ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Furne
Southeastern General Contractors

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.

Pages or sheets covered by this seal: E14248049 thru E14248095

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844

April 1,2020

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	Southeastern General Contractors
Furne	1F01	Floor Supported Gable	1	1	E14248049 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:30 Page: 1
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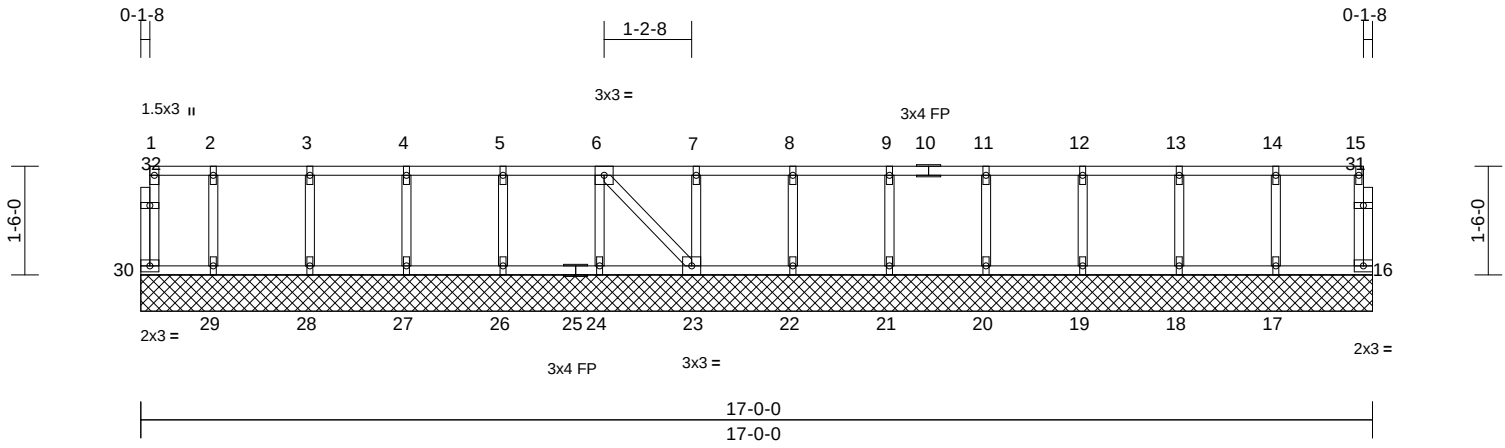

Scale = 1:31.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	16	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 82 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 16=17-0-0, 17=17-0-0, 18=17-0-0, 19=17-0-0, 20=17-0-0, 21=17-0-0, 22=17-0-0, 23=17-0-0, 24=17-0-0, 26=17-0-0, 27=17-0-0, 28=17-0-0, 29=17-0-0, 30=17-0-0
Max Grav 16=49 (LC 1), 17=152 (LC 1), 18=146 (LC 1), 19=147 (LC 1), 20=147 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=146 (LC 1), 24=147 (LC 1), 26=147 (LC 1), 27=146 (LC 1), 28=151 (LC 1), 29=131 (LC 1), 30=29 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 16-31=-44/0, 15-31=-44/0, 30-32=-26/0, 1-32=-26/0, 1-2=-1/0, 2-3=-1/0, 3-4=-1/0, 4-5=-1/0, 5-6=-1/0, 6-7=-2/0, 7-8=-2/0, 8-9=-2/0, 9-10=-2/0, 10-11=-2/0, 11-12=-2/0, 12-13=-2/0, 13-14=-2/0, 14-15=-2/0
BOT CHORD 29-30=0/1, 28-29=0/1, 27-28=0/1, 26-27=0/1, 25-26=0/1, 24-25=0/1, 23-24=0/1, 22-23=0/2, 21-22=0/2, 20-21=0/2, 19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2
WEBS 14-17=-138/0, 13-18=-133/0, 12-19=-134/0, 11-20=-133/0, 9-21=-133/0, 8-22=-133/0, 7-23=-133/0, 6-24=-134/0, 5-26=-134/0, 4-27=-132/0, 3-28=-137/0, 2-29=-119/0, 6-23=0/1

NOTES

1) All plates are 1x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F02	Floor	5	1	E14248050 Job Reference (optional)

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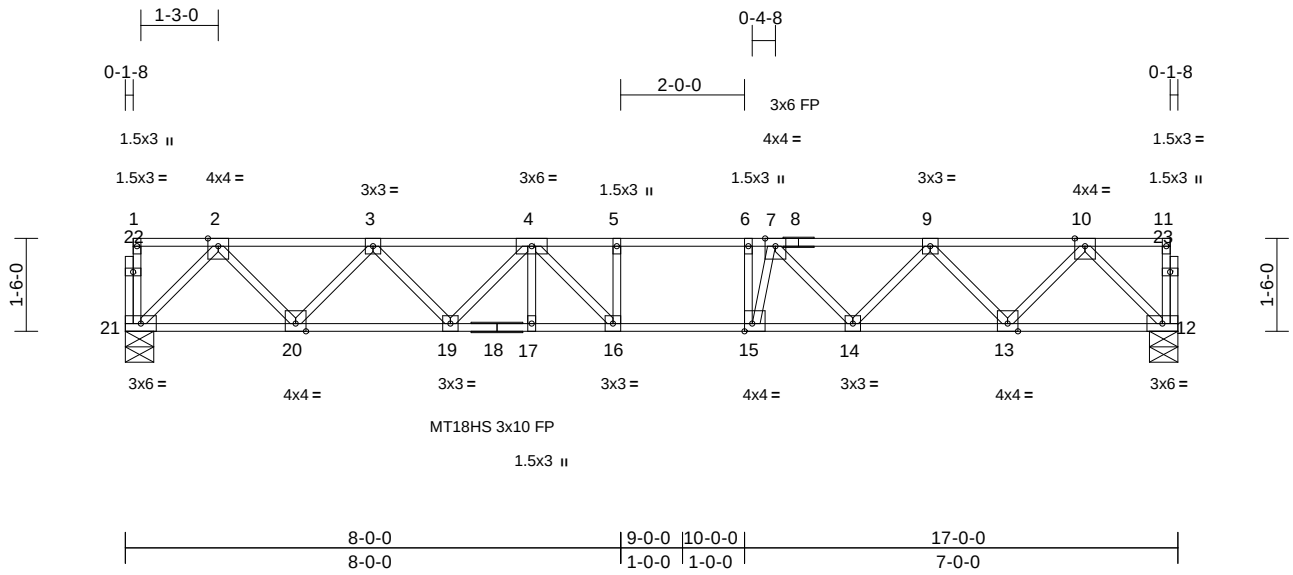

Scale = 1:37.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.17	16-17	>999	360	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.23	16-17	>872	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.05	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 18-12:2x4 SP No.1(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat)

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

REACTIONS (size) 12=0-5-8, 21=0-5-8
Max Grav 12=915 (LC 1), 21=915 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 21-22=-38/0, 1-22=-38/0, 12-23=-38/0, 11-23=-37/0, 1-2=-2/0, 2-3=-1463/0, 3-4=-2355/0, 4-5=-2766/0, 5-6=-2766/0, 6-7=-2756/0, 7-8=-2353/0, 8-9=-2353/0, 9-10=-1463/0, 10-11=-2/0
BOT CHORD 20-21=0/867, 19-20=0/2031, 18-19=0/2683, 17-18=0/2683, 16-17=0/2683, 15-16=0/2766, 14-15=0/2684, 13-14=0/2029, 12-13=0/868
WEBS 5-16=-224/0, 6-15=-522/89, 2-21=-1224/0, 2-20=0/885, 3-20=-845/0, 3-19=0/483, 4-19=-475/0, 10-12=-1225/0, 10-13=0/885, 9-13=-841/0, 9-14=0/481, 7-14=-515/0, 7-15=-152/694, 4-17=-45/102, 4-16=-181/467

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

LOAD CASE(S) Standard

April 1,2020

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Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F03	Floor	6	1	E14248051 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:32 Page: 1
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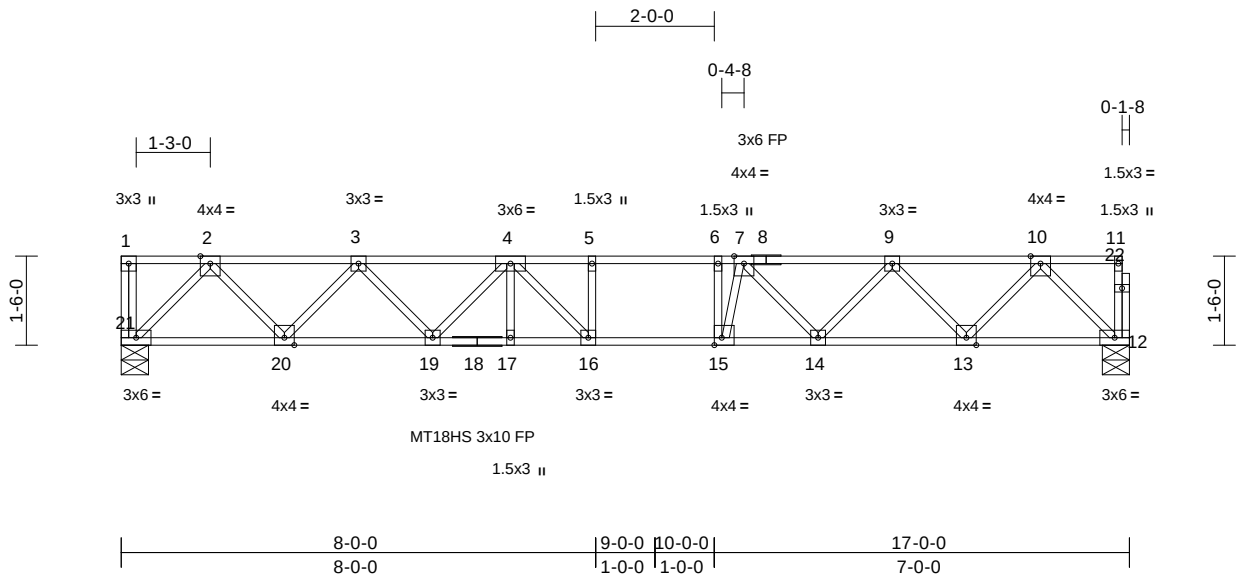

Scale = 1:38.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.17	16-17	>999	360	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.23	16-17	>872	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.05	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 18-12:2x4 SP No.1(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat)

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

REACTIONS (size) 12=0-5-8, 21=0-5-8
Max Grav 12=915 (LC 1), 21=921 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-21=-42/0, 12-22=-38/0, 11-22=-37/0, 1-2=0/0, 2-3=-1463/0, 3-4=-2355/0, 4-5=-2766/0, 5-6=-2766/0, 6-7=-2756/0, 7-8=-2353/0, 8-9=-2353/0, 9-10=-1463/0, 10-11=-2/0
BOT CHORD 20-21=0/868, 19-20=0/2031, 18-19=0/2684, 17-18=0/2684, 16-17=0/2684, 15-16=0/2766, 14-15=0/2684, 13-14=0/2029, 12-13=0/868
WEBS 5-16=-224/0, 6-15=-522/89, 10-12=-1225/0, 10-13=0/885, 9-13=-841/0, 9-14=0/481, 7-14=-515/0, 7-15=-152/694, 2-21=-1228/0, 2-20=0/884, 3-20=-844/0, 3-19=0/483, 4-19=-475/0, 4-17=-45/102, 4-16=-181/467

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

LOAD CASE(S) Standard

April 1,2020

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F04	Floor Girder	1	1	E14248052
					Job Reference (optional)

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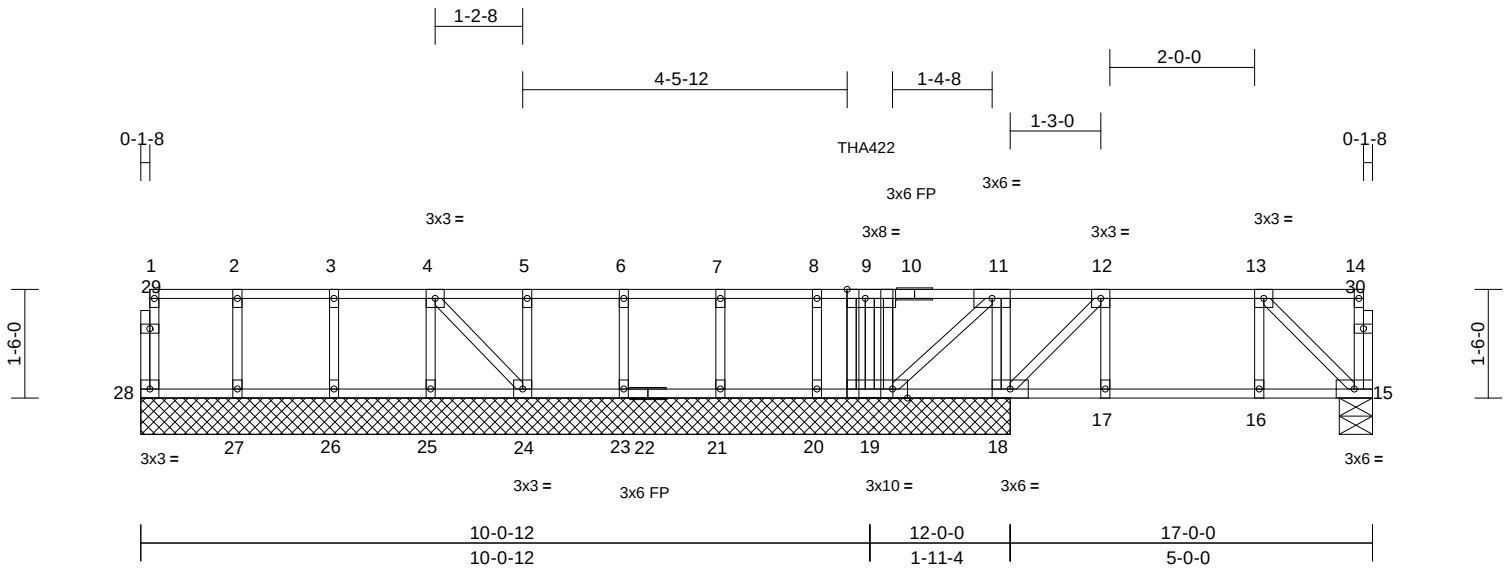

Scale = 1:31.8

Plate Offsets (X, Y): [9:0-3-0,Edge], [19:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	0.00	16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.10	Vert(CT)	-0.01	16-17	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%F, 11%E

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

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

REACTIONS (size) 15=0-5-8, 18=12-0-0, 19=12-0-0, 20=12-0-0, 21=12-0-0, 23=12-0-0, 24=12-0-0, 25=12-0-0, 26=12-0-0, 27=12-0-0, 28=12-0-0
Max Grav 15=269 (LC 22), 18=393 (LC 21), 19=559 (LC 22), 20=85 (LC 21), 21=157 (LC 22), 23=144 (LC 21), 24=167 (LC 21), 25=152 (LC 22), 26=146 (LC 22), 27=152 (LC 21), 28=49 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 28-29=-44/0, 1-29=-44/0, 15-30=-47/5, 14-30=-47/5, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-7/17, 5-6=-7/17, 6-7=-7/17, 7-8=-7/17, 8-9=-7/17, 9-10=0/33, 10-11=0/33, 11-12=-70/52, 12-13=-227/0, 13-14=-2/0
BOT CHORD 27-28=0/2, 26-27=0/2, 25-26=0/2, 24-25=0/2, 23-24=-17/7, 22-23=-17/7, 21-22=-17/7, 20-21=-17/7, 19-20=-17/7, 18-19=-52/70, 17-18=0/227, 16-17=0/227, 15-16=0/227
WEBS 9-19=-482/0, 11-18=-171/0, 12-18=-314/0, 13-15=-311/0, 12-17=0/24, 13-16=0/20, 8-20=-76/0, 7-21=-142/0, 6-23=-131/0, 5-24=-134/0, 4-25=-138/0, 3-26=-133/0, 2-27=-138/0, 4-24=-27/7, 11-19=-100/24

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
8) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 10-0-12 from the left end to connect truss(es) to front face of top chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-28=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 9=-243 (F)

April 1,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F05	Floor	1	1	E14248053 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:33 Page: 1
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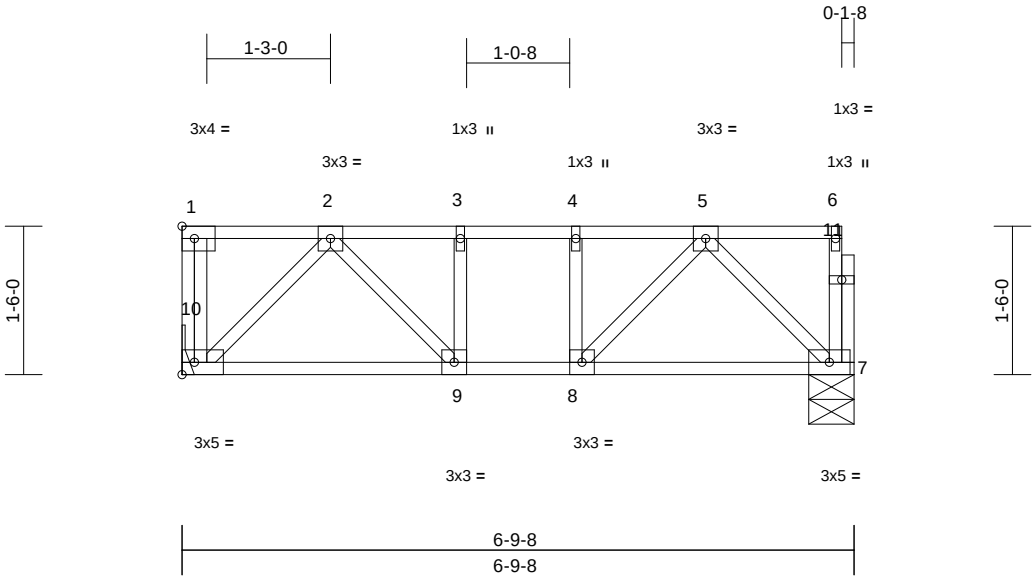

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.14	Vert(LL)	-0.01	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.17	Vert(CT)	-0.02	7-8	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%F, 11%E

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

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

REACTIONS (size) 7=0-5-8, 10= Mechanical
Max Grav 7=354 (LC 1), 10=360 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-11=-52/0, 6-11=-52/0, 1-10=-55/0, 1-2=0/0, 2-3=-425/0, 3-4=-425/0, 4-5=-425/0, 5-6=-2/0
BOT CHORD 9-10=0/293, 8-9=0/425, 7-8=0/292
WEBS 2-10=-414/0, 5-7=-410/0, 2-9=0/221, 5-8=0/222, 3-9=-117/0, 4-8=-118/0

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

LOAD CASE(S) Standard

April 1,2020

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F06	Floor	1	1	E14248054
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 08:48:22 Page: 1

