

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0320-1195  
Ben Stout/38 Blackberry Manor/Harnett

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: E14472574 thru E14472593

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

North Carolina COA: C-0844



June 3, 2020

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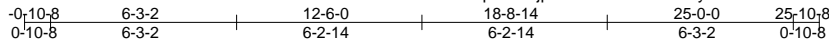
Gilbert, Eric

**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 J0320-1195	Truss A1	Truss Type COMMON	Qty 5	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472574
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:55:39 2020 Page 1  
ID:7ZH02pw3t1Ljp9xzPdQGc5zQRh7-y5120U0cT?i?BvbAmNSaWm\_hkQt\_Rg1q13WmqSz9yI2



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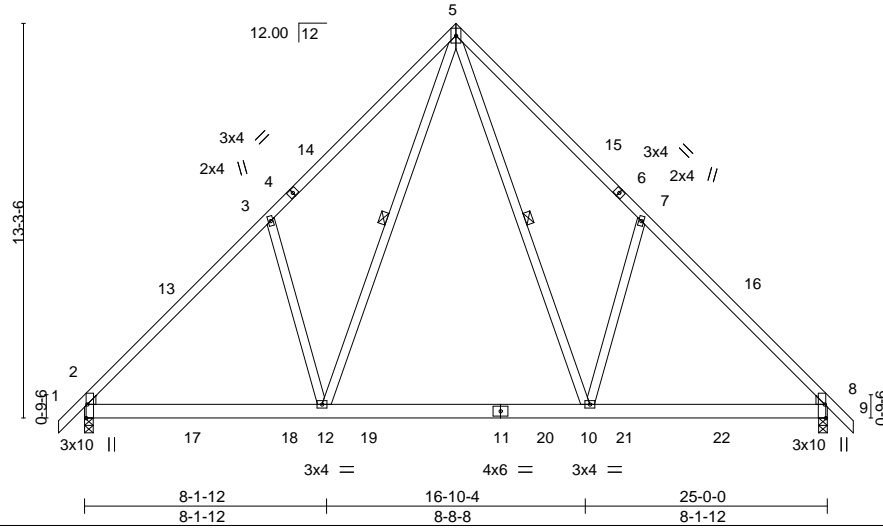


Plate Offsets (X,Y)-- [2:0-0-9,0-0-9], [2:0-1-1,0-3-7], [2:0-5-8,Edge], [8:0-0-9,0-0-9], [8:0-1-1,0-3-7], [8:0-5-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.06	10-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.10	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.02	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	2-12	>999		
								Weight: 175 lb	FT = 20%

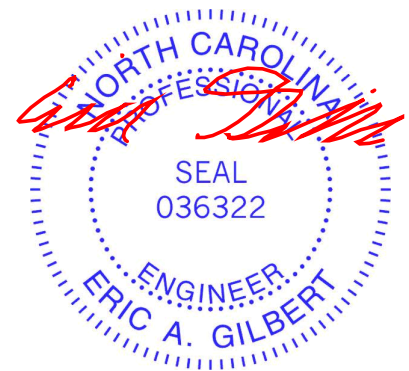
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2, Right: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-10, 5-12

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=321(LC 9)  
 Max Uplift 2=-68(LC 10), 8=-68(LC 11)  
 Max Grav 2=1129(LC 17), 8=1129(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1312/306, 3-5=-1225/543, 5-7=-1225/543, 7-8=-1312/306  
 BOT CHORD 2-12=-111/986, 10-12=-14/643, 8-10=-21/850  
 WEBS 3-12=-479/363, 5-10=-293/754, 7-10=-479/363, 5-12=-293/754

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-3, Exterior(2) 8-1-3 to 16-10-13, Interior(1) 16-10-13 to 21-5-11, Exterior(2) 21-5-11 to 25-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



June 3, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



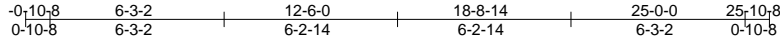
818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss A1GE	Truss Type GABLE	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472575
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:55:43 2020 Page 1

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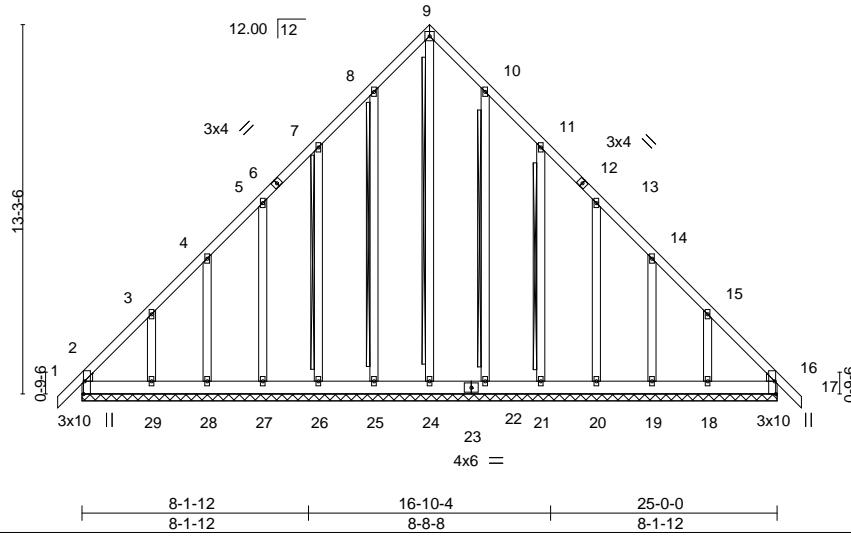


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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	16	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	16	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(CT)	0.01	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 232 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.2, Right: 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.  
WEBS T-Brace: 2x4 SPF No.2 - 9-24, 8-25, 7-26, 10-22, 11-21  
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

**REACTIONS.** All bearings 25-0-0.  
(lb) - Max Horz 2=401(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 16 except 2=138(LC 8), 25=132(LC 10), 26=150(LC 10), 27=145(LC 10), 28=129(LC 10), 29=240(LC 10), 22=129(LC 11), 21=152(LC 11), 20=145(LC 11), 19=129(LC 11), 18=236(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 25, 26, 27, 28, 22, 21, 20, 19 except 2=353(LC 10), 16=319(LC 11), 24=306(LC 11), 29=259(LC 17), 18=254(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-537/338, 3-4=-338/232, 8-9=-252/282, 9-10=-252/282, 14-15=-296/180, 15-16=-492/338  
BOT CHORD 2-29=-247/408, 28-29=-247/408, 27-28=-247/408, 26-27=-247/408, 25-26=-247/408, 24-25=-247/408, 22-24=-247/408, 21-22=-247/408, 20-21=-247/408, 19-20=-247/408, 18-19=-247/408, 16-18=-247/408  
WEBS 9-24=-311/216, 3-29=-255/242, 15-18=-255/238

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 8-1-3, Corner(3) 8-1-3 to 16-10-13, Exterior(2) 16-10-13 to 21-5-11, Corner(3) 21-5-11 to 25-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16 except (jt=1b) 2=138, 25=132, 26=150, 27=145, 28=129, 29=240, 22=129, 21=152, 20=145, 19=129, 18=236.



June 3, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job	Truss	Truss Type	Qty	Ply	Ben Stout/38 Blackberry Manor/Harnett	E14472575
J0320-1195	A1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:55:43 2020 Page 2  
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**NOTES-**

10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss A2	Truss Type COMMON	Qty 5	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472576
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:55:56 2020 Page 1

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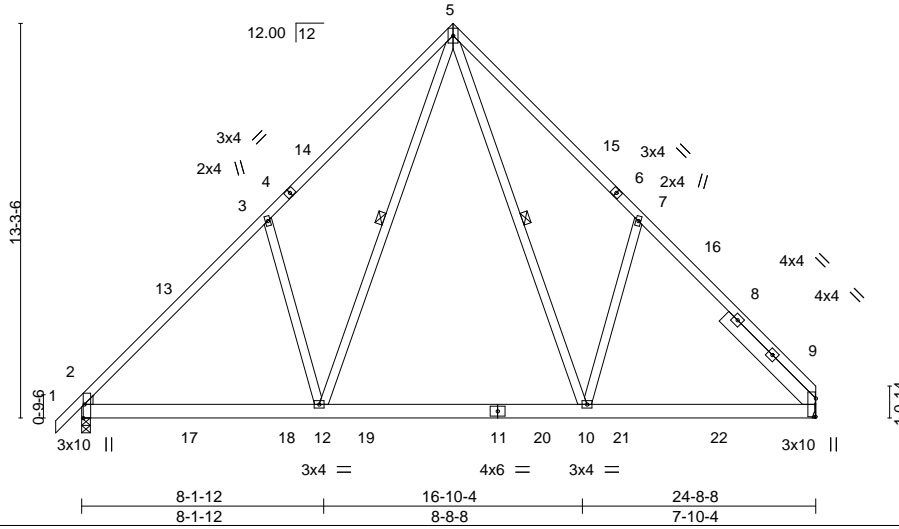


