ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 21070086-A
208 Crossing at ACC-Braxton A-Roof

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Capitol City Homes Project Name: 21070086-A
Lot/Block: 208 Model:
Address: 122 Kensington Dr. Subdivision: Crossing at ACC
City: Spring Lake State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 31 individual, dated Truss Design Drawings and 0 Additional Drawings.

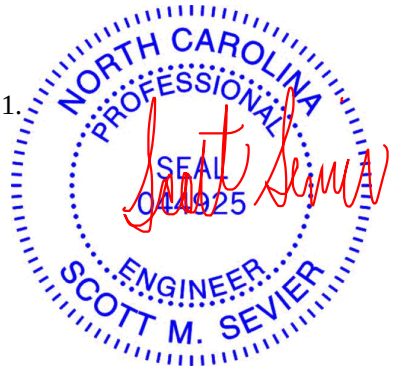
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45805693	J2	7/14/2021	21	I45805713	T7GE	7/14/2021
2	I45805694	PB1	7/14/2021	22	I45805714	T8	7/14/2021
3	I45805695	T1	7/14/2021	23	I45805715	T8GR	7/14/2021
4	I45805696	T1A	7/14/2021	24	I45805716	V1	7/14/2021
5	I45805697	T1AGE	7/14/2021	25	I45805717	V2	7/14/2021
6	I45805698	T1B	7/14/2021	26	I45805718	V3	7/14/2021
7	I45805699	T1GE	7/14/2021	27	I45805719	V4	7/14/2021
8	I45805700	T2GE	7/14/2021	28	I45805720	V5	7/14/2021
9	I45805701	T2GR	7/14/2021	29	I45805721	V6	7/14/2021
10	I45805702	T3GE	7/14/2021	30	I45805722	V7	7/14/2021
11	I45805703	T3GR	7/14/2021	31	I45805723	V8	7/14/2021
12	I45805704	T3SE	7/14/2021				
13	I45805705	T4GR	7/14/2021				
14	I45805706	T5	7/14/2021				
15	I45805707	T6	7/14/2021				
16	I45805708	T6A	7/14/2021				
17	I45805709	T6GR	7/14/2021				
18	I45805710	T6SE	7/14/2021				
19	I45805711	T7	7/14/2021				
20	I45805712	T7A	7/14/2021				

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

Truss Design Engineer's Name: Sevier, Scott

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

North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

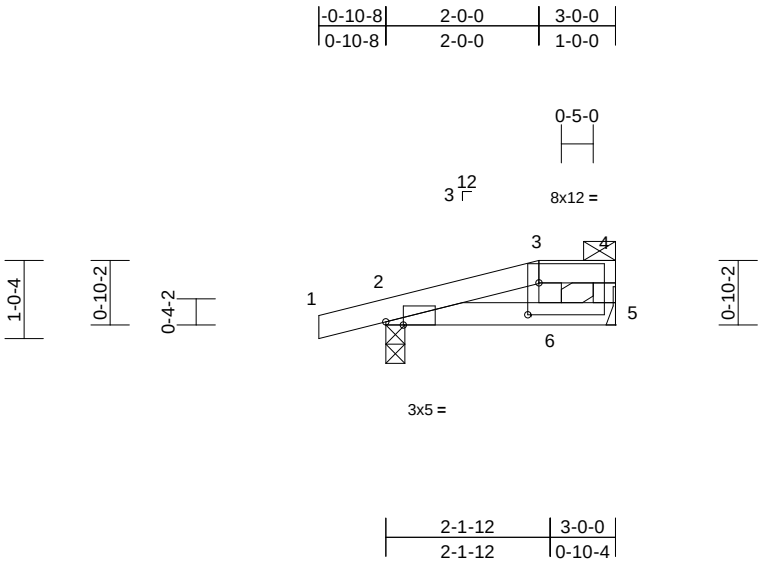
July 14, 2021

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	J2	Half Hip	1	1	I45805693 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:46 Page: 1
ID:ZONWJwbGp9yOcO44S3A?eiyqD6W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.1

Plate Offsets (X, Y): [2:0-2-12,Edge], [3:0-1-12,0-5-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 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 3-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 5= Mechanical
Max Horiz 2=20 (LC 14)
Max Uplift 2=-32 (LC 11), 5=-1 (LC 11)
Max Grav 2=202 (LC 35), 5=106 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-115/47, 3-4=-99/43, 4-5=-102/53
BOT CHORD 2-6=-57/109, 5-6=-10/11
WEBS 3-6=-42/38, 4-6=-51/125

NOTES
1) 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
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 5.
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 2015 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.

LOAD CASE(S) Standard

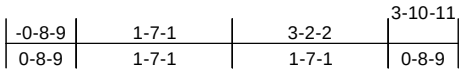
April 23,2021

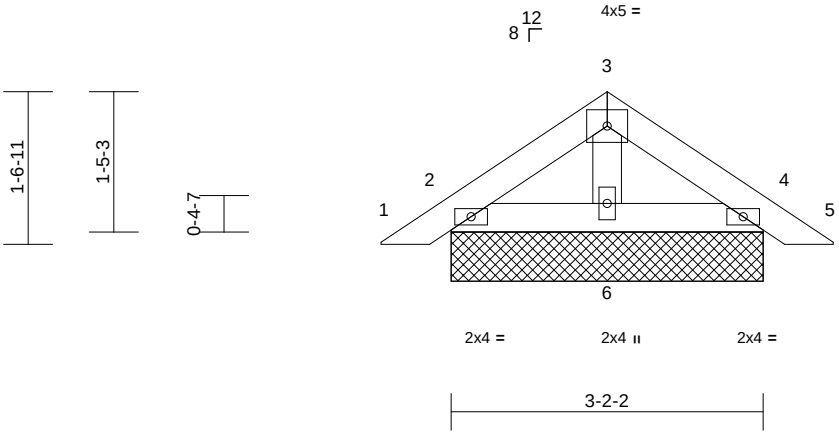
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	PB1	Piggyback	19	1	I45805694 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:49 ID:U8HVzsF7Cir4Jv0wjM9xO1yqBzM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:23.5

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	0.02	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	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

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

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

REACTIONS (size) 2=3-2-2, 4=3-2-2, 6=3-2-2, 7=3-2-2, 11=3-2-2
Max Horiz 2=-27 (LC 11), 7=-27 (LC 11)
Max Uplift 2=-8 (LC 13), 4=-10 (LC 14), 7=-8 (LC 13), 11=-10 (LC 14)
Max Grav 2=98 (LC 2), 4=98 (LC 2), 6=115 (LC 2), 7=98 (LC 2), 11=98 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-36/29, 3-4=-34/30, 4-5=0/20
BOT CHORD 2-6=-7/27, 4-6=-7/27
WEBS 3-6=-49/6

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) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
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) N/A
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.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T1	Piggyback Base	5	1	I45805695 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:49 Page: 1

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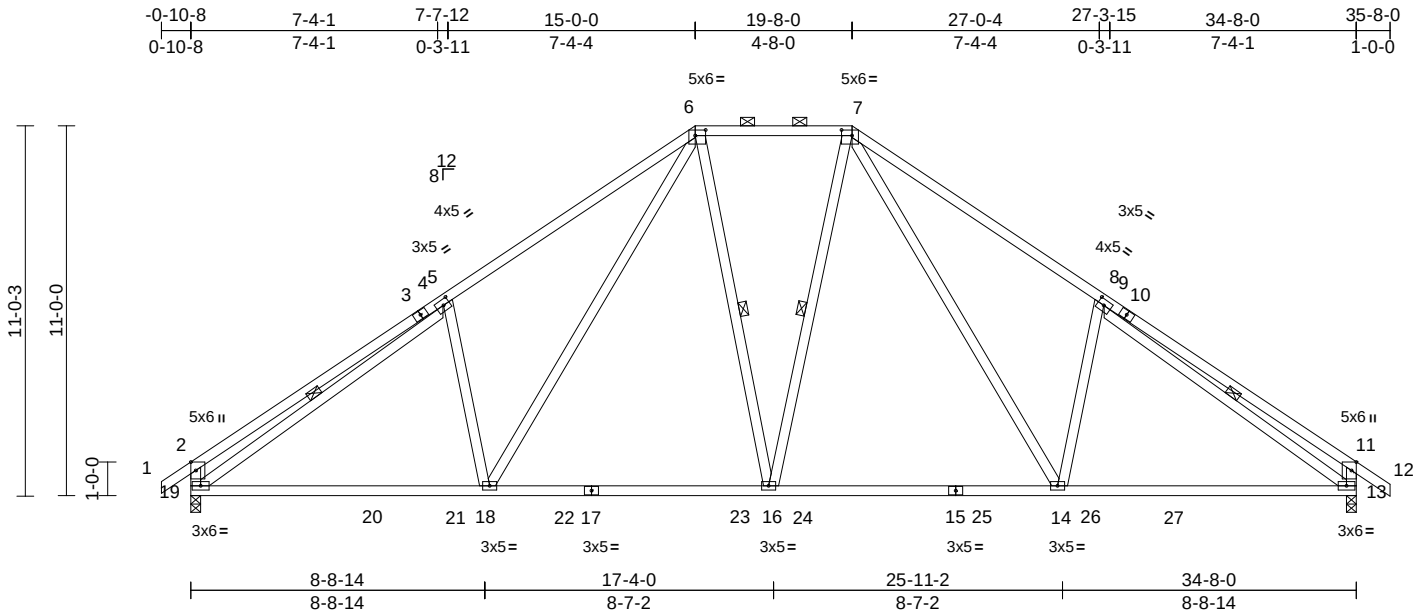

Scale = 1:68.5

Plate Offsets (X, Y): [2:0-3-0,Edge], [4:0-2-5,0-2-0], [6:0-3-12,0-2-0], [7:0-3-12,0-2-0], [9:0-2-5,0-2-0], [11:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.18	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.31	14-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.08	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 229 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 19-2,13-11:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-1-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-19, 9-13, 6-16, 7-16

REACTIONS (size) 13=0-3-8, 19=0-3-8
Max Horiz 19=-233 (LC 11)
Max Grav 13=1533 (LC 26), 19=1526 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-653/297, 3-4=-540/301, 4-5=-1857/350, 5-6=-1985/514, 6-7=-1233/371, 7-8=-1985/514, 8-9=-1858/350, 9-10=-533/298, 10-11=-643/295, 11-12=0/48, 2-19=-574/270, 11-13=-575/272
BOT CHORD 19-20=-154/1711, 20-21=-154/1711, 18-21=-154/1711, 18-22=0/1266, 17-22=0/1266, 17-23=0/1266, 16-23=0/1266, 16-24=0/1231, 15-24=0/1231, 15-25=0/1231, 14-25=0/1231, 14-26=-151/1557, 26-27=-151/1557, 13-27=-151/1557
WEBS 4-19=-1505/70, 9-13=-1513/75, 5-18=-397/299, 6-18=-210/746, 6-16=-58/299, 7-16=-59/298, 7-14=-209/748, 8-14=-397/299

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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) 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.
8) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T1A	Piggyback Base	5	1	I45805696 Job Reference (optional)

