ENGINEERING BY TRENCO

A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: B0120-0237
   Southport C-E

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: E14048464 thru E14048500

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

North Carolina COA: C-0844

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
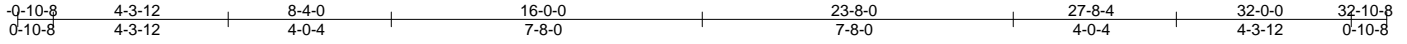ERIC A. GILBERT
ENGINEER

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	Truss	Truss Type	Qty	**Ply**	Southport C-E	
B0120-0237	A1	Hip Girder	1	**2**	Job Reference (optional)	E14048464

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:10:48 2020 Page 1
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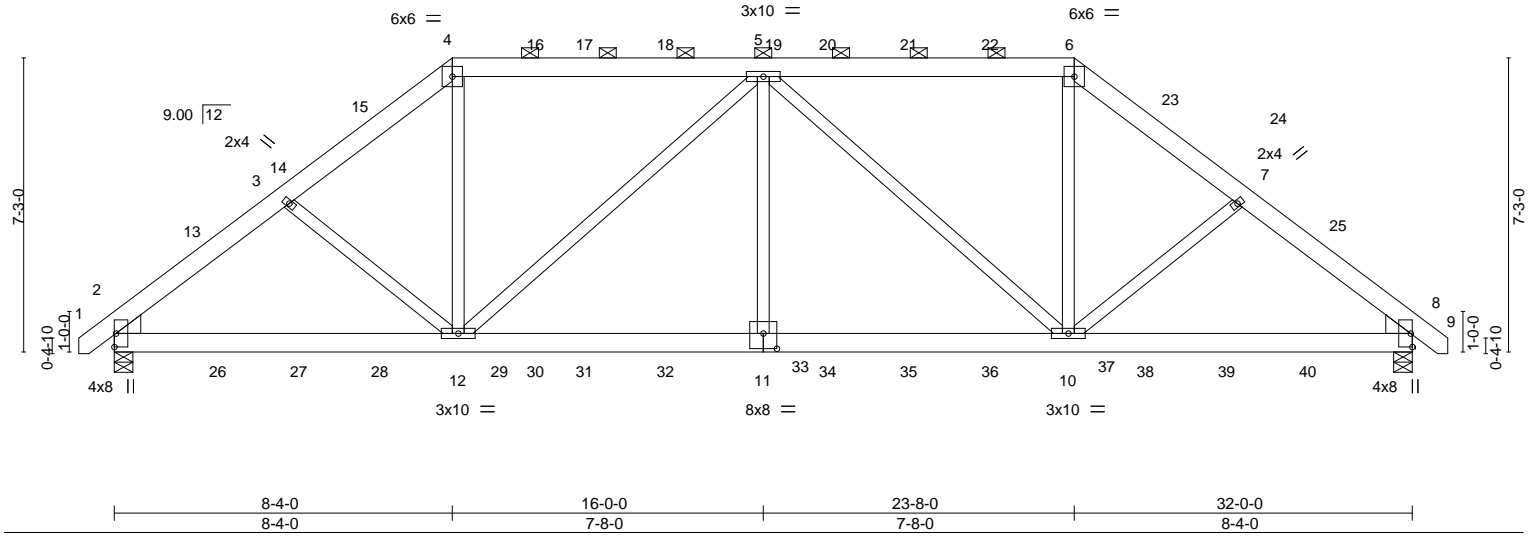
Scale = 1:56.8

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

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	0.42	Vert(LL)	-0.06	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.11	11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06	11	>999	240	Weight: 481 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.3
WEDGE
Left: 2x6 SP No.1, Right: 2x6 SP No.1

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

REACTIONS.   (lb/size)   2=2518/0-5-8, 8=2498/0-5-8
             Max Horz 2=164(LC 26)
             Max Uplift 2=-857(LC 8), 8=-838(LC 9)
             Max Grav 2=2742(LC 33), 8=2717(LC 34)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-3649/1269, 3-4=-3469/1196, 4-5=-2746/1003, 5-6=-2710/977, 6-7=-3428/1169,
             7-8=-3612/1244
BOT CHORD   2-12=-1020/2743, 11-12=-1346/3696, 10-11=-1346/3696, 8-10=-856/2601
WEBS   4-12=-163/1314, 5-12=-1253/575, 5-11=0/779, 5-10=-1299/607, 6-10=-202/1343

NOTES-
1) 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 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed;
   MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   2=857, 8=838.
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

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	A1	Hip Girder	1	**2**	Job Reference (optional)	E14048464

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:10:48 2020 Page 2
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-YDucqVH?aZIXv1nf3wmzOGl9dhEP3Y2zTcsOObznXXL

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 156 lb down and 161 lb up at 2-6-12, 139 lb down and 94 lb up at 4-6-12, 141 lb down and 126 lb up at 6-6-12, 173 lb down and 198 lb up at 8-4-0, 177 lb down and 194 lb up at 10-4-12, 177 lb down and 194 lb up at 11-7-4, 177 lb down and 194 lb up at 13-7-4, 177 lb down and 194 lb up at 15-7-4, 177 lb down and 194 lb up at 17-7-4, 177 lb down and 194 lb up at 19-7-4, 177 lb down and 194 lb up at 21-7-4, 173 lb down and 198 lb up at 23-8-0, 141 lb down and 126 lb up at 25-5-4, and 139 lb down and 94 lb up at 27-5-4, and 156 lb down and 161 lb up at 29-5-4 on top chord, and 93 lb down at 2-6-12, 70 lb down at 4-6-12, 68 lb down at 6-6-12, 79 lb down at 8-4-12, 79 lb down at 10-4-12, 79 lb down at 11-7-4, 79 lb down at 13-7-4, 79 lb down at 15-7-4, 79 lb down at 17-7-4, 79 lb down at 19-7-4, 79 lb down at 21-7-4, 79 lb down at 23-7-4, 68 lb down at 25-5-4, and 70 lb down at 27-5-4, and 93 lb down at 29-5-4 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: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20
   Concentrated Loads (lb)
       Vert: 4=-115(B) 6=-115(B) 12=-39(B) 10=-39(B) 13=-116(B) 14=-99(B) 15=-101(B) 16=-115(B) 17=-115(B) 18=-115(B) 19=-115(B) 20=-115(B) 21=-115(B) 22=-115(B) 23=-101(B) 24=-99(B) 25=-116(B) 26=-66(B) 27=-56(B) 28=-54(B) 30=-39(B) 31=-39(B) 32=-39(B) 33=-39(B) 34=-39(B) 35=-39(B) 36=-39(B) 38=-54(B) 39=-56(B) 40=-66(B)

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	A2	HIP	1	1		E14048465
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309
8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:10:51 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-yoakSXJttUg6mVWEk2Jg0uNezuC3G_1PAa42?wznXXI

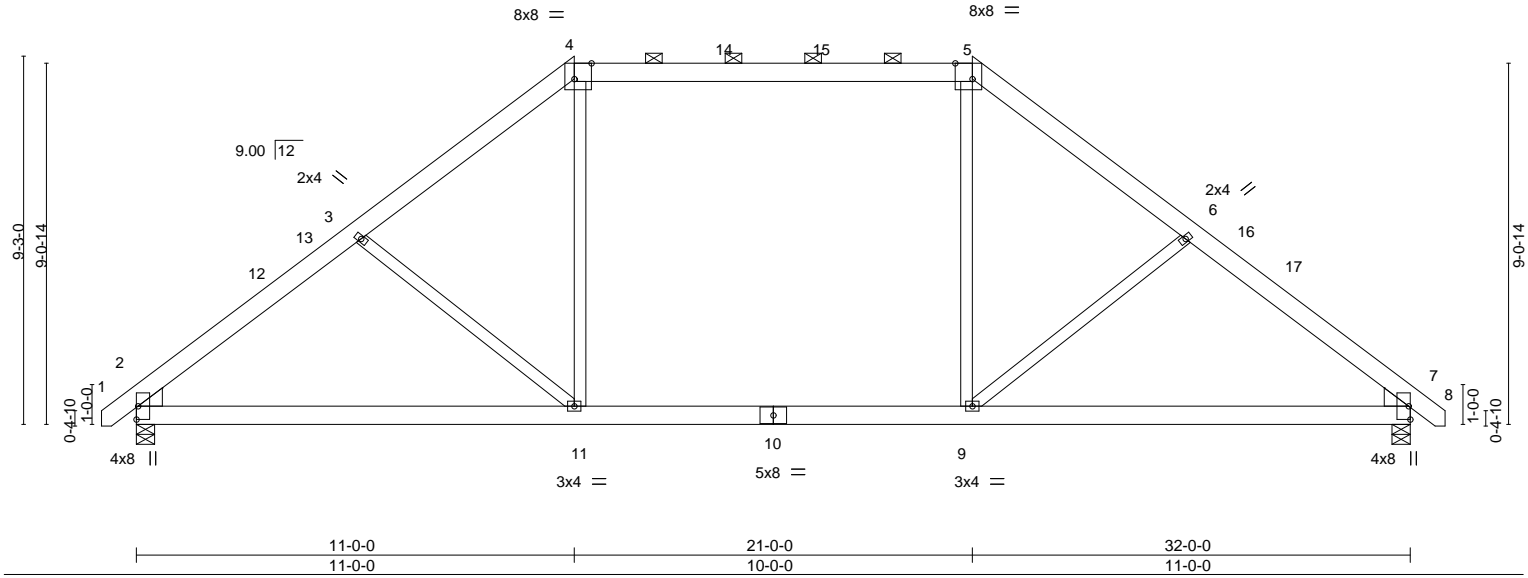-0-10-8　5-7-12　11-0-0　21-0-0　26-4-4　32-0-0　32-10-8
0-10-8　5-7-12　5-4-4　10-0-0　5-4-4　5-7-12　0-10-8

Scale = 1:57.9

	11-0-0	21-0-0	32-0-0
	11-0-0	10-0-0	11-0-0

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

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	0.54	Vert(LL)	-0.24	2-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.31	2-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.23	2-11	>999	240	Weight: 216 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 5-9-2 oc purlins, except
2-0-0 oc purlins (5-11-1 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=1320/0-5-8, 7=1320/0-5-8
Max Horz 2=210(LC 11)
Max Uplift 2=-53(LC 12), 7=-53(LC 13)
Max Grav 2=1371(LC 2), 7=1371(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1780/433, 3-4=-1610/436, 4-5=-1247/414, 5-6=-1610/436, 6-7=-1780/433
BOT CHORD 2-11=-236/1394, 9-11=-68/1247, 7-9=-227/1296
WEBS 3-11=-290/216, 4-11=0/542, 5-9=0/542, 6-9=-290/217

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 11-0-0, Exterior(2) 11-0-0 to 27-2-11, Interior(1)
27-2-11 to 32-9-0 zone;C-C for members & forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
7) 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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TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	A3	HIP	1	1	Job Reference (optional)	E14048466

