ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21030024-A
89 Lake Forest-Roof-BB-2086

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

Pages or sheets covered by this seal: E15498410 thru E15498485

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

North Carolina COA: C-0844

March 15,2021

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	K03	Common	2	1	E15498410 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:04
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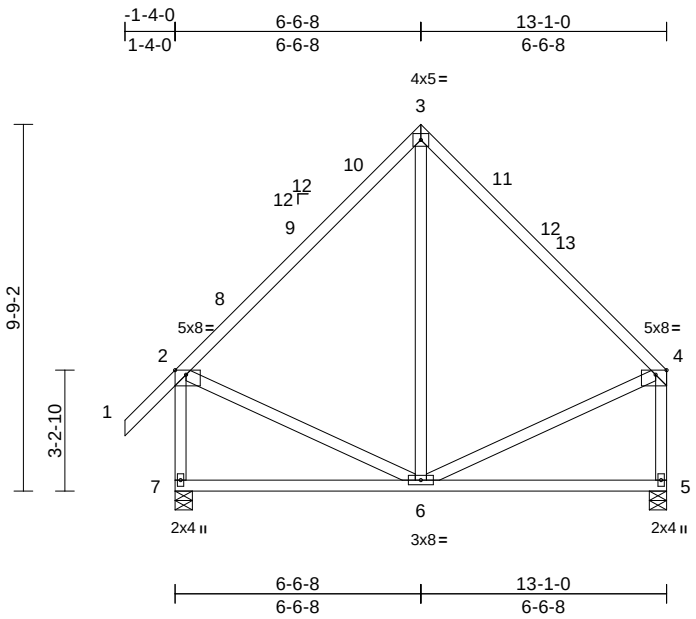

Scale = 1:61.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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	0.78	Vert(LL)	-0.04	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.07	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 92 lb	FT = 20%

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

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

REACTIONS (size) 5=0-5-8, 7=0-5-8
Max Horiz 7=291 (LC 11)
Max Uplift 5=-61 (LC 14), 7=-57 (LC 15)
Max Grav 5=507 (LC 1), 7=606 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-8=-414/127, 8-9=-321/150, 9-10=-319/151, 3-10=-295/176, 3-11=-294/162, 11-12=-313/137, 12-13=-317/135, 4-13=-406/134, 2-7=-549/171, 4-5=-450/124
BOT CHORD 6-7=-285/288, 5-6=-58/49
WEBS 3-6=-43/180, 2-6=-83/257, 4-6=-76/240

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 3-6-8, Exterior (2) 3-6-8 to 9-6-8, Interior (1) 9-6-8 to 9-11-4, Exterior (2) 9-11-4 to 12-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	K04	Common Girder	1	2	E15498411 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:04 Page: 1

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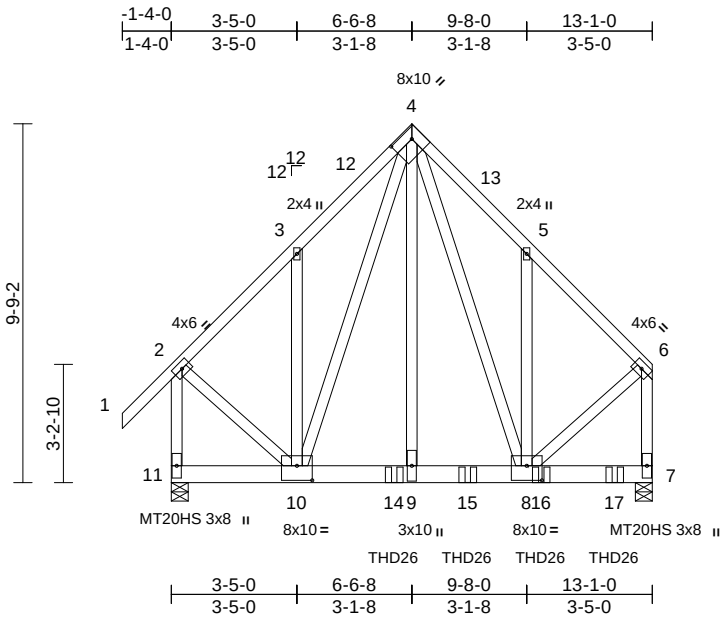

Scale = 1:62.7

Plate Offsets (X, Y): [4:0-6-8,0-3-0], [8:0-5-0,0-4-12], [10:0-5-0,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	0.04	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.06	8-9	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 279 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 11-2,7-6:2x4 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, Except:
6-0-0 oc bracing: 10-11.

REACTIONS (size) 7=0-5-8, 11=0-5-8
Max Horiz 11=288 (LC 9)
Max Uplift 11=-829 (LC 13)
Max Grav 7=5489 (LC 22), 11=3249 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-3=-2414/744, 3-12=-2438/868, 4-12=-2374/880, 4-13=-3221/337, 5-13=-3274/313, 5-6=-3269/190, 2-11=-3312/925, 6-7=-4338/206
BOT CHORD 10-11=-268/239, 10-14=-502/1981, 9-14=-502/1981, 9-15=-502/1981, 8-15=-502/1981, 8-16=-17/73, 16-17=-17/73, 7-17=-17/73
WEBS 2-10=-611/2277, 6-8=-128/2985, 3-10=-221/227, 4-10=-914/50, 4-9=-1522/3432, 4-8=0/1435, 5-8=-219/255

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 0-4-0 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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One LUGT2 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
12) Use USP 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 6-0-12 from the left end to 12-0-12 to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Minimum of a double stud required directly beneath this truss to attach LUGT2 tiedown.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-4=-60, 4-6=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 14=-2460 (F), 15=-1590 (F), 16=-1592 (F), 17=-1593 (F)

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	H01	Common	1	1	E15498412 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

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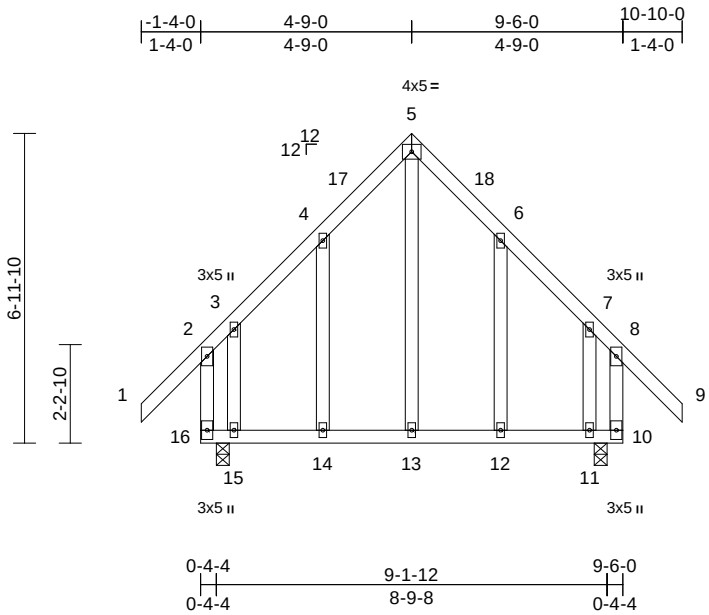

Scale = 1:51.8

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	0.44	Vert(LL)	-0.04	13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.08	13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 76 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 11=0-3-8, 15=0-3-8
Max Horiz 15=223 (LC 13)
Max Uplift 11=-49 (LC 15), 15=-49 (LC 14)
Max Grav 11=457 (LC 1), 15=457 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/63, 2-3=-145/59, 3-4=-209/91, 4-17=-228/180, 5-17=-220/193, 5-18=-220/193, 6-18=-228/180, 6-7=-209/91, 7-8=-145/59, 8-9=0/63, 2-16=-171/119, 8-10=-171/119
BOT CHORD	15-16=-84/170, 14-15=-84/170, 13-14=-84/170, 12-13=-84/170, 11-12=-84/170, 10-11=-84/170
WEBS	5-13=-170/172, 4-14=-96/117, 3-15=-191/64, 6-12=-96/117, 7-11=-191/64

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) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 11. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	H02	Common	1	1	E15498413 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

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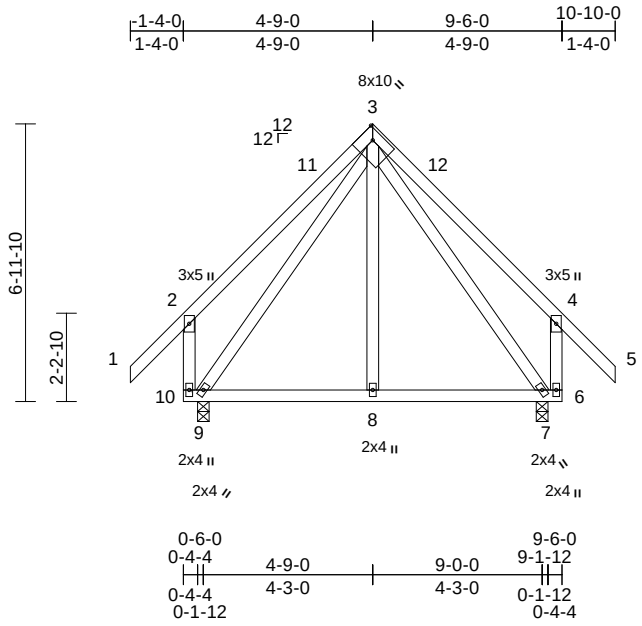

Scale = 1:57.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.01	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 77 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 7=0-3-8, 9=0-3-8
Max Horiz 9=-223 (LC 12)
Max Uplift 7=-49 (LC 15), 9=-49 (LC 14)
Max Grav 7=457 (LC 1), 9=457 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/63, 2-11=-217/274, 3-11=-169/292, 3-12=-169/292, 4-12=-217/274, 4-5=0/63, 2-10=-308/332, 4-6=-308/332
BOT CHORD	9-10=-15/65, 8-9=-60/180, 7-8=-60/180, 6-7=-15/65
WEBS	3-8=0/183, 3-9=-276/87, 3-7=-275/87

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) exterior zone 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=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 7. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

ENGINEERING BY
TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	G01	Piggyback Base Structural Gable	1	1	E15498414 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:54 Page: 1

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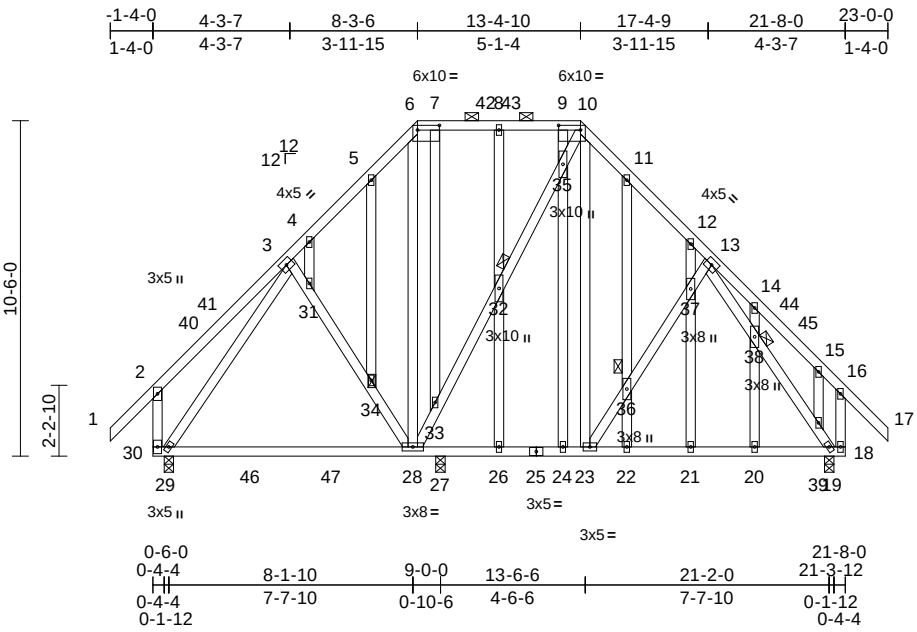


Scale = 1:72.1

Plate Offsets (X, Y): [6:0-8-4,0-1-12], [10:0-8-4,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.08	28-29	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.17	28-29	>623	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	19	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 259 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 28-10:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 32, 34, 36, 38

REACTIONS (size) 19=0-3-8, 27=0-3-8, 29=0-3-8
Max Horiz 29=-312 (LC 12)
Max Uplift 19=-80 (LC 15), 27=-85 (LC 14), 29=-57 (LC 14)
Max Grav 19=991 (LC 40), 27=381 (LC 39), 29=938 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/63, 2-40=-232/159, 40-41=-169/172, 3-41=-164/190, 3-4=-606/161, 4-5=-548/185, 5-6=-486/226, 6-7=-384/206, 7-42=-384/206, 8-42=-384/206, 8-43=-384/206, 9-43=-384/206, 9-10=-384/206, 10-11=-540/273, 11-12=-580/201, 12-13=-709/157, 13-14=-124/248, 14-44=-153/200, 44-45=-155/192, 15-45=-174/190, 15-16=-169/175, 16-17=0/63, 2-30=-322/230, 16-18=-269/232
BOT CHORD 29-30=0/93, 29-46=-140/551, 46-47=-140/551, 28-47=-140/551, 27-28=-22/408, 26-27=-22/408, 25-26=-22/408, 24-25=-22/408, 23-24=-22/408, 22-23=0/453, 21-22=0/453, 20-21=0/453, 19-20=0/453, 18-19=-18/75
WEBS 3-31=-172/212, 31-34=-170/214, 28-34=-224/251, 6-28=-54/210, 28-33=-132/140, 32-33=-143/142, 32-35=-147/140, 10-35=-155/153, 10-23=-177/281, 23-36=-222/189, 36-37=-209/184, 13-37=-161/152, 3-29=-690/3, 13-38=-866/0, 38-39=-758/0, 19-39=-775/0, 4-31=-12/12, 8-32=-217/54, 26-32=-215/53, 7-33=-18/28, 5-34=-74/44, 9-35=-14/70, 24-35=-1/69, 11-36=-137/85, 22-36=-118/79, 12-37=0/109, 21-37=-11/150, 14-38=0/97, 20-38=-63/52, 15-39=-88/44

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 4-0-7, Exterior (2) 4-0-7 to 17-6-10, Interior (1) 17-6-10 to 20-0-0, Exterior (2) 20-0-0 to 23-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 2x4 MT20 unless otherwise indicated.
9) 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * 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.
13) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 29, 19, and 27. This connection is for uplift only and does not consider lateral forces.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

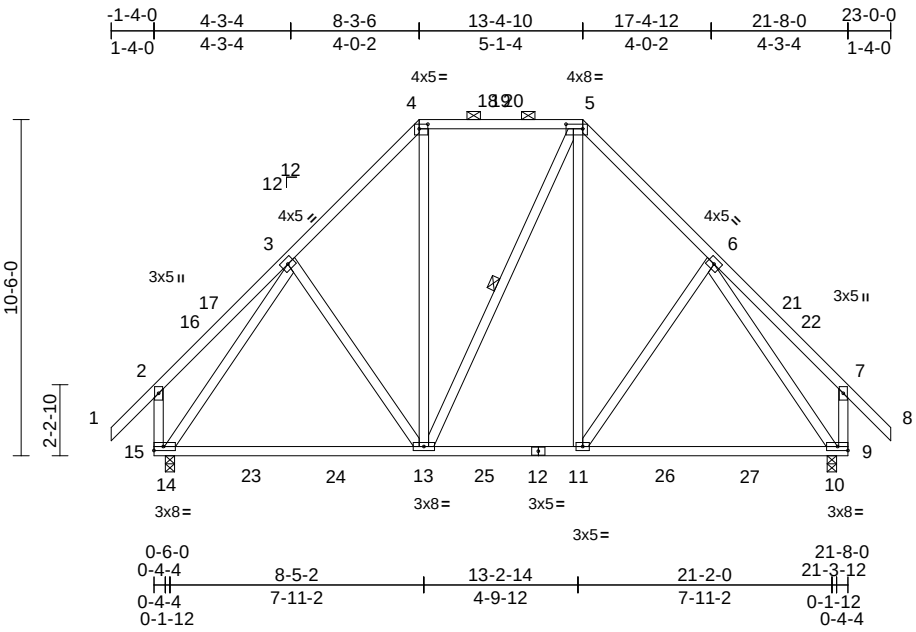
LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	G02	Piggyback Base	2	1	E15498415 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:55 Page: 1
ID:3DkMEbFjaWAFnj9Go29u0Lzanq6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71.9

Plate Offsets (X, Y): [4:0-3-4,0-1-12], [5:0-6-4,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.10	13-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.20	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 13-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS (size) 10=0-3-8, 14=0-3-8
Max Horiz 14=-312 (LC 12)
Max Uplift 10=-107 (LC 15), 14=-107 (LC 14)
Max Grav 10=1114 (LC 40), 14=1114 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-16=-230/146, 16-17=-167/158, 3-17=-167/177, 3-4=-821/266, 4-18=-480/246, 18-19=-480/246, 19-20=-480/246, 5-20=-480/246, 5-6=-821/265, 6-21=-167/177, 21-22=-167/158, 7-22=-230/146, 7-8=0/63, 2-15=-318/218, 7-9=-317/218
BOT CHORD 14-15=0/100, 14-23=-172/640, 23-24=-172/640, 13-24=-172/640, 13-25=-46/524, 12-25=-46/524, 11-12=-46/524, 11-26=-6/520, 26-27=-6/520, 10-27=-6/520, 9-10=0/100
WEBS 3-13=-156/212, 4-13=-73/284, 5-13=-115/116, 5-11=-92/346, 6-11=-156/212, 3-14=-911/51, 6-10=-910/51

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 4-0-7, Exterior (2) 4-0-7 to 17-6-9, Interior (1) 17-6-9 to 20-0-0, Exterior (2) 20-0-0 to 23-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.
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

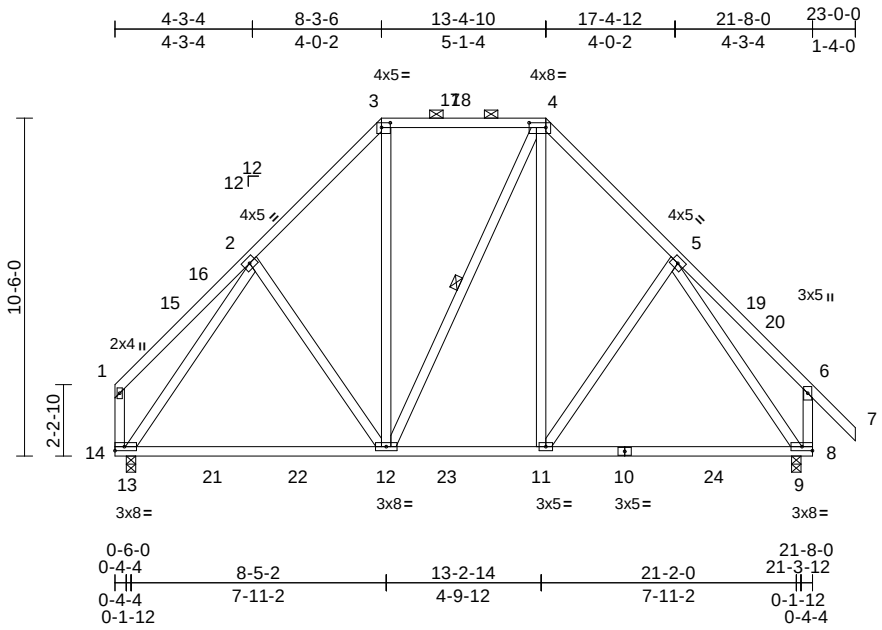
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	G03	Piggyback Base	1	1	E15498416 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:56 Page: 1

ID:baDqAtePofKaEnBcETFdrIzanpb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.11	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.20	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 171 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 12-4:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-12

REACTIONS (size) 9=0-3-8, 13=0-3-8
Max Horiz 13=-300 (LC 10)
Max Uplift 9=-106 (LC 15), 13=-77 (LC 14)
Max Grav 9=1118 (LC 40), 13=1021 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-15=-229/97, 15-16=-177/101, 2-16=-156/117, 2-3=-831/270, 3-17=-482/247, 17-18=-482/247, 4-18=-482/247, 4-5=-826/266, 5-19=-169/177, 19-20=-169/158, 6-20=-232/147, 6-7=0/63, 1-14=-225/107, 6-8=-319/218
BOT CHORD 13-14=0/87, 13-21=-169/652, 21-22=-169/652, 12-22=-169/652, 12-23=-45/528, 11-23=-45/528, 10-11=-5/524, 10-24=-5/524, 9-24=-5/524, 8-9=0/100
WEBS 2-12=-164/210, 3-12=-72/292, 4-12=-113/117, 4-11=-92/348, 5-11=-156/213, 2-13=-905/90, 5-9=-915/49

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-0-7, Exterior (2) 4-0-7 to 17-6-9, Interior (1) 17-6-9 to 20-0-0, Exterior (2) 20-0-0 to 23-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 9. This connection is for uplift only and does not consider lateral forces.
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

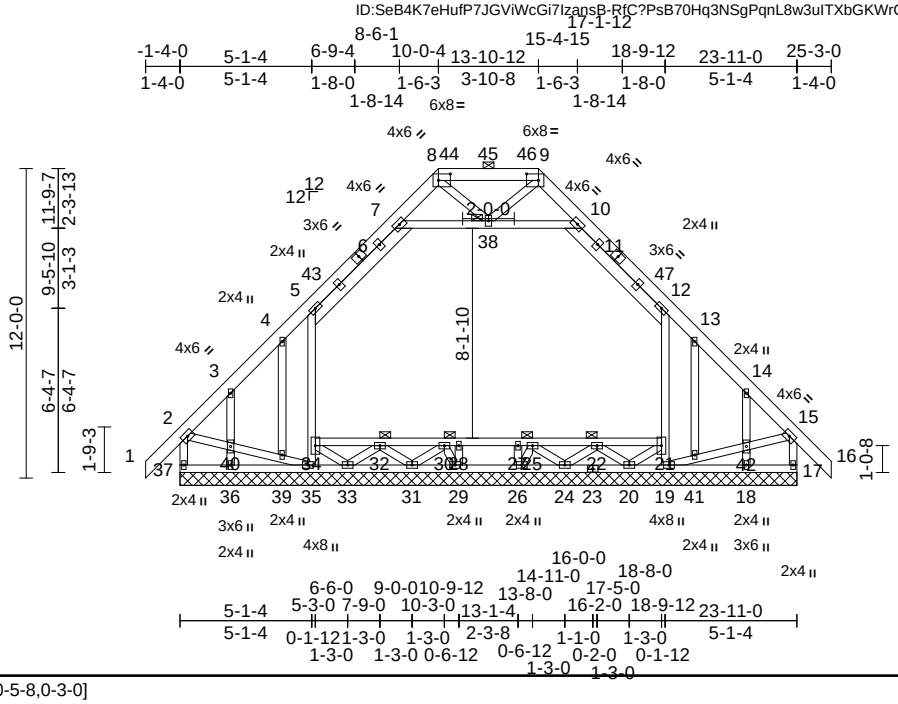
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	A01	Attic Supported Gable	1	1	E15498417 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:16 Page: 1

ID:SeB4K7eHufP7JGViWcGi7IzqnsB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:89.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	17	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 264 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 7-10:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 32, 22, 30, 25, 38

REACTIONS (size) 17=23-11-0, 18=23-11-0, 19=23-11-0, 20=23-11-0, 24=23-11-0, 26=23-11-0, 29=23-11-0, 31=23-11-0, 33=23-11-0, 35=23-11-0, 36=23-11-0, 37=23-11-0
Max Horiz 37=-335 (LC 12)
Max Uplift 17=-71 (LC 11), 18=-112 (LC 15), 19=-227 (LC 15), 35=-210 (LC 14), 36=-114 (LC 14), 37=-83 (LC 10)
Max Grav 17=709 (LC 42), 18=169 (LC 30), 19=459 (LC 52), 20=258 (LC 21), 24=253 (LC 21), 26=266 (LC 21), 29=266 (LC 21), 31=253 (LC 21), 33=268 (LC 50), 35=430 (LC 50), 36=173 (LC 33), 37=709 (LC 42)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-37=-694/85, 1-2=0/63, 2-3=-629/116, 3-4=-622/114, 4-5=-520/123, 5-43=-712/134, 6-43=-570/149, 6-7=-567/161, 7-8=-392/85, 8-44=-303/68, 44-45=-303/68, 45-46=-303/68, 9-46=-303/68, 9-10=-392/85, 10-11=-567/161, 11-47=-570/149, 12-47=-712/134, 12-13=-520/111, 13-14=-622/104, 14-15=-629/105, 15-16=0/63, 15-17=-694/76
BOT CHORD 36-37=-311/303, 35-36=-311/303, 33-35=-82/426, 31-33=-34/344, 29-31=-37/219, 26-29=-43/185, 24-26=-39/220, 23-24=-48/352, 20-23=-48/352, 19-20=-77/424, 18-19=-23/41, 17-18=-23/41, 32-34=-19/153, 30-32=-29/209, 28-30=-39/246, 27-28=-39/246, 25-27=-39/246, 22-25=-25/207, 21-22=0/135
WEBS 2-40=-69/449, 39-40=-69/442, 35-39=-69/450, 34-35=-424/155, 5-34=-484/213, 19-21=-450/170, 12-21=-475/208, 19-41=-72/451, 41-42=-71/443, 15-42=-72/450, 7-38=-236/162, 10-38=-226/157, 33-34=-188/27, 20-21=-163/0, 32-33=-128/10, 20-22=-128/15, 31-32=-159/0, 22-24=-167/0, 30-31=-35/24, 24-25=-35/24, 29-30=-73/0, 25-26=-75/0, 28-29=-90/0, 26-27=-90/0, 8-38=-42/103, 9-38=-41/103, 4-39=-21/36, 3-40=-211/118, 36-40=-223/144, 13-41=-21/37, 14-42=-211/117, 18-42=-223/144

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-11-5, Interior (1) 1-11-5 to 5-9-5, Exterior (2) 5-9-5 to 18-1-11, Interior (1) 18-1-11 to 21-11-11, Exterior (2) 21-11-11 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.