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

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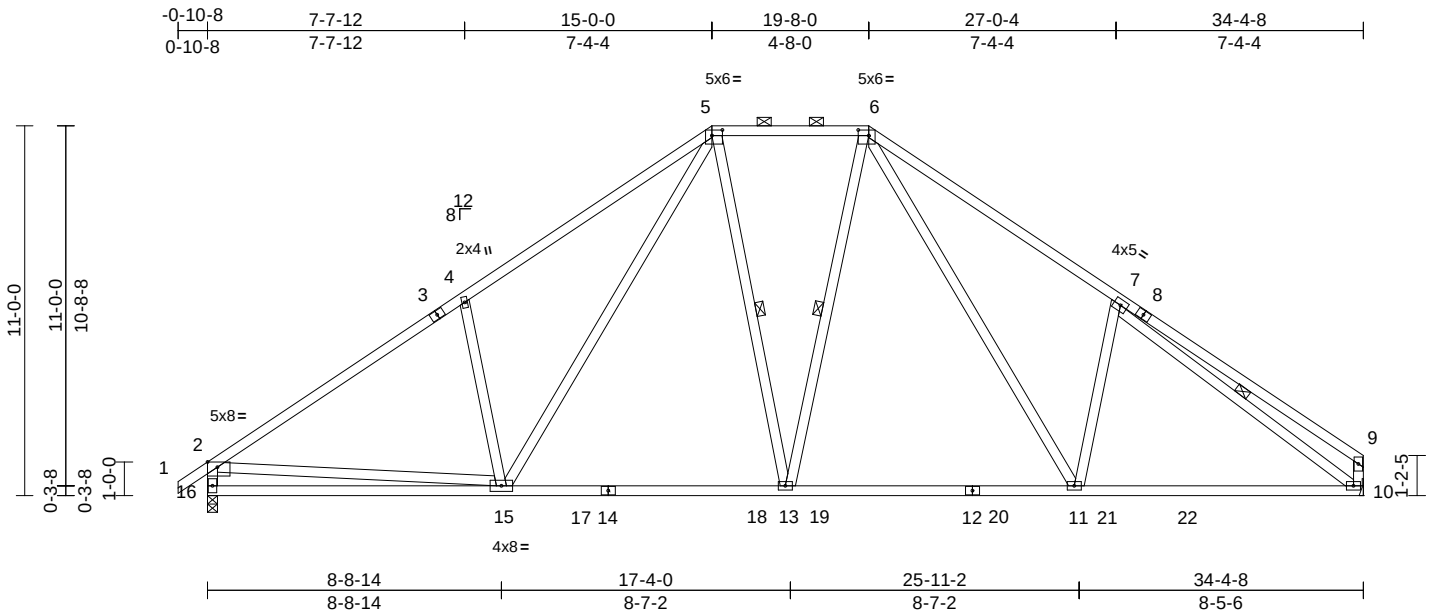

Scale = 1:68.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.20	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.32	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 225 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 16-2,10-9:2x4 SP No.3

BRACING

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

REACTIONS (size) 10= Mechanical, 16=0-3-8
Max Horiz 16=230 (LC 12)
Max Grav 10=1442 (LC 26), 16=1454 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-1927/341, 3-4=-1741/347, 4-5=-1892/508, 5-6=-1193/368, 6-7=-1908/502, 7-8=-294/181, 8-9=-396/177, 2-16=-1381/311, 9-10=-353/158
BOT CHORD 15-16=-218/536, 15-17=-39/1217, 14-17=-39/1217, 14-18=-39/1217, 13-18=-39/1217, 13-19=-39/1183, 12-19=-39/1183, 12-20=-39/1183, 11-20=-39/1183, 11-21=-200/1491, 21-22=-200/1491, 10-22=-200/1491
WEBS 7-10=-1640/191, 4-15=-469/301, 5-15=-208/678, 5-13=-66/309, 6-13=-56/295, 6-11=-198/697, 7-11=-364/289, 2-15=-44/1187

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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 3x5 MT20 unless otherwise indicated.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) 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.
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

April 23,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T1AGE	Piggyback Base Supported Gable	1	1	I45805697 Job Reference (optional)

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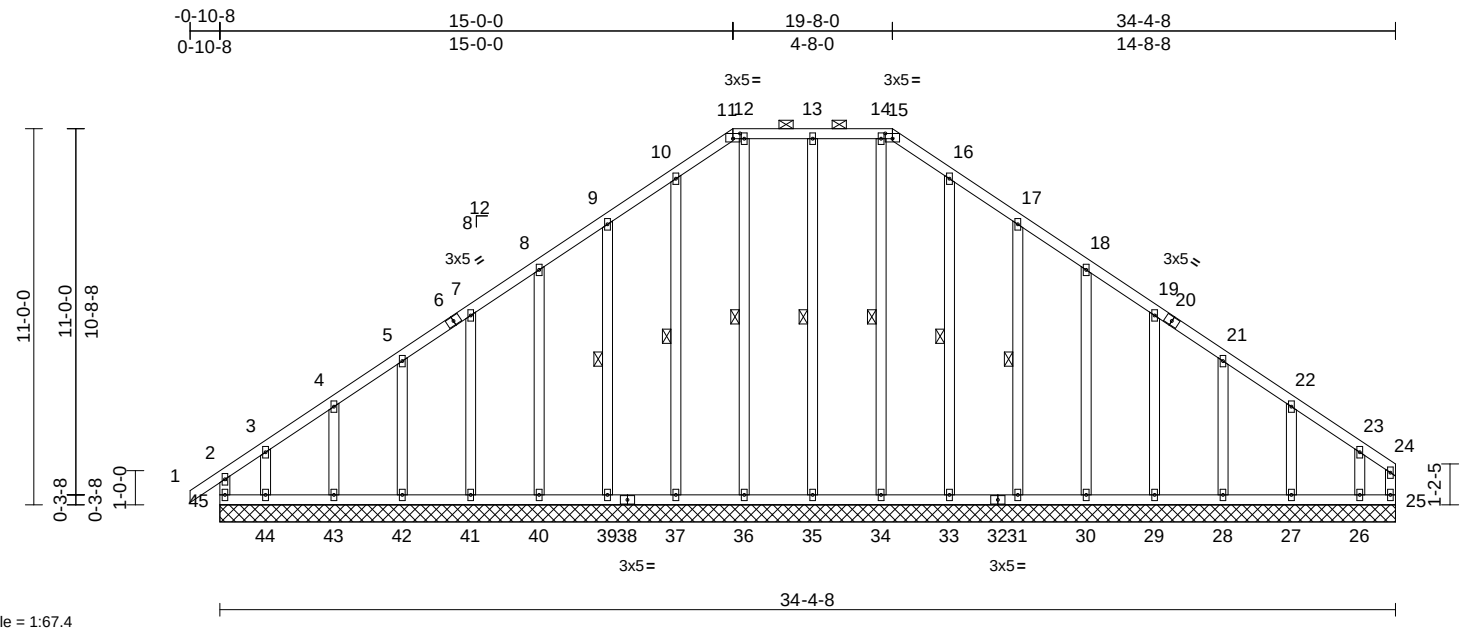

Scale = 1:67.4

Plate Offsets (X, Y): [11:0-2-8,0-1-13], [15:0-2-8,0-1-13]

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	25	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 273 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.2 *Except* 42-5,43-4,44-3,28-21,27-22,26-23:2x4 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.): 11-15.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 13-35, 12-36, 10-37, 9-39, 14-34, 16-33, 17-31

REACTIONS (size) 25=34-4-8, 26=34-4-8, 27=34-4-8, 28=34-4-8, 29=34-4-8, 30=34-4-8, 31=34-4-8, 33=34-4-8, 34=34-4-8, 35=34-4-8, 36=34-4-8, 37=34-4-8, 39=34-4-8, 40=34-4-8, 41=34-4-8, 42=34-4-8, 43=34-4-8, 44=34-4-8, 45=34-4-8

Max Horiz 45=230 (LC 10)

Max Uplift 25=-128 (LC 12), 26=-123 (LC 9), 27=-23 (LC 14), 28=-31 (LC 14), 29=-30 (LC 14), 30=-29 (LC 14), 31=-37 (LC 14), 33=-10 (LC 14), 35=-18 (LC 9), 37=-12 (LC 13), 39=-36 (LC 13), 40=-29 (LC 13), 41=-29 (LC 13), 42=-32 (LC 13), 43=-19 (LC 13), 44=-142 (LC 10), 45=-153 (LC 9)

Max Grav 25=162 (LC 9), 26=211 (LC 26), 27=166 (LC 30), 28=166 (LC 26), 29=166 (LC 26), 30=166 (LC 26), 31=168 (LC 26), 33=163 (LC 26), 34=163 (LC 28), 35=166 (LC 30), 36=171 (LC 28), 37=168 (LC 25), 39=166 (LC 25), 40=166 (LC 25), 41=166 (LC 25), 42=167 (LC 25), 43=169 (LC 2), 44=209 (LC 11), 45=232 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-45=-182/117, 1-2=0/43, 2-3=-208/187, 3-4=-147/144, 4-5=-141/140, 5-6=-128/126, 6-7=-108/138, 7-8=-146/169, 8-9=-194/226, 9-10=-248/290, 10-11=-282/329, 11-12=-248/298, 12-13=-248/298, 13-14=-248/298, 14-15=-248/298, 15-16=-282/329, 16-17=-248/290, 17-18=-194/226, 18-19=-146/169, 19-20=-78/110, 20-21=-98/104, 21-22=-73/64, 22-23=-79/71, 23-24=-122/108, 24-25=-100/79

BOT CHORD 44-45=-87/97, 43-44=-87/97, 42-43=-87/97, 41-42=-87/97, 40-41=-87/97, 39-40=-87/97, 38-39=-87/97, 37-38=-87/97, 36-37=-87/97, 35-36=-87/97, 34-35=-87/97, 33-34=-87/97, 32-33=-87/97, 31-32=-87/97, 30-31=-87/97, 29-30=-87/97, 28-29=-87/97, 27-28=-87/97, 26-27=-87/97, 25-26=-87/97

WEBS 13-35=-126/78, 12-36=-131/69, 10-37=-128/50, 9-39=-137/92, 8-40=-126/79, 7-41=-128/82, 5-42=-127/82, 4-43=-129/82, 3-44=-133/106, 14-34=-123/69, 16-33=-123/50, 17-31=-137/92, 18-30=-126/79, 19-29=-128/82, 21-28=-127/81, 22-27=-130/82, 23-26=-141/110

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=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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.

April 23,2021

Continued on page 2

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6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) N/A

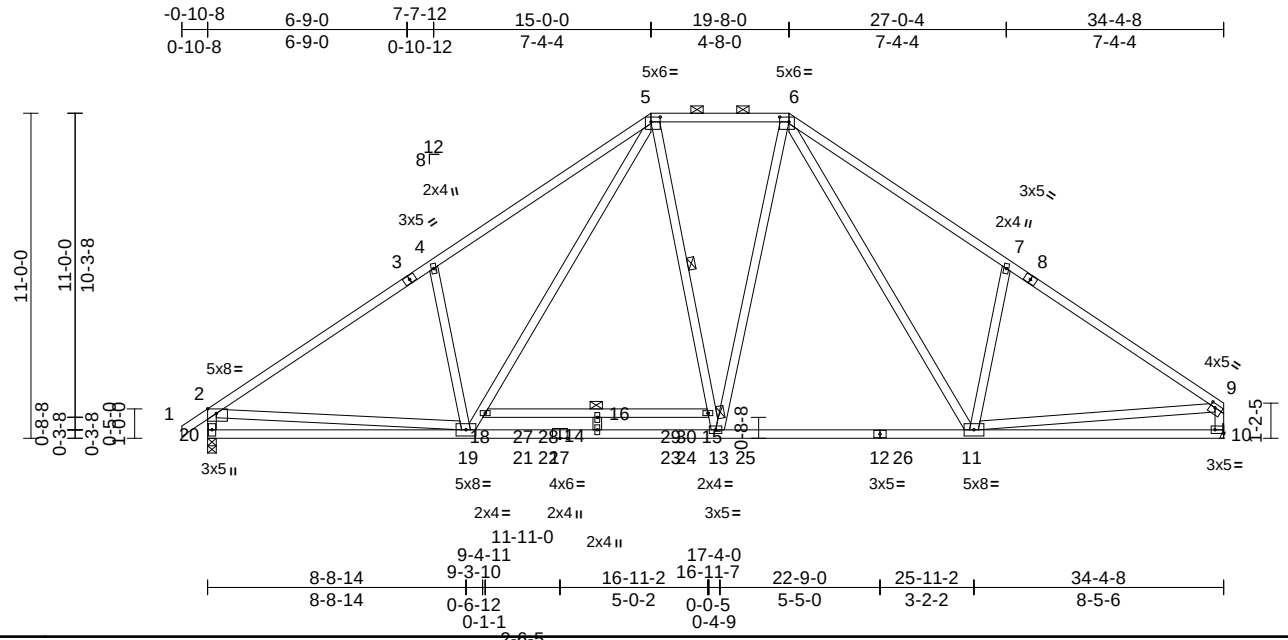
13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T1B	Piggyback Base	7	1	I45805698 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:51 Page: 1

ID:VOlqD_N2oXjLV5n?4Wld8?yqD0L-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78

Plate Offsets (X, Y): [2:0-3-8,Edge], [5:0-3-12,0-2-0], [6:0-3-12,0-2-0], [9:0-2-0,0-1-8], [10:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.24	14-19	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.53	14-19	>769	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.04	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 236 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-5,8-6:2x4 SP No.1