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:10:55 2020 Page 1
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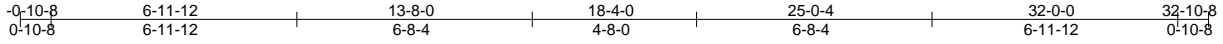
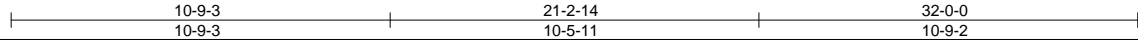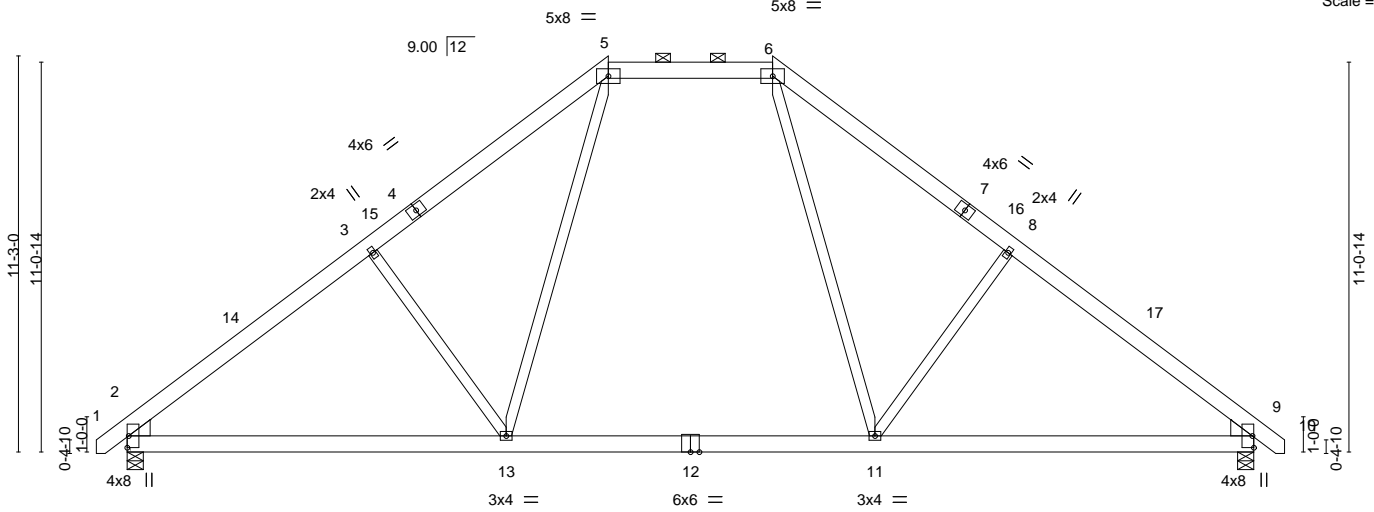**Plate Offsets (X,Y)--** [2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [9:0-0-3,0-0-4], [9:0-0-6,0-5-6]

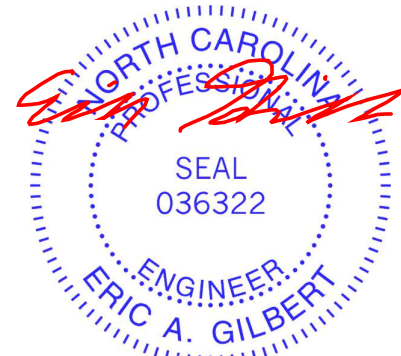| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.27	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.32	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.15	2-13	>999	240	Weight: 225 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 5-7-11 oc purlins,
            except
            2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=1320/0-5-8, 9=1320/0-5-8
Max Horz   2=258(LC 11)
Max Uplift   2=-65(LC 12), 9=-65(LC 13)
Max Grav   2=1424(LC 19), 9=1425(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1851/407, 3-5=-1652/472, 5-6=-1058/420, 6-8=-1653/472, 8-9=-1851/407
BOT CHORD   2-13=-201/1510, 11-13=-2/1119, 9-11=-191/1341
WEBS   3-13=-407/298, 5-13=-109/762, 6-11=-110/763, 8-11=-406/298

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 13-8-0, Exterior(2) 13-8-0 to 18-4-0, Interior(1) 24-6-11
   to 32-9-0 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) 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
7) 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	Truss	Truss Type	Qty	Ply	Southport C-E	E14048467
B0120-0237	A4-P	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:10:58 2020 Page 1
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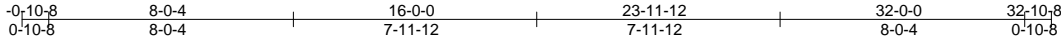
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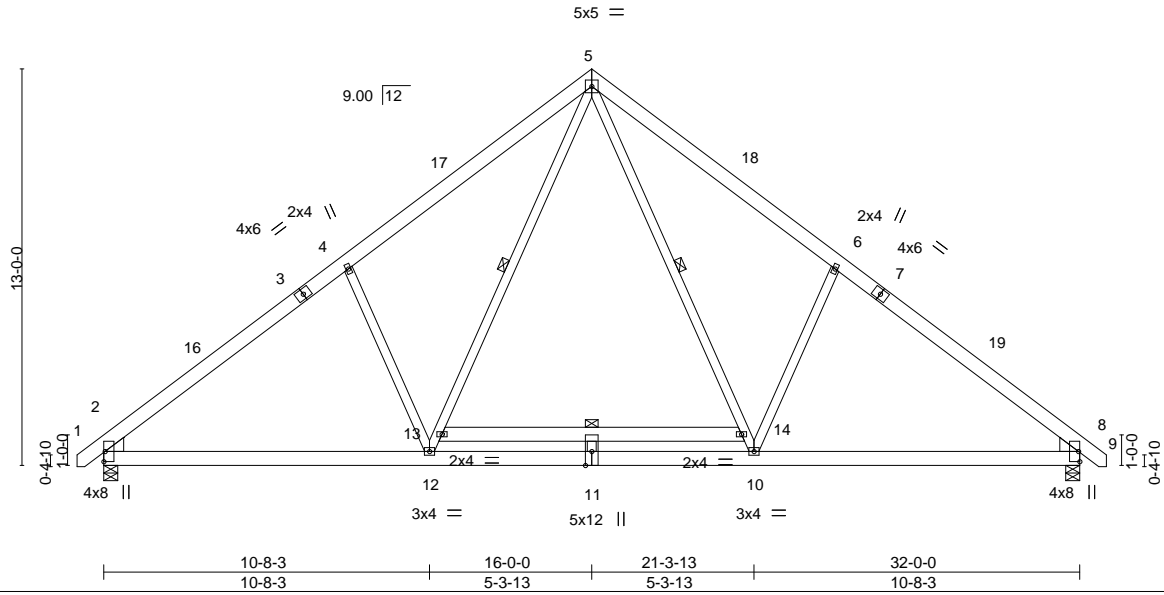
Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [8:0-0-3,0-0-4], [8:0-0-6,0-5-6]

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	0.44	Vert(LL)	-0.08	2-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.17	2-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.84	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	2-12	>999	240	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
WEDGE
Left: 2x6 SP No.1, Right: 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

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-
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 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.
5) 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

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 7,2020
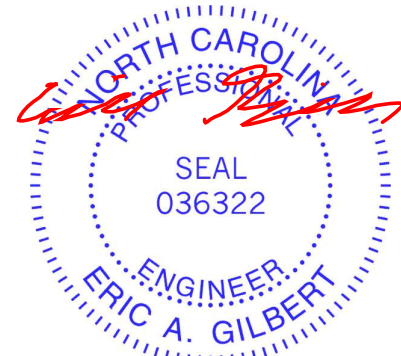
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	A5	COMMON	2	1	Job Reference (optional)	E14048468

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:02 2020 Page 1
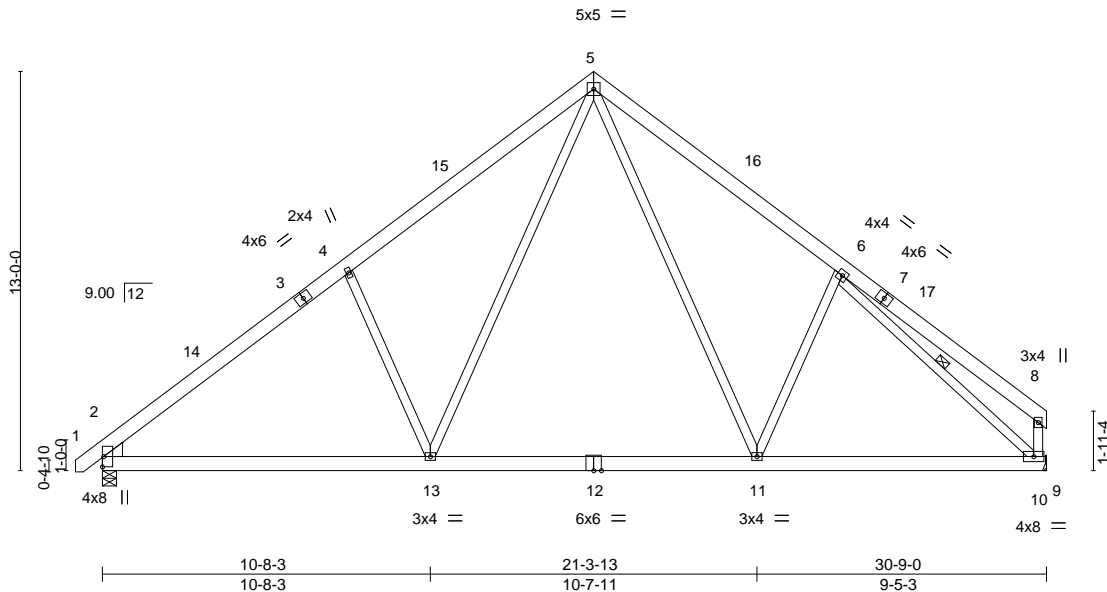ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-7vkumISnHs3YbBrLts0FzDKXNKz5Ltx1hnF8unznXX7
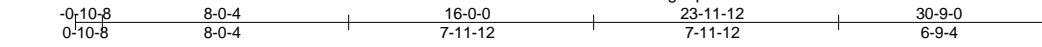
Scale = 1:75.0

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

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d		PLATES	GRIP
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%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.2 *Except*
            8-10: 2x4 SP No.3
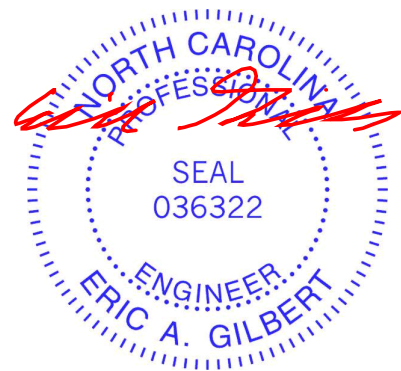WEDGE
Left: 2x6 SP No.1

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 5-8-4 oc purlins,
            except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   6-10