March 15,2021

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

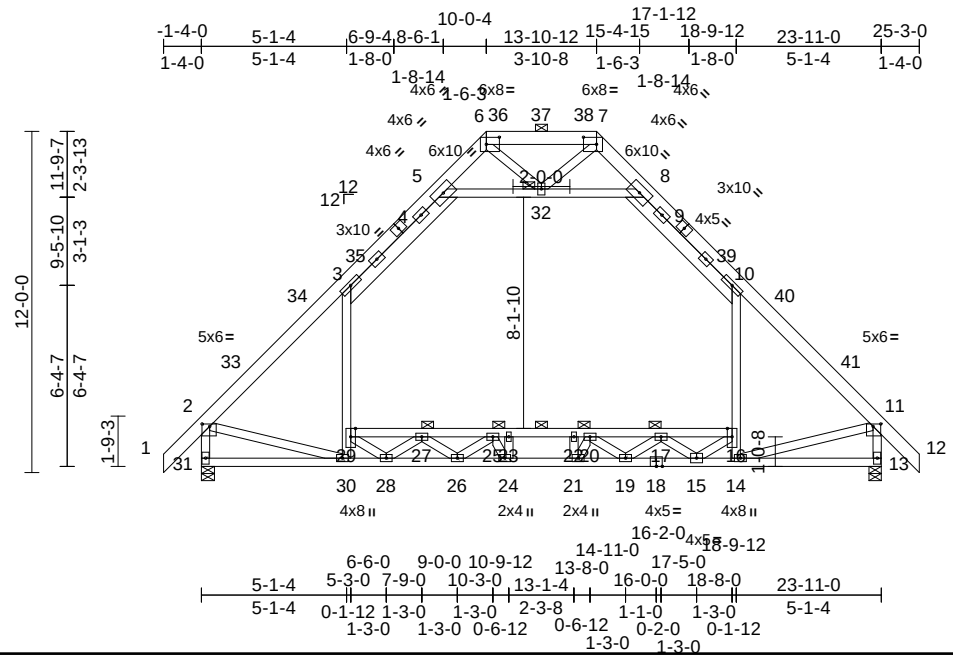
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 3x5 MT20 unless otherwise indicated.
9) Gable requires continuous bottom chord bearing.
10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
14) Ceiling dead load (5.0 psf) on member(s). 5-7, 10-12, 7-38, 10-38; Wall dead load (5.0psf) on member (s).5-34, 12-21
15) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 37, 17, 35, 19, 36, and 18. This connection is for uplift only and does not consider lateral forces.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	A02	Attic	5	1	E15498418 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:20 Page: 1

ID:5niCIj7V5ZnjRD0tFZ2d58zanu7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81

Plate Offsets (X, Y): [2:0-3-4,0-1-0], [6:0-5-8,0-3-0], [7:0-5-8,0-3-0], [11:0-3-4,0-1-0]

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	0.80	Vert(LL)	-0.22	22-23	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.39	22-23	>718	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.05	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.12	16-29	>999	360		
BCDL	10.0										Weight: 242 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-7,3-5,8-10:2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 31-18:2x4 SP No.1

WEBS 2x4 SP No.3 *Except* 5-8:2x4 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 (10-0-0 max.): 6-7.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
3-6-0 oc bracing: 20-25
3-9-0 oc bracing: 25-27, 17-20
5-10-0 oc bracing: 27-29, 16-17

JOINTS 1 Brace at Jt(s): 32, 27, 17, 25, 20

REACTIONS (size) 13=0-5-4, 31=0-5-8
Max Horiz 31=-335 (LC 12)
Max Grav 13=1780 (LC 48), 31=1780 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/63, 2-33=-1737/0, 33-34=-1601/0, 3-34=-1567/0, 3-35=-1151/102, 4-35=-1111/106, 4-5=-862/139, 5-6=-164/367, 6-36=0/545, 36-37=0/545, 37-38=0/545, 7-38=0/545, 7-8=-164/367, 8-9=-861/139, 9-39=-1111/106, 10-39=-1151/102, 10-40=-1565/0, 40-41=-1599/0, 11-41=-1735/0, 11-12=0/63, 2-31=-1732/0, 11-13=-1732/0

BOT CHORD 30-31=-317/458, 28-30=-39/1215, 26-28=0/2734, 24-26=0/3448, 21-24=0/3553, 19-21=0/3449, 18-19=0/2580, 15-18=0/2580, 14-15=0/1038, 13-14=-49/189, 27-29=-913/0, 25-27=-2205/0, 23-25=-2714/0, 22-23=-2714/0, 20-22=-2714/0, 17-20=-2204/0, 16-17=-914/0

WEBS 29-30=-187/75, 3-29=0/793, 14-16=-183/67, 10-16=0/793, 5-32=-1702/136, 8-32=-1701/134, 2-30=0/1047, 11-14=0/1051, 6-32=-118/190, 7-32=-118/190, 28-29=0/1151, 15-16=0/1155, 27-28=-1108/0, 15-17=-1105/0, 26-27=0/602, 17-19=0/602, 25-26=-526/0, 19-20=-528/0, 24-25=-38/259, 20-21=-39/258, 23-24=-177/34, 21-22=-177/36

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 5-9-5, Exterior (2) 5-9-5 to 18-1-11, Interior (1) 18-1-11 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (5.0 psf) on member(s). 3-5, 8-10, 5-32, 8-32; Wall dead load (5.0psf) on member(s).3-29, 10-16
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 25-27, 23-25, 22-23, 20-22, 17-20, 16-17
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

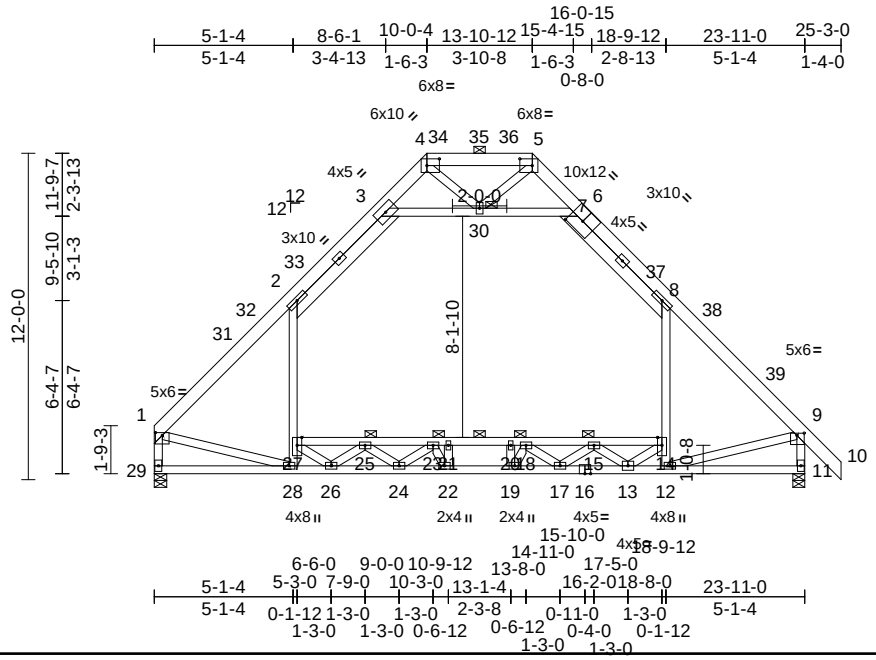
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	A03	Attic	2	1	E15498419 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:22 Page: 1

ID:18kCih_TGEOGCiDjRKGrmAzanF?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:84.7

Plate Offsets (X, Y): [1:0-3-0,0-1-4], [4:0-5-8,0-3-0], [5:0-5-8,0-3-0], [7:0-6-0,0-4-12], [9:0-3-4,0-1-0]

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	0.80	Vert(LL)	-0.22	20-21	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.40	20-21	>715	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.05	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.12	14-27	>999	360		
BCDL	10.0										Weight: 238 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-5,2-3,6-8:2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 29-16:2x4 SP No.1

WEBS 2x4 SP No.3 *Except* 3-6:2x4 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 (10-0-0 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
3-6-0 oc bracing: 18-23
3-9-0 oc bracing: 23-25, 15-18
5-10-0 oc bracing: 25-27, 14-15

JOINTS 1 Brace at Jt(s): 30, 25, 15, 23, 18

REACTIONS (size) 11=0-5-4, 29=0-5-8
Max Horiz 29=-323 (LC 10)
Max Grav 11=1783 (LC 48), 29=1704 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-31=-1737/0, 31-32=-1601/0, 2-32=-1567/0, 2-33=-1120/112, 3-33=-941/147, 3-4=-166/363, 4-34=0/543, 34-35=0/543, 35-36=0/543, 5-36=0/543, 5-6=-166/366, 6-7=-392/95, 7-37=-1007/139, 8-37=-1143/108, 8-38=-1568/0, 38-39=-1602/0, 9-39=-1738/0, 9-10=0/63, 1-29=-1655/0, 9-11=-1735/0

BOT CHORD 28-29=-294/433, 26-28=-39/1224, 24-26=0/2743, 22-24=0/3449, 19-22=0/3554, 17-19=0/3449, 16-17=0/2580, 13-16=0/2580, 12-13=0/1037, 11-12=-50/189, 25-27=-922/0, 23-25=-2207/0, 21-23=-2715/0, 20-21=-2715/0, 18-20=-2715/0, 15-18=-2204/0, 14-15=-912/0

WEBS 27-28=-201/88, 2-27=0/788, 12-14=-182/68, 8-14=0/793, 3-30=-1697/134, 6-30=-1704/136, 1-28=0/1045, 9-12=0/1053, 4-30=-119/188, 5-30=-117/190, 26-27=0/1152, 13-14=0/1154, 25-26=-1107/0, 13-15=-1105/0, 24-25=0/602, 15-17=0/603, 23-24=-526/0, 17-18=-529/0, 22-23=-39/258, 18-19=-40/262, 21-22=-177/35, 19-20=-179/36

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-9-5, Exterior (2) 5-9-5 to 18-1-11, Interior (1) 18-1-11 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Ceiling dead load (5.0 psf) on member(s). 2-3, 6-8, 3-30, 6-30; Wall dead load (5.0psf) on member(s).2-27, 8-14
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 25-27, 23-25, 21-23, 20-21, 18-20, 15-18, 14-15
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	E01	Roof Special	5	1	E15498420 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:51 Page: 1

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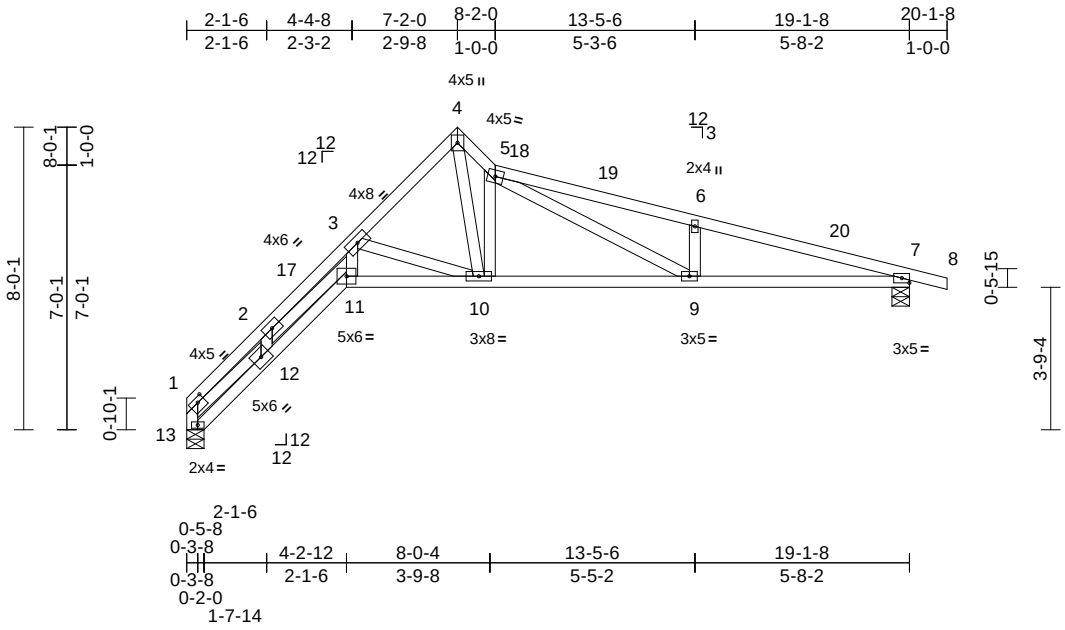

Scale = 1:61

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

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	0.55	Vert(LL)	0.17	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.34	9-10	>678	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.35	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 104 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 2-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-10-11 oc bracing.

REACTIONS (size) 7=0-5-8, 13=0-5-8
Max Horiz 13=175 (LC 14)
Max Uplift 7=-145 (LC 11), 13=-54 (LC 15)
Max Grav 7=821 (LC 1), 13=758 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2216/609, 2-17=-3482/840, 3-17=-3439/852, 3-4=-1177/210, 4-5=-1480/296, 5-18=-1930/318, 18-19=-1965/317, 6-19=-2006/310, 6-20=-1965/263, 7-20=-2008/249, 7-8=0/15, 1-13=-795/236

BOT CHORD 12-13=-279/316, 11-12=-734/2043, 10-11=-594/2233, 9-10=-150/1222, 7-9=-211/1907

WEBS 3-11=-567/2049, 3-10=-1512/528, 4-10=-292/1676, 5-10=-1086/243, 5-9=-193/820, 6-9=-326/165, 1-12=-434/1650, 2-11=-173/1258, 2-12=-416/142

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) exterior zone and C-C Exterior (2) 0-11-13 to 3-11-13, Interior (1) 3-11-13 to 5-0-1, Exterior (2) 5-0-1 to 9-0-1, Interior (1) 9-0-1 to 17-11-9, Exterior (2) 17-11-9 to 20-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 7. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B01	Piggyback Base	3	1	E15498421 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:23 Page: 1

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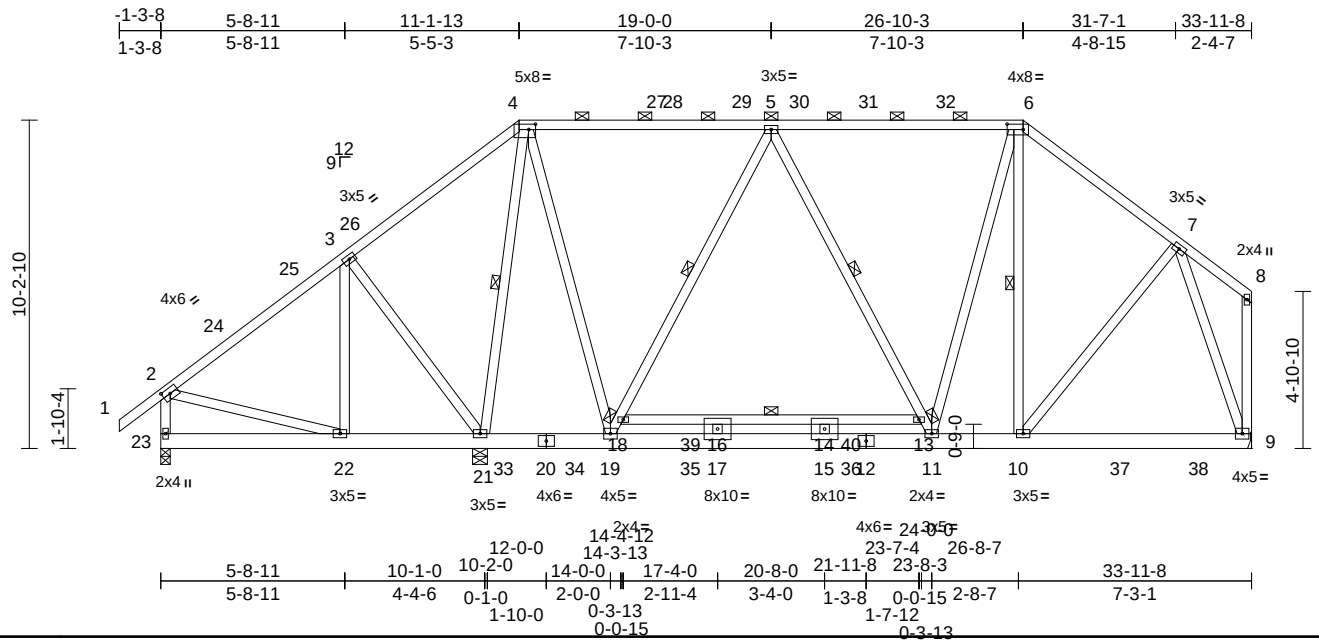

Scale = 1:71.7

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [4:0-2-8,0-2-0], [6:0-6-0,0-2-0]

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	0.65	Vert(LL)	-0.16	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.35	15-17	>820	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 298 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP No.2 *Except* 18-13:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 19-5,11-5:2x4 SP No.2

BRACING

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

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

WEBS 1 Row at midpt 5-18, 5-13, 6-10, 4-21

REACTIONS (size) 9= Mechanical, 21=0-5-8, 23=0-3-8
Max Horiz 23=318 (LC 11)
Max Uplift 21=-59 (LC 14), 23=-19 (LC 14)
Max Grav 9=1255 (LC 38), 21=1531 (LC 45), 23=618 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-24=-506/26, 24-25=-420/30, 3-25=-330/52, 3-26=-289/87, 4-26=-205/122, 4-27=-696/81, 27-28=-696/81, 28-29=-696/81, 5-29=-696/81, 5-30=-958/92, 30-31=-958/92, 31-32=-958/92, 6-32=-958/92, 6-7=-969/136, 7-8=-105/111, 2-23=-563/104, 8-9=-84/72

BOT CHORD 22-23=-313/284, 21-22=-146/430, 21-33=-88/361, 20-33=-88/361, 20-34=-88/361, 19-34=-88/361, 19-35=-20/949, 17-35=-20/949, 15-17=-20/949, 15-36=-20/949, 12-36=-20/949, 11-12=-20/949, 10-11=-2/740, 10-37=-47/393, 37-38=-47/393, 9-38=-47/393, 18-39=-31/66, 16-39=-31/66, 14-16=-31/66, 14-40=-31/66, 13-40=-31/66

WEBS 3-22=0/180, 18-19=-768/116, 5-18=-750/155, 5-13=-169/235, 11-13=-188/178, 6-10=-520/0, 7-10=-5/576, 2-22=-9/342, 7-9=-1174/59, 4-19=0/1292, 6-11=0/783, 16-17=-128/0, 14-15=-138/0, 4-21=-1447/0, 3-21=-468/194

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 6-4-3, Exterior (2) 6-4-3 to 15-11-7, Interior (1) 15-11-7 to 22-0-9, Exterior (2) 22-0-9 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 23 and 21. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B09	Piggyback Base	1	1	E15498422 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:30
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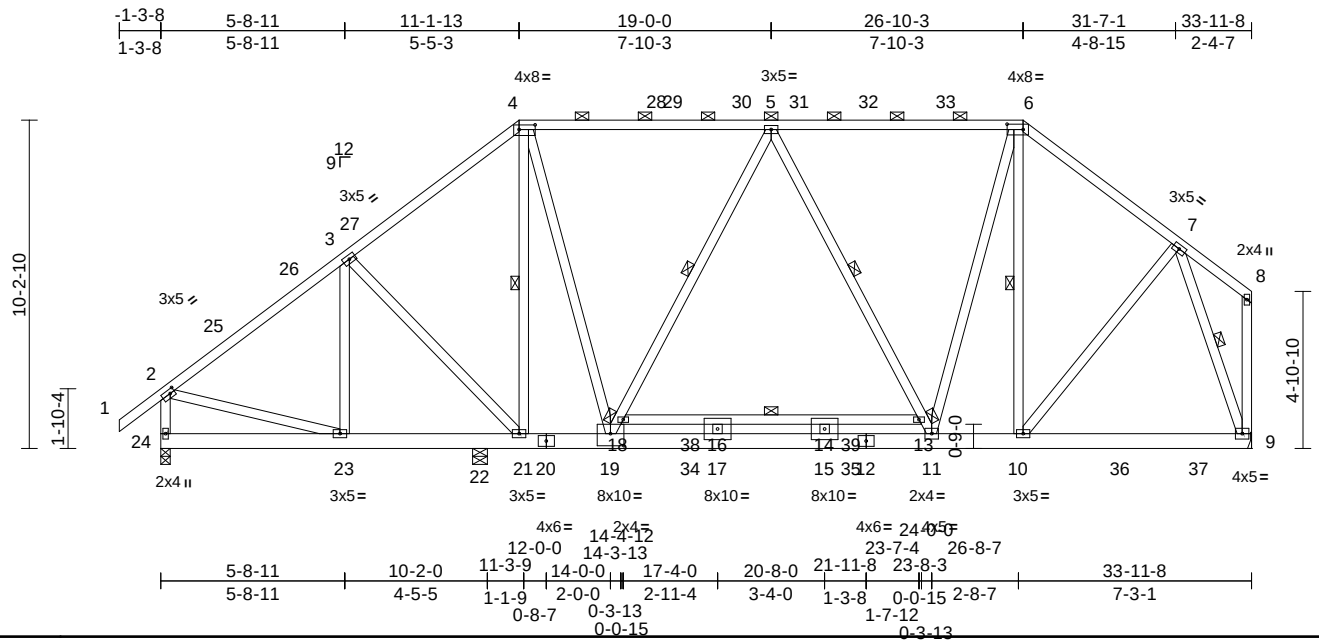
Page: 1



Scale = 1:71.7

Plate Offsets (X, Y): [2:0-1-12,0-1-8], [4:0-6-0,0-1-12], [6:0-6-0,0-2-0], [19:0-5-0,0-4-8]

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	0.66	Vert(LL)	-0.16	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.35	15-17	>818	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 299 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP No.2 *Except* 18-13:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 19-5,11-5:2x4 SP No.2

BRACING

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

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

WEBS 1 Row at midpt 4-21, 5-18, 5-13, 6-10, 7-9

REACTIONS (size) 9= Mechanical, 22=0-5-8, 24=0-3-8
Max Horiz 24=318 (LC 11)
Max Uplift 22=-1 (LC 14), 24=-60 (LC 14)
Max Grav 9=1427 (LC 45), 22=818 (LC 45), 24=1060 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-25=-1011/78, 25-26=-921/82, 3-26=-837/104, 3-27=-981/126, 4-27=-887/162, 4-28=-1086/115, 28-29=-1086/115, 29-30=-1086/115, 5-30=-1086/115, 5-31=-1143/111, 31-32=-1143/111, 32-33=-1143/111, 6-33=-1143/111, 6-7=-1140/152, 7-8=-107/112, 2-24=-974/147, 8-9=-86/72

BOT CHORD 23-24=-313/295, 22-23=-166/794, 21-22=-166/794, 20-21=-115/733, 19-20=-115/733, 19-34=-32/1232, 17-34=-32/1232, 15-17=-32/1232, 15-35=-32/1232, 12-35=-32/1232, 11-12=-32/1232, 10-11=-8/876, 10-36=-46/452, 36-37=-46/452, 9-37=-46/452, 18-38=-31/71, 16-38=-31/71, 14-16=-31/71, 14-39=-31/71, 13-39=-31/71

WEBS 3-23=-246/60, 3-21=-264/189, 4-21=-1040/0, 18-19=-525/148, 5-18=-511/186, 5-13=-407/211, 11-13=-424/171, 6-10=-591/0, 7-10=-10/689, 2-23=0/691, 7-9=-1351/58, 4-19=0/1316, 6-11=0/963, 16-17=-138/0, 14-15=-132/0

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 6-4-3, Exterior (2) 6-4-3 to 15-11-7, Interior (1) 15-11-7 to 22-0-9, Exterior (2) 22-0-9 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24 and 22. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

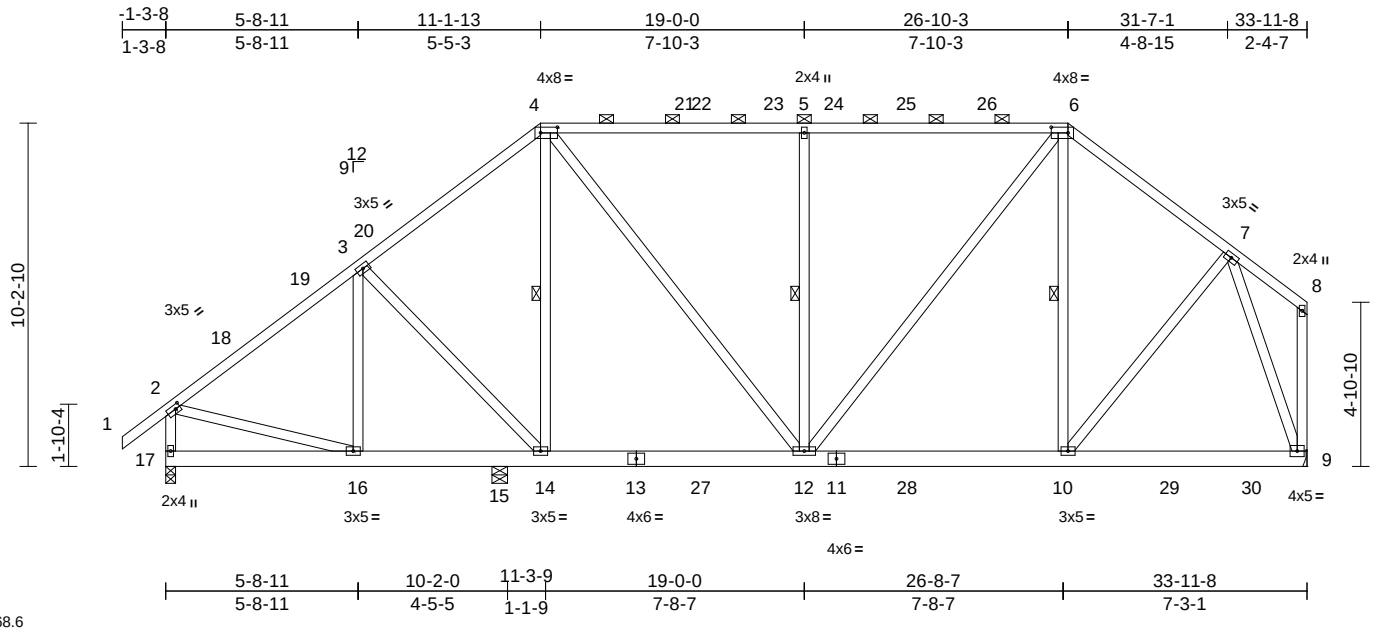
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B10	Piggyback Base	1	1	E15498423 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:31
ID:V5mZxwPwR4A3o8laUem7Fxzan6j-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:68.6

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

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	0.66	Vert(LL)	-0.07	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.13	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 274 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 12-4,12-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 5-12, 6-10

REACTIONS (size) 9= Mechanical, 15=0-5-8, 17=0-3-8
Max Horiz 17=318 (LC 11)
Max Uplift 9=-140 (LC 15), 15=-100 (LC 14), 17=-128 (LC 14)
Max Grav 9=1266 (LC 45), 15=619 (LC 39), 17=1026 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-18=-969/153, 18-19=-882/157, 3-19=-808/179, 3-20=-956/223, 4-20=-871/258, 4-21=-1126/314, 21-22=-1126/314, 22-23=-1126/314, 5-23=-1126/314, 5-24=-1126/314, 24-25=-1126/314, 25-26=-1126/314, 6-26=-1126/314, 6-7=-1008/277, 7-8=-104/114, 2-17=-940/208, 8-9=-84/74
BOT CHORD 16-17=-315/294, 15-16=-227/787, 14-15=-227/787, 13-14=-188/725, 13-27=-188/725, 12-27=-188/725, 11-12=-105/777, 11-28=-105/777, 10-28=-105/777, 10-29=-94/400, 29-30=-94/400, 9-30=-94/400
WEBS 3-16=-248/90, 3-14=-254/179, 4-14=-410/139, 4-12=-164/687, 5-12=-813/248, 6-12=-167/598, 6-10=-302/172, 7-10=-92/604, 2-16=-10/663, 7-9=-1199/200

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 6-4-3, Exterior (2) 6-4-3 to 15-11-7, Interior (1) 15-11-7 to 22-0-9, Exterior (2) 22-0-9 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 9.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 15. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B02	Hip	1	1	E15498424 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:25 Page: 1

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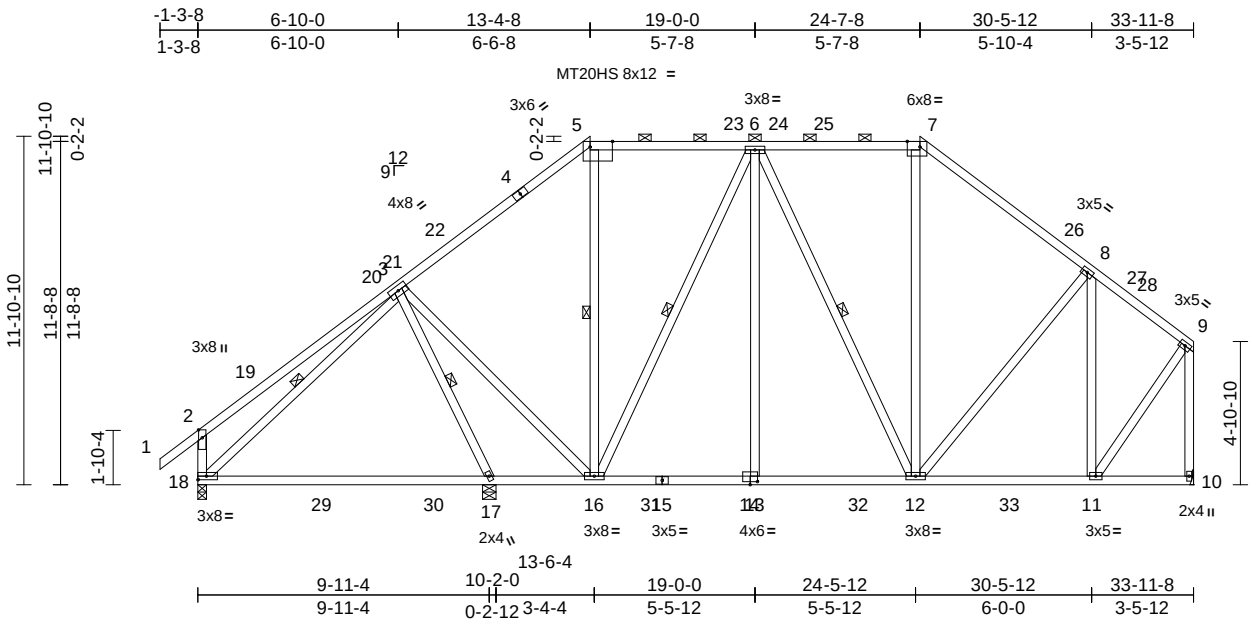

Scale = 1:78.6

Plate Offsets (X, Y): [5:0-9-3,Edge], [7:0-5-3,Edge], [13:0-3-0,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.27	17-18	>439	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.50	17-18	>237	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 276 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 16-5,16-6,6-13,12-6,12-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.
WEBS 1 Row at midpt 3-17, 5-16, 6-16, 6-12, 3-18

REACTIONS (size) 10= Mechanical, 17=0-5-8, 18=0-3-8
Max Horiz 18=359 (LC 11)
Max Uplift 10=-136 (LC 15), 17=-121 (LC 14), 18=-105 (LC 14)
Max Grav 10=1112 (LC 40), 17=1180 (LC 46), 18=721 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-19=-354/179, 19-20=-250/210, 3-20=-242/213, 3-21=-687/249, 21-22=-669/254, 4-22=-548/275, 4-5=-532/297, 5-23=-460/298, 6-23=-461/297, 6-24=-607/304, 24-25=-606/304, 7-25=-605/304, 7-26=-748/308, 8-26=-846/270, 8-27=-548/200, 27-28=-583/192, 9-28=-650/190, 2-18=-425/241, 9-10=-1099/201
BOT CHORD 18-29=-231/491, 29-30=-231/491, 17-30=-231/491, 16-17=-255/200, 16-31=-156/703, 15-31=-156/703, 14-15=-156/703, 13-14=-156/703, 13-32=-156/703, 12-32=-156/703, 12-33=-91/499, 11-33=-91/499, 10-11=-64/72
WEBS 3-17=-1027/256, 3-16=-56/804, 5-16=-110/98, 6-16=-643/123, 6-13=0/333, 6-12=-256/150, 7-12=-45/192, 8-12=-112/269, 8-11=-588/152, 3-18=-422/139, 9-11=-102/858

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 8-6-14, Exterior (2) 8-6-14 to 18-2-2, Interior (1) 18-2-2 to 19-9-14, Exterior (2) 19-9-14 to 29-5-2, Interior (1) 29-5-2 to 30-5-0, Exterior (2) 30-5-0 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 10.
12) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
13) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 15,2021

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B02	Hip	1	1	E15498424 Job Reference (optional)

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B03	Hip	1	1	E15498425
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:26 Page: 1

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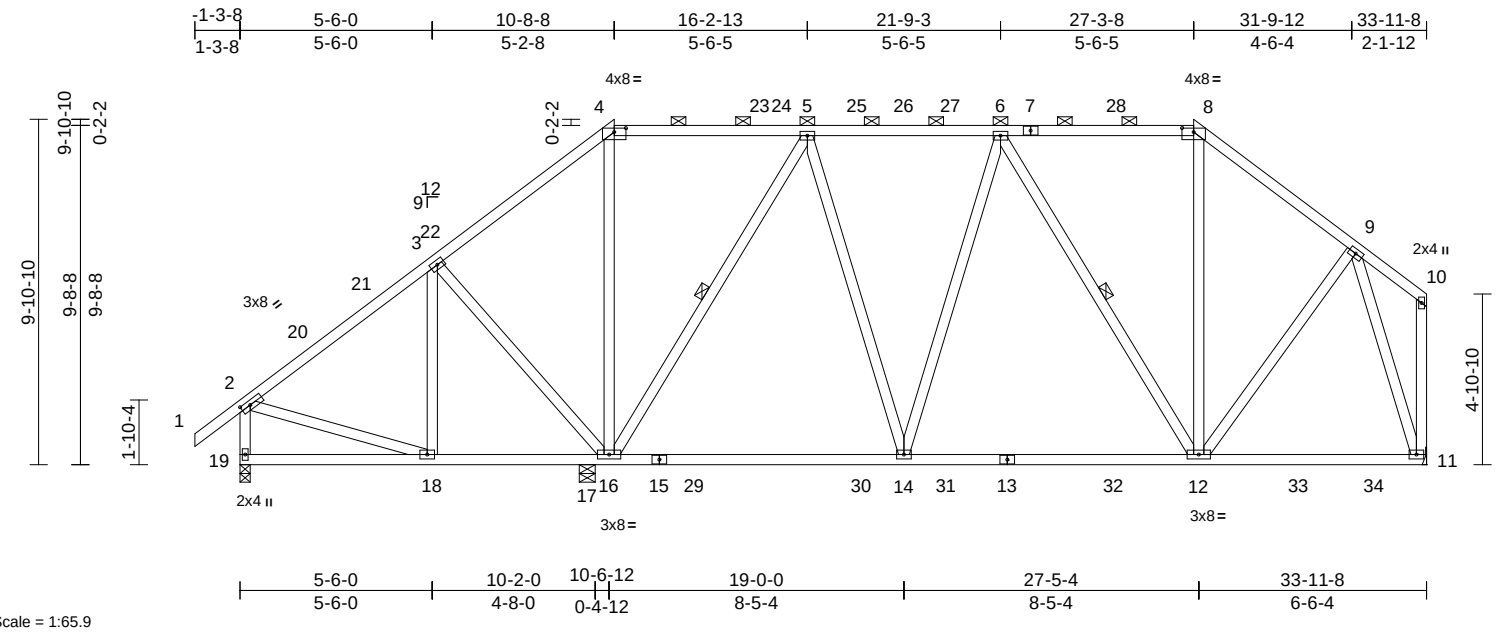