Plate Offsets (X,Y)-- [2:0-0-9,0-0-9], [2:0-1-1,0-3-7], [2:0-5-8,Edge], [9:0-7-7,0-0-3]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.06 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.11 10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37	Horz(CT)	0.02 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.03 2-12	>999	240		
								Weight: 181 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2  
 SLIDER Right 2x6 SP No.1 -H 4-3-6

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-10, 5-12

**REACTIONS.**

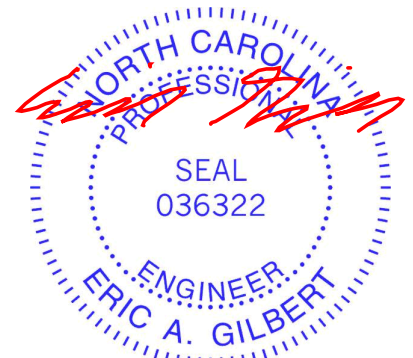
(size) 2=0-3-8, 9=Mechanical  
 Max Horz 2=317(LC 7)  
 Max Uplift 2=-68(LC 10), 9=-60(LC 10)  
 Max Grav 2=1124(LC 17), 9=1077(LC 17)

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

TOP CHORD 2-3=-1307/311, 3-5=-1218/547, 5-7=-1185/547, 7-9=-1278/310  
 BOT CHORD 2-12=-119/975, 10-12=-23/631, 9-10=-54/819  
 WEBS 3-12=-477/362, 5-10=-298/709, 7-10=-469/375, 5-12=-294/759

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-3, Exterior(2) 8-1-3 to 16-10-13, Interior(1) 16-10-13 to 20-3-11, Exterior(2) 20-3-11 to 24-8-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.



June 3, 2020

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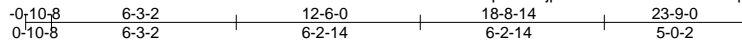


818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss A3	Truss Type COMMON	Qty 2	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472577
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:26 2020 Page 1  
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4x6 ||

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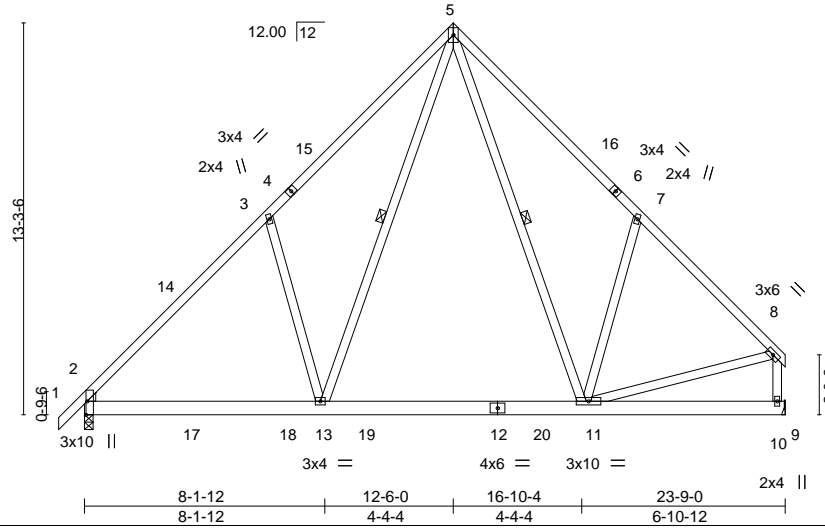


Plate Offsets (X,Y)-- [2:0-0-9,0-0-9], [2:0-1-1,0-3-7], [2:0-5-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.07 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.12 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.38	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 2-13	>999	240		
								Weight: 179 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-11, 5-13

**REACTIONS.**

(size) 2=0-3-8, 10=Mechanical  
Max Horz 2=314(LC 7)  
Max Uplift 2=-63(LC 10), 10=-64(LC 10)  
Max Grav 2=1054(LC 17), 10=977(LC 17)

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

TOP CHORD 2-3=-1217/296, 3-5=-1154/533, 5-7=-1060/525, 7-8=-1003/273, 8-10=-938/255  
BOT CHORD 2-13=-130/900, 11-13=-27/548  
WEBS 3-13=-480/362, 8-11=-75/682, 5-11=-269/512, 7-11=-488/378, 5-13=-295/782

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-3, Exterior(2) 8-1-3 to 16-10-13, Interior(1) 16-10-13 to 18-9-6, Exterior(2) 18-9-6 to 23-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



June 3,2020

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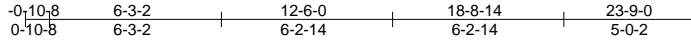
818 Soundside Road  
Edenton, NC 27932

Job J0320-1195	Truss A3A	Truss Type COMMON	Qty 7	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472578
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:31 2020 Page 1

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4x6 ||

Scale = 1:83.9

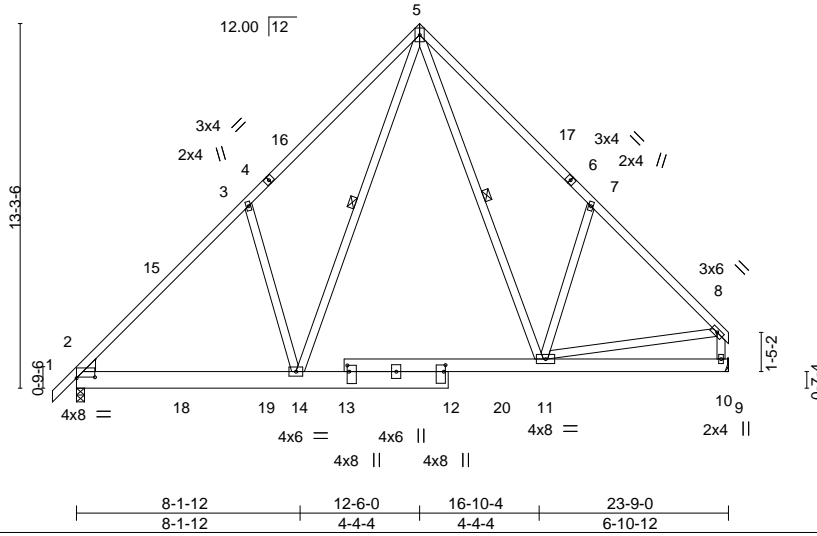


Plate Offsets (X,Y)-- [2:0-8-0,0-0-7], [12:0-2-14,0-0-12], [13:0-2-12,0-0-11]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.05 11-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.09 11-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02 2-14	>999	240		
								Weight: 195 lb	FT = 20%

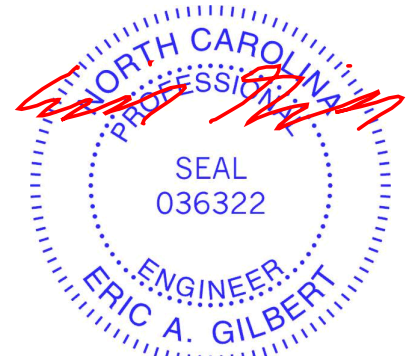
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x8 SP No.1 \*Except\*  
9-13: 2x6 SP No.1  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x6 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-11, 5-14

**REACTIONS.** (size) 2=0-3-8, 10=Mechanical  
Max Horz 2=314(LC 7)  
Max Uplift 2=-64(LC 10), 10=-63(LC 10)  
Max Grav 2=1046(LC 17), 10=971(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1205/298, 3-5=-1154/532, 5-7=-1086/513, 7-8=-1071/288, 8-10=-923/258  
BOT CHORD 2-14=-129/895, 11-14=-28/562  
WEBS 3-14=-475/358, 8-11=-72/685, 5-11=-254/553, 7-11=-470/364, 5-14=-299/729

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-3, Exterior(2) 8-1-3 to 16-10-13, Interior(1) 16-10-13 to 18-9-7, Exterior(2) 18-9-7 to 23-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.