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; 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
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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	A5-P	COMMON	2	1		E14048469
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:04 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-4IsfBzT1pUJGqV?k?H2j2dPsN8gkpiAK95kEygznXX5
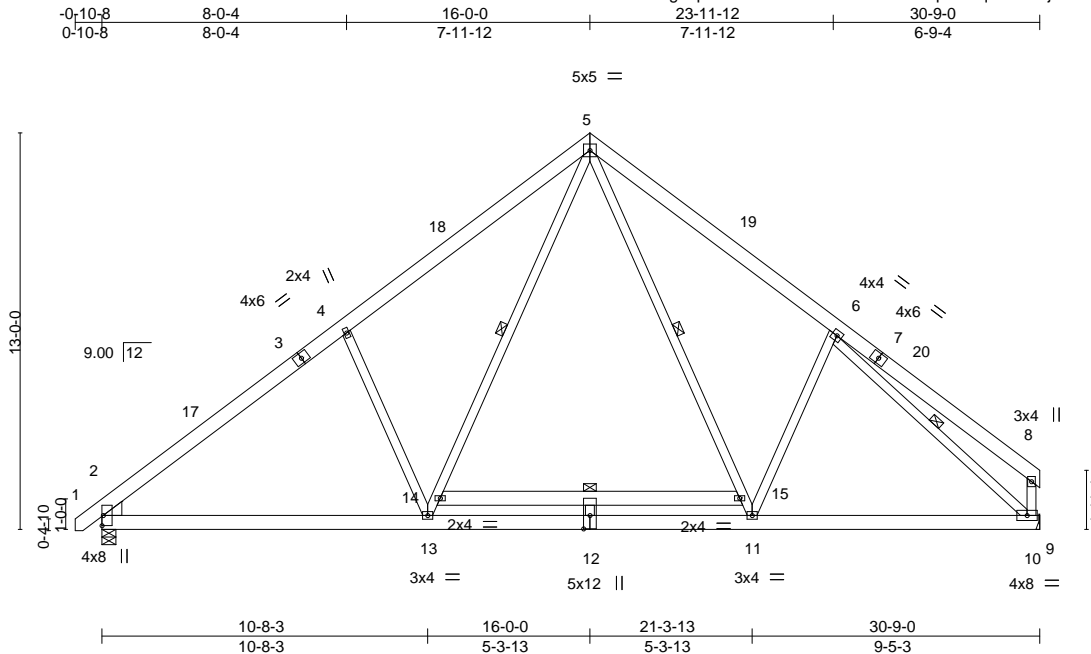
Scale = 1:75.5

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

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	0.56	Vert(LL)	-0.07	2-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.17	2-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.84	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	2-13	>999	240	Weight: 264 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
8-10: 2x4 SP No.3, 14-15: 2x6 SP No.1
WEDGE
Left: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13, 5-11, 6-10, 14-15

REACTIONS. (lb/size) 2=1561/0-5-8, 10=1532/Mechanical
Max Horz 2=299(LC 9)
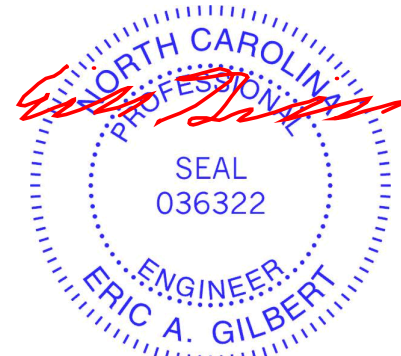Max Uplift 2=-102(LC 12), 10=-82(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2004/458, 4-5=-1902/591, 5-6=-1781/574, 6-8=-295/159, 8-10=-308/161
BOT CHORD 2-13=-265/1539, 11-13=-78/1160, 10-11=-228/1303
WEBS 4-13=-470/326, 13-14=-182/718, 5-14=-272/1057, 5-15=-223/817, 11-15=-133/479, 6-11=-289/281, 6-10=-1651/303

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 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.
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) 10 except (jt=lb) 2=102.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-8=-60, 2-9=-20, 14-15=-60

February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	**Ply**	Southport C-E	
B0120-0237	B1	Hip Girder	1	**2**	Job Reference (optional)	E14048470

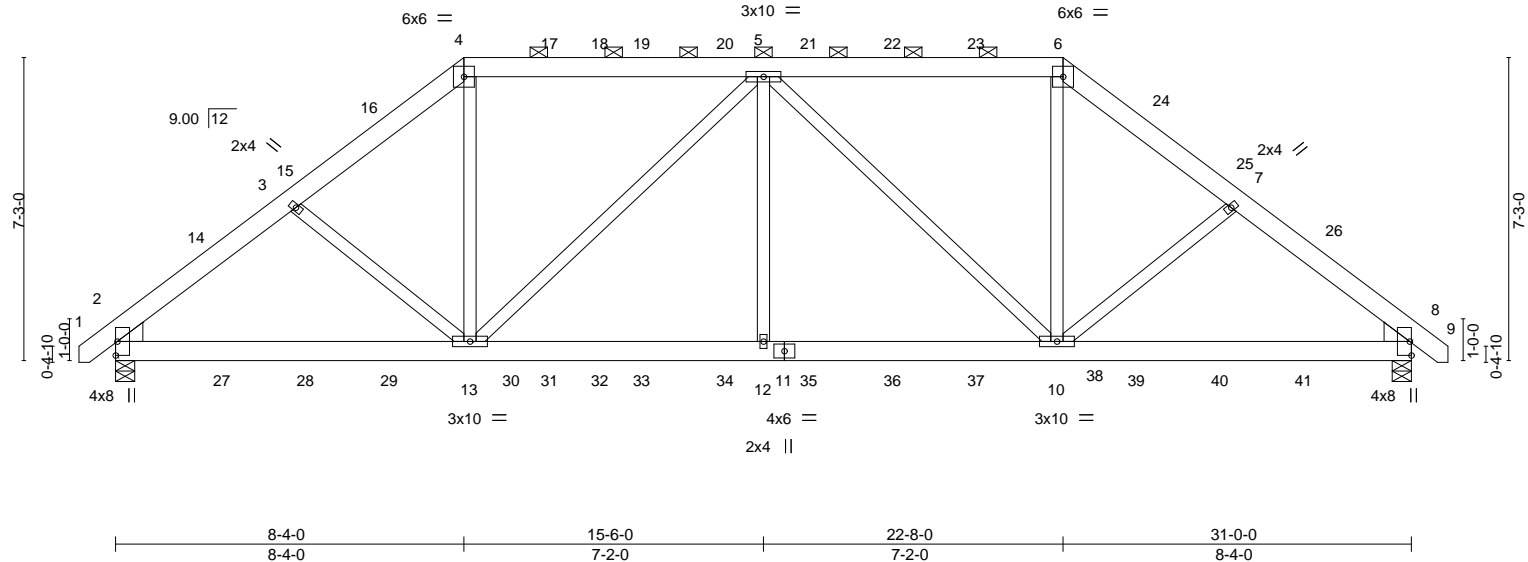| Comtech, Inc., Fayetteville, NC 28309	8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:09 2020 Page 1
	ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-QGfYEhXAe0yYwGuhnqeulh6kU9OWU3F3JNR?euznXX0

Scale = 1:55.1

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	0.41	Vert(LL)	-0.05	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.10	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.46	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06	12	>999	240	Weight: 470 lb	FT = 20%

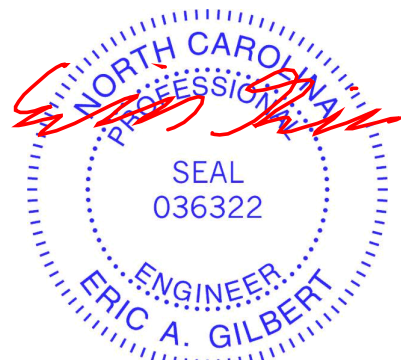Plate Offsets (X,Y)-- [2:0-0-3,0-0-4], [2:0-0-6,0-5-6], [8:0-0-3,0-0-4], [8:0-0-6,0-5-6]

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x6 SP No.1, Right: 2x6 SP No.1

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

REACTIONS. (lb/size) 2=2486/0-5-8, 8=2450/0-5-8
Max Horz 2=164(LC 26)
Max Uplift 2=-865(LC 8), 8=-831(LC 9)
Max Grav 2=2702(LC 33), 8=2656(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3587/1281, 3-4=-3405/1210, 4-5=-2695/1014, 5-6=-2628/966, 6-7=-3332/1160,
7-8=-3519/1237
BOT CHORD 2-13=-1021/2698, 12-13=-1315/3530, 10-12=-1315/3530, 8-10=-847/2536
WEBS 4-13=-152/1265, 5-13=-1141/544, 5-12=0/731, 5-10=-1230/604, 6-10=-230/1322

NOTES-
1) 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 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed;
MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
2=865, 8=831.
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

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
						E14048470
B0120-0237	B1	Hip Girder	1	**2**	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:09 2020 Page 2
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-QGfYEhXAe0yYwGuhnqeulh6kU9OWU3F3JNR?euznXX0