Scale = 1:65.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.19	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.35	14-16	>823	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.04	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 253 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 15-13:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 16-5,12-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-7 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-16, 6-12

REACTIONS (size) 11= Mechanical, 17=0-5-8, 19=0-3-8
Max Horiz 19=310 (LC 11)
Max Uplift 11=-129 (LC 15), 17=-149 (LC 14), 19=-95 (LC 14)
Max Grav 11=1252 (LC 45), 17=755 (LC 39), 19=980 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-20=-935/111, 20-21=-861/114, 3-21=-774/135, 3-22=-866/160, 4-22=-859/197, 4-23=-660/208, 23-24=-661/208, 5-24=-662/207, 5-25=-1119/265, 25-26=-1119/265, 26-27=-1119/265, 6-27=-1119/265, 6-7=-741/248, 7-28=-741/249, 8-28=-741/250, 8-9=-955/254, 9-10=-108/116, 2-19=-909/171, 10-11=-83/75
BOT CHORD 18-19=-299/279, 17-18=-191/782, 16-17=-191/782, 15-16=-193/1050, 15-29=-193/1050, 29-30=-193/1050, 14-30=-193/1050, 14-31=-177/1077, 13-31=-177/1077, 13-32=-177/1077, 12-32=-177/1077, 12-33=-86/367, 33-34=-86/367, 11-34=-86/367
WEBS 3-18=-203/63, 3-16=-266/175, 4-16=0/261, 5-16=-788/201, 5-14=-34/286, 6-14=-6/237, 6-12=-651/161, 8-12=-19/286, 9-12=-82/641, 2-18=0/660, 9-11=-1190/194

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 5-10-14, Exterior (2) 5-10-14 to 15-6-2, Interior (1) 15-6-2 to 22-5-14, Exterior (2) 22-5-14 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 11.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19. This connection is for uplift only and does not consider lateral forces.
13) One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B04	Roof Special	1	1	E15498426
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:27 Page: 1

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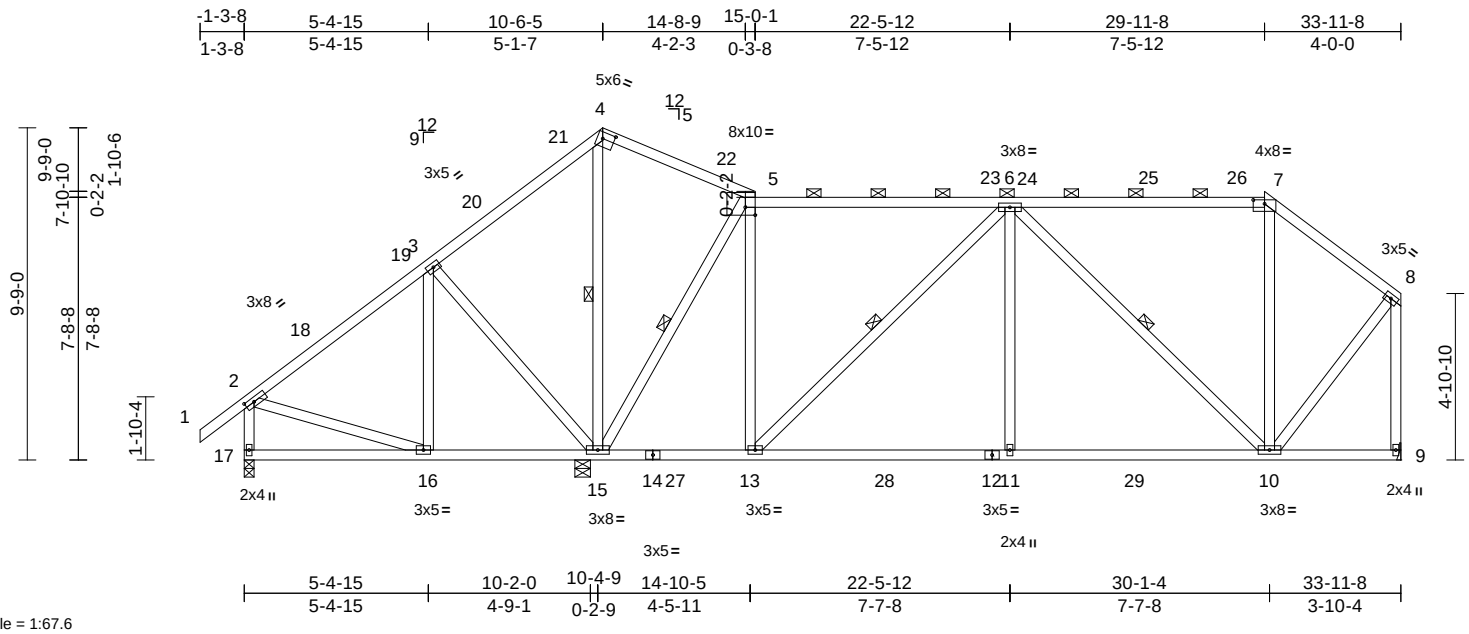


Scale = 1:67.6

Plate Offsets (X, Y): [2:0-3-4,0-1-8], [4:0-4-0,0-2-4], [5:0-3-8,0-2-12], [7:0-4-0,0-1-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.07	10-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.14	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 242 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 5-7:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 13-6,10-6:2x4 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 (2-2-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 4-15, 5-15, 6-13, 6-10

REACTIONS (size) 9= Mechanical, 15=0-5-8, 17=0-3-8
Max Horiz 17=-264 (LC 12)
Max Uplift 9=-140 (LC 15), 15=-247 (LC 15), 17=-42 (LC 14)
Max Grav 9=954 (LC 42), 15=1677 (LC 50), 17=409 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-18=-258/139, 18-19=-88/191, 3-19=-61/197, 3-20=-54/323, 20-21=-32/366, 4-21=-23/403, 4-22=-14/332, 5-22=-27/289, 5-23=-289/133, 6-23=-289/133, 6-24=-462/176, 24-25=-462/177, 25-26=-460/177, 7-26=-458/177, 7-8=-575/167, 2-17=-361/97, 8-9=-935/145
BOT CHORD 16-17=-237/275, 15-16=-210/228, 14-15=-101/314, 14-27=-101/314, 13-27=-101/314, 13-28=-164/876, 12-28=-164/876, 11-12=-164/876, 11-29=-164/876, 10-29=-164/876, 9-10=-60/69
WEBS 3-16=0/235, 3-15=-452/195, 4-15=-529/78, 5-15=-1096/200, 5-13=-17/768, 6-13=-818/135, 6-11=0/408, 6-10=-597/112, 7-10=-90/105, 2-16=-192/150, 8-10=-77/736

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 7-1-9, Exterior (2) 7-1-9 to 13-11-1, Interior (1) 13-11-1 to 26-6-12, Exterior (2) 26-6-12 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 9.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 15. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

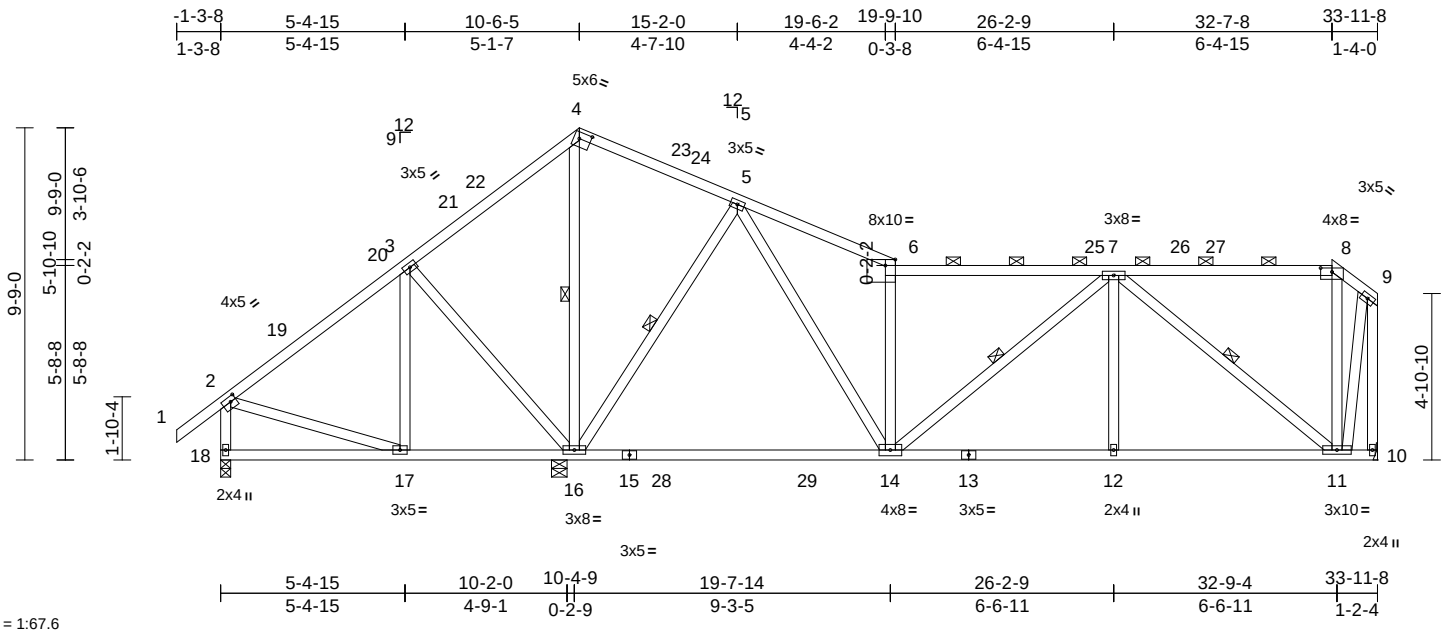
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B05	Roof Special	1	1	E15498427
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:28

ID:dSl22MOExt?p7X50EhL2TezanDB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.26	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.42	14-16	>667	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 238 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 (3-1-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-16, 5-16, 7-14, 7-11

REACTIONS (size) 10= Mechanical, 16=0-5-8, 18=0-3-8
Max Horiz 18=-271 (LC 12)
Max Uplift 10=-128 (LC 15), 16=-286 (LC 15), 18=-182 (LC 56)
Max Grav 10=929 (LC 42), 16=1942 (LC 1), 18=276 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-19=-97/352, 19-20=-75/409, 3-20=-59/416, 3-21=-62/560, 21-22=-44/598, 4-22=-41/648, 4-23=-24/538, 23-24=-27/505, 5-24=-36/487, 5-6=-660/174, 6-25=-561/119, 7-25=-561/119, 7-26=-213/107, 26-27=-211/107, 8-27=-211/107, 8-9=-214/113, 2-18=-223/239, 9-10=-948/98
BOT CHORD 17-18=-174/285, 16-17=-317/227, 15-16=-98/123, 15-28=-98/123, 28-29=-98/123, 14-29=-98/123, 13-14=-156/876, 12-13=-156/876, 11-12=-156/876, 10-11=-63/72
WEBS 3-17=0/231, 3-16=-463/207, 4-16=-770/107, 5-16=-884/241, 5-14=-140/1163, 6-14=-572/172, 7-14=-408/79, 7-12=0/243, 7-11=-863/123, 8-11=-239/123, 2-17=-346/147, 9-11=-97/914

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 7-1-9, Exterior (2) 7-1-9 to 13-11-1, Interior (1) 13-11-1 to 29-2-12, Exterior (2) 29-2-12 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 10.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 16. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B06	Roof Special	1	1	E15498428 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:28 Page: 1

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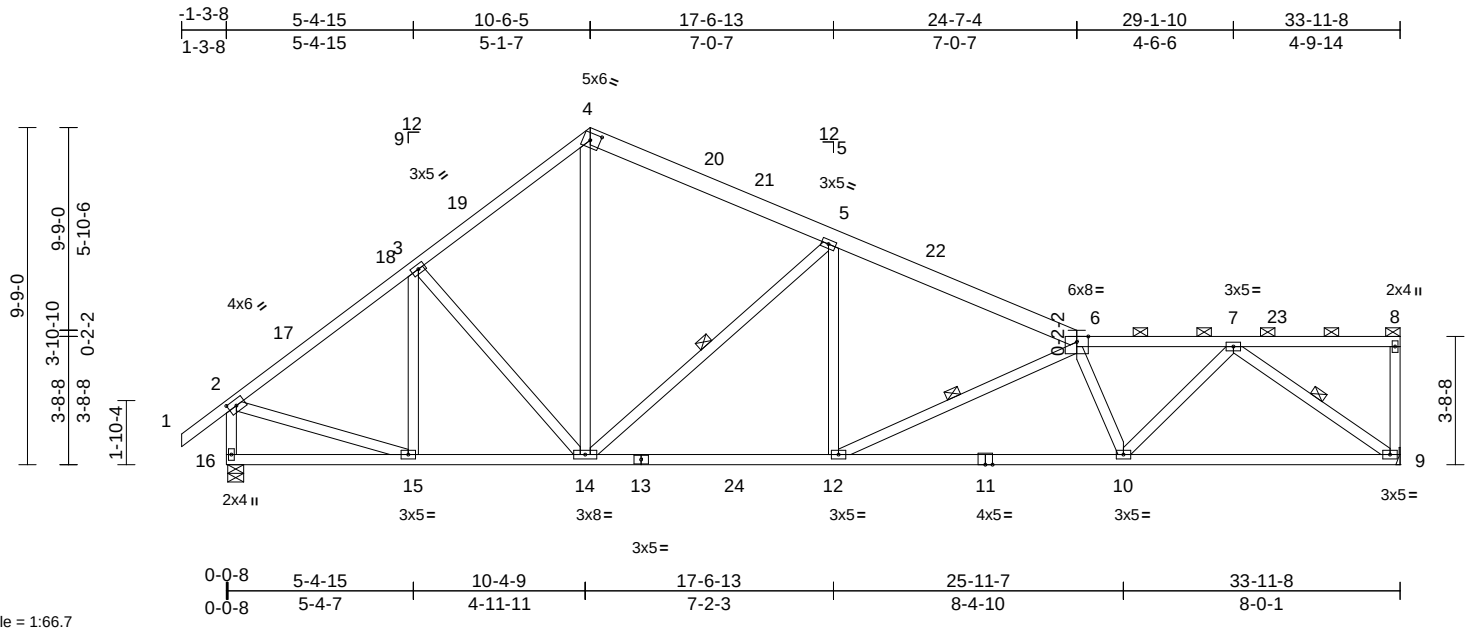

Scale = 1:66.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.13	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.31	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.09	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 223 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-6:2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-8 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 9-3-0 oc bracing.
WEBS 1 Row at midpt 5-14, 6-12, 7-9

REACTIONS (size) 9= Mechanical, 16=0-5-8
Max Horiz 16=-280 (LC 12)
Max Uplift 9=-207 (LC 15), 16=-121 (LC 14)
Max Grav 9=1345 (LC 1), 16=1435 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/52, 2-17=-1459/210, 17-18=-1365/231, 3-18=-1269/234, 3-19=-1398/270, 4-19=-1300/303, 4-20=-1115/273, 20-21=-1122/258, 5-21=-1210/244, 5-22=-2000/303, 6-22=-2122/283, 6-7=-2355/294, 7-23=-69/52, 8-23=-69/52, 8-9=-176/58, 2-16=-1382/255
BOT CHORD 15-16=-148/300, 14-15=-118/1121, 13-14=-248/1890, 13-24=-248/1890, 12-24=-248/1890, 11-12=-395/2612, 10-11=-395/2612, 9-10=-286/1601
WEBS 3-15=-225/79, 3-14=-206/178, 4-14=-131/915, 5-14=-1216/264, 5-12=0/609, 6-12=-908/164, 6-10=-775/171, 7-10=-69/1222, 7-9=-1949/329, 2-15=-53/1082

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 7-1-9, Exterior (2) 7-1-9 to 13-11-1, Interior (1) 13-11-1 to 30-5-0, Exterior (2) 30-5-0 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x5 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 9.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B07	Roof Special	4	1	E15498429 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:29 Page: 1
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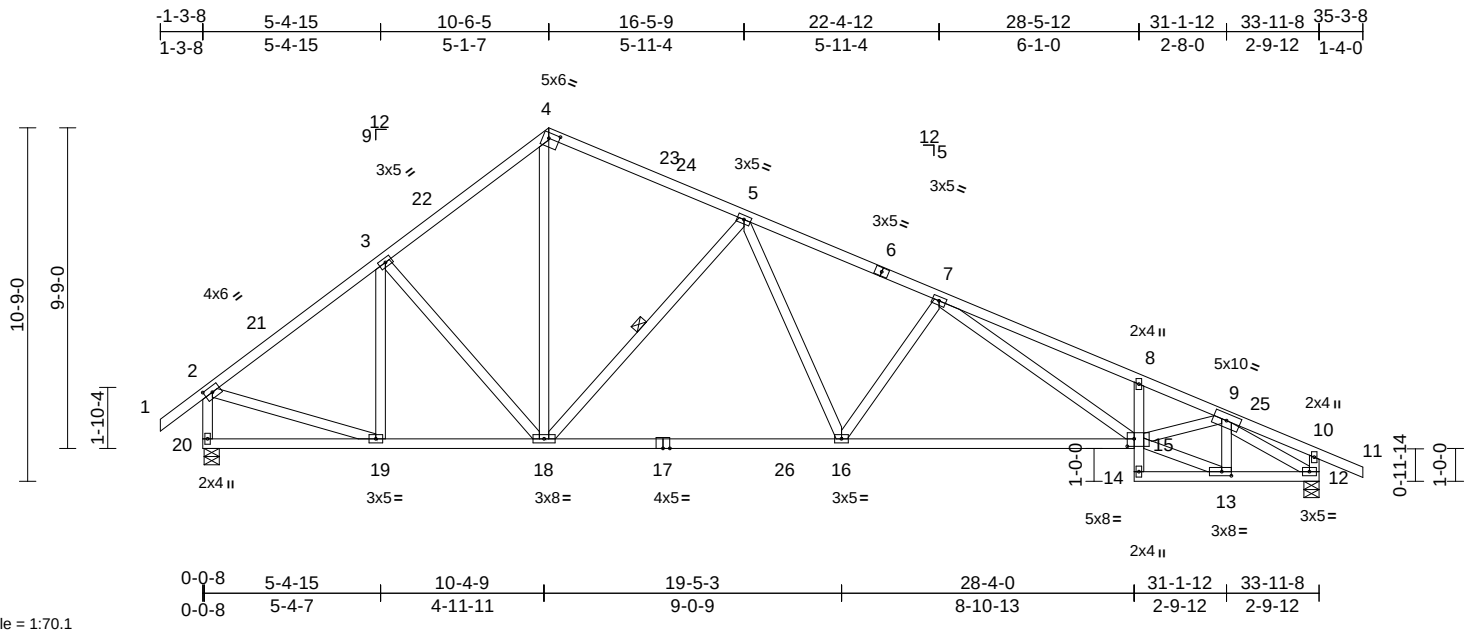

Scale = 1:70.1

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [4:0-3-12,0-2-0], [13:0-3-8,0-1-8], [15:0-2-8,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.25	16-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.47	15-16	>861	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.12	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 216 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 8-14:2x4 SP No.3, 17-15:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 12-10:2x4 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-18

REACTIONS (size) 12=0-5-8, 20=0-5-8
Max Horiz 20=-321 (LC 12)
Max Uplift 12=-230 (LC 15), 20=-127 (LC 15)
Max Grav 12=1436 (LC 1), 20=1433 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/52, 2-21=-1455/203, 3-21=-1362/227, 3-22=-1399/259, 4-22=-1300/292, 4-23=-1109/267, 23-24=-1125/251, 5-24=-1184/249, 5-6=-2045/356, 6-7=-2169/331, 7-8=-3430/575, 8-9=-3284/474, 9-25=-178/63, 10-25=-224/53, 10-11=0/34, 2-20=-1378/250, 10-12=-292/154
BOT CHORD 19-20=-107/341, 18-19=-79/1158, 17-18=-38/1636, 17-26=-38/1636, 16-26=-38/1636, 15-16=-208/2272, 14-15=0/67, 8-15=-313/165, 13-14=-54/134, 12-13=-219/1727
WEBS 3-19=-235/76, 3-18=-207/185, 4-18=-147/905, 5-18=-965/272, 5-16=-91/773, 7-16=-607/243, 7-15=-208/1038, 9-13=-613/110, 9-15=-149/1345, 9-12=-1906/245, 13-15=-180/1722, 2-19=-61/1086

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 7-1-9, Exterior (2) 7-1-9 to 13-11-1, Interior (1) 13-11-1 to 31-10-12, Exterior (2) 31-10-12 to 35-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20 and 12. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	B08	Roof Special	1	1	E15498430 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:30 Page: 1

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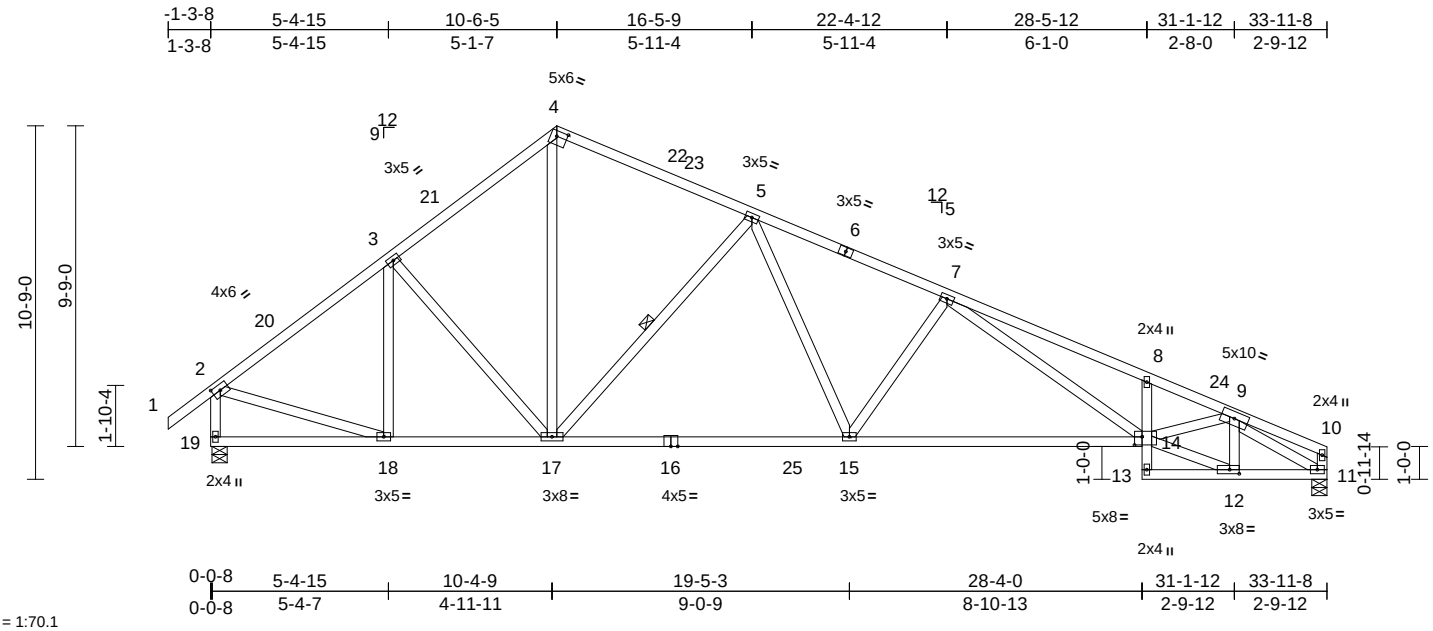

Scale = 1:70.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.25	15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.47	14-15	>859	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.12	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 214 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 16-14:2x4 SP No.1, 8-13:2x4 SP No.3

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-10 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 5-17

REACTIONS (size) 11=0-5-8, 19=0-5-8

Max Horiz 19=-309 (LC 12)

Max Uplift 11=-198 (LC 15), 19=-128 (LC 15)

Max Grav 11=1345 (LC 1), 19=1435 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-20=-1457/208, 3-20=-1364/232, 3-21=-1401/264, 4-21=-1303/298, 4-22=-1111/272, 22-23=-1128/256, 5-23=-1186/253, 5-6=-2053/359, 6-7=-2176/335, 7-8=-3458/591, 8-24=-3298/489, 9-24=-3313/478, 9-10=-215/71, 2-19=-1380/254, 10-11=-175/68

BOT CHORD 18-19=-117/329, 17-18=-90/1149, 16-17=-61/1640, 16-25=-61/1640, 15-25=-61/1640, 14-15=-233/2282, 13-14=0/68, 8-14=-305/162, 12-13=-56/137, 11-12=-247/1767

WEBS 3-18=-233/76, 3-17=-205/185, 4-17=-148/907, 5-17=-969/274, 5-15=-93/778, 7-15=-612/246, 7-14=-219/1060, 9-12=-628/121, 9-14=-154/1327, 9-11=-1953/261, 12-14=-209/1762, 2-18=-62/1079

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) exterior zone and C-C Exterior (2) -1-3-8 to 2-1-4, Interior (1) 2-1-4 to 7-1-9, Exterior (2) 7-1-9 to 13-11-1, Interior (1) 13-11-1 to 30-5-0, Exterior (2) 30-5-0 to 33-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19 and 11. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D06	Piggyback Base	4	1	E15498431 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:51 Page: 1

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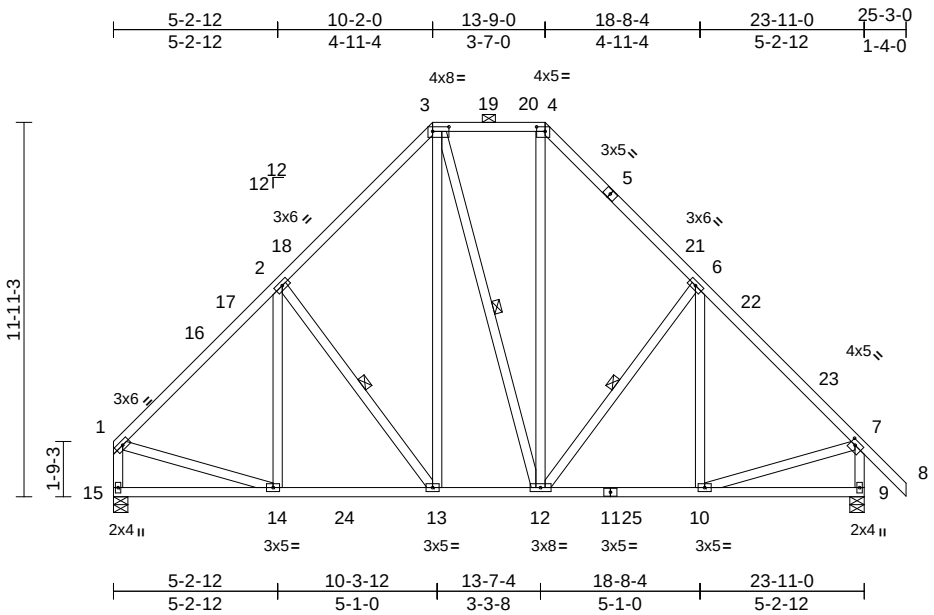

Scale = 1:73.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	13-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 200 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 13-3,12-3,12-4:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-2-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-13, 3-12, 6-12

REACTIONS (size) 9=0-5-8, 15=0-5-8
Max Horiz 15=-330 (LC 12)
Max Uplift 9=-109 (LC 15), 15=-79 (LC 14)
Max Grav 9=1228 (LC 40), 15=1133 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-1145/160, 16-17=-1018/168, 2-17=-935/185, 2-18=-1013/260, 3-18=-816/298, 3-19=-578/276, 19-20=-578/276, 4-20=-578/276, 4-5=-808/294, 5-21=-812/275, 6-21=-1010/256, 6-22=-932/192, 22-23=-1048/169, 7-23=-1143/154, 7-8=0/63, 1-15=-1086/160, 7-9=-1180/219
BOT CHORD 14-15=-296/348, 14-24=-142/856, 13-24=-142/856, 12-13=-73/633, 11-12=0/741, 11-25=0/741, 10-25=0/741, 9-10=-36/84
WEBS 2-14=-106/99, 2-13=-375/232, 3-13=-136/386, 3-12=-138/140, 4-12=-112/345, 6-12=-363/231, 6-10=-109/98, 1-14=0/733, 7-10=0/738

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-11-1, Exterior (2) 5-11-1 to 17-11-15, Interior (1) 17-11-15 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 9. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	F01	Roof Special	3	1	E15498432 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:53
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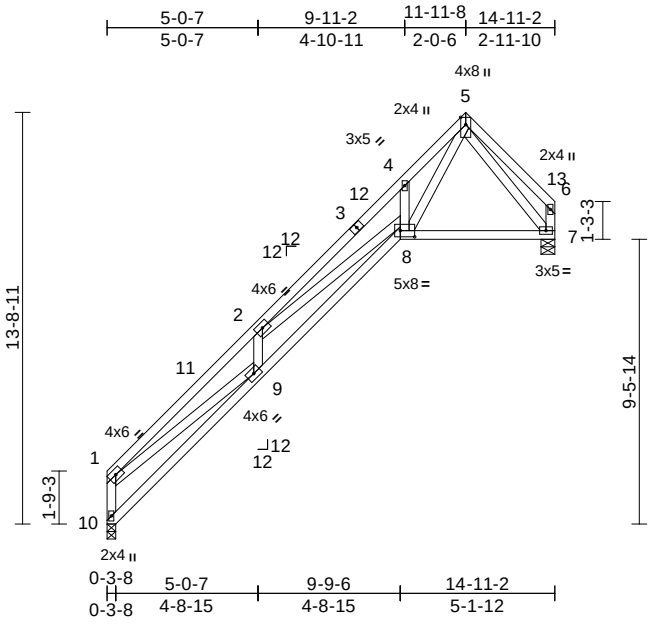

Scale = 1:76.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	0.20	8-9	>865	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.23	8-9	>750	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.22	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 99 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 3-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-0-10 oc bracing.