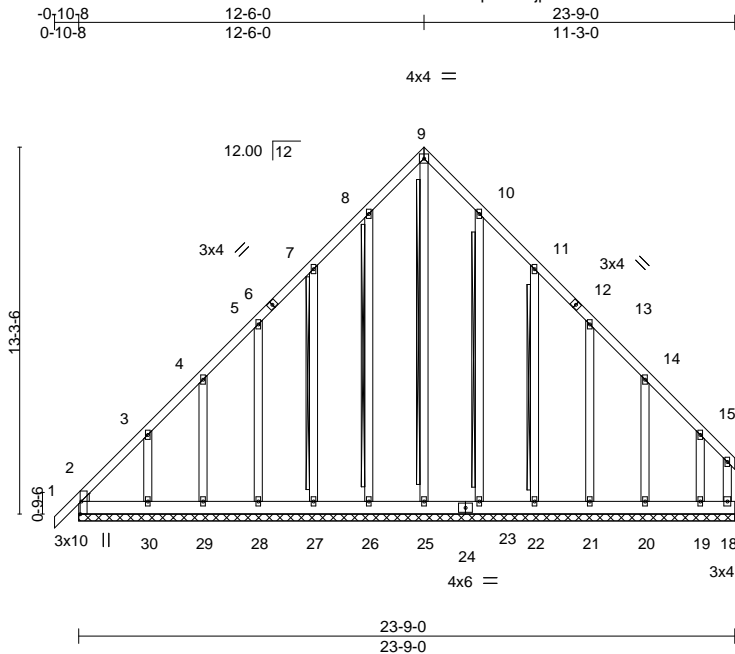


June 3, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job J0320-1195	Truss A3GE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472579
Comtech, Inc., Fayetteville, NC - 28314,					8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:35 2020 Page 1	
					ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-JsQDmdhkHDm2vWtx27SinZILu_1dZxP4vn4koCz9ykA	
					Job Reference (optional)	



Scale = 1:83.4

Plate Offsets (X,Y)--	[2:0-0-9,0-0-9], [2:0-1-1,0-3-7], [2:0-5-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.60	Horz(CT) 0.00 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 227 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 9-25, 8-26, 7-27, 10-23, 11-22
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.2	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

**REACTIONS.** All bearings 23-9-0.  
 (lb) - Max Horz 2=389(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except 18=126(LC 9), 2=-275(LC 6), 25=-173(LC 9), 26=-124(LC 10), 27=-153(LC 10), 28=-145(LC 10), 29=-129(LC 10), 30=-230(LC 10), 23=-106(LC 11), 22=-161(LC 11), 21=-144(LC 11), 20=-127(LC 11), 19=-353(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 26, 27, 28, 29, 23, 22, 21, 20, 19 except 18=298(LC 11), 2=357(LC 9), 25=679(LC 11), 30=269(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-489/458, 3-4=-377/367, 4-5=-339/359, 5-7=-302/407, 7-8=-348/494, 8-9=-431/539, 9-10=-431/515, 10-11=-348/408, 11-13=-234/267  
 WEBS 9-25=-659/460

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 8-1-3, Corner(3) 8-1-3 to 16-10-13, Exterior(2) 16-10-13 to 19-0-15, Corner(3) 19-0-15 to 23-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 18, 275 lb uplift at joint 2, 173 lb uplift at joint 25, 124 lb uplift at joint 26, 153 lb uplift at joint 27, 145 lb uplift at joint 28, 129 lb uplift at joint 29, 230 lb uplift at joint 30, 106 lb uplift at joint 23, 161 lb uplift at joint 22, 144 lb uplift at joint 21, 127 lb uplift at joint 20 and 353 lb uplift at joint 19.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

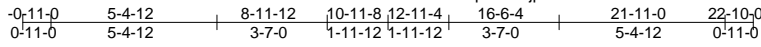


Job J0320-1195	Truss B1	Truss Type ATTIC	Qty 2	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472580
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:55 2020 Page 1

ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-kidnzTxHZMHDlBpNdKpObn7im2lQF5b0VuvuU2z9yjs



6x8 =

Scale = 1:74.9

Plate Offsets (X,Y)-- [4:0-4-0,Edge], [7:0-4-0,Edge], [10:0-4-0,Edge], [14:0-5-0,0-7-0], [15:0-4-0,0-4-12], [16:0-4-0,0-4-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.12	14-16	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.21	14-16	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05	16	>999		
								Weight: 273 lb	FT = 20%

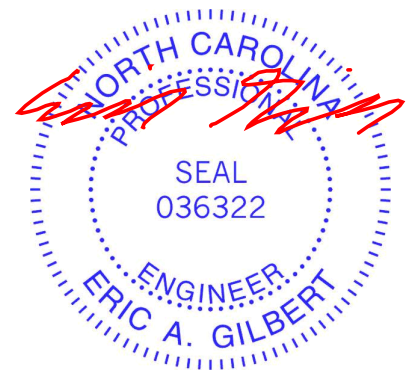
**LUMBER-**  
TOP CHORD 2x10 SP No.1 \*Except\*  
1-4,10-13: 2x6 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x6 SP No.1  
SLIDER Left 2x6 SP No.1 -H 3-1-11, Right 2x6 SP No.1 -H 3-1-11

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
Max Horz 2=-281(LC 6)  
Max Grav 2=1445(LC 18), 12=1445(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-1862/27, 5-6=-1034/206, 6-7=-67/399, 7-8=-67/400, 8-9=-1033/206, 9-12=-1860/27  
BOT CHORD 2-16=0/1087, 14-16=0/1092, 12-14=0/1086  
WEBS 6-8=-1521/416, 5-16=0/948, 9-14=0/948

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) 0-9-2 to 3-7-11, Exterior(2) 3-7-11 to 6-7-3, Corner(3) 6-7-3 to 15-4-13, Exterior(2) 15-4-13 to 18-4-5, Corner(3) 18-4-5 to 22-9-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x6 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 5-6, 8-9, 6-8; Wall dead load (5.0psf) on member(s).5-16, 9-14
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-16
  - Attic room checked for L/360 deflection.

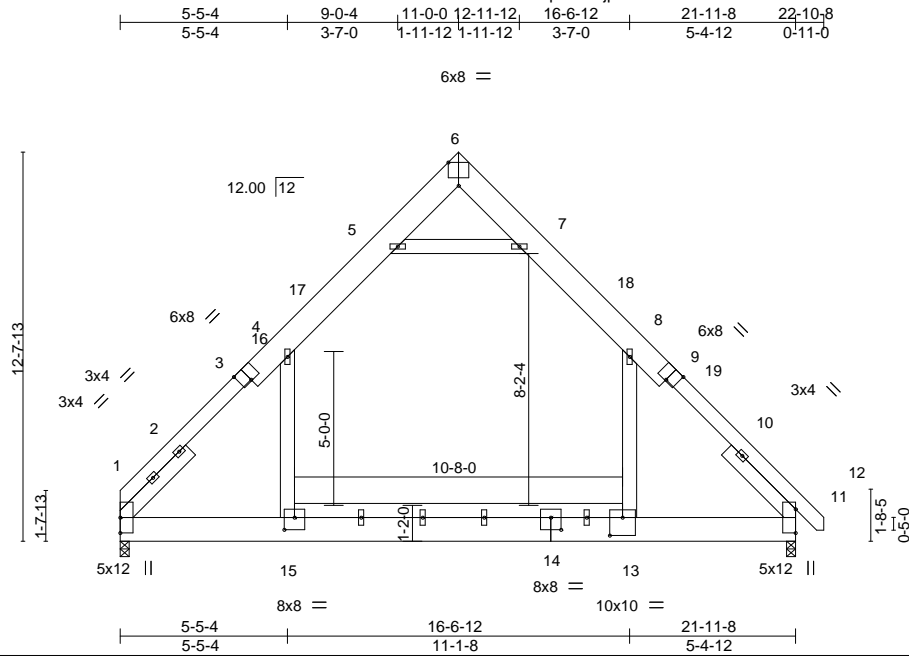


June 3,2020

Job J0320-1195	Truss B2	Truss Type ATTIC	Qty 2	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472581
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:05 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-ReEZ3u3YCRYoV7AioR\_k?uYO64Akb1UoSLLrTz9yji



Scale = 1:74.9

Plate Offsets (X,Y)-- [3:0-4-0,Edge], [6:0-4-0,Edge], [9:0-4-0,Edge], [13:0-5-0,0-7-0], [14:0-4-0,0-4-12], [15:0-4-0,0-4-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.13	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.21	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.05	15	>999		
								Weight: 271 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP No.1 \*Except\*  
1-3,9-12: 2x6 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x6 SP No.1  
SLIDER Left 2x6 SP No.1 -H 3-2-1, Right 2x6 SP No.1 -H 3-1-11

**BRACING-**

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

**REACTIONS.**

(size) 1=0-3-8, 11=0-3-8  
Max Horz 1=284(LC 7)  
Max Grav 1=1413(LC 19), 11=1448(LC 19)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-4=-1862/0, 4-5=-1038/189, 5-6=-54/408, 6-7=-56/407, 7-8=-1036/187, 8-11=-1871/12  
BOT CHORD 1-15=0/1094, 13-15=0/1099, 11-13=0/1093  
WEBS 5-7=-1541/374, 4-15=0/936, 8-13=0/956

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 6-7-3, Exterior(2) 6-7-3 to 15-4-13, Interior(1) 15-4-13 to 18-4-5, Exterior(2) 18-4-5 to 22-9-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-15, 8-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
- Attic room checked for L/360 deflection.



