], [15:0-3-11,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.21	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.60	14-15	>676	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.27	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 191 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 2-15:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 14-5,14-7:2x4 SP No.2
OTHERS 2x4 SPF No.2(flat)
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-15.
WEBS T-Brace: 2x4 SPF No.2 - 5-14, 9-14
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=235 (LC 12)
Max Grav 2=1407 (LC 2), 11=1425 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-4=-3246/527, 4-5=-3041/451, 5-7=-1245/372, 7-9=-1408/369, 9-11=-1877/345, 11-12=0/35

BOT CHORD 2-15=-354/2876, 14-15=-117/1969, 13-14=-155/1520, 11-13=-185/1520

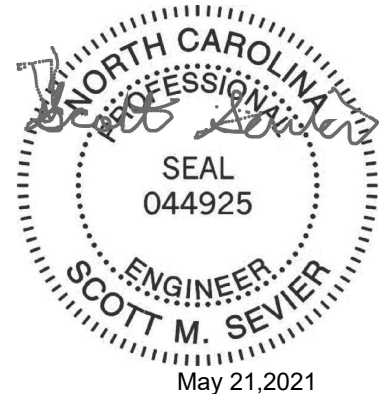
WEBS 4-15=-175/195, 5-15=-108/1857, 5-14=-1354/258, 7-14=-223/985, 9-13=0/357, 9-14=-754/254

NOTES

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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



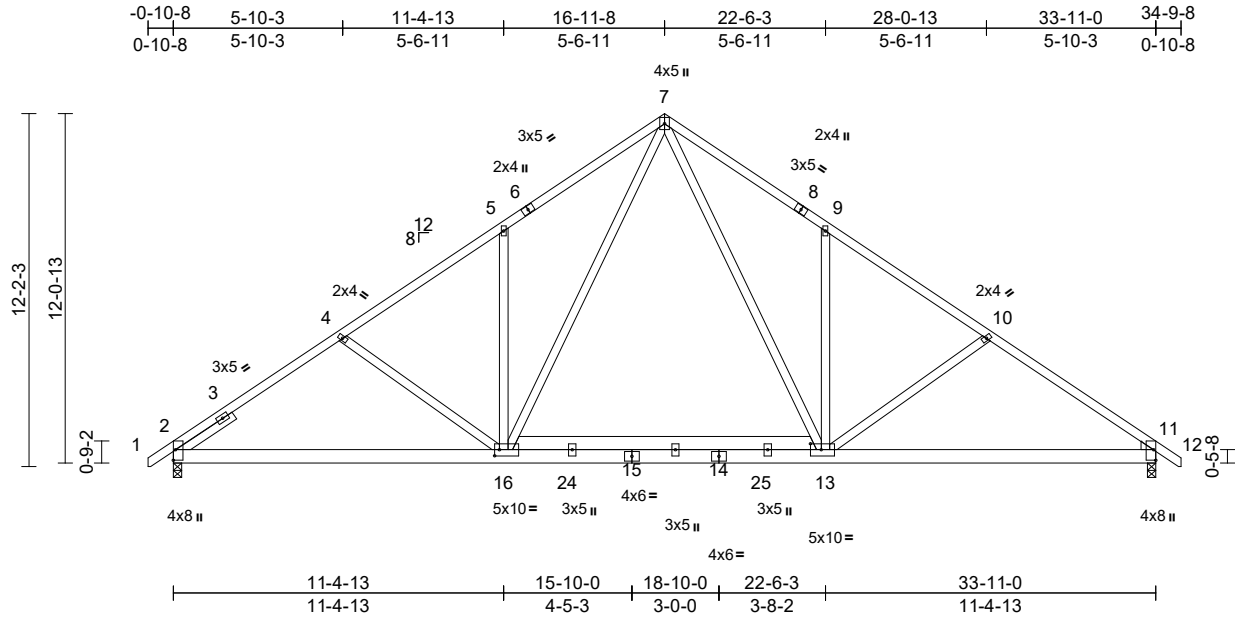
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss AA	Truss Type Common	Qty 10	Ply 1	Cedar 2 A	I46242484
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:04
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Scale = 1:79.5

Plate Offsets (X, Y): [2:Edge,0-0-14], [11:Edge,0-0-14], [13:0-4-8,0-2-8], [16:0-2-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.15	13-16	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.25	13-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.05	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 252 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 16-7,13-7:2x4 SP No.2
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 2-4-3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

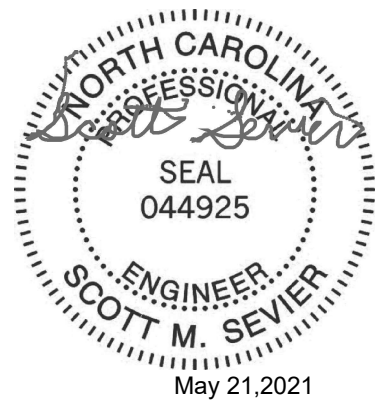
REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=235 (LC 12)
Max Grav 2=1410 (LC 2), 11=1400 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-4=-1875/363, 4-5=-1677/339,
5-7=-1737/513, 7-9=-1747/513,
9-10=-1692/341, 10-11=-1947/367,
11-12=0/35
BOT CHORD 2-16=-187/1661, 13-16=0/1051,
11-13=-197/1544
WEBS 5-16=-392/247, 7-16=-238/950,
4-16=-274/179, 7-13=-238/970,
9-13=-383/245, 10-13=-304/189