REACTIONS (size) 7=0-5-8, 10=0-3-8
Max Horiz 10=353 (LC 14)
Max Uplift 7=-234 (LC 14)
Max Grav 7=631 (LC 30), 10=585 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-703/347, 1-11=-2105/957, 2-11=-2063/980, 2-3=-1930/809, 3-12=-1809/815, 4-12=-1787/828, 4-5=-2005/1052, 5-13=-185/128, 6-13=-205/107, 6-7=-203/118
BOT CHORD 9-10=-567/503, 8-9=-1333/2266, 7-8=-142/404
WEBS 2-8=-370/326, 4-8=-319/271, 5-8=-1100/2040, 5-7=-577/246, 2-9=-280/218, 1-9=-693/1591

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 8-11-8, Exterior (2) 8-11-8 to 14-9-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	G05	Piggyback Base	1	1	E15498433 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:57 Page: 1
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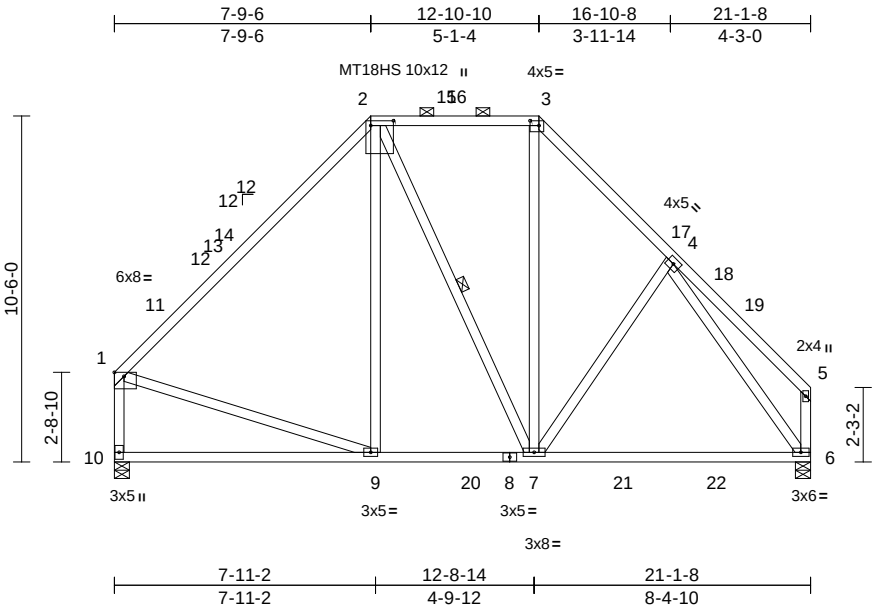

Scale = 1:69.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.13	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.27	6-7	>943	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 158 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-2:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 7-2,10-1:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-7

REACTIONS (size) 6=0-5-8, 10=0-5-8
Max Horiz 10=-282 (LC 10)
Max Uplift 6=-73 (LC 15), 10=-74 (LC 14)
Max Grav 6=1000 (LC 39), 10=1007 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-11=-919/152, 11-12=-752/164, 12-13=-724/167, 13-14=-700/170, 2-14=-685/204, 2-15=-487/248, 15-16=-487/248, 3-16=-487/248, 3-17=-820/273, 4-17=-844/238, 4-18=-161/144, 18-19=-182/129, 5-19=-217/125, 1-10=-930/177, 5-6=-217/127
BOT CHORD 9-10=-271/324, 9-20=-116/538, 8-20=-116/538, 7-8=-116/538, 7-21=-31/553, 21-22=-31/553, 6-22=-31/553
WEBS 2-9=0/172, 2-7=-123/132, 3-7=-94/331, 4-7=-187/216, 1-9=-80/416, 4-6=-912/63

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-6-7, Exterior (2) 3-6-7 to 16-11-5, Interior (1) 16-11-5 to 17-11-12, Exterior (2) 17-11-12 to 20-11-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) The Fabrication Tolerance at joint 2 = 16%
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. 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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	G06	Piggyback Base Girder	1	**2**	E15498434 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:58 Page: 1

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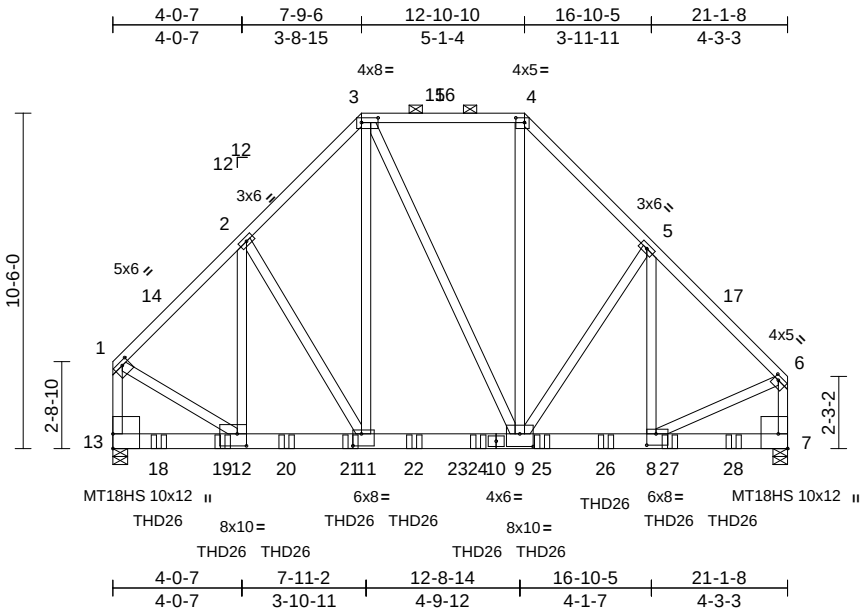

Scale = 1:72.1

Plate Offsets (X, Y): [1:0-2-12,0-1-8], [3:0-6-4,0-1-12], [4:0-3-4,0-1-12], [6:0-1-12,0-1-8], [7:Edge,0-3-8], [8:0-3-8,0-4-4], [9:0-5-0,0-4-12], [11:0-3-4,0-4-8], [12:0-3-8,0-4-8]

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	0.85	Vert(LL)	-0.08	9-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.15	9-11	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 386 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 7=0-5-8, 13=0-5-8
Max Horiz 13=-279 (LC 8)
Max Uplift 7=-379 (LC 13)
Max Grav 7=6564 (LC 34), 13=7017 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-5369/0, 2-14=-5287/0, 2-3=-5056/0, 3-15=-3486/201, 15-16=-3486/201, 4-16=-3486/201, 4-5=-5049/206, 5-17=-5381/276, 6-17=-5477/257, 1-13=-6121/0, 6-7=-5682/263

BOT CHORD 13-18=-230/302, 18-19=-230/302, 12-19=-230/302, 12-20=0/3738, 20-21=0/3738, 11-21=0/3738, 11-22=0/3518, 22-23=0/3518, 23-24=0/3518, 10-24=0/3518, 9-10=0/3518, 9-25=-133/3805, 25-26=-133/3805, 8-26=-133/3805, 8-27=-49/165, 27-28=-49/165, 7-28=-49/165

WEBS 2-12=0/724, 2-11=-607/0, 3-11=0/3389, 3-9=-706/73, 4-9=-76/3250, 5-9=-651/396, 5-8=-287/561, 1-12=0/4280, 6-8=-111/4035

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use USP 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 1-5-4 from the left end to 19-5-4 to connect truss(es) to back face of bottom chord.
14) 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=-60, 3-4=-60, 4-6=-60, 7-13=-20
Concentrated Loads (lb)
Vert: 18=-1175 (B), 19=-1175 (B), 20=-1175 (B), 21=-1355 (B), 22=-1191 (B), 24=-1092 (B), 25=-1165 (B), 26=-934 (B), 27=-909 (B), 28=-1325 (B)

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL05	Valley	1	1	E15498435
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:12 Page: 1

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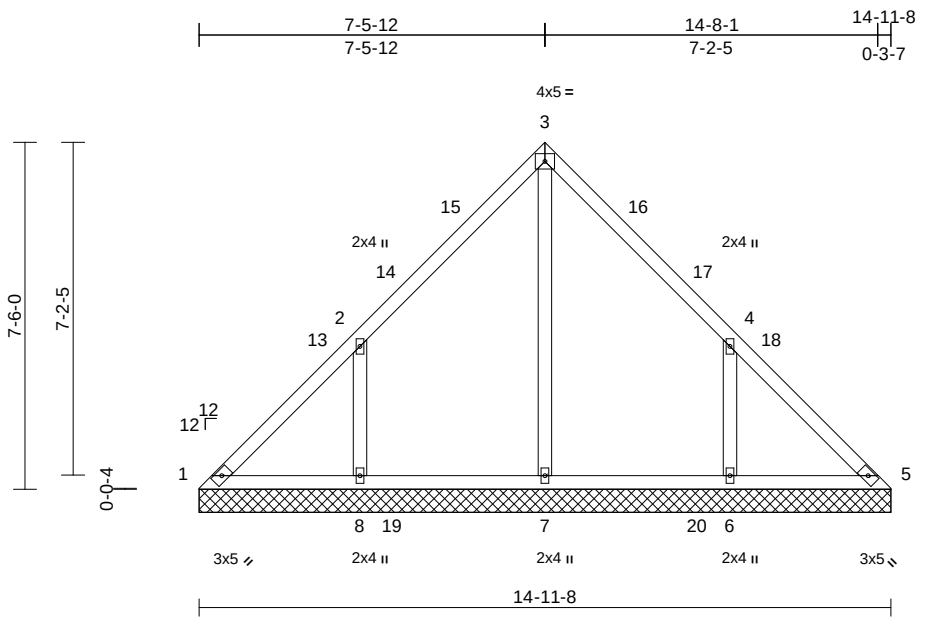

Scale = 1:49.8

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 71 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=14-11-8, 5=14-11-8, 6=14-11-8, 7=14-11-8, 8=14-11-8
Max Horiz 1=-180 (LC 10)
Max Uplift 1=-42 (LC 10), 6=-220 (LC 15), 8=-225 (LC 14)
Max Grav 1=146 (LC 24), 5=117 (LC 26), 6=432 (LC 24), 7=406 (LC 23), 8=437 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-13=-175/167, 2-13=-153/173, 2-14=-126/109, 14-15=-76/123, 3-15=-73/140, 3-16=-73/116, 16-17=-76/101, 4-17=-106/86, 4-18=-117/127, 5-18=-139/120
BOT CHORD 1-8=-113/151, 8-19=-113/151, 7-19=-113/151, 7-20=-113/151, 6-20=-113/151, 5-6=-113/151
WEBS 3-7=-217/0, 2-8=-330/261, 4-6=-330/259

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) exterior zone and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-6-0, Exterior (2) 4-6-0 to 10-6-0, Interior (1) 10-6-0 to 11-11-12, Exterior (2) 11-11-12 to 14-11-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 225 lb uplift at joint 8 and 220 lb uplift at joint 6.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL06	Valley	1	1	E15498436 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:12 Page: 1
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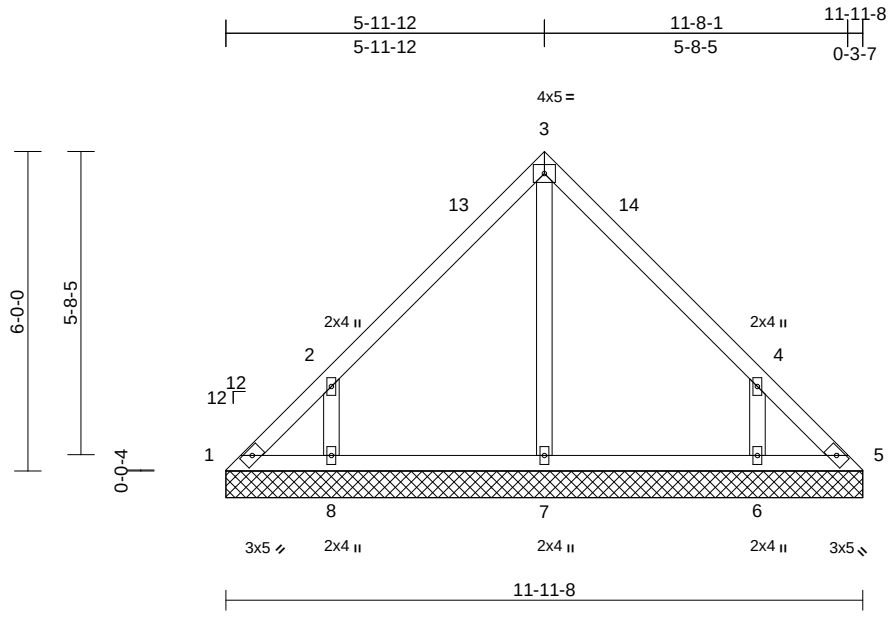

Scale = 1:43.3

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 54 lb	FT = 20%

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

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

REACTIONS (size) 1=11-11-8, 5=11-11-8, 6=11-11-8, 7=11-11-8, 8=11-11-8
Max Horiz 1=143 (LC 11)
Max Uplift 1=-52 (LC 10), 5=-17 (LC 11), 6=-185 (LC 15), 8=-191 (LC 14)
Max Grav 1=114 (LC 28), 5=92 (LC 26), 6=336 (LC 28), 7=224 (LC 1), 8=342 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-163/131, 2-13=-166/108, 3-13=-105/126, 3-14=-105/118, 4-14=-152/102, 4-5=-136/90
BOT CHORD 1-8=-49/102, 7-8=-46/102, 6-7=-46/102, 5-6=-46/102
WEBS 3-7=-138/0, 2-8=-315/254, 4-6=-315/252

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 1, 17 lb uplift at joint 5, 191 lb uplift at joint 8 and 185 lb uplift at joint 6.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086 E15498437
21030024-A	VL07	Valley	1	1	Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:13 Page: 1
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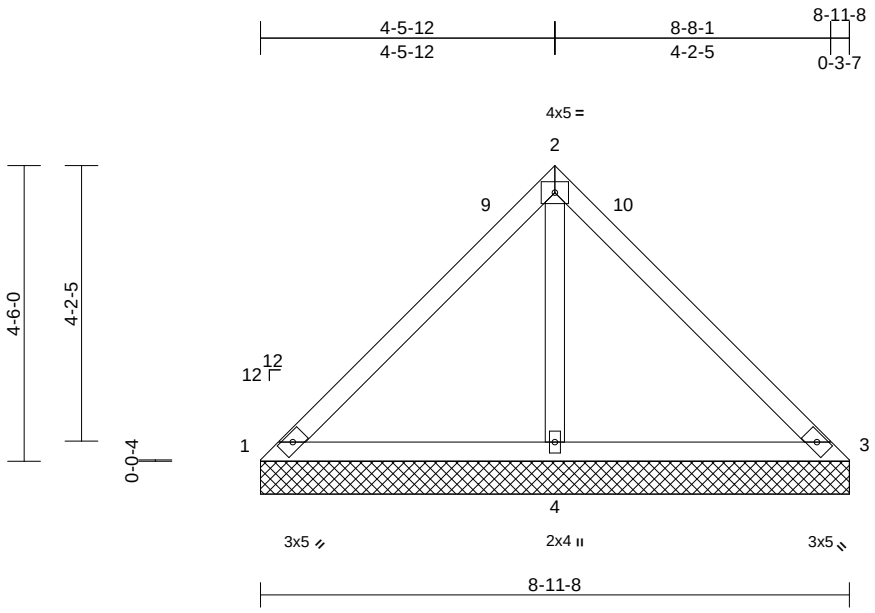

Scale = 1:35.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 37 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-11-8, 3=8-11-8, 4=8-11-8
Max Horiz 1=-106 (LC 10)
Max Uplift 1=-29 (LC 32), 3=-29 (LC 31), 4=-172 (LC 14)
Max Grav 1=61 (LC 31), 3=61 (LC 32), 4=674 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-133/242, 2-9=-104/270, 2-10=-104/264, 3-10=-130/242
BOT CHORD 1-4=-255/187, 3-4=-255/187
WEBS 2-4=-516/248

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1, 29 lb uplift at joint 3 and 172 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL08	Valley	1	1	E15498438 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:13
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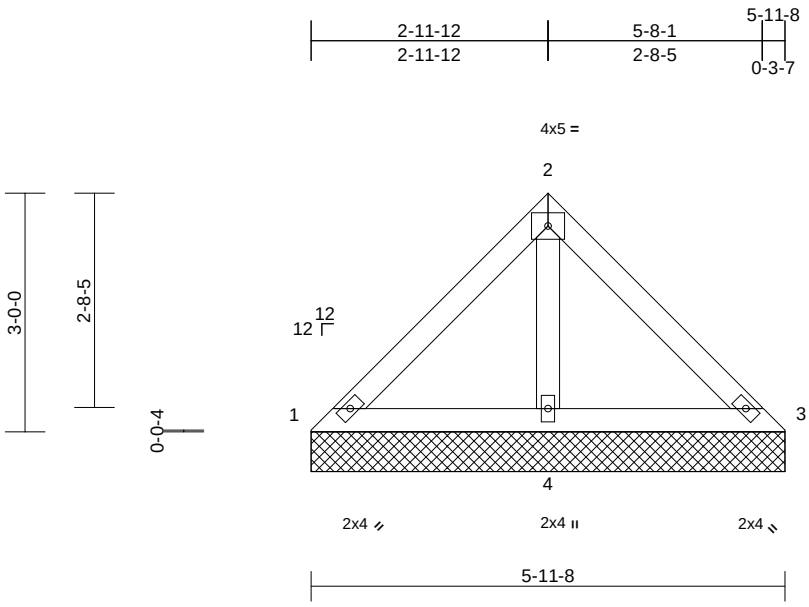

Scale = 1:29

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
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 5-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=5-11-8, 3=5-11-8, 4=5-11-8
Max Horiz 1=69 (LC 11)
Max Uplift 4=-76 (LC 14)
Max Grav 1=67 (LC 31), 3=67 (LC 32), 4=375 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-53/128, 2-3=-45/120
BOT CHORD 1-4=-122/100, 3-4=-122/100
WEBS 2-4=-247/108

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL09	Valley	1	1	E15498439
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:14 Page: 1
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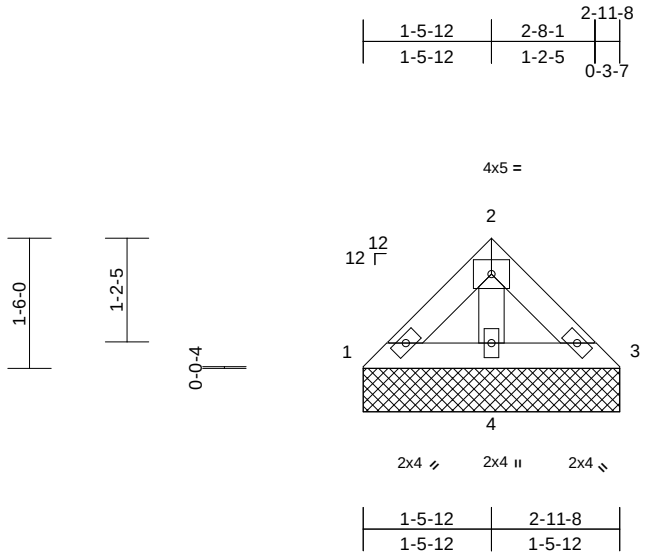

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 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 2-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=2-11-8, 3=2-11-8, 4=2-11-8
Max Horiz 1=-32 (LC 10)
Max Uplift 1=-3 (LC 15), 3=-6 (LC 15), 4=-21 (LC 14)
Max Grav 1=46 (LC 31), 3=46 (LC 32), 4=154 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-37/35, 2-3=0/29
BOT CHORD 1-4=-36/34, 3-4=-36/34
WEBS 2-4=-71/14

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 6 lb uplift at joint 3 and 21 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL01	Valley	1	1	E15498440 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:10 Page: 1

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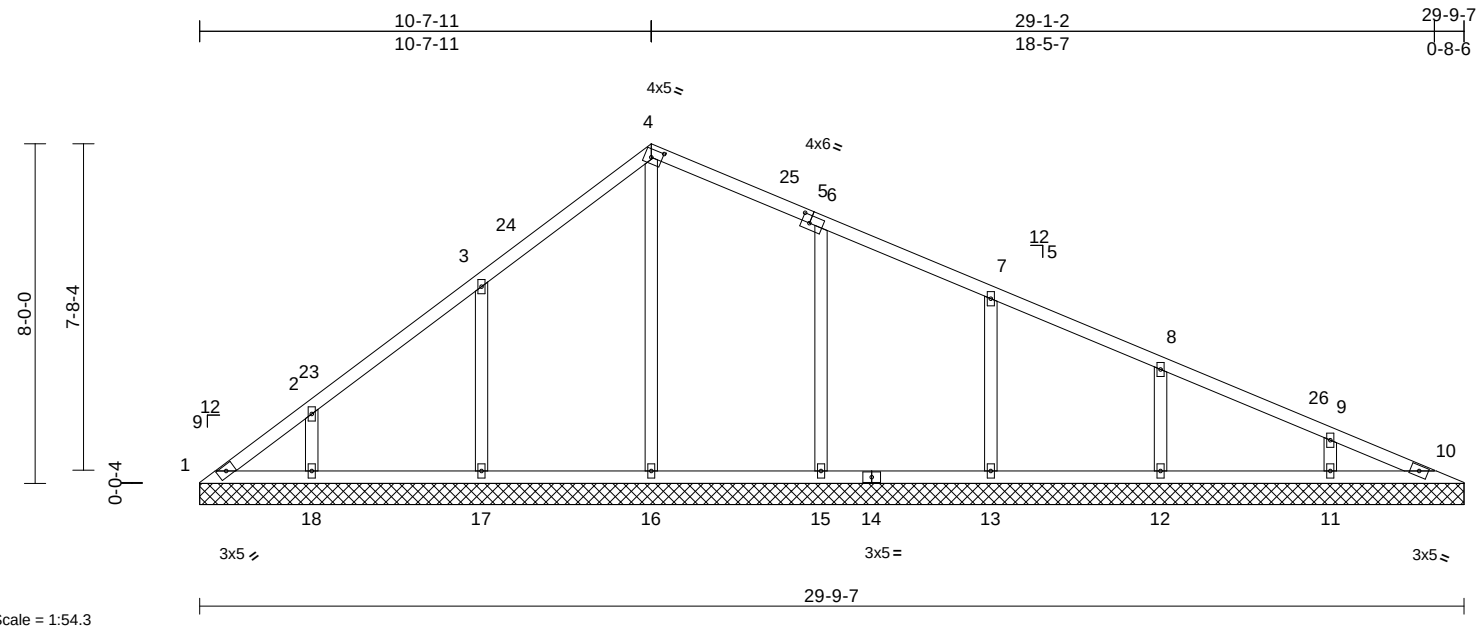

Scale = 1:54.3

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

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 132 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=29-9-7, 10=29-9-7, 11=29-9-7, 12=29-9-7, 13=29-9-7, 15=29-9-7, 16=29-9-7, 17=29-9-7, 18=29-9-7
Max Horiz 1=-220 (LC 12)
Max Uplift 1=-59 (LC 10), 11=-76 (LC 15), 12=-88 (LC 15), 13=-83 (LC 15), 15=-93 (LC 15), 17=-167 (LC 14), 18=-112 (LC 14)
Max Grav 1=118 (LC 25), 10=73 (LC 23), 11=288 (LC 1), 12=331 (LC 21), 13=336 (LC 3), 15=455 (LC 6), 16=408 (LC 23), 17=444 (LC 20), 18=300 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-179/186, 2-23=-122/121, 3-23=-111/150, 3-24=-161/170, 4-24=-78/196, 4-25=-98/168, 5-25=-112/152, 5-6=-114/150, 6-7=-85/100, 7-8=-72/53, 8-26=-61/35, 9-26=-90/0, 9-10=-115/23
BOT CHORD 1-18=-12/140, 17-18=-12/121, 16-17=-12/121, 15-16=-12/121, 14-15=-12/121, 13-14=-12/121, 12-13=-12/121, 11-12=-12/121, 10-11=-12/121
WEBS 4-16=-223/0, 3-17=-365/216, 2-18=-229/156, 6-15=-303/142, 7-13=-235/131, 8-12=-250/138, 9-11=-212/115

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) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 7-8-0, Exterior (2) 7-8-0 to 13-8-0, Interior (1) 13-8-0 to 26-1-10, Exterior (2) 26-1-10 to 29-1-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 1, 167 lb uplift at joint 17, 112 lb uplift at joint 18, 93 lb uplift at joint 15, 83 lb uplift at joint 13, 88 lb uplift at joint 12 and 76 lb uplift at joint 11.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL02	Valley	1	1	E15498441 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:10 Page: 1

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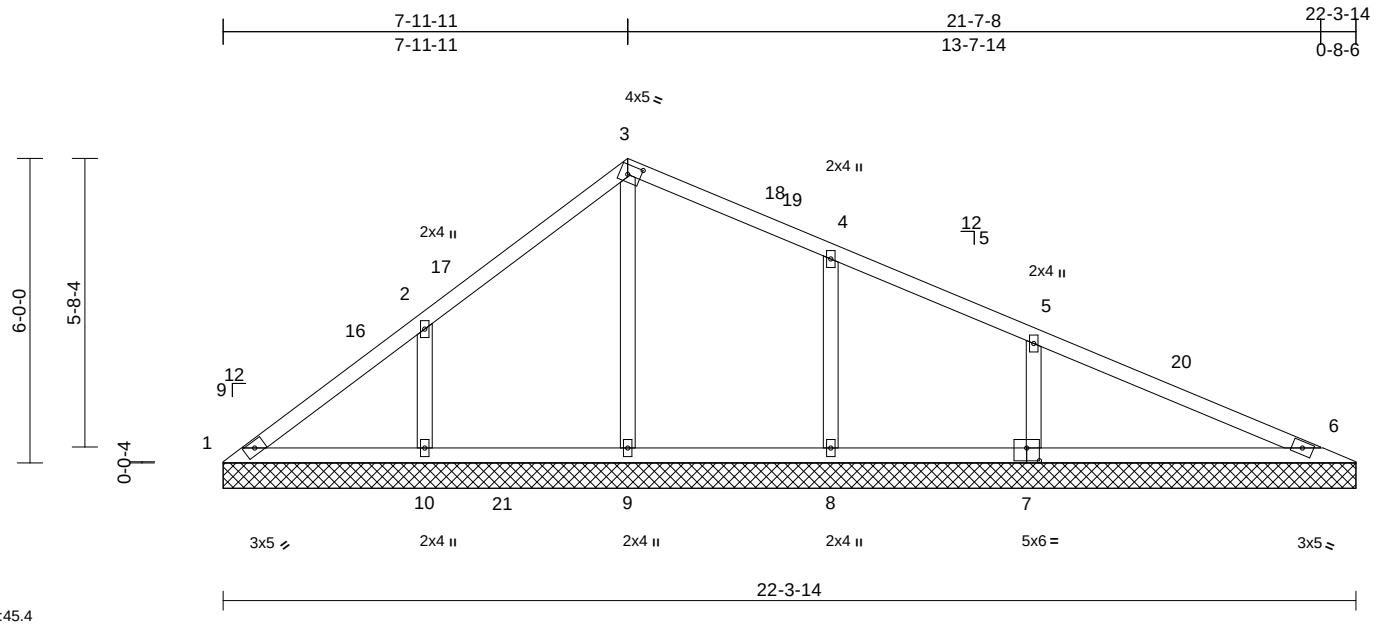

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Plate Offsets (X, Y): [3:0-3-0,0-2-4], [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horiz(TL)	-0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 90 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=22-3-14, 6=22-3-14, 7=22-3-14, 8=22-3-14, 9=22-3-14, 10=22-3-14, 15=22-3-14
Max Horiz 1=-163 (LC 12)
Max Uplift 1=-231 (LC 32), 7=-120 (LC 15), 8=-81 (LC 15), 10=-171 (LC 14)
Max Grav 1=29 (LC 14), 6=1 (LC 1), 7=483 (LC 1), 8=304 (LC 6), 9=864 (LC 3), 10=394 (LC 20), 15=1 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-121/563, 2-16=-101/630, 2-17=0/545, 3-17=0/629, 3-18=0/539, 18-19=0/469, 4-19=0/462, 4-5=-36/525, 5-20=-89/538, 6-20=-99/467
BOT CHORD 1-10=-450/139, 10-21=-450/139, 9-21=-450/139, 8-9=-450/139, 7-8=-450/139, 6-7=-431/132
WEBS 3-9=-749/82, 2-10=-313/205, 4-8=-242/131, 5-7=-324/161