BOT CHORD 2x4 SP No.2 *Except* 12-17,17-20:2x4 SP No.1

WEBS 2x4 SP No.2 *Except* 20-2,10-9:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-8-10 max.): 5-6.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 13-14.
6-0-0 oc bracing: 15-18

WEBS 1 Row at midpt 5-15

REACTIONS (size) 10= Mechanical, 20=0-3-8
Max Horiz 20=230 (LC 12)
Max Grav 10=1571 (LC 26), 20=1735 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-2392/39, 3-4=-2205/44, 4-5=-2356/207, 5-6=-1480/182, 6-7=-2121/337, 7-8=-1964/173, 8-9=-2143/167, 2-20=-1675/118, 9-10=-1495/155

BOT CHORD 19-20=-228/530, 19-21=0/1549, 21-22=0/1549, 17-22=0/1549, 14-17=0/1549, 14-23=0/1486, 23-24=0/1486, 13-24=0/1486, 13-25=0/1420, 12-25=0/1420, 12-26=0/1420, 11-26=0/1420, 10-11=-46/227, 18-27=-62/0, 27-28=-62/0, 16-28=-62/0, 16-29=-8/21, 29-30=-8/21, 15-30=-8/21, 14-16=-76/9

WEBS 9-11=-15/1517, 4-19=-469/303, 18-19=-117/777, 5-18=-61/898, 5-15=-18/376, 13-15=-88/254, 6-13=0/525, 6-11=-239/580, 7-11=-481/308, 2-19=0/1581

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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) 200.0lb AC unit load placed on the bottom chord, 13-2-3 from left end, supported at two points, 5-0-0 apart.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) 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.
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

April 23,2021

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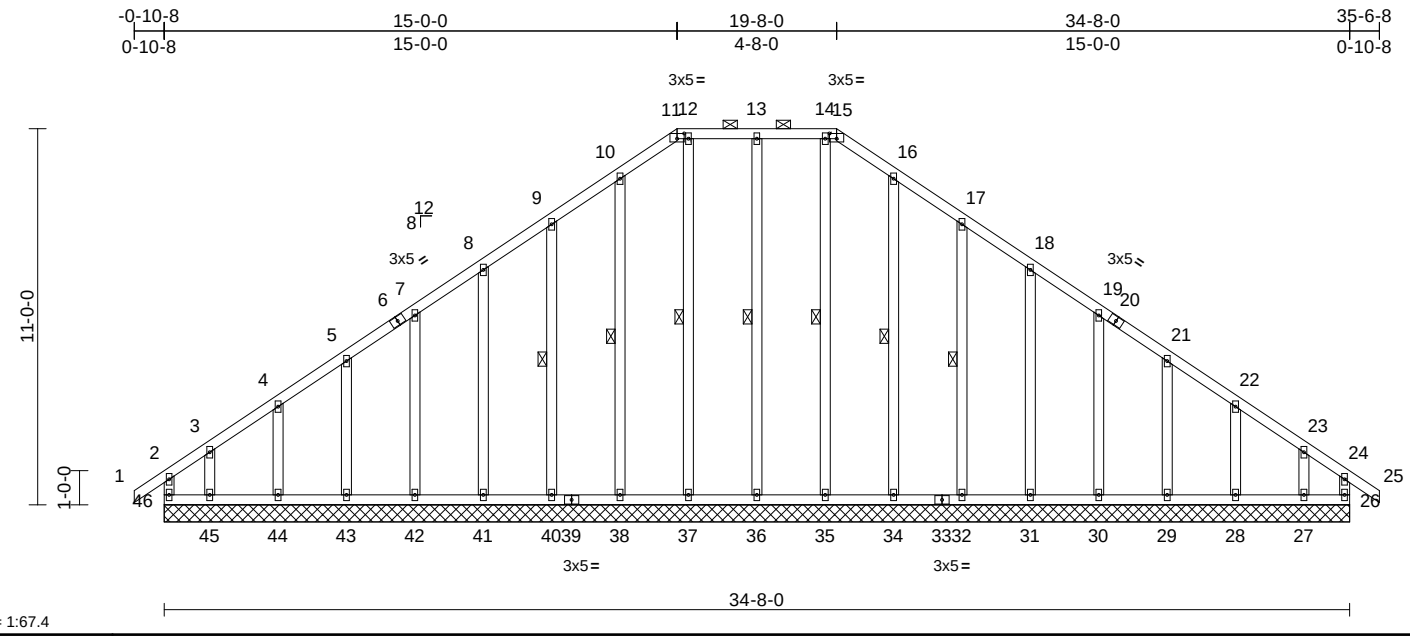
Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T1GE	Piggyback Base Supported Gable	1	1	I45805699 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:52 Page: 1
ID:8QxxAHJvz_53OJu1Iz9SRxyqD0Q-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.4

Plate Offsets (X, Y): [11:0-2-8,0-1-13], [15:0-2-8,0-1-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	26	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 275 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.2 *Except* 43-5,44-4,45-3,29-21,28-22,27-23:2x4 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.): 11-15.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 13-36, 12-37, 10-38, 9-40, 14-35, 16-34, 17-32

REACTIONS (size) 26=34-8-0, 27=34-8-0, 28=34-8-0, 29=34-8-0, 30=34-8-0, 31=34-8-0, 32=34-8-0, 34=34-8-0, 35=34-8-0, 36=34-8-0, 37=34-8-0, 38=34-8-0, 40=34-8-0, 41=34-8-0, 42=34-8-0, 43=34-8-0, 44=34-8-0, 45=34-8-0, 46=34-8-0

Max Horiz 46=232 (LC 12)

Max Uplift 26=-80 (LC 10), 27=-100 (LC 14), 28=-21 (LC 14), 29=-32 (LC 14), 30=-29 (LC 14), 31=-29 (LC 14), 32=-36 (LC 14), 34=-10 (LC 14), 36=-17 (LC 9), 38=-12 (LC 13), 40=-36 (LC 13), 41=-29 (LC 13), 42=-29 (LC 13), 43=-32 (LC 13), 44=-19 (LC 13), 45=-132 (LC 10), 46=-139 (LC 9)

Max Grav 26=169 (LC 25), 27=175 (LC 26), 28=169 (LC 30), 29=166 (LC 26), 30=166 (LC 26), 31=166 (LC 26), 32=167 (LC 26), 34=164 (LC 26), 35=164 (LC 27), 36=166 (LC 30), 37=172 (LC 28), 38=168 (LC 25), 40=166 (LC 25), 41=166 (LC 25), 42=166 (LC 25), 43=167 (LC 25), 44=169 (LC 29), 45=203 (LC 11), 46=216 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-46=-170/106, 1-2=0/43, 2-3=-191/177, 3-4=-132/136, 4-5=-126/128, 5-6=-113/114, 6-7=-93/126, 7-8=-140/164, 8-9=-187/222, 9-10=-241/285, 10-11=-275/325, 11-12=-242/294, 12-13=-242/294, 13-14=-242/294, 14-15=-242/294, 15-16=-275/325, 16-17=-241/285, 17-18=-187/222, 18-19=-140/164, 19-20=-71/106, 20-21=-91/99, 21-22=-76/78, 22-23=-84/85, 23-24=-132/115, 24-25=0/43, 24-26=-135/62

BOT CHORD 45-46=-102/116, 44-45=-102/116, 43-44=-102/116, 42-43=-102/116, 41-42=-102/116, 40-41=-102/116, 39-40=-102/116, 38-39=-102/116, 37-38=-102/116, 36-37=-102/116, 35-36=-102/116, 34-35=-102/116, 33-34=-102/116, 32-33=-102/116, 31-32=-102/116, 30-31=-102/116, 29-30=-102/116, 28-29=-102/116, 27-28=-102/116, 26-27=-102/116

WEBS 13-36=-126/77, 12-37=-132/65, 10-38=-128/50, 9-40=-137/92, 8-41=-126/79, 7-42=-128/82, 5-43=-127/82, 4-44=-129/82, 3-45=-135/104, 14-35=-124/65, 16-34=-124/50, 17-32=-137/92, 18-31=-126/79, 19-30=-128/82, 21-29=-127/81, 22-28=-129/82, 23-27=-141/102

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

April 23,2021

Continued on page 2

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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=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
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) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) N/A

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) 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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T2GE	Common Supported Gable	1	1	I45805700 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:52 Page: 1
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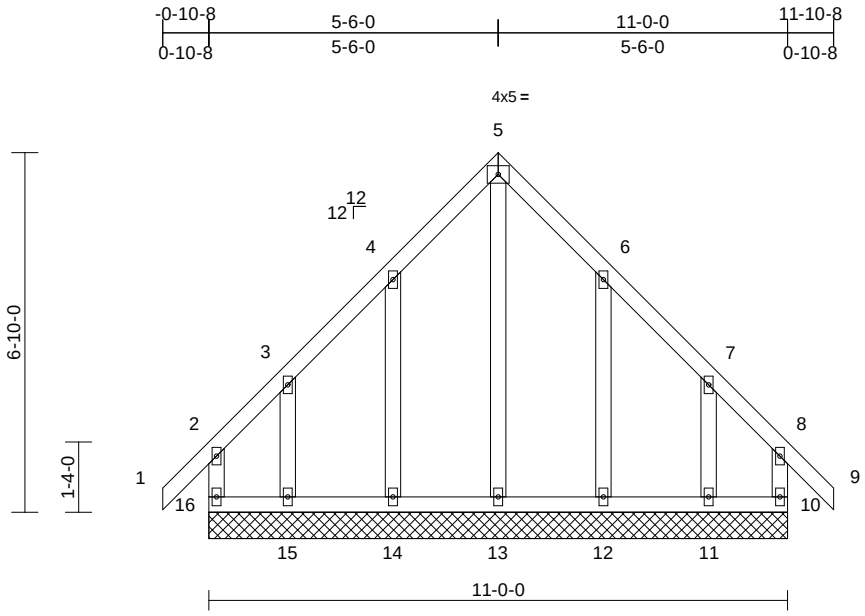

Scale = 1:43.8

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 75 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 *Except* 13-5:2x4 SP No.2

BRACING

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

REACTIONS (size) 10=11-0-0, 11=11-0-0, 12=11-0-0, 13=11-0-0, 14=11-0-0, 15=11-0-0, 16=11-0-0
Max Horiz 16=-159 (LC 11)
Max Uplift 10=-93 (LC 10), 11=-99 (LC 9), 12=-54 (LC 14), 14=-54 (LC 13), 15=-105 (LC 10), 16=-103 (LC 9)
Max Grav 10=165 (LC 25), 11=193 (LC 26), 12=184 (LC 26), 13=189 (LC 14), 14=183 (LC 25), 15=198 (LC 25), 16=174 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-137/97, 1-2=0/54, 2-3=-105/110, 3-4=-100/143, 4-5=-192/253, 5-6=-192/252, 6-7=-100/145, 7-8=-95/101, 8-9=0/54, 8-10=-130/95
BOT CHORD	15-16=-82/81, 14-15=-82/81, 13-14=-82/81, 12-13=-82/81, 11-12=-82/81, 10-11=-82/81
WEBS	5-13=-290/150, 4-14=-170/131, 3-15=-160/131, 6-12=-170/131, 7-11=-157/130

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T2GR	Common Girder	1	2	I45805701 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:53 Page: 1
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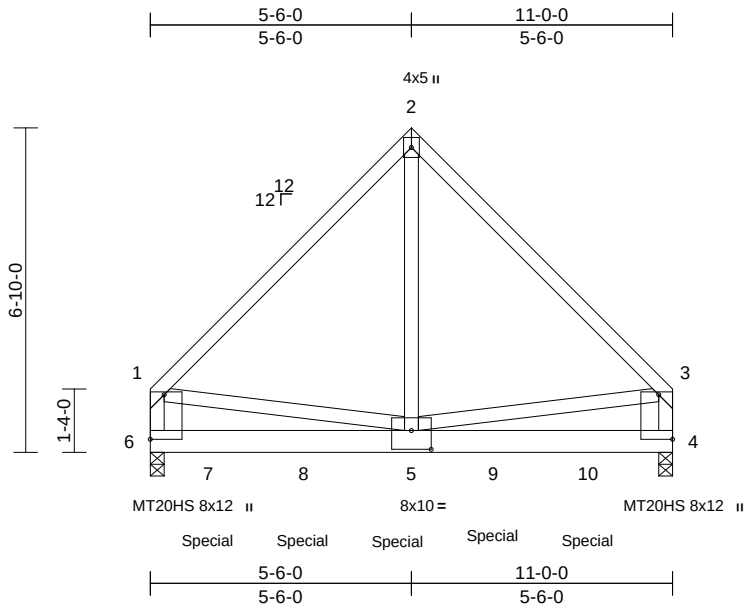