June 3, 2020

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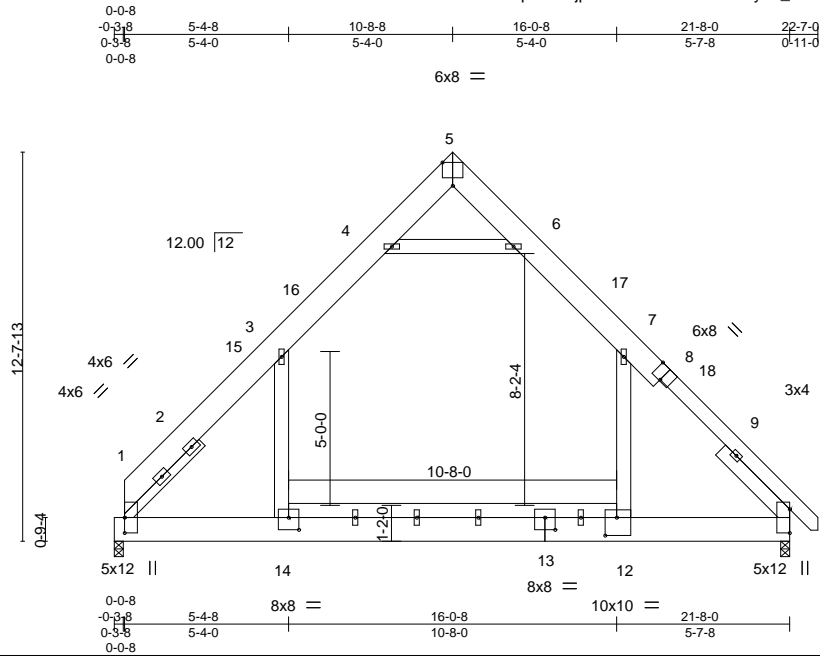
818 Soundside Road  
Edenton, NC 27932

Job J0320-1195	Truss B3	Truss Type ROOF TRUSS	Qty 3	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472582
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:17 2020 Page 1

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Scale = 1:74.9

Plate Offsets (X,Y)-- [1:0-6-0,0-0-0], [5:0-4-0,Edge], [8:0-4-0,Edge], [12:0-4-8,0-7-0], [13:0-4-0,0-4-12], [14:0-4-0,0-4-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.12	12-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.20	12-14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.05	12	>999		
								Weight: 278 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x10 SP No.1 \*Except\*  
8-11: 2x6 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x6 SP No.1  
SLIDER Left 2x4 SP No.2 -H 3-6-1, Right 2x6 SP No.1 -H 3-1-11

**BRACING-**

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

**REACTIONS.**

(size) 1=0-3-8, 10=0-3-8  
Max Horz 1=284(LC 7)  
Max Grav 1=1414(LC 19), 10=1426(LC 19)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1889/0, 3-4=-1018/178, 4-5=-37/361, 5-6=-34/384, 6-7=-1015/188, 7-10=-1808/0  
BOT CHORD 1-14=0/1054, 12-14=0/1059, 10-12=0/1054  
WEBS 3-14=0/998, 7-12=0/915, 4-6=-1472/333

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-8 to 4-5-5, Interior(1) 4-5-5 to 6-3-11, Exterior(2) 6-3-11 to 15-1-5, Interior(1) 15-1-5 to 18-0-13, Exterior(2) 18-0-13 to 22-5-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 3-4, 6-7, 4-6; Wall dead load (5.0psf) on member(s).3-14, 7-12
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
- Attic room checked for L/360 deflection.



June 3,2020

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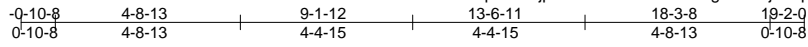
818 Soundside Road  
Edenton, NC 27932

Job J0320-1195	Truss C1	Truss Type QUEENPOST	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472583
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:26 2020 Page 1

ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-Kg?VT3JjGtBpWMGkXLSfMKw4JYOR02DadDxx4iz9yjN



5x5 =

Scale = 1:59.0

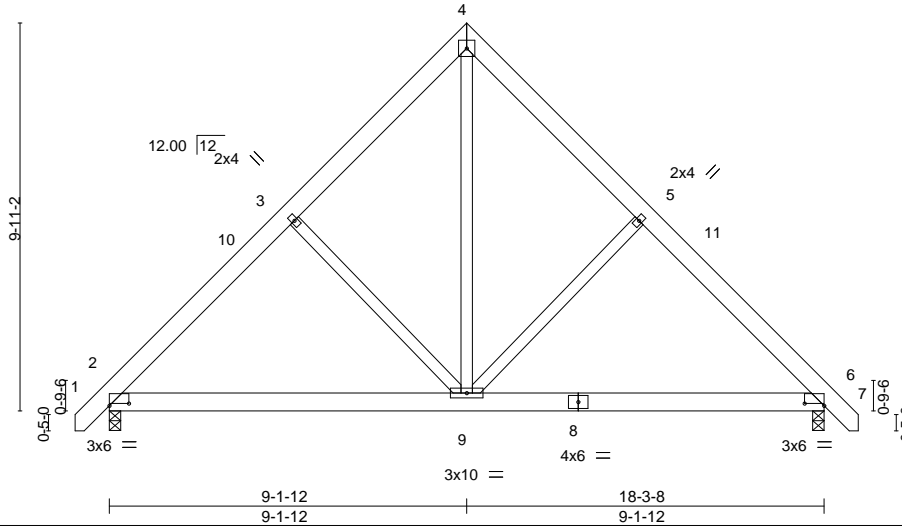


Plate Offsets (X,Y)-- [2:0-6-0,0-0-11], [6:0-6-0,0-0-11]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.10	Vert(LL) -0.03	2-9	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.26	Vert(CT) -0.07	2-9	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.01	2-9	>999	240		
	Code IRC2015/TPI2014						Weight: 142 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 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) 6=0-3-8, 2=0-3-8  
 Max Horz 2=-237(LC 8)  
 Max Uplift 6=-52(LC 11), 2=-52(LC 10)  
 Max Grav 6=774(LC 1), 2=774(LC 1)

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

TOP CHORD 2-3=-794/252, 3-4=-686/302, 4-5=-686/302, 5-6=-794/252  
 BOT CHORD 2-9=-87/582, 6-9=-24/499  
 WEBS 3-9=-322/252, 4-9=-269/689, 5-9=-322/252

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 4-6-15, Exterior(2) 4-6-15 to 13-8-9, Interior(1) 13-8-9 to 14-7-13, Exterior(2) 14-7-13 to 19-0-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 6 and 52 lb uplift at joint 2.



