

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: B0120-0229  
Southport A-B-D

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: E14048169 thru E14048190

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

North Carolina COA: C-0844



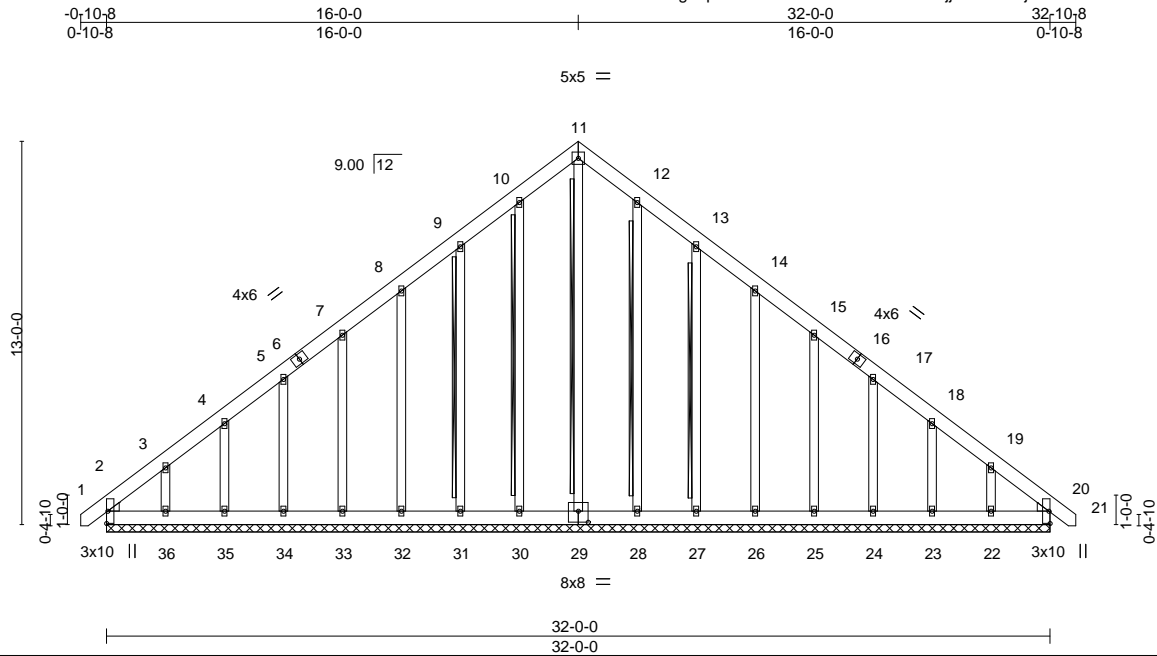
February 7, 2020

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 B0120-0229	Truss A1	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D	E14048169
Comtech, Inc., Fayetteville, NC 28309					Job Reference (optional)	

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:01 2020 Page 1  
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Scale = 1:78.1

Plate Offsets (X,Y)--	[2:0-0-3,0-0-4], [2:0-0-6,0-3-10], [20:0-0-3,0-0-4], [20:0-0-6,0-3-10], [29:0-4-0,0-4-8]				
<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 0.06	Vert(LL) 0.00 20 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 20 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.20	Horz(CT) 0.01 20 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 320 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.3 \*Except\*  
 11-29,10-30,12-28: 2x4 SP No.2

**WEDGE**  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** All bearings 32-0-0.  
 (lb) - Max Horz 2=376(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 30, 33, 34, 35, 28, 25, 24, 23  
 except 2=-142(LC 10), 31=-112(LC 12), 32=-100(LC 12), 36=-192(LC 12),  
 27=-115(LC 13), 26=-100(LC 13), 22=-178(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 33, 34, 35, 36, 25, 24, 23, 22  
 except 2=286(LC 12), 29=308(LC 22), 30=275(LC 19), 31=268(LC 19),  
 32=276(LC 19), 28=260(LC 20), 27=272(LC 20), 26=276(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-466/316, 3-4=-316/246, 9-10=-238/278, 10-11=-275/305, 11-12=-275/305,  
 12-13=-238/256, 19-20=-384/253  
 BOT CHORD 2-36=-205/318, 35-36=-205/318, 34-35=-205/318, 33-34=-205/318, 32-33=-205/318,  
 31-32=-205/318, 30-31=-205/318, 29-30=-205/318, 28-29=-205/318, 27-28=-205/318,  
 26-27=-205/318, 25-26=-205/318, 24-25=-205/318, 23-24=-205/318, 22-23=-205/318,  
 20-22=-205/318

- 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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-9-0 to 3-7-13, Exterior(2) 3-7-13 to 16-0-0, Corner(3) 16-0-0 to 20-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 20, 30, 33, 34, 35, 28, 25, 24, 23 except (jt=lb) 2=142, 31=112, 32=100, 36=192, 27=115, 26=100, 22=178.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

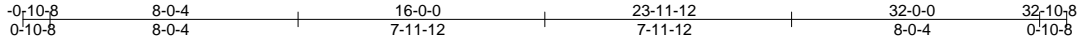


Job B0120-0229	Truss A2	Truss Type COMMON	Qty 3	Ply 1	Southport A-B-D	E14048170
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Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:02 2020 Page 1

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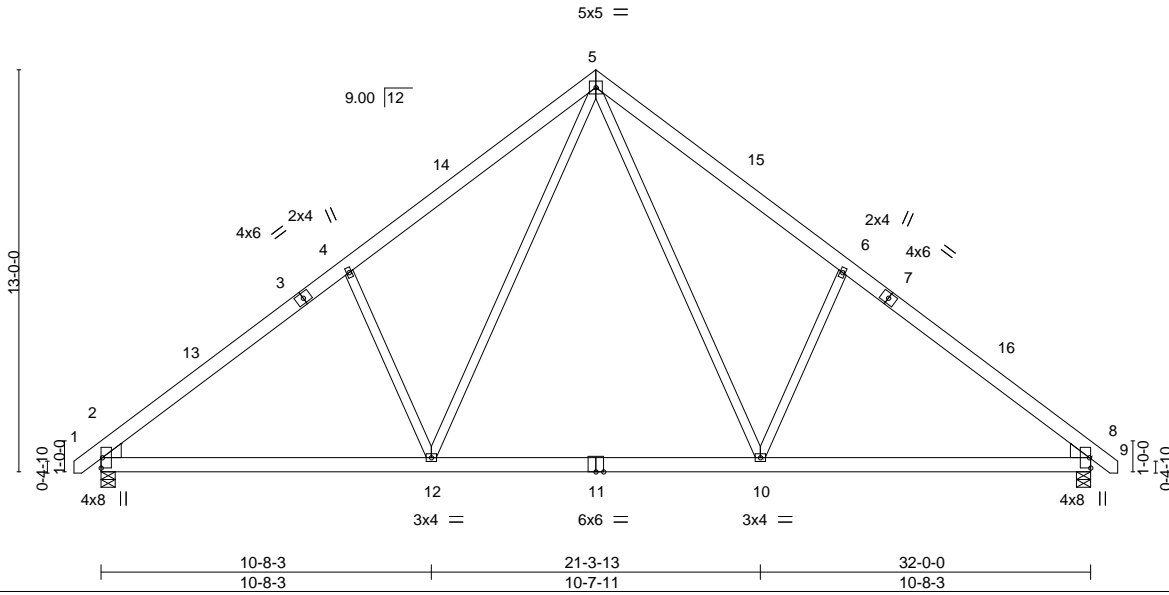


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [8:0-0-3,0-0-4], [8:0-0-6,0-5-6]

<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 0.32	Vert(LL)	-0.29	10-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.35	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.03	8	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.04	2-12	>999		
								Weight: 236 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-6-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1320/0-5-8, 8=1320/0-5-8  
Max Horz 2=301(LC 11)  
Max Uplift 2=-72(LC 12), 8=-72(LC 13)  
Max Grav 2=1456(LC 19), 8=1456(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1893/361, 4-5=-1746/495, 5-6=-1746/495, 6-8=-1894/361  
BOT CHORD 2-12=-124/1564, 10-12=0/1046, 8-10=-124/1386  
WEBS 5-10=-194/933, 6-10=-496/333, 5-12=-194/933, 4-12=-496/333

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 16-0-0, Exterior(2) 16-0-0 to 20-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



February 7, 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.

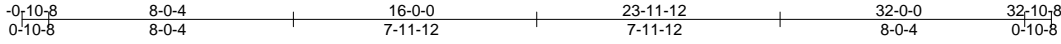
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job B0120-0229	Truss A2-P	Truss Type COMMON	Qty 6	Ply 1	Southport A-B-D	E14048171
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Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:03 2020 Page 1

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Scale = 1:75.5

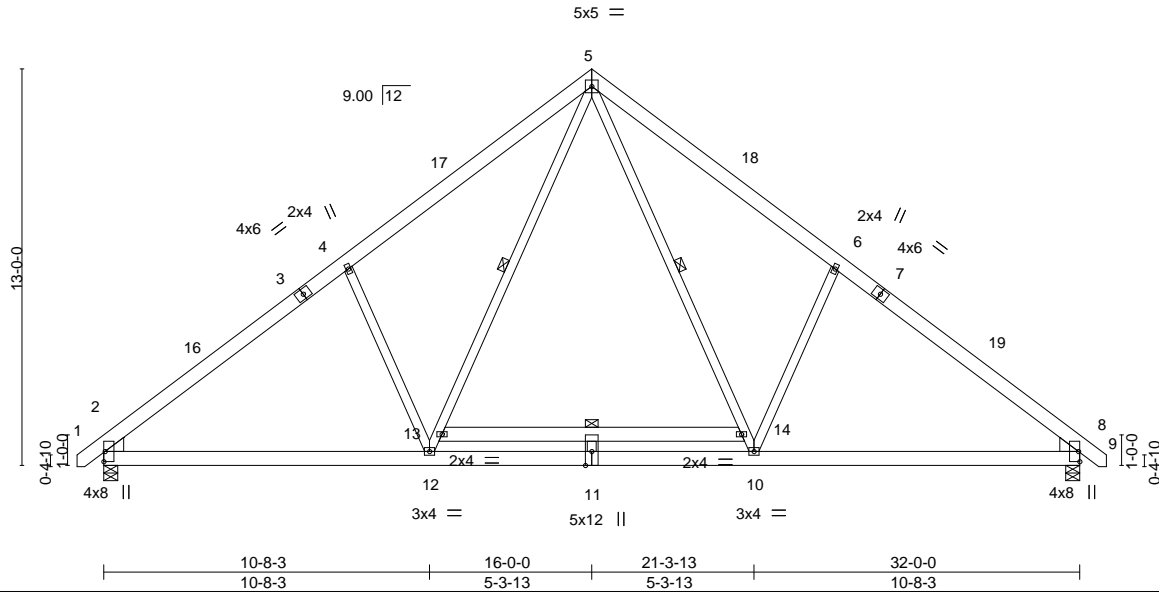


Plate Offsets (X,Y)--	[2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [8:0-0-3,0-0-4], [8:0-0-6,0-5-6]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.08	2-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.17	2-12	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.84	Horz(CT)	0.04	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	2-12	>999	Weight: 260 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2 \*Except\*  
13-14: 2x6 SP No.1

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-2-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-10, 5-12, 13-14

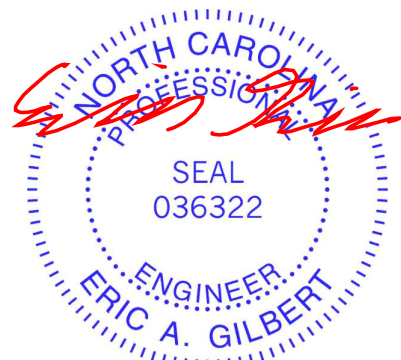
**WEDGE**  
Left: 2x6 SP No.1, Right: 2x6 SP No.1

**REACTIONS.** (lb/size) 2=1625/0-5-8, 8=1625/0-5-8  
Max Horz 2=-301(LC 10)  
Max Uplift 2=-105(LC 12), 8=-105(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-2101/479, 4-5=-1995/612, 5-6=-1995/612, 6-8=-2101/479  
BOT CHORD 2-12=-215/1619, 10-12=-32/1255, 8-10=-215/1538  
WEBS 5-14=-270/1041, 10-14=-180/699, 6-10=-465/325, 12-13=-180/699, 5-13=-270/1041,  
4-12=-465/325

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 16-0-0, Exterior(2) 16-0-0 to 20-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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=105, 8=105.