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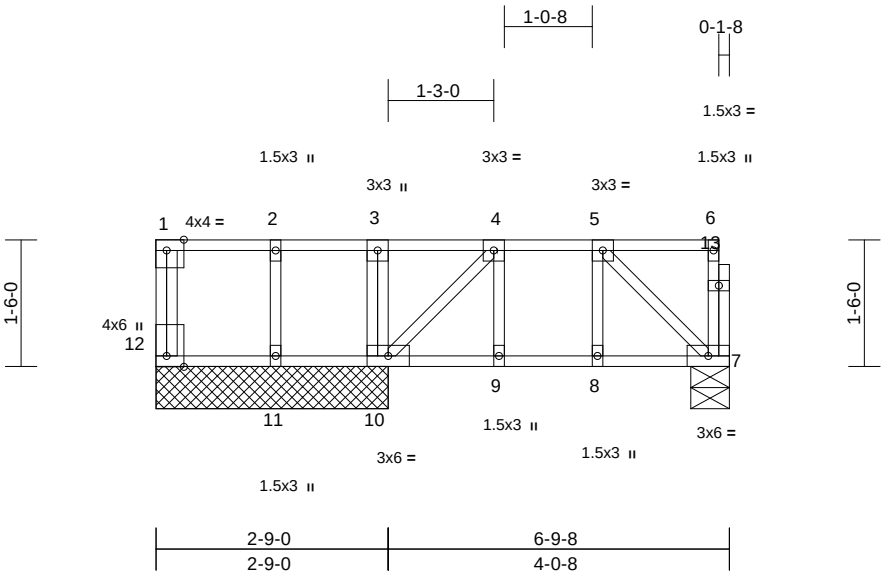

Scale = 1:27.3

Plate Offsets (X, Y): [1:0-2-7,Edge], [12:0-1-9,0-2-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	0.00	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.10	Vert(CT)	-0.01	7-8	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS All bearings 2-9-0. except 7=0-5-8
(lb) - Max Grav All reactions 250 (lb) or less at joint (s) 7, 11, 12 except 10=293 (LC 1)

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

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F07	Floor	1	1	E14248055
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:34 Page: 1
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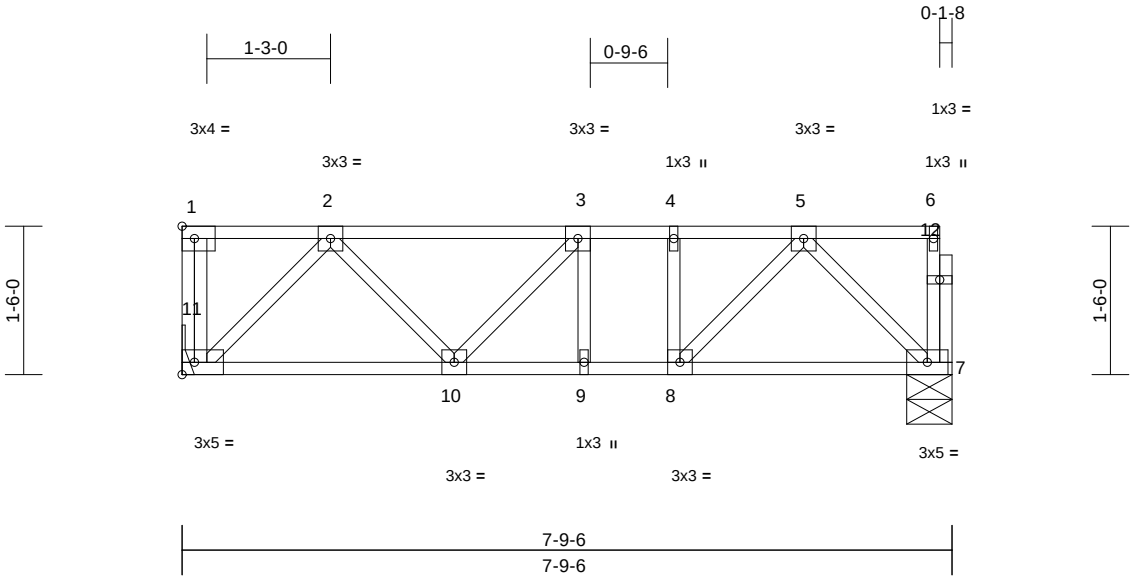

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.32	Vert(LL)	-0.02	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.38	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 47 lb	FT = 20%F, 11%E

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

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

REACTIONS (size) 7=0-5-8, 11= Mechanical
Max Grav 7=408 (LC 1), 11=414 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-12=-56/0, 6-12=-56/0, 1-11=-31/0, 1-2=0/0, 2-3=-490/0, 3-4=-559/0, 4-5=-559/0, 5-6=-3/0
BOT CHORD 10-11=0/374, 9-10=0/559, 8-9=0/559, 7-8=0/350
WEBS 2-11=-529/0, 5-7=-491/0, 2-10=0/173, 5-8=0/314, 4-8=-131/0, 3-10=-133/0, 3-9=-114/10

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

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F08	Floor Girder	1	1	E14248056 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:34 Page: 1
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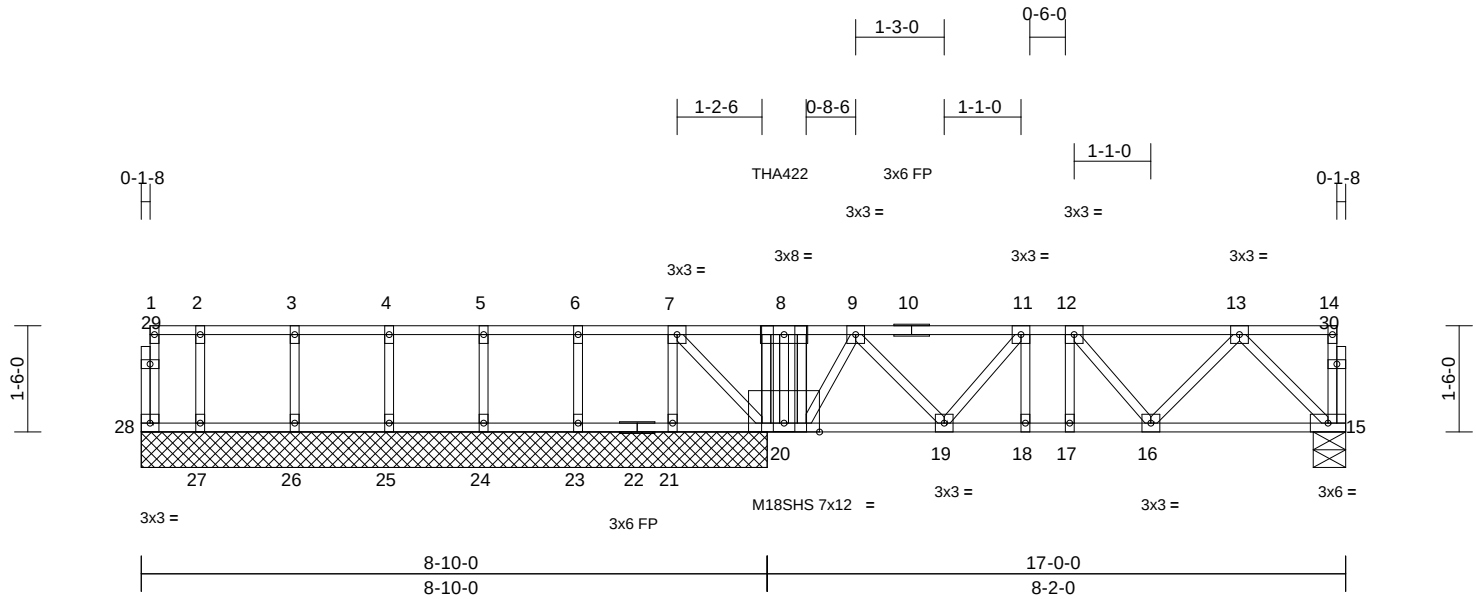

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	-0.01	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(CT)	-0.02	16-17	>999	240	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 99 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 15=0-5-8, 20=8-10-0, 21=8-10-0, 23=8-10-0, 24=8-10-0, 25=8-10-0, 26=8-10-0, 27=8-10-0, 28=8-10-0
Max Uplift 21=-156 (LC 4)
Max Grav 15=383 (LC 4), 20=1113 (LC 7), 21=104 (LC 3), 23=141 (LC 20), 24=149 (LC 19), 25=145 (LC 20), 26=152 (LC 3), 27=124 (LC 19), 28=17 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	28-29=-15/0, 1-29=-15/0, 15-30=-33/0, 14-30=-33/0, 1-2=-1/0, 2-3=-1/0, 3-4=-1/0, 4-5=-1/0, 5-6=-1/0, 6-7=-1/0, 7-8=0/241, 8-9=0/238, 9-10=-317/0, 10-11=-317/0, 11-12=-510/0, 12-13=-446/0, 13-14=-2/0
BOT CHORD	27-28=0/1, 26-27=0/1, 25-26=0/1, 24-25=0/1, 23-24=0/1, 22-23=0/1, 21-22=0/1, 20-21=0/1, 19-20=0/102, 18-19=0/510, 17-18=0/510, 16-17=0/510, 15-16=0/341
WEBS	13-15=-480/0, 9-19=0/325, 13-16=0/156, 11-19=-306/0, 12-16=-107/0, 11-18=-50/130, 12-17=-122/58, 7-21=-92/165, 6-23=-127/0, 5-24=-136/0, 4-25=-132/0, 3-26=-138/0, 2-27=-113/0, 8-20=-453/0, 9-20=-545/0, 7-20=-321/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 21.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.
10) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 9-0-14 from the left end to connect truss (es) to back face of top chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
11) Fill all nail holes where hanger is in contact with lumber.
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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-28=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 8=-270 (B)

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F09	Floor Girder	1	1	E14248057 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:35 Page: 1
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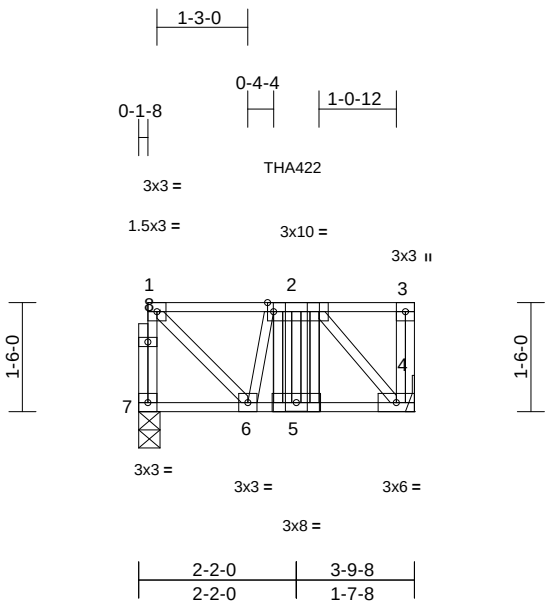

Scale = 1:31.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	0.00	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.11	Vert(CT)	0.00	5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 35 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 7=0-3-8
Max Grav 4=343 (LC 1), 7=300 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-294/0, 1-8=-294/0, 3-4=-52/0, 1-2=-222/0, 2-3=0/0
BOT CHORD 6-7=0/13, 5-6=0/313, 4-5=0/313
WEBS 2-5=0/6, 2-4=-422/0, 1-6=0/300, 2-6=-220/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 2-2-0 from the left end to connect truss (es) to front face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)
Vert: 4-7=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-260 (F)

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F10	Floor Girder	1	1	E14248058
					Job Reference (optional)

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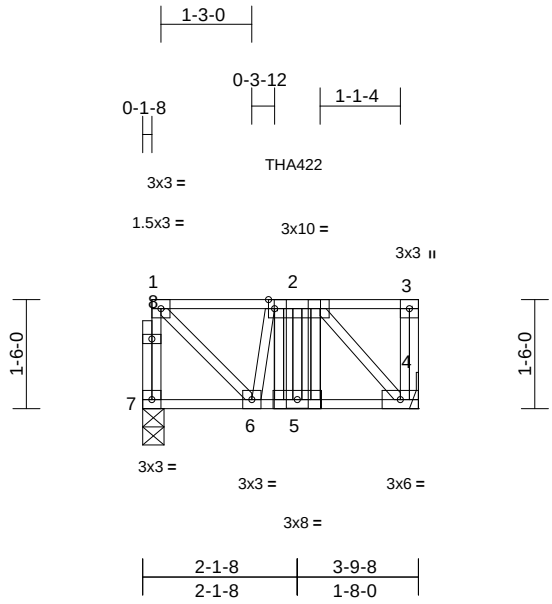

Scale = 1:31.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	0.00	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.13	Vert(CT)	0.00	5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 35 lb	FT = 20%F, 11%E

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 7=0-3-8
Max Grav 4=370 (LC 1), 7=327 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=-321/0, 1-8=-321/0, 3-4=-55/0, 1-2=-251/0, 2-3=0/0
BOT CHORD 6-7=0/15, 5-6=0/348, 4-5=0/348
WEBS 2-5=0/5, 2-4=-464/0, 1-6=0/340, 2-6=-248/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 2-1-8 from the left end to connect truss (es) to back face of top chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-7=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-314 (B)

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F11	Floor	10	1	E14248059 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

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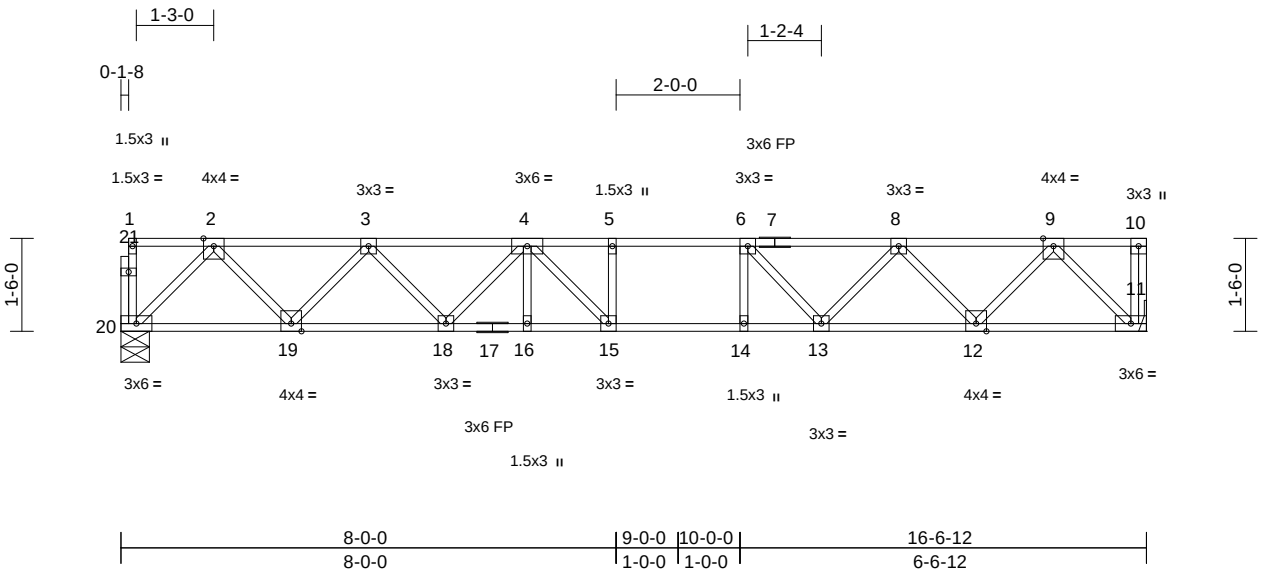

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.18	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.24	15-16	>814	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 17-11:2x4 SP No.1(flat)
WEBS 2x4 SP No.2(flat)
OTHERS 2x4 SP No.2(flat)

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

REACTIONS (size) 11= Mechanical, 20=0-5-8
Max Grav 11=897 (LC 1), 20=891 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 20-21=-38/0, 1-21=-38/0, 10-11=-43/0, 1-2=-2/0, 2-3=-1417/0, 3-4=-2266/0, 4-5=-2613/0, 5-6=-2613/0, 6-7=-2272/0, 7-8=-2272/0, 8-9=-1416/0, 9-10=0/0
BOT CHORD 19-20=0/844, 18-19=0/1963, 17-18=0/2575, 16-17=0/2575, 15-16=0/2575, 14-15=0/2613, 13-14=0/2613, 12-13=0/1953, 11-12=0/847
WEBS 5-15=-187/0, 6-14=-82/225, 2-20=-1191/0, 2-19=0/852, 3-19=-811/0, 3-18=0/451, 4-18=-447/0, 9-11=-1198/0, 9-12=0/845, 8-12=-799/0, 8-13=0/510, 6-13=-642/0, 4-16=-48/133, 4-15=-234/426

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

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F12	Floor Supported Gable	1	1	E14248060 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

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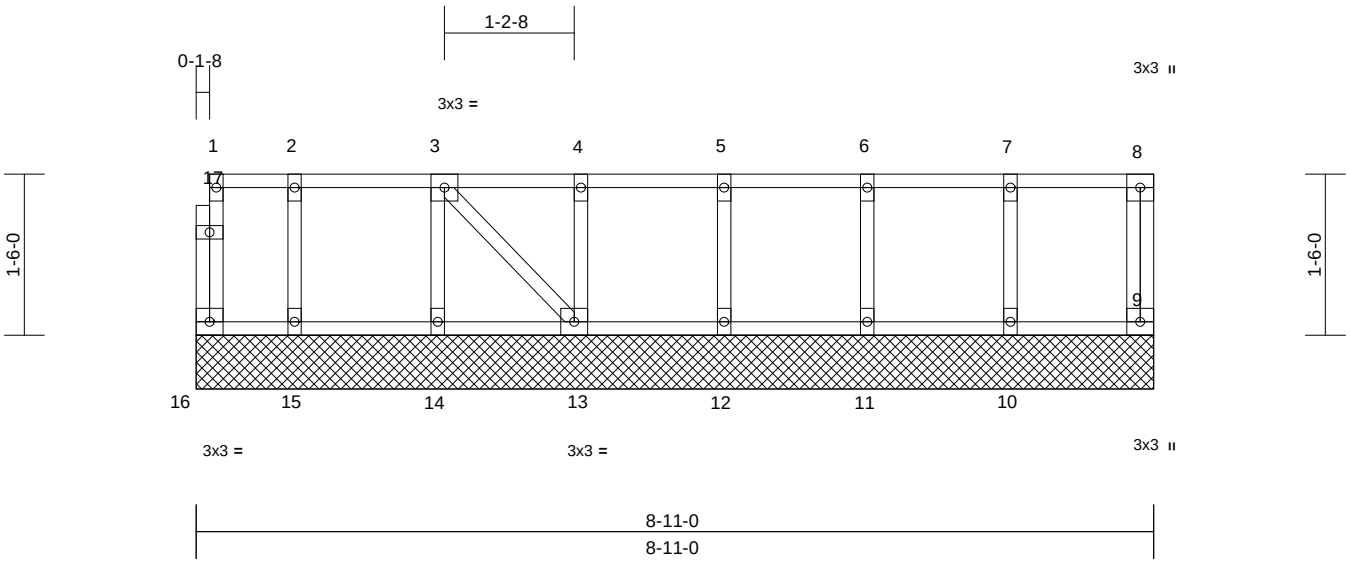

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 47 lb	FT = 20%F, 11%E

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

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

REACTIONS (size) 9=8-11-0, 10=8-11-0, 11=8-11-0, 12=8-11-0, 13=8-11-0, 14=8-11-0, 15=8-11-0, 16=8-11-0
Max Grav 9=52 (LC 1), 10=156 (LC 1), 11=145 (LC 1), 12=147 (LC 1), 13=146 (LC 1), 14=150 (LC 1), 15=127 (LC 1), 16=23 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 16-17=-21/0, 1-17=-21/0, 8-9=-47/0, 1-2=-1/0, 2-3=-1/0, 3-4=0/0, 4-5=0/0, 5-6=0/0, 6-7=0/0, 7-8=0/0
BOT CHORD 15-16=0/1, 14-15=0/1, 13-14=0/1, 12-13=0/0, 11-12=0/0, 10-11=0/0, 9-10=0/0
WEBS 7-10=-142/0, 6-11=-131/0, 5-12=-134/0, 4-13=-132/0, 3-14=-137/0, 2-15=-115/0, 3-13=-1/0

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	1F13	Floor	6	1	E14248061
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:35 Page: 1