Scale = 1:48.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.09	4-5	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 152 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2

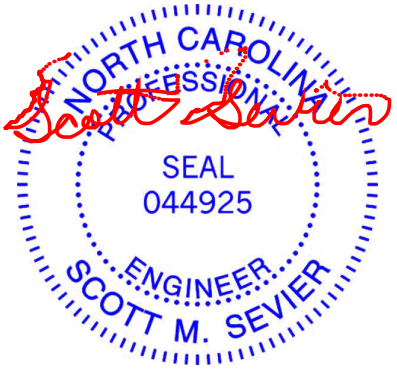
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=136 (LC 8)
Max Grav 4=3828 (LC 20), 6=4117 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3131/0, 2-3=-3131/0, 1-6=-2583/0, 3-4=-2581/0
BOT CHORD 6-7=-32/672, 7-8=-32/672, 5-8=-32/672, 5-9=0/582, 9-10=0/582, 4-10=0/582
WEBS 2-5=0/3985, 1-5=0/1666, 3-5=0/1658

NOTES
1) 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.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) 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
6) All plates are MT20 plates unless otherwise indicated.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1432 lb down at 1-2-12, 1432 lb down at 3-2-12, 1432 lb down at 5-2-12, and 1432 lb down at 7-2-12, and 1432 lb down at 9-2-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-3=-48, 4-6=-20
Concentrated Loads (lb)
Vert: 5=-1157 (B), 7=-1157 (B), 8=-1157 (B), 9=-1157 (B), 10=-1157 (B)



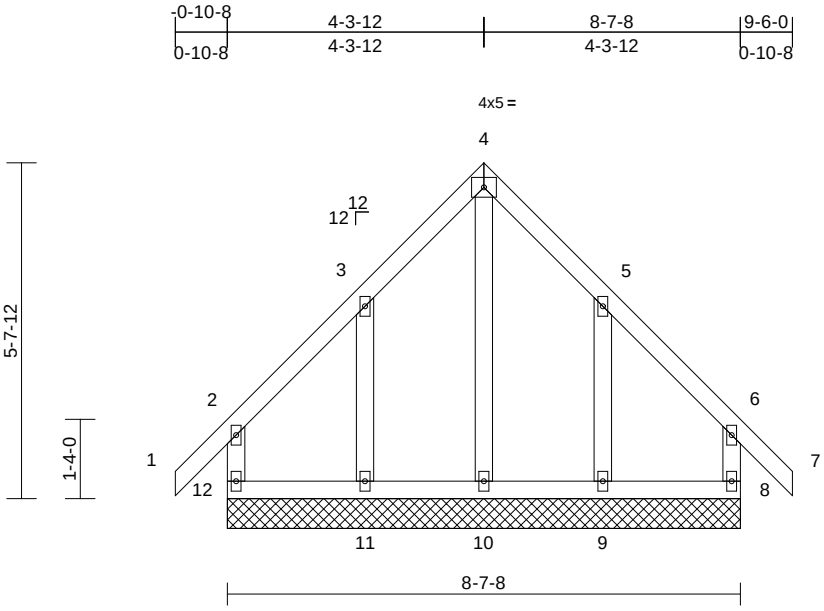
April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T3GE	Common Supported Gable	1	1	I45805702 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:53 ID:krGpYFG0g3jUXsAScrclqJyqD0T-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 55 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) 8=8-7-8, 9=8-7-8, 10=8-7-8, 11=8-7-8, 12=8-7-8
Max Horiz 12=-135 (LC 11)
Max Uplift 8=-53 (LC 10), 9=-84 (LC 14), 11=-84 (LC 13), 12=-58 (LC 9)
Max Grav 8=164 (LC 25), 9=227 (LC 26), 10=166 (LC 28), 11=230 (LC 25), 12=169 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-12=-135/154, 1-2=0/54, 2-3=-93/110, 3-4=-175/224, 4-5=-175/225, 5-6=-88/108, 6-7=0/54, 6-8=-138/153
BOT CHORD	11-12=-67/67, 10-11=-67/67, 9-10=-67/67, 8-9=-67/67
WEBS	4-10=-250/130, 3-11=-194/152, 5-9=-192/152

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T3GR	Common Girder	1	2	I45805703 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:54 Page: 1
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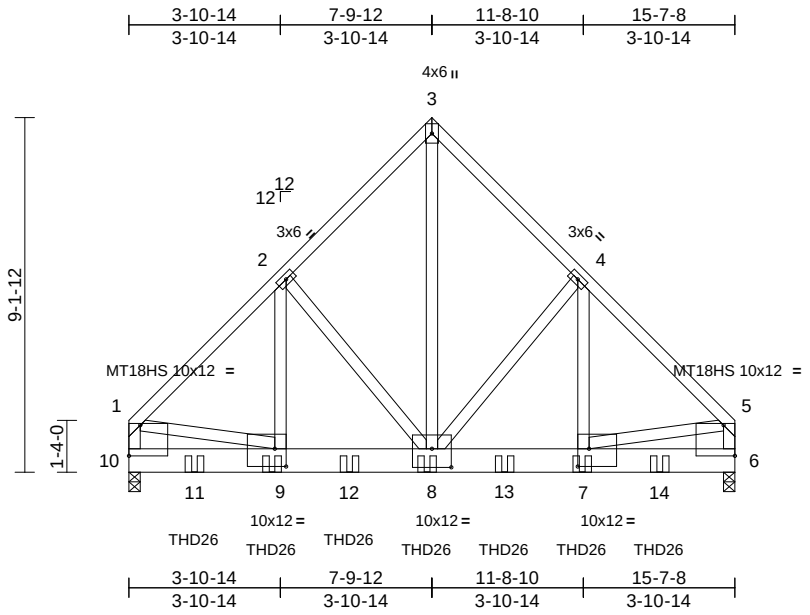

Scale = 1:59.4

Plate Offsets (X, Y): [1:Edge,0-9-8], [5:Edge,0-9-8], [7:0-3-8,0-5-8], [8:0-6-0,0-5-12], [9:0-3-8,0-5-8]

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	0.37	Vert(LL)	-0.05	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.10	7-8	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 272 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 10-1,6-5:2x4 SP No.1, 8-3,2-8,4-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 10=0-3-8
Max Horiz 10=180 (LC 6)
Max Grav 6=5968 (LC 20), 10=6070 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5743/0, 2-3=-4359/0, 3-4=-4359/0, 4-5=-5749/0, 1-10=-5030/0, 5-6=-5037/0
BOT CHORD 10-11=-45/578, 9-11=-45/578, 9-12=0/4086, 8-12=0/4086, 8-13=0/4022, 7-13=0/4022, 7-14=0/443, 6-14=0/443
WEBS 3-8=0/5844, 1-9=0/3688, 2-9=0/1964, 2-8=-1560/0, 4-8=-1568/0, 4-7=0/1975, 5-7=0/3698

NOTES
1) 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 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) 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
6) All plates are MT20 plates unless otherwise indicated.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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.
9) 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 1-8-4 from the left end to 13-8-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-48, 3-5=-48, 6-10=-20
Concentrated Loads (lb)
Vert: 8=-1293 (B), 9=-1293 (B), 7=-1293 (B), 11=-1293 (B), 12=-1293 (B), 13=-1293 (B), 14=-1293 (B)

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T3SE	Common Structural Gable	1	1	I45805704 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:56 Page: 1

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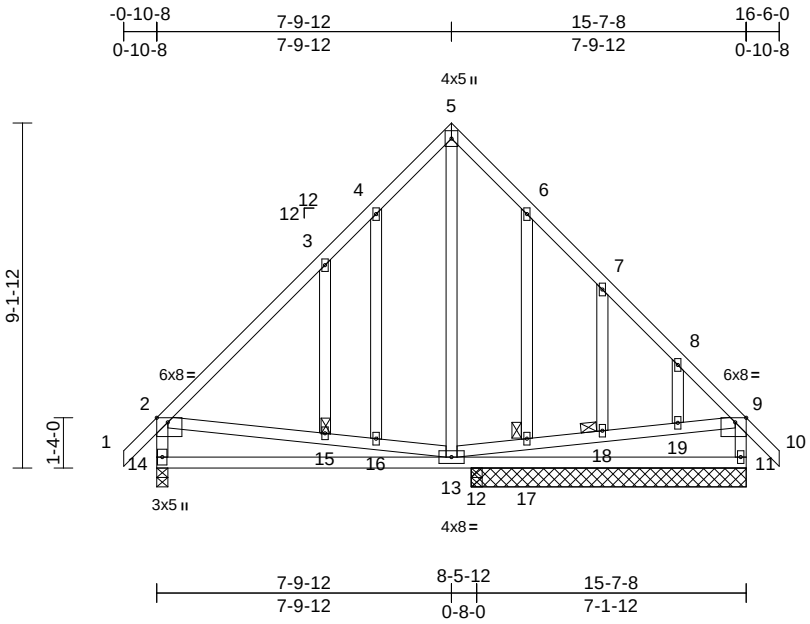

Scale = 1:61.1

Plate Offsets (X, Y): [2:0-3-8,Edge], [9:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.03	13-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.11	13-14	>881	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 131 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 14-2,11-9:2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 16-4,17-6:2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 15, 17, 18

REACTIONS (size) 11=7-3-8, 12=0-3-8, 14=0-3-8
Max Horiz 14=204 (LC 12)
Max Uplift 12=-9 (LC 13)
Max Grav 11=549 (LC 2), 12=232 (LC 2), 14=569 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/54, 2-3=-420/41, 3-4=-318/130, 4-5=-281/140, 5-6=-281/142, 6-7=-315/115, 7-8=-329/17, 8-9=-435/36, 9-10=0/54, 2-14=-488/153, 9-11=-493/155
BOT CHORD	13-14=-229/404, 12-13=-146/314, 11-12=-146/314
WEBS	5-13=-19/110, 2-15=-257/298, 15-16=-272/309, 13-16=-276/314, 13-17=-256/312, 17-18=-249/305, 18-19=-233/293, 9-19=-239/297, 3-15=-144/109, 4-16=-26/48, 6-17=-29/38, 7-18=-151/114, 8-19=-48/64

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) N/A
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.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T4GR	Half Hip Girder	1	1	I45805705 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:57 Page: 1
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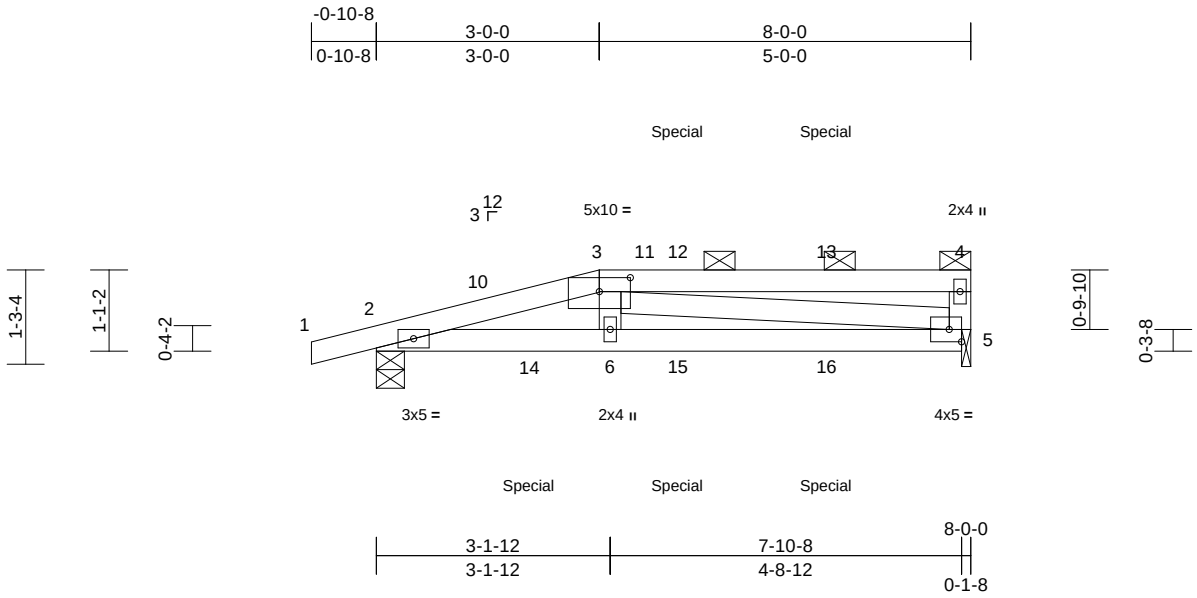