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60, 5-9=-60, 2-8=-20, 13-14=-60

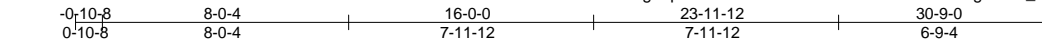


February 7, 2020

Job B0120-0229	Truss A3	Truss Type COMMON	Qty 4	Ply 1	Southport A-B-D	E14048172
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:04 2020 Page 1  
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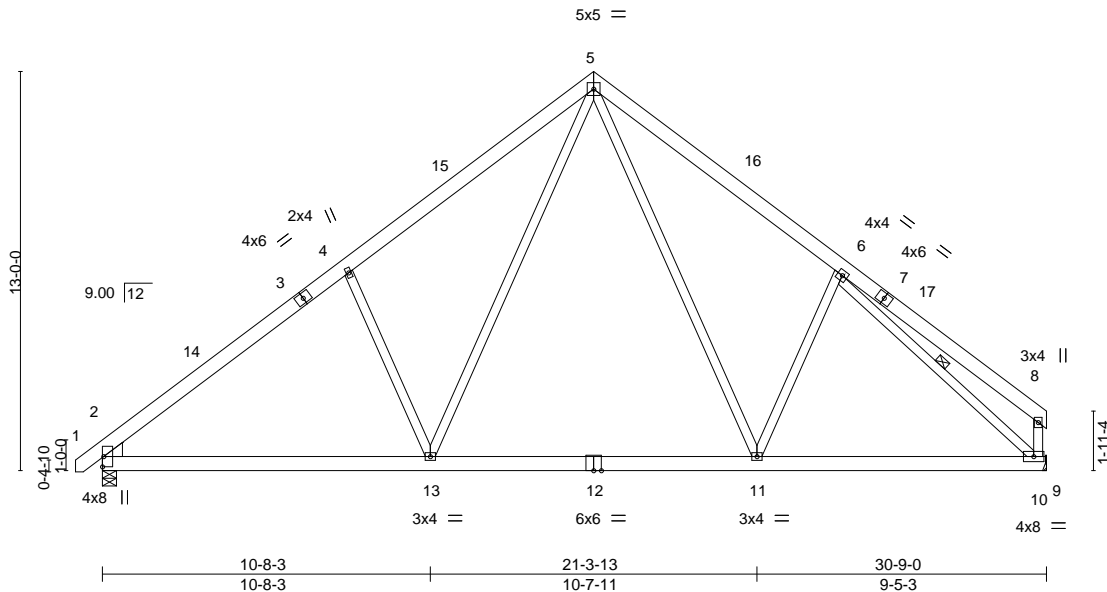


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-5-6]

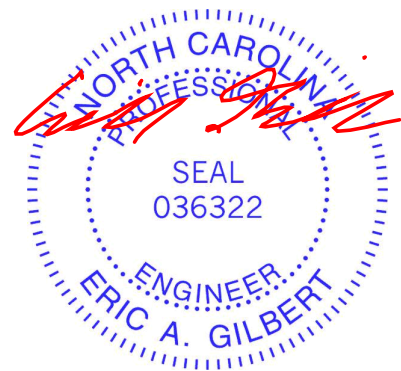
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.29 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.35 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.03 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04 2-13	>999	240		
								Weight: 240 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-8-4 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 *Except* 8-10: 2x4 SP No.3	WEBS 1 Row at midpt 6-10
<b>WEDGE</b> Left: 2x6 SP No.1	

**REACTIONS.** (lb/size) 2=1270/0-5-8, 10=1214/Mechanical  
Max Horz 2=299(LC 9)  
Max Uplift 2=-70(LC 12), 10=-48(LC 13)  
Max Grav 2=1401(LC 19), 10=1359(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1810/345, 4-5=-1664/479, 5-6=-1560/467, 6-8=-269/152, 8-10=-289/156  
BOT CHORD 2-13=-178/1488, 11-13=0/963, 10-11=-149/1175  
WEBS 4-13=-499/333, 5-13=-196/945, 5-11=-157/743, 6-11=-354/298, 6-10=-1544/197

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 16-0-0, Exterior(2) 16-0-0 to 20-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 10.



February 7, 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.

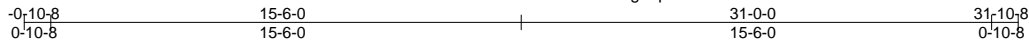
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job B0120-0229	Truss B1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Southport A-B-D Job Reference (optional)	E14048173
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:06 2020 Page 1  
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5x5 =

Scale = 1:75.9

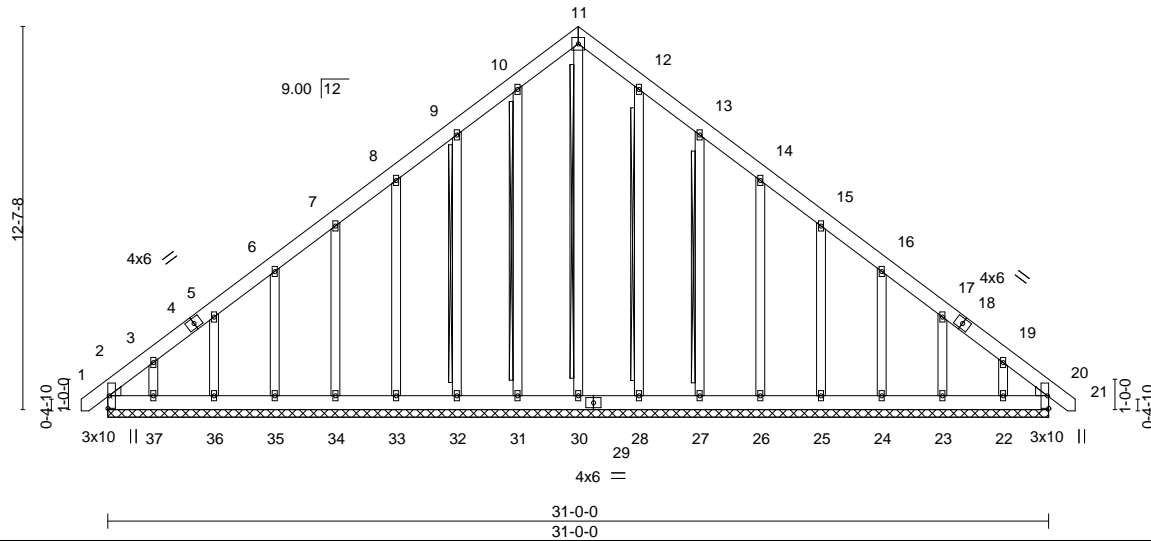


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-3-10], [20:0-0-3,0-0-4], [20:0-0-6,0-3-10]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSL</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 0.05	Vert(LL)	-0.00	20	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	20	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 306 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.3 \*Except\*  
11-30,10-31,12-28: 2x4 SP No.2

**WEDGE**  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** All bearings 31-0-0.  
(lb) - Max Horz 2--292(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 31, 32, 33, 34, 35, 36, 28, 27, 26,  
25, 24, 23, 20 except 2--128(LC 10), 37--121(LC 12), 22--111(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 34, 35, 36, 37, 25, 24, 23, 22,  
20 except 30=257(LC 22), 31=267(LC 19), 32=264(LC 19), 33=271(LC 19),  
28=256(LC 20), 27=267(LC 20), 26=271(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3--333/260, 10-11--268/297, 11-12--268/297, 19-20--320/258  
BOT CHORD 2-37--198/257, 36-37--198/257, 35-36--198/257, 34-35--198/257, 33-34--198/257,  
32-33--198/257, 31-32--198/257, 30-31--198/257, 28-30--198/257, 27-28--198/257,  
26-27--198/257, 25-26--198/257, 24-25--198/257, 23-24--198/257, 22-23--198/257,  
20-22--198/257

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Corner(3) 0-9-0 to 3-6-0, Exterior(2) 3-6-0 to 15-6-0, Corner(3) 15-6-0 to 19-10-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 20 except (jt=lb) 2=128, 37=121, 22=111.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



February 7, 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**  
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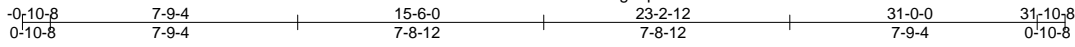
818 Soundside Road  
Edenton, NC 27932

Job B0120-0229	Truss B2	Truss Type COMMON	Qty 6	Ply 1	Southport A-B-D	E14048174
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:07 2020 Page 1

ID:nl3Qa?g25pDAIPQix6eoV?vzBz3-I9WU6MTUJ?JMI7F24MYcO9dHHuYLhi\_WzgbvK6znY6Y



Scale = 1:72.4

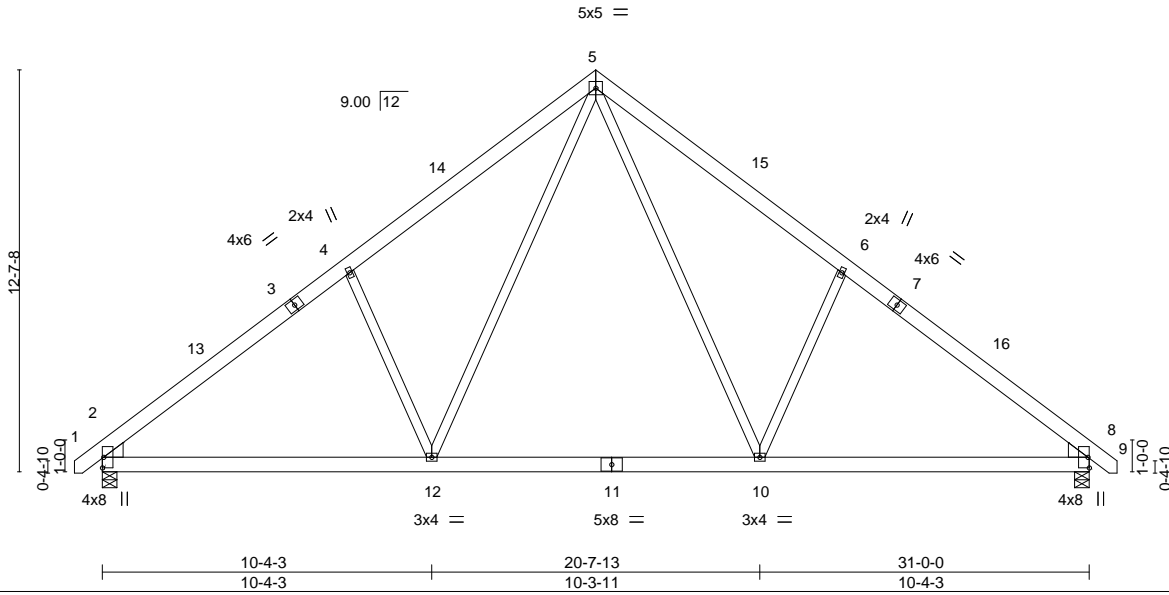


Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [8:0-0-3,0-0-4], [8:0-0-6,0-5-6]