NOTES-
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 156 lb down and 161 lb up at 2-6-12, 139 lb down and 94 lb up at 4-6-12, 141 lb down and 126 lb up at 6-6-12, 173 lb down and 198 lb up at 8-4-0, 177 lb down and 194 lb up at 10-4-12, 177 lb down and 194 lb up at 11-7-4, 177 lb down and 194 lb up at 12-7-4, 177 lb down and 194 lb up at 14-7-4, 177 lb down and 194 lb up at 16-7-4, 177 lb down and 194 lb up at 18-7-4, 177 lb down and 194 lb up at 20-7-4, 173 lb down and 198 lb up at 22-8-0, 141 lb down and 126 lb up at 24-5-4, and 139 lb down and 94 lb up at 26-5-4, and 156 lb down and 161 lb up at 28-5-4 on top chord, and 93 lb down at 2-6-12, 70 lb down at 4-6-12, 68 lb down at 6-6-12, 79 lb down at 8-4-12, 79 lb down at 10-4-12, 79 lb down at 11-7-4, 79 lb down at 12-7-4, 79 lb down at 14-7-4, 79 lb down at 16-7-4, 79 lb down at 18-7-4, 79 lb down at 20-7-4, 79 lb down at 22-7-4, 68 lb down at 24-5-4, and 70 lb down at 26-5-4, and 93 lb down at 28-5-4 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: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20
    Concentrated Loads (lb)
        Vert: 4=-115(F) 6=-115(F) 13=-39(F) 10=-39(F) 14=-116(F) 15=-99(F) 16=-101(F) 17=-115(F) 18=-115(F) 19=-115(F) 20=-115(F) 21=-115(F) 22=-115(F) 23=-115(F) 24=-101(F) 25=-99(F) 26=-116(F) 27=-66(F) 28=-56(F) 29=-54(F) 31=-39(F) 32=-39(F) 33=-39(F) 34=-39(F) 35=-39(F) 36=-39(F) 37=-39(F) 39=-54(F) 40=-56(F) 41=-66(F)
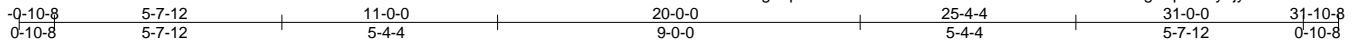
Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048471
B0120-0237	B2	HIP	1	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:11 2020 Page 1
ID:nl3Qa?g25pDAlPQix6eoV?zvBz3-MenIlfNZQAdCGAZ14vFgMq6C4ky2jy0rMmhw6imznXX_
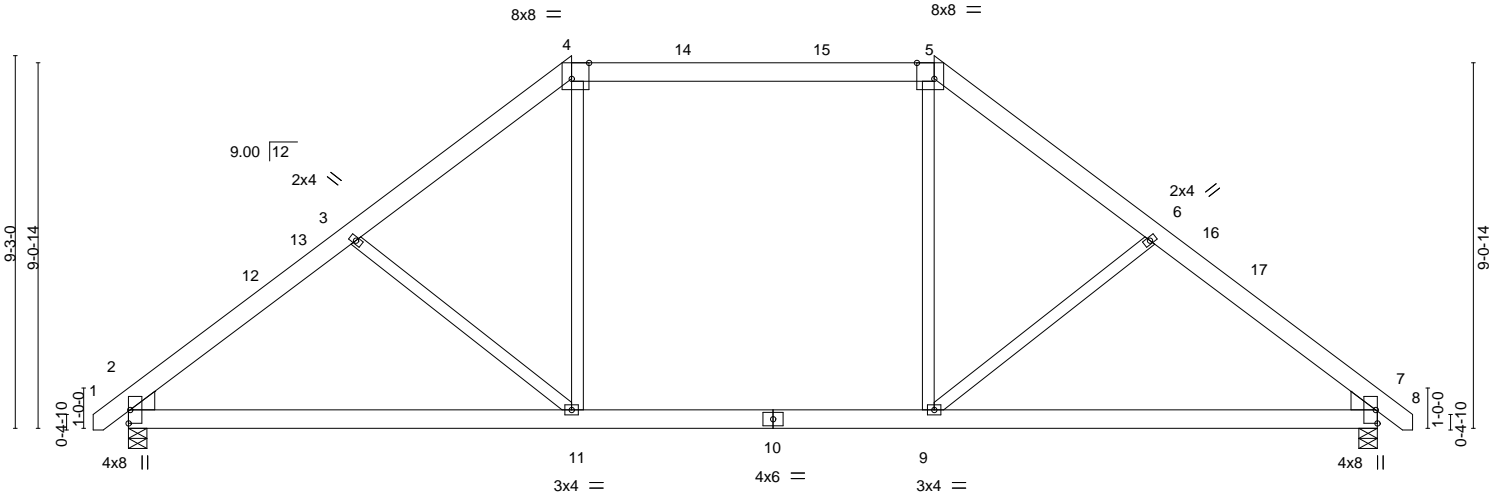
Scale = 1:57.2

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

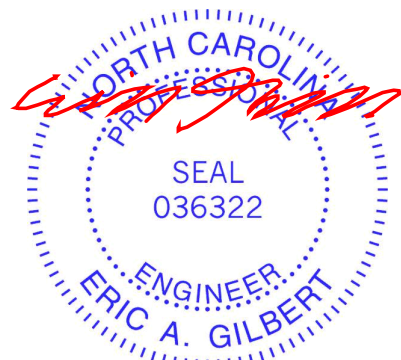| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.20	2-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.29	2-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.20	2-11	>999	240	Weight: 211 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 5-11-0 oc purlins, except
             2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=1280/0-5-8, 7=1280/0-5-8
Max Horz 2=210(LC 11)
Max Uplift 2=-53(LC 12), 7=-53(LC 13)
Max Grav 2=1317(LC 19), 7=1317(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1687/422, 3-4=-1513/424, 4-5=-1163/402, 5-6=-1513/424, 6-7=-1687/422
BOT CHORD   2-11=-229/1333, 9-11=-56/1163, 7-9=-219/1228
WEBS   3-11=-300/222, 4-11=-7/512, 5-9=-7/512, 6-9=-300/222

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 11-0-0, Exterior(2) 11-0-0 to 26-2-11, Interior(1)
   26-2-11 to 31-9-0 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) 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
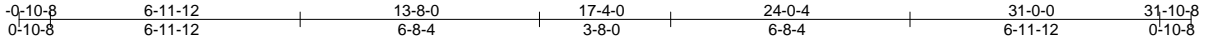
NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	B3	HIP	1	1		E14048472
					Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:12 2020 Page 1
ID:nl3Qa?g25pDAlPQix6eoV?zvBz3-rrLgsia2xxK7njcGTyBbNJkHWMNChTTV?LgfECznXWz
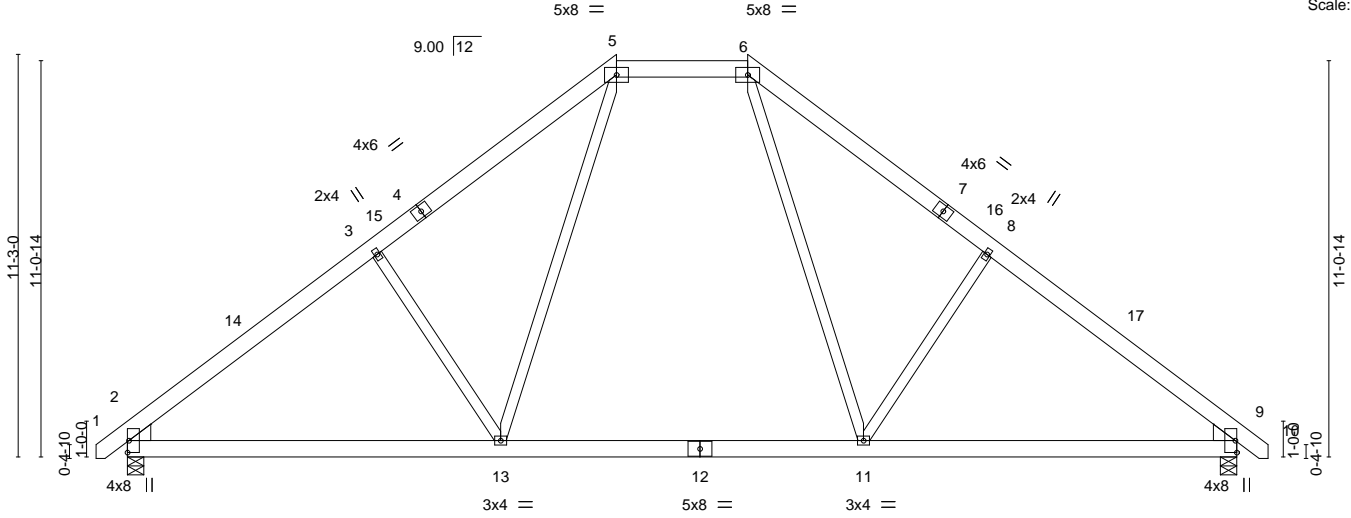
Scale: 3/16"=1'

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

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	0.29	Vert(LL)	-0.24	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.29	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	2-13	>999	240	Weight: 220 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 5-8-14 oc purlins,
             except
             2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   2=1280/0-5-8, 9=1280/0-5-8
             Max Horz 2=-258(LC 10)
             Max Uplift 2=-65(LC 12), 9=-65(LC 13)
             Max Grav 2=1386(LC 19), 9=1386(LC 20)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1793/387, 3-5=-1614/463, 5-6=-996/406, 6-8=-1614/463, 8-9=-1793/387
BOT CHORD   2-13=-185/1468, 11-13=0/1066, 9-11=-175/1294
WEBS   3-13=-409/300, 5-13=-126/770, 6-11=-126/770, 8-11=-409/300

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 13-8-0, Exterior(2) 13-8-0 to 17-4-0, Interior(1) 23-6-11
   to 31-9-0 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) 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
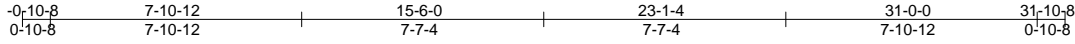
NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 7,2020

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

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
						E14048473
B0120-0237	B4	COMMON	1	1		
					Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:14 2020 Page 1
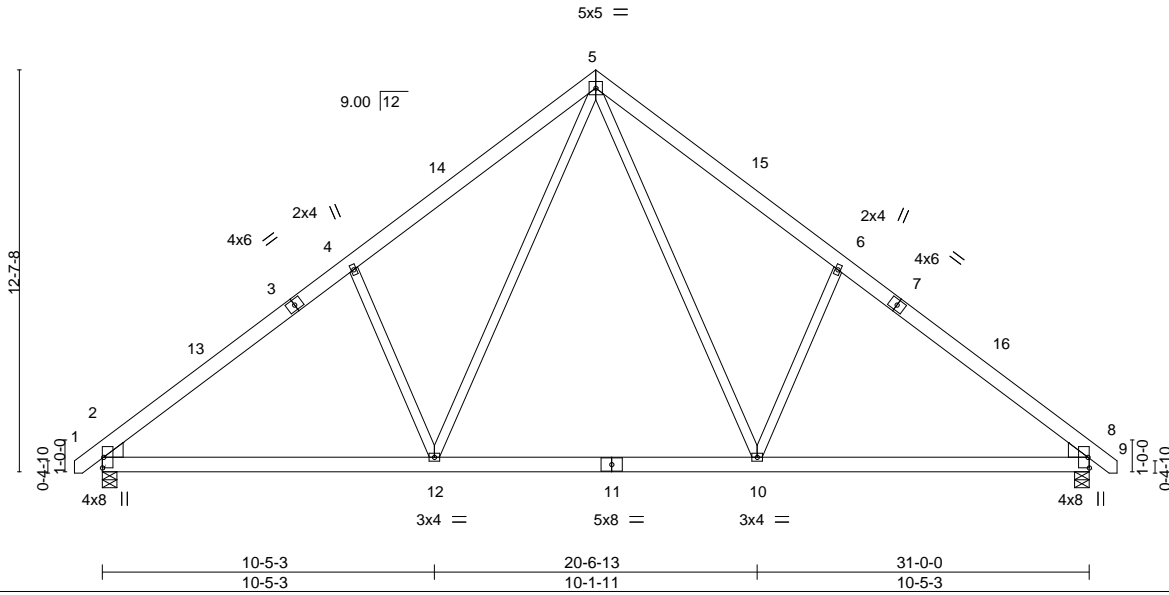ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-nDTRHObJSYar11mfaNE3SkqdsA3l9JkoSf9mI5znXWx

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]

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	0.30	Vert(LL)	-0.25	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.30	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	2-12	>999	240	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 5-8-7 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=1408(LC 19), 8=1408(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-1816/349, 4-5=-1672/482, 5-6=-1672/482, 6-8=-1816/349
BOT CHORD   2-12=-116/1497, 10-12=0/1009, 8-10=-116/1327
WEBS   5-10=-192/893, 6-10=-479/324, 5-12=-192/893, 4-12=-479/324