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) exterior zone and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-0-0, Exterior (2) 5-0-0 to 11-0-0, Interior (1) 11-0-0 to 18-8-1, Exterior (2) 18-8-1 to 21-8-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 1, 171 lb uplift at joint 10, 81 lb uplift at joint 8 and 120 lb uplift at joint 7.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL03	Valley	1	1	E15498442 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:11 Page: 1
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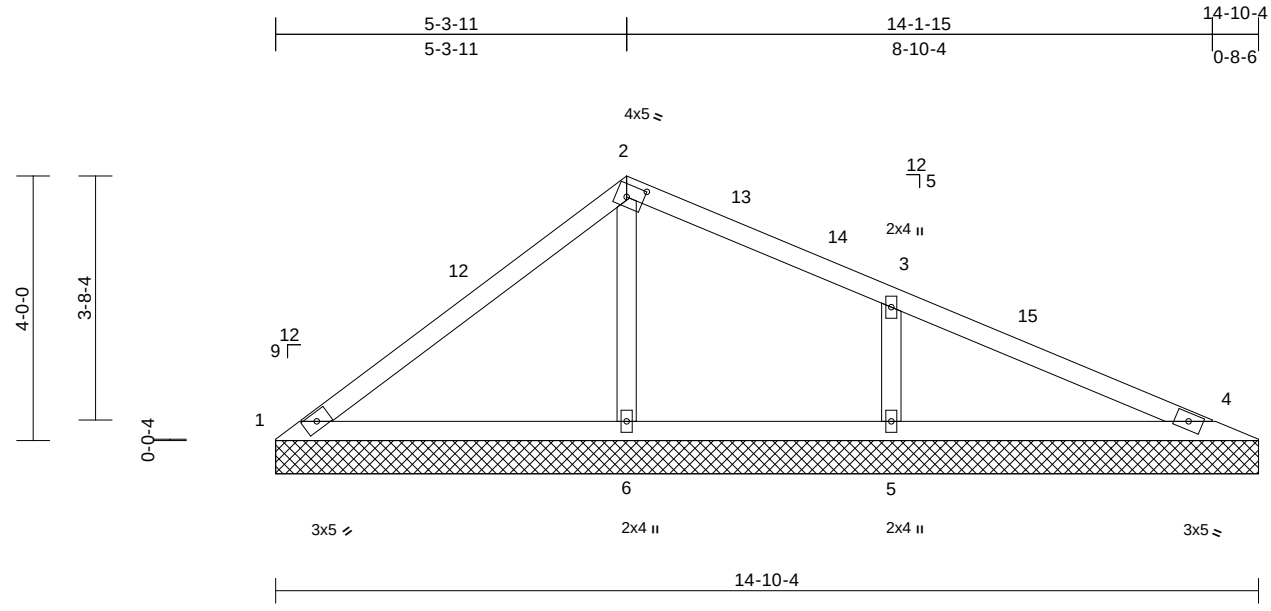

Scale = 1:34.8

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

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	0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	-0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 53 lb	FT = 20%

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

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

REACTIONS (size) 1=14-10-4, 4=14-10-4, 5=14-10-4, 6=14-10-4, 11=14-10-4
Max Horiz 1=-107 (LC 12)
Max Uplift 1=-155 (LC 32), 5=-117 (LC 15), 6=-49 (LC 14)
Max Grav 1=49 (LC 31), 4=1 (LC 1), 5=441 (LC 32), 6=789 (LC 1), 11=1 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-70/469, 2-12=-54/552, 2-13=-15/444, 13-14=-17/406, 3-14=-27/362, 3-15=-83/468, 4-15=-100/406
BOT CHORD 1-6=-375/130, 5-6=-375/130, 4-5=-375/130
WEBS 2-6=-675/154, 3-5=-314/156

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) exterior zone and C-C Exterior (2) 0-0-5 to 8-4-0, Interior (1) 8-4-0 to 11-2-7, Exterior (2) 11-2-7 to 14-2-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 1, 49 lb uplift at joint 6 and 117 lb uplift at joint 5.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	VL04	Valley	1	1	E15498443
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:11 Page: 1

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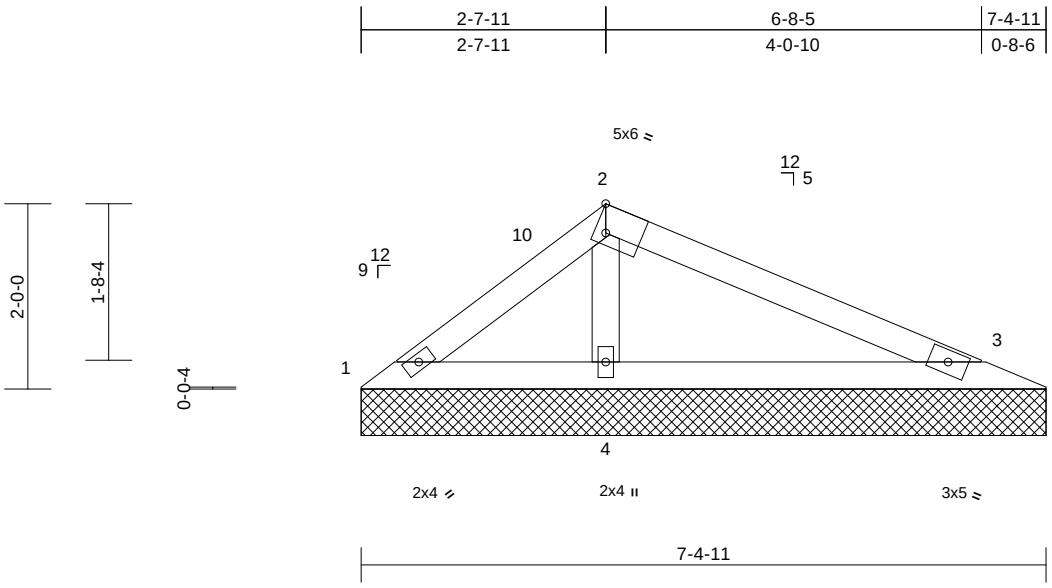

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Plate Offsets (X, Y): [2:Edge,0-3-8]

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	0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.36	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
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 7-4-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-4-11, 3=7-4-11, 4=7-4-11, 9=7-4-11
Max Horiz 1=-50 (LC 12)
Max Uplift 1=-202 (LC 32), 4=-61 (LC 15)
Max Grav 1=33 (LC 15), 3=121 (LC 7), 4=735 (LC 1), 9=121 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-149/534, 2-10=-140/555, 2-3=-144/499
BOT CHORD 1-4=-426/182, 3-4=-182/426
WEBS 2-4=-665/222

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 1 and 61 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	I01	Monopitch	2	1	E15498444 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:01
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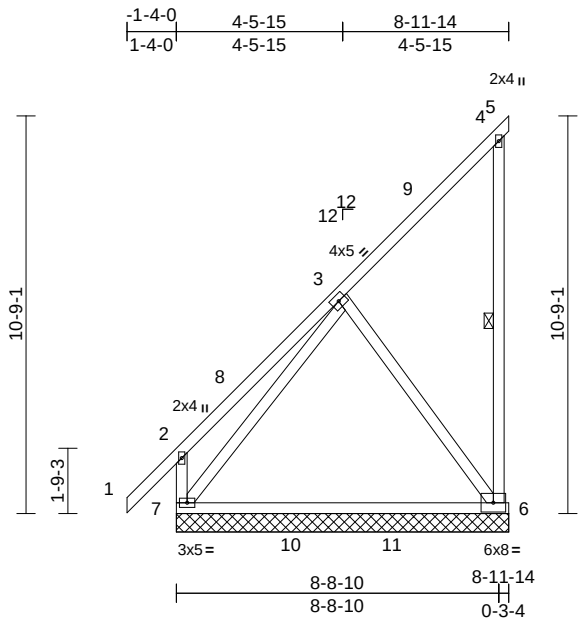

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 73 lb	FT = 20%

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

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

REACTIONS (size) 5=8-11-14, 6=8-11-14, 7=8-11-14
Max Horiz 7=410 (LC 11)
Max Uplift 5=-262 (LC 21), 6=-436 (LC 14), 7=-23 (LC 10)
Max Grav 5=233 (LC 14), 6=732 (LC 24), 7=535 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-8=-130/267, 3-8=-56/299, 3-9=-259/152, 4-9=-203/170, 4-5=-205/173, 4-6=-453/286, 2-7=-242/325
BOT CHORD 7-10=-182/181, 10-11=-182/181, 6-11=-182/181
WEBS 3-6=-290/254, 3-7=-388/152

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 8-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5, 6, and 7. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	I02	Monopitch	1	1	E15498445 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:02 Page: 1
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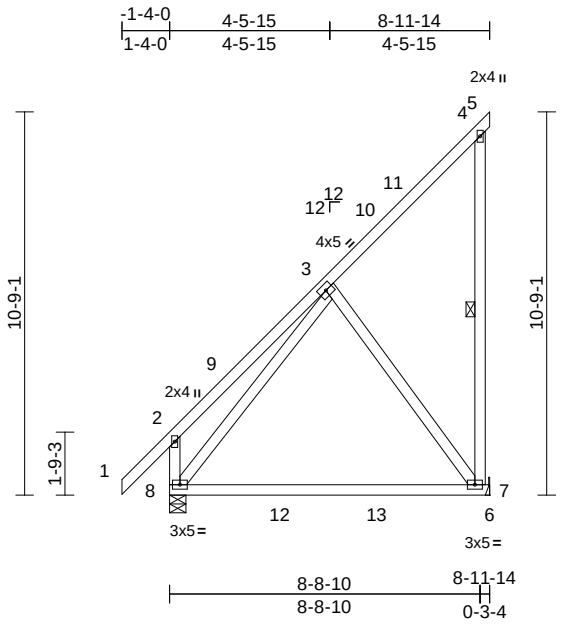

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.28	7-8	>364	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.57	7-8	>182	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 73 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 4-7:2x4 SP 2400F 2.0E

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

REACTIONS (size) 7= Mechanical, 8=0-5-8
Max Horiz 8=408 (LC 11)
Max Uplift 7=-222 (LC 11), 8=-24 (LC 10)
Max Grav 7=508 (LC 24), 8=541 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/63, 2-9=-127/262, 3-9=-54/294, 3-10=-263/159, 10-11=-229/165, 4-11=-229/178, 4-5=-17/0, 4-7=-175/143, 2-8=-238/319
BOT CHORD 8-12=-184/189, 12-13=-184/189, 7-13=-184/189, 6-7=0/0
WEBS 3-7=-304/267, 3-8=-398/142

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 5-11-14, Exterior (2) 5-11-14 to 8-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint 7.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	J01	Monopitch Supported Gable	5	1	E15498446 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:02
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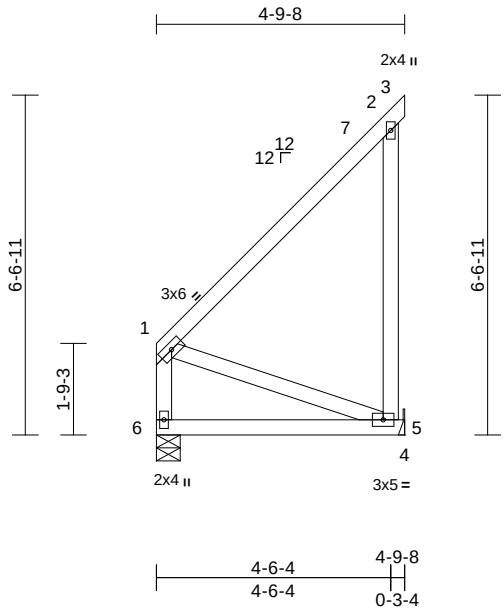

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.02	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.04	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	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: 35 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 6=0-5-8
Max Horiz 6=221 (LC 11)
Max Uplift 5=-150 (LC 11), 6=-41 (LC 10)
Max Grav 5=271 (LC 26), 6=253 (LC 31)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-209/67, 1-7=-177/97, 2-7=-129/126, 2-3=-13/0, 2-5=-193/122
BOT CHORD 5-6=-216/145, 4-5=0/0
WEBS 1-5=-115/170

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) interior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 10.0 psf bottom chord live load nonconcurrent with any 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 150 lb uplift at joint 5.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB03	Piggyback	4	1	E15498447 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:06 Page: 1

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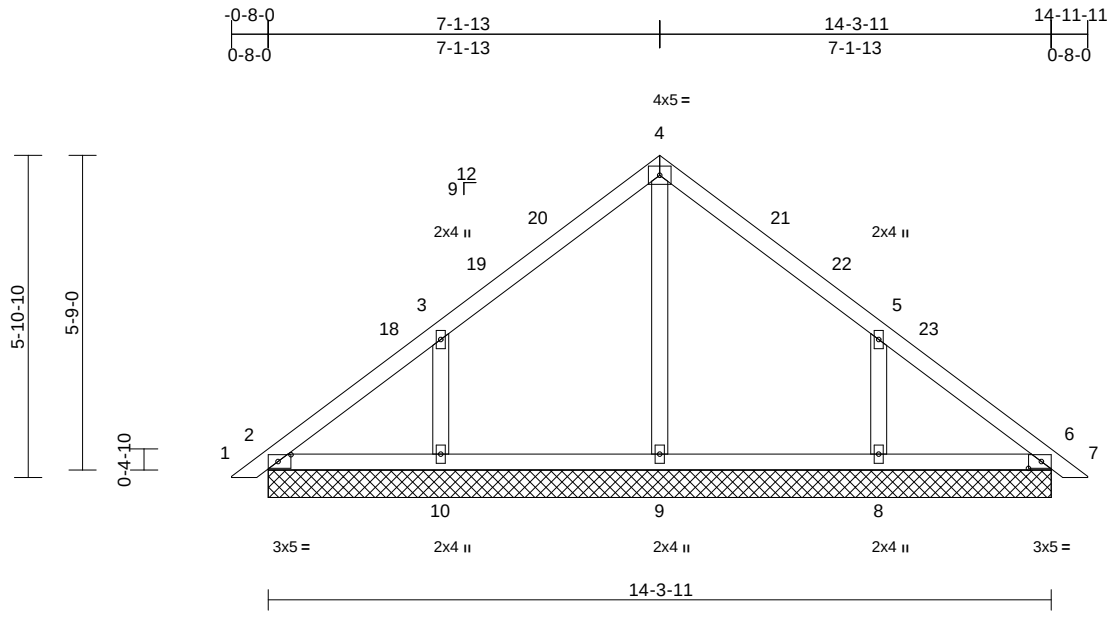

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Plate Offsets (X, Y): [2:0-2-13,0-1-8], [6:0-2-13,0-1-8]

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 64 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=14-3-11, 6=14-3-11, 8=14-3-11, 9=14-3-11, 10=14-3-11, 11=14-3-11, 15=14-3-11
Max Horiz 2=-141 (LC 12), 11=-141 (LC 12)
Max Uplift 2=-15 (LC 15), 8=-161 (LC 15), 10=-162 (LC 14), 11=-15 (LC 15)
Max Grav 2=159 (LC 25), 6=152 (LC 1), 8=361 (LC 25), 9=235 (LC 1), 10=362 (LC 24), 11=159 (LC 25), 15=152 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-18=-131/91, 3-18=-96/98, 3-19=-144/96, 19-20=-110/107, 4-20=-110/122, 4-21=-110/114, 21-22=-110/101, 5-22=-135/88, 5-23=-53/53, 6-23=-97/46, 6-7=0/16
BOT CHORD 2-10=-38/99, 9-10=-38/99, 8-9=-38/99, 6-8=-38/99
WEBS 4-9=-157/0, 3-10=-277/196, 5-8=-277/196

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) exterior zone and C-C Exterior (2) 0-3-1 to 3-3-1, Interior (1) 3-3-1 to 4-10-3, Exterior (2) 4-10-3 to 10-10-3, Interior (1) 10-10-3 to 12-5-4, Exterior (2) 12-5-4 to 15-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, and 8. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

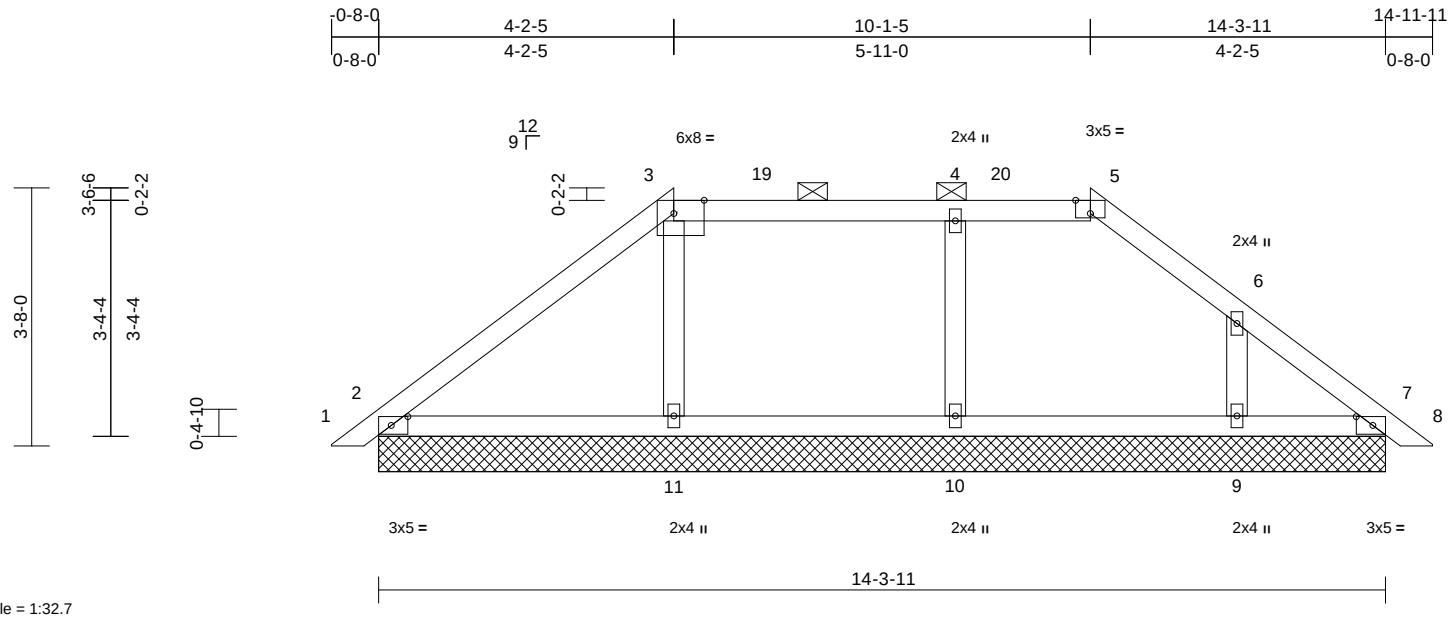
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB04	Piggyback	1	1	E15498448 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:07 Page: 1

ID:Yr1aZF6JJrZPFNxsqOw?Fpzanni-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32.7

Plate Offsets (X, Y): [2:0-2-13,0-1-8], [3:0-5-3,Edge], [5:0-2-8,Edge], [7:0-2-13,0-1-8]

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 59 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, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=14-3-11, 7=14-3-11, 9=14-3-11, 10=14-3-11, 11=14-3-11, 12=14-3-11, 15=14-3-11
Max Horiz 2=-84 (LC 12), 12=-84 (LC 12)
Max Uplift 2=-24 (LC 14), 7=-6 (LC 15), 9=-75 (LC 15), 10=-65 (LC 10), 11=-53 (LC 11), 12=-24 (LC 14), 15=-6 (LC 15)
Max Grav 2=344 (LC 40), 7=224 (LC 40), 9=310 (LC 40), 10=446 (LC 39), 11=317 (LC 55), 12=344 (LC 40), 15=224 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-254/62, 3-19=-119/79, 4-19=-121/79, 4-20=-121/79, 5-20=-121/79, 5-6=-218/74, 6-7=-184/13, 7-8=0/25
BOT CHORD 2-11=-26/125, 10-11=-2/125, 9-10=-2/125, 7-9=-2/125
WEBS 3-11=-202/94, 4-10=-369/111, 6-9=-226/106

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 7, 11, 10, and 9. This connection is for uplift only and does not consider lateral forces.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
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

March 15,2021

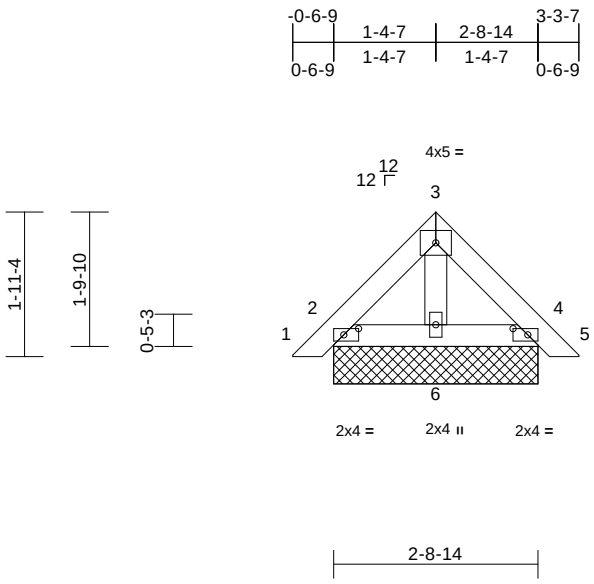
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB07	Piggyback	1	1	E15498449 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:08

ID:23Wxi5bPck1YSpm7rUj?VfzansE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.9

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

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	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 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=2-8-14, 4=2-8-14, 6=2-8-14, 7=2-8-14, 10=2-8-14
Max Horiz 2=-43 (LC 12), 7=-43 (LC 12)
Max Uplift 2=-14 (LC 14), 4=-18 (LC 15), 6=-4 (LC 14), 7=-14 (LC 14), 10=-18 (LC 15)
Max Grav 2=87 (LC 1), 4=87 (LC 1), 6=87 (LC 1), 7=87 (LC 1), 10=87 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-49/30, 3-4=-45/30, 4-5=0/15
BOT CHORD 2-6=-12/40, 4-6=-12/40
WEBS 3-6=-32/0

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, and 6. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB08	Piggyback	7	1	E15498450 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:08 Page: 1
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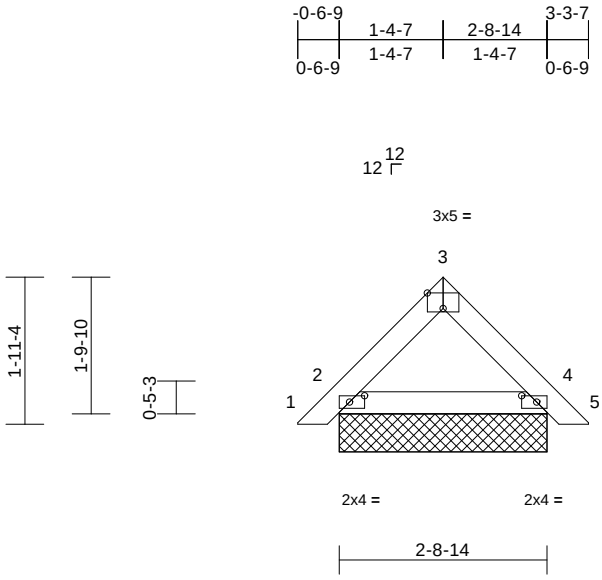

Scale = 1:30.4

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [3:0-2-8,Edge], [4:0-2-6,0-1-0]

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=2-8-14, 4=2-8-14, 6=2-8-14, 9=2-8-14
Max Horiz 2=-43 (LC 12), 6=-43 (LC 12)
Max Uplift 2=-16 (LC 14), 4=-16 (LC 15), 6=-16 (LC 14), 9=-16 (LC 15)
Max Grav 2=131 (LC 1), 4=131 (LC 1), 6=131 (LC 1), 9=131 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-71/27, 3-4=-71/27, 4-5=0/15
BOT CHORD 2-4=-11/55

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB10	Piggyback	3	1	E15498451 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:09

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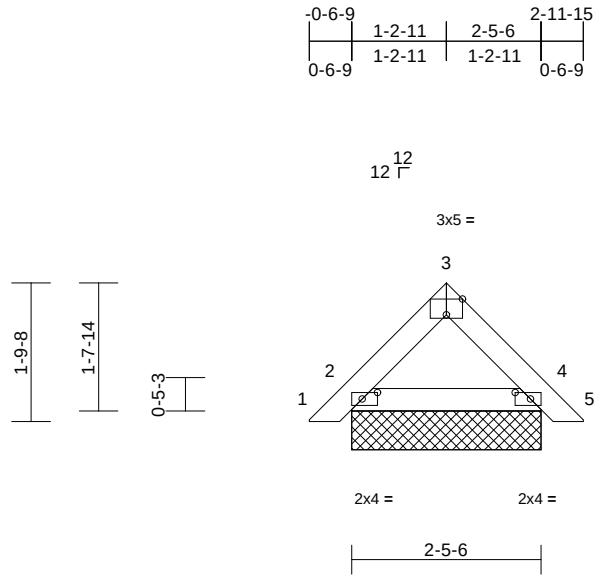

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Plate Offsets (X, Y): [2:0-2-6,0-1-0], [3:0-2-8,Edge], [4:0-2-6,0-1-0]

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
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 3-7-0 oc purlins.

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

REACTIONS (size) 2=2-5-6, 4=2-5-6, 6=2-5-6, 9=2-5-6

Max Horiz 2=-39 (LC 12), 6=-39 (LC 12)

Max Uplift 2=-15 (LC 14), 4=-15 (LC 15), 6=-15 (LC 14), 9=-15 (LC 15)

Max Grav 2=119 (LC 1), 4=119 (LC 1), 6=119 (LC 1), 9=119 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-62/23, 3-4=-62/23, 4-5=0/15

BOT CHORD 2-4=-9/50

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB05	Piggyback	1	1	E15498452 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:07 Page: 1
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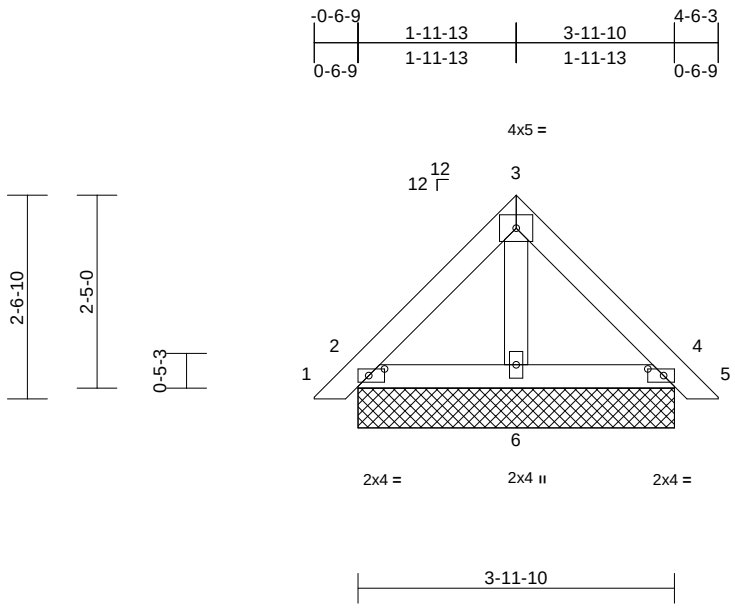


Scale = 1:28.9

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

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-11-10, 4=3-11-10, 6=3-11-10, 7=3-11-10, 10=3-11-10
Max Horiz 2=-58 (LC 12), 7=-58 (LC 12)
Max Uplift 2=-20 (LC 15), 4=-25 (LC 15), 6=-1 (LC 14), 7=-20 (LC 15), 10=-25 (LC 15)
Max Grav 2=119 (LC 1), 4=119 (LC 1), 6=122 (LC 1), 7=119 (LC 1), 10=119 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-80/47, 3-4=-76/47, 4-5=0/15
BOT CHORD 2-6=-19/46, 4-6=-14/46
WEBS 3-6=-43/0

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, and 6. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

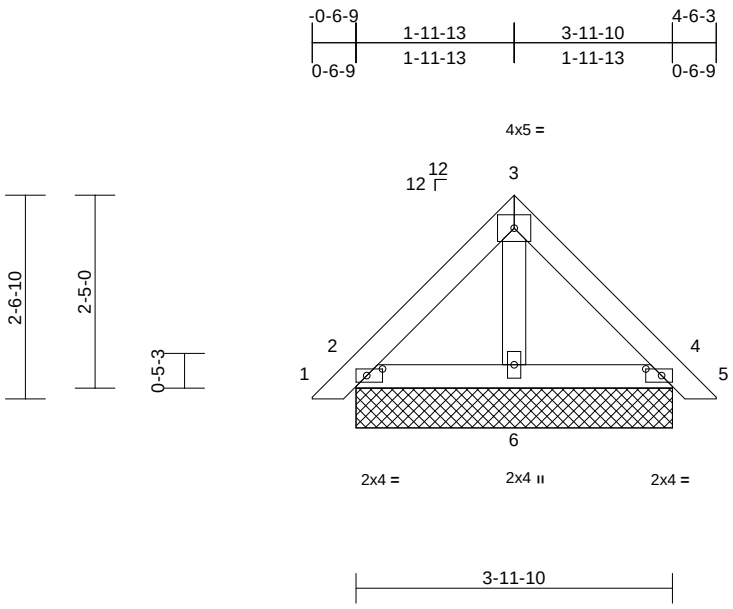
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB06	Piggyback	5	1	E15498453 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:08
ID:3DkMEbFjaWAFnj9Go29u0Lzanq6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.9

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

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-11-10, 4=3-11-10, 6=3-11-10, 7=3-11-10, 10=3-11-10
Max Horiz 2=-58 (LC 12), 7=-58 (LC 12)
Max Uplift 2=-20 (LC 15), 4=-25 (LC 15), 6=-1 (LC 14), 7=-20 (LC 15), 10=-25 (LC 15)
Max Grav 2=119 (LC 1), 4=119 (LC 1), 6=122 (LC 1), 7=119 (LC 1), 10=119 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-80/47, 3-4=-76/47, 4-5=0/15
BOT CHORD 2-6=-19/46, 4-6=-14/46
WEBS 3-6=-43/0

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, and 6. This connection is for uplift only and does not consider lateral forces.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

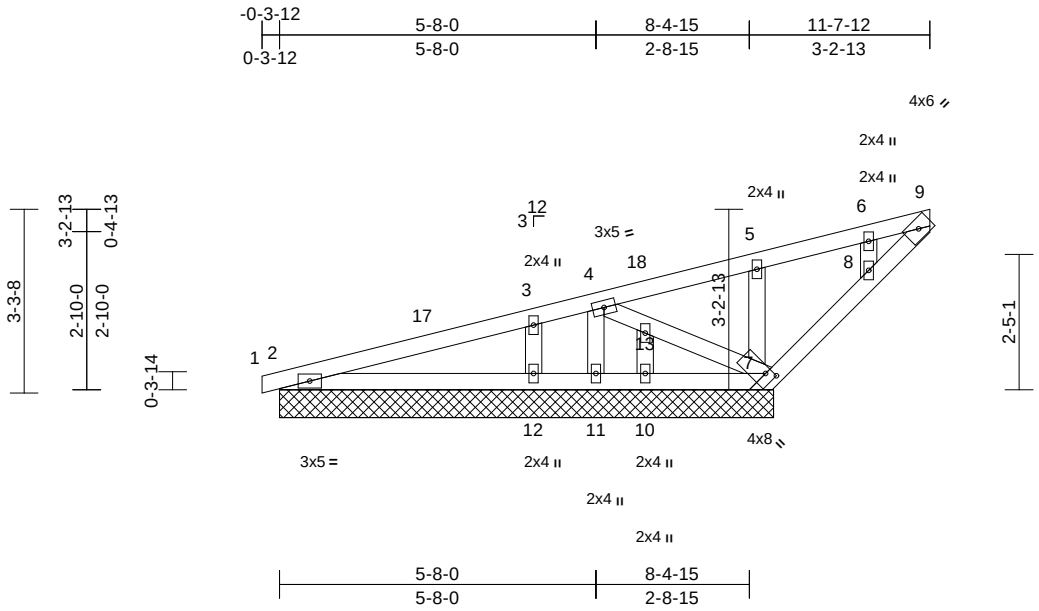
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	L01	Roof Special Structural Gable	2	1	E15498454 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:05 Page: 1