<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 0.30	Vert(LL)	-0.26	10-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.31	10-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.03	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	2-12	>999		
								Weight: 229 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1280/0-5-8, 8=1280/0-5-8  
 Max Horz 2=-292(LC 10)  
 Max Uplift 2=-70(LC 12), 8=-70(LC 13)  
 Max Grav 2=1411(LC 19), 8=1411(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1828/350, 4-5=-1683/480, 5-6=-1684/480, 6-8=-1828/350  
 BOT CHORD 2-12=-119/1508, 10-12=0/1012, 8-10=-120/1335  
 WEBS 5-10=-188/897, 6-10=-476/323, 5-12=-188/896, 4-12=-476/323

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 15-6-0, Exterior(2) 15-6-0 to 19-10-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



February 7, 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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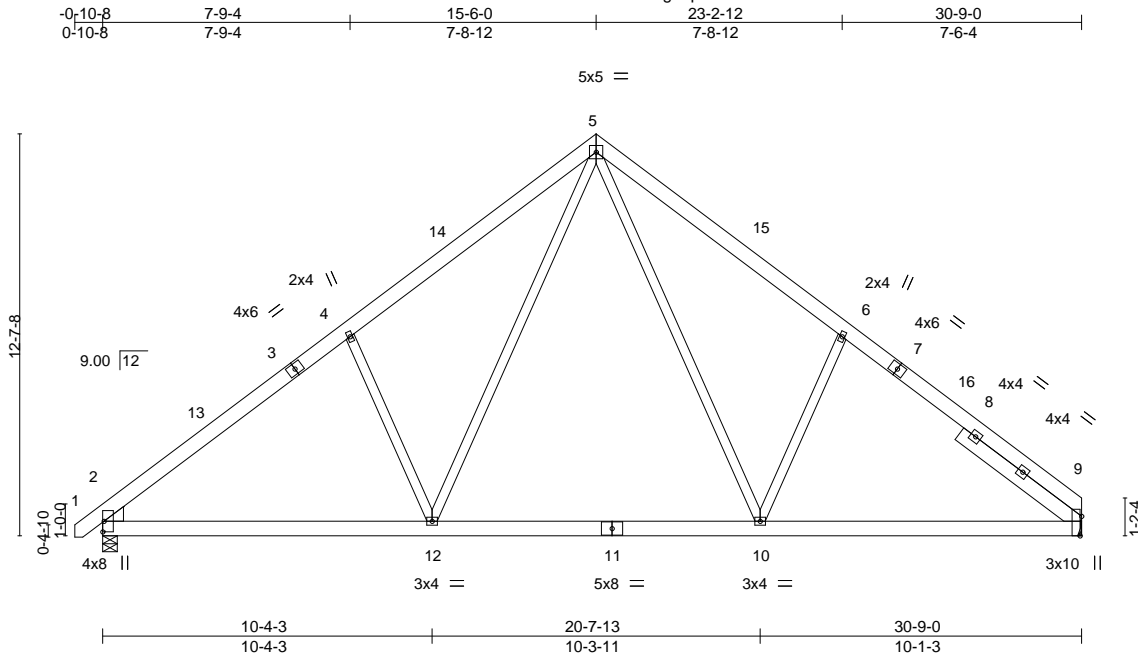


818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss B3	Truss Type COMMON	Qty 3	Ply 1	Southport A-B-D	E14048175
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:07 2020 Page 1  
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Plate Offsets (X,Y)-- [2:0-0-6,0-5-6], [2:0-0-3,0-0-4], [9:0-7-6,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.26	10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.54	Vert(CT) -0.32	10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.57	Horz(CT) 0.03	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-12	>999	240		
							Weight: 235 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x6 SP No.1  
 SLIDER Right 2x6 SP No.1 4-8-10

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-8-4 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 9=1220/Mechanical, 2=1281/0-5-8  
 Max Horz 2=292(LC 9)  
 Max Uplift 9=-56(LC 13), 2=-70(LC 12)  
 Max Grav 9=1355(LC 20), 2=1411(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1828/350, 4-5=-1683/480, 5-6=-1669/484, 6-9=-1814/352  
 BOT CHORD 2-12=-120/1506, 10-12=0/1010, 9-10=-120/1325  
 WEBS 4-12=-474/322, 5-12=-189/897, 5-10=-182/877, 6-10=-469/322

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 15-6-0, Exterior(2) 15-6-0 to 19-10-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 9, 2.



February 7, 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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818 Soundside Road  
 Edenton, NC 27932



Job B0120-0229	Truss B4	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Southport A-B-D	E14048176
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:08 2020 Page 1  
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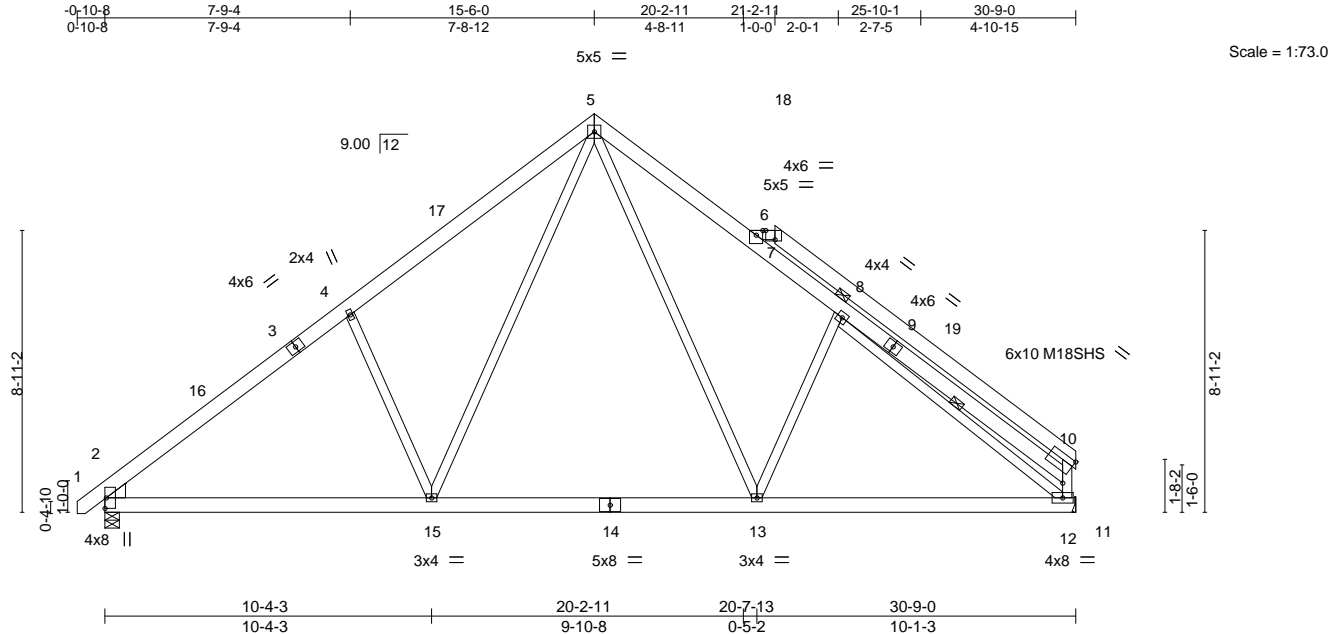


Plate Offsets (X,Y)--	[2:0-0-6,0-5-6], [2:0-0-3,0-0-4], [7:0-3-8,Edge], [10:0-0-14,0-9-6]
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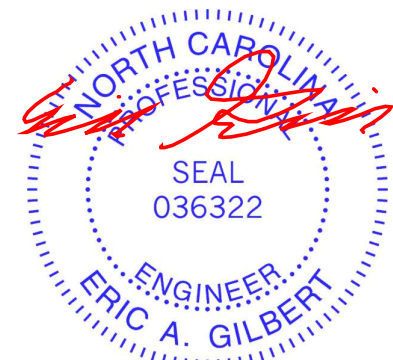
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.26	13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.32	13-15	>999	240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.03	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	2-15	>999	240		Weight: 267 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 6-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-8-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-10, 6-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 10-12: 2x4 SP No.3	WEBS 1 Row at midpt 8-12
WEDGE Left: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 8

**REACTIONS.** (lb/size) 2=1270/0-5-8, 12=1214/Mechanical  
Max Horz 2=291(LC 9)  
Max Uplift 2=-69(LC 12), 12=-53(LC 13)  
Max Grav 2=1400(LC 19), 12=1335(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-1810/348, 4-5=-1663/476, 5-6=-1436/418, 6-8=-1206/238, 6-7=-452/271,  
7-10=-581/214, 10-12=-447/234  
BOT CHORD 2-15=-183/1480, 13-15=0/989, 12-13=-131/1228  
WEBS 4-15=-460/311, 5-15=-180/893, 8-12=-1444/116, 8-13=-309/257, 5-13=-111/718

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 15-6-0, Exterior(2) 20-3-8 to 21-2-11, Interior(1) 19-10-13 to 20-3-8 zone; 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) All plates are MT20 plates unless otherwise indicated.
  - 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



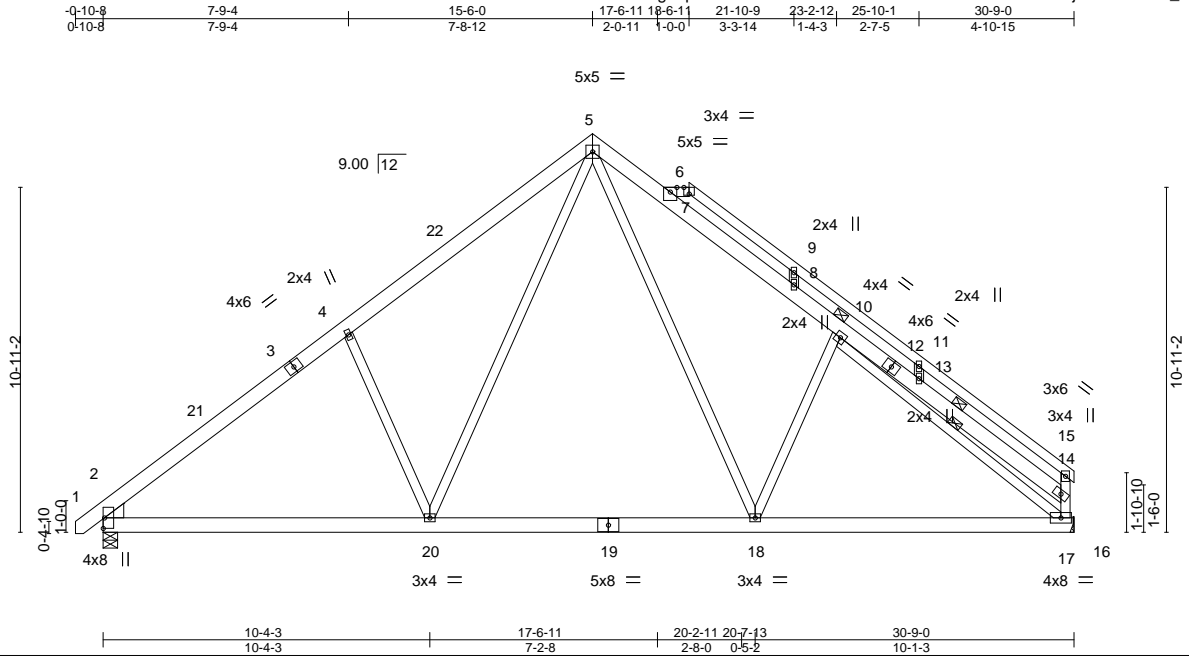
February 7, 2020

Job B0120-0229	Truss B5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Southport A-B-D	E14048177
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Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:09 2020 Page 1