June 3, 2020

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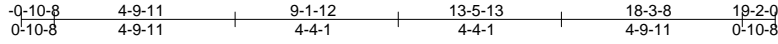
818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss C1A	Truss Type QUEENPOST	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472584
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:35 2020 Page 1

ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-ZP2vM8QN8eKX6kSTZkXmDDncdAT6d8avi6cvvkz9yjE



5x5 =

Scale = 1:61.3

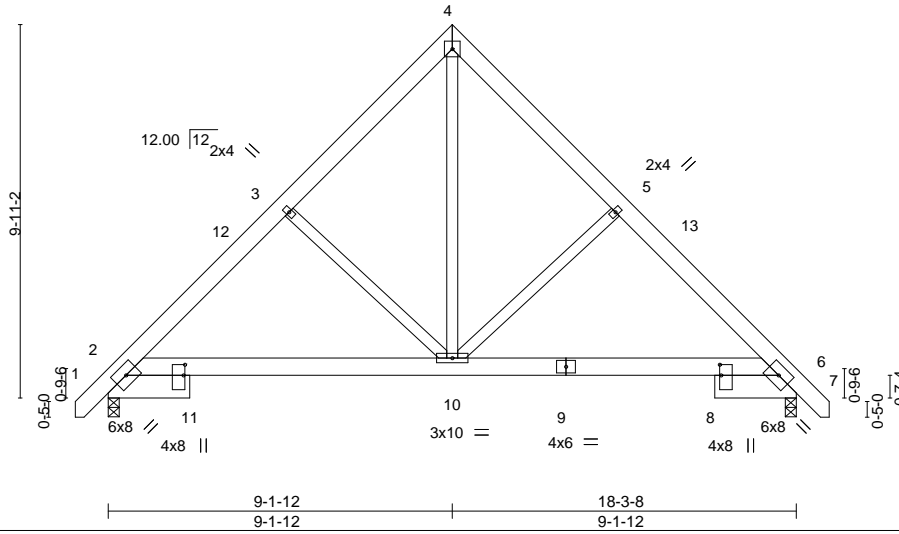


Plate Offsets (X,Y)-- [8:0-3-6,0-0-7], [11:0-3-6,0-0-7]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.04	6-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.09	6-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02	2-10	>999		
								Weight: 151 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP No.1 \*Except\*  
 6-9,2-9: 2x6 SP No.1  
 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.**

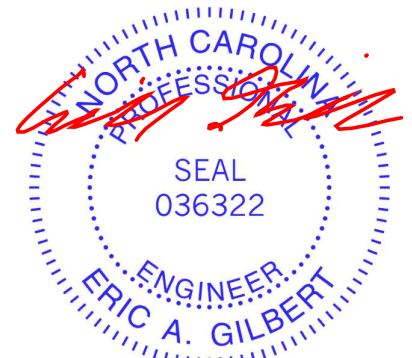
(size) 6=0-3-8, 2=0-3-8  
 Max Horz 2=-237(LC 8)  
 Max Uplift 6=-52(LC 11), 2=-52(LC 10)  
 Max Grav 6=774(LC 1), 2=774(LC 1)

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

TOP CHORD 2-3=-855/255, 3-4=-720/290, 4-5=-720/290, 5-6=-855/255  
 BOT CHORD 2-10=-97/642, 6-10=-28/553  
 WEBS 3-10=-328/242, 4-10=-252/741, 5-10=-328/242

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 4-7-11, Exterior(2) 4-7-11 to 13-7-13, Interior(1) 13-7-13 to 14-7-13, Exterior(2) 14-7-13 to 19-0-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 6 and 52 lb uplift at joint 2.



June 3, 2020

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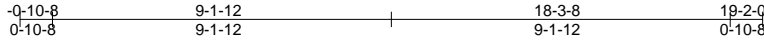


818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss C1GE	Truss Type GABLE	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472585
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:45 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-GKfgSZYenja7IHDO8qi7dKCLSCxaziwN?g1RF9z9yj4



Scale = 1:62.2

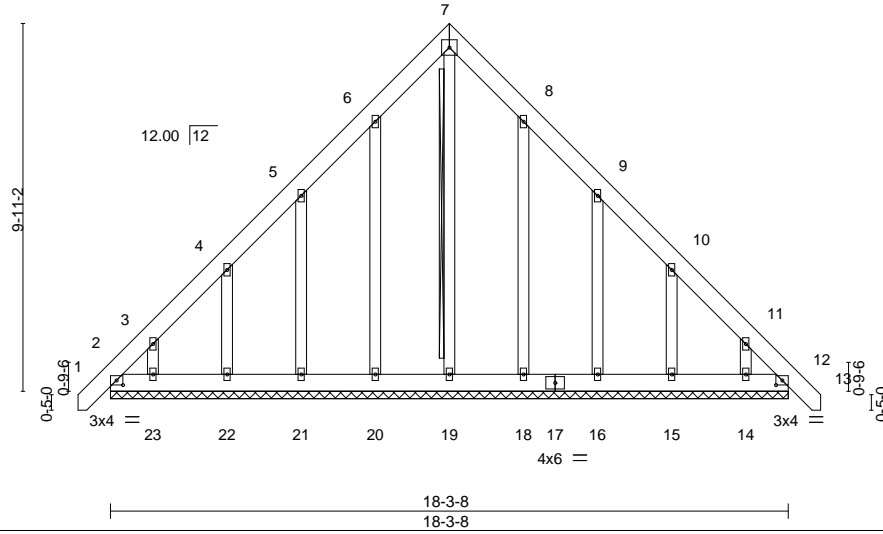


Plate Offsets (X,Y)-- [2:0-2-1,0-1-8], [12:0-2-1,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	12	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	12	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 171 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
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.  
WEBS T-Brace: 2x4 SPF No.2 - 7-19  
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
Brace must cover 90% of web length.

**REACTIONS.** All bearings 18-3-8.  
(lb) - Max Horz 2=-297(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 12 except 20=-117(LC 10), 21=-155(LC 10), 22=-147(LC 10), 23=-163(LC 10), 18=-110(LC 11), 16=-157(LC 11), 15=-147(LC 11), 14=-158(LC 11), 2=-128(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 12, 19, 20, 21, 22, 23, 18, 16, 15, 14 except 2=281(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-410/249, 3-4=-277/188, 11-12=-367/249  
BOT CHORD 2-23=-158/289, 22-23=-160/290, 21-22=-161/290, 20-21=-161/291, 19-20=-162/291, 18-19=-162/291, 16-18=-161/291, 15-16=-161/290, 14-15=-160/289, 12-14=-158/287

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-2 to 3-7-11, Exterior(2) 3-7-11 to 4-8-15, Corner(3) 4-8-15 to 13-6-9, Exterior(2) 13-6-9 to 14-7-13, Corner(3) 14-7-13 to 19-0-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 20=117, 21=155, 22=147, 23=163, 18=110, 16=157, 15=147, 14=158, 2=128.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 3, 2020

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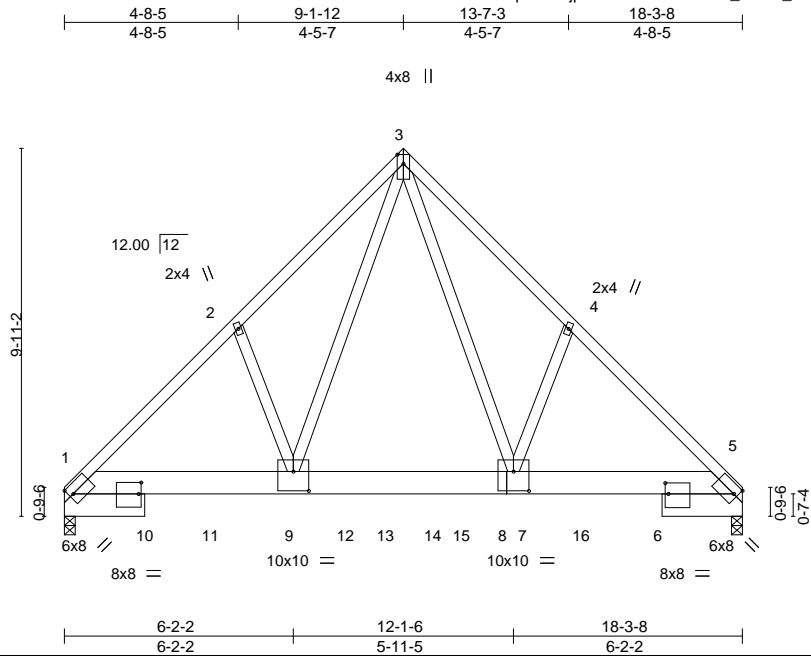


818 Soundside Road  
Edenton, NC 27932

Job J0320-1195	Truss C2GDR	Truss Type FINK	Qty 1	Ply 2	Ben Stout/38 Blackberry Manor/Harnett	E14472586
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:55 2020 Page 1  
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Scale = 1:62.2

Plate Offsets (X,Y)--	[1:0-1-4,Edge], [5:0-1-4,Edge], [6:0-1-0,0-3-9], [7:0-5-0,0-6-4], [8:0-0-0,0-3-10], [9:0-5-0,0-6-4], [10:0-0-13,0-3-11]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.07 5-7 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 1.00	Vert(CT) -0.15 5-7 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.45	Horz(CT) 0.08 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05 5-7 >999 240	Weight: 293 lb	FT = 20%