Scale = 1:31

Plate Offsets (X, Y): [3:0-5-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.07	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 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 5-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-4-8, 5=0-1-8
Max Horiz 2=27 (LC 10)
Max Uplift 2=-42 (LC 7), 5=-6 (LC 7)
Max Grav 2=475 (LC 31), 5=399 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-10=-982/0, 3-10=-974/0, 3-11=-9/7, 11-12=-9/7, 12-13=-9/7, 4-13=-9/7, 4-5=-185/35
BOT CHORD 2-14=-5/945, 6-14=0/945, 6-15=0/975, 15-16=0/975, 5-16=0/975
WEBS 3-6=0/177, 3-5=-988/0

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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
10) 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.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 41 lb down and 9 lb up at 4-0-12, and 41 lb down and 9 lb up at 6-0-12 on top chord, and 86 lb down and 13 lb up at 2-0-12, and 20 lb down at 4-0-12, and 20 lb down at 6-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) 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: 1-3=-48, 3-4=-58, 5-7=-20
Concentrated Loads (lb)
Vert: 12=-12 (F), 13=-12 (F), 14=-86 (F), 15=-20 (F), 16=-20 (F)

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T5	Half Hip	1	1	I45805706 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:59 Page: 1
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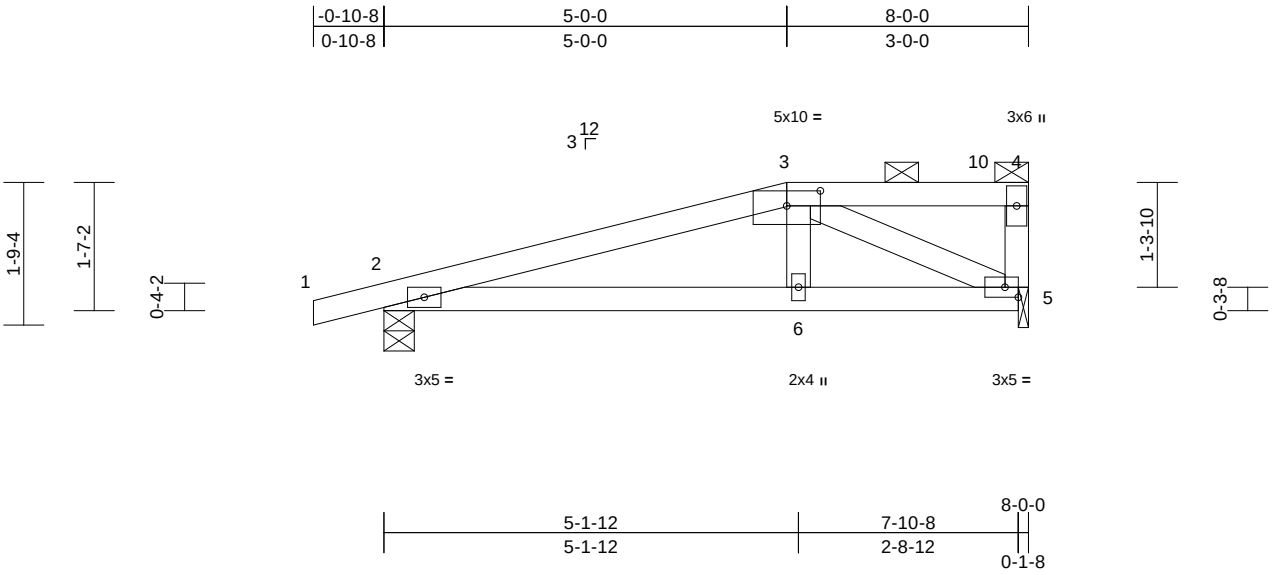


Scale = 1:28.6

Plate Offsets (X, Y): [3:0-5-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.04	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.07	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 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, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-4-8, 5=0-1-8
Max Horiz 2=43 (LC 14)
Max Uplift 2=-36 (LC 11), 5=-11 (LC 11)
Max Grav 2=412 (LC 35), 5=311 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-510/172, 3-10=-23/25, 4-10=-23/25, 4-5=-105/60
BOT CHORD 2-6=-195/473, 5-6=-193/488
WEBS 3-6=0/148, 3-5=-536/195

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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 5.
11) 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.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2021

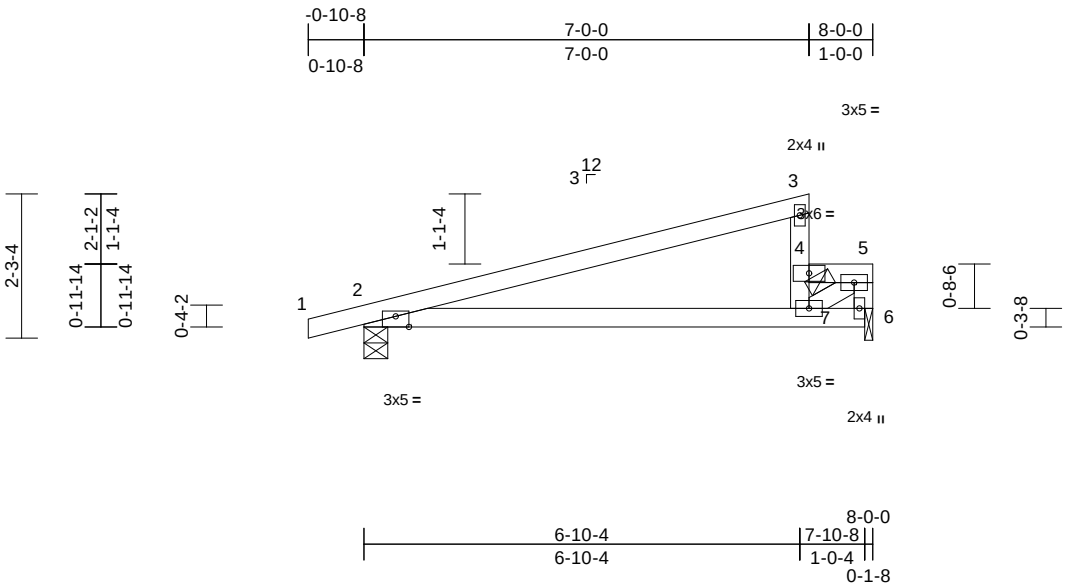
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T6	Half Hip	2	1	I45805707 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:59
ID:Ebo1pjARzPTppWbFd40jSKyqD4T-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.11	7-10	>838	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.21	7-10	>457	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-4-8, 6=0-1-8
Max Horiz 2=69 (LC 15)
Max Uplift 2=-34 (LC 11), 6=-11 (LC 15)
Max Grav 2=433 (LC 35), 6=322 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-315/66, 4-7=-156/124, 3-4=-142/103, 4-5=-664/195, 5-6=-478/163
BOT CHORD 2-7=-109/263, 6-7=-12/13
WEBS 5-7=-248/810

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) -0-10-8 to 7-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
10) 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.
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) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T6A	Half Hip	2	1	I45805708 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:23:59 Page: 1
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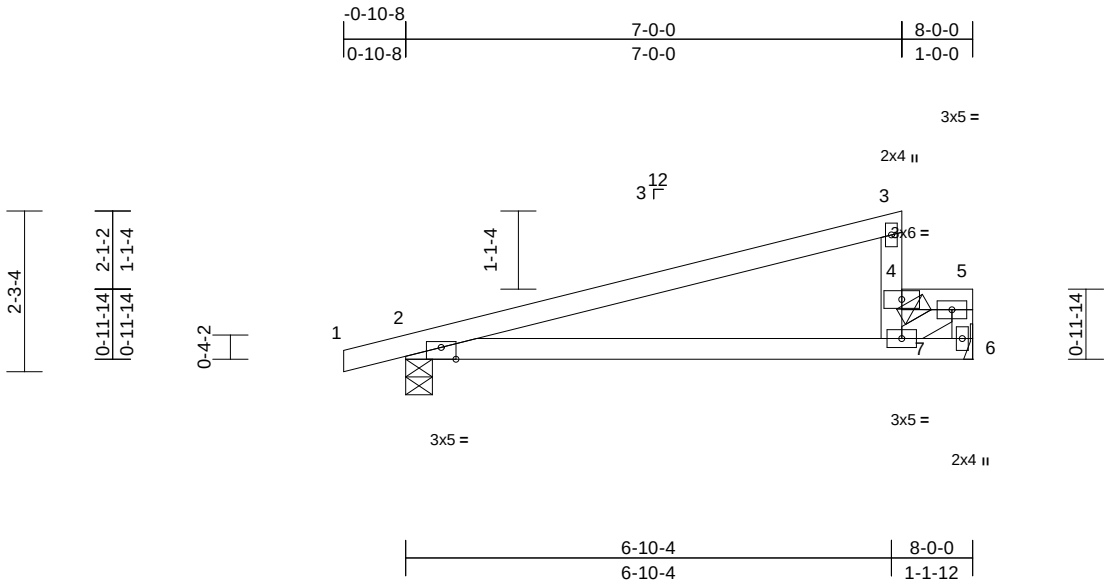

Scale = 1:32.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.11	7-10	>838	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.21	7-10	>457	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 30 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-4-8, 6= Mechanical
Max Horiz 2=69 (LC 15)
Max Uplift 2=-34 (LC 11), 6=-11 (LC 15)
Max Grav 2=433 (LC 35), 6=322 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-315/66, 4-7=-156/124, 3-4=-142/103, 4-5=-664/195, 5-6=-478/163
BOT CHORD 2-7=-109/263, 6-7=-12/13
WEBS 5-7=-248/810

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) -0-10-8 to 7-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 6.
10) 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.
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) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T6GR	Half Hip Girder	1	**2**	I45805709 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:24:00 Page: 1
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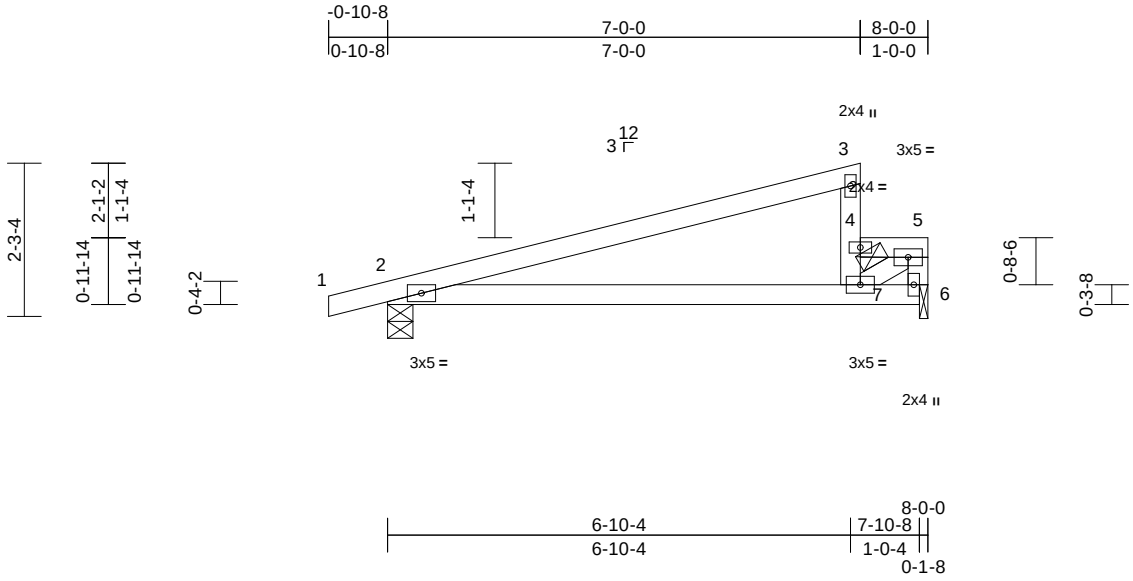