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



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

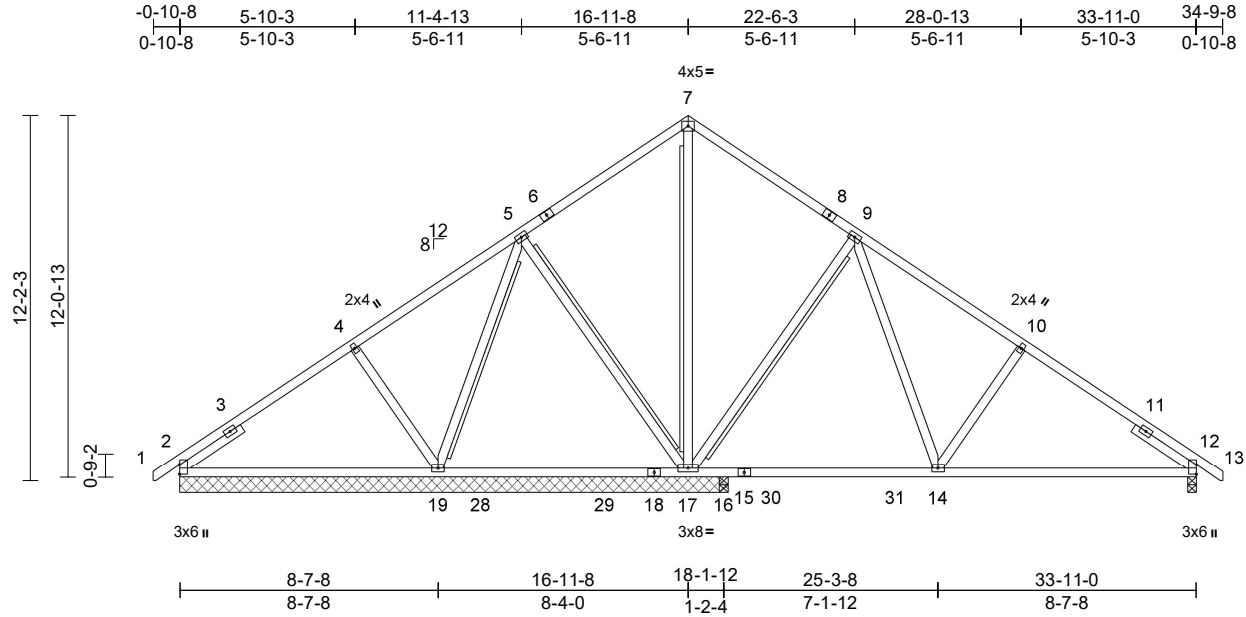
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss AA1	Truss Type Common Structural Gable	Qty 1	Ply 1	Cedar 2 A	I46242485
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:05
ID:ZtGoWmR7leSGT3rTXgJ2hAykgjD-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:76.9

Plate Offsets (X, Y): [2:0-3-15,0-0-1], [12:0-3-15,0-0-1]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.16	17-19	>620	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.22	17-19	>447	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 206 lb	FT = 20%	

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 17-7:2x4 SP No.2
OTHERS	2x4 SPF No.2(flat)
SLIDER	Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 7-17, 9-17, 5-17, 5-19 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS (size)

2=18-3-8, 12=0-3-8, 16=0-3-8, 17=18-3-8, 19=18-3-8, 20=18-3-8
Max Horiz 2=-235 (LC 11), 20=-235 (LC 11)
Max Uplift 2=-4 (LC 13), 12=-17 (LC 14), 17=-10 (LC 14), 20=-4 (LC 13)
Max Grav 2=506 (LC 29), 12=693 (LC 2), 16=126 (LC 20), 17=1169 (LC 26), 19=481 (LC 25), 20=506 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-4=400/133, 4-5=340/170, 5-7=-176/190, 7-9=-176/187, 9-10=-608/206, 10-12=-690/169, 12-13=0/35
BOT CHORD	2-19=-120/393, 17-19=-81/224, 16-17=0/281, 14-16=0/281, 12-14=-117/574
WEBS	7-17=-345/0, 9-17=-621/241, 9-14=-67/505, 10-14=-308/187, 5-17=-380/213, 5-19=-30/121, 4-19=-323/190

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x5 MT20 unless otherwise indicated.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 17, and 12. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