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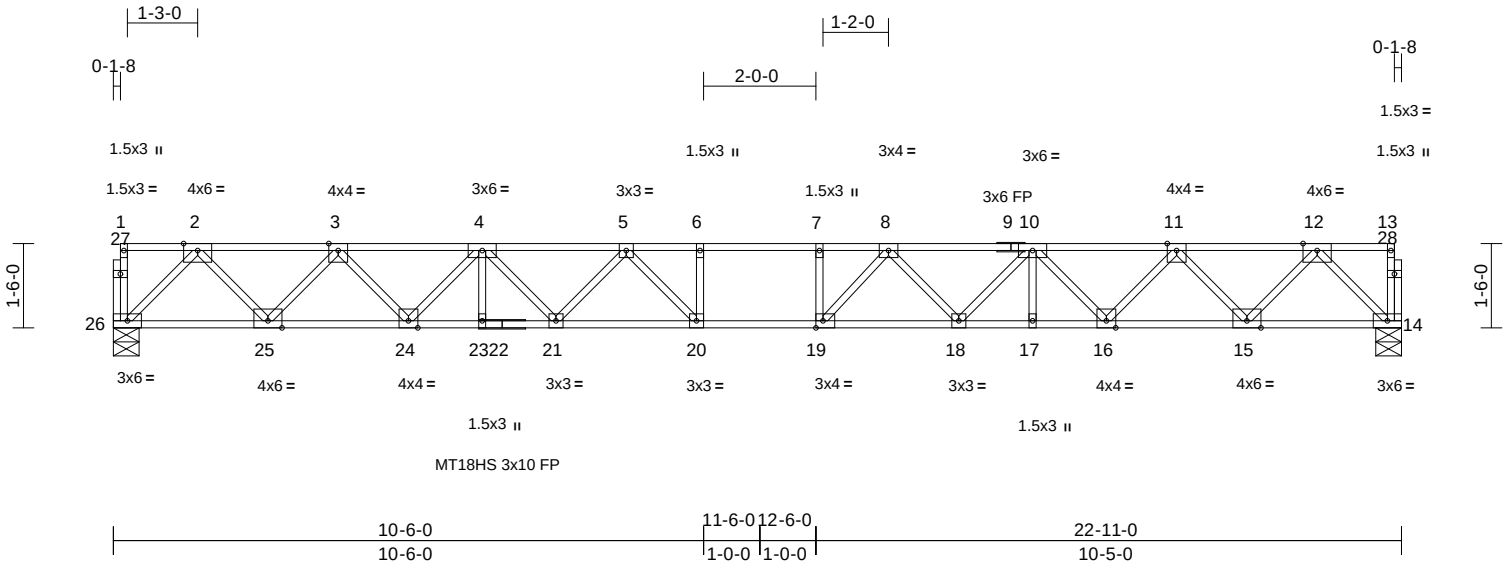

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Plate Offsets (X, Y): [19:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.42	19-20	>654	360	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.57	19-20	>476	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.10	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 124 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.1(flat) *Except* 9-13:2x4 SP No.2 (flat)

BOT CHORD 2x4 SP No.1(flat) *Except* 22-14:2x4 SP DSS(flat)

WEBS 2x4 SP No.2(flat)

OTHERS 2x4 SP No.2(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals.

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

REACTIONS (size) 14=0-5-8, 26=0-5-8

Max Grav 14=1240 (LC 1), 26=1240 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 26-27=-37/0, 1-27=-37/0, 14-28=-37/0, 13-28=-37/0, 1-2=-2/0, 2-3=-2081/0, 3-4=-3570/0, 4-5=-4590/0, 5-6=-5100/0, 6-7=-5100/0, 7-8=-5100/0, 8-9=-4588/0, 9-10=-4588/0, 10-11=-3569/0, 11-12=-2081/0, 12-13=-2/0

BOT CHORD 25-26=0/1193, 24-25=0/2942, 23-24=0/4209, 22-23=0/4209, 21-22=0/4209, 20-21=0/4931, 19-20=0/5100, 18-19=0/4931, 17-18=0/4209, 16-17=0/4209, 15-16=0/2942, 14-15=0/1193

WEBS 6-20=-329/36, 7-19=-343/41, 2-26=-1684/0, 2-25=0/1320, 3-25=-1281/0, 3-24=0/933, 4-24=-925/0, 12-14=-1684/0, 12-15=0/1320, 11-15=-1280/0, 11-16=0/931, 10-16=-928/0, 4-23=-28/41, 4-21=0/552, 5-21=-537/0, 5-20=-203/666, 10-17=-26/46, 10-18=0/548, 8-18=-548/0, 8-19=-202/674

NOTES

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

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	A01	Common Supported Gable	2	1	E14248062 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:36 Page: 1
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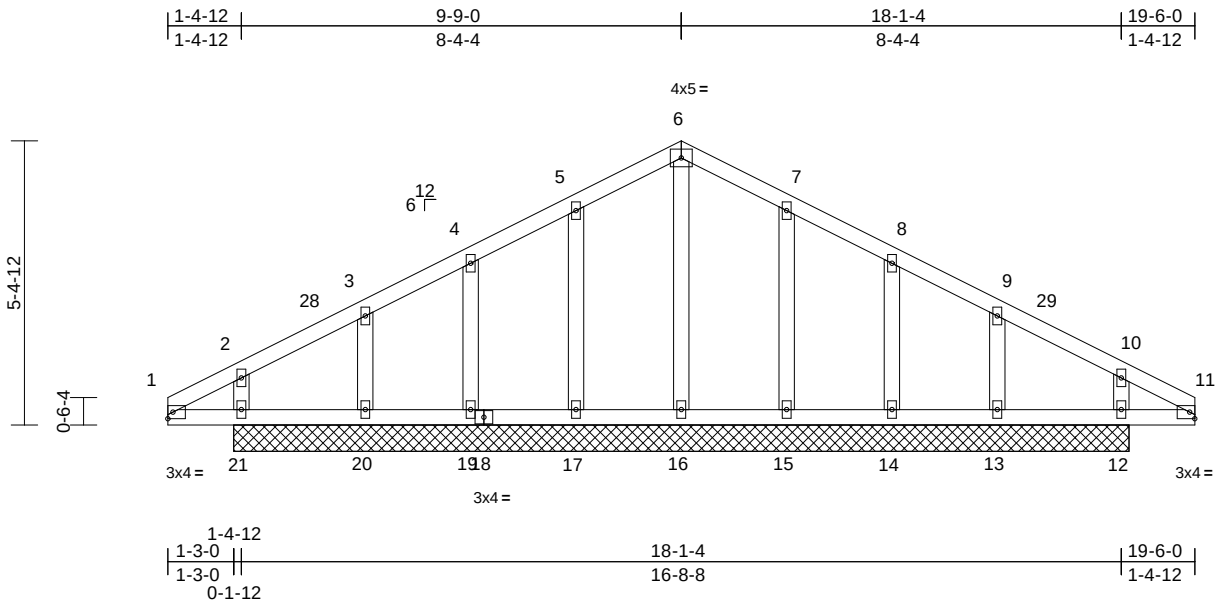

Scale = 1:43.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 96 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 12=17-0-0, 13=17-0-0, 14=17-0-0, 15=17-0-0, 16=17-0-0, 17=17-0-0, 19=17-0-0, 20=17-0-0, 21=17-0-0
Max Horiz 21=-74 (LC 9)
Max Uplift 12=-17 (LC 8), 13=-31 (LC 11), 14=-16 (LC 11), 15=-17 (LC 11), 17=-16 (LC 11), 19=-20 (LC 11), 20=-18 (LC 11), 21=-41 (LC 11)
Max Grav 12=205 (LC 23), 13=181 (LC 17), 14=158 (LC 23), 15=168 (LC 23), 16=184 (LC 1), 17=168 (LC 22), 19=158 (LC 22), 20=184 (LC 16), 21=205 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-89/78, 2-28=-37/54, 3-28=-18/82, 3-4=-33/68, 4-5=-50/85, 5-6=-69/129, 6-7=-69/129, 7-8=-50/85, 8-9=-33/63, 9-29=-14/77, 10-29=-29/49, 10-11=-87/74
BOT CHORD 1-21=-54/85, 20-21=-49/84, 19-20=-49/84, 18-19=-49/84, 17-18=-49/84, 16-17=-49/84, 15-16=-49/84, 14-15=-49/84, 13-14=-49/84, 12-13=-49/84, 11-12=-49/84
WEBS 6-16=-144/1, 5-17=-129/74, 4-19=-116/75, 3-20=-132/93, 7-15=-129/74, 8-14=-116/75, 9-13=-131/92, 2-21=-142/130, 10-12=-142/130

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-9-0, Corner(3R) 9-9-0 to 12-9-0, Exterior(2N) 12-9-0 to 19-6-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 17, 20 lb uplift at joint 19, 18 lb uplift at joint 20, 17 lb uplift at joint 15, 16 lb uplift at joint 14, 31 lb uplift at joint 13, 41 lb uplift at joint 21 and 17 lb uplift at joint 12.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	A02	Common	9	1	E14248063 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:36 Page: 1
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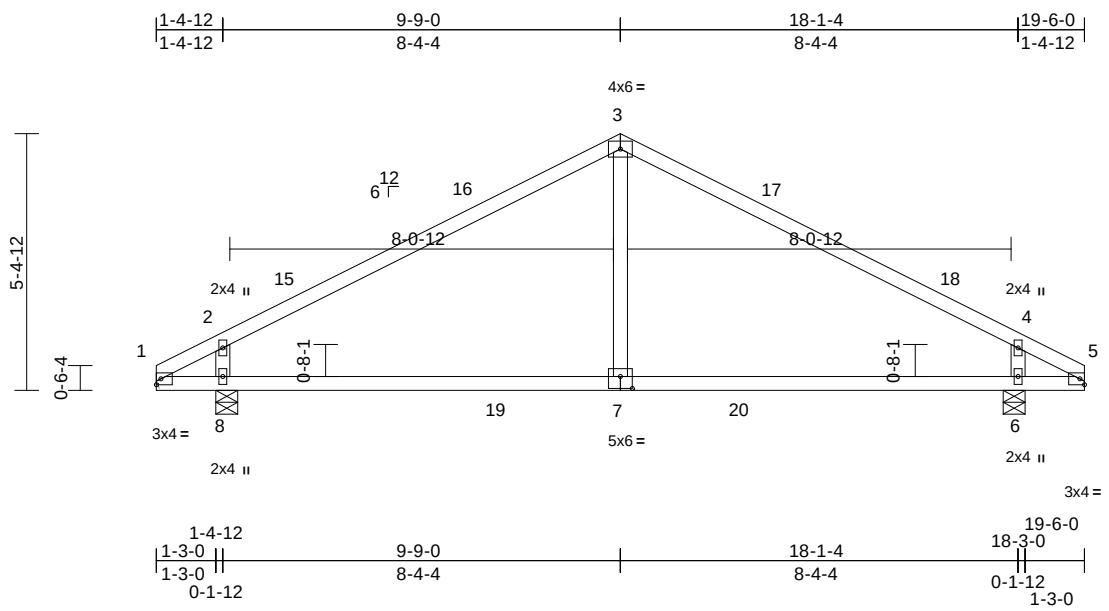

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Plate Offsets (X, Y): [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.13	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.22	7-8	>918	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 71 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 6=0-5-8, 8=0-5-8
Max Horiz 8=-74 (LC 9)
Max Uplift 6=-25 (LC 11), 8=-53 (LC 11)
Max Grav 6=873 (LC 18), 8=873 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-682/84, 2-15=-874/89, 15-16=-767/107, 3-16=-755/130, 3-17=-755/130, 17-18=-767/107, 4-18=-874/89, 4-5=-681/0
BOT CHORD 1-8=-22/704, 8-19=0/704, 7-19=0/704, 7-20=0/704, 6-20=0/704, 5-6=0/704
WEBS 3-7=0/399, 2-8=-648/313, 4-6=-648/313

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-9-0, Exterior(2R) 9-9-0 to 12-9-0, Interior (1) 12-9-0 to 19-6-0 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 8 and 25 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

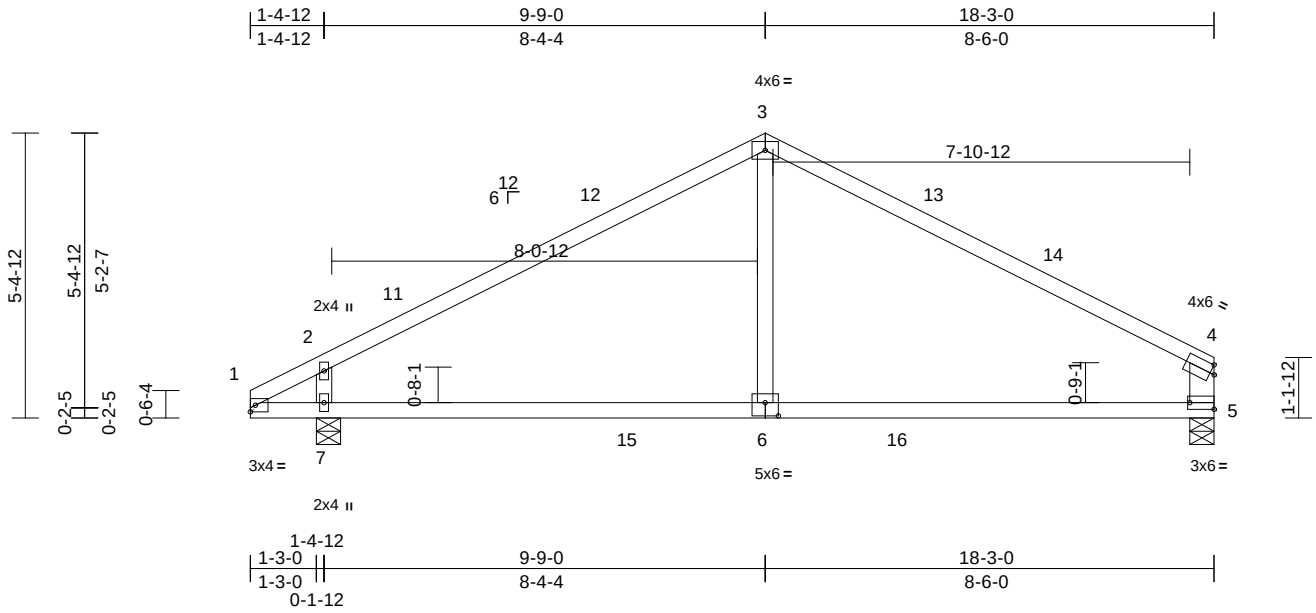
April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	A03	Common	9	1	E14248064 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:37 ID:xggWGaQZTO72EFwu2W0WBrzVQve-7sWuyK5ZCrBbkSIUoeDVHtq55axiHjjT9n4fk3zV9K0



Scale = 1:43.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.13	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.23	6-7	>878	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 68 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 5-4:2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5=0-5-8, 7=0-5-8
Max Horiz 7=92 (LC 10)
Max Uplift 5=-21 (LC 11), 7=-53 (LC 11)
Max Grav 5=747 (LC 17), 7=873 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-684/88, 2-11=-875/107, 11-12=-768/125, 3-12=-755/148, 3-13=-755/145, 13-14=-768/122, 4-14=-872/117, 4-5=-585/150
BOT CHORD 1-7=-22/705, 7-15=-54/705, 6-15=-54/705, 6-16=-54/705, 5-16=-54/705
WEBS 3-6=0/400, 2-7=-644/326

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-9-0, Exterior(2R) 9-9-0 to 12-9-0, Interior (1) 12-9-0 to 18-0-4 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 5 and 53 lb uplift at joint 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	A04	Common	8	1	E14248065 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:37 Page: 1
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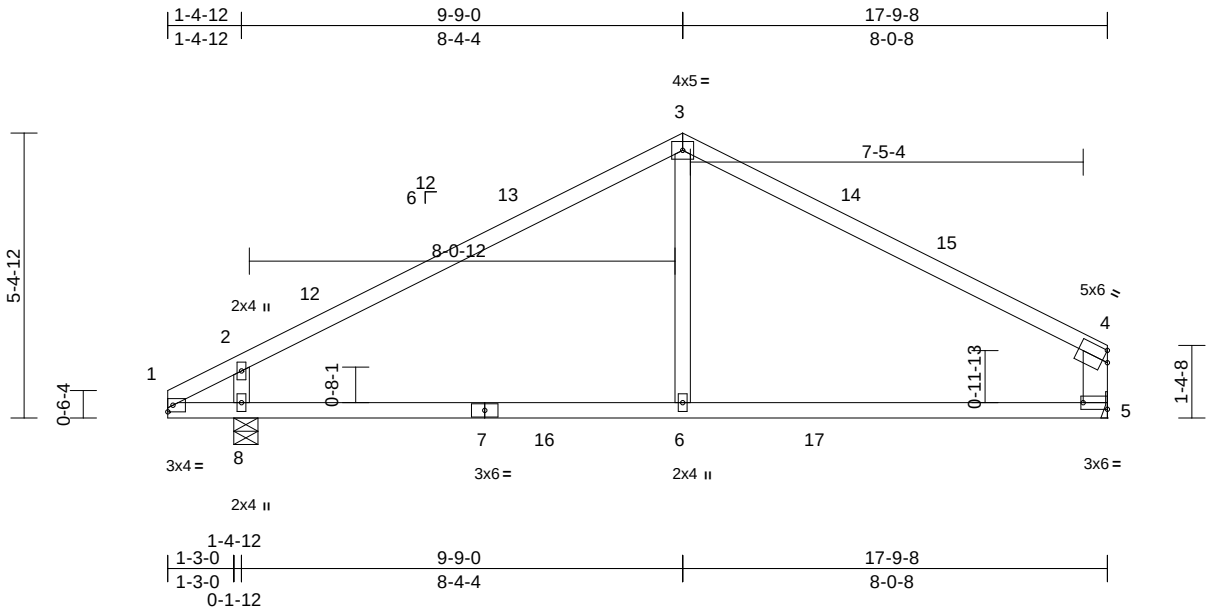

Scale = 1:43.6

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	1.00	TC	0.83	Vert(LL)	-0.16	6-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.29	6-8	>672	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 67 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 5-4:2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8=0-5-8
Max Horiz 8=96 (LC 10)
Max Uplift 5=-20 (LC 11), 8=-52 (LC 11)
Max Grav 5=727 (LC 18), 8=853 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-641/90, 2-12=-824/106, 12-13=-716/124, 3-13=-704/147, 3-14=-713/145, 14-15=-717/123, 4-15=-821/119, 4-5=-561/147
BOT CHORD 1-8=-22/660, 7-8=-62/660, 7-16=-62/660, 6-16=-62/660, 6-17=-62/660, 5-17=-62/660
WEBS 3-6=0/379, 2-8=-630/333