ID:xDVt24uODD0ll1XMYHEnEdzanyJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.3

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

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 50 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 7-8-11 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=8-10-2, 7=8-10-2, 10=8-10-2, 11=8-10-2, 12=8-10-2, 14=8-10-2
Max Horiz 2=249 (LC 14), 14=249 (LC 14)
Max Uplift 2=-18 (LC 10), 7=-339 (LC 14), 11=-278 (LC 21), 12=-91 (LC 14), 14=-18 (LC 10)
Max Grav 2=154 (LC 32), 7=1071 (LC 21), 10=118 (LC 7), 11=72 (LC 14), 12=430 (LC 1), 14=154 (LC 32)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/5, 2-17=-181/151, 3-17=-177/162, 3-4=-146/123, 4-18=-239/361, 5-18=-232/399, 5-6=-208/396, 6-9=-221/443, 7-8=-638/161, 8-9=-564/226
BOT CHORD	2-12=-96/100, 11-12=-96/15, 10-11=-96/15, 7-10=-96/15
WEBS	4-13=-279/105, 7-13=-280/106, 4-11=-77/181, 3-12=-260/109, 10-13=-1/2, 5-7=-402/159, 6-8=-86/101

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) exterior zone and C-C Exterior (2) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 10-11-1, Exterior (2) 8-0-14 to 10-11-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) Bearing at joint(s) 2, 7, 11, 12, 10, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
13) One RT16A USP 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.
14) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7, 11, and 12. This connection is for uplift only and does not consider lateral forces.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

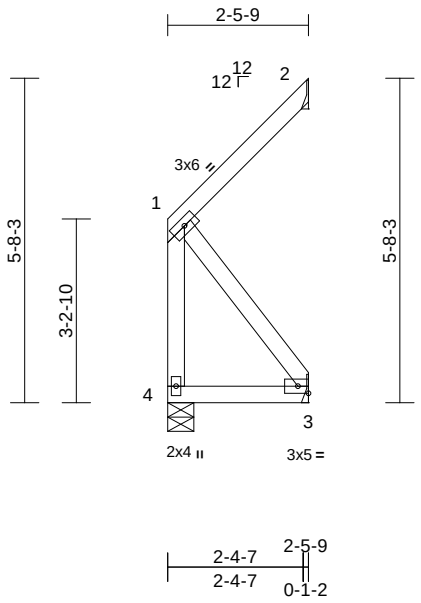
LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ11	Jack-Open	1	1	E15498455 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:43 Page: 1
ID:cgH30T_PWLMt9E9Lk5M_X4zanLS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.3

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	0.18	Vert(LL)	0.00	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4=0-5-8
Max Horiz 4=-112 (LC 12)
Max Uplift 2=-74 (LC 14), 3=-90 (LC 11), 4=-48 (LC 12)
Max Grav 2=80 (LC 23), 3=117 (LC 12), 4=132 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-216/147, 1-2=-76/66
BOT CHORD 3-4=-156/130
WEBS 1-3=-214/256

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 10.0 psf bottom chord live load nonconcurrent with any 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 74 lb uplift at joint 2 and 90 lb uplift at joint 3.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

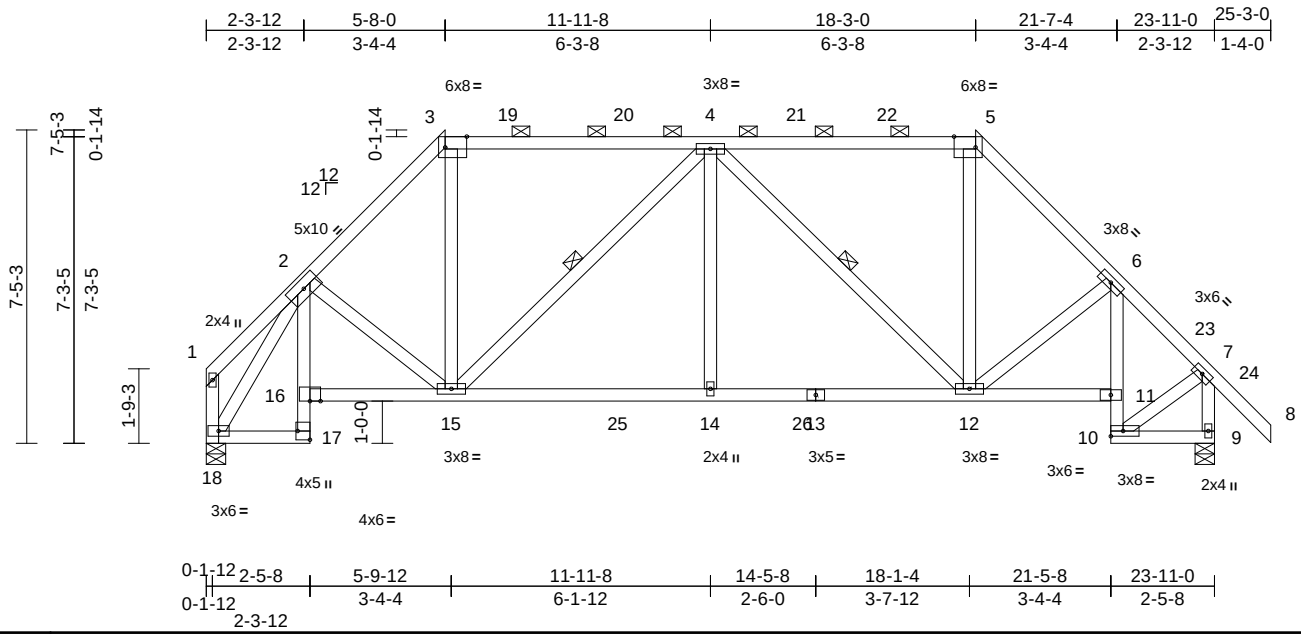
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D02	Hip	1	1	E15498456 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:46 Page: 1

ID:wDVYiZr7kSqqkq4h9vxoFlzan68-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:54.7

Plate Offsets (X, Y): [3:0-6-2,Edge], [5:0-6-2,Edge], [17: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	0.95	Vert(LL)	-0.07	14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.13	12-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.21	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 167 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-1-9 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 4-15, 4-12

REACTIONS (size) 9=0-5-8, 18=0-5-8
Max Horiz 18=-209 (LC 10)
Max Uplift 9=-139 (LC 15), 18=-109 (LC 14)
Max Grav 9=1102 (LC 40), 18=1041 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-145/91, 2-3=-1200/220, 3-19=-867/205, 19-20=-868/205, 4-20=-869/205, 4-21=-866/207, 21-22=-865/207, 5-22=-864/207, 5-6=-1196/220, 6-23=-857/186, 7-23=-901/169, 7-24=0/77, 8-24=0/41, 7-9=-1155/225, 1-18=-171/73
BOT CHORD	17-18=-172/616, 16-17=-14/105, 2-16=0/109, 15-16=-213/767, 15-25=-176/1304, 14-25=-176/1304, 14-26=-176/1304, 13-26=-176/1304, 12-13=-176/1304, 11-12=-20/722, 10-11=-309/24, 6-11=-329/37, 9-10=-27/58
WEBS	2-15=-132/200, 3-15=-32/484, 4-15=-609/150, 4-14=0/281, 4-12=-613/144, 5-12=-32/482, 6-12=-94/198, 2-18=-1112/100, 7-10=-21/711

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) interior zone and C-C Exterior (2) 0-1-12 to 9-10-15, Interior (1) 9-10-15 to 14-0-1, Exterior (2) 14-0-1 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 18. 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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D03	Hip	1	1	E15498457 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:47

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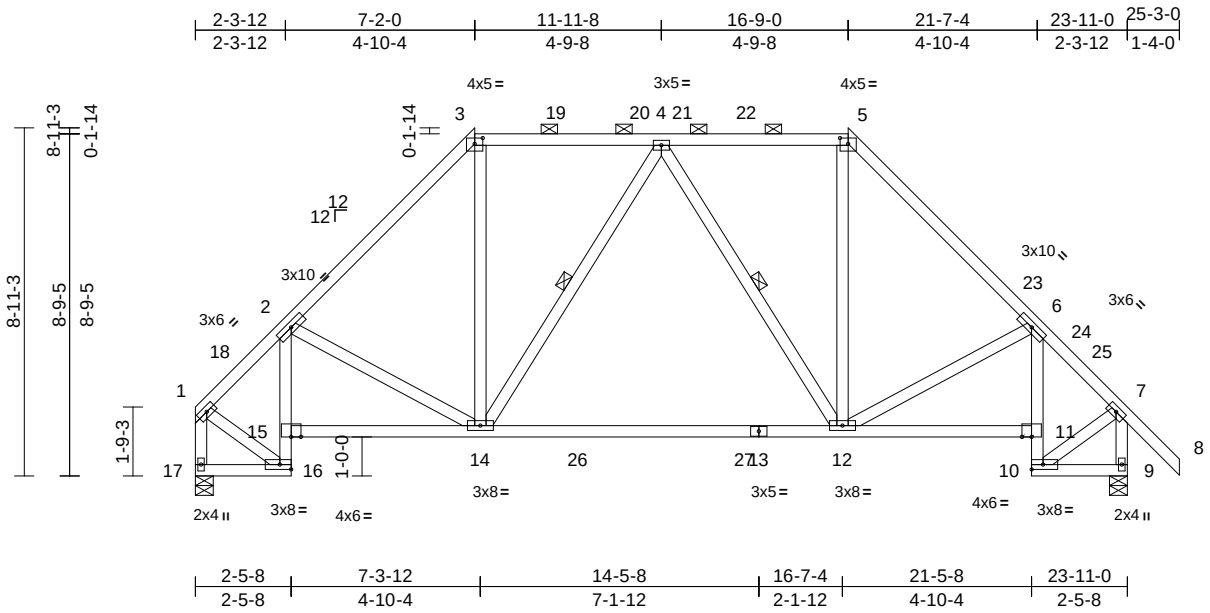


Scale = 1:59.1

Plate Offsets (X, Y): [3:0-2-8,0-1-13], [5:0-2-8,0-1-13]

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	0.54	Vert(LL)	-0.25	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.43	12-14	>658	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.20	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 167 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-14, 4-12

REACTIONS (size) 9=0-5-8, 17=0-5-8
Max Horiz 17=-252 (LC 10)
Max Uplift 9=-131 (LC 15), 17=-101 (LC 14)
Max Grav 9=1144 (LC 40), 17=1049 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-18=-910/155, 2-18=-864/165, 2-3=-1096/228, 3-19=-741/228, 19-20=-741/228, 4-20=-742/228, 4-21=-740/226, 21-22=-739/227, 5-22=-739/227, 5-23=-1025/226, 6-23=-1090/189, 6-24=-790/184, 24-25=-839/178, 7-25=-900/167, 7-8=0/63, 1-17=-1117/164, 7-9=-1210/225
BOT CHORD 16-17=-226/236, 15-16=-330/69, 2-15=-324/83, 14-15=-246/880, 14-26=-137/914, 26-27=-137/914, 13-27=-137/914, 12-13=-137/914, 11-12=-43/776, 10-11=-333/35, 6-11=-326/51, 9-10=-39/67
WEBS 2-14=-220/193, 3-14=-30/461, 4-14=-328/169, 4-12=-332/168, 5-12=-34/458, 6-12=-173/182, 1-16=-85/755, 7-10=-42/756

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) exterior zone and C-C Exterior (2) 0-1-12 to 11-4-15, Interior (1) 11-4-15 to 12-6-1, Exterior (2) 12-6-1 to 20-11-15, Interior (1) 20-11-15 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 9. This connection is for uplift only and does not consider lateral forces.
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

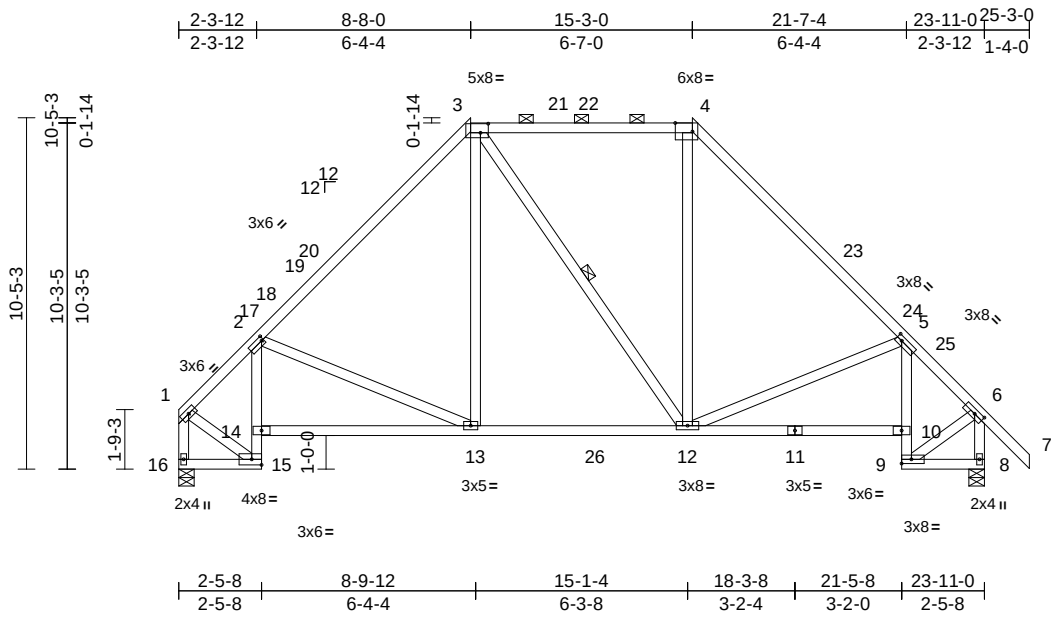
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D04	Hip	1	1	E15498458 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:48 Page: 1

ID:uO?H4elgCB3mWjQpCJE4_Mzan2O-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:68.4

Plate Offsets (X, Y): [2:0-0-12,0-1-8], [3:0-2-12,0-3-4], [4:0-6-2,Edge], [5:0-2-0,0-1-8], [6:0-3-7,0-1-8]

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	0.93	Vert(LL)	-0.08	12-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.16	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.21	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 168 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-4:2x4 SP No.1
BOT CHORD 2x4 SP No.2 *Except* 15-2,5-9:2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 12-3:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-12

REACTIONS (size) 8=0-5-8, 16=0-5-8
Max Horiz 16=-289 (LC 10)
Max Uplift 8=-119 (LC 15), 16=-93 (LC 14)
Max Grav 8=1186 (LC 40), 16=1091 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-939/155, 2-17=-1155/178, 17-18=-1141/184, 18-19=-1106/185, 19-20=-1016/196, 3-20=-915/232, 3-21=-654/248, 21-22=-654/248, 4-22=-654/248, 4-23=-913/230, 23-24=-1138/182, 5-24=-1152/176, 5-25=-852/172, 6-25=-935/167, 6-7=0/63, 1-16=-1164/153, 6-8=-1258/213
BOT CHORD 15-16=-263/270, 14-15=-372/80, 2-14=-326/114, 13-14=-266/1055, 13-26=-113/710, 12-26=-113/710, 11-12=-67/900, 10-11=-67/900, 9-10=-378/52, 5-10=-332/87, 8-9=-57/75
WEBS 2-13=-381/262, 3-13=-24/384, 3-12=-125/124, 4-12=-28/334, 5-12=-319/241, 1-15=-103/837, 6-9=-67/845

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-5-1, Exterior (2) 4-5-1 to 19-5-15, Interior (1) 19-5-15 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 8. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D05	Hip	1	1	E15498459
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:49 Page: 1

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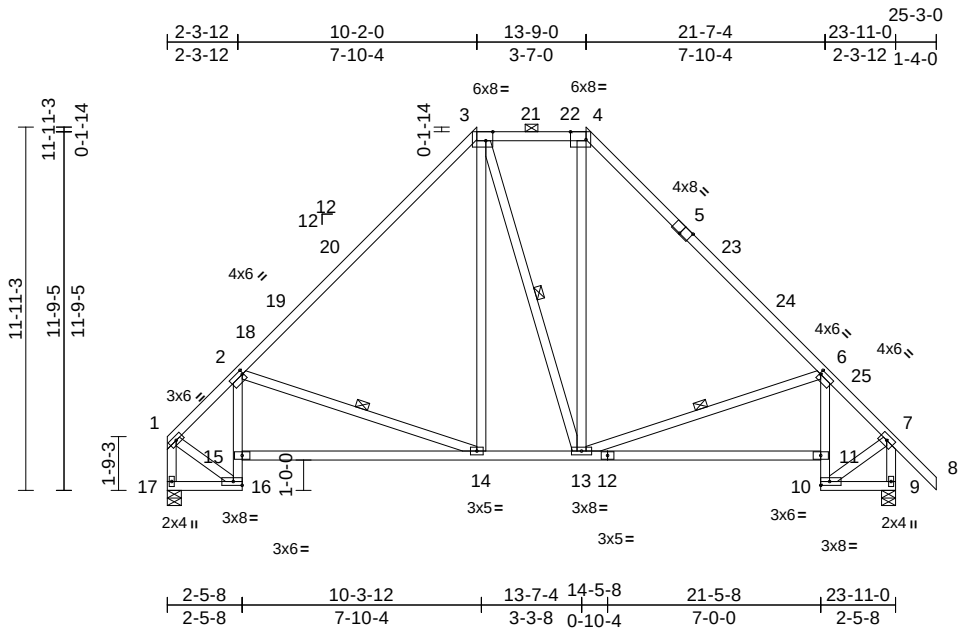

Scale = 1:75.7

Plate Offsets (X, Y): [2:0-0-8,0-1-12], [3:0-2-12,Edge], [4:0-6-2,Edge], [5:0-4-0,Edge], [6:0-0-8,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.14	14-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.30	14-15	>943	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.20	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 179 lb	FT = 20%

LUMBER

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

BOT CHORD 2x4 SP No.2 *Except* 16-2,6-10:2x4 SP 2400F 2.0E

WEBS 2x4 SP No.3 *Except* 14-3,13-3,13-4:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 2-14, 3-13, 6-13

REACTIONS (size) 9=0-5-8, 17=0-5-8
Max Horiz 17=-320 (LC 10)
Max Uplift 9=-110 (LC 15), 17=-80 (LC 14)
Max Grav 9=1228 (LC 40), 17=1133 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-979/142, 2-18=-1183/162, 18-19=-1148/162, 19-20=-981/186, 3-20=-920/222, 3-21=-657/257, 21-22=-657/257, 4-22=-657/257, 4-5=-903/222, 5-23=-924/193, 23-24=-978/186, 6-24=-1182/162, 6-25=-883/160, 7-25=-957/154, 7-8=0/63, 1-17=-1203/137, 7-9=-1296/198

BOT CHORD 16-17=-296/303, 15-16=-413/92, 2-15=-344/137, 14-15=-294/1175, 13-14=-80/679, 12-13=-105/1008, 11-12=-105/1008, 10-11=-417/71, 6-11=-349/117, 9-10=-66/82

WEBS 2-14=-528/356, 3-14=-48/297, 3-13=-162/161, 4-13=-76/313, 6-13=-446/323, 1-16=-124/900, 7-10=-97/906

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) interior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-11-1, Exterior (2) 5-11-1 to 17-11-15, Interior (1) 17-11-15 to 22-3-0, Exterior (2) 22-3-0 to 25-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 9. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB09	Piggyback	1	1	E15498460 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:09 Page: 1
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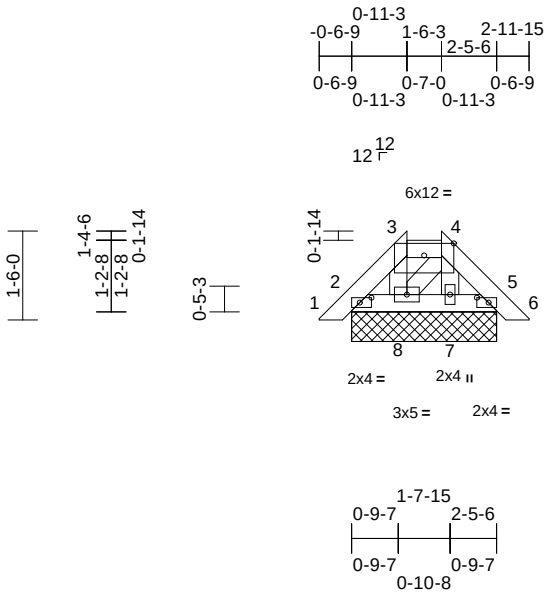

Scale = 1:38.9

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [3:0-6-0,0-2-7], [5:0-2-6,0-1-0]

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	5	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
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=2-5-6, 5=2-5-6, 7=2-5-6, 8=2-5-6, 9=2-5-6, 12=2-5-6
Max Horiz 2=-30 (LC 12), 9=-30 (LC 12)
Max Uplift 2=-13 (LC 14), 5=-19 (LC 15), 8=-5 (LC 11), 9=-13 (LC 14), 12=-19 (LC 15)
Max Grav 2=97 (LC 37), 5=103 (LC 37), 7=53 (LC 37), 8=71 (LC 37), 9=97 (LC 37), 12=103 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-31/23, 3-4=-22/29, 4-5=-39/28, 5-6=0/25
BOT CHORD 2-8=-12/31, 7-8=-8/28, 5-7=-8/27
WEBS 3-8=-35/12, 4-8=-10/8, 4-7=-25/3

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) exterior zone 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=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) Gable requires continuous bottom chord bearing.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 5, and 8. This connection is for uplift only and does not consider lateral forces.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	D01	Hip Girder	1	1	E15498461 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:44 Page: 1

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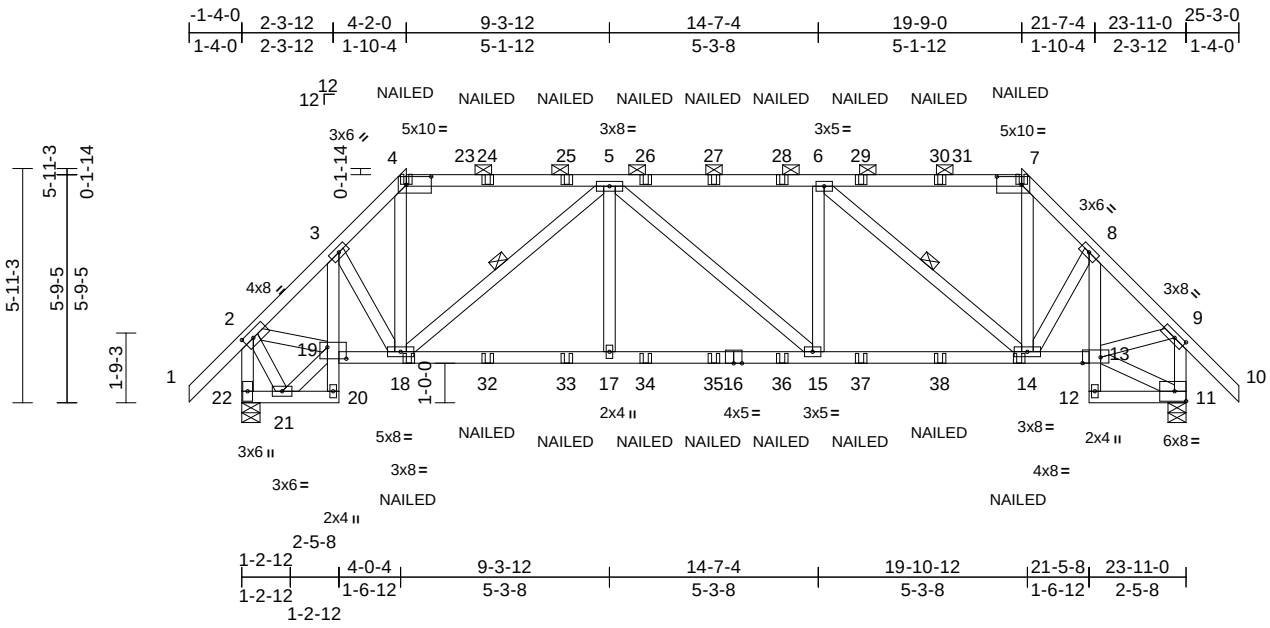

Scale = 1:58.4

Plate Offsets (X, Y): [2:0-2-15,0-2-0], [4:0-7-9,0-2-8], [7:0-7-9,0-2-8], [9:0-3-7,0-1-8], [13:0-5-8,0-1-12], [19:0-5-12,0-3-8]

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	0.67	Vert(LL)	0.15	15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.21	15-17	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.12	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 173 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 20-3,8-12:2x4 SP No.3, 19-16,16-13:2x4 SP No.1

WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-2 max.): 4-7.

BOT CHORD Rigid ceiling directly applied or 5-9-5 oc bracing.

WEBS 1 Row at midpt 5-18, 6-14

REACTIONS (size) 11=0-5-8, 22=0-5-8

Max Horiz 22=-191 (LC 10)

Max Uplift 11=-724 (LC 13), 22=-724 (LC 12)

Max Grav 11=1882 (LC 35), 22=1882 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/105, 2-3=-2047/879, 3-4=-2038/904, 4-23=-1468/681, 23-24=-1468/681, 24-25=-1468/681, 5-25=-1470/681, 5-26=-2611/1145, 26-27=-2611/1145, 27-28=-2611/1145, 6-28=-2611/1145, 6-29=-1445/672, 29-30=-1444/672, 30-31=-1444/672, 7-31=-1443/672, 7-8=-2006/892, 8-9=-1933/800, 9-10=0/105, 2-22=-1845/717, 9-11=-1826/729

BOT CHORD 21-22=-164/171, 20-21=-29/66, 19-20=-1/36, 3-19=-241/174, 18-19=-694/1505, 18-32=-1166/2657, 32-33=-1166/2657, 17-33=-1166/2657, 17-34=-1166/2657, 34-35=-1166/2657, 16-35=-1166/2657, 16-36=-1166/2657, 15-36=-1166/2657, 15-37=-1139/2629, 37-38=-1139/2629, 14-38=-1139/2629, 13-14=-521/1347, 12-13=0/43, 8-13=-270/126, 11-12=-19/59

WEBS 3-18=-209/270, 4-18=-438/1072, 5-18=-1532/709, 5-17=-138/488, 5-15=-50/51, 6-15=-170/499, 6-14=-1534/708, 7-14=-430/1043, 8-14=-171/325, 2-19=-605/1420, 19-21=-177/157, 2-21=-91/130, 9-13=-520/1356, 11-13=-91/35

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One RT8A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 22 and 11. This connection is for uplift only and does not consider lateral forces.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) 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: 1-2=-60, 2-4=-60, 4-7=-60, 7-9=-60, 9-10=-60, 20-22=-20, 13-19=-20, 11-12=-20

Concentrated Loads (lb)

Vert: 4=-59 (B), 7=-59 (B), 18=-108 (B), 14=-108 (B), 24=-59 (B), 25=-59 (B), 26=-59 (B), 27=-59 (B), 28=-59 (B), 29=-59 (B), 30=-59 (B), 32=-108 (B), 33=-108 (B), 34=-108 (B), 35=-108 (B), 36=-108 (B), 37=-108 (B), 38=-108 (B)

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	HJ02	Diagonal Hip Girder	2	1	E15498462 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:00 Page: 1
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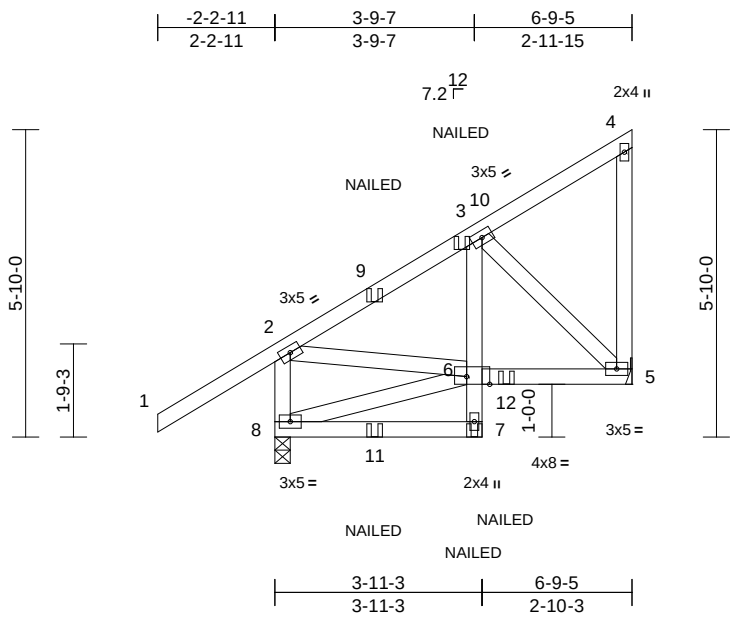

Scale = 1:43.7

Plate Offsets (X, Y): [6:0-5-4,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	0.47	Vert(LL)	0.03	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 55 lb	FT = 20%

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

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

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Horiz 8=210 (LC 9)
Max Uplift 5=-253 (LC 9), 8=-234 (LC 12)
Max Grav 5=358 (LC 22), 8=465 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-410/226, 1-2=0/73, 2-9=-335/197, 3-9=-274/197, 3-10=-102/47, 4-10=-94/61, 4-5=-114/47
BOT CHORD 8-11=-6/6, 7-11=-6/6, 6-7=-79/85, 3-6=-237/212, 6-12=-262/265, 5-12=-257/261
WEBS 6-8=-204/128, 2-6=-160/270, 3-5=-339/310

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 253 lb uplift at joint 5.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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: 1-2=-60, 2-4=-60, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 9=39 (F), 11=-1 (F), 12=-40 (F)

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	EJ01	Jack-Open	9	1	E15498463
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:52 Page: 1