May 21, 2021

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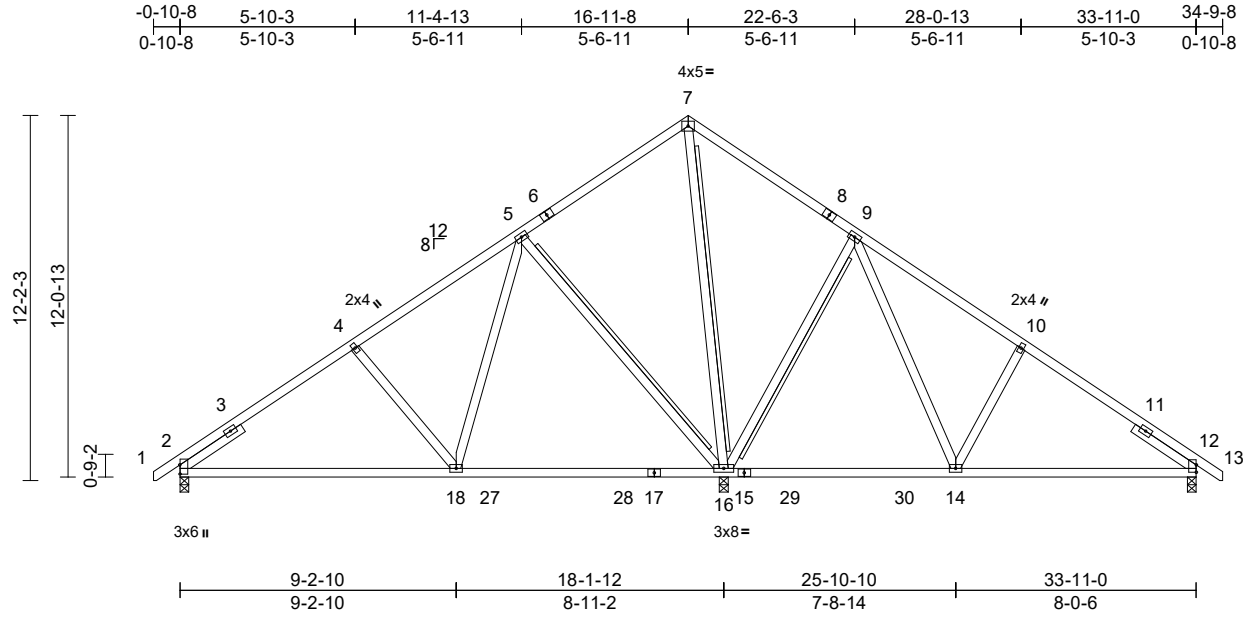
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss AA2	Truss Type Common	Qty 2	Ply 1	Cedar 2 A	I46242486
Job Reference (optional)						

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

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Page: 1



Scale = 1:76.9

Plate Offsets (X, Y): [2:0-3-11,0-0-1]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.19	16-18	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.28	16-18	>786	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 206 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 16-5,16-7:2x4 SP No.2
OTHERS 2x4 SPF No.2(flat)
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-16.
WEBS T-Brace: 2x4 SPF No.2 - 5-16, 7-16, 9-16
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS (size) 2=0-3-8, 12=0-3-8, 16=0-3-8
Max Horiz 2=235 (LC 12)
Max Uplift 2=-3 (LC 13), 12=-23 (LC 14)
Max Grav 2=707 (LC 29), 12=617 (LC 30), 16=1666 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-710/172, 4-5=-590/192, 5-7=-103/270, 7-9=-79/313, 9-10=-507/195, 10-12=-573/138, 12-13=0/35
BOT CHORD 2-18=-215/681, 16-18=-62/357, 14-16=-10/174, 12-14=-102/477
WEBS 4-18=-312/187, 5-18=-40/527, 5-16=-666/229, 7-16=-487/0, 9-16=-608/251, 9-14=-92/529, 10-14=-315/191

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 3x5 MT20 unless otherwise indicated.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard



May 21, 2021

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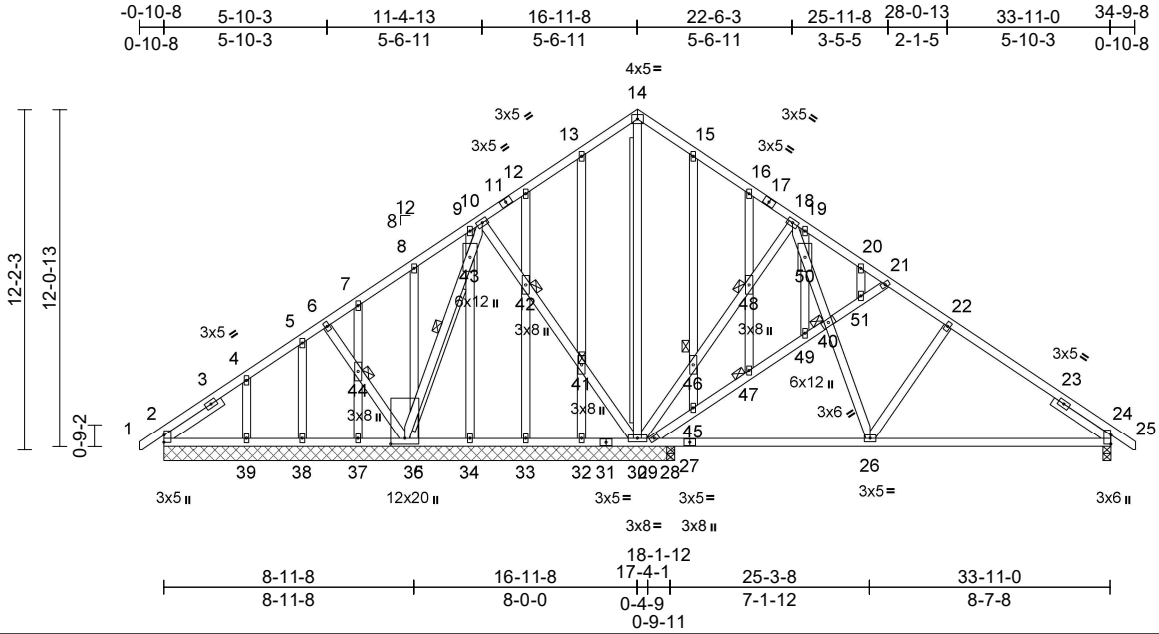
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss AA3	Truss Type Common Structural Gable	Qty 1	Ply 1	Cedar 2 A	146242487
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:06
ID:N1d3mpVuuUCPC_JduxPSxRykgj7-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:82.6