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-9-0, Exterior(2R) 9-9-0 to 12-9-0, Interior (1) 12-9-0 to 17-6-12 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) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 5 and 52 lb uplift at joint 8.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	B01	Common Supported Gable	1	1	E14248066 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:37 Page: 1
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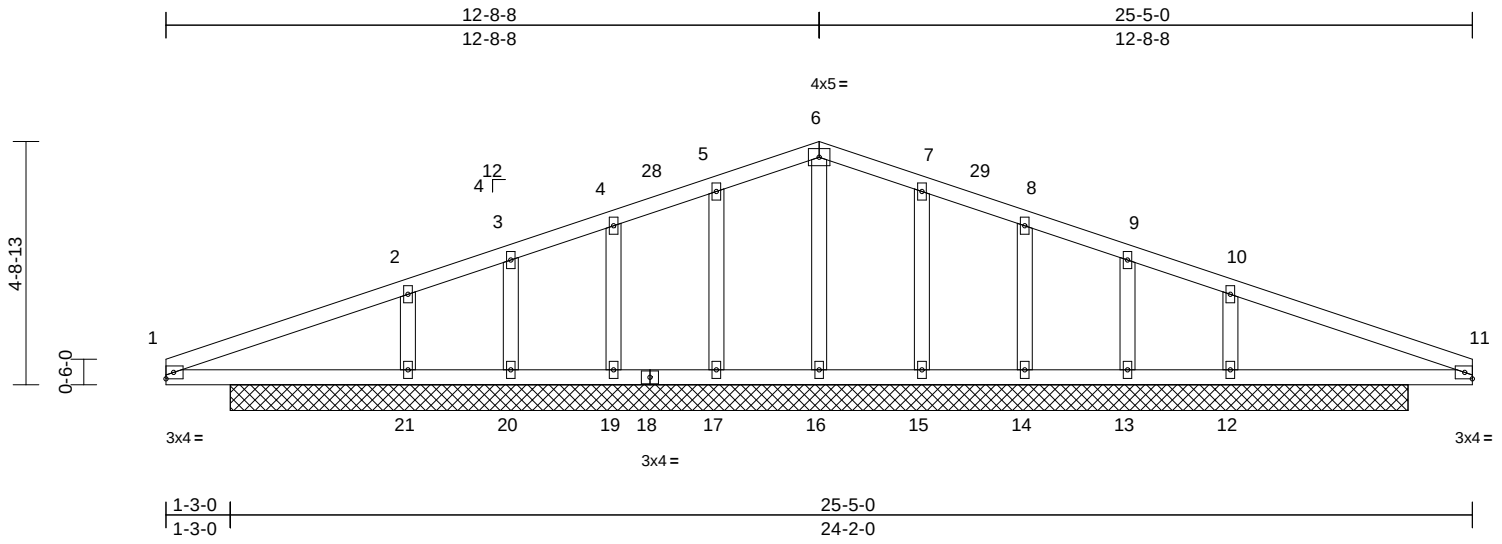


Scale = 1:44.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	-0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 114 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 12=22-11-0, 13=22-11-0, 14=22-11-0, 15=22-11-0, 16=22-11-0, 17=22-11-0, 19=22-11-0, 20=22-11-0, 21=22-11-0
Max Horiz 21=41 (LC 10)
Max Uplift 12=-30 (LC 11), 13=-137 (LC 23), 14=-14 (LC 11), 15=-10 (LC 11), 17=-10 (LC 11), 19=-14 (LC 11), 20=-137 (LC 22), 21=-30 (LC 11)
Max Grav 12=603 (LC 23), 13=122 (LC 22), 14=231 (LC 23), 15=161 (LC 1), 16=389 (LC 1), 17=161 (LC 1), 19=231 (LC 22), 20=122 (LC 23), 21=603 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-61/437, 2-3=-11/377, 3-4=0/408, 4-28=0/368, 5-28=0/402, 5-6=0/400, 6-7=0/400, 7-29=0/402, 8-29=0/368, 8-9=0/408, 9-10=-11/377, 10-11=-60/437
BOT CHORD 1-21=-363/78, 20-21=-363/77, 19-20=-363/77, 18-19=-363/77, 17-18=-363/77, 16-17=-363/77, 15-16=-363/77, 14-15=-363/77, 13-14=-363/77, 12-13=-363/77, 11-12=-363/77
WEBS 6-16=-346/15, 5-17=-127/94, 4-19=-155/61, 3-20=-62/40, 2-21=-374/117, 7-15=-127/94, 8-14=-155/61, 9-13=-62/40, 10-12=-374/117

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 12-8-8, Corner(3R) 12-8-8 to 15-8-8, Exterior(2N) 15-8-8 to 25-5-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 17, 14 lb uplift at joint 19, 137 lb uplift at joint 20, 30 lb uplift at joint 21, 10 lb uplift at joint 15, 14 lb uplift at joint 14, 137 lb uplift at joint 13 and 30 lb uplift at joint 12.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

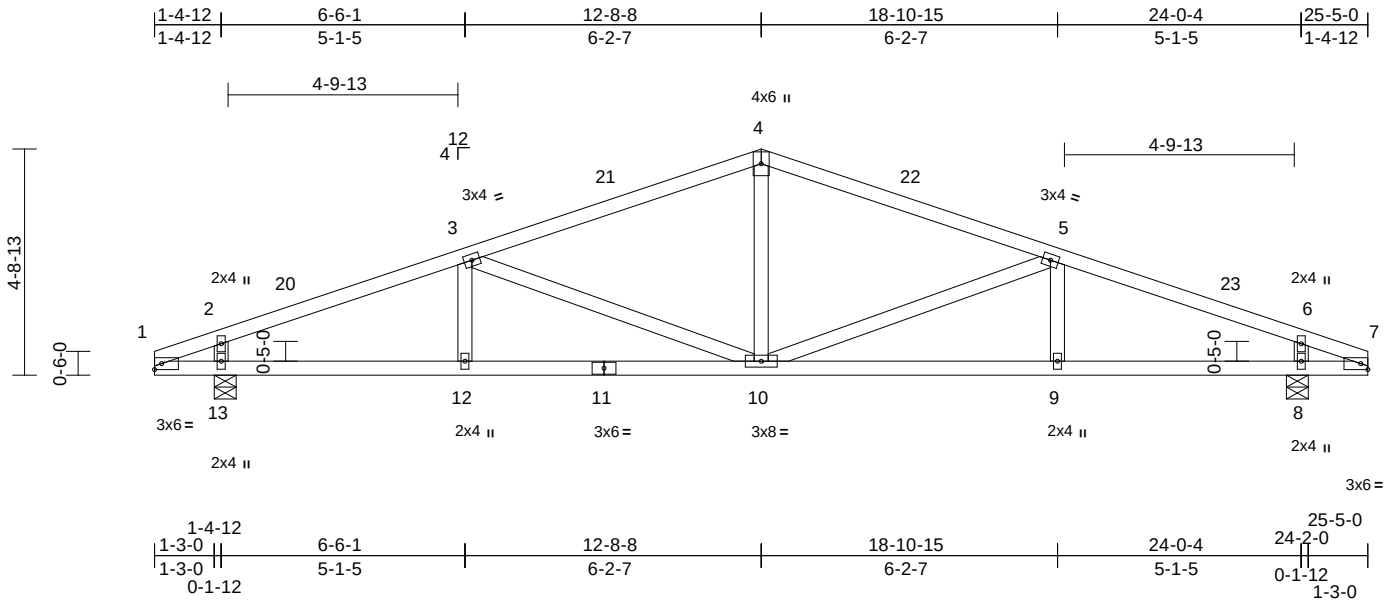
LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	B02	Common	6	1	E14248067 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:38 Page: 1
ID:YC04qIhohyf77WfSp3zW1BzVQzA-7sWuyK5ZCrBbkSIUoeDVHtq6fazOHhfT9n4fk3zV9K0



Scale = 1:48.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.78	Vert(LL)	-0.19	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.39	9-10	>693	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 110 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP DSS
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 8=0-5-8, 13=0-5-8
Max Horiz 13=41 (LC 10)
Max Uplift 8=-33 (LC 11), 13=-60 (LC 11)
Max Grav 8=1017 (LC 1), 13=1017 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1384/109, 2-20=-1555/161, 3-20=-1524/179, 3-21=-1324/188, 4-21=-1275/201, 4-22=-1275/201, 5-22=-1324/188, 5-23=-1524/179, 6-23=-1555/161, 6-7=-1384/109
BOT CHORD 1-13=-116/1398, 12-13=-120/1398, 11-12=-120/1398, 10-11=-120/1398, 9-10=-116/1398, 8-9=-116/1398, 7-8=-116/1398
WEBS 3-12=-73/97, 3-10=-292/49, 4-10=0/369, 5-10=-292/49, 5-9=-73/97, 2-13=-601/179, 6-8=-601/179

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-8-8, Exterior(2R) 12-8-8 to 15-8-8, Interior (1) 15-8-8 to 25-5-0 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 13 and 33 lb uplift at joint 8.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

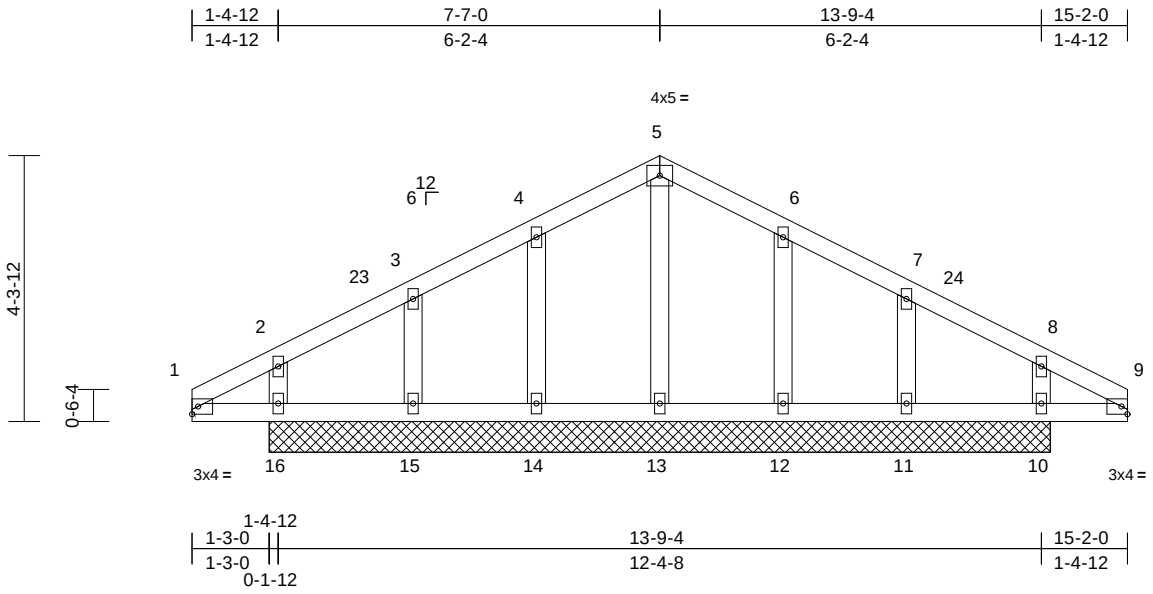
April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	C01	Common Supported Gable	1	1	E14248068 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:38 Page: 1
ID:cmn1k3SNbCdaDg2xh1V8JazVQrk-b34HAg6Bz9JSMcthMMkkp5NSM_T70BicORqDGVzV9K?



Scale = 1:37.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 69 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 10=12-8-0, 11=12-8-0, 12=12-8-0, 13=12-8-0, 14=12-8-0, 15=12-8-0, 16=12-8-0
Max Horiz 16=58 (LC 10)
Max Uplift 10=-18 (LC 12), 11=-28 (LC 11), 12=-15 (LC 11), 14=-19 (LC 11), 15=-15 (LC 11), 16=-44 (LC 11)
Max Grav 10=197 (LC 23), 11=168 (LC 17), 12=170 (LC 23), 13=189 (LC 1), 14=170 (LC 22), 15=170 (LC 16), 16=197 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/75, 2-23=-23/51, 3-23=-12/77, 3-4=-31/70, 4-5=-49/97, 5-6=-49/97, 6-7=-31/70, 7-24=-11/73, 8-24=-22/48, 8-9=-84/72
BOT CHORD 1-16=-51/83, 15-16=-48/82, 14-15=-48/82, 13-14=-48/82, 12-13=-48/82, 11-12=-48/82, 10-11=-48/82, 9-10=-48/82
WEBS 5-13=-150/0, 4-14=-128/91, 3-15=-123/101, 6-12=-128/91, 7-11=-122/101, 2-16=-135/125, 8-10=-135/125

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 7-7-0, Corner(3R) 7-7-0 to 10-7-0, Exterior(2N) 10-7-0 to 15-2-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 14, 15 lb uplift at joint 15, 15 lb uplift at joint 12, 28 lb uplift at joint 11, 44 lb uplift at joint 16 and 18 lb uplift at joint 10.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	C02	Common	10	1	E14248069 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:38 Page: 1
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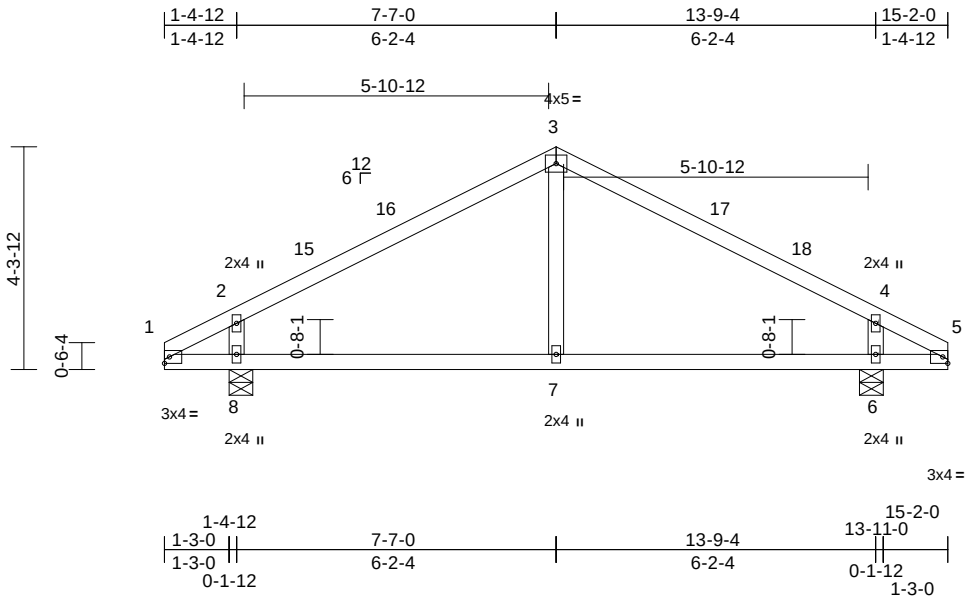

Scale = 1:44.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	-0.04	7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.08	7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 56 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 6=0-5-8, 8=0-5-8
Max Horiz 8=-58 (LC 9)
Max Uplift 6=-19 (LC 11), 8=-47 (LC 11)
Max Grav 6=607 (LC 1), 8=607 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-348/53, 2-15=-524/93, 15-16=-438/106, 3-16=-427/122, 3-17=-427/122, 17-18=-438/106, 4-18=-524/93, 4-5=-348/0
BOT CHORD 1-8=-6/382, 7-8=-6/382, 6-7=-6/382, 5-6=-6/382
WEBS 3-7=0/101, 2-8=-458/252, 4-6=-458/252

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-7-0, Exterior(2R) 7-7-0 to 10-7-0, Interior (1) 10-7-0 to 15-2-0 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 8 and 19 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	D01	Roof Special Supported Gable	1	1	E14248070 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:39 Page: 1
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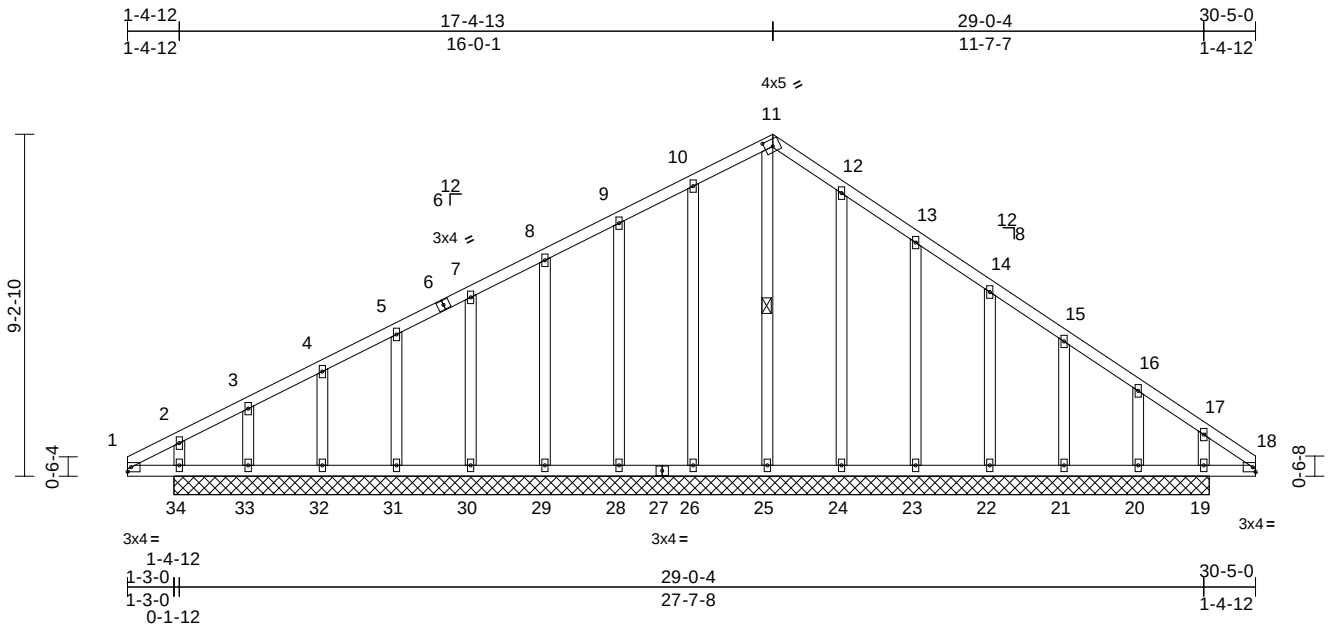

Scale = 1:62.1

Plate Offsets (X, Y): [11:0-2-10,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 196 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 11-25

REACTIONS (size) 19=27-11-0, 20=27-11-0, 21=27-11-0, 22=27-11-0, 23=27-11-0, 24=27-11-0, 25=27-11-0, 26=27-11-0, 28=27-11-0, 29=27-11-0, 30=27-11-0, 31=27-11-0, 32=27-11-0, 33=27-11-0, 34=27-11-0
Max Horiz 34=166 (LC 10)
Max Uplift 19=-26 (LC 8), 20=-57 (LC 11), 21=-23 (LC 11), 22=-30 (LC 11), 23=-34 (LC 11), 24=-16 (LC 11), 26=-10 (LC 11), 28=-23 (LC 11), 29=-18 (LC 11), 30=-19 (LC 11), 31=-19 (LC 11), 32=-17 (LC 11), 33=-49 (LC 8), 34=-27 (LC 7)
Max Grav 19=195 (LC 16), 20=183 (LC 17), 21=168 (LC 23), 22=163 (LC 17), 23=162 (LC 17), 24=163 (LC 23), 25=188 (LC 11), 26=174 (LC 22), 28=157 (LC 22), 29=160 (LC 1), 30=160 (LC 22), 31=158 (LC 1), 32=168 (LC 22), 33=183 (LC 16), 34=229 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-104/110, 2-3=-112/120, 3-4=-84/108, 4-5=-80/103, 5-6=-69/97, 6-7=-52/102, 7-8=-69/144, 8-9=-87/185, 9-10=-106/229, 10-11=-123/267, 11-12=-129/279, 12-13=-108/229, 13-14=-80/166, 14-15=-54/106, 15-16=-30/86, 16-17=-60/103, 17-18=-105/95
BOT CHORD 1-34=-99/104, 33-34=-75/102, 32-33=-75/102, 31-32=-75/102, 30-31=-75/102, 29-30=-75/102, 28-29=-75/102, 27-28=-75/102, 26-27=-75/102, 25-26=-75/102, 24-25=-75/105, 23-24=-75/105, 22-23=-75/105, 21-22=-75/105, 20-21=-75/105, 19-20=-75/105, 18-19=-75/105
WEBS 11-25=-204/59, 10-26=-134/60, 9-28=-117/75, 8-29=-120/69, 7-30=-120/70, 5-31=-119/70, 4-32=-124/71, 3-33=-127/90, 12-24=-123/67, 13-23=-122/91, 14-22=-122/83, 15-21=-124/84, 16-20=-130/112, 17-19=-120/104, 2-34=-128/103