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048474
B0120-0237	B5	COMMON	3	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:16 2020 Page 1
ID:nI3Qa?g25pDAlPQix6eoV?zvBz3-jcaBi4dZ_AqZGLw1ioGXX9vzLzkudDK5wzetN_znXWv
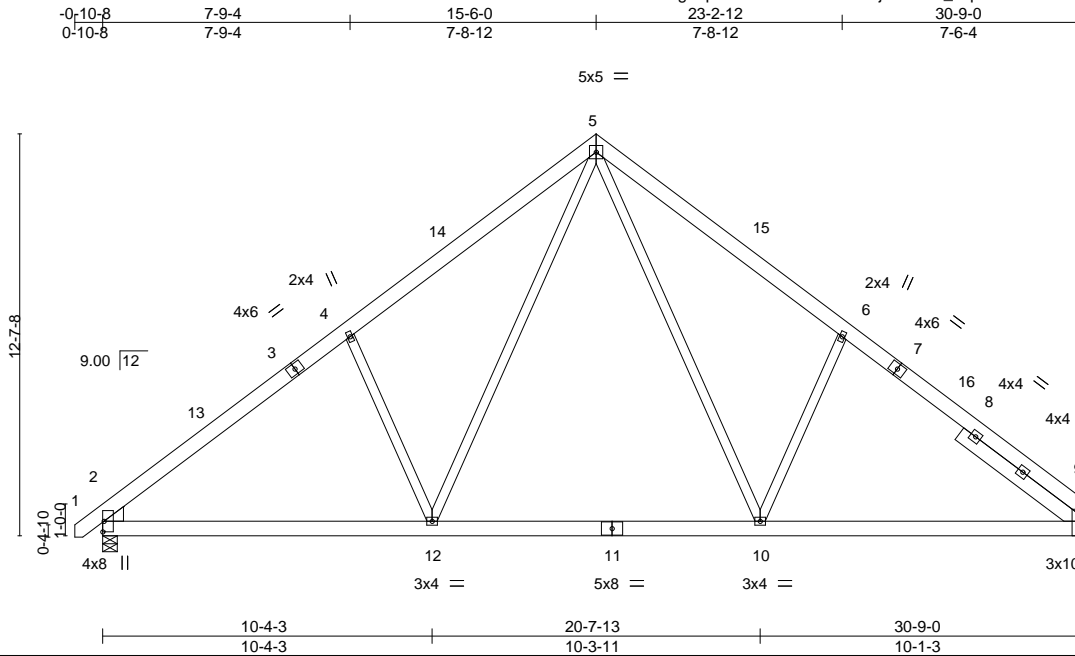
Scale = 1:72.4

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-	2-0-0	CSI.		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.

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ENGINEER
ERIC A. GILBERT

February 7,2020
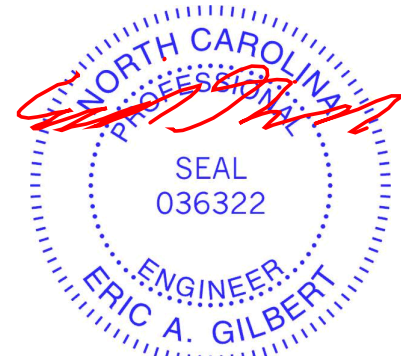
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	B6	ROOF SPECIAL	1	1		E14048475
					Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:17 2020 Page 1
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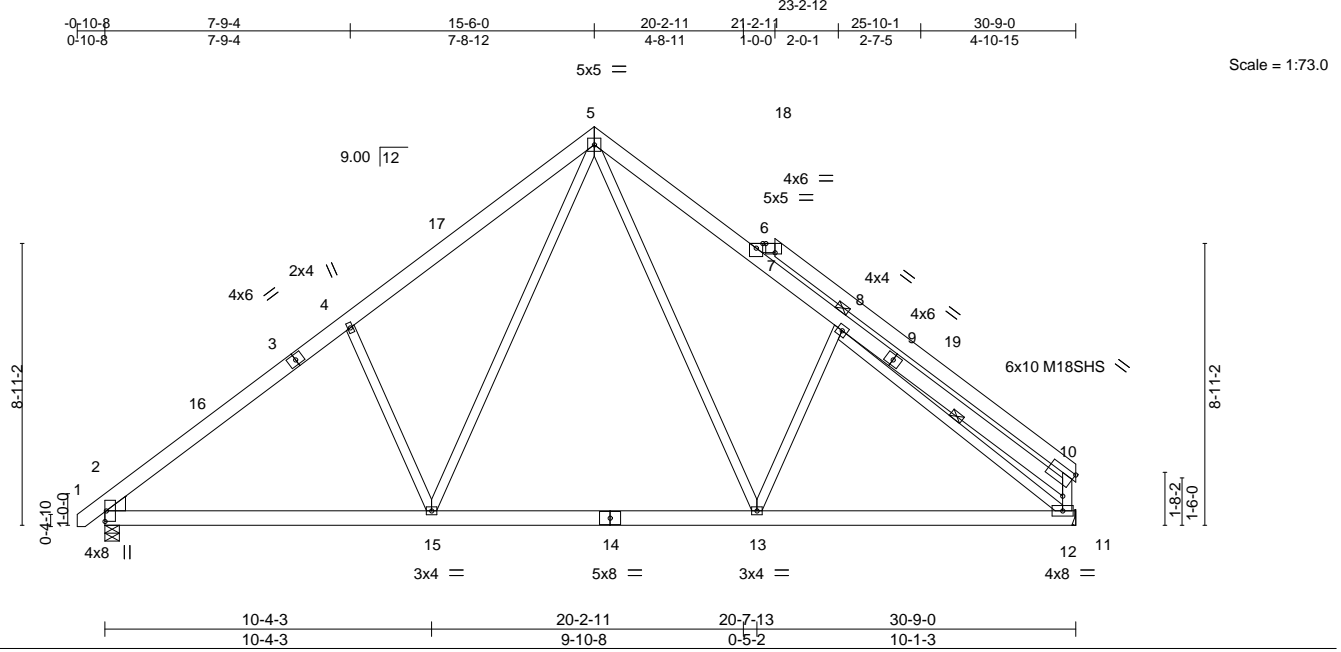
Scale = 1:73.0

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]

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	0.67	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%

LUMBER-
TOP CHORD   2x6 SP No.1 *Except*
    6-7: 2x4 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.2 *Except*
    10-12: 2x4 SP No.3
WEDGE
Left: 2x6 SP No.1

BRACING-
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   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   8-12
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

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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]

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	0.74	Vert(LL)	-0.26	18-20	>999	360	MT20	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%

LUMBER-
TOP CHORD   2x6 SP No.1 *Except*
6-7,7-15: 2x4 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.2 *Except*
15-17: 2x4 SP No.3
WEDGE
Left: 2x6 SP No.1

BRACING-
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   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   10-17
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-
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) 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
3) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 17.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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February 7,2020

ENGINEERING BY
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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048477
B0120-0237	C1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc.   Fri Feb 7 12:11:21 2020   Page 1
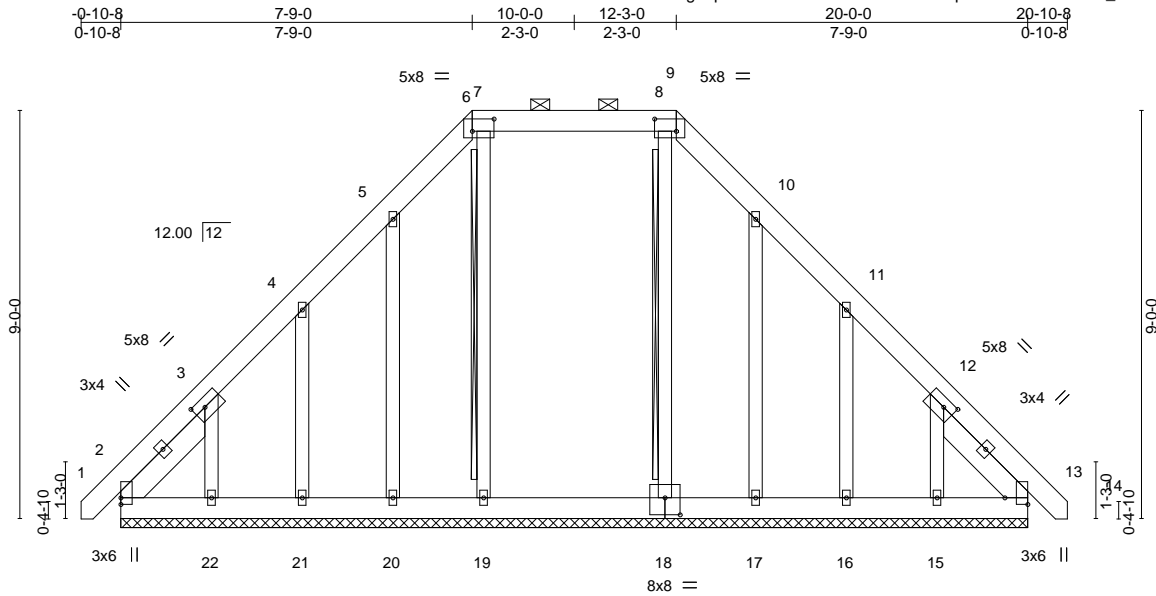ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-4ZO4lnhipiSrM6o?ULsiEDcut_aXIabq3EMe2BznXWq

Plate Offsets (X,Y)--   [3:0-3-0,0-2-4], [6:0-5-12,0-3-4], [6:0-0-0,0-2-12], [7:0-1-12,0-0-0], [8:0-1-12,0-0-0], [9:0-0-0,0-2-12], [9:0-5-12,0-3-4], [12:0-3-0,0-2-4], [13:Edge,0-6-1], [18:0-4-0,0-4-8]

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	0.06	Vert(LL)	0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 191 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
OTHERS   2x4 SP No.3
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, except
               2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   T-Brace: 2x4 SPF No.2 - 7-19, 8-18
             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 20-0-0.
      (lb) -   Max Horz   2=-257(LC 10)
           Max Uplift   All uplift 100 lb or less at joint(s) 13, 19, 18 except 2=-128(LC 8),
                 20=-120(LC 12), 21=-149(LC 12), 22=-228(LC 12), 17=-115(LC 13), 16=-151(LC
                 13), 15=-216(LC 13)
           Max Grav   All reactions 250 lb or less at joint(s) 13, 20, 21, 22, 17, 16, 15
                 except 2=273(LC 21), 19=397(LC 22), 18=374(LC 21)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-334/245, 12-13=-277/161

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=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 7-9-0, Corner(3) 7-9-0 to 12-3-0,
    Exterior(2) 16-7-13 to 20-8-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
    DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
    Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 19, 18 except
      (jt=lb) 2=128, 20=120, 21=149, 22=228, 17=115, 16=151, 15=216.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