ID:n13Qa?g25pDAIPQix6eoV?zvBz3-iXeFX2Ukrda4?RPRBna4UajWxiEI9cVoQ\_400\_znY6W



Scale = 1:73.0

Plate Offsets (X,Y)--	[2:0-0-6,0-5-6], [2:0-0-3,0-0-4], [7:0-2-0,Edge]
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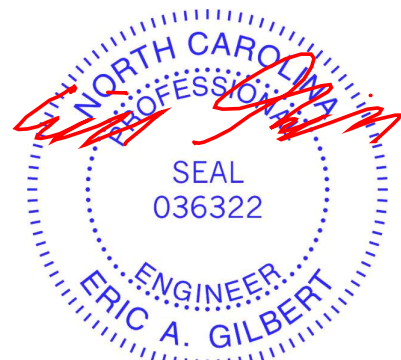
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.26	18-20	>999	360	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.32	18-20	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.03	17	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03	2-20	>999	240	
								Weight: 264 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 6-7,7-15: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-8-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-14, 6-7. Except: 1 Row at midpt 10-14
BOT CHORD 2x6 SP No.1	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 15-17: 2x4 SP No.3	WEBS 1 Row at midpt 10-17
WEDGE Left: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 10

**REACTIONS.** (lb/size) 2=1270/0-5-8, 17=1214/Mechanical  
 Max Horz 2=292(LC 9)  
 Max Uplift 2=69(LC 12), 17=53(LC 13)  
 Max Grav 2=1400(LC 19), 17=1336(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1812/334, 4-5=-1666/464, 5-6=-1414/425, 6-8=-1315/87, 8-10=-1406/184,  
 10-13=-254/9, 13-14=-405/131, 6-7=-406/298, 7-9=-496/347, 9-11=-375/227,  
 11-15=-311/76, 14-17=-552/198, 14-15=-279/89  
 BOT CHORD 2-20=-209/1482, 18-20=-9/986, 17-18=-155/1262  
 WEBS 4-20=-474/320, 5-20=-188/899, 10-17=-1298/115, 10-18=-380/265, 5-18=-123/789,  
 11-13=-341/204, 8-9=-284/163

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-9-0 to 3-7-13, Interior(1) 3-7-13 to 15-6-0, Exterior(2) 17-7-9 to 18-6-11, Interior(1) 18-6-11 to 30-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 17.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 7, 2020

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

818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss C1	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D	E14048178
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:11 2020 Page 1

ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-ewm?yjW\_NEqoEkZpJcCYZ?o1LV24dcK5ulZ7TznY6U

0-10-8 10-0-0 20-0-0 20-10-8  
0-10-8 10-0-0 10-0-0 0-10-8

5x5 =

Scale = 1:69.0

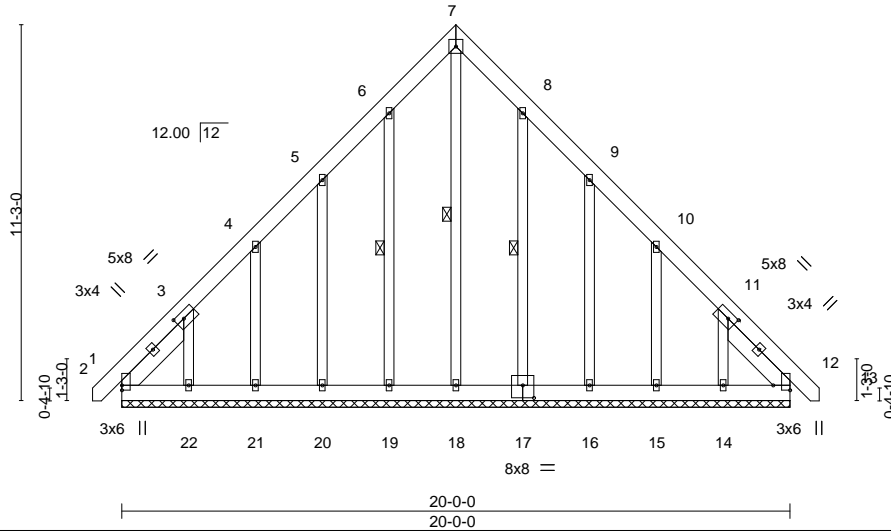


Plate Offsets (X,Y)-- [3:0-3-0,0-2-4], [11:0-3-0,0-2-4], [12:Edge,0-6-1], [17:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) 0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) 0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.01	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 211 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.3 \*Except\*  
 7-18: 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 2-8-11, Right 2x6 SP No.1 2-8-11

**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 1 Row at midpt 7-18, 6-19, 8-17

**REACTIONS.**

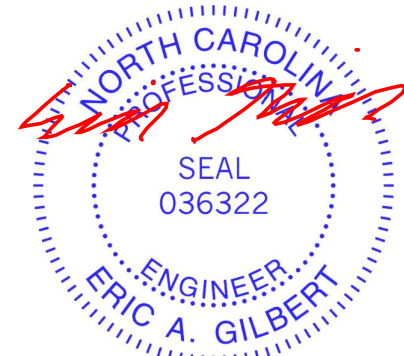
All bearings 20-0-0.  
 (lb) - Max Horz 2=-322(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 17 except 2=-144(LC 10),  
 19=-106(LC 12), 20=-152(LC 12), 21=-142(LC 12), 22=-257(LC 12), 16=-155(LC  
 13), 15=-141(LC 13), 14=-247(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 21, 22, 16, 15, 14 except  
 2=348(LC 12), 12=306(LC 13), 18=263(LC 22), 19=287(LC 19), 17=279(LC 20)

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

TOP CHORD 2-3=-484/284, 3-4=-263/187, 11-12=-432/285  
 BOT CHORD 2-22=-207/320, 21-22=-209/321, 20-21=-209/321, 19-20=-210/321, 18-19=-210/321,  
 17-18=-210/321, 16-17=-210/321, 15-16=-209/321, 14-15=-209/320, 12-14=-207/319  
 WEBS 3-22=-255/266, 11-14=-255/257

**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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-15 to 3-7-14, Exterior(2) 3-7-14 to 10-0-0, Corner(3) 10-0-0 to 14-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 12, 17 except (jt=lb) 2=-144, 19=106, 20=152, 21=142, 22=257, 16=155, 15=141, 14=247.



February 7, 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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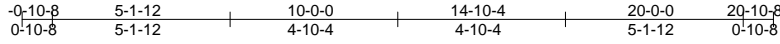


818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss C2	Truss Type COMMON	Qty 2	Ply 1	Southport A-B-D	E14048179
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:12 2020 Page 1  
ID:n13Qa?g25pDAIPQix6eoV?zvBz3-66KN93Xd8Yfusu8?tv8n5CL9mVldMzyF6yIlg?JznY6T



4x6 =

Scale = 1:66.7

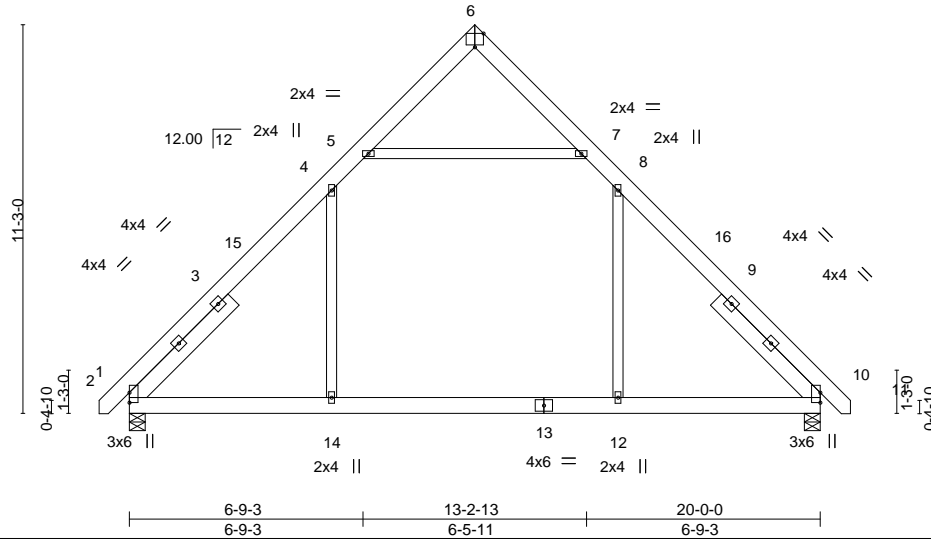


Plate Offsets (X,Y)-- [6:0-3-0,Edge]

<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 0.19	Vert(LL)	-0.10 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.13 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.11 2-14	>999	240		
								Weight: 167 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 4-1-10, Right 2x6 SP No.1 4-1-10

**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.**

(lb/size) 2=845/0-5-8, 10=845/0-5-8  
 Max Horz 2=-258(LC 10)  
 Max Uplift 2=-32(LC 12), 10=-32(LC 13)  
 Max Grav 2=942(LC 19), 10=942(LC 20)

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

TOP CHORD 2-4=-1190/206, 4-5=-651/263, 7-8=-651/263, 8-10=-1190/206  
 BOT CHORD 2-14=-7/734, 12-14=-7/734, 10-12=-7/733  
 WEBS 4-14=-5/454, 8-12=-4/454, 5-7=-717/334

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 10-0-0, Exterior(2) 10-0-0 to 14-1-15 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 10.



February 7, 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.