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-3-1, Exterior(2N) 3-3-1 to 17-4-13, Corner(3R) 17-4-13 to 20-5-5, Exterior(2N) 20-5-5 to 30-5-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 26, 23 lb uplift at joint 28, 18 lb uplift at joint 29, 19 lb uplift at joint 30, 19 lb uplift at joint 31, 17 lb uplift at joint 32, 49 lb uplift at joint 33, 16 lb uplift at joint 24, 34 lb uplift at joint 23, 30 lb uplift at joint 22, 23 lb uplift at joint 21, 57 lb uplift at joint 20, 26 lb uplift at joint 19 and 27 lb uplift at joint 34.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 1,2020

Continued on page 2

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

10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	D02	Roof Special	7	1	E14248071 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:39 Page: 1

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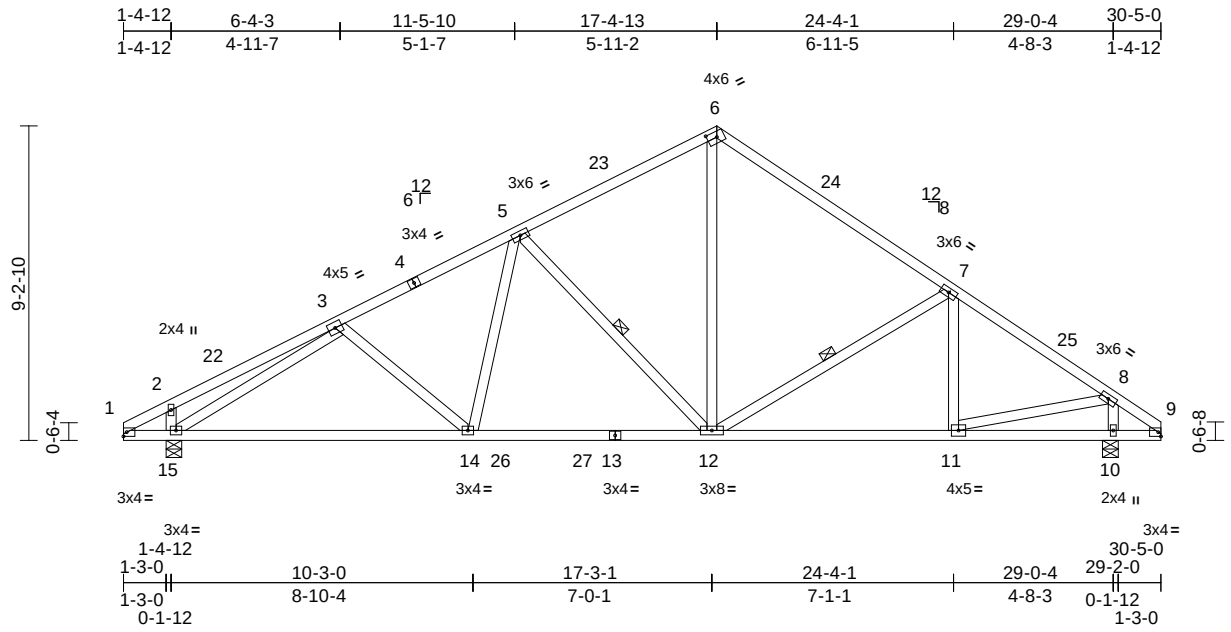

Scale = 1:67.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.44	Vert(LL)	-0.10	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.24	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 174 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-12, 5-12

REACTIONS (size) 10=0-5-8, 15=0-5-8
Max Horiz 15=166 (LC 10)
Max Uplift 10=-40 (LC 11), 15=-67 (LC 11)
Max Grav 10=1316 (LC 17), 15=1332 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-304/28, 2-22=-373/0, 3-22=-318/0, 3-4=-1620/110, 4-5=-1555/126, 5-23=-1123/151, 6-23=-1057/168, 6-24=-1117/158, 7-24=-1225/136, 7-25=-1305/96, 8-25=-1422/76, 8-9=-54/28

BOT CHORD 1-15=0/274, 14-15=-37/1528, 14-26=0/1410, 26-27=0/1410, 13-27=0/1410, 12-13=0/1410, 11-12=-2/1137, 10-11=0/43, 9-10=0/43

WEBS 6-12=-21/783, 7-12=-310/92, 7-11=-137/90, 8-11=-46/1143, 8-10=-1183/150, 2-15=-253/152, 3-15=-1398/159, 3-14=-101/87, 5-14=0/352, 5-12=-601/84

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-8, Interior (1) 3-0-8 to 17-4-13, Exterior(2R) 17-4-13 to 20-5-5, Interior (1) 20-5-5 to 30-5-0 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 10 and 67 lb uplift at joint 15.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	D03	Monopitch Supported Gable	1	1	E14248072 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:39 Page: 1
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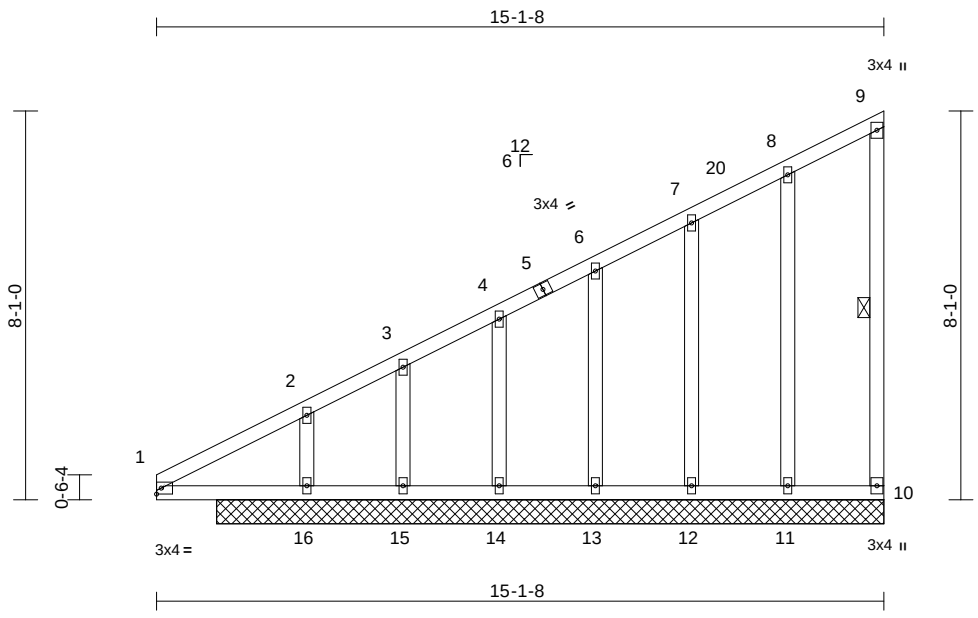

Scale = 1:47.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 95 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 9-10

REACTIONS (size) 10=13-10-8, 11=13-10-8, 12=13-10-8, 13=13-10-8, 14=13-10-8, 15=13-10-8, 16=13-10-8
Max Horiz 16=247 (LC 10)
Max Uplift 10=-59 (LC 10), 11=-5 (LC 11), 12=-17 (LC 11), 13=-28 (LC 11), 15=-261 (LC 8)
Max Grav 10=56 (LC 18), 11=199 (LC 1), 12=156 (LC 1), 13=144 (LC 1), 14=230 (LC 1), 15=27 (LC 9), 16=608 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-394/218, 2-3=-439/209, 3-4=-292/179, 4-5=-262/157, 5-6=-258/167, 6-7=-206/149, 7-20=-156/122, 8-20=-146/138, 8-9=-95/98, 9-10=-36/60
BOT CHORD	1-16=-198/415, 15-16=-111/128, 14-15=-111/128, 13-14=-111/128, 12-13=-111/128, 11-12=-111/128, 10-11=-111/128
WEBS	8-11=-140/128, 7-12=-118/111, 6-13=-113/103, 4-14=-152/77, 3-15=-108/305, 2-16=-321/52

NOTES

1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 3-1-8, Exterior(2N) 3-1-8 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
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 10, 5 lb uplift at joint 11, 17 lb uplift at joint 12, 28 lb uplift at joint 13 and 261 lb uplift at joint 15.
7) Non Standard bearing condition. Review required.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	E01	Common Supported Gable	1	1	E14248073 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:40 Page: 1
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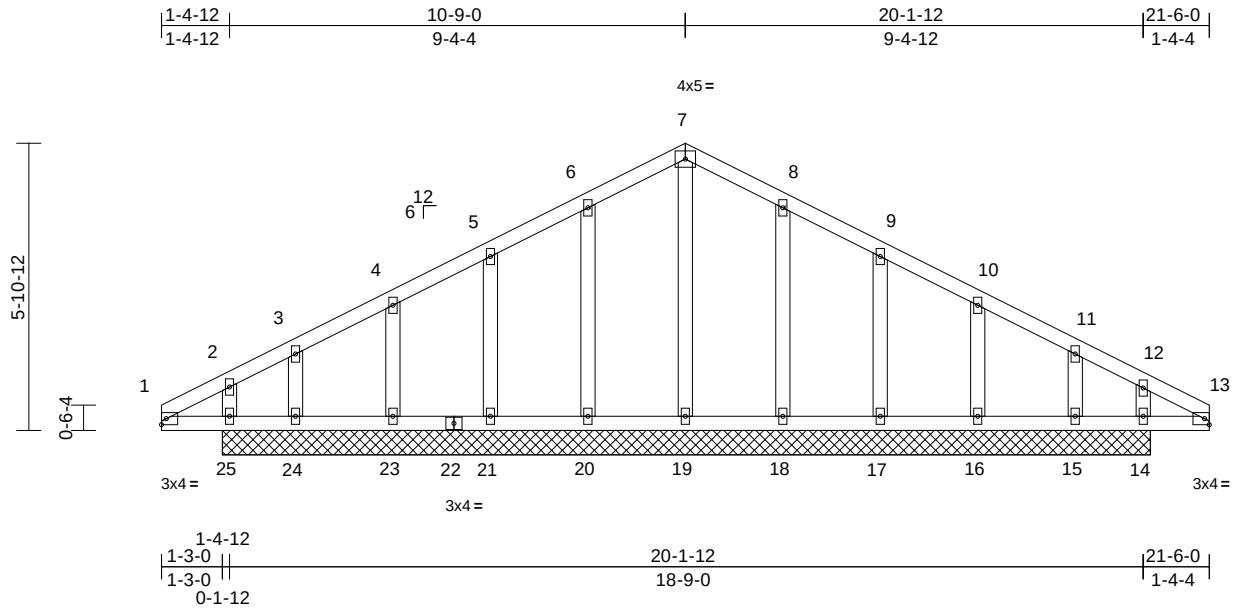

Scale = 1:47.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 112 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 14=19-0-8, 15=19-0-8, 16=19-0-8, 17=19-0-8, 18=19-0-8, 19=19-0-8, 20=19-0-8, 21=19-0-8, 23=19-0-8, 24=19-0-8, 25=19-0-8
Max Horiz 25=-82 (LC 9)
Max Uplift 14=-20 (LC 8), 15=-32 (LC 11), 16=-16 (LC 11), 17=-21 (LC 11), 18=-15 (LC 11), 20=-16 (LC 11), 21=-20 (LC 11), 23=-19 (LC 11), 24=-22 (LC 8), 25=-34 (LC 11)
Max Grav 14=174 (LC 23), 15=137 (LC 17), 16=171 (LC 23), 17=156 (LC 1), 18=169 (LC 23), 19=189 (LC 1), 20=169 (LC 22), 21=156 (LC 1), 23=172 (LC 22), 24=138 (LC 16), 25=179 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-86/85, 2-3=-40/83, 3-4=-22/83, 4-5=-33/77, 5-6=-51/98, 6-7=-69/139, 7-8=-69/139, 8-9=-51/98, 9-10=-33/71, 10-11=-14/77, 11-12=-36/77, 12-13=-83/78
BOT CHORD 1-25=-63/87, 24-25=-57/85, 23-24=-57/85, 22-23=-57/85, 21-22=-57/85, 20-21=-57/85, 19-20=-57/85, 18-19=-57/85, 17-18=-57/85, 16-17=-57/85, 15-16=-57/85, 14-15=-57/85, 13-14=-57/85
WEBS 7-19=-150/1, 6-20=-129/67, 5-21=-117/71, 4-23=-126/72, 3-24=-100/68, 8-18=-129/67, 9-17=-117/71, 10-16=-126/72, 11-15=-100/70, 2-25=-109/94, 12-14=-107/93

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-0-0 to 2-9-0, Exterior(2N) 2-9-0 to 10-9-0, Corner(3R) 10-9-0 to 13-9-0, Exterior(2N) 13-9-0 to 21-6-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 20, 20 lb uplift at joint 21, 19 lb uplift at joint 23, 22 lb uplift at joint 24, 15 lb uplift at joint 18, 21 lb uplift at joint 17, 16 lb uplift at joint 16, 32 lb uplift at joint 15, 34 lb uplift at joint 25 and 20 lb uplift at joint 14.
8) Non Standard bearing condition. Review required.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	E02	Common	13	1	E14248074 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:40 Page: 1

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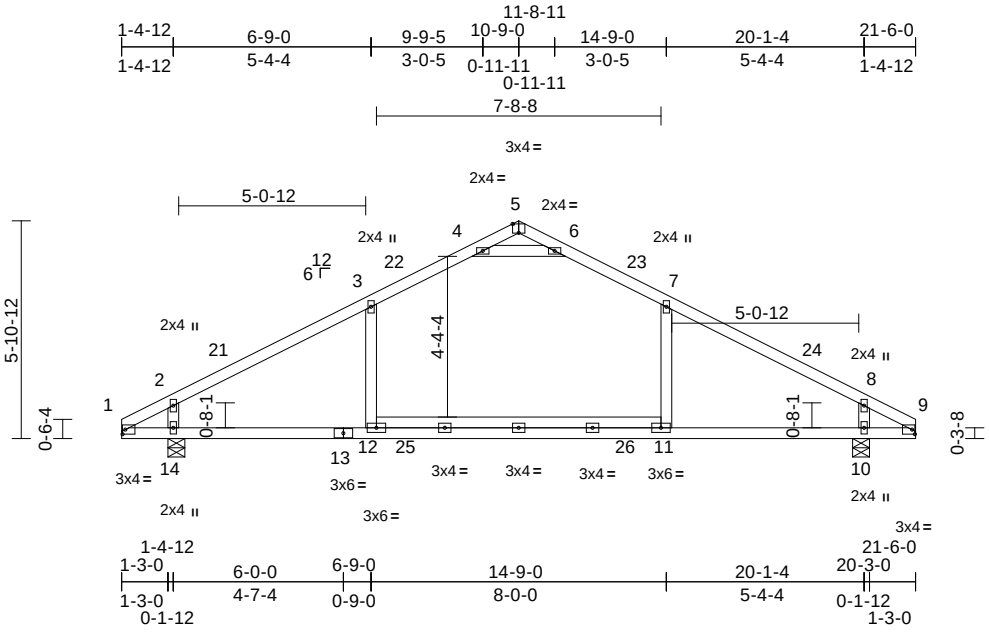


Scale = 1:62.4

Plate Offsets (X, Y): [1:0-0-15,0-1-8], [5:0-2-0,Edge], [9:0-0-15,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.29	11-12	>787	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.50	11-12	>452	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 95 lb	FT = 20%

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

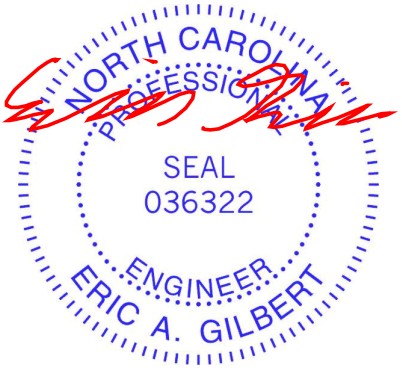
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 10=0-5-8, 14=0-5-8
Max Horiz 14=-82 (LC 9)
Max Uplift 10=-28 (LC 11), 14=-55 (LC 11)
Max Grav 10=965 (LC 18), 14=965 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-762/37, 2-21=-1017/81, 3-21=-910/107, 3-22=-799/147, 4-22=-745/160, 4-5=-39/581, 5-6=-39/581, 6-23=-745/160, 7-23=-799/147, 7-24=-910/107, 8-24=-1017/81, 8-9=-762/0
BOT CHORD 1-14=-10/811, 13-14=-10/811, 12-13=-10/811, 12-25=-10/811, 25-26=-10/811, 11-26=-10/811, 10-11=-10/811, 9-10=-10/811
WEBS 2-14=-663/197, 8-10=-663/197, 3-12=0/283, 7-11=0/283, 4-6=-1444/214

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-9-0, Exterior(2R) 10-9-0 to 13-9-0, Interior (1) 13-9-0 to 21-6-0 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) All plates are 2x4 MT20 unless otherwise indicated.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 14 and 28 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	E03	Common	4	1	E14248075 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:41 Page: 1
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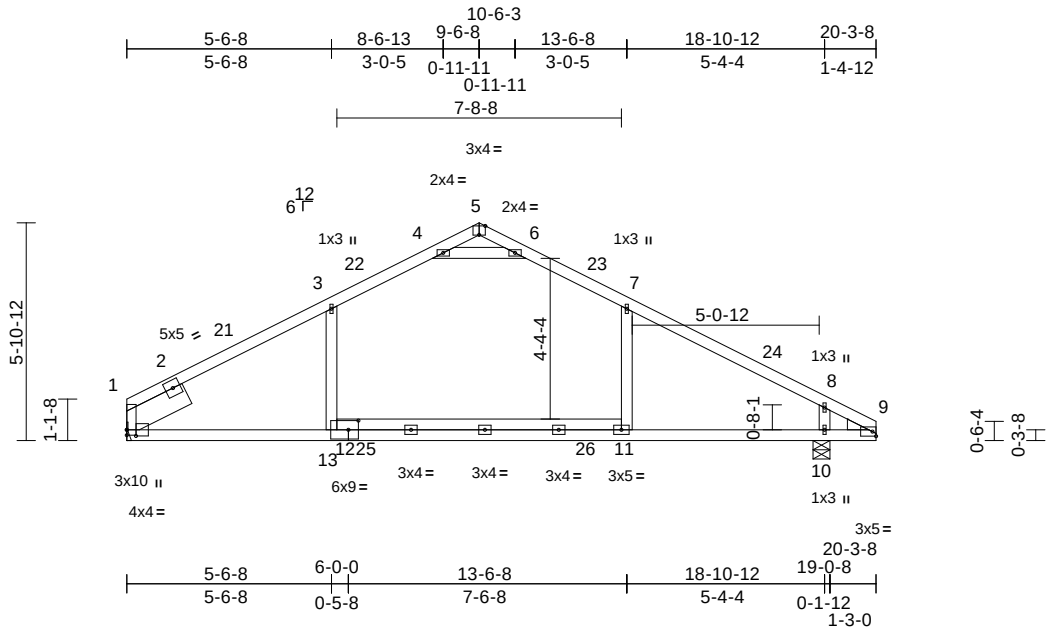

Scale = 1:62.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.97	Vert(LL)	-0.30	13	>765	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.47	13	>486	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.10	1	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 97 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-9:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x8 SP No.2 -- 1-10-13