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.06	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.10	7-10	>909	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 59 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, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-4-8, 6=0-1-8
Max Horiz 2=69 (LC 11)
Max Uplift 2=-34 (LC 7), 6=-11 (LC 11)
Max Grav 2=433 (LC 31), 6=322 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-317/0, 4-7=-157/47, 3-4=-143/45, 4-5=-658/7, 5-6=-473/4
BOT CHORD 2-7=-21/304, 6-7=-8/6
WEBS 5-7=-2/802

NOTES
1) 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: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
6) Unbalanced snow loads have been considered for this design.
7) 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.
8) Provide adequate drainage to prevent water ponding.
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) 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.
11) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
12) 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.
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) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T6SE	Half Hip	1	1	I45805710 Job Reference (optional)

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

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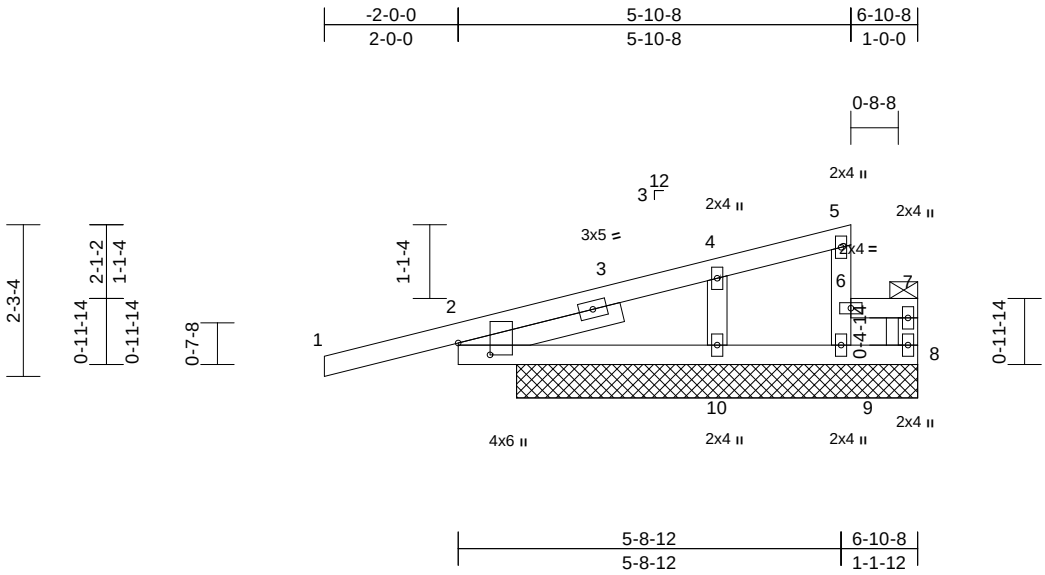
Page: 1



Scale = 1:34.5

Plate Offsets (X, Y): [2:0-2-2,0-5-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 32 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
SLIDER	Left 2x4 SP No.3 -- 2-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 6-9, 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=6-0-0, 8=6-0-0, 9=6-0-0, 10=6-0-0, 11=6-0-0
Max Horiz 2=68 (LC 15), 11=68 (LC 15)
Max Uplift 2=-70 (LC 11), 8=-3 (LC 12), 10=-19 (LC 15), 11=-70 (LC 11)
Max Grav 2=345 (LC 35), 8=47 (LC 34), 9=72 (LC 2), 10=299 (LC 35), 11=345 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-3=-131/111, 3-4=-82/60, 4-5=-44/34, 6-9=-59/54, 5-6=-37/32, 6-7=-12/13, 7-8=-37/22
BOT CHORD	2-10=-29/29, 9-10=-29/29, 8-9=-12/13
WEBS	4-10=-221/139

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) -0-10-8 to 7-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
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=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
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) N/A
11) Non Standard bearing condition. Review required.
12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T7	Monopitch	4	1	I45805711 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:24:02 Page: 1
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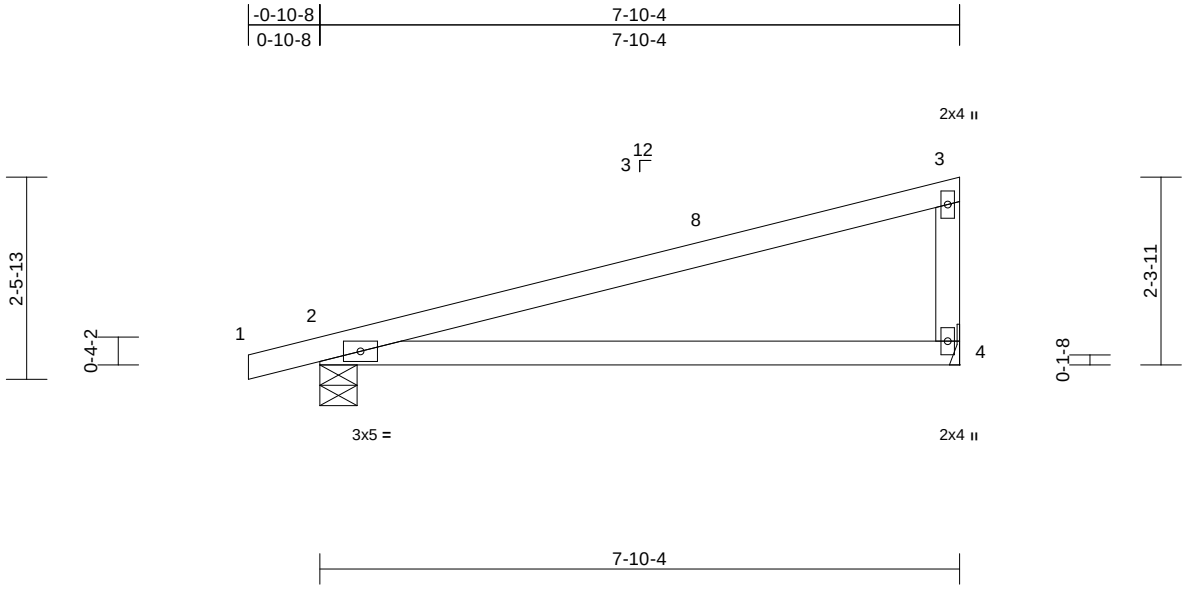

Scale = 1:28.3

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	0.94	Vert(LL)	0.16	4-7	>563	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.37	4-7	>250	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 28 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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical
Max Horiz 2=63 (LC 14)
Max Uplift 2=-34 (LC 11), 4=-14 (LC 15)
Max Grav 2=364 (LC 2), 4=305 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-8=-205/44, 3-8=-65/58, 3-4=-203/140
BOT CHORD 2-4=-101/194

NOTES
1) 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
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) * This truss has been designed for a 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.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 4.
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 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T7A	Monopitch	1	1	I45805712 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:24:03 Page: 1
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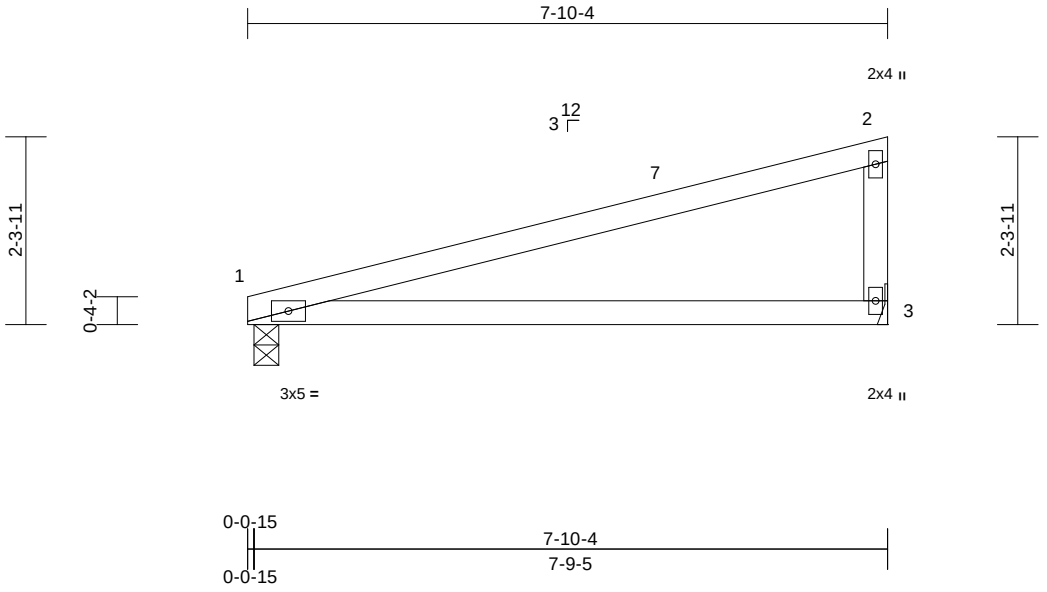

Scale = 1:28.3

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	0.95	Vert(LL)	0.17	3-6	>544	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.38	3-6	>243	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 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 1-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-11, 3= Mechanical
Max Horiz 1=60 (LC 14)
Max Uplift 1=-9 (LC 11), 3=-14 (LC 15)
Max Grav 1=308 (LC 2), 3=308 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-239/70, 2-7=-64/58, 2-3=-204/141
BOT CHORD 1-3=-126/229

NOTES
1) 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
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) * This truss has been designed for 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.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 3.
7) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
8) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T7GE	Monopitch Supported Gable	1	1	I45805713 Job Reference (optional)

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

Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:24:04
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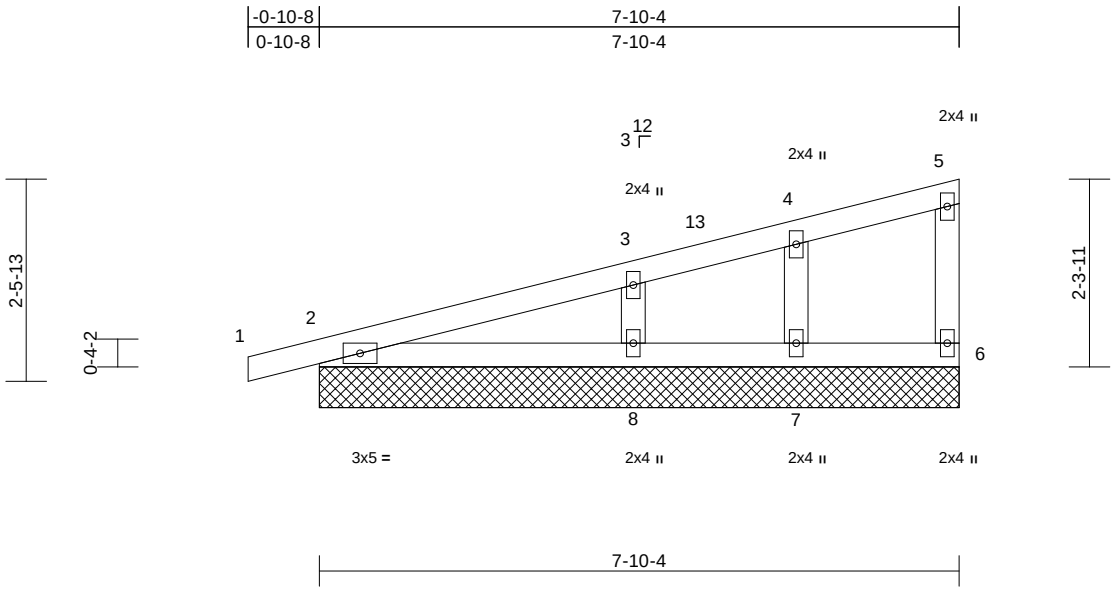

Scale = 1:28.3

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 31 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=7-10-4, 6=7-10-4, 7=7-10-4, 8=7-10-4, 9=7-10-4
Max Horiz 2=63 (LC 14), 9=63 (LC 14)
Max Uplift 2=-26 (LC 11), 7=-9 (LC 11), 8=-17 (LC 15), 9=-26 (LC 11)
Max Grav 2=187 (LC 2), 6=68 (LC 2), 7=118 (LC 22), 8=298 (LC 2), 9=187 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/16, 2-3=-102/66, 3-13=-63/33, 4-13=-58/42, 4-5=-38/34, 5-6=-49/41
BOT CHORD	2-8=-44/64, 7-8=-34/37, 6-7=-34/37
WEBS	4-7=-99/82, 3-8=-197/130

NOTES

1) 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
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 7-10; 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
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
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) N/A
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.