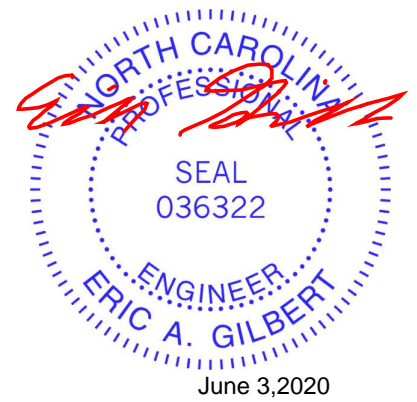
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-6-5 oc purlins.
BOT CHORD 2x8 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-226(LC 25)  
 Max Uplift 1=-341(LC 9), 5=-402(LC 8)  
 Max Grav 1=4441(LC 1), 5=5263(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5375/436, 2-3=-5182/558, 3-4=-5122/534, 4-5=-5315/450  
 BOT CHORD 1-9=-339/3586, 7-9=-180/2417, 5-7=-243/3544  
 WEBS 2-9=-248/345, 3-9=-425/3695, 3-7=-401/3564, 4-7=-250/344

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=341, 5=402.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 917 lb down and 84 lb up at 1-11-4, 917 lb down and 83 lb up at 3-11-4, 917 lb down and 83 lb up at 5-11-4, 917 lb down and 83 lb up at 7-11-4, 917 lb down and 83 lb up at 9-11-4, 917 lb down and 83 lb up at 11-11-4, 917 lb down and 83 lb up at 13-11-4, and 917 lb down and 83 lb up at 15-11-4, and 925 lb down and 76 lb up at 18-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 1-3=-60, 3-5=-60



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Ben Stout/38 Blackberry Manor/Harnett	E14472586
J0320-1195	C2GDR	FINK	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:57:55 2020 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 10=-917(F) 5=-925(F) 9=-917(F) 6=-917(F) 8=-917(F) 11=-917(F) 13=-917(F) 14=-917(F) 16=-917(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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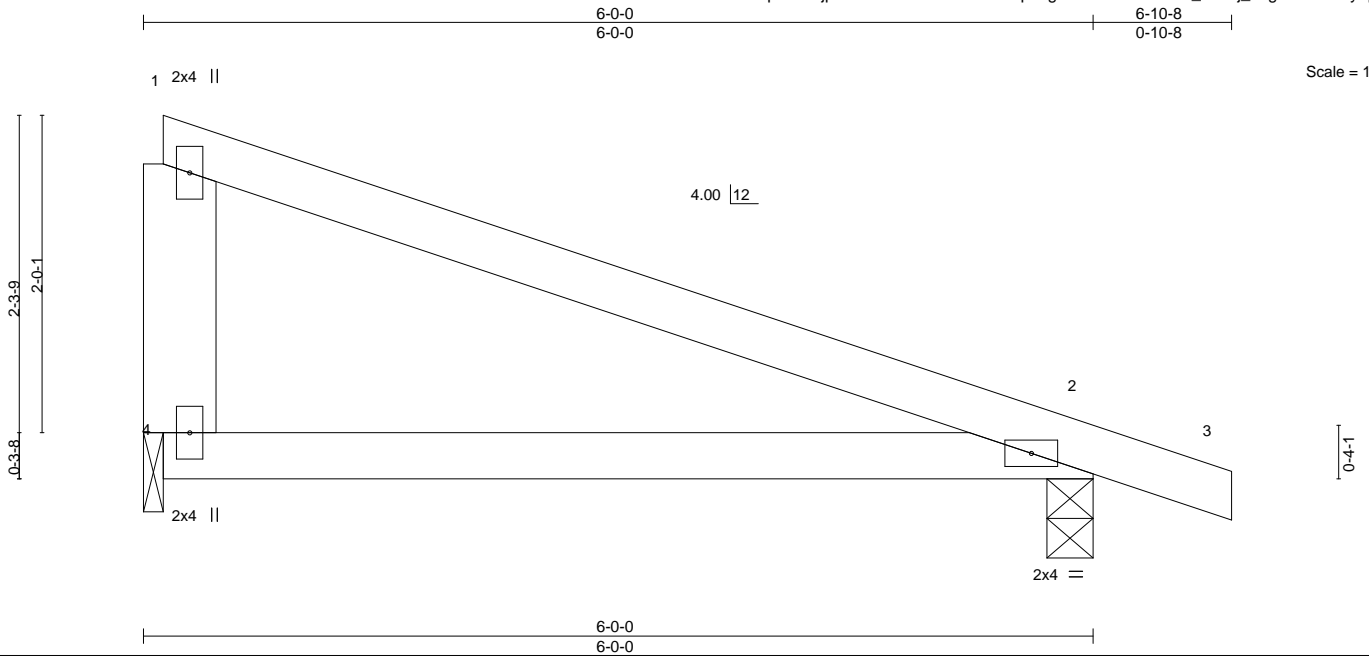
818 Soundside Road  
 Edenton, NC 27932



Job J0320-1195	Truss M1	Truss Type ROOF SPECIAL	Qty 8	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472587
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:58:01 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-oPdkp1kg0ebrDkST4B?tGis\_GfL9j\_1kg9wHoDz9yiq



Scale = 1:14.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	Vert(LL) -0.05	2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.29	Vert(CT) -0.11	2-4	>642	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	2	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.00	4	****	240	Weight: 23 lb	FT = 20%
	Code IRC2015/TPI2014							

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x6 SP No.1

#### BRACING-

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

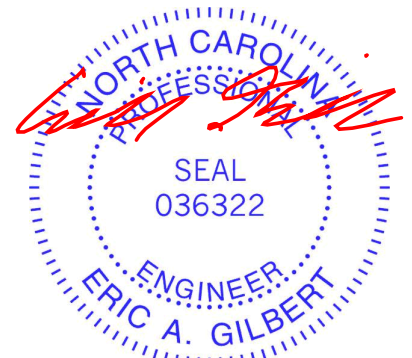
#### REACTIONS.

(size) 2=0-3-8, 4=0-1-8  
Max Horz 4=-76(LC 7)  
Max Uplift 2=-59(LC 7), 4=-40(LC 11)  
Max Grav 2=292(LC 1), 4=219(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



June 3, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

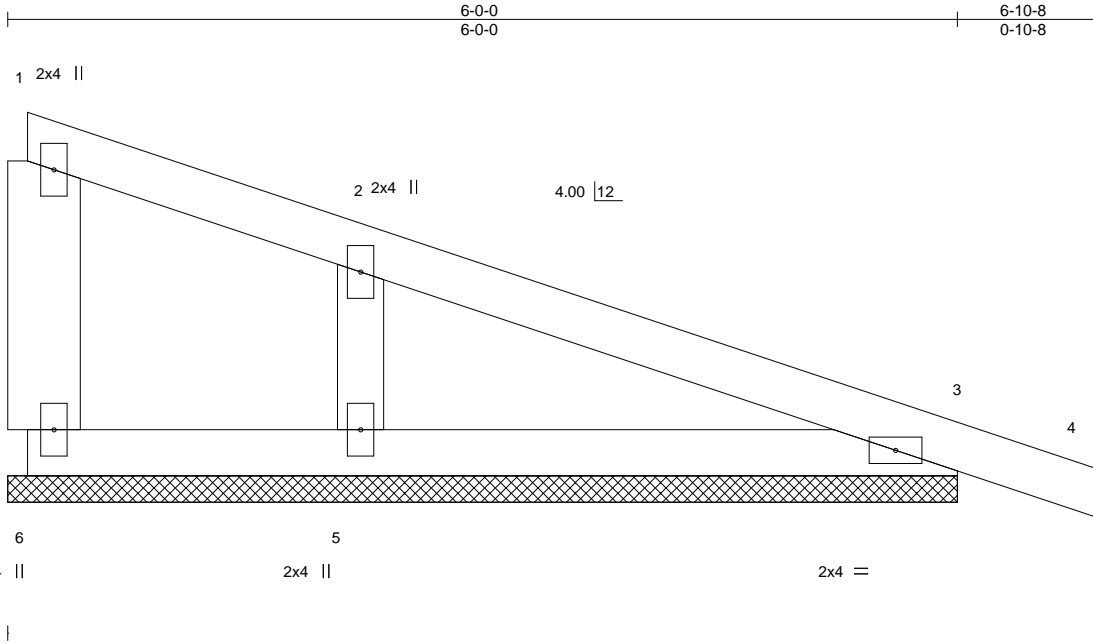
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job J0320-1195	Truss M1GE	Truss Type GABLE	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472588
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:58:21 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-DFqH0tzDjn70dpzJFOMZ4whSwjD8O?yGmLW3z9yiW



Scale = 1:14.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL) -0.00	4	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT) -0.00	3	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 25 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x6 SP No.1  
 OTHERS 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) 6=6-0-0, 3=6-0-0, 5=6-0-0  
 Max Horz 6=-108(LC 7)  
 Max Uplift 6=-14(LC 7), 3=-67(LC 7), 5=-112(LC 11)  
 Max Grav 6=31(LC 1), 3=183(LC 1), 5=300(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-5=-222/373

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; 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) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 3 except (jt=lb) 5=112.