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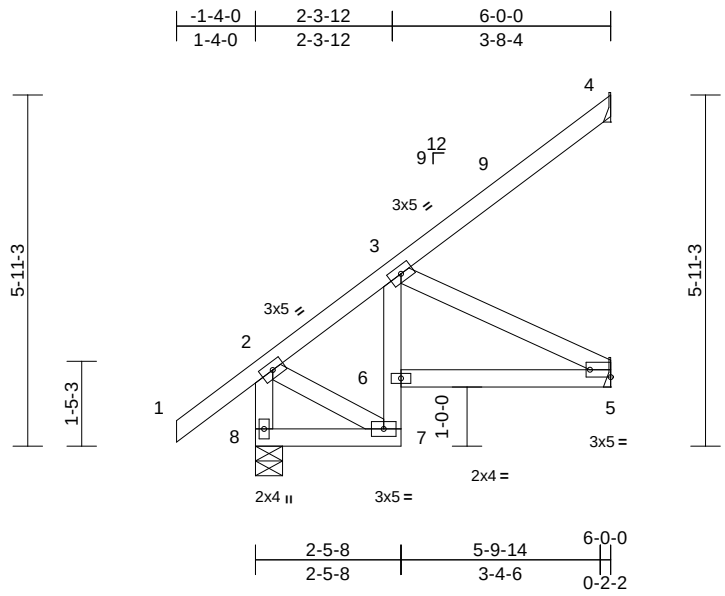

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Plate Offsets (X, Y): [5:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 37 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-5-8
Max Horiz 8=188 (LC 14)
Max Uplift 4=-78 (LC 14), 5=-59 (LC 14)
Max Grav 4=119 (LC 21), 5=144 (LC 24), 8=338 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-316/29, 1-2=0/53, 2-3=-191/0, 3-9=-92/47, 4-9=-66/64
BOT CHORD 7-8=-275/135, 6-7=-72/8, 3-6=-50/71, 5-6=-189/296
WEBS 2-7=0/175, 3-5=-331/211

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 4 and 59 lb uplift at joint 5.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ10	Jack-Open	2	1	E15498464 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:42 Page: 1
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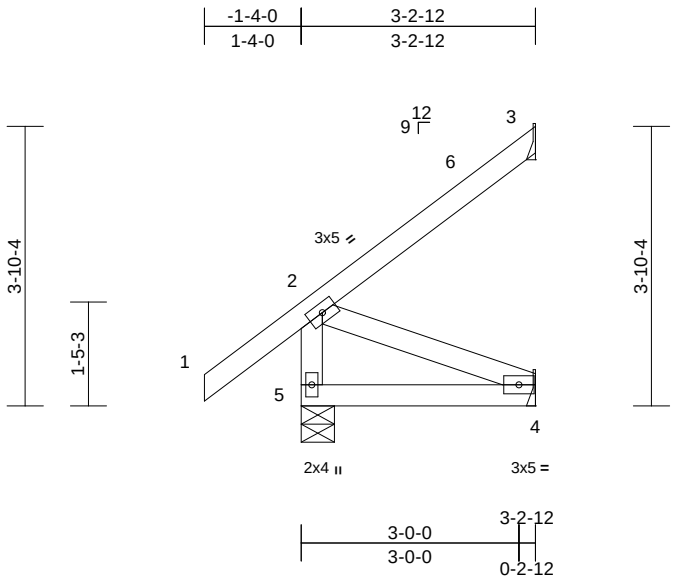

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 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 3-2-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=108 (LC 14)
Max Uplift 3=-59 (LC 14), 4=-27 (LC 14)
Max Grav 3=78 (LC 28), 4=62 (LC 7), 5=233 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-202/40, 1-2=0/53, 2-6=-77/51, 3-6=-41/67
BOT CHORD 4-5=-189/67
WEBS 2-4=-72/203

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 3 and 27 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ09	Jack-Open	2	1	E15498465 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:42

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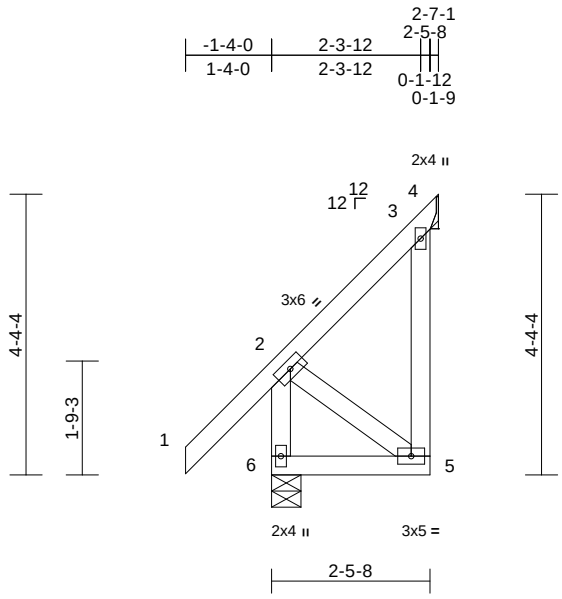

Scale = 1:35.7

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	0.21	Vert(LL)	-0.01	5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.01	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 5-3:2x4 SP No.3
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6=0-5-8
Max Horiz 6=120 (LC 14)
Max Uplift 4=-127 (LC 14)
Max Grav 4=108 (LC 28), 6=211 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-190/46, 1-2=0/63, 2-3=-71/73, 3-4=-123/129
BOT CHORD 5-6=-224/67, 3-5=-151/71
WEBS 2-5=-85/281

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ08	Jack-Open	2	1	E15498466 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:42 Page: 1
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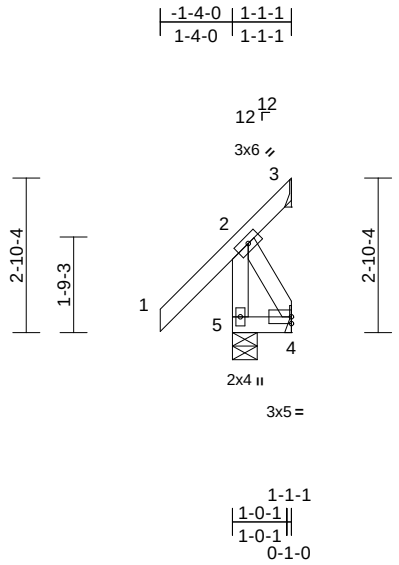

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	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 1-1-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=76 (LC 13)
Max Uplift 3=-61 (LC 20), 4=-110 (LC 14), 5=-1 (LC 10)
Max Grav 3=38 (LC 18), 4=63 (LC 12), 5=197 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-187/34, 1-2=0/63, 2-3=-70/68
BOT CHORD 4-5=-100/33
WEBS 2-4=-63/194

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 4 and 61 lb uplift at joint 3.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	K01	Hip Girder	1	1	E15498467
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:03 Page: 1

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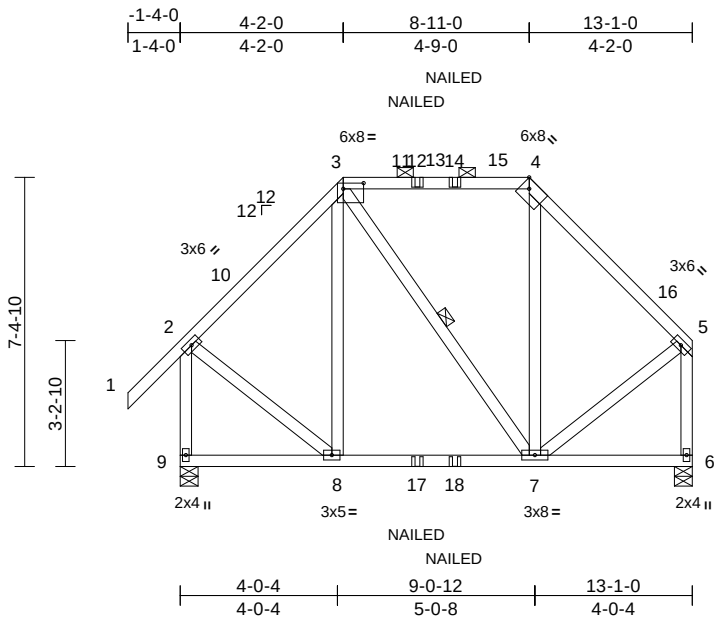

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Plate Offsets (X, Y): [3:0-6-4,0-1-12], [4:0-2-8,Edge]

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	0.77	Vert(LL)	0.06	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.07	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 102 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-7

REACTIONS (size) 6=0-5-8, 9=0-5-8
Max Horiz 9=234 (LC 9)
Max Uplift 6=-231 (LC 13), 9=-252 (LC 12)
Max Grav 6=794 (LC 35), 9=959 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/105, 2-10=-623/226, 3-10=-507/249, 3-11=-372/234, 11-12=-372/234, 12-13=-372/234, 13-14=-372/234, 14-15=-372/234, 4-15=-372/234, 4-16=-503/244, 5-16=-609/217, 2-9=-936/283, 5-6=-769/261
BOT CHORD 8-9=-223/188, 8-17=-228/430, 17-18=-228/430, 7-18=-228/430, 6-7=-50/31
WEBS 3-8=-105/111, 3-7=-89/96, 4-7=-118/109, 2-8=-193/498, 5-7=-204/466

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 6. This connection is for uplift only and does not consider lateral forces.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) 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: 1-2=-60, 2-3=-60, 3-4=-60, 4-5=-60, 6-9=-20
   Concentrated Loads (lb)
   Vert: 12=-129 (B), 14=-129 (B), 17=-39 (B), 18=-39 (B)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

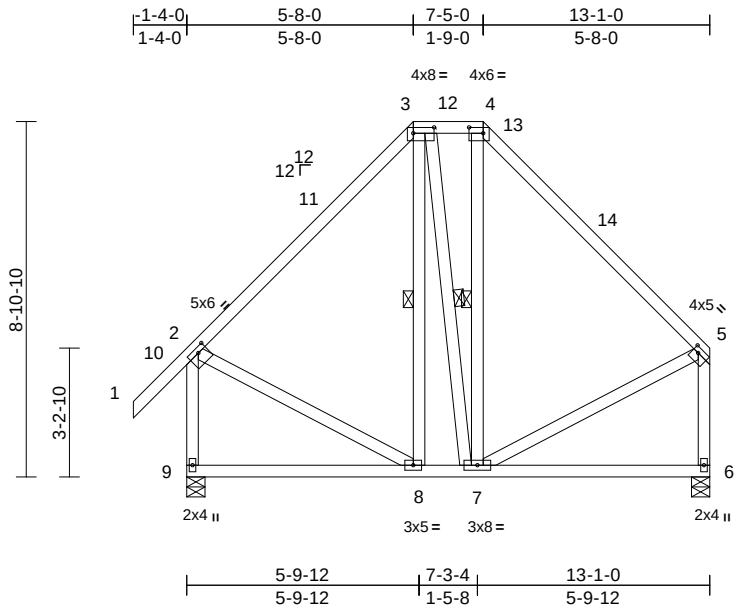
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	K02	Hip	1	1	E15498468 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:03 Page: 1

ID:R4DEG?lVNdnffme534Nz1UzanoA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.6

Plate Offsets (X, Y): [2:0-2-12,0-1-8], [3:0-6-4,0-1-12], [4:0-4-4,0-1-12], [5:0-1-12,0-1-8]

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	0.74	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.06	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 113 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-8, 3-7, 4-7

REACTIONS (size) 6=0-5-8, 9=0-5-8
Max Horiz 9=271 (LC 11)
Max Uplift 6=-51 (LC 14), 9=-60 (LC 14)
Max Grav 6=703 (LC 37), 9=823 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=0/41, 2-10=0/77, 2-11=-575/166, 3-11=-338/187, 3-12=-305/213, 4-12=-305/213, 4-13=-269/174, 13-14=-364/172, 5-14=-566/151, 2-9=-767/182, 5-6=-647/137
BOT CHORD 8-9=-253/251, 7-8=-98/294, 6-7=-47/55
WEBS 3-8=-47/96, 3-7=-140/151, 4-7=-96/135, 2-8=-57/264, 5-7=-66/258

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) exterior zone 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=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 6. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	HJ01	Diagonal Hip Girder	2	1	E15498469 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:59 Page: 1
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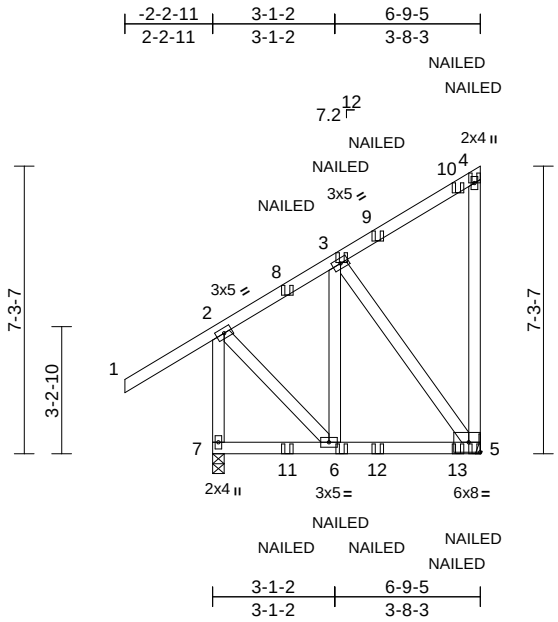

Scale = 1:58.4

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	0.64	Vert(LL)	0.02	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 61 lb	FT = 20%

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

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

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=278 (LC 9)
Max Uplift 5=-720 (LC 9), 7=-377 (LC 8)
Max Grav 5=780 (LC 22), 7=640 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-577/326, 1-2=0/73, 2-8=-316/242, 3-8=-270/233, 3-9=-166/126, 9-10=-113/92, 4-10=-131/125, 4-5=-321/276
BOT CHORD 7-11=-264/170, 6-11=-264/170, 6-12=-291/289, 12-13=-291/289, 5-13=-291/289
WEBS 2-6=-311/435, 3-6=-287/308, 3-5=-395/397

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 720 lb uplift at joint 5.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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: 1-2=-60, 2-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 4=-125 (F), 5=-38 (F), 8=39 (B), 10=-56 (B), 11=-1 (B), 13=-19 (B)

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ05	Jack-Open	3	1	E15498470 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:40 Page: 1
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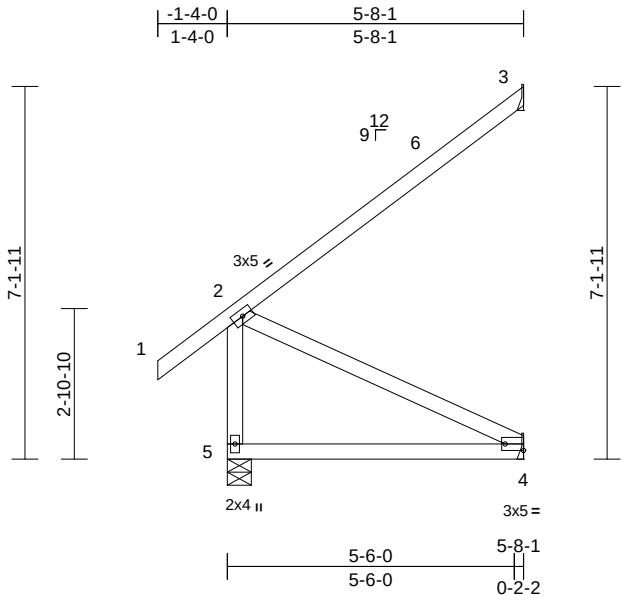

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Plate Offsets (X, Y): [4:Edge,0-1-8]

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	0.57	Vert(LL)	-0.06	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	4-5	>592	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 34 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 5-8-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=163 (LC 11)
Max Uplift 3=-124 (LC 14), 4=-52 (LC 14)
Max Grav 3=176 (LC 21), 4=111 (LC 7), 5=324 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-269/0, 1-2=0/53, 2-6=-120/87, 3-6=-91/114
BOT CHORD 4-5=-294/154
WEBS 2-4=-171/327

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 3 and 52 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	EJ02	Jack-Open	2	1	E15498471 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:52 Page: 1
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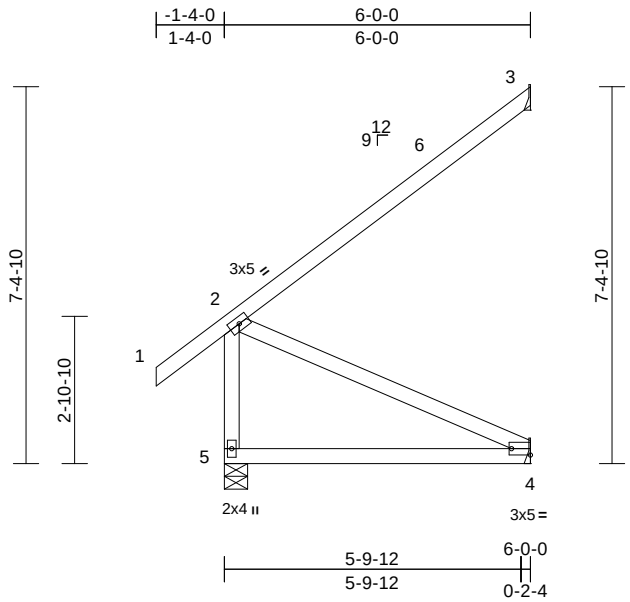

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Plate Offsets (X, Y): [4:Edge,0-1-8]

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	0.65	Vert(LL)	-0.07	4-5	>997	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	4-5	>499	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 36 lb	FT = 20%

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

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=169 (LC 14)
Max Uplift 3=-133 (LC 14), 4=-50 (LC 14)
Max Grav 3=189 (LC 21), 4=117 (LC 7), 5=337 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-279/0, 1-2=0/53, 2-6=-127/92, 3-6=-97/120
BOT CHORD 4-5=-303/161
WEBS 2-4=-177/333

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 3 and 50 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ04	Jack-Open	3	1	E15498472 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:40 Page: 1
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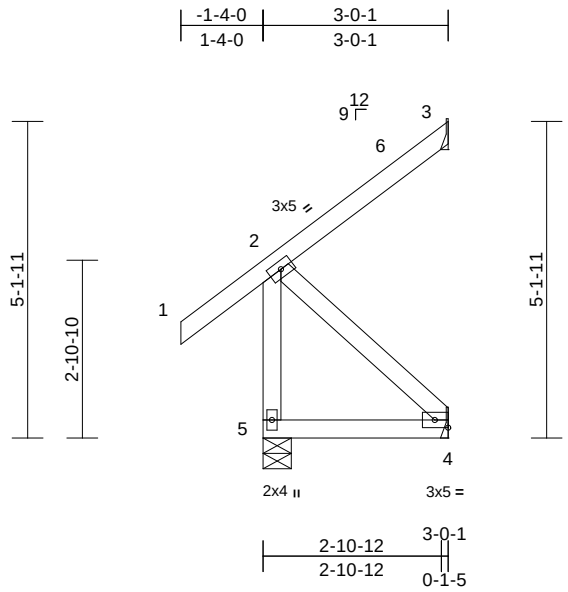

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Plate Offsets (X, Y): [4:Edge,0-1-8]

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	0.16	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 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 3-0-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=119 (LC 11)
Max Uplift 3=-52 (LC 14), 4=-76 (LC 14)
Max Grav 3=69 (LC 28), 4=98 (LC 12), 5=226 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-197/54, 1-2=0/53, 2-6=-72/48, 3-6=-37/63
BOT CHORD 4-5=-211/88
WEBS 2-4=-120/288

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 3 and 76 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ02	Jack-Open	2	1	E15498473 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:39
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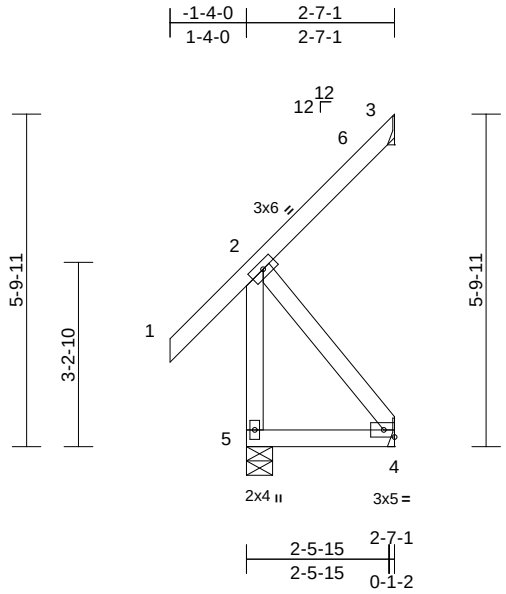

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 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 2-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=138 (LC 11)
Max Uplift 3=-53 (LC 14), 4=-134 (LC 14)
Max Grav 3=56 (LC 24), 4=130 (LC 12), 5=212 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-201/119, 1-2=0/63, 2-6=-70/65, 3-6=-42/81
BOT CHORD 4-5=-253/93
WEBS 2-4=-148/401

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 3 and 134 lb uplift at joint 4.

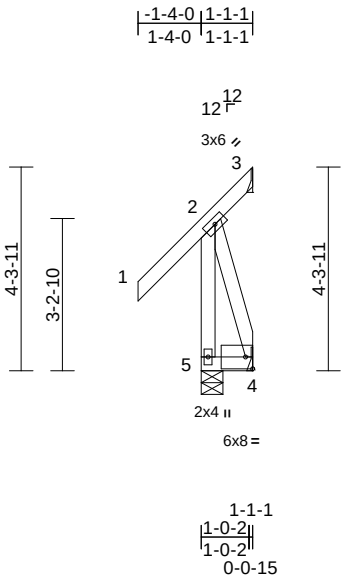
LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ03	Jack-Open	3	1	E15498474 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:39 Page: 1
ID:?0e4qlYKsb1OYLHjTNFsuizanOb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:48.7

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	0.20	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 16 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 1-1-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=-106 (LC 12)
Max Uplift 3=-61 (LC 20), 4=-235 (LC 11), 5=-106 (LC 12)
Max Grav 3=38 (LC 18), 4=220 (LC 12), 5=234 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-410/188, 1-2=0/63, 2-3=-70/68
BOT CHORD 4-5=-191/66
WEBS 2-4=-220/639

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 235 lb uplift at joint 4 and 61 lb uplift at joint 3.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ07	Jack-Open	1	1	E15498475 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:41 Page: 1
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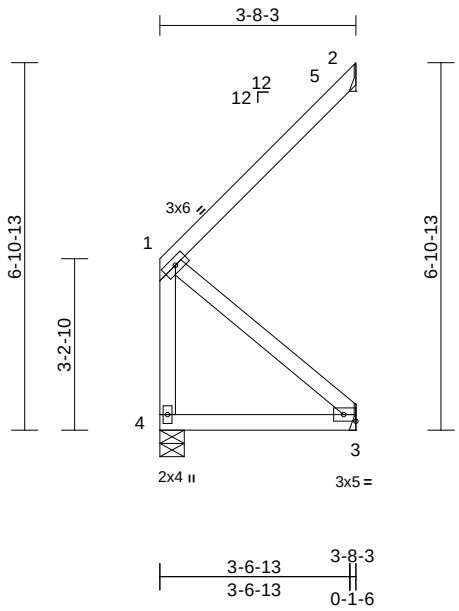

Scale = 1:43.3

Plate Offsets (X, Y): [3: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	0.26	Vert(LL)	-0.01	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 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 3-8-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4=0-5-8
Max Horiz 4=127 (LC 11)
Max Uplift 2=-113 (LC 14), 3=-76 (LC 14)
Max Grav 2=123 (LC 23), 3=106 (LC 12), 4=160 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-198/111, 1-5=-117/102, 2-5=-93/102
BOT CHORD 3-4=-208/171
WEBS 1-3=-225/273

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) interior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 10.0 psf bottom chord live load nonconcurrent with any 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 113 lb uplift at joint 2 and 76 lb uplift at joint 3.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	C01	Half Hip Girder	1	1	E15498476 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:34 Page: 1
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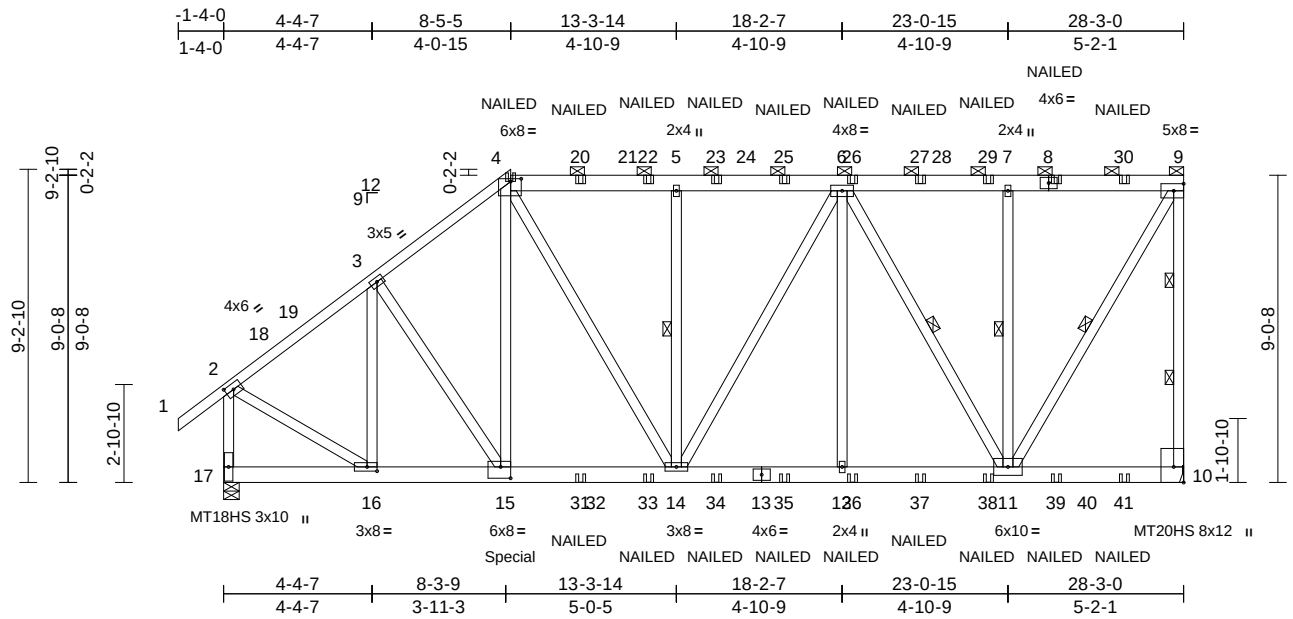

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Plate Offsets (X, Y): [2:0-2-14,0-2-0], [4:0-3-12,0-1-0], [10:Edge,0-3-8], [15:0-3-8,0-4-0], [16:0-3-8,0-1-8]

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	0.94	Vert(LL)	0.16	12-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	12-14	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	-0.04	10	n/a	n/a	MT18HS	244/190
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 275 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 1-4:2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 9-10:2x4 SP No.1, 14-4,11-9:2x4 SP No.2

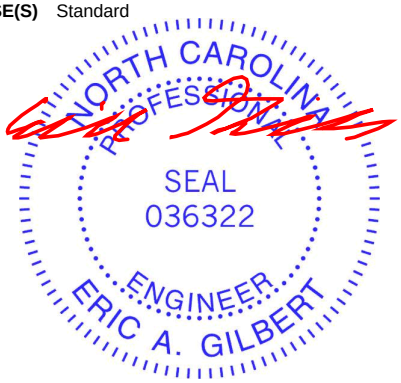
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-4 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 5-5-13 oc bracing.
WEBS 1 Row at midpt 5-14, 6-11, 7-11, 9-11
WEBS 2 Rows at 1/3 pts 9-10

REACTIONS (size) 10= Mechanical, 17=0-5-8
Max Horiz 17=336 (LC 11)
Max Uplift 10=-2098 (LC 9), 17=-1749 (LC 12)
Max Grav 10=3071 (LC 39), 17=2870 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/53, 2-18=-2493/1576, 18-19=-2416/1588, 3-19=-2413/1603, 3-4=-2941/2084, 4-20=-2709/1927, 20-21=-2714/1931, 21-22=-2717/1931, 5-22=-2724/1935, 5-23=-2712/1927, 23-24=-2712/1927, 24-25=-2712/1927, 6-25=-2712/1927, 6-26=-1628/1121, 26-27=-1628/1121, 27-28=-1628/1121, 28-29=-1628/1121, 7-29=-1628/1121, 7-8=-1628/1121, 8-30=-1628/1121, 9-30=-1628/1121, 9-10=-2905/2018, 2-17=-2815/1757
BOT CHORD 16-17=-323/233, 15-16=-1462/2042, 15-31=-1780/2380, 31-32=-1780/2380, 32-33=-1780/2380, 14-33=-1780/2380, 14-34=-1784/2454, 13-34=-1784/2454, 13-35=-1784/2454, 12-35=-1784/2454, 12-36=-1784/2454, 36-37=-1784/2454, 37-38=-1784/2454, 11-38=-1784/2454, 11-39=-109/93, 39-40=-109/93, 40-41=-109/93, 10-41=-109/93
WEBS 3-16=-1118/792, 3-15=-733/908, 4-15=-559/749, 4-14=-598/876, 5-14=-808/580, 6-14=-456/606, 6-12=-199/412, 6-11=-1753/1253, 7-11=-773/574, 9-11=-2159/3064, 2-16=-1373/2236

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2098 lb uplift at joint 10 and 1749 lb uplift at joint 17.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1033 lb down and 961 lb up at 8-5-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
15) 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



March 15,2021

Continued on page 2

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

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-60, 2-4=-60, 4-9=-60, 10-17=-20
   Concentrated Loads (lb)
   Vert: 4=-130 (B), 8=-130 (B), 15=-645 (B), 20=-130 (B), 22=-130 (B), 23=-130 (B), 25=-130 (B), 26=-130 (B), 27=-130 (B), 29=-130 (B), 30=-130 (B), 31=-39 (B), 33=-39 (B), 34=-39 (B), 35=-39 (B), 36=-39 (B), 37=-39 (B), 38=-39 (B), 39=-39 (B), 41=-39 (B)