Plate Offsets (X, Y): [24:0-3-15,0-0-1], [35:0-2-8,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.03	26-58	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.13	26-58	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	-0.01	24	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 315 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 30-14:2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 0-0,0-0:2x4 SPF No.2 (flat)
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

Max Grav 2=194 (LC 26), 24=679 (LC 2),
28=189 (LC 18), 29=-85 (LC 26),
30=818 (LC 2), 32=163 (LC 25),
33=150 (LC 25), 34=101 (LC 29),
35=257 (LC 29), 36=32 (LC 13),
37=142 (LC 25), 38=100 (LC 29),
39=265 (LC 25), 52=194 (LC 26)

WEBS
14-30=-247/0, 30-46=-539/208,
46-48=-528/200, 18-48=-547/205,
18-50=-20/379, 40-50=-16/362,
26-40=-39/413, 22-26=-259/152,
10-42=-128/111, 41-42=-124/108,
30-41=-121/105, 35-43=-65/60,
10-43=-68/64, 6-44=-88/69, 35-44=-84/67,
40-51=-107/70, 21-51=-84/52,
29-45=-104/69, 45-47=-65/48, 47-49=-51/39,
40-49=-121/78, 13-41=-122/60,
32-41=-124/63, 12-42=-109/68,
33-42=-113/72, 9-43=-64/12, 34-43=-61/11,
8-35=-143/93, 7-44=-96/46, 37-44=-99/49,
5-38=-69/13, 4-39=-201/128, 15-46=-85/47,
45-46=-69/37, 16-48=-6/10, 47-48=-30/16,
19-50=-65/111, 49-50=-70/128, 20-51=-42/33

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 10-35
WEBS T-Brace: 2x4 SPF No.2 - 14-30
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.
JOINTS
1 Brace at Jt(s): 40, 41, 42, 44, 46, 47, 48

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-146/143, 4-5=-126/97,
5-6=-109/99, 6-7=-100/107, 7-8=-94/108,
8-9=-122/146, 9-10=-119/154,
10-12=-68/125, 12-13=-110/163,
13-14=-144/211, 14-15=-127/203,
15-16=-106/162, 16-18=-122/145,
18-19=-425/151, 19-20=-506/184,
20-21=-496/152, 21-22=-569/180,
22-24=-656/165, 24-25=0/35
BOT CHORD 2-39=-114/149, 38-39=-114/149,
37-38=-114/149, 36-37=-114/149,
35-36=-114/149, 34-35=-144/179,
33-34=-144/179, 32-33=-144/179,
30-32=-144/179, 29-30=0/232, 28-29=0/296,
26-28=0/296, 24-26=-124/546

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

REACTIONS (size)
2=18-3-8, 24=0-3-8, 28=0-3-8,
29=18-3-8, 30=18-3-8, 32=18-3-8,
33=18-3-8, 34=18-3-8, 35=18-3-8,
36=18-3-8, 37=18-3-8, 38=18-3-8,
39=18-3-8, 52=18-3-8
Max Horiz 2=235 (LC 12), 52=235 (LC 12)
Max Uplift 2=-39 (LC 9), 24=-24 (LC 14),
29=-188 (LC 18), 32=-26 (LC 13),
33=-23 (LC 13), 35=-58 (LC 13),
36=-52 (LC 25), 37=-9 (LC 13),
39=-77 (LC 13), 52=-39 (LC 9)



May 21, 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 21050070-A	Truss AA3	Truss Type Common Structural Gable	Qty 1	Ply 1	Cedar 2 A I46242487 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:06
ID:N1d3mpVuuUCPC_JdUXPSxRykgj7-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f

Page: 2

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior (2) zone; cantilever left and right exposed ; end
vertical left and right exposed;C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) T CLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber
DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground
snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15
Plate DOL=1.15); Category II; Exp B; Fully Exp.;
Ct=1.10
- 5) This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with other live loads.
- 6) N/A
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 10) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 58 lb uplift at joint
35.
- 11) One RT7A MiTek connectors recommended to connect
truss to bearing walls due to UPLIFT at jt(s) 2, 36, 24,
32, 33, 37, and 39. This connection is for uplift only and
does not consider lateral forces.
- 12) One RT16A MiTek connectors recommended to connect
truss to bearing walls due to UPLIFT at jt(s) 29. This
connection is for uplift only and does not consider lateral
forces.
- 13) This truss is designed in accordance with the 2015
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 14) See Standard Industry Piggyback Truss Connection
Detail for Connection to base truss as applicable, or
consult qualified building designer.
- 15) Warning: Additional permanent and stability bracing for
truss system (not part of this component design) is
always required.