June 3, 2020

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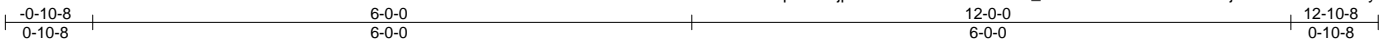


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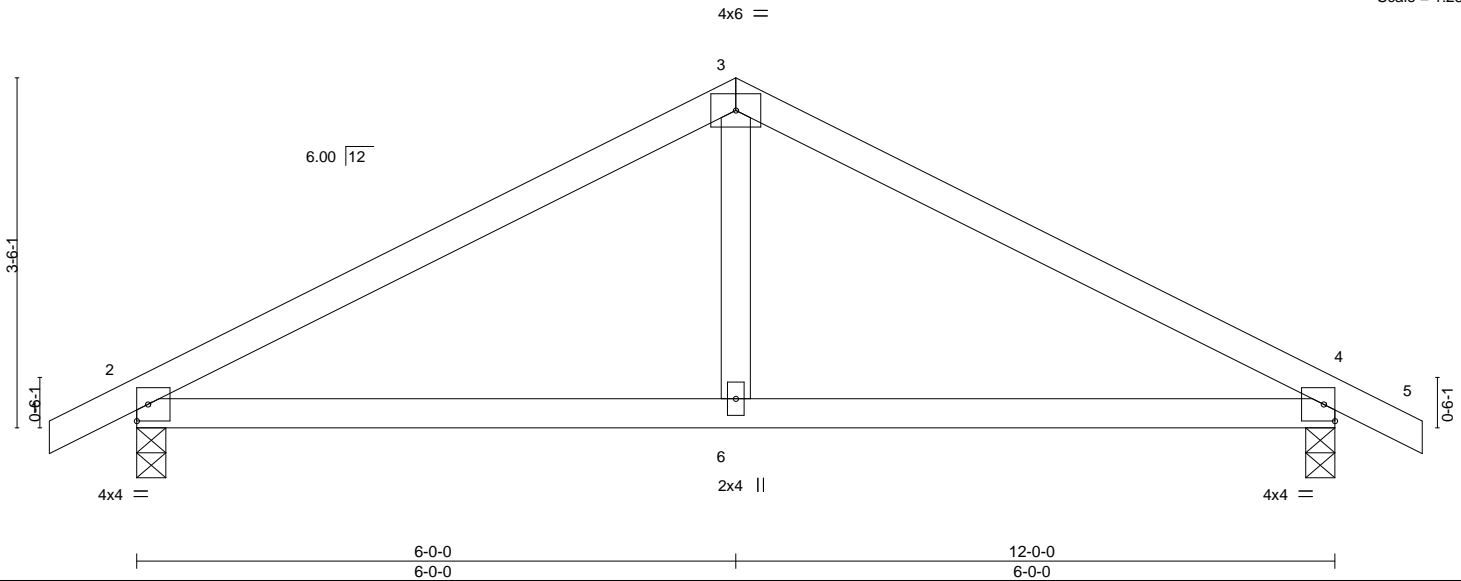
Job J0320-1195	Truss P1	Truss Type COMMON	Qty 5	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472589
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:58:59 2020 Page 1  
ID:7ZH02pw3t1Ljp9xzPdQGc5zQRh7-6Z7f\_sR3MSvdBetcUN1TdxGvj18tIBJG0BzMrsz9yhw



Scale = 1:23.1



LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.28	Vert(LL) 0.07 2-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Vert(CT) -0.06 2-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a		
	Code IRC2015/TPI2014			Weight: 45 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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 8-4-12 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=45(LC 9)  
Max Uplift 2=-119(LC 7), 4=-119(LC 6)  
Max Grav 2=530(LC 1), 4=530(LC 1)

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

TOP CHORD 2-3=-638/715, 3-4=-638/715  
BOT CHORD 2-6=-505/489, 4-6=-505/489  
WEBS 3-6=-384/284

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 4=119.



June 3, 2020

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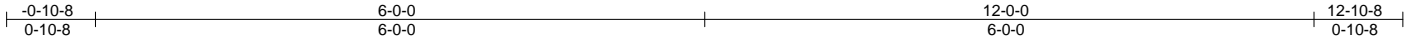


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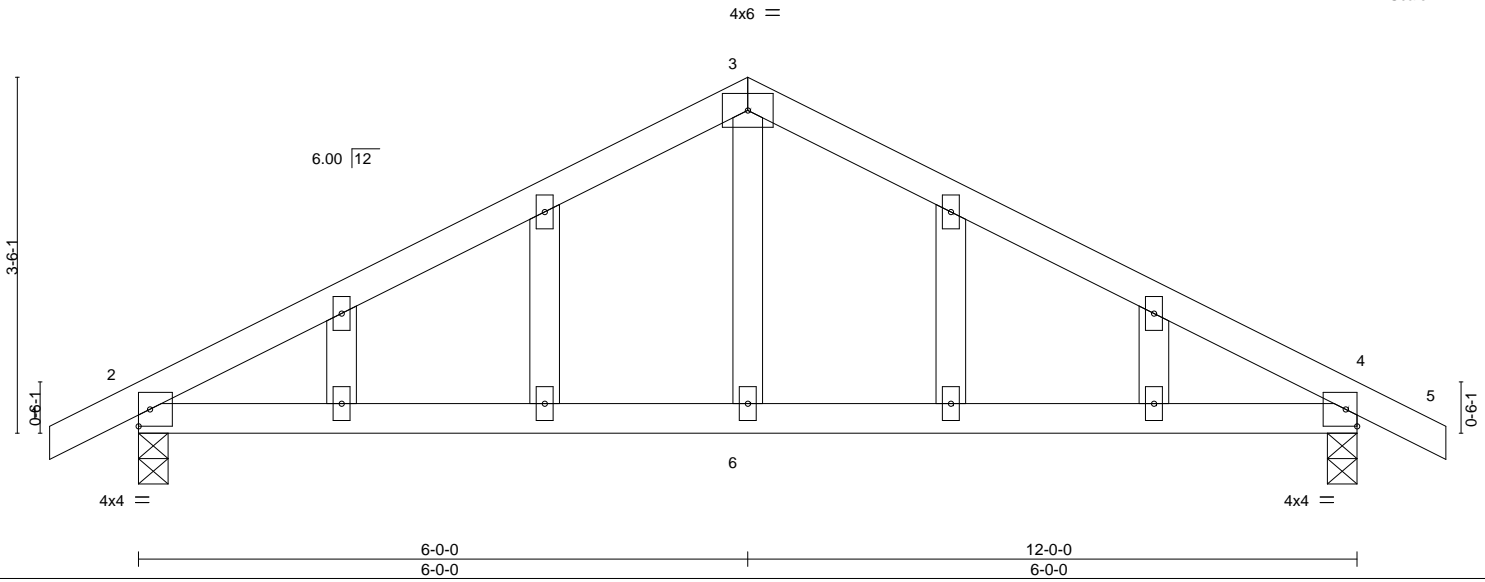
Job J0320-1195	Truss P1GE	Truss Type GABLE	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472590
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:59:07 2020 Page 1  
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Scale = 1:22.7



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.28	Vert(LL) -0.02 2-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.06 2-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 4 n/a n/a	Weight: 54 lb	FT = 20%
	Code IRC2015/TPI2014		Wind(LL) 0.03 2-6 >999 240		

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 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) 2=0-3-8, 4=0-3-8  
 Max Horz 2=70(LC 14)  
 Max Uplift 2=-137(LC 10), 4=-137(LC 11)  
 Max Grav 2=530(LC 1), 4=530(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-638/482, 3-4=-638/482  
 BOT CHORD 2-6=-241/489, 4-6=-241/489  
 WEBS 3-6=0/284

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 4=137.