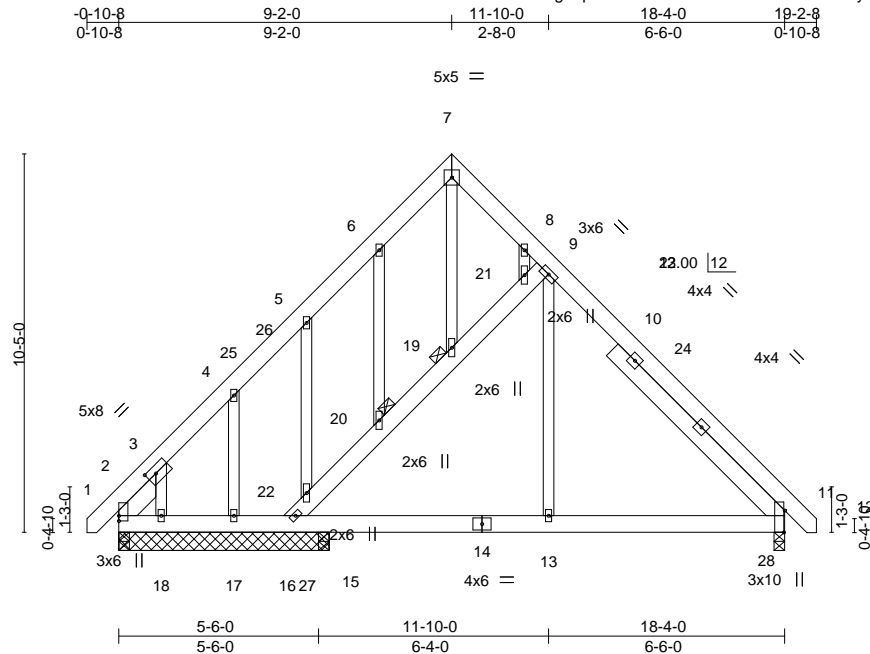
818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss D1	Truss Type KINGPOST	Qty 1	Ply 1	Southport A-B-D	E14048180
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:12 2020 Page 1

ID:n13Qa?g25pDAIPQix6eoV?zvBz3-66KN93Xd8Yfysu8?tv8n5CLAQvLJM2rF6ylg?JznY6T



Scale: 3/16"=1'

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.03	11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.23	Vert(CT) -0.04	11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) -0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01	11-13	>999	240		
							Weight: 193 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 9-16: 2x6 SP No.1  
 SLIDER Left 2x6 SP No.1 1-6-9, Right 2x6 SP No.1 6-7-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 19, 20

**REACTIONS.**

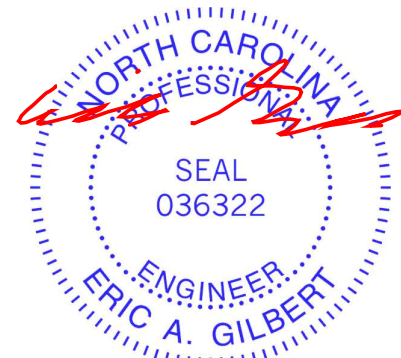
All bearings 0-3-8 except (jt=length) 16=5-9-8, 17=5-9-8, 18=5-9-8.  
 (lb) - Max Horz 11=-297(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 11 except 16=-335(LC 13), 17=-172(LC 12), 18=-264(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 18 except 2=404(LC 12), 2=260(LC 1), 16=297(LC 1),  
 17=256(LC 19), 11=820(LC 20), 15=534(LC 18)

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

TOP CHORD 8-9=-281/184, 9-11=-757/79, 2-3=-500/301, 3-4=-292/163  
 BOT CHORD 2-18=-195/320, 17-18=-196/322, 16-17=-197/323, 15-16=-109/580, 13-15=-109/580,  
 11-13=-109/580  
 WEBS 16-22=-652/351, 20-22=-593/285, 19-20=-585/265, 19-21=-587/278, 9-21=-642/354,  
 9-13=0/543, 3-18=-214/250

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 9-2-0, Exterior(2) 9-2-0 to 13-6-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 11 except (jt=lb) 16=335, 17=172, 18=264.



February 7, 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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818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss D2	Truss Type Common Girder	Qty 1	Ply 2	Southport A-B-D	E14048181
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:14 2020 Page 1  
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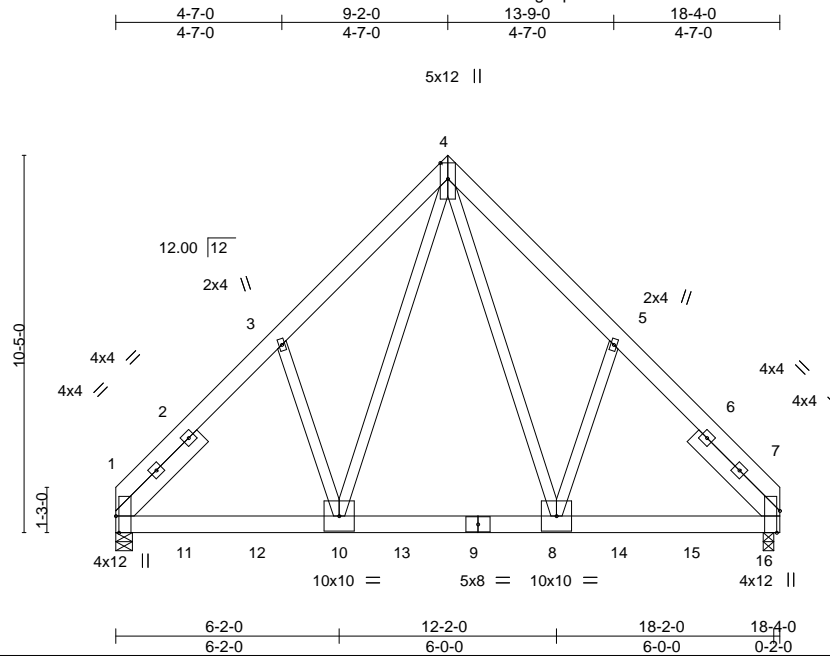


Plate Offsets (X,Y)--	[1:0-5-8,Edge], [7:0-7-4,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.08 7-8 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(CT) -0.15 7-8 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.88	Horz(CT) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05 7-8 >999 240		
				Weight: 330 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.1 3-3-2, Right 2x6 SP No.1 3-3-2

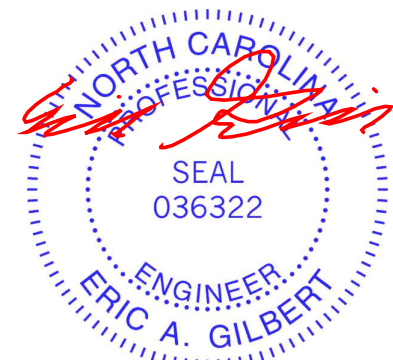
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=5652/0-5-8, 7=6587/0-3-8  
 Max Horz 1=-236(LC 23)  
 Max Uplift 1=-299(LC 9), 7=-328(LC 8)  
 Max Grav 1=5976(LC 2), 7=7020(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-6197/361, 3-4=-5887/456, 4-5=-5984/452, 5-7=-6283/355  
 BOT CHORD 1-10=-269/4076, 8-10=-144/3010, 7-8=-169/4149  
 WEBS 3-10=-205/464, 4-10=-342/4024, 4-8=-330/4258, 5-8=-205/455

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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; TCDL=6.0psf; BCDL=6.0psf; 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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=299, 7=328.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1279 lb down and 76 lb up at 1-10-12, 1279 lb down and 76 lb up at 3-10-12, 1267 lb down and 76 lb up at 5-10-12, 1232 lb down and 73 lb up at 7-10-12, 1232 lb down and 73 lb up at 9-10-12, 1268 lb down and 68 lb up at 11-10-12, 1293 lb down and 68 lb up at 13-10-12, and 1293 lb down and 68 lb up at 15-10-12, and 1299 lb down and 62 lb up at 17-10-12 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



February 7, 2020

Continued on page 2

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

Job B0120-0229	Truss D2	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Southport A-B-D Job Reference (optional)	E14048181
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:14 2020 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 1-7=-20

Concentrated Loads (lb)

Vert: 9=-1194(B) 10=-1200(B) 8=-1194(B) 11=-1200(B) 12=-1200(B) 13=-1194(B) 14=-1194(B) 15=-1194(B) 16=-1200(B)

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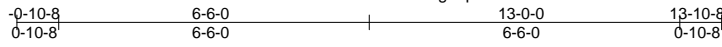


818 Soundside Road  
Edenton, NC 27932

Job B0120-0229	Truss E1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Southport A-B-D Job Reference (optional)	E14048182
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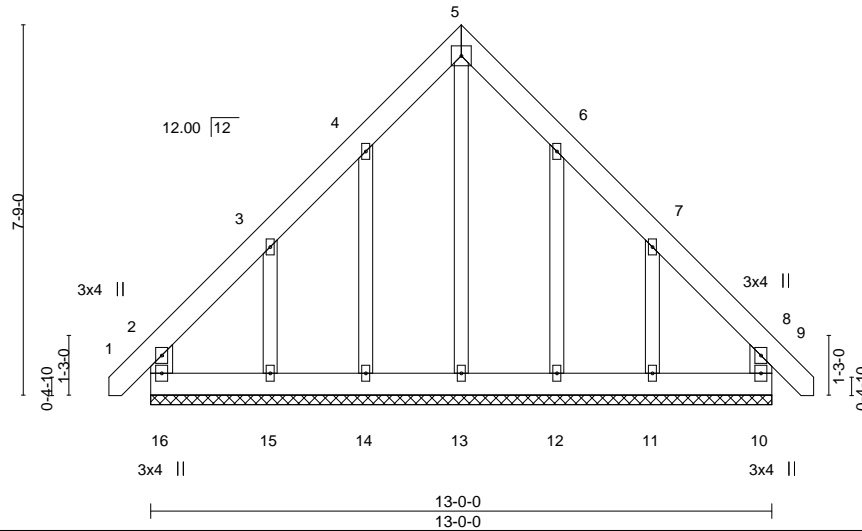
Comtech, Inc., Fayetteville, NC 28309

8,130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:15 2020 Page 1  
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5x5 =

Scale: 1/4"=1'



<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	8	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	8	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-R						
								Weight: 116 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1  
OTHERS 2x4 SP No.3

**BRACING-**

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

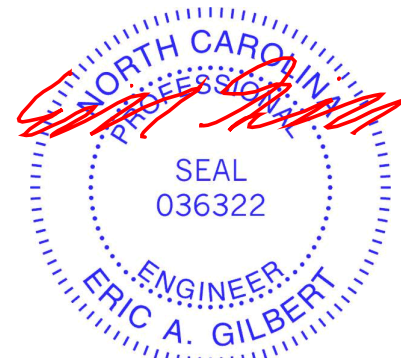
**REACTIONS.**

All bearings 13-0-0.  
(lb) - Max Horz 16=217(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 12 except 15=261(LC 12), 11=255(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 14, 12, 11 except 13=297(LC 22), 15=250(LC 19)

**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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-15 to 3-7-14, Exterior(2) 3-7-14 to 6-6-0, Corner(3) 6-6-0 to 10-10-13 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 16, 10, 14, 12 except (jt=lb) 15=261, 11=255.