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

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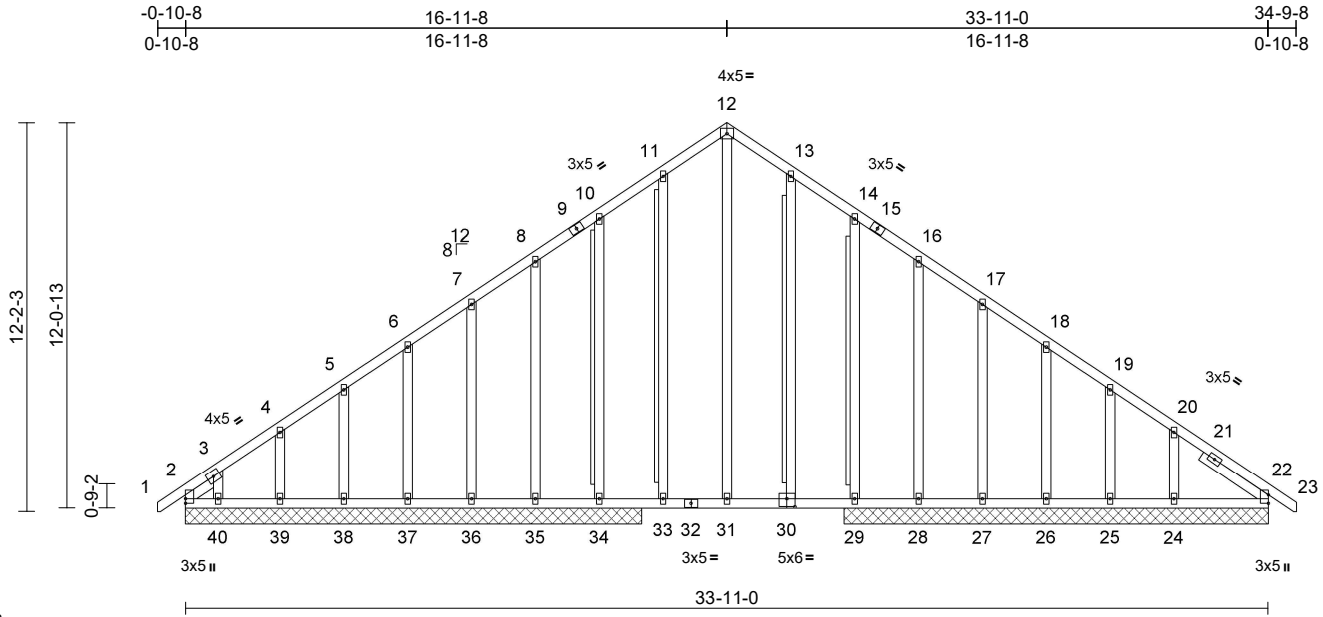
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss AE	Truss Type Common Supported Gable	Qty 1	Ply 1	Cedar 2 A	I46242488
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:08
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Page: 1



Scale = 1:72.2
Plate Offsets (X, Y): [30:0-3-0,0-3-0]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01	30-31	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	31-33	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.02	22	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 267 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 31-12,33-11,30-13:2x4 SP No.2, 0-0,0-0,0-0,0-0:2x4 SPF No.2(flat)
SLIDER Left 2x4 SP No.3 -- 1-1-7, Right 2x4 SP No.3 -- 2-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 11-33, 10-34, 13-30, 14-29
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
Brace must cover 90% of web length.

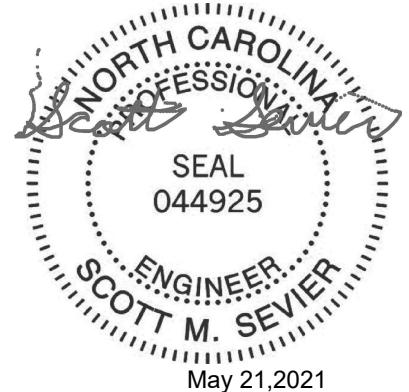
REACTIONS (size)
2=14-3-8, 22=13-3-8, 24=13-3-8,
25=13-3-8, 26=13-3-8, 27=13-3-8,
28=13-3-8, 29=13-3-8, 34=14-3-8,
35=14-3-8, 36=14-3-8, 37=14-3-8,
38=14-3-8, 39=14-3-8, 40=14-3-8,
41=14-3-8, 45=13-3-8
Max Horiz 2=227 (LC 12), 41=227 (LC 12)
Max Uplift 24=-102 (LC 14), 25=-5 (LC 14),
26=-35 (LC 14), 27=-24 (LC 14),
28=-43 (LC 14), 29=-16 (LC 14),
34=-27 (LC 13), 35=-36 (LC 13),
36=-27 (LC 13), 37=-29 (LC 13),
38=-29 (LC 13), 39=-26 (LC 13),
40=-139 (LC 13)