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1= Mechanical, 10=0-5-8
Max Horiz 1=-78 (LC 9)
Max Uplift 1=-25 (LC 11), 10=-29 (LC 11)
Max Grav 1=852 (LC 16), 10=977 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-95/240, 2-21=-1050/118, 3-21=-967/129, 3-22=-839/169, 4-22=-785/181, 4-5=-63/661, 5-6=-66/654, 6-23=-792/180, 7-23=-846/167, 7-24=-966/129, 8-24=-1074/103, 8-9=-799/5
BOT CHORD 1-13=-56/858, 12-13=-41/773, 12-25=-26/861, 25-26=-26/858, 11-26=-27/855, 10-11=-26/858, 9-10=-26/858
WEBS 8-10=-705/213, 3-13=0/314, 7-11=0/302, 4-6=-1577/270

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-6-8, Exterior(2R) 9-6-8 to 12-6-8, Interior (1) 12-6-8 to 20-3-8 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) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 29 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	E04	Common Girder	1	2	E14248076 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:41 Page: 1
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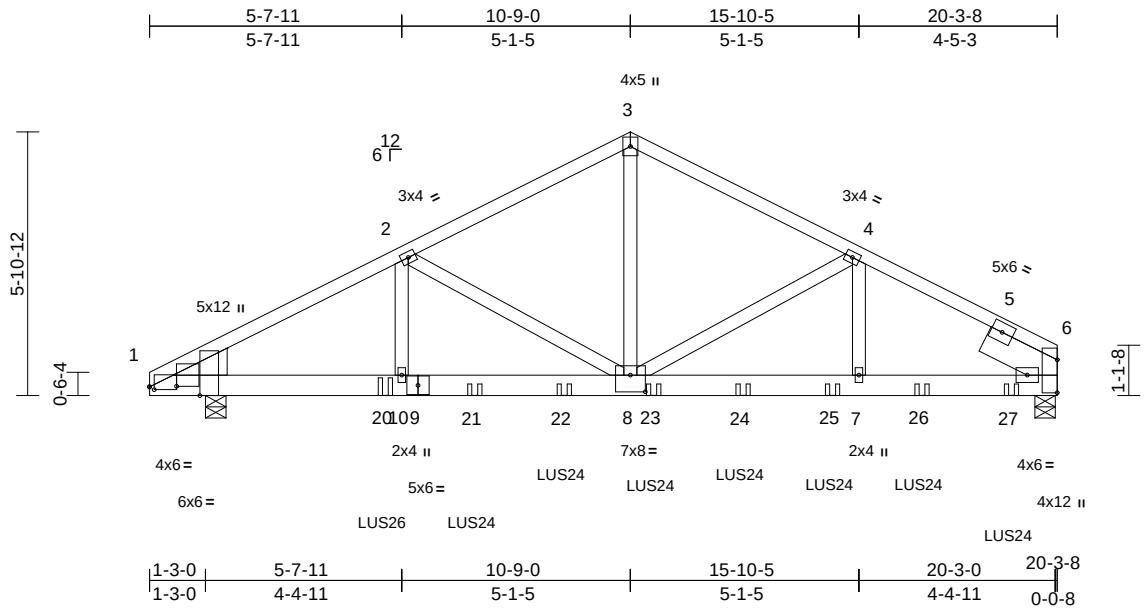

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Plate Offsets (X, Y): [1:0-1-4,0-0-12], [1:0-2-5,Edge], [1:0-7-4,0-0-3], [8:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.11	8-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.22	8-10	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 245 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS *Except* 9-6:2x6 SP No.1
WEBS 2x4 SP No.2
WEDGE Left: 2x8 SP No.2
SLIDER Right 2x8 SP No.2 -- 1-9-10

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 6=0-5-8
Max Horiz 1=78 (LC 6)
Max Uplift 1=-330 (LC 7), 6=-269 (LC 7)
Max Grav 1=3482 (LC 1), 6=4160 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5074/537, 2-3=-4333/412, 3-4=-4332/413, 4-5=-5401/392, 5-6=-2906/183
BOT CHORD 1-20=-434/4424, 10-20=-434/4424, 9-10=-434/4424, 9-21=-434/4424, 21-22=-434/4424, 8-22=-434/4424, 8-23=-305/4718, 23-24=-305/4718, 24-25=-305/4718, 7-25=-305/4718, 7-26=-305/4718, 26-27=-305/4718, 6-27=-305/4718
WEBS 2-10=-167/637, 2-8=-720/196, 3-8=-280/3439, 4-8=-1058/47, 4-7=-6/978

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 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 6 and 330 lb uplift at joint 1.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Use Simpson Strong-Tie LUS26 (4-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent at 5-3-4 from the left end to connect truss(es) to back face of bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 7-3-4 from the left end to 19-3-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-6=-60, 11-15=-20
Concentrated Loads (lb)
Vert: 20=-945 (B), 21=-724 (B), 22=-729 (B), 23=-724 (B), 24=-724 (B), 25=-724 (B), 26=-724 (B), 27=-724 (B)

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	G01	Common Structural Gable	2	1	E14248077 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:42 Page: 1
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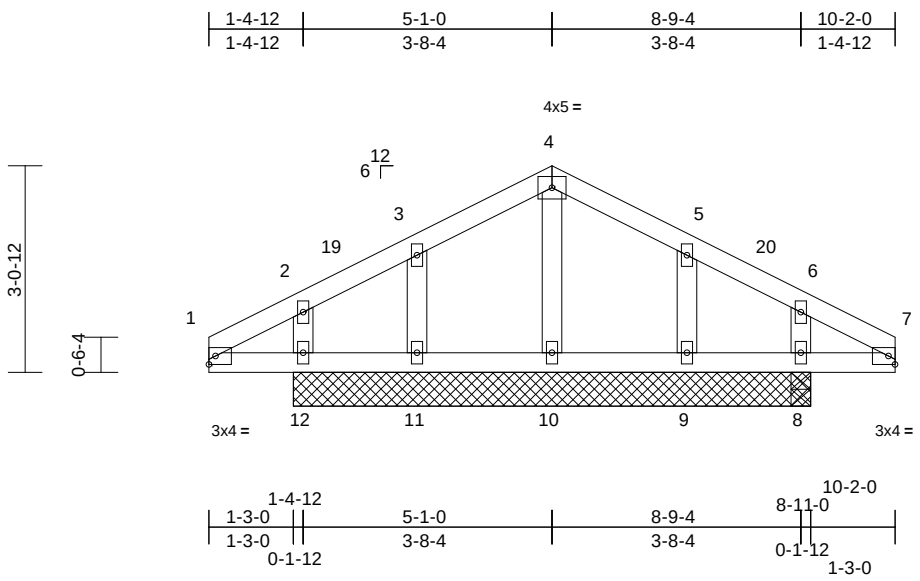

Scale = 1:34.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	0.00	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	11-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 43 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 8=0-3-8, 9=7-8-0, 10=7-8-0, 11=7-8-0, 12=7-8-0
Max Horiz 12=-39 (LC 9)
Max Uplift 8=-23 (LC 12), 9=-24 (LC 11), 11=-9 (LC 8), 12=-46 (LC 11)
Max Grav 8=176 (LC 23), 9=148 (LC 17), 10=211 (LC 1), 11=149 (LC 16), 12=176 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-74/79, 2-19=-34/51, 3-19=-26/77, 3-4=-23/80, 4-5=-23/80, 5-20=-25/77, 6-20=-34/50, 6-7=-73/79
BOT CHORD 1-12=-52/74, 11-12=-51/73, 10-11=-51/73, 9-10=-51/73, 8-9=-51/73, 7-8=-51/73
WEBS 2-12=-112/104, 4-10=-165/44, 6-8=-112/103, 3-11=-112/113, 5-9=-112/113

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-1-0, Interior (1) 3-1-0 to 5-1-0, Exterior(2R) 5-1-0 to 8-1-0, Interior (1) 8-1-0 to 10-2-0 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 12, 9 lb uplift at joint 11, 24 lb uplift at joint 9 and 23 lb uplift at joint 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	G02	Common	2	1	E14248078 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:42 Page: 1
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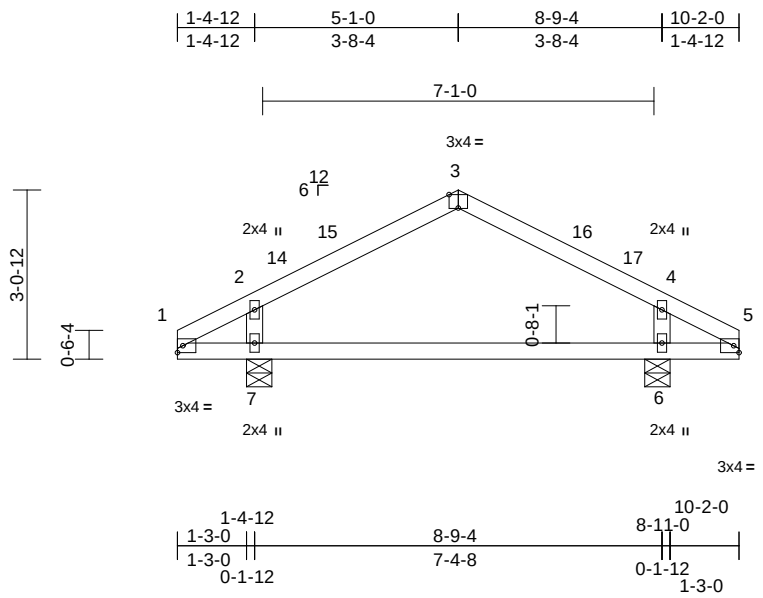

Scale = 1:41.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	0.02	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 34 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 6=0-5-8, 7=0-5-8
Max Horiz 7=-39 (LC 9)
Max Uplift 6=-11 (LC 11), 7=-42 (LC 11)
Max Grav 6=407 (LC 1), 7=407 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-150/58, 2-14=-239/96, 14-15=-220/97, 3-15=-174/112, 3-16=-174/112, 16-17=-220/97, 4-17=-239/96, 4-5=-150/0
BOT CHORD 1-7=-4/156, 6-7=-4/156, 5-6=-4/156
WEBS 2-7=-269/280, 4-6=-269/280

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-1-0, Exterior(2R) 5-1-0 to 8-1-0, Interior (1) 8-1-0 to 10-2-0 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) * 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 7 and 11 lb uplift at joint 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	G03	Common Girder	1	2	E14248079 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:42 Page: 1
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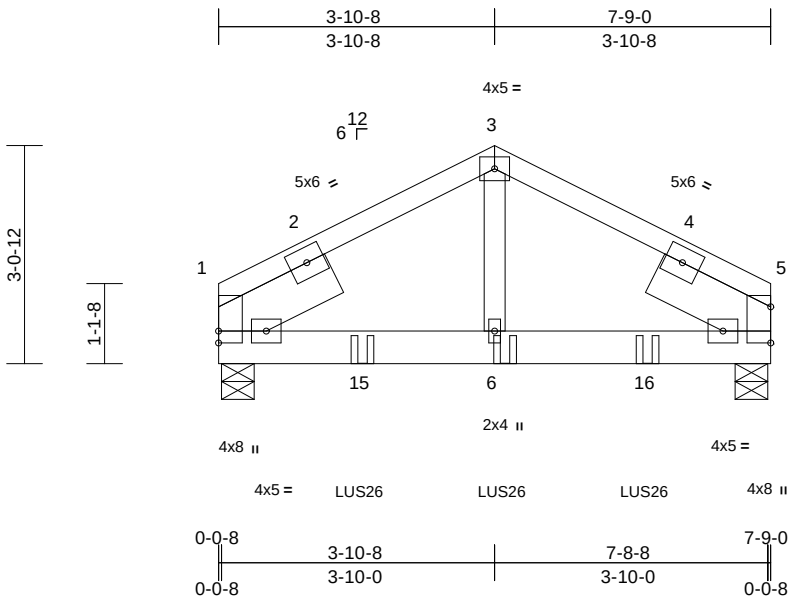

Scale = 1:32.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	-0.01	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.02	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 92 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP No.2 -- 1-9-12, Right 2x8 SP No.2 -- 1-9-12

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

REACTIONS (size) 1=0-5-8, 5=0-5-8
Max Horiz 1=-30 (LC 24)
Max Uplift 1=-65 (LC 7), 5=-68 (LC 7)
Max Grav 1=1475 (LC 2), 5=1536 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1188/23, 2-3=-1621/99, 3-4=-1620/99, 4-5=-1059/17
BOT CHORD 1-15=-48/1412, 6-15=-48/1412, 6-16=-48/1412, 5-16=-48/1412
WEBS 3-6=-49/1339

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 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 1 and 68 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-4 from the left end to 6-0-4 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 7-11=-20
Concentrated Loads (lb)
Vert: 6=-732 (B), 15=-732 (B), 16=-732 (B)

April 1,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	G04	Common Girder	1	1	E14248080 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:42 Page: 1
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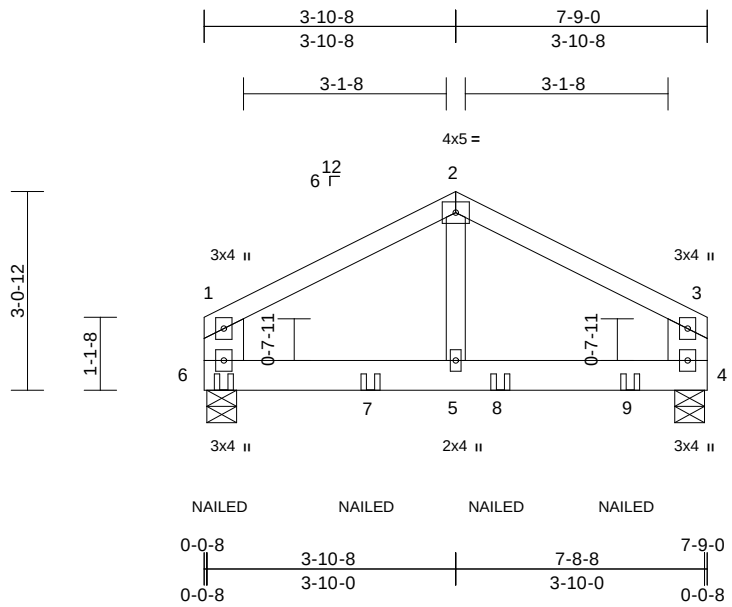


Scale = 1:35.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	-0.01	5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	5	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 39 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x8 SP No.2 *Except* 5-2:2x4 SP No.2

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

REACTIONS (size) 4=0-5-8, 6=0-5-8
Max Horiz 6=-54 (LC 5)
Max Grav 4=336 (LC 1), 6=352 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-285/15, 2-3=-285/15, 1-6=-221/26, 3-4=-221/26
BOT CHORD 6-7=0/208, 5-7=0/208, 5-8=0/208, 8-9=0/208, 4-9=0/208
WEBS 2-5=-1/75

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) * 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.
4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
5) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
6) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 6=-32 (B), 7=-28 (B), 8=-28 (B), 9=-28 (B)

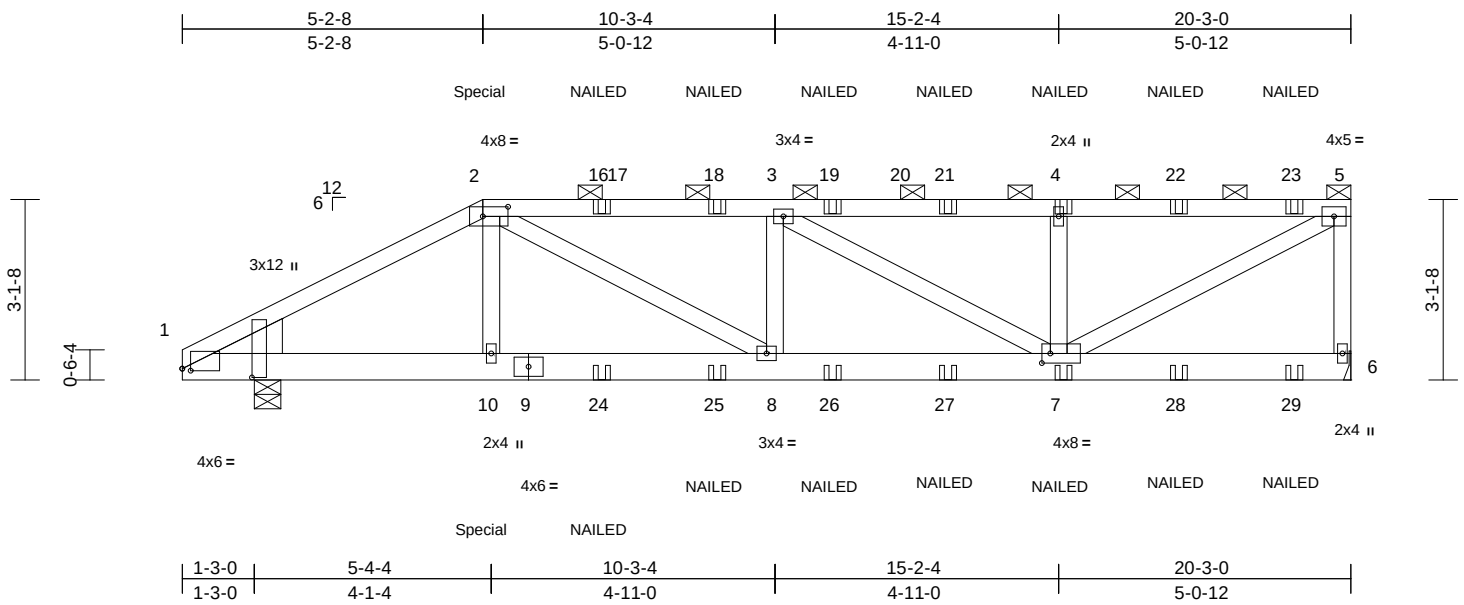
April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	H01	Half Hip Girder	1	1	E14248081 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:43 ID:zyyAfgQt9tI2TbImWiZmNJzVQPN-y0tADNAJnhxkTOle9vKvW84Bx?_ThN?MXjX_xizV9Jw



Scale = 1:39.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.54	Vert(LL)	-0.06	8-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.12	8-10	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 120 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2
WEDGE	Left: 2x8 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-8 max.): 2-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 6= Mechanical
Max Horiz 1=88 (LC 6)
Max Uplift 1=-77 (LC 7), 6=-137 (LC 4)
Max Grav 1=1045 (LC 1), 6=965 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-1267/132, 2-16=-1718/211, 16-17=-1718/211, 17-18=-1718/211, 3-18=-1718/211, 3-19=-1319/164, 19-20=-1319/164, 20-21=-1319/164, 4-21=-1319/164, 4-22=-1319/164, 22-23=-1319/164, 5-23=-1319/164, 5-6=-890/164
BOT CHORD	1-10=-163/1073, 9-10=-158/1068, 9-24=-158/1068, 24-25=-158/1068, 8-25=-158/1068, 8-26=-248/1718, 26-27=-248/1718, 7-27=-248/1718, 7-28=-32/46, 28-29=-32/46, 6-29=-32/46
WEBS	2-10=-110/98, 5-7=-198/1467, 3-8=-186/118, 2-8=-103/761, 3-7=-458/61, 4-7=-387/160

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 6 and 77 lb uplift at joint 1.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 145 lb down and 125 lb up at 5-2-8 on top chord, and 65 lb down at 5-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-2=-60, 2-5=-60, 6-11=-20
   Concentrated Loads (lb)
   Vert: 2=-75 (F), 10=-35 (F), 7=-12 (F), 4=-31 (F), 16=-30 (F), 18=-30 (F), 19=-30 (F), 21=-31 (F), 22=-31 (F), 23=-36 (F), 24=-8 (F), 25=-8 (F), 26=-8 (F), 27=-12 (F), 28=-12 (F), 29=-13 (F)