February 7, 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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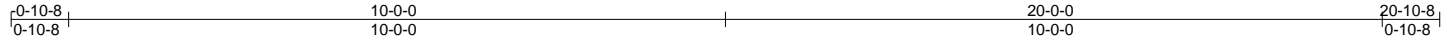
818 Soundside Road  
Edenton, NC 27932



Job B0120-0229	Truss G1	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D	E14048183
Comtech, Inc., Fayetteville, NC 28309					Job Reference (optional)	

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:16 2020 Page 1

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Scale = 1:35.1

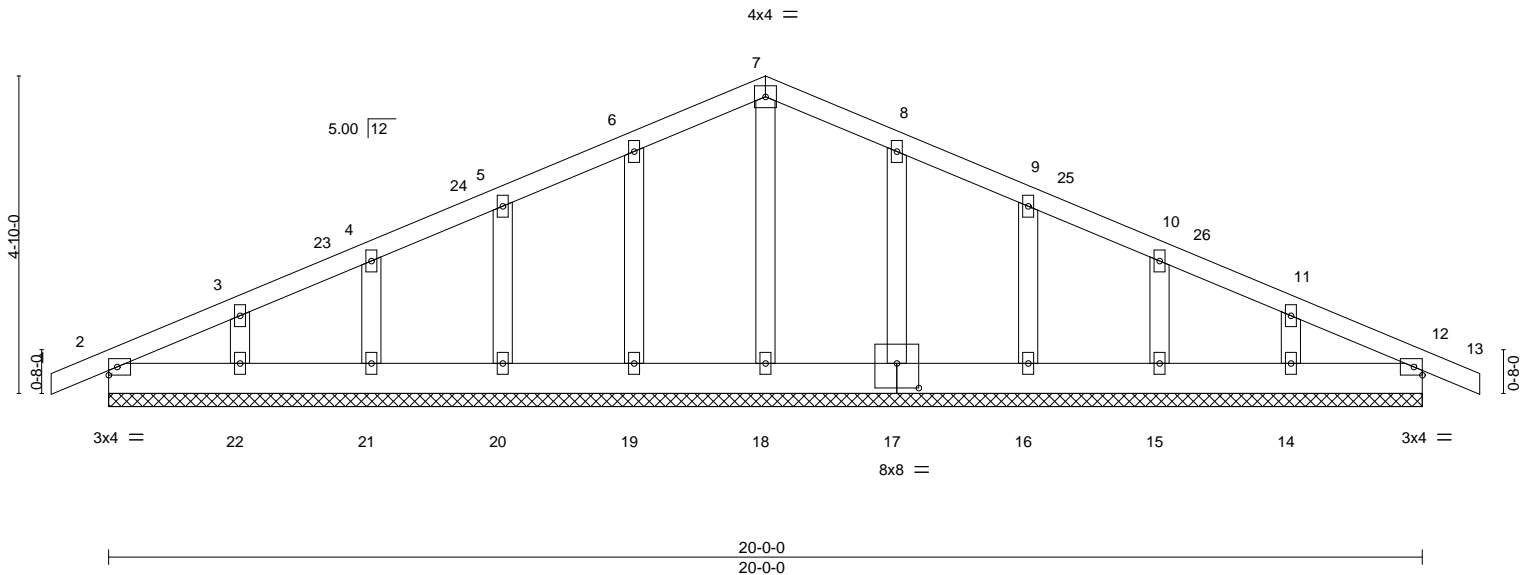


Plate Offsets (X,Y)--	[17:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00	12	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) -0.00	12	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 112 lb	FT = 20%

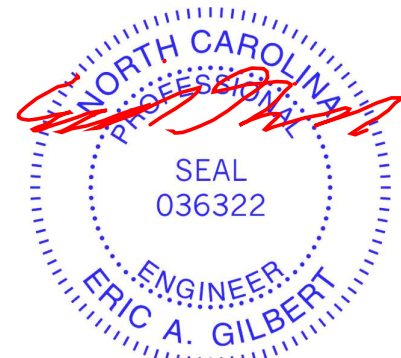
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 20-0-0.  
 (lb) - Max Horz 2=-92(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 12, 2, 19, 20, 21, 22, 17, 16, 15, 14  
 Max Grav All reactions 250 lb or less at joint(s) 12, 2, 18, 19, 20, 21, 22, 17, 16, 15, 14

**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=6.0psf; 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 10-0-0, Corner(3) 10-0-0 to 14-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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, 2, 19, 20, 21, 22, 17, 16, 15, 14.



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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.

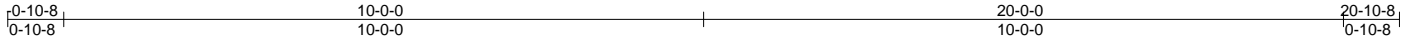
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss G2	Truss Type Common	Qty 5	Ply 1	Southport A-B-D	E14048184
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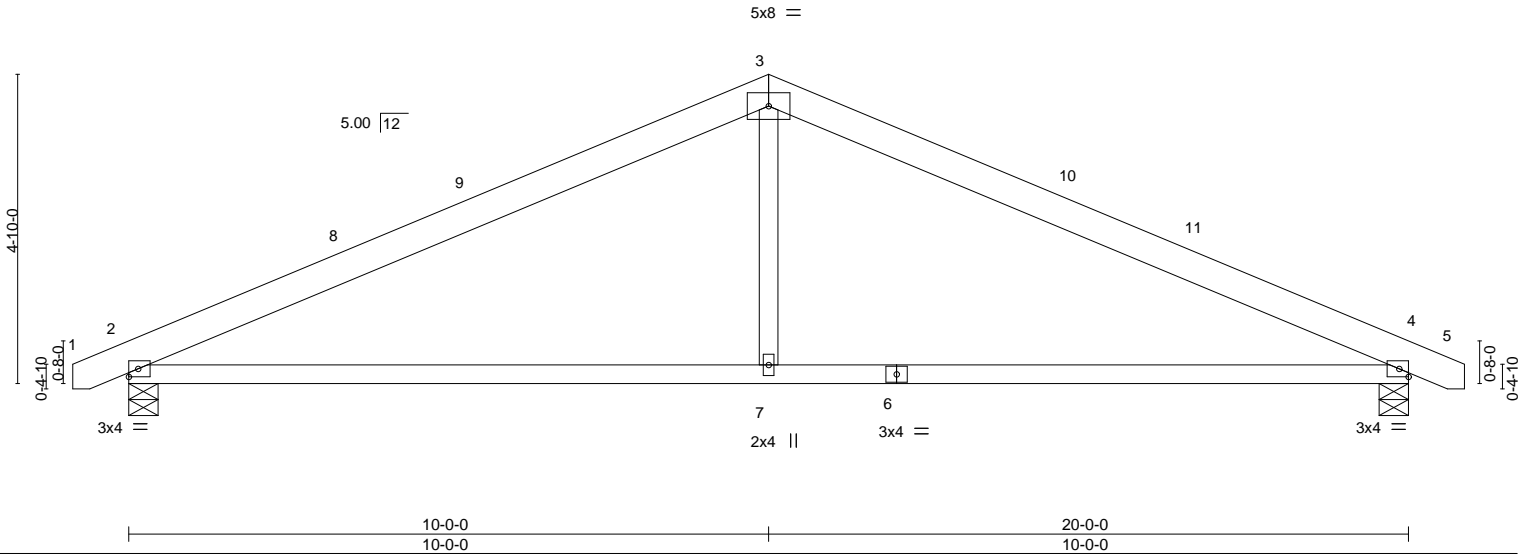
Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:17 2020 Page 1

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Scale = 1:36.0



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.57	Vert(LL) -0.16	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.74	Vert(CT) -0.35	2-7	>667	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	2-7	>999	240	Weight: 91 lb	FT = 20%

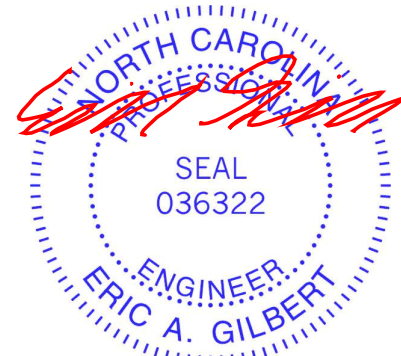
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=840/0-5-8, 2=840/0-5-8  
 Max Horz 2=54(LC 16)  
 Max Uplift 4=-62(LC 13), 2=-62(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1173/280, 3-4=-1173/280  
 BOT CHORD 2-7=-133/993, 4-7=-133/993  
 WEBS 3-7=0/453

- 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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-14, Interior(1) 3-7-14 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 4, 2.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 7, 2020

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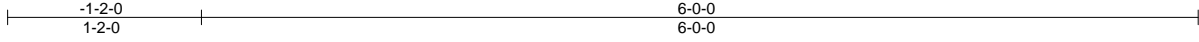
818 Soundside Road  
 Edenton, NC 27932

Job B0120-0229	Truss M1	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D	E14048185
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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:17 2020 Page 1

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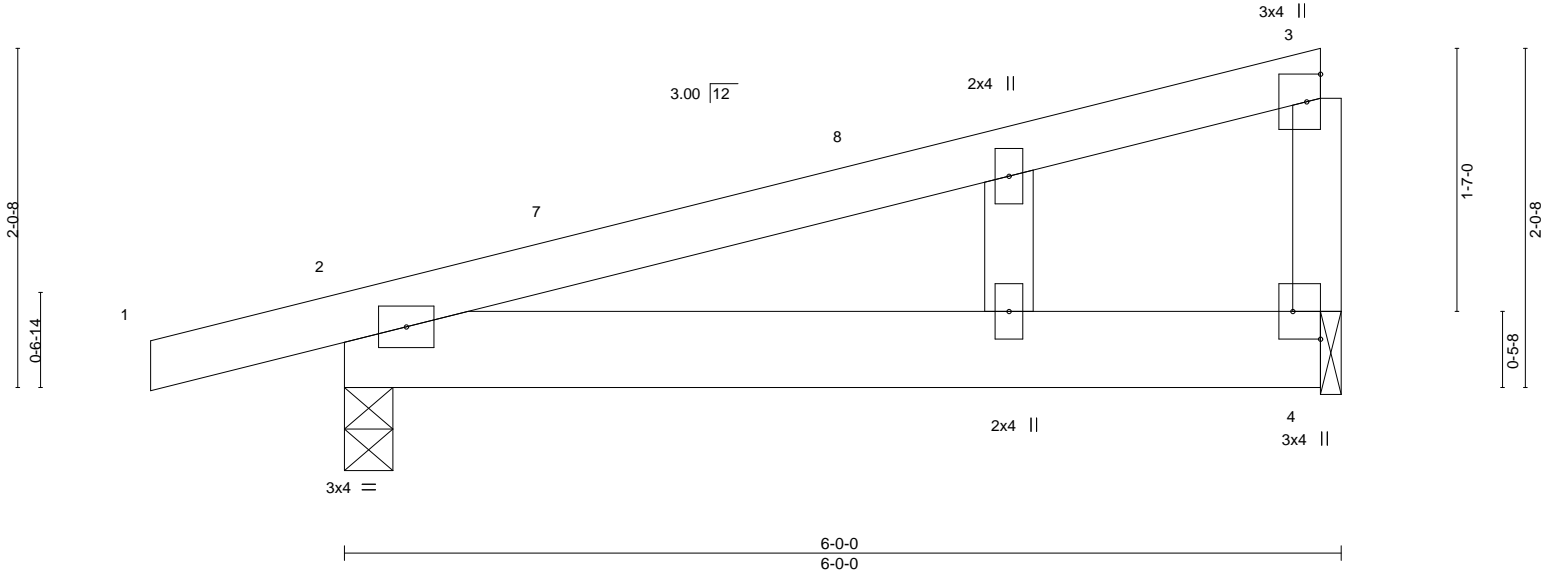


Plate Offsets (X,Y)--	[4:Edge,0-2-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	Vert(LL) -0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT) -0.03	2-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.00	2	****	240		
	Code IRC2015/TPI2014						Weight: 28 lb	FT = 20%

LUMBER-	BRACING-
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	
OTHERS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=316/0-3-8, 4=218/0-1-8  
 Max Horz 2=84(LC 8)  
 Max Uplift 2=-128(LC 8), 4=-72(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-161/268

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-0 to 3-2-13, Exterior(2) 3-2-13 to 5-10-1 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 studs spaced at 2-0-0 oc.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) 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.
  - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=128.