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	C02	Hip	1	1	E15498477 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:35
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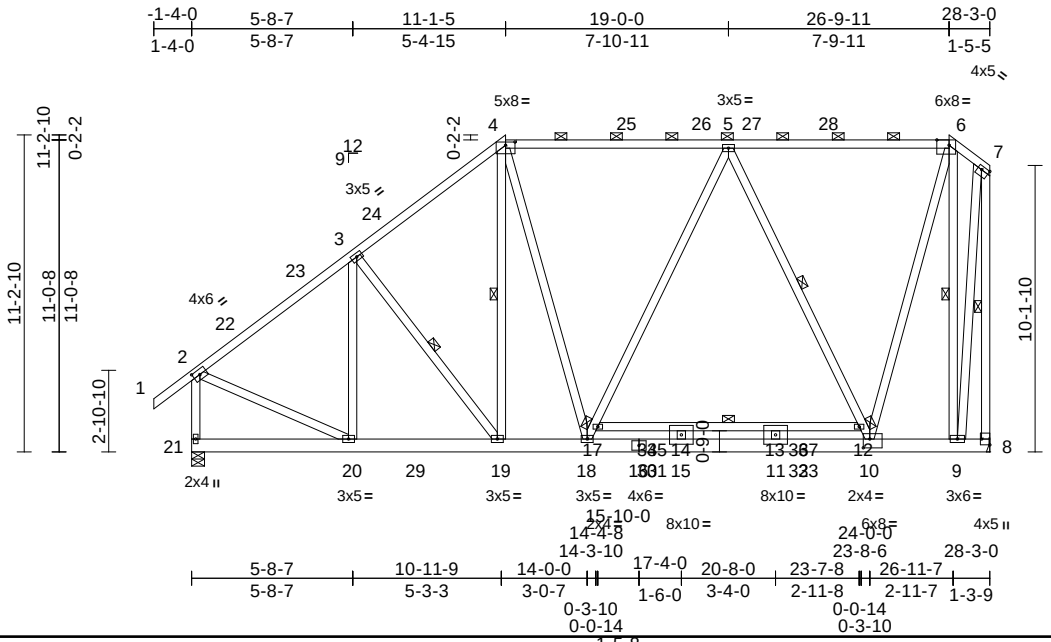

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Plate Offsets (X, Y): [2:0-2-14,0-2-0], [4:0-4-0,0-1-6], [6:0-5-3,Edge], [7:Edge,0-1-8], [8:Edge,0-3-8], [10:0-2-12,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.18	11-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.38	11-15	>877	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 290 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2 *Except* 17-12:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 19-4,18-5,10-5,9-6,8-7,4-18,10-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 12-17
WEBS 1 Row at midpt 3-19, 4-19, 5-12, 6-9, 7-8

REACTIONS (size) 8= Mechanical, 21=0-5-8
Max Horiz 21=407 (LC 11)
Max Uplift 21=-74 (LC 14)
Max Grav 8=1660 (LC 42), 21=1371 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/53, 2-22=-1244/76, 22-23=-1168/91, 3-23=-1097/112, 3-24=-1195/136, 4-24=-1112/170, 4-25=-1086/122, 25-26=-1086/122, 5-26=-1088/121, 5-27=-624/114, 27-28=-623/114, 6-28=-621/115, 6-7=-327/248, 2-21=-1324/132, 7-8=-1216/184
BOT CHORD 20-21=-387/279, 20-29=-230/1035, 19-29=-230/1035, 18-19=-171/955, 16-18=-100/966, 16-30=-100/966, 30-31=-100/966, 15-31=-100/966, 11-15=-100/966, 11-32=-100/966, 32-33=-100/966, 10-33=-100/966, 9-10=-106/195, 8-9=-139/159, 17-34=-29/62, 34-35=-29/62, 14-35=-29/62, 13-14=-29/62, 13-36=-29/62, 36-37=-29/62, 12-37=-29/62
WEBS 3-20=-276/56, 3-19=-268/184, 4-19=-289/80, 17-18=0/429, 5-17=0/489, 5-12=-985/196, 10-12=-1003/158, 6-9=-1907/43, 7-9=-115/1198, 2-20=0/1003, 4-18=0/642, 6-10=0/1734, 14-15=-148/0, 11-13=-140/0

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 6-10-7, Exterior (2) 6-10-7 to 15-4-4, Interior (1) 15-4-4 to 22-6-12, Exterior (2) 22-6-12 to 28-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	C03	Piggyback Base	1	1	E15498478 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:36 Page: 1

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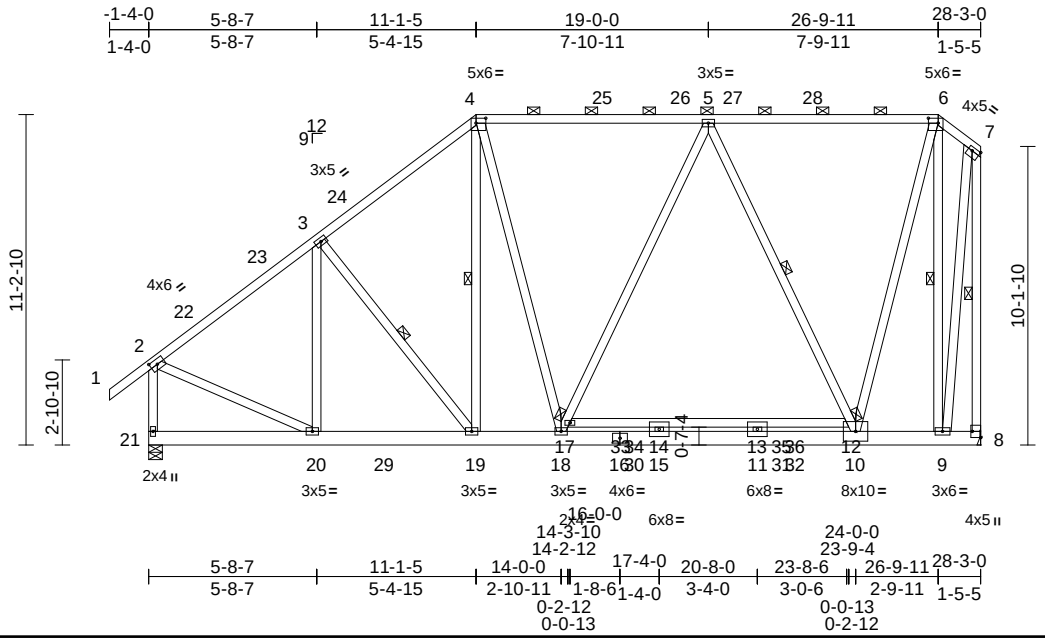

Scale = 1:78.2

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [4:0-4-0,0-2-0], [6:0-4-0,0-2-0], [7:Edge,0-1-8], [8: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	0.66	Vert(LL)	-0.19	11-15	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.38	11-15	>872	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 291 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP No.2 *Except* 17-12:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 19-4,18-5,10-5,4-18,6-10:2x4 SP No.2, 9-6:2x4 SP No.1, 8-7:2x4 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 9-9-11 oc bracing.

WEBS 1 Row at midpt 3-19, 4-19, 5-12, 6-9, 7-8

REACTIONS (size) 8= Mechanical, 21=0-5-8
Max Horiz 21=410 (LC 11)
Max Uplift 21=-72 (LC 14)
Max Grav 8=1672 (LC 45), 21=1377 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/53, 2-22=-1251/75, 22-23=-1176/90, 3-23=-1104/111, 3-24=-1204/135, 4-24=-1119/170, 4-25=-1081/125, 25-26=-1081/125, 5-26=-1081/125, 5-27=-619/117, 27-28=-619/117, 6-28=-619/117, 6-7=-362/255, 2-21=-1331/132, 7-8=-1339/173

BOT CHORD 20-21=-390/282, 20-29=-232/1043, 19-29=-232/1043, 18-19=-173/951, 16-18=-97/934, 16-30=-97/934, 15-30=-97/934, 11-15=-97/934, 11-31=-97/934, 31-32=-97/934, 10-32=-97/934, 9-10=-107/198, 8-9=-139/161, 17-33=-33/86, 33-34=-33/86, 14-34=-33/86, 13-14=-33/86, 13-35=-33/86, 35-36=-33/86, 12-36=-33/86

WEBS 3-20=-276/55, 3-19=-282/188, 4-19=-291/84, 17-18=0/438, 5-17=0/500, 5-12=-980/198, 10-12=-989/158, 6-9=-1867/40, 7-9=-115/1286, 2-20=0/1010, 4-18=0/656, 6-10=0/1728, 14-15=-152/0, 11-13=-146/0

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) exterior zone and C-C Exterior (2) -1-4-0 to 1-8-0, Interior (1) 1-8-0 to 6-10-7, Exterior (2) 6-10-7 to 15-4-4, Interior (1) 15-4-4 to 22-6-12, Exterior (2) 22-6-12 to 28-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 19-0-0 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. This connection is for uplift only and does not consider lateral forces.
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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	C04	Piggyback Base	1	1	E15498479 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:37 Page: 1

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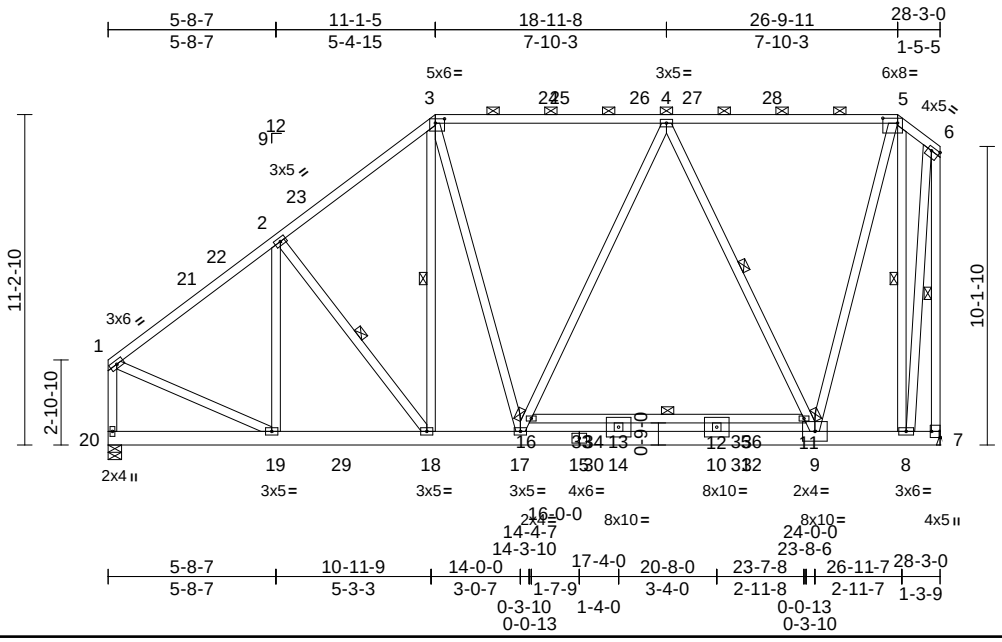

Scale = 1:78.2

Plate Offsets (X, Y): [3:0-3-12,0-1-12], [5:0-6-0,0-2-0], [6:Edge,0-1-8], [7: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	0.90	Vert(LL)	-0.18	10-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.39	10-14	>871	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 288 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-5:2x4 SP 2400F 2.0E

BOT CHORD 2x6 SP No.2 *Except* 16-11:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 18-3,17-4,9-4,8-5,7-6,3-17,9-5:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.

BOT CHORD Rigid ceiling directly applied or 9-11-1 oc bracing. Except: 6-0-0 oc bracing: 11-16

WEBS 1 Row at midpt 2-18, 3-18, 4-11, 5-8, 6-7

REACTIONS (size) 7= Mechanical, 20=0-5-8
Max Horiz 20=392 (LC 11)
Max Uplift 20=-43 (LC 14)
Max Grav 7=1666 (LC 44), 20=1297 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-21=-1251/77, 21-22=-1161/82, 2-22=-1102/100, 2-23=-1202/138, 3-23=-1117/173, 3-24=-1077/124, 24-25=-1077/124, 25-26=-1077/124, 4-26=-1077/124, 4-27=-616/118, 27-28=-616/118, 5-28=-616/118, 5-6=-344/261, 1-20=-1251/76, 6-7=-1223/184

BOT CHORD 19-20=-371/273, 19-29=-230/1047, 18-29=-230/1047, 17-18=-171/950, 15-17=-101/956, 15-30=-101/956, 14-30=-101/956, 10-14=-101/956, 10-31=-101/956, 31-32=-101/956, 9-32=-101/956, 8-9=-108/195, 7-8=-139/160, 16-33=-29/61, 33-34=-29/61, 13-34=-29/61, 12-13=-29/61, 12-35=-29/61, 35-36=-29/61, 11-36=-29/61

WEBS 2-19=-279/70, 2-18=-291/186, 3-18=-277/97, 16-17=0/438, 4-16=0/499, 4-11=-979/196, 9-11=-997/158, 5-8=-1901/48, 6-8=-121/1195, 1-19=0/1011, 3-17=0/642, 5-9=0/1731, 13-14=-149/0, 10-12=-140/0

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) exterior zone and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 6-10-7, Exterior (2) 6-10-7 to 15-4-4, Interior (1) 15-4-4 to 22-6-12, Exterior (2) 22-6-12 to 28-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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) 200.0lb AC unit load placed on the bottom chord, 19-0-0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20. 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

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	HJ03	Diagonal Hip Girder	1	1	E15498480 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:01

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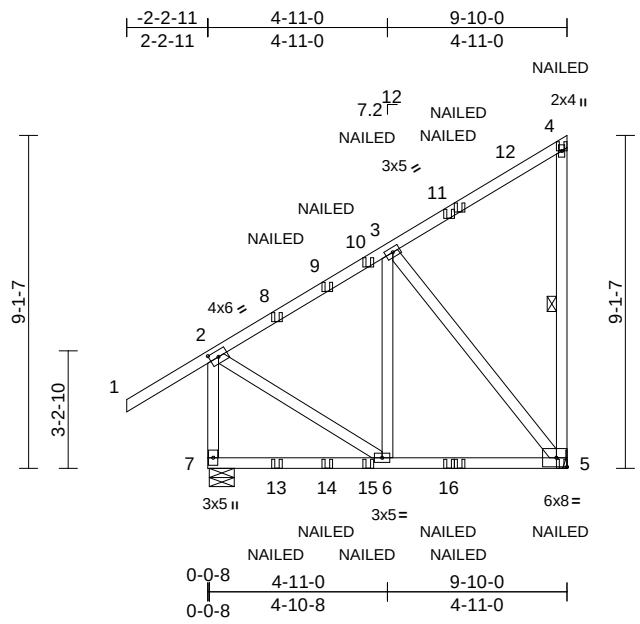

Scale = 1:63.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	0.09	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.09	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 79 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-5

REACTIONS (size) 5= Mechanical, 7=0-8-3
Max Horiz 7=310 (LC 9)
Max Uplift 5=-833 (LC 9), 7=-560 (LC 8)
Max Grav 5=963 (LC 22), 7=878 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-733/417, 1-2=0/73, 2-8=-563/422, 8-9=-500/401, 9-10=-447/381, 3-10=-417/351, 3-11=-247/187, 11-12=-114/90, 4-12=-101/107, 4-5=-330/263
BOT CHORD 7-13=-303/206, 13-14=-303/206, 14-15=-303/206, 6-15=-303/206, 6-16=-422/430, 5-16=-422/430
WEBS 2-6=-400/531, 3-6=-335/368, 3-5=-617/580

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 833 lb uplift at joint 5.
9) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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: 1-2=-60, 2-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 4=-127 (B), 5=-39 (B), 8=39 (B), 11=-112 (F=-76, B=-36), 13=-1 (B), 16=-36 (F=-22, B=-14)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ01	Jack-Open	1	1	E15498481 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:38
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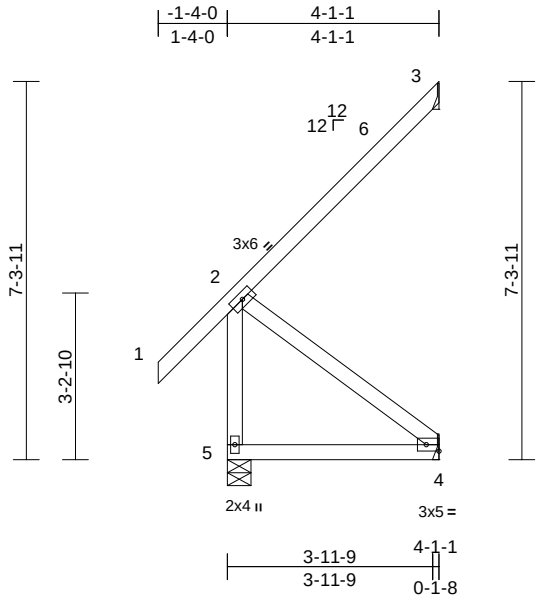

Scale = 1:44.5

Plate Offsets (X, Y): [4: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	0.36	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.01	3	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=171 (LC 11)
Max Uplift 3=-111 (LC 14), 4=-113 (LC 14)
Max Grav 3=120 (LC 24), 4=121 (LC 12), 5=263 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-224/92, 1-2=0/63, 2-6=-112/97, 3-6=-87/121
BOT CHORD 4-5=-317/143
WEBS 2-4=-180/398

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 3 and 113 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	CJ06	Jack-Open	1	1	E15498482
					Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:41 Page: 1

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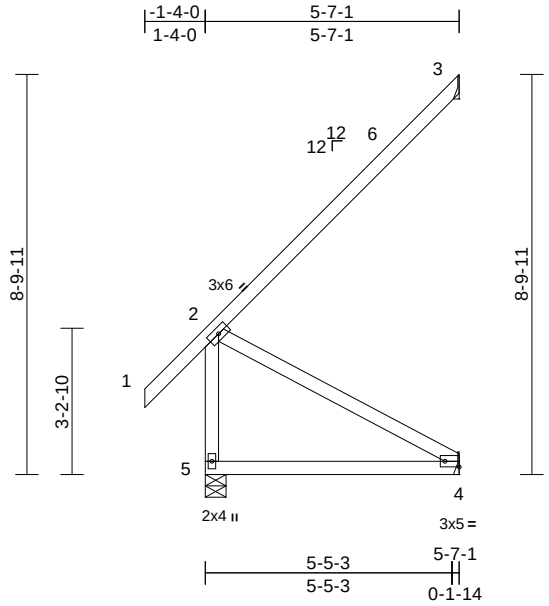

Scale = 1:50.7

Plate Offsets (X, Y): [4: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	0.68	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.11	4-5	>620	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 36 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 5-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-4-8 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=217 (LC 14)
Max Uplift 3=-165 (LC 14), 4=-98 (LC 14)
Max Grav 3=178 (LC 28), 4=125 (LC 12), 5=320 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-266/71, 1-2=0/63, 2-6=-168/130, 3-6=-135/162
BOT CHORD 4-5=-378/192
WEBS 2-4=-220/432

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 165 lb uplift at joint 3 and 98 lb uplift at joint 4.

LOAD CASE(S) Standard

March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	EJ03	Jack-Open	10	1	E15498483 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:35:53

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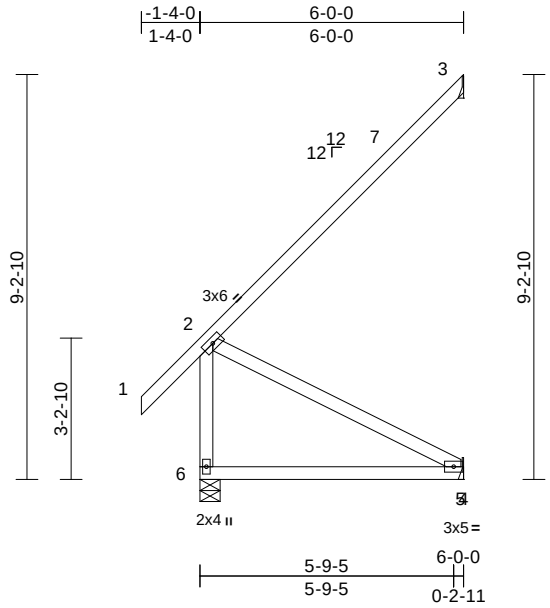


Scale = 1:52.4

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	0.79	Vert(LL)	-0.07	5-6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	5-6	>515	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 38 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
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 9-1-12 oc bracing.

REACTIONS (size) 3= Mechanical, 5= Mechanical, 6=0-5-8
Max Horiz 6=233 (LC 14)
Max Uplift 3=-179 (LC 14), 5=-96 (LC 14)
Max Grav 3=193 (LC 24), 5=129 (LC 12), 6=336 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-278/67, 1-2=0/63, 2-7=-183/139, 3-7=-146/173
BOT CHORD 5-6=-394/205, 4-5=0/0
WEBS 2-5=-232/444

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) exterior zone 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=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 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 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 3 and 96 lb uplift at joint 5.

LOAD CASE(S) Standard

March 15,2021

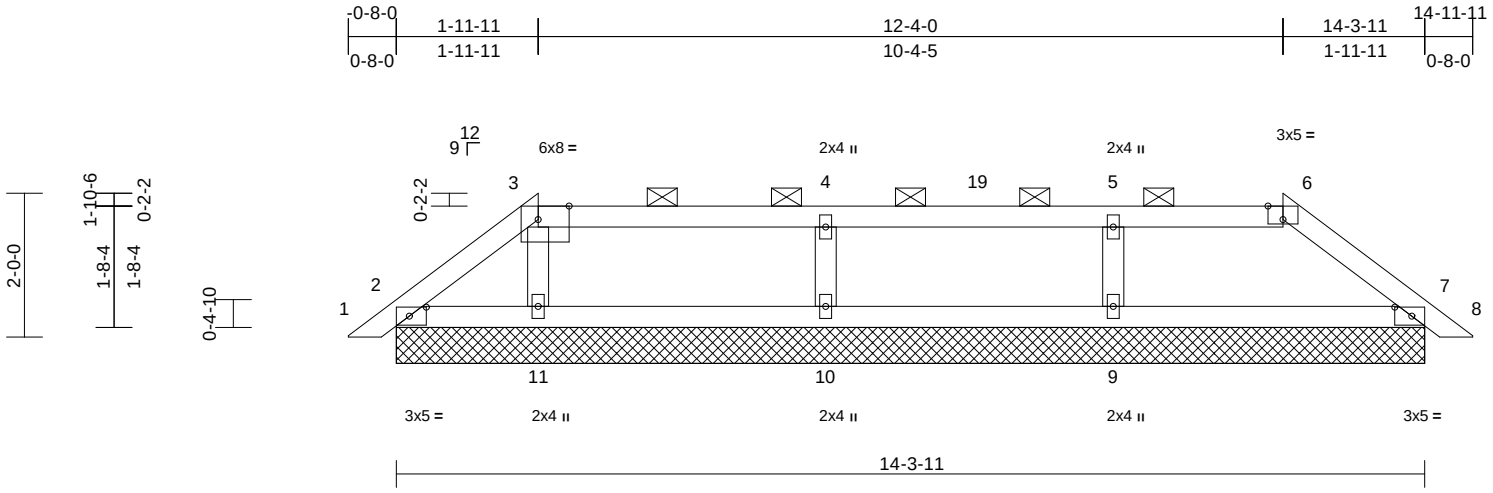
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB01	Piggyback	1	1	E15498484 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323,

Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:05
ID:4Oymn5u0YJly5cZPmcbnX0zano_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32

Plate Offsets (X, Y): [2:0-2-13,0-1-8], [3:0-5-3,Edge], [6:0-2-8,Edge], [7:0-2-13,0-1-8]

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 51 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, except 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=14-3-11, 7=14-3-11, 9=14-3-11, 10=14-3-11, 11=14-3-11, 12=14-3-11, 16=14-3-11
Max Horiz 2=-43 (LC 12), 12=-43 (LC 12)
Max Uplift 2=-30 (LC 15), 7=-39 (LC 15), 9=-46 (LC 10), 10=-71 (LC 10), 11=-36 (LC 11), 12=-30 (LC 15), 16=-39 (LC 15)
Max Grav 2=241 (LC 37), 7=279 (LC 37), 9=428 (LC 36), 10=500 (LC 36), 11=182 (LC 36), 12=241 (LC 37), 16=279 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-213/61, 3-4=-143/70, 4-19=-141/68, 5-19=-141/68, 5-6=-143/70, 6-7=-204/70, 7-8=0/25
BOT CHORD 2-11=-5/141, 10-11=-1/141, 9-10=-1/141, 7-9=-1/141
WEBS 3-11=-121/76, 4-10=-420/122, 5-9=-337/104

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) exterior zone and C-C Exterior (2) 0-3-1 to 6-8-0, Interior (1) 6-8-0 to 8-9-7, Exterior (2) 8-9-7 to 15-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 7, 11, 10, and 9. This connection is for uplift only and does not consider lateral forces.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
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

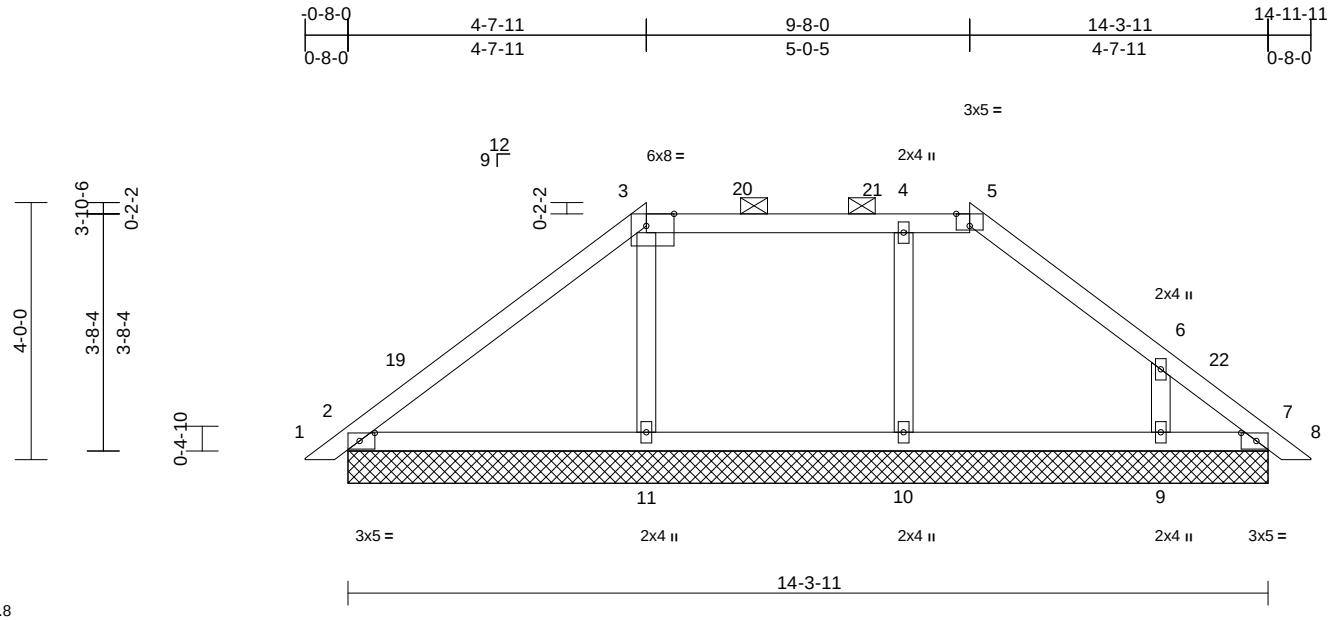
March 15,2021

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

Job	Truss	Truss Type	Qty	Ply	89 Lake Forest-Roof-BB-2086
21030024-A	PB02	Piggyback	1	1	E15498485 Job Reference (optional)

Carter Components, Chesapeake, VA - 23323, Run: 8.43 S Mar 4 2021 Print: 8.430 S Mar 4 2021 MiTek Industries, Inc. Mon Mar 15 12:36:06 Page: 1

ID:vYJ129zn8936pX0Y7siBmHzannu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.8

Plate Offsets (X, Y): [2:0-2-13,0-1-8], [3:0-5-3,Edge], [5:0-2-8,Edge], [7:0-2-13,0-1-8]

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 59 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, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=14-3-11, 7=14-3-11, 9=14-3-11, 10=14-3-11, 11=14-3-11, 12=14-3-11, 15=14-3-11
Max Horiz 2=-93 (LC 12), 12=-93 (LC 12)
Max Uplift 2=-38 (LC 15), 9=-97 (LC 15), 10=-67 (LC 10), 11=-79 (LC 11), 12=-38 (LC 15)
Max Grav 2=388 (LC 37), 7=199 (LC 37), 9=345 (LC 37), 10=424 (LC 36), 11=370 (LC 52), 12=388 (LC 37), 15=199 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-19=-303/62, 3-19=-206/94, 3-20=-153/93, 20-21=-153/92, 4-21=-155/92, 4-5=-155/92, 5-6=-278/78, 6-22=-127/25, 7-22=-186/15, 7-8=0/25
BOT CHORD 2-11=-34/150, 10-11=-3/150, 9-10=-3/150, 7-9=-3/150
WEBS 3-11=-258/121, 4-10=-350/110, 6-9=-278/138

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) exterior zone 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=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
12) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 11, 10, and 9. This connection is for uplift only and does not consider lateral forces.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

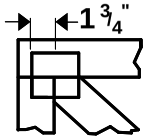
LOAD CASE(S) Standard

March 15,2021

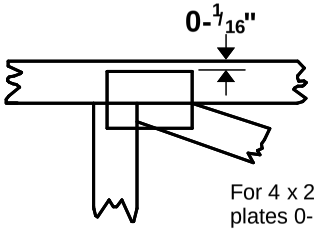
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

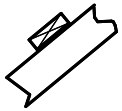
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

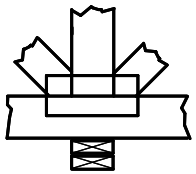
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

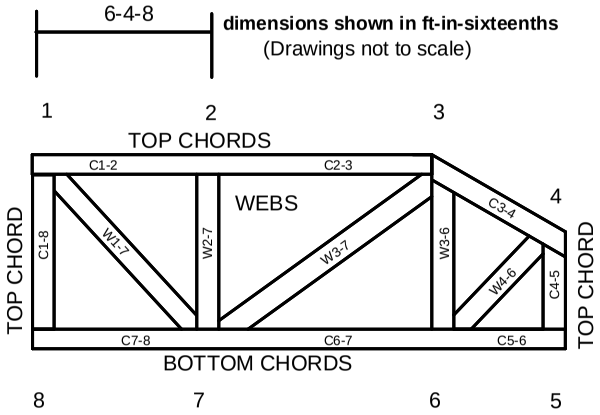


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 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.