February 7,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
						E14048478
B0120-0237	C2	COMMON	1	1		
					Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:22 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-YmySz7hKa0ai_GNB23NxnQ91iOpT1wYzIu5BadznXWp
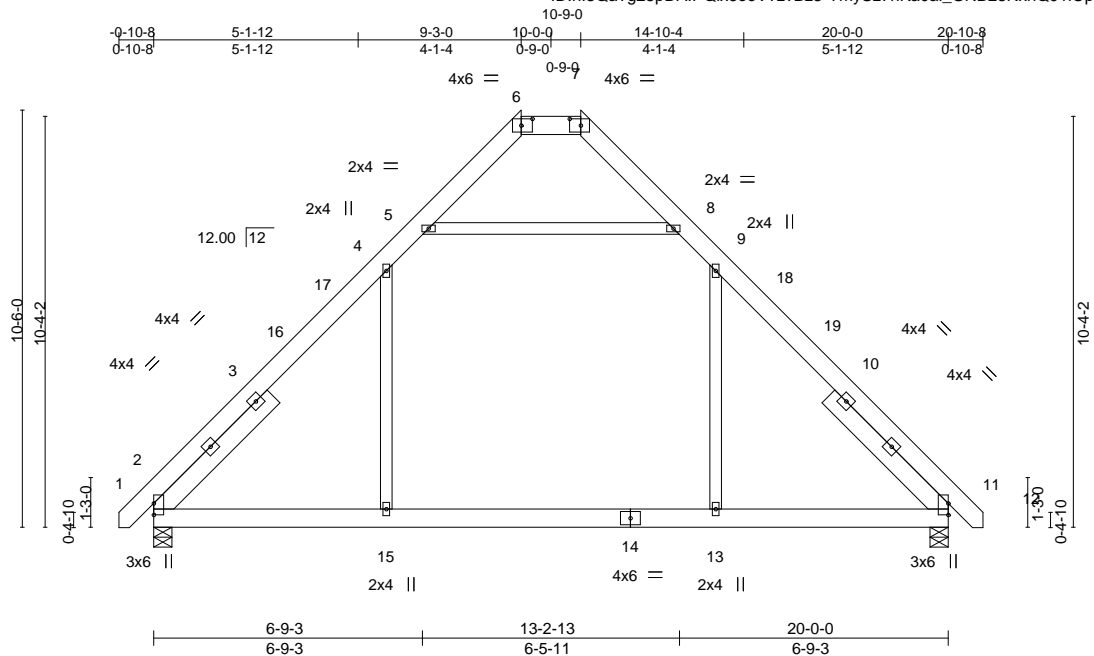
Scale = 1:58.0
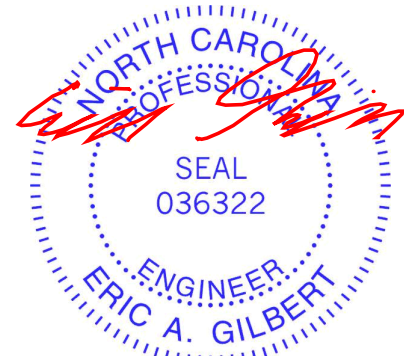
Plate Offsets (X,Y)--   [6:0-3-6,0-2-0], [7:0-3-6,0-2-0]

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	0.18	Vert(LL)	-0.10	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.13	13-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.10	2-15	>999	240	Weight: 166 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

REACTIONS. (lb/size)   2=845/0-5-8, 11=845/0-5-8
Max Horz 2=-238(LC 10)
Max Uplift 2=-32(LC 12), 11=-32(LC 13)
Max Grav 2=937(LC 19), 11=937(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-1164/217, 4-5=-626/272, 8-9=-625/272, 9-11=-1164/217
BOT CHORD   2-15=-12/716, 13-15=-11/717, 11-13=-11/716
WEBS   4-15=-2/454, 9-13=-2/454, 5-8=-719/334

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

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) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 9-3-0, Exterior(2) 9-3-0 to 10-9-0, Interior(1) 15-1-13
   to 20-8-15 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) 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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 7,2020

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	C3	COMMON	1	1	Job Reference (optional)	E14048479

Comtech, Inc., Fayetteville, NC 28309
8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:24 2020 Page 1
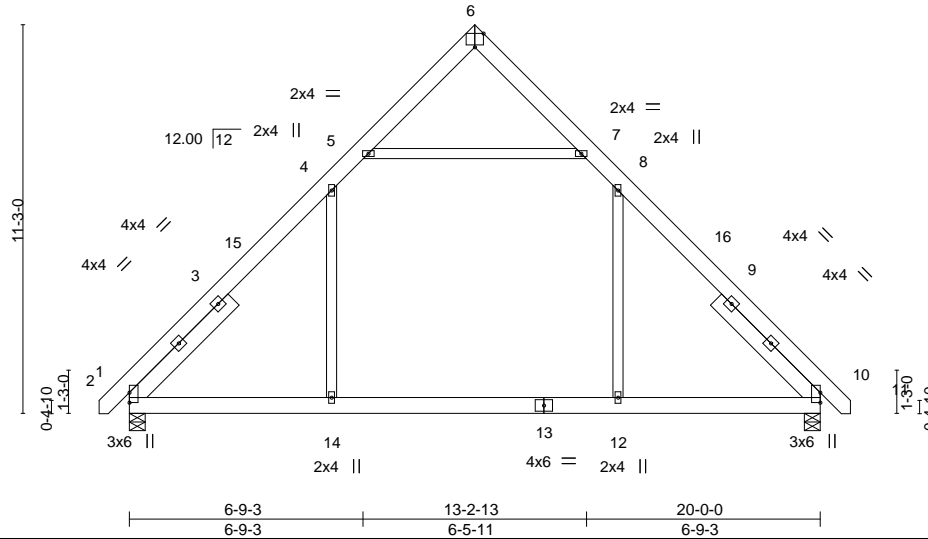ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-U83DOpja6drQDZXaATPPsrEM3CVwVq4GlCalfWznXWn
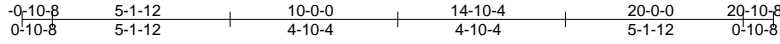
Scale = 1:66.7

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

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	0.19	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-
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) -0-8-15 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
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
						E14048480
B0120-0237	D1	KINGPOST	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:26 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-QXBzpVkreE58TthyHuRtxGJi6?E3zpSZDW3PjOznXWl
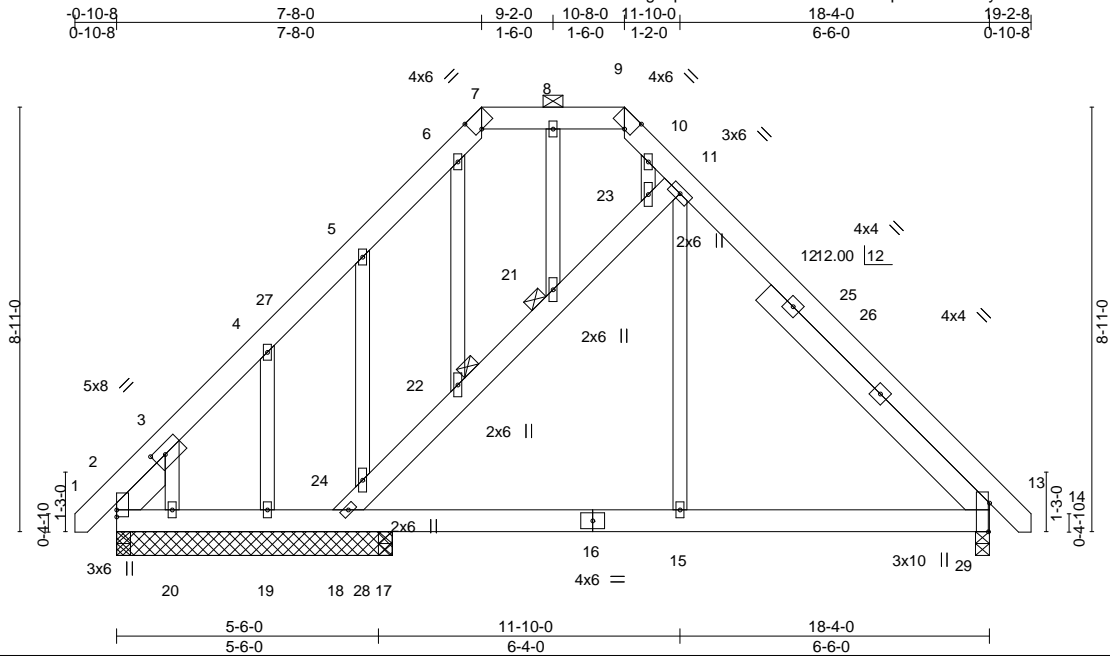
Plate Offsets (X,Y)-- [3:0-3-0,0-2-4], [7:0-2-2,Edge], [9:0-2-2,Edge], [13:0-7-4,Edge]

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	0.16	Vert(LL)	-0.03	13-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.04	13-15	>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	13-15	>999	240	Weight: 188 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.3 *Except*
            11-18: 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, except
            2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS   1 Brace at Jt(s): 21, 22

REACTIONS.   All bearings 0-3-8 except (jt=length) 18=5-9-8, 19=5-9-8, 20=5-9-8.
        (lb) - Max Horz 13=255(LC 11)
                Max Uplift All uplift 100 lb or less at joint(s) 2, 13 except 18=-302(LC 13), 19=-165(LC 12), 20=-253(LC 12)
                Max Grav   All reactions 250 lb or less at joint(s) 20 except 2=409(LC 21), 2=308(LC 1), 18=254(LC 20), 19=250(LC
                           19), 13=819(LC 2), 17=534(LC 18)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   10-11=-304/250, 11-13=-725/102, 2-3=-444/276, 3-4=-298/136, 4-5=-265/47,
            5-6=-278/122
BOT CHORD   2-20=-179/282, 19-20=-181/284, 18-19=-182/285, 17-18=-130/545, 15-17=-130/545,
            13-15=-130/545
WEBS   18-24=-623/312, 22-24=-569/252, 21-22=-570/246, 21-23=-554/234, 11-23=-643/351,
            11-15=0/543

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) gable end zone and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 7-8-0, Exterior(2) 7-8-0 to 10-8-0,
   Interior(1) 15-0-13 to 19-0-15 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 2x4 MT20 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13 except
   (jt=lb) 18=302, 19=165, 20=253.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

SEAL
036322

ERIC A. GILBERT
ENGINEER
NORTH CAROLINA
PROFESSIONAL

February 7,2020

TRENCO
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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	D2	Common Girder	1	2	Job Reference (optional)	E14048481