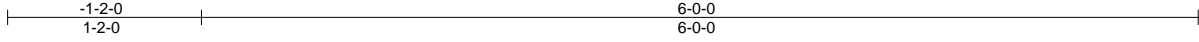
February 7, 2020

Job B0120-0229	Truss M2	Truss Type MONOPITCH	Qty 6	Ply 1	Southport A-B-D	E14048186
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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:18 2020 Page 1

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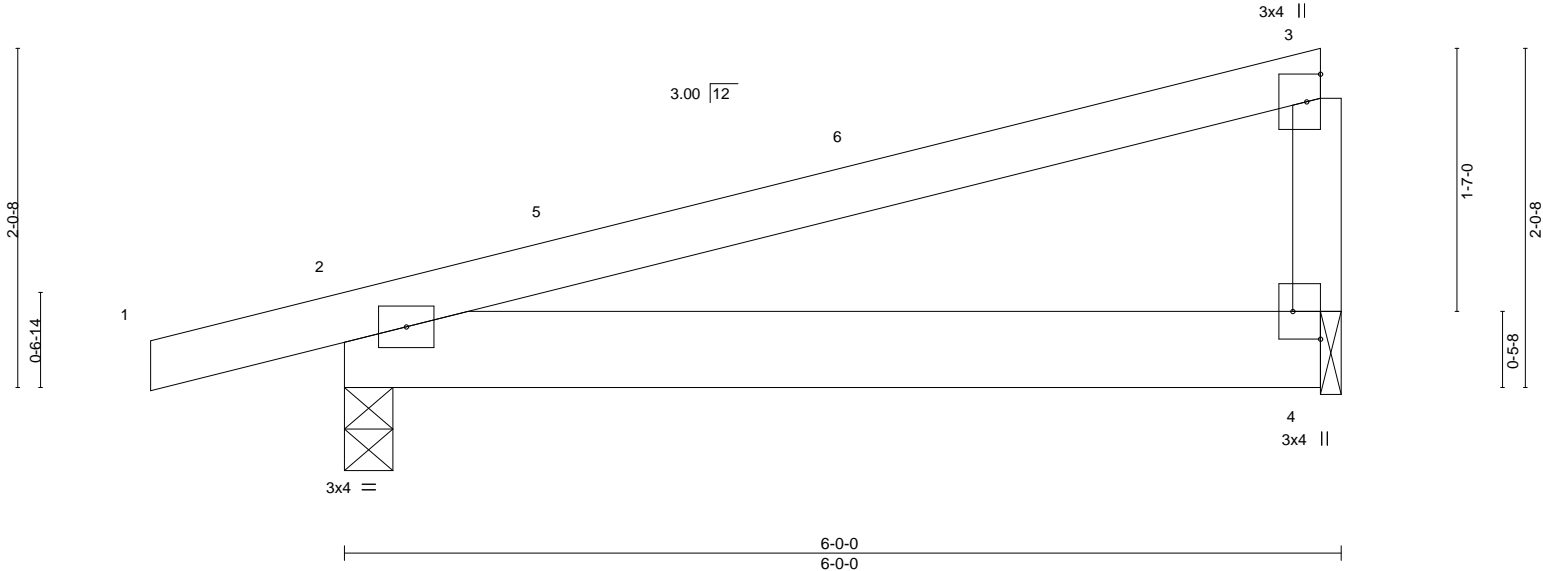


Plate Offsets (X,Y)--	[4:Edge,0-2-0]
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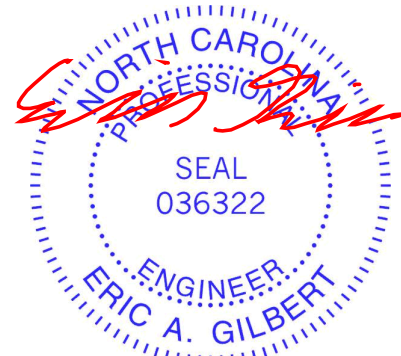
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	-0.03	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
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	

**REACTIONS.** (lb/size) 2=316/0-3-8, 4=218/0-1-8  
 Max Horz 2=59(LC 8)  
 Max Uplift 2=-70(LC 8), 4=-30(LC 12)

**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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-0 to 3-2-13, Interior(1) 3-2-13 to 5-10-1 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.



February 7, 2020

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Job B0120-0229	Truss M3	Truss Type MONOPITCH	Qty 3	Ply 1	Southport A-B-D	E14048187
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8,130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:19 2020 Page 1  
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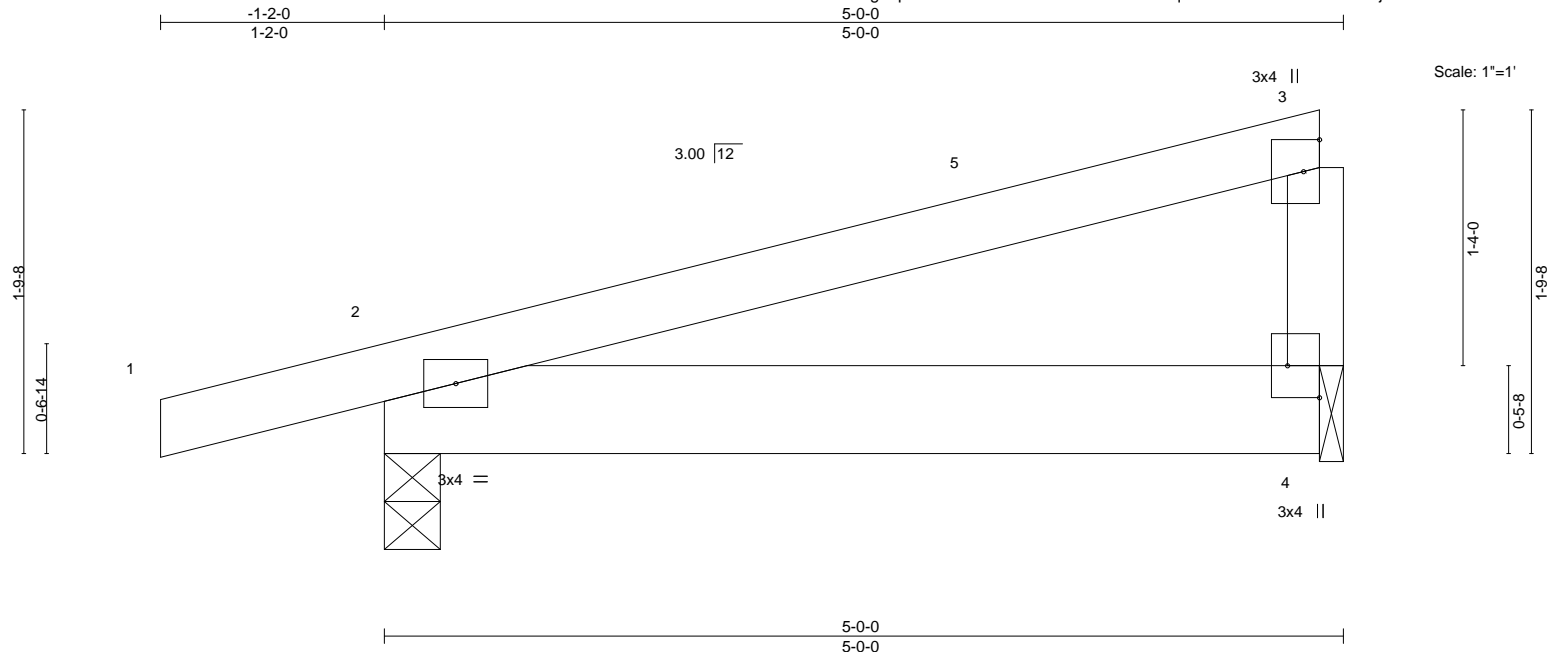


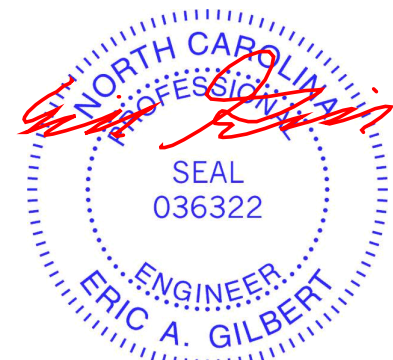
Plate Offsets (X,Y)--		[4:Edge,0-2-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	2-4	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	Weight: 22 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-0-0 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		

**REACTIONS.** (lb/size) 2=278/0-3-8, 4=176/0-1-8  
Max Horz 2=50(LC 8)  
Max Uplift 2=-67(LC 8), 4=-24(LC 12)

**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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-0 to 3-2-13, Interior(1) 3-2-13 to 4-10-1 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.

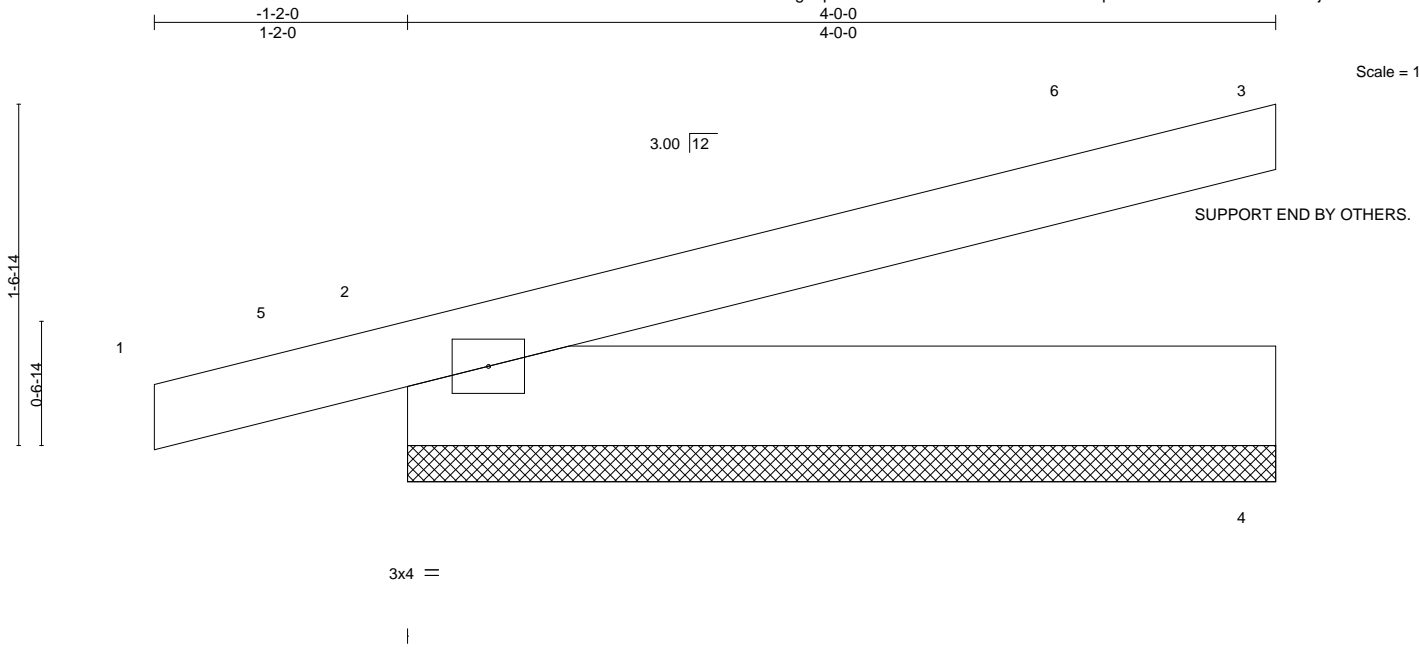


February 7, 2020

Job B0120-0229	Truss M4	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D Job Reference (optional)	E14048188
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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:19 2020 Page 1  
ID:n13Qa?g25pDAIPQix6eoV?vBz3-PTF1dSc0UhfCzAMntmRth7MBkmcVFoHjXVYIPznY6M



Scale = 1:10.6

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 0.24	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.01	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 17 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1

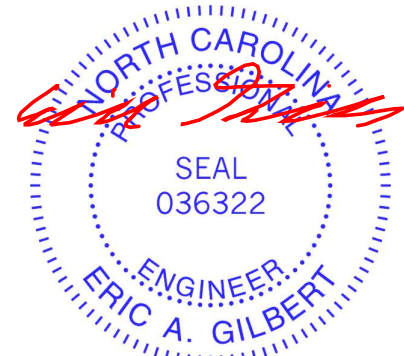
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 3=110/4-0-0, 2=240/4-0-0, 4=40/4-0-0  
Max Horz 2=44(LC 8)  
Max Uplift 3=45(LC 12), 2=60(LC 8)  
Max Grav 3=110(LC 1), 2=240(LC 1), 4=80(LC 3)

**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=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Corner(3) -1-2-0 to 3-2-13, Exterior(2) 3-2-13 to 4-0-0 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 3, 2.