Max Grav 2=360 (LC 27), 22=328 (LC 2),
24=208 (LC 26), 25=149 (LC 2),
26=161 (LC 26), 27=176 (LC 26),
28=94 (LC 26), 29=308 (LC 26),
34=325 (LC 25), 35=84 (LC 25),
36=179 (LC 25), 37=157 (LC 25),
38=161 (LC 25), 39=165 (LC 25),
40=95 (LC 11), 41=360 (LC 27),
45=328 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-156/62, 3-4=-336/63,
4-5=-320/15, 5-6=-311/1, 6-7=-301/0,
7-8=-294/0, 8-10=-275/9, 10-11=-305/62,
11-12=-271/111, 12-13=-271/111,
13-14=-306/62, 14-16=-270/10,
16-17=-285/0, 17-18=-289/0, 18-19=-299/0,
19-20=-312/5, 20-22=-319/88, 22-23=0/34
BOT CHORD 2-40=93/312, 39-40=93/312,
38-39=93/312, 37-38=93/312,
36-37=93/312, 35-36=93/312,
34-35=93/312, 33-34=93/312,
31-33=93/312, 29-31=93/312,
28-29=92/311, 27-28=92/311,
26-27=92/311, 25-26=92/311,
24-25=92/311, 22-24=92/311
WEBS 3-40=-127/163, 12-31=-48/150,
11-33=-60/62, 10-34=-190/76, 8-35=-108/85,
7-36=-128/78, 6-37=-123/79, 5-38=-123/79,
4-39=-125/79, 13-30=-60/64, 14-29=-185/74,
16-28=-108/86, 17-27=-127/77,
18-26=-127/84, 19-25=-114/59,
20-24=-188/150

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.

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



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 21050070-A	Truss AE	Truss Type Common Supported Gable	Qty 1	Ply 1	Cedar 2 A I46242488 Job Reference (optional)
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Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:08
ID:6ZIBtiWzpxMW0GiKuUURSlznq5n-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 2

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 40, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, and 24. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

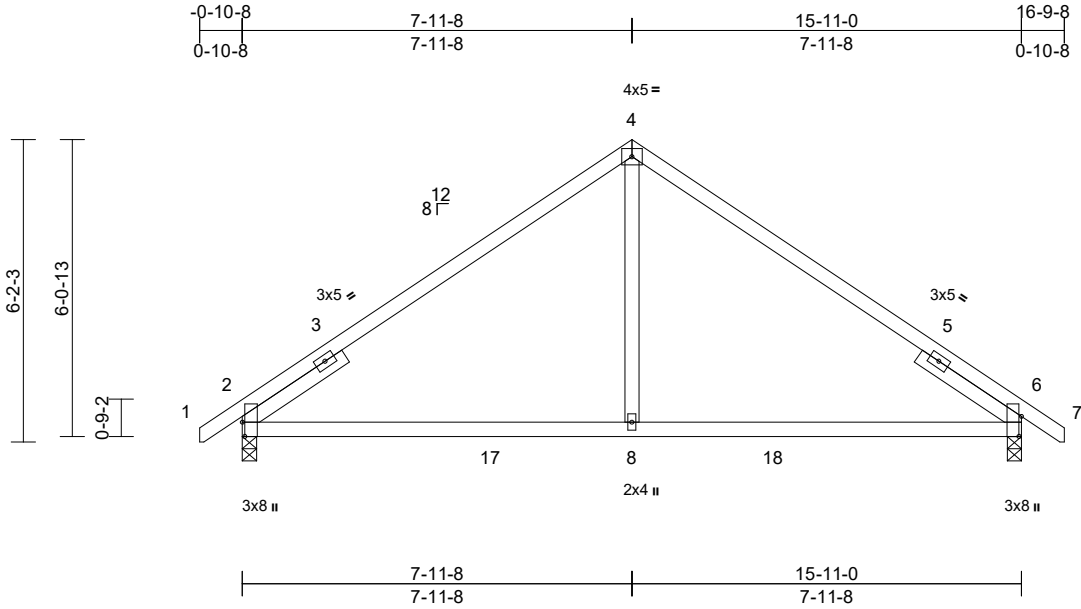
 **WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

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818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss C	Truss Type Common	Qty 2	Ply 1	Cedar 2 A	146242489
Carter Components (Sanford), Sanford, NC - 27332,						Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:08
ID:N1d3mpVuuUCPC_JduxPSxRykgj7-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f						Page: 1



Scale = 1:47.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.12	8-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.20	8-15	>962	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.05	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											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 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

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.