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:28 2020 Page 1
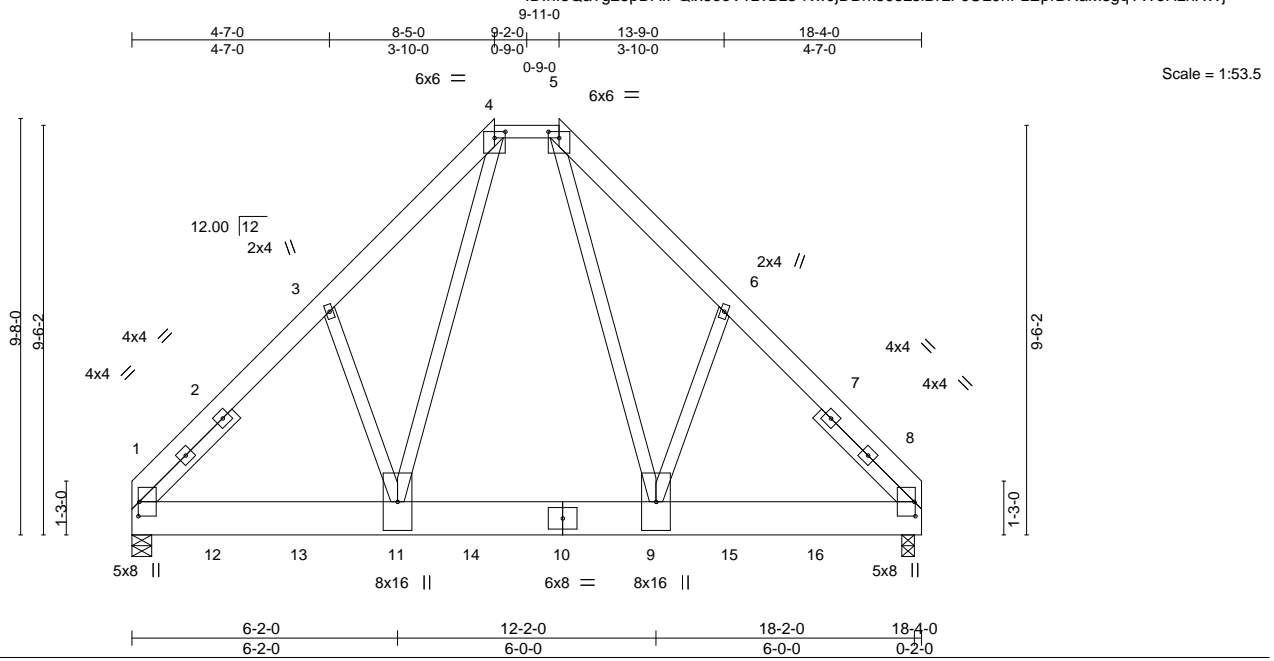ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-NwJjDBm59sLsiBrLPJUL0hPzEprBRaMsgqYWoHznXWj

Scale = 1:53.5

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

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	0.50	Vert(LL)	-0.05	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.10	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	9-11	>999	240	Weight: 363 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1 *Except*
4-5: 2x4 SP No.1
BOT CHORD   2x10 SP No.1
WEBS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 3-0-8, Right 2x4 SP No.3 3-0-8

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

REACTIONS. (lb/size)   1=5673/0-5-8, 8=7170/0-3-8 (req. 0-4-4)
Max Horz 1=215(LC 5)
Max Uplift 1=-295(LC 9), 8=-383(LC 9)
Max Grav 1=5962(LC 2), 8=7170(LC 1)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-3=-6007/356, 3-4=-5641/420, 5-6=-5723/425, 6-8=-6054/357, 4-5=-3097/272
BOT CHORD   1-11=-252/3872, 9-11=-159/3097, 8-9=-168/3942
WEBS   3-11=-204/572, 4-11=-288/3792, 6-9=-205/488, 5-9=-296/3964

NOTES-
1) 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, 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-6-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed;
   MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 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.
8) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   1=295, 8=383.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) 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, 1266 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 1512
    lb down and 102 lb up at 15-10-12, and 1517 lb down and 96 lb up at 18-2-4 on bottom chord. The design/selection of such
    connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2

February 7, 2020

ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	D2	Common Girder	1	**2**		E14048481
					Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:28 2020 Page 2
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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
        Vert: 1-4=-60, 5-8=-60, 1-8=-20, 4-5=-60
   Concentrated Loads (lb)
        Vert: 8=-1517(B) 10=-1194(B) 11=-1200(B) 9=-1194(B) 12=-1200(B) 13=-1200(B) 14=-1194(B) 15=-1194(B) 16=-1512(B)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048482
B0120-0237	E1	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:29 2020 Page 1
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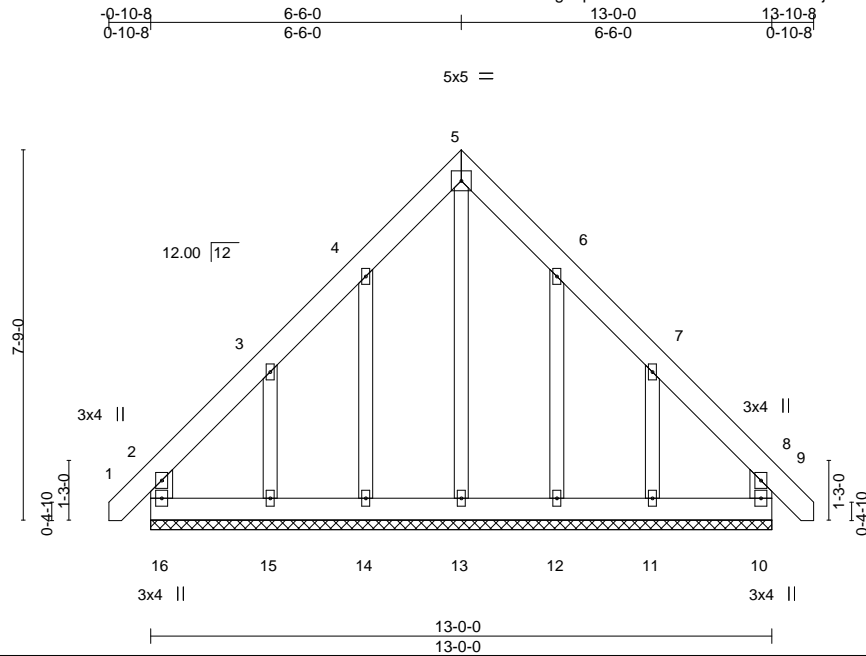
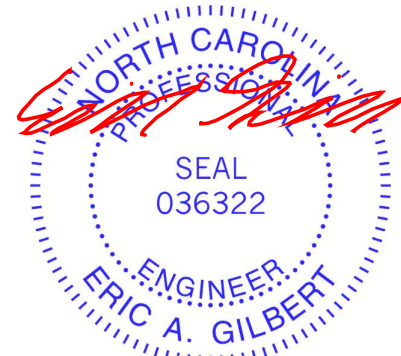| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		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-
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) 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 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.
10) 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

ENGINEERING BY
TRENCO
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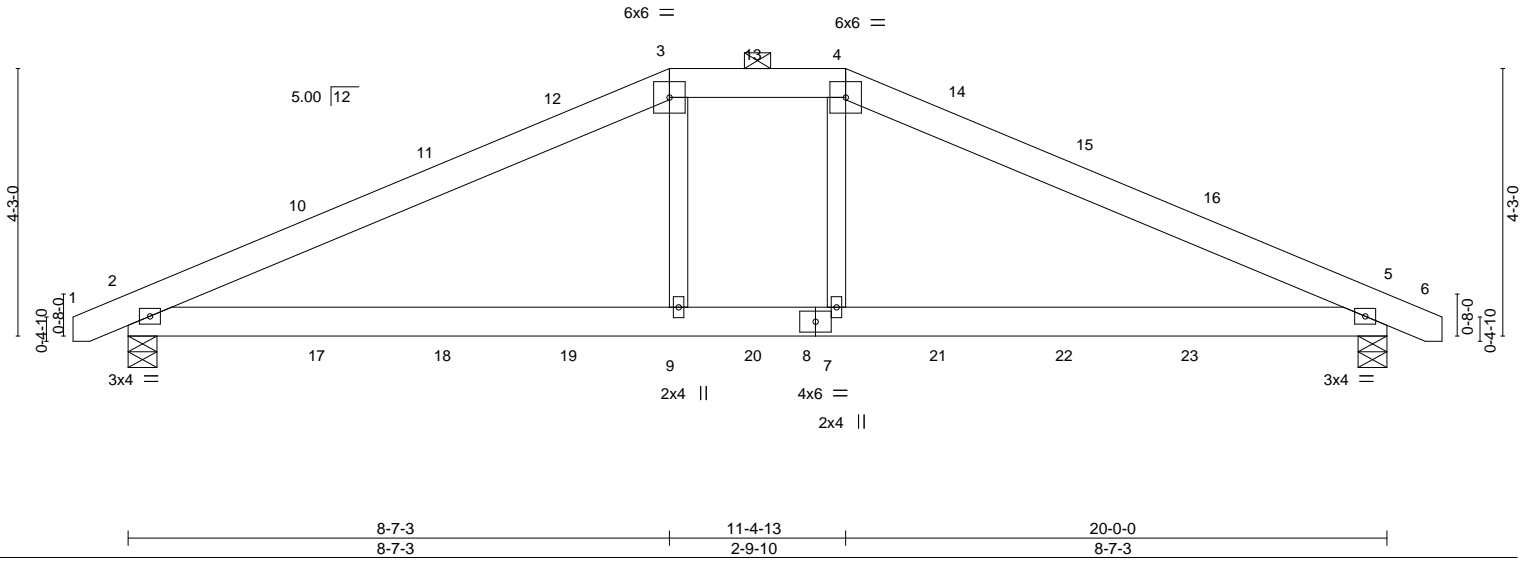| Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048483
B0120-0237	G1	HIP GIRDER	1	2	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc.   Fri Feb 7 12:11:32 2020   Page 1
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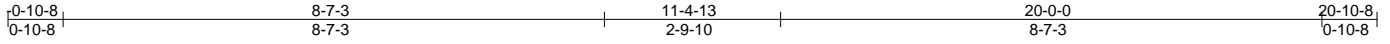
0-10-8 | 8-7-3 | 11-4-13 | 20-0-0 | 20-10-8
0-10-8 | 8-7-3 | 2-9-10 | 8-7-3 | 0-10-8

Scale = 1:36.6

8-7-3 | 11-4-13 | 20-0-0
8-7-3 | 2-9-10 | 8-7-3

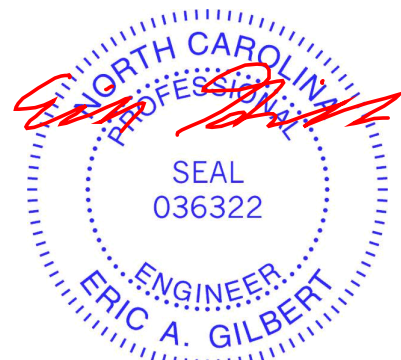| LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	2-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.06	2-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	2-9	>999	240	Weight: 224 lb	FT = 20%

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

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

REACTIONS. (lb/size)   2=942/0-5-8, 5=942/0-5-8
     Max Horz 2=47(LC 8)
     Max Uplift 2=-295(LC 8), 5=-295(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1437/578, 3-4=-1216/559, 4-5=-1437/578
BOT CHORD   2-9=-479/1209, 7-9=-479/1216, 5-7=-478/1209
WEBS   3-9=-31/282, 4-7=-31/282