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	H02	Half Hip	1	1	E14248082 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:43 Page: 1
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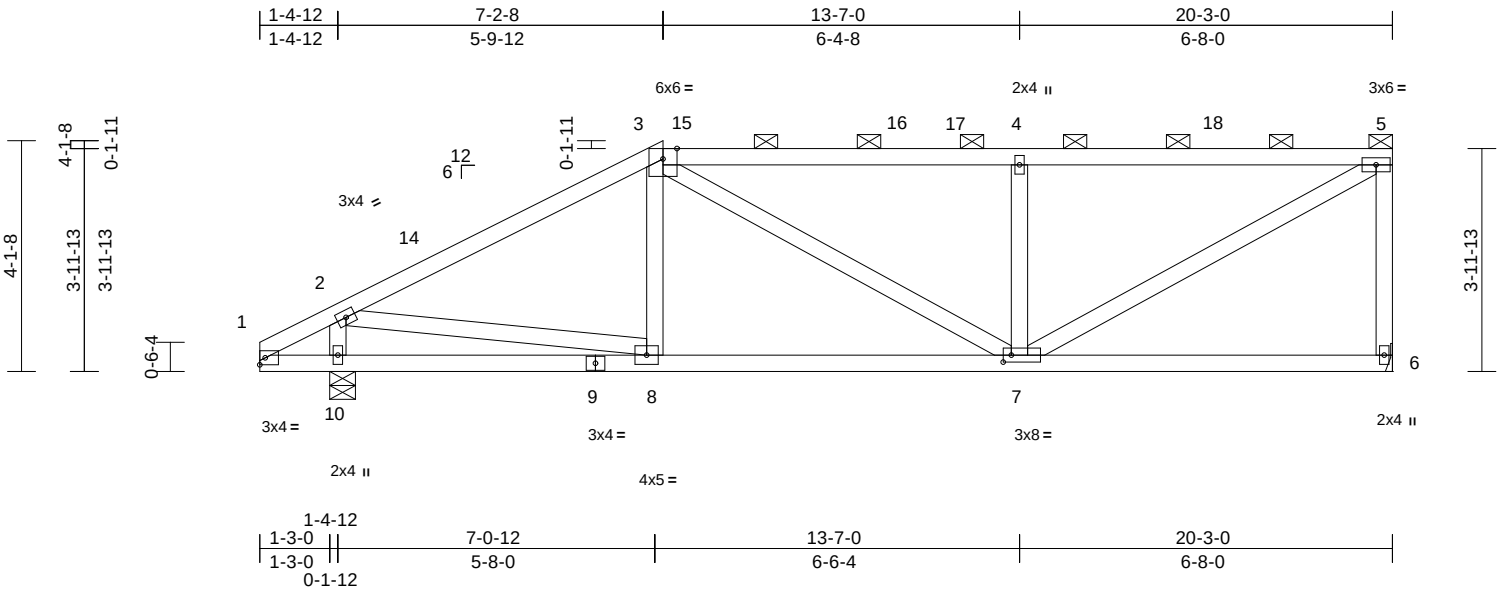

Scale = 1:41.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.03	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 107 lb	FT = 20%

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

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

REACTIONS (size) 6= Mechanical, 10=0-5-8
Max Horiz 10=118 (LC 10)
Max Uplift 6=-97 (LC 8), 10=-53 (LC 11)
Max Grav 6=744 (LC 1), 10=864 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-119/40, 2-14=-1006/62, 3-14=-928/90, 3-15=-936/111, 15-16=-937/111, 16-17=-938/111, 4-17=-939/111, 4-18=-937/110, 5-18=-937/110, 5-6=-681/129
BOT CHORD 1-10=-8/141, 9-10=-166/213, 8-9=-166/213, 7-8=-144/833, 6-7=-36/65
WEBS 2-10=-793/190, 2-8=-33/705, 3-8=0/80, 5-7=-133/1027, 3-7=-30/202, 4-7=-442/169

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-2-8, Exterior(2R) 7-2-8 to 11-5-7, Interior (1) 11-5-7 to 20-1-4 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) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 6 and 53 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	H03	Half Hip	1	1	E14248083 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:44 Page: 1
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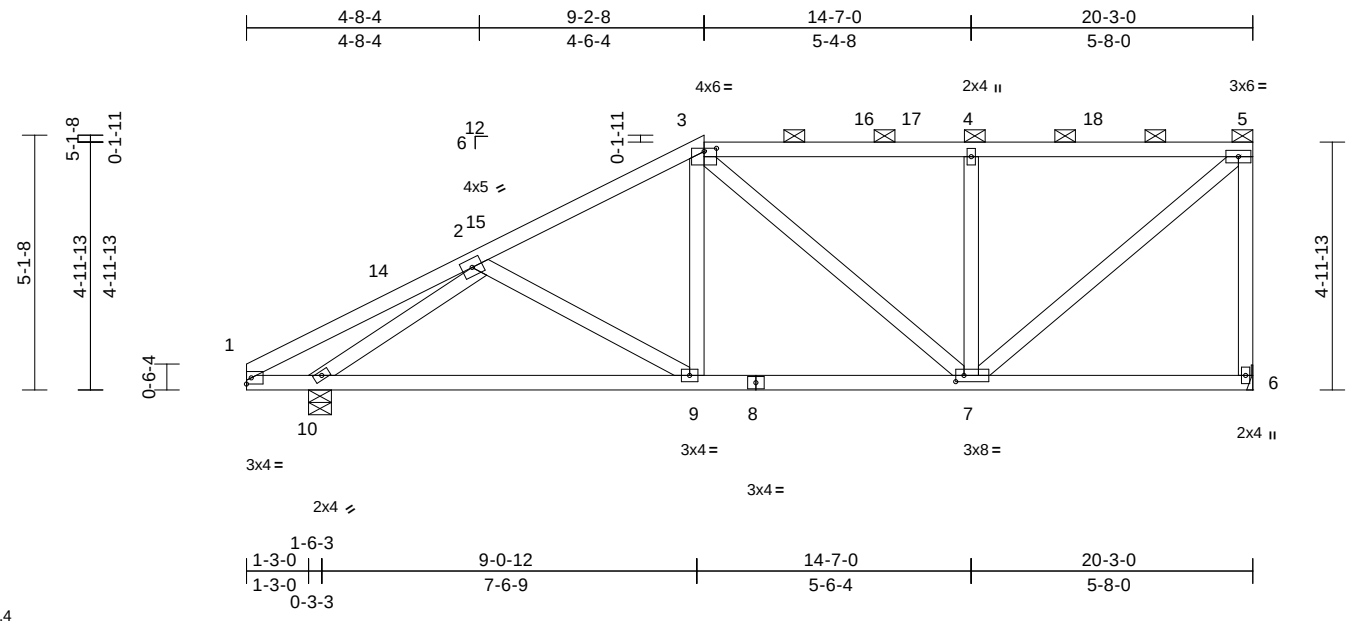

Scale = 1:46.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.03	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.08	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 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.): 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 6= Mechanical, 10=0-5-8
Max Horiz 10=150 (LC 10)
Max Uplift 6=-94 (LC 8), 10=-50 (LC 11)
Max Grav 6=749 (LC 22), 10=859 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-129/158, 2-14=-110/3, 2-15=-900/78, 3-15=-891/102, 3-16=-668/115, 16-17=-668/115, 4-17=-670/115, 4-18=-668/114, 5-18=-668/114, 5-6=-694/120
BOT CHORD 1-10=-44/142, 9-10=-238/812, 8-9=-151/750, 7-8=-151/750, 6-7=-47/69
WEBS 5-7=-107/847, 3-9=0/170, 2-9=-74/100, 3-7=-120/49, 4-7=-376/147, 2-10=-958/222

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-2-8, Exterior(2R) 9-2-8 to 13-5-7, Interior (1) 13-5-7 to 20-1-4 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) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 6 and 50 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	H04	Common	5	1	E14248084 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:44 Page: 1
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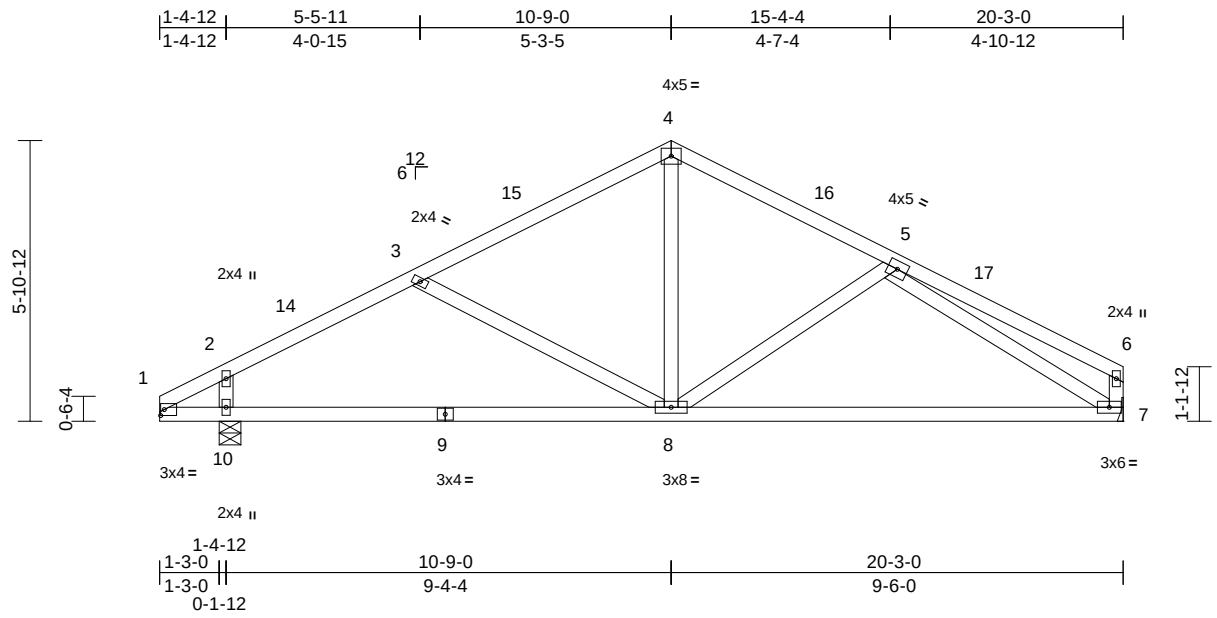

Scale = 1:48.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	1.00	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.26	7-8	>850	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 99 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 7= Mechanical, 10=0-5-8
Max Horiz 10=99 (LC 10)
Max Uplift 7=-24 (LC 11), 10=-55 (LC 11)
Max Grav 7=744 (LC 1), 10=864 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-711/77, 2-14=-969/143, 3-14=-925/162, 3-15=-781/119, 4-15=-730/136, 4-16=-684/144, 5-16=-798/121, 5-17=-238/41, 6-17=-319/27, 6-7=-252/59
BOT CHORD 1-10=-68/764, 9-10=-110/764, 8-9=-110/764, 7-8=-113/799
WEBS 4-8=0/313, 5-8=-209/128, 2-10=-640/269, 3-8=-164/106, 5-7=-692/145

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-9-0, Exterior(2R) 10-9-0 to 13-9-0, Interior (1) 13-9-0 to 20-1-4 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) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 10 and 24 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors E14248085
Furne	H05	Monopitch	10	1	Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:44 Page: 1
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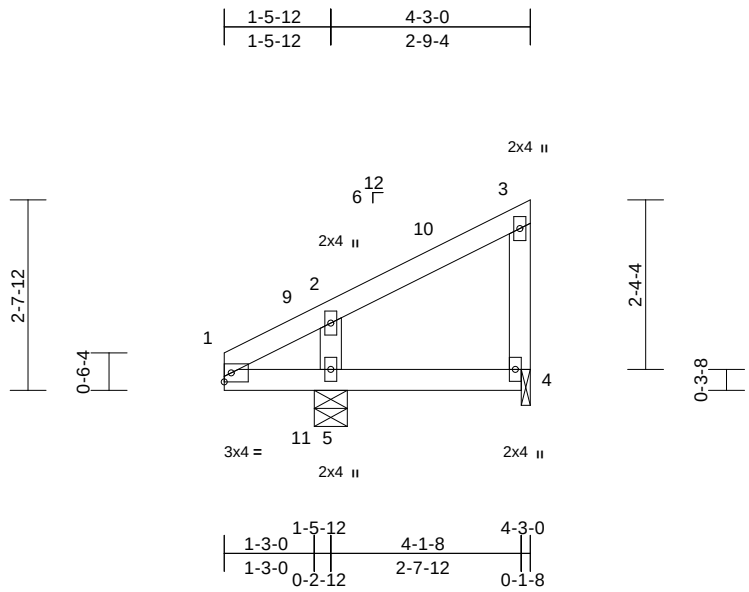


Scale = 1:32

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%

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

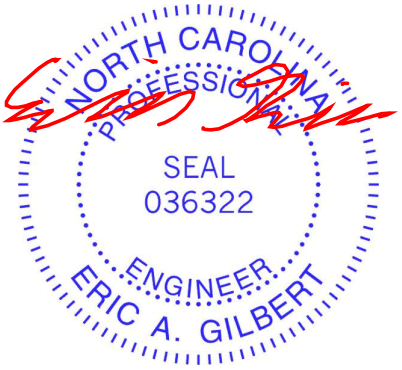
BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 4=0-1-8, 5=0-5-8
Max Horiz 5=71 (LC 10)
Max Uplift 4=-27 (LC 8), 5=-38 (LC 11)
Max Grav 4=82 (LC 16), 5=257 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-148/78, 2-9=-144/84, 2-10=-76/49, 3-10=-69/58, 3-4=-79/92
BOT CHORD 1-11=-77/139, 5-11=-77/139, 4-5=-36/39
WEBS 2-5=-182/187

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-1-4 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
2) * 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.
3) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 5 and 27 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	H06	Monopitch	10	1	E14248086 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:45 Page: 1
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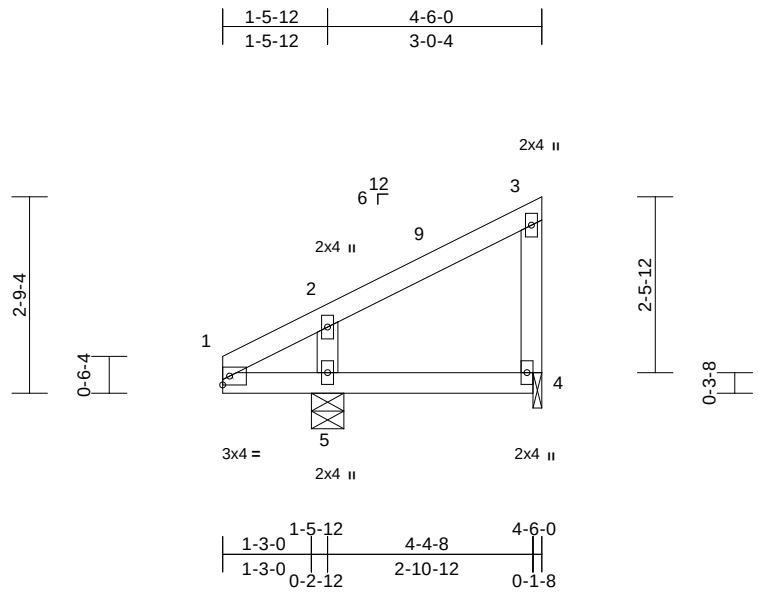

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 4=0-1-8, 5=0-5-8
Max Horiz 5=75 (LC 10)
Max Uplift 4=-26 (LC 8), 5=-38 (LC 11)
Max Grav 4=94 (LC 16), 5=264 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/89, 2-9=-82/52, 3-9=-76/63, 3-4=-86/100
BOT CHORD 1-5=-82/145, 4-5=-38/41
WEBS 2-5=-192/197

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * 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.
3) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 5 and 26 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	J01	Jack-Open	2	1	E14248087 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:45 Page: 1
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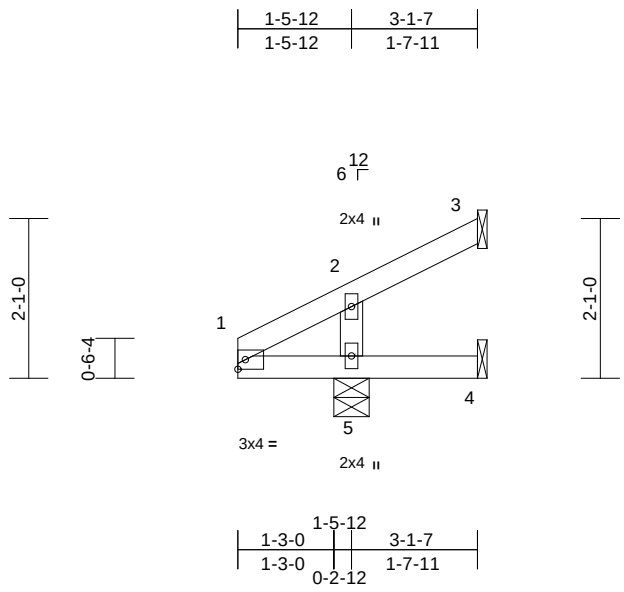

Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=41 (LC 11)
Max Uplift 3=-17 (LC 11), 4=-11 (LC 1), 5=-23 (LC 11)
Max Grav 3=23 (LC 16), 4=9 (LC 9), 5=237 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-90/41, 2-3=-34/12
BOT CHORD 1-5=-37/90, 4-5=0/0
WEBS 2-5=-148/136

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * 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.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 3, 11 lb uplift at joint 4 and 23 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	J02	Diagonal Hip Girder	1	1	E14248088 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:45 Page: 1
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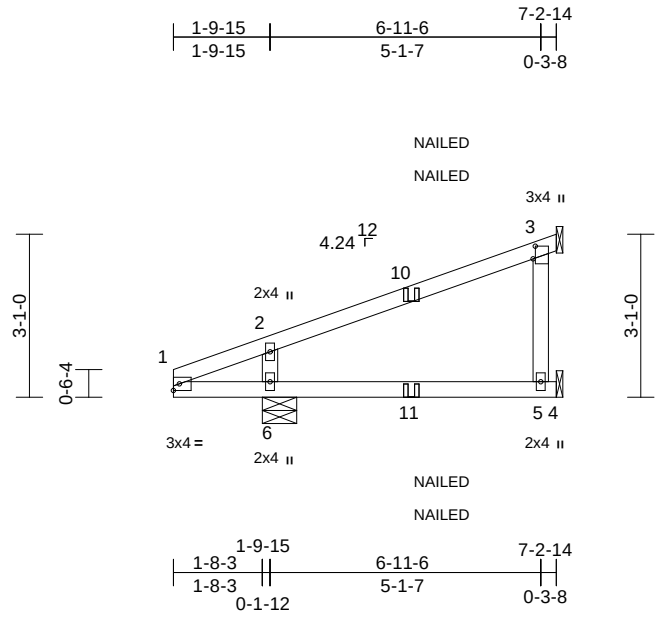

Scale = 1:43.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.42	Vert(LL)	-0.02	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 27 lb	FT = 20%

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

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

REACTIONS (size) 3= Mechanical, 5= Mechanical, 6=0-7-12
Max Horiz 6=66 (LC 7)
Max Uplift 3=-40 (LC 7), 6=-36 (LC 7)
Max Grav 3=130 (LC 1), 5=63 (LC 24), 6=377 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-74/48, 2-10=-62/4, 3-10=-22/33
BOT CHORD 1-6=-24/66, 6-11=0/0, 5-11=0/0, 4-5=0/0
WEBS 2-6=-322/101, 3-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) * 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.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 6 and 40 lb uplift at joint 3.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-7=-20