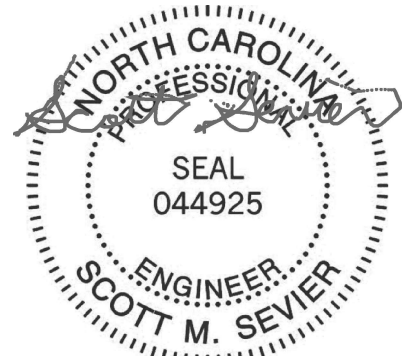
REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=116 (LC 12)
Max Uplift 2=-1 (LC 13), 6=-1 (LC 14)
Max Grav 2=717 (LC 25), 6=717 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-701/204, 4-6=-701/203, 6-7=0/35
BOT CHORD 2-8=-219/605, 6-8=-221/605
WEBS 4-8=0/389

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 21, 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



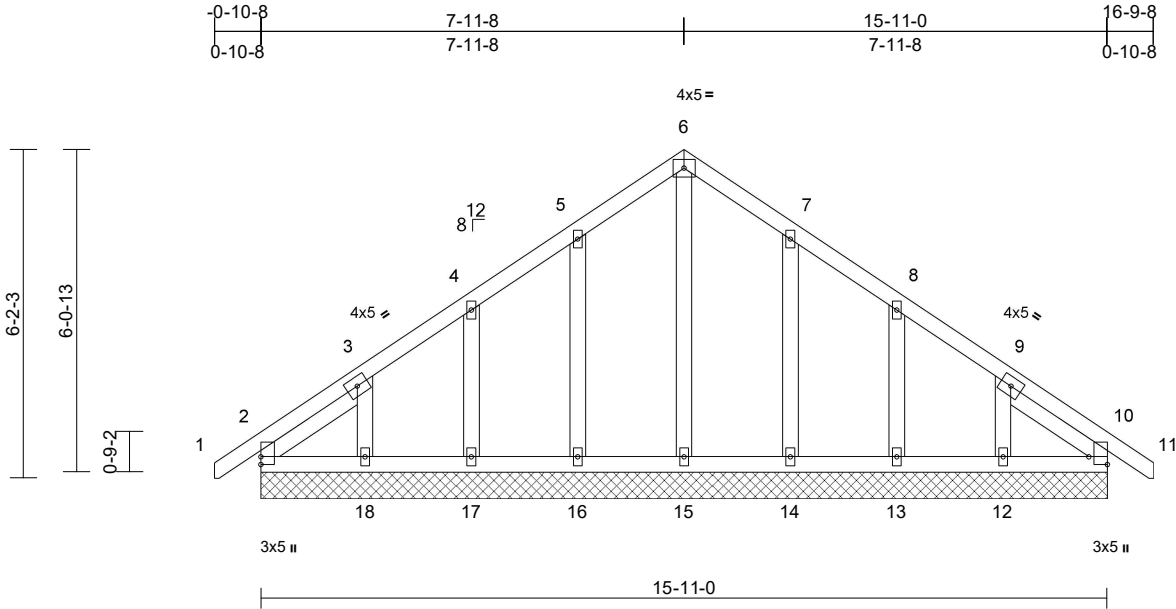
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss CE	Truss Type Common Supported Gable	Qty 1	Ply 1	Cedar 2 A	146242490
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:09
ID:sDBS_9WwfoKGP7tpRexhUfykgj6-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCdoi7J4zJC7f

Page: 1



Scale = 1:43.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
Weight: 96 lb											FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 15-6:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-2-15, Right 2x4 SP No.3 -- 2-2-15

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

REACTIONS (size)
2=15-11-0, 10=15-11-0,
12=15-11-0, 13=15-11-0,
14=15-11-0, 15=15-11-0,
16=15-11-0, 17=15-11-0,
18=15-11-0, 19=15-11-0,
23=15-11-0
Max Horiz 2=-116 (LC 11), 19=-116 (LC 11)
Max Uplift 2=-24 (LC 9), 12=47 (LC 14),
13=-28 (LC 14), 14=-31 (LC 14),
16=-31 (LC 13), 17=-27 (LC 13),
18=-52 (LC 13), 19=-24 (LC 9)
Max Grav 2=149 (LC 26), 10=142 (LC 2),
12=174 (LC 26), 13=164 (LC 26),
14=173 (LC 26), 15=137 (LC 28),
16=175 (LC 25), 17=163 (LC 25),
18=181 (LC 25), 19=149 (LC 26),
23=142 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-50/23, 3-4=-91/64,
4-5=-82/80, 5-6=-132/138, 6-7=-132/138,
7-8=-81/80, 8-9=-60/26, 9-10=-42/23,
10-11=0/35
BOT CHORD 2-18=-56/93, 17-18=-56/93, 16-17=-56/93,
15-16=-56/93, 14-15=-56/93, 13-14=-56/93,
12-13=-56/93, 10-12=-56/93

WEBS 6-15=-97/36, 5-16=-134/82, 4-17=-129/84,
3-18=-143/93, 7-14=-133/82, 8-13=-129/84,
9-12=-145/94

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Gable requires continuous bottom chord bearing.
 - 8) Gable studs spaced at 2-0-0 oc.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 10) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at j(s) 2, 16, 17, 18, 14, 13, and 12. This connection is for uplift only and does not consider lateral forces.

- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 21, 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



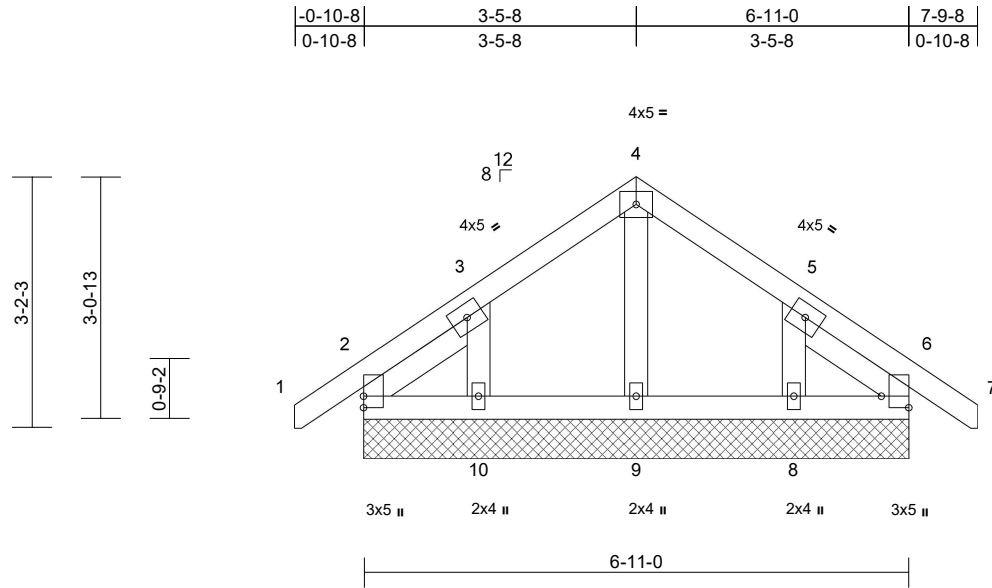
818 Soundside Road
Edenton, NC 27932

Job 21050070-A	Truss DE	Truss Type Common Supported Gable	Qty 1	Ply 1	Cedar 2 A	I46242491
Job Reference (optional)						

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

Run: 8.5 S 0 May 17 2021 Print: 8.500 S May 17 2021 MiTek Industries, Inc. Fri May 21 12:04:10
ID:sDBS_9WwfoKgp7tpRexhUfykgj6-RfC?PsB70Hq3NSgPqnl8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 38 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-7-11, Right 2x4 SP No.3 -- 1-7-11

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

REACTIONS (size) 2=6-11-0, 6=6-11-0, 8=6-11-0, 9=6-11-0, 10=6-11-0, 11=6-11-0, 15=6-11-0
Max Horiz 2=-57 (LC 11), 11=-57 (LC 11)
Max Uplift 2=-9 (LC 9), 8=-42 (LC 14), 10=-44 (LC 13), 11=-9 (LC 9)
Max Grav 2=118 (LC 2), 6=118 (LC 2), 8=161 (LC 26), 9=123 (LC 2), 10=165 (LC 25), 11=118 (LC 2), 15=118 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-17/42, 3-4=-74/70, 4-5=-74/70, 5-6=-13/42, 6-7=0/35
BOT CHORD 2-10=-22/51, 9-10=-22/51, 8-9=-22/51, 6-8=-22/51
WEBS 4-9=-81/0, 3-10=-145/100, 5-8=-147/101

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

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
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- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, and 8. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 21, 2021

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

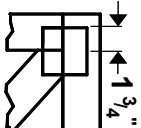
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



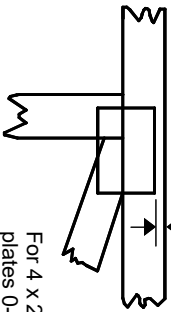
818 Soundside Road
Edenton, NC 27932

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.

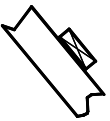
* Plate location details available in **MITek 2020 software** or upon request.

PLATE SIZE

4 X 4

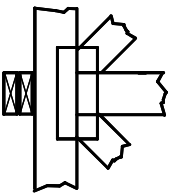
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



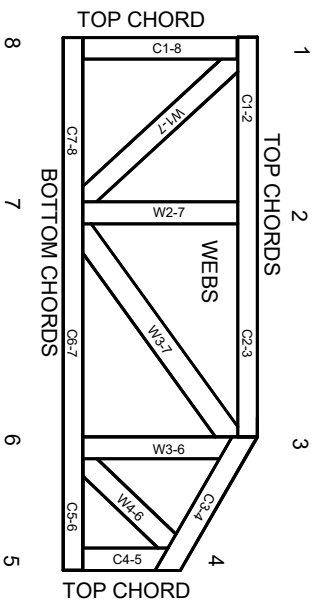
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: 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.

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MITek Engineering Reference Sheet: Mill-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. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.