LOAD CASE(S) Standard

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T8	Half Hip	5	1	I45805714 Job Reference (optional)

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

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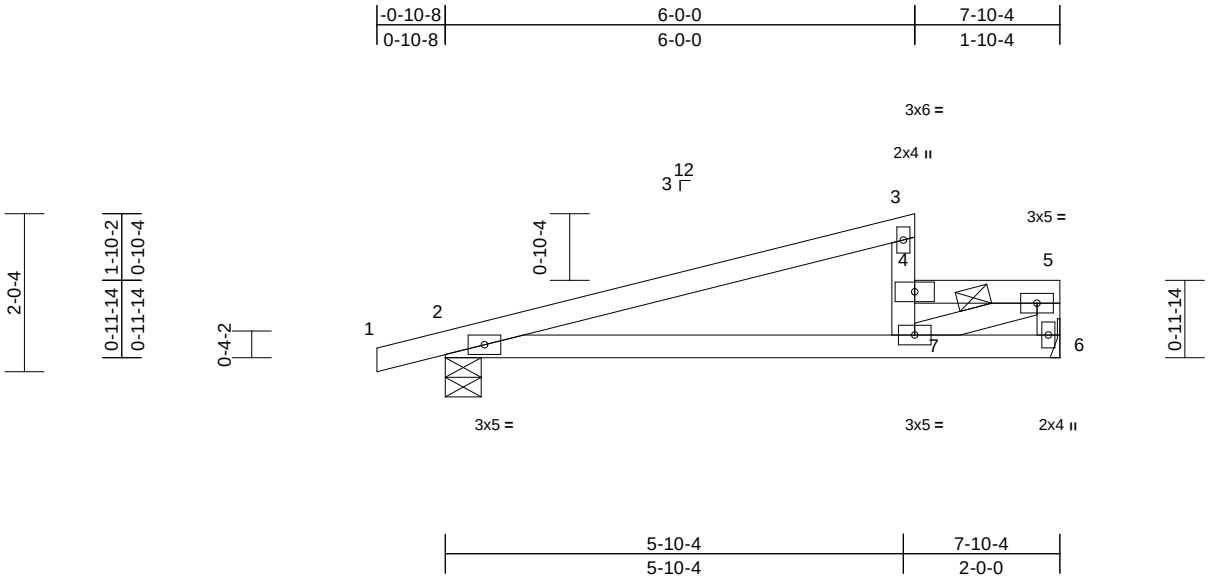

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.07	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.13	7-10	>707	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 30 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 3-7:2x4 SP No.2

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.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=307/0-5-8, 6=275/ Mechanical
Max Horiz 2=56 (LC 15)
Max Uplift 2=-33 (LC 11), 6=-1 (LC 15)
Max Grav 2=419 (LC 35), 6=305 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-395/110, 4-5=-756/262, 5-6=-325/141
BOT CHORD 2-7=-146/349
WEBS 5-7=-289/808

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) -0-10-8 to 7-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 6.
10) 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.
11) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	T8GR	Half Hip Girder	2	2	I45805715 Job Reference (optional)

Carter Components (Sanford), Sanford, NC - 27332, Run: 8.5 S 0 Mar 22 2021 Print: 8.500 S Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 10:24:06 Page: 1
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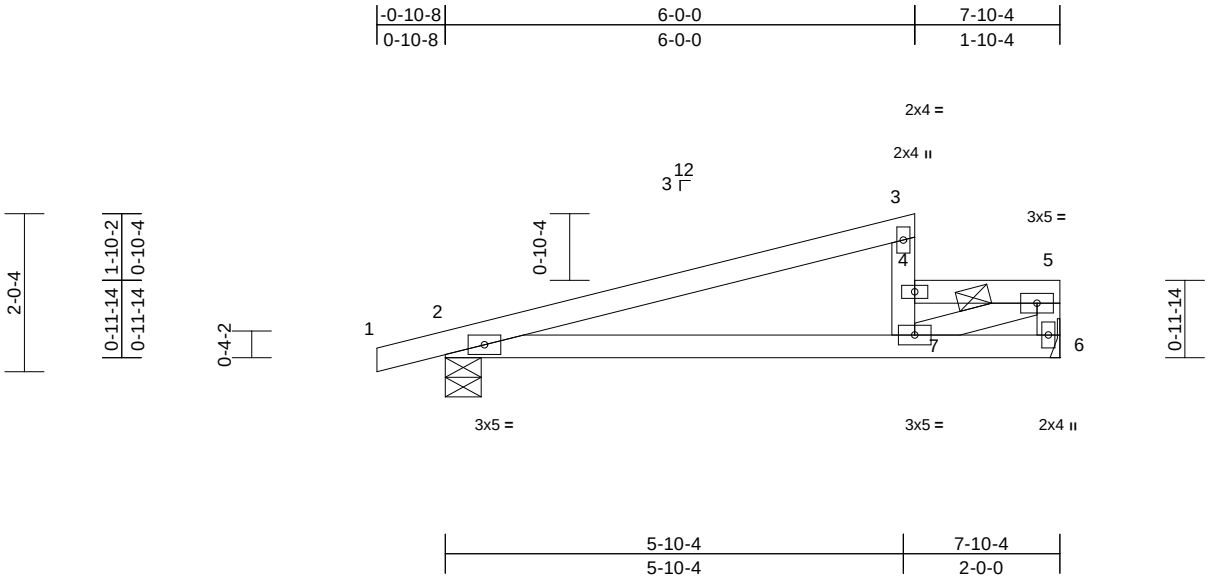

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.04	7-10	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.07	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 60 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, and 2-0-0 oc purlins (6-0-0 max.): 4-7, 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 6= Mechanical
Max Horiz 2=56 (LC 11)
Max Uplift 2=-33 (LC 7), 6=-1 (LC 11)
Max Grav 2=419 (LC 31), 6=305 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-393/0, 4-7=-119/41, 3-4=-90/36, 4-5=-751/12, 5-6=-324/7
BOT CHORD 2-7=-17/347, 6-7=-8/6
WEBS 5-7=-8/803

NOTES
1) 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: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
6) Unbalanced snow loads have been considered for this design.
7) 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.
8) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 6.
12) 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.
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) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V1	Valley	1	1	I45805716 Job Reference (optional)

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

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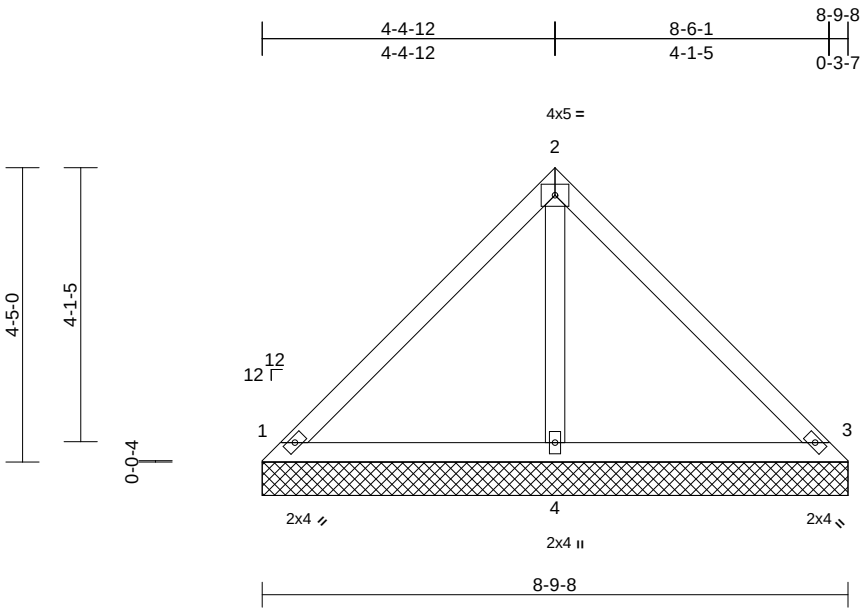

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 36 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=8-9-8, 3=8-9-8, 4=8-9-8
Max Horiz 1=-80 (LC 9)
Max Uplift 1=-20 (LC 14), 3=-20 (LC 14)
Max Grav 1=196 (LC 2), 3=196 (LC 2), 4=258 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-140/62, 2-3=-131/62
BOT CHORD 1-4=-21/60, 3-4=-21/60
WEBS 2-4=-156/46

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V2	Valley	1	1	I45805717 Job Reference (optional)

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

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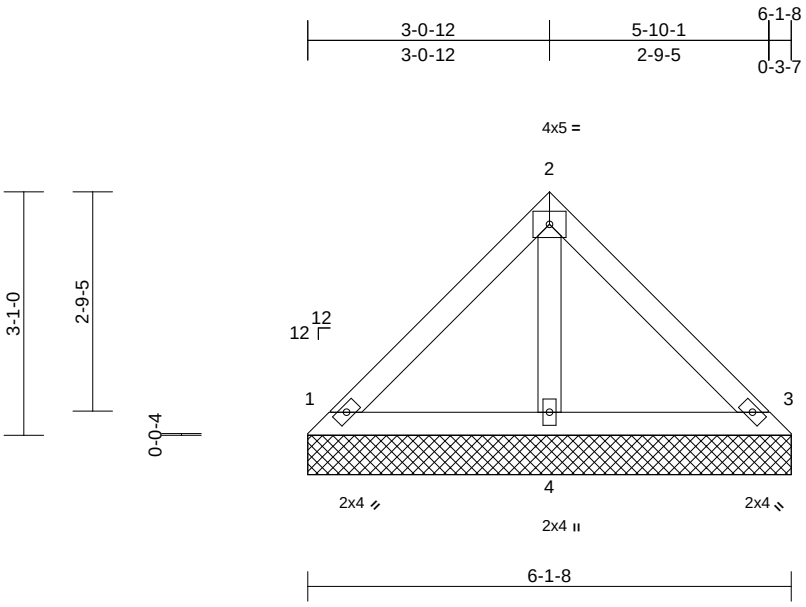

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 24 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=6-1-8, 3=6-1-8, 4=6-1-8
Max Horiz 1=54 (LC 10)
Max Uplift 1=-13 (LC 14), 3=-13 (LC 14)
Max Grav 1=132 (LC 2), 3=132 (LC 2), 4=173 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/44, 2-3=-88/44
BOT CHORD 1-4=-14/40, 3-4=-14/40
WEBS 2-4=-105/33

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V3	Valley	1	1	I45805718 Job Reference (optional)

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

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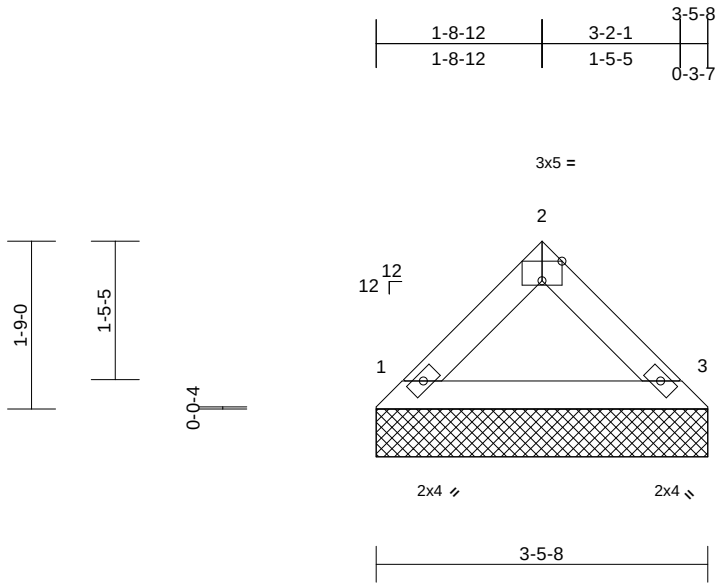

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Plate Offsets (X, Y): [2:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 11 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 3-6-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-5-8, 3=3-5-8

Max Horiz 1=28 (LC 12)

Max Grav 1=112 (LC 2), 3=112 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-83/35, 2-3=-83/35

BOT CHORD 1-3=-5/45

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V4	Valley	1	1	I45805719 Job Reference (optional)