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	J03	Jack-Open	4	1	E14248089 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:45 Page: 1
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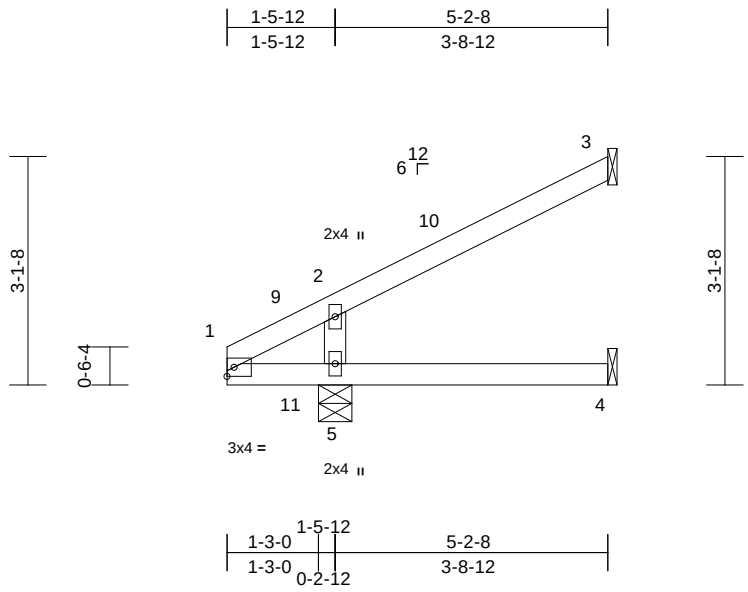

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=69 (LC 11)
Max Uplift 3=-38 (LC 11), 5=-14 (LC 11)
Max Grav 3=91 (LC 1), 4=36 (LC 9), 5=289 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-166/63, 2-9=-160/73, 2-10=-67/19, 3-10=-56/35
BOT CHORD 1-11=-61/144, 5-11=-61/144, 4-5=0/0
WEBS 2-5=-226/208

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * 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.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 3 and 14 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	J03A	Jack-Open	4	1	E14248090 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:46 Page: 1
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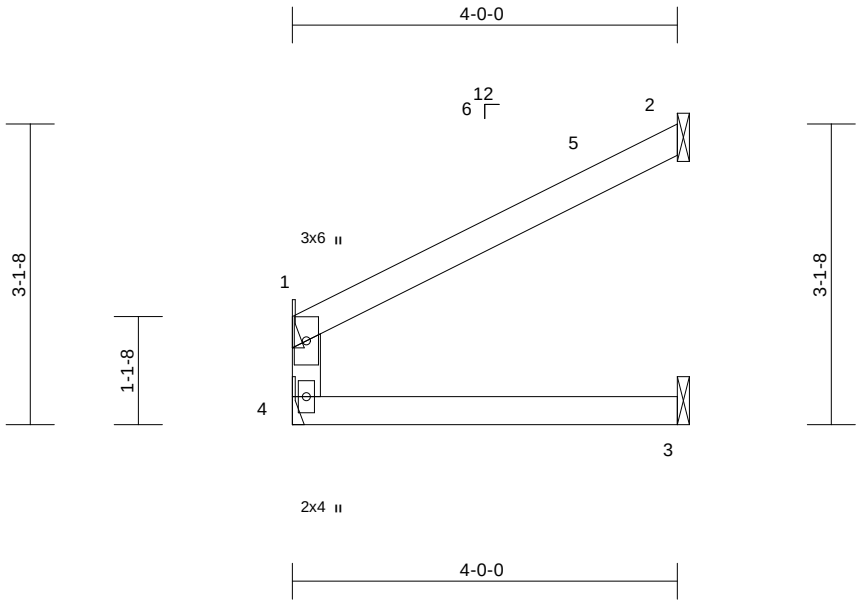

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	0.00	3-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1= Mechanical, 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 1=-154 (LC 16), 4=144 (LC 1)
Max Uplift 1=-23 (LC 11), 2=-33 (LC 11)
Max Grav 1=138 (LC 1), 2=90 (LC 1), 3=30 (LC 10), 4=48 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=0/0, 1-5=-62/20, 2-5=-46/30
BOT CHORD 3-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-4 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
2) * 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.
3) Refer to girder(s) for truss to truss connections.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 33 lb uplift at joint 2.
6) Non Standard bearing condition. Review required.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	K01	Roof Special	2	1	E14248091 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:46 Page: 1
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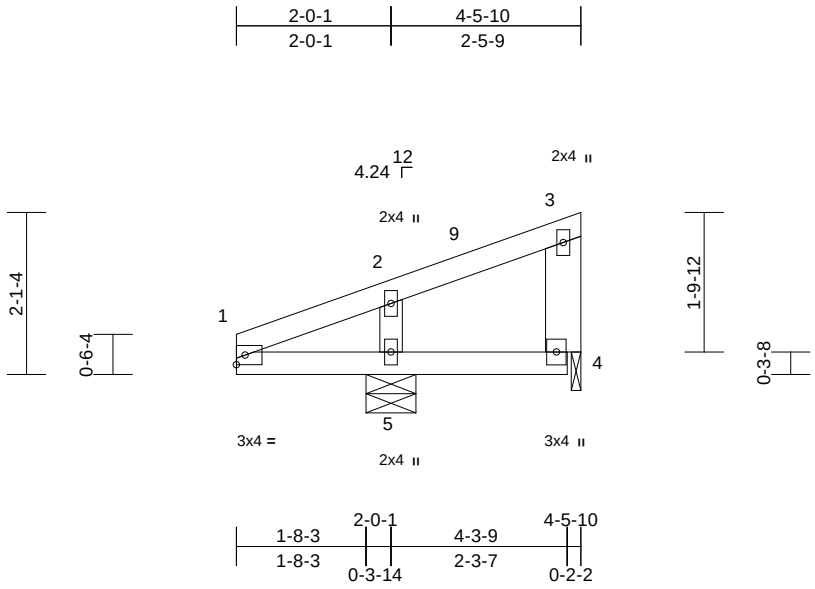

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 18 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x6 SP No.2 *Except* 2-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 4=0-1-8, 5=0-7-12
Max Horiz 5=54 (LC 10)
Max Uplift 4=-20 (LC 8), 5=-61 (LC 11)
Max Grav 4=34 (LC 18), 5=322 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-127/63, 2-9=-49/23, 3-9=-37/34, 3-4=-47/41
BOT CHORD 1-5=-57/124, 4-5=-28/30
WEBS 2-5=-208/238

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-2-14 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) * 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.
3) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 5 and 20 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	K02	Monopitch	8	1	E14248092 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

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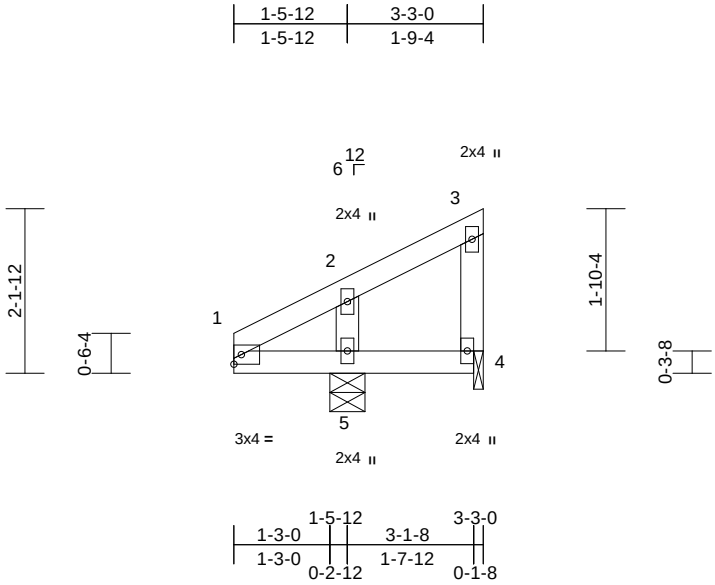

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

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

REACTIONS (size) 4=0-1-8, 5=0-5-8
Max Horiz 5=55 (LC 10)
Max Uplift 4=-30 (LC 8), 5=-43 (LC 11)
Max Grav 4=31 (LC 9), 5=237 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-112/64, 2-3=-51/40, 3-4=-49/49
BOT CHORD 1-5=-59/111, 4-5=-28/31
WEBS 2-5=-149/153

NOTES
1) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * 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.
3) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 5 and 30 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	V01	Valley	1	1	E14248093
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:46 Page: 1
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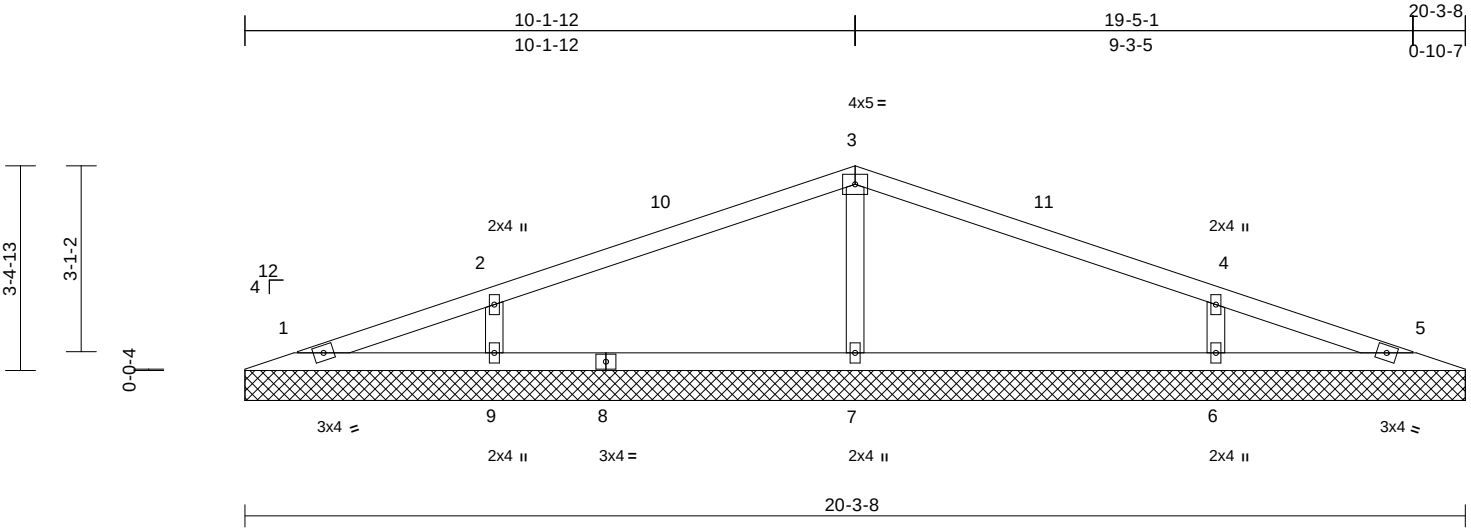

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%

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

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

REACTIONS (size) 1=20-3-8, 5=20-3-8, 6=20-3-8, 7=20-3-8, 9=20-3-8
Max Horiz 1=-30 (LC 9)
Max Uplift 6=-38 (LC 11), 9=-38 (LC 11)
Max Grav 1=71 (LC 1), 5=71 (LC 1), 6=454 (LC 23), 7=454 (LC 1), 9=454 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-41/39, 2-10=-80/59, 3-10=-31/71, 3-11=-31/69, 4-11=-80/57, 4-5=-30/36
BOT CHORD 1-9=-5/24, 8-9=-5/24, 7-8=-5/24, 6-7=-5/24, 5-6=-5/24
WEBS 3-7=-326/106, 2-9=-353/150, 4-6=-353/150

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-11-5 to 4-2-8, Interior (1) 4-2-8 to 10-2-8, Exterior(2R) 10-2-8 to 13-2-8, Interior (1) 13-2-8 to 19-5-11 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 9 and 38 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	V02	Valley	1	1	E14248094 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:47 Page: 1
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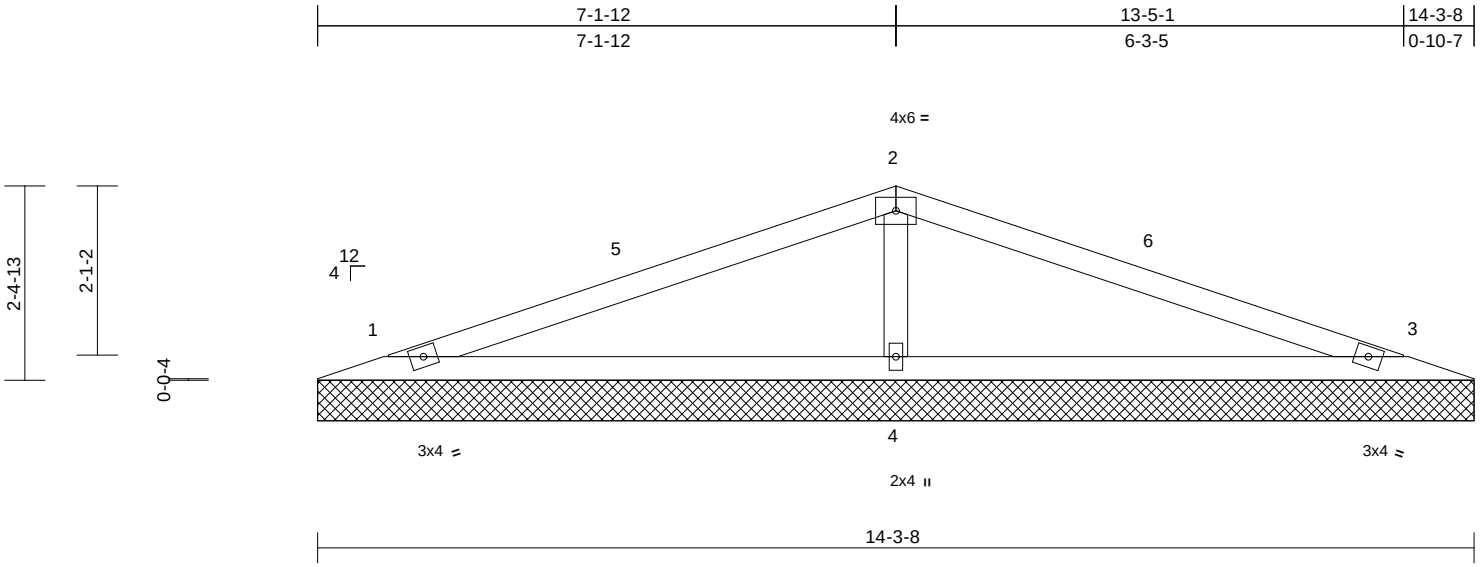

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 20%

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

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

REACTIONS (size) 1=14-3-8, 3=14-3-8, 4=14-3-8
Max Horiz 1=-20 (LC 9)
Max Uplift 1=-15 (LC 11), 3=-15 (LC 11), 4=-4 (LC 11)
Max Grav 1=221 (LC 22), 3=221 (LC 23), 4=575 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-79/37, 2-5=-23/51, 2-6=-17/46, 3-6=-79/33
BOT CHORD 1-4=0/24, 3-4=0/24
WEBS 2-4=-392/189

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior (1) 3-11-5 to 7-2-8, Exterior(2R) 7-2-8 to 10-2-8, Interior (1) 10-2-8 to 13-5-11 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 15 lb uplift at joint 3 and 4 lb uplift at joint 4.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 1,2020

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

Job	Truss	Truss Type	Qty	Ply	Southeastern General Contractors
Furne	V03	Valley	1	1	E14248095 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247,

Run: 8.33 S Mar 23 2020 Print: 8.330 S Mar 23 2020 MiTek Industries, Inc. Wed Apr 01 07:26:47 Page: 1
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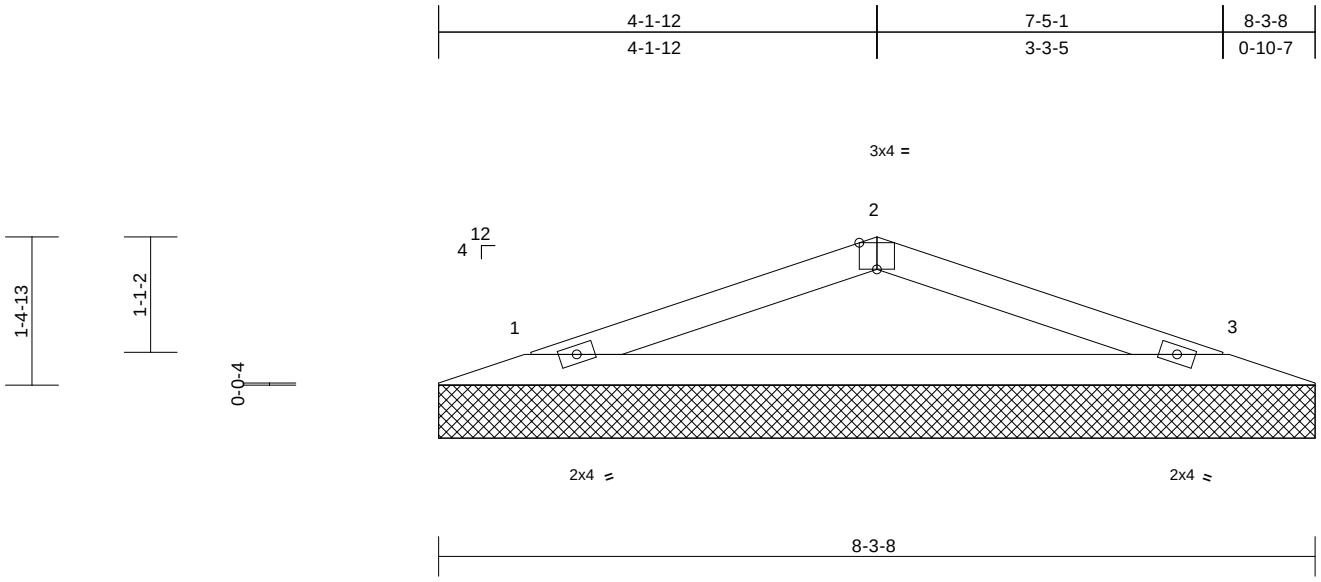


Scale = 1:21.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=8-3-8, 3=8-3-8
Max Horiz 1=-11 (LC 9)
Max Uplift 1=-9 (LC 11), 3=-9 (LC 11)
Max Grav 1=261 (LC 1), 3=261 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-332/266, 2-3=-332/275
BOT CHORD 1-3=-225/290

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 9 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

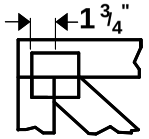
LOAD CASE(S) Standard

April 1,2020

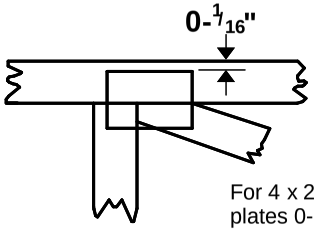
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

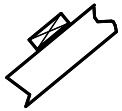
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

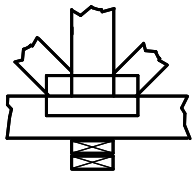
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

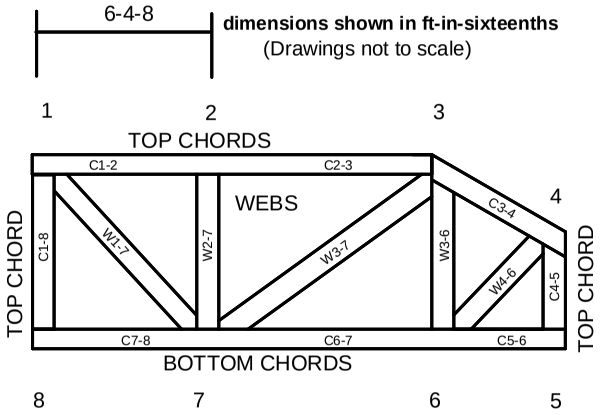


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek
ENGINEERING BY TRENCO
A MiTek Affiliate

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.