June 3, 2020

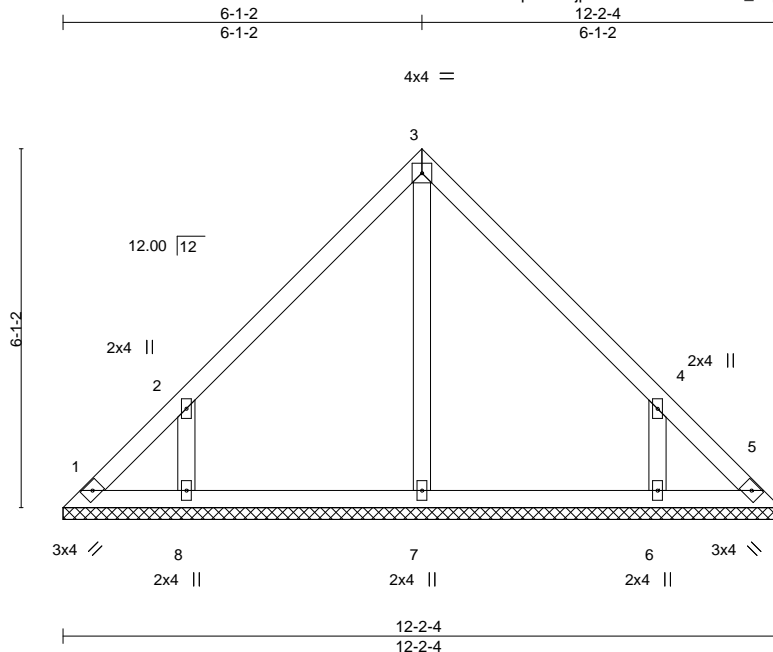
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job J0320-1195	Truss VC1	Truss Type VALLEY	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472591
					Job Reference (optional)	

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8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:59:22 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-x\_0LpkjUxXoMRB81Kiys2njtRJ1IBbsfJG1391z9yhZ



Scale = 1:39.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 55 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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.** All bearings 12-2-4.  
(lb) - Max Horz 1=-138(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-167(LC 10), 6=-167(LC 11)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=338(LC 17), 6=338(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-355/300, 4-6=-355/300

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=167, 6=167.



June 3, 2020

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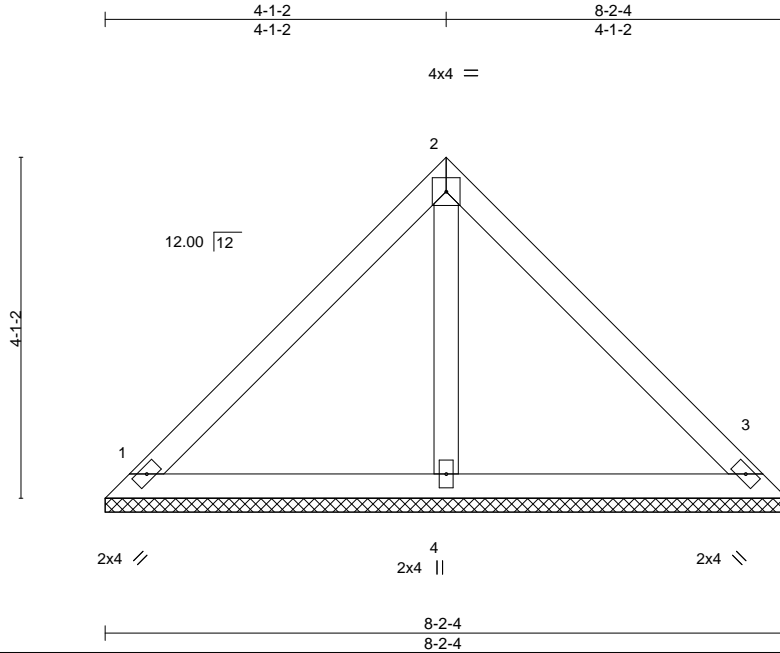
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**TRENCO**  
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Edenton, NC 27932

Job J0320-1195	Truss VC2	Truss Type VALLEY	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472592
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8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:59:30 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-iXVNVTPV3\_pDPPlaoO5kNT2EsXmx3EWq8VzVRZz9yhR



Scale = 1:27.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 33 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
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=8-2-4, 3=8-2-4, 4=8-2-4  
Max Horz 1=90(LC 6)  
Max Uplift 1=35(LC 11), 3=35(LC 11)  
Max Grav 1=182(LC 1), 3=182(LC 1), 4=234(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



June 3, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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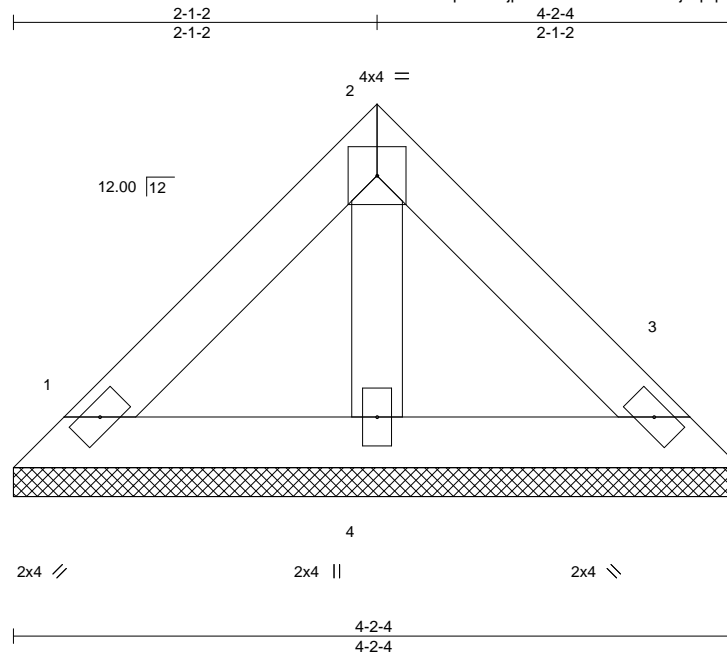


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Job J0320-1195	Truss VC3	Truss Type VALLEY	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472593
					Job Reference (optional)	

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8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:59:31 2020 Page 1  
ID:7ZHO2pw3t1Ljp9xzPdQGc5zQRh7-Aj3lipq7qHx40ZKmM5czwhbSbx7RohB\_N9j2z?z9yhQ



Scale = 1:13.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 16 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

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

**REACTIONS.** (size) 1=4-2-4, 3=4-2-4, 4=4-2-4  
 Max Horz 1=42(LC 6)  
 Max Uplift 1=16(LC 11), 3=16(LC 11)  
 Max Grav 1=85(LC 1), 3=85(LC 1), 4=109(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



June 3,2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

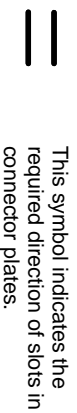
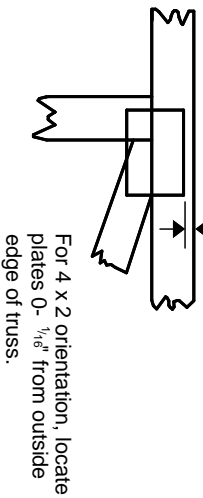
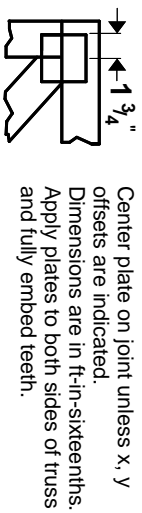
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION

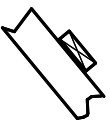


\* Plate location details available in **MITrak 20/20 software or upon request.**

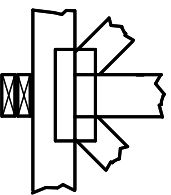
## PLATE SIZE

**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



## BEARING

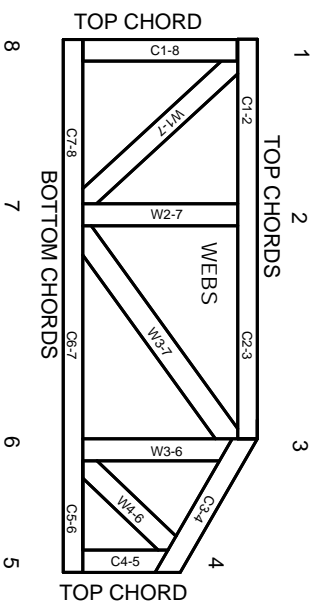


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: 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.

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MITek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# 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.