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

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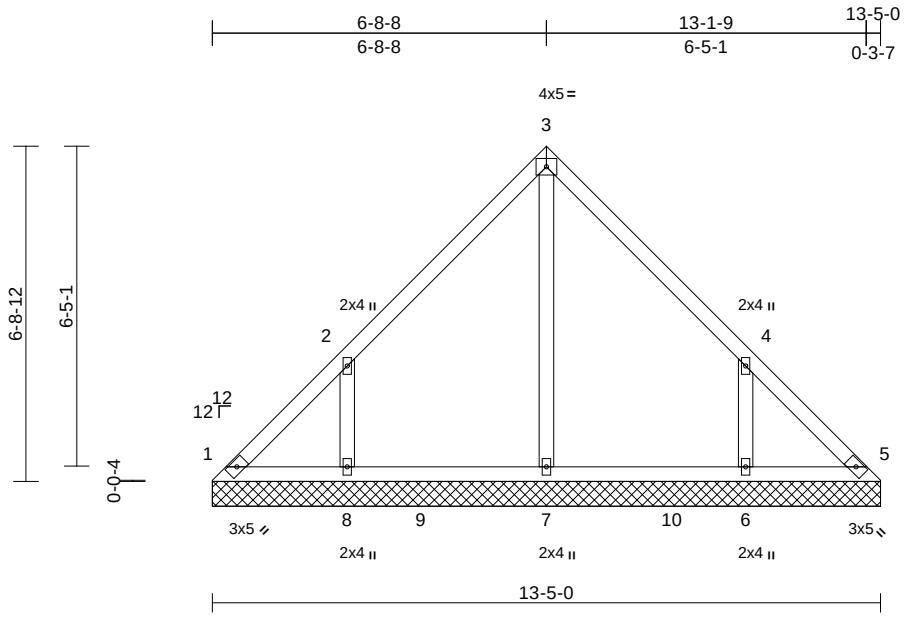

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 62 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3 *Except* 7-3:2x4 SP No.2

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=13-5-0, 5=13-5-0, 6=13-5-0, 7=13-5-0, 8=13-5-0

Max Horiz 1=126 (LC 10)

Max Uplift 1=-29 (LC 9), 5=-7 (LC 10), 6=-121 (LC 14), 8=-121 (LC 13)

Max Grav 1=122 (LC 25), 5=105 (LC 24), 6=359 (LC 25), 7=337 (LC 24), 8=360 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-141/107, 2-3=-156/117, 3-4=-147/117, 4-5=-118/79

BOT CHORD 1-8=-60/98, 8-9=-60/98, 7-9=-60/98, 7-10=-60/98, 6-10=-60/98, 5-6=-60/98

WEBS 3-7=-145/0, 2-8=-311/240, 4-6=-311/240

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V5	Valley	1	1	I45805720 Job Reference (optional)

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

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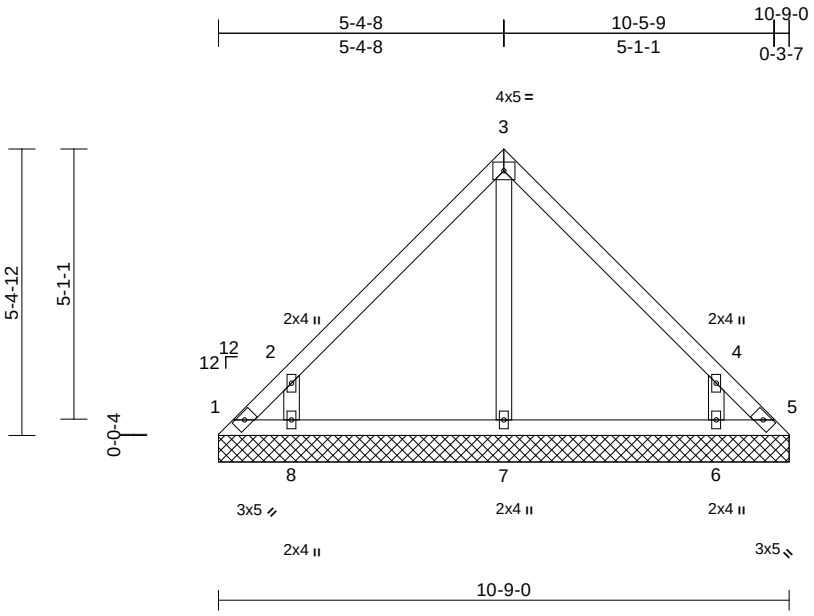

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 47 lb	FT = 20%

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

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

REACTIONS (size) 1=10-9-0, 5=10-9-0, 6=10-9-0, 7=10-9-0, 8=10-9-0
Max Horiz 1=100 (LC 10)
Max Uplift 1=-94 (LC 11), 5=-77 (LC 12), 6=-126 (LC 14), 8=-126 (LC 13)
Max Grav 1=99 (LC 10), 5=90 (LC 14), 6=341 (LC 25), 7=223 (LC 2), 8=341 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-146/120, 2-3=-156/93, 3-4=-152/93, 4-5=-146/120
BOT CHORD 1-8=-35/70, 7-8=-35/70, 6-7=-35/70, 5-6=-35/70
WEBS 3-7=-137/0, 2-8=-343/276, 4-6=-343/276

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V6	Valley	1	1	I45805721 Job Reference (optional)

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

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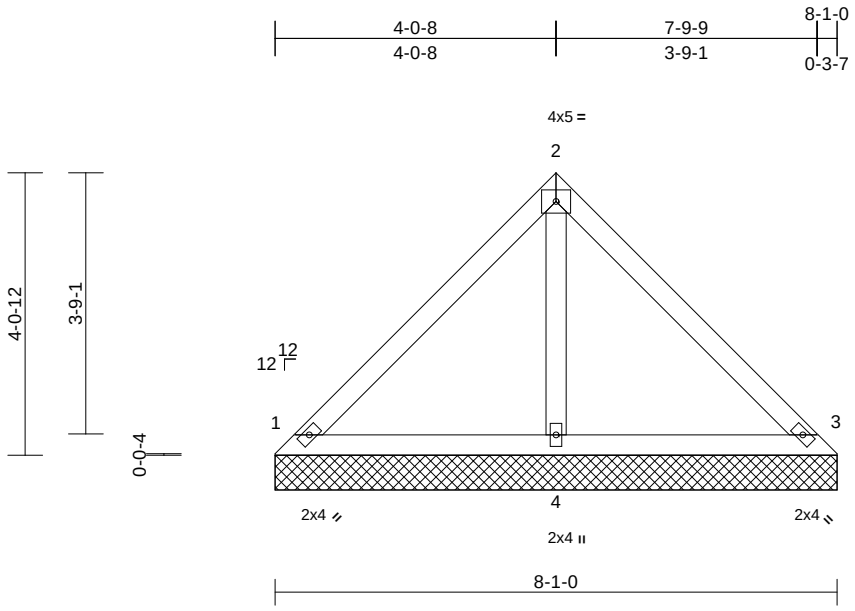

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 33 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=8-1-0, 3=8-1-0, 4=8-1-0
Max Horiz 1=-73 (LC 9)
Max Uplift 1=-18 (LC 14), 3=-18 (LC 14)
Max Grav 1=179 (LC 2), 3=179 (LC 2), 4=235 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-128/57, 2-3=-120/57
BOT CHORD 1-4=-19/55, 3-4=-19/55
WEBS 2-4=-142/43

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V7	Valley	1	1	I45805722 Job Reference (optional)

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

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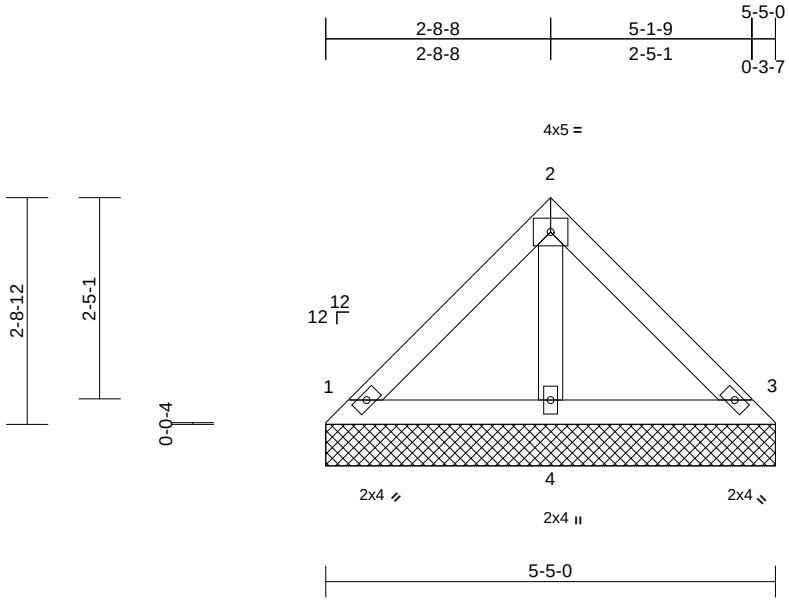

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 21 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 5-5-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-5-0, 3=5-5-0, 4=5-5-0
Max Horiz 1=-47 (LC 9)
Max Uplift 1=-12 (LC 14), 3=-12 (LC 14)
Max Grav 1=115 (LC 2), 3=115 (LC 2), 4=151 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-82/38, 2-3=-77/38
BOT CHORD 1-4=-12/35, 3-4=-12/35
WEBS 2-4=-91/29

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) N/A
9) 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

April 23,2021

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

Job	Truss	Truss Type	Qty	Ply	208 Crossing at ACC-Braxton A-Roof
21070086-A	V8	Valley	1	1	I45805723 Job Reference (optional)

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

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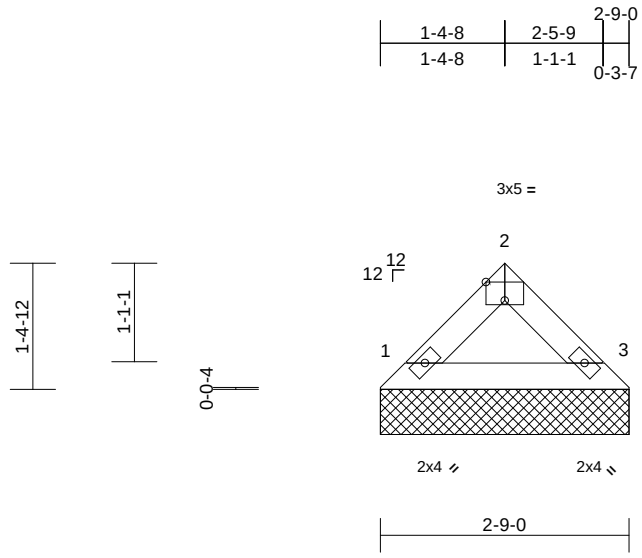

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Plate Offsets (X, Y): [2:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 9 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 2-9-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-9-0, 3=2-9-0
Max Horiz 1=-21 (LC 9)
Max Grav 1=84 (LC 2), 3=84 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-62/26, 2-3=-62/26
BOT CHORD 1-3=-4/34

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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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.

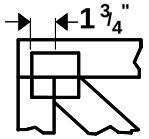
LOAD CASE(S) Standard

April 23,2021

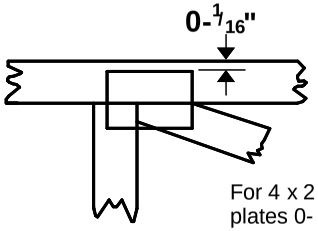
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

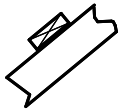
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

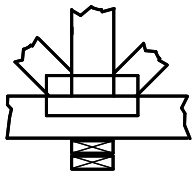
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

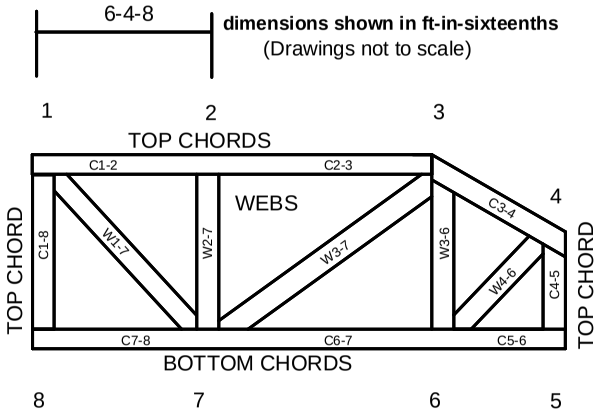


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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



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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek
ENGINEERING BY TRENCO
A MiTek Affiliate

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.