February 7, 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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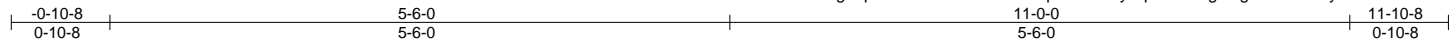


818 Soundside Road  
Edenton, NC 27932

Job B0120-0229	Truss P1	Truss Type GABLE	Qty 1	Ply 1	Southport A-B-D Job Reference (optional)	E14048189
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 11:31:20 2020 Page 1  
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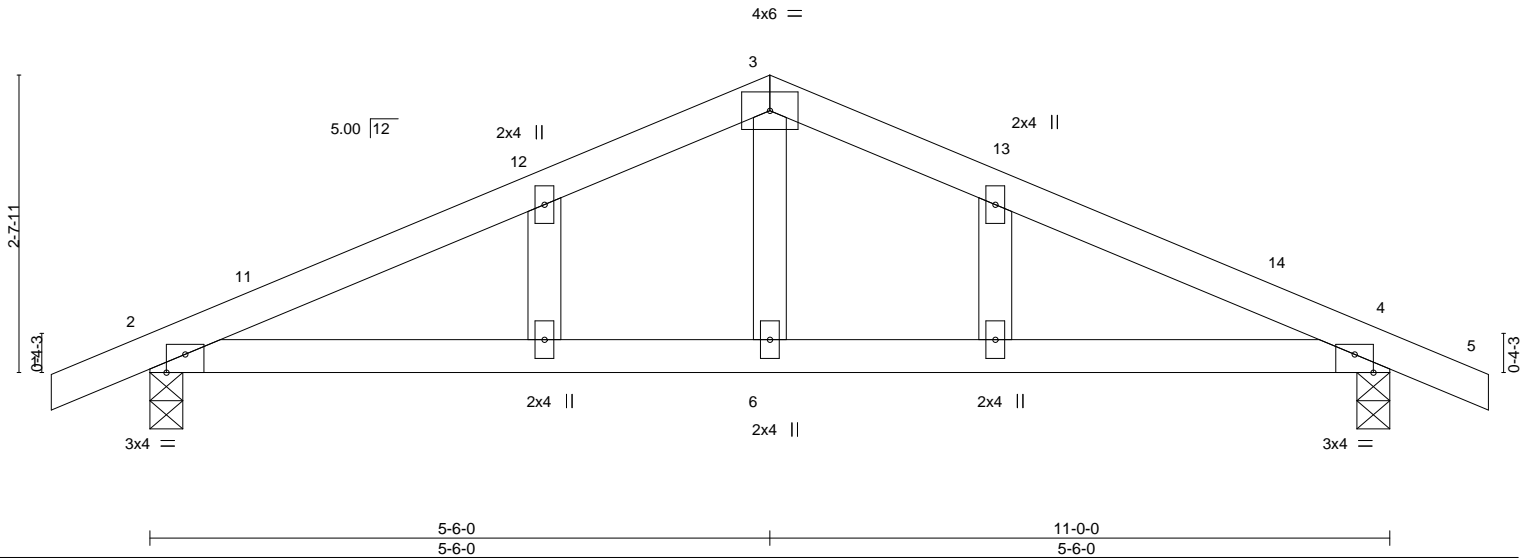


Plate Offsets (X,Y)--	[2:0-2-0,Edge], [4:0-2-0,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.02 2-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(CT) -0.05 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03 4-6 >999 240	Weight: 44 lb	FT = 20%

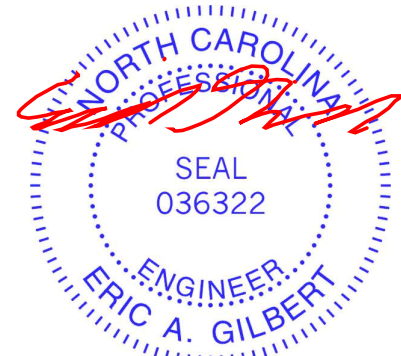
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=490/0-3-8, 4=490/0-3-8  
Max Horz 2=-54(LC 13)  
Max Uplift 2=-120(LC 12), 4=-120(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-666/448, 3-4=-666/448  
BOT CHORD 2-6=-267/553, 4-6=-267/553  
WEBS 3-6=0/257

- 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=6.0psf; 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 5-6-0, Corner(3) 5-6-0 to 9-10-13 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.
  - 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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=120, 4=120.



February 7, 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.

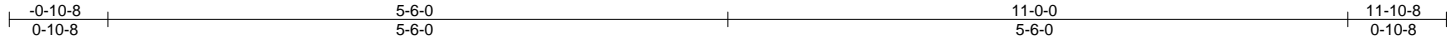


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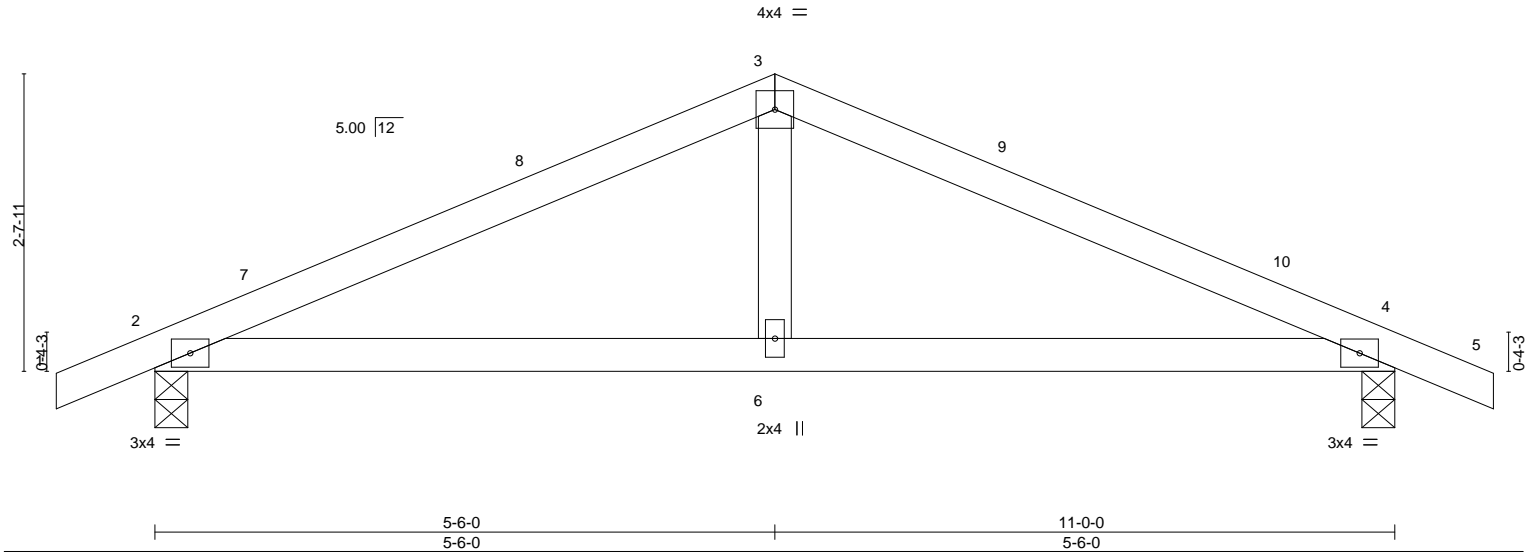
Job B0120-0229	Truss P2	Truss Type Common	Qty 4	Ply 1	Southport A-B-D	E14048190
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ID:n13Qa?g25pDAIPQix6eoV?zvBz3-LrNn28eG014NRHKkulovz6DhuXP8z9OZBr\_eplznY6K



Scale = 1:20.4



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	Vert(LL) -0.02	2-6	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.25	Vert(CT) -0.05	2-6	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.02	4-6	>999	240	Weight: 40 lb	FT = 20%
	Code IRC2015/TPI2014							

**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 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=490/0-3-8, 4=490/0-3-8  
 Max Horz 2=-32(LC 17)  
 Max Uplift 2=-42(LC 12), 4=-42(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-666/231, 3-4=-666/231  
 BOT CHORD 2-6=-114/553, 4-6=-114/553  
 WEBS 3-6=0/257

- 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=6.0psf; 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 5-6-0, Exterior(2) 5-6-0 to 9-10-13 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 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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) 2, 4.



February 7, 2020

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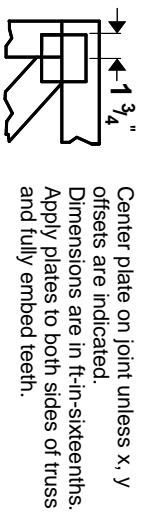


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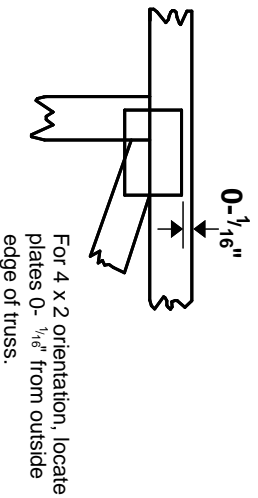


# Symbols

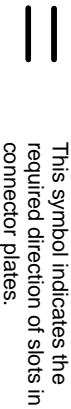
## PLATE LOCATION AND ORIENTATION



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- $\frac{1}{16}$ " from outside edge of truss.



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

## PLATE SIZE

4 X 4

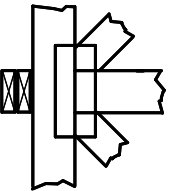
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

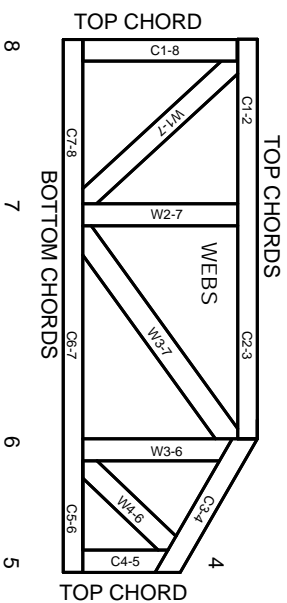


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MITTEK 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.