NOTES-
1) 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 0-9-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
   ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed;
   MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   2=295, 5=295.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building
   designer.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 50 lb up at
   3-0-12, 48 lb down and 39 lb up at 5-0-12, 47 lb down and 57 lb up at 7-0-12, 82 lb down and 85 lb up at 8-7-3, 86 lb down and
   85 lb up at 10-0-0, 82 lb down and 85 lb up at 11-4-13, 47 lb down and 57 lb up at 12-11-4, and 48 lb down and 39 lb up at
   14-11-4, and 67 lb down and 50 lb up at 16-11-4 on top chord, and 21 lb down at 3-0-12, 19 lb down and 17 lb up at 5-0-12, 25 lb
   down and 27 lb up at 7-0-12, 29 lb down and 34 lb up at 8-7-15, 29 lb down and 34 lb up at 10-0-0, 29 lb down and 34 lb up at
   11-4-1, 25 lb down and 27 lb up at 12-11-4, and 19 lb down and 17 lb up at 14-11-4, and 21 lb down at 16-11-4 on bottom chord.
   The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
						E14048483
B0120-0237	G1	HIP GIRDER	1	**2**	Job Reference (optional)	

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
         Vert: 1-3=-60, 3-4=-60, 4-6=-60, 2-5=-20
   Concentrated Loads (lb)
         Vert: 3=-7(B) 4=-7(B) 9=-8(B) 7=-8(B) 10=-27(B) 11=-8(B) 12=-7(B) 13=-7(B) 14=-7(B) 15=-8(B) 16=-27(B) 17=-21(B) 18=-8(B) 19=-8(B) 20=-8(B) 21=-8(B)
         22=-8(B) 23=-21(B)

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	G2	Common	4	1	Job Reference (optional)	E14048484

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:34 2020 Page 1
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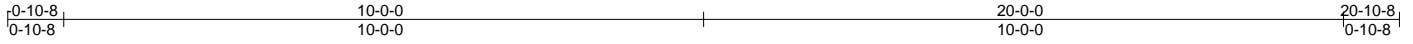
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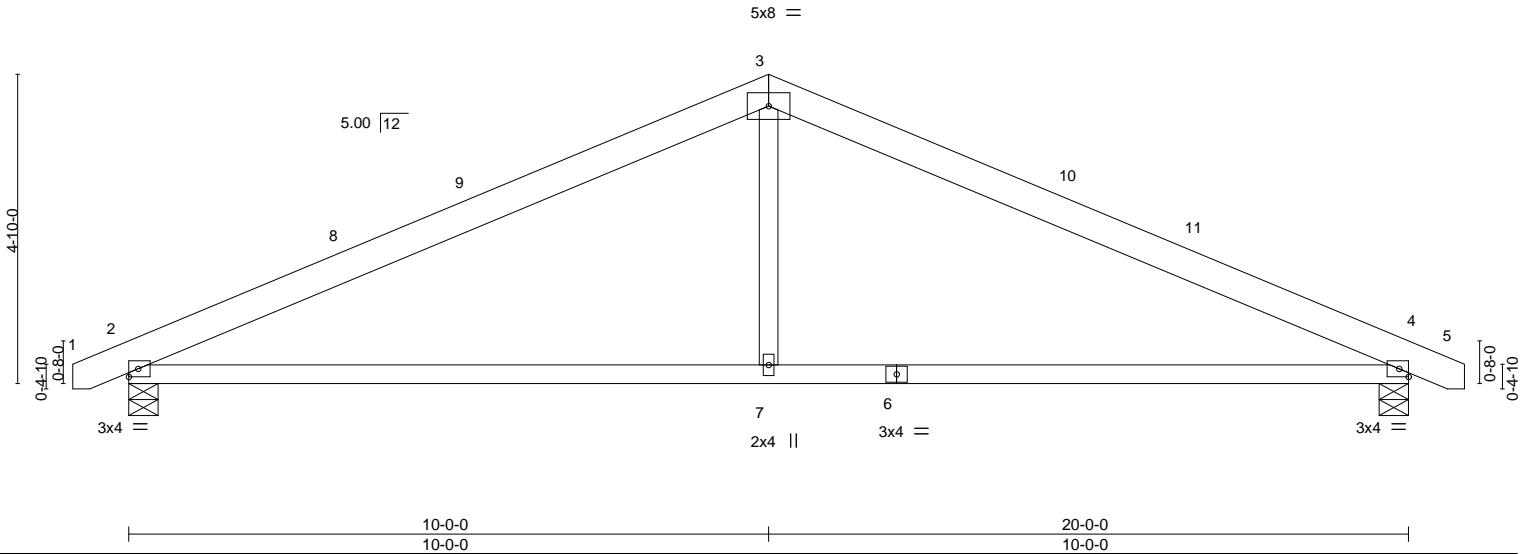
LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.16	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.35	2-7	>667	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		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-
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) -0-8-14 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
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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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February 7,2020

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	G-J1	Jack-Open	3	1		E14048485
					Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:35 2020 Page 1
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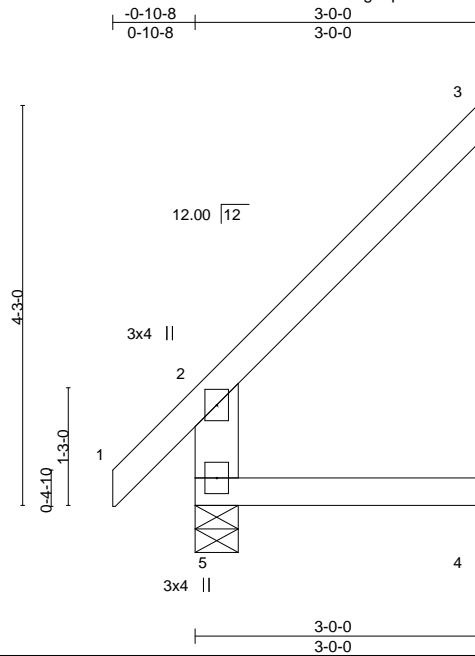
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LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.01	4-5	>999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a	
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 15 lb	FT = 20%

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 3-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   5=187/0-5-8, 3=67/Mechanical, 4=28/Mechanical
Max Horz 5=116(LC 12)
Max Uplift 3=-78(LC 12), 4=-18(LC 12)
Max Grav 5=187(LC 1), 3=87(LC 19), 4=50(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; TCDL=6.0psf; BCDL=6.0psf; 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 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4.

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February 7,2020

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048486
B0120-0237	G-J2	Jack-Open	2	1	Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:37 2020 Page 1
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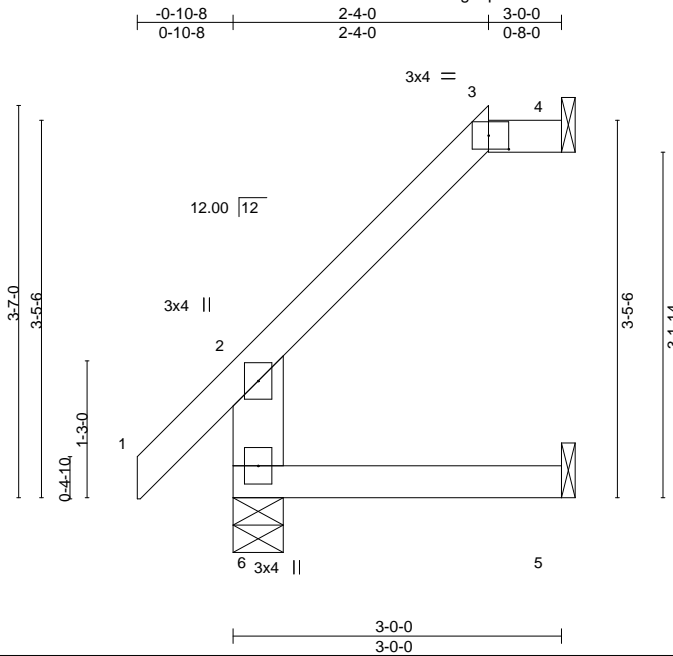
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Plate Offsets (X,Y)--   [3:0-2-3,0-1-8]

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	0.11	Vert(LL)	0.01	5-6	>999	240		MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.00	5-6	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	4	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R								Weight: 15 lb	FT = 20%

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 3-0-0 oc purlins,
             except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size)   6=187/0-5-8, 4=67/Mechanical, 5=28/Mechanical
Max Horz 6=94(LC 12)
Max Uplift 4=-49(LC 12), 5=-11(LC 12)
Max Grav 6=187(LC 1), 4=67(LC 1), 5=50(LC 3)

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

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) 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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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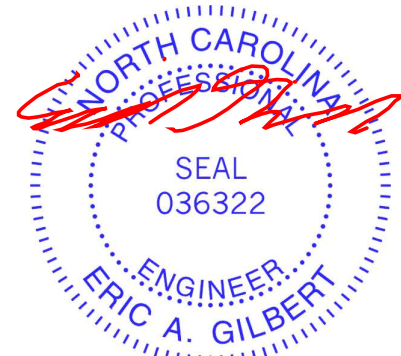036322
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February 7,2020

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048487
B0120-0237	G-J3	Jack-Open	2	1	Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:39 2020 Page 1
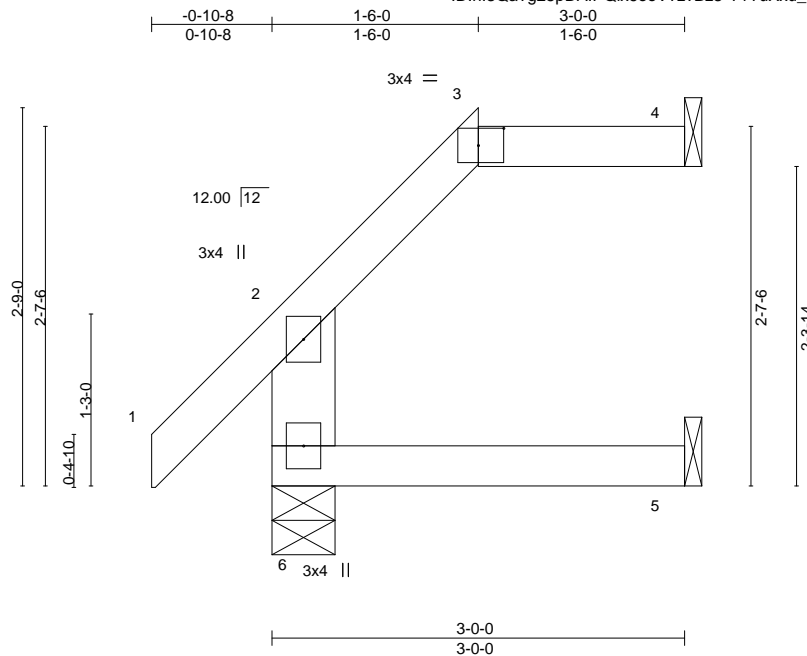ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-Y1TuXxu_aEjlXtASY7Awz0MyrFiyWkuUC2jbh8znXWY

Scale = 1:16.8

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

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	0.09	Vert(LL)	-0.00	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R		Wind(LL)	0.01	5-6	>999	240	Weight: 14 lb	FT = 20%

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 3-0-0 oc purlins,
                   except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   6=187/0-5-8, 4=68/Mechanical, 5=27/Mechanical
                 Max Horz 6=67(LC 12)
                 Max Uplift 4=-31(LC 9), 5=-1(LC 12)
                 Max Grav 6=187(LC 1), 4=68(LC 1), 5=50(LC 3)

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

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) 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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048488
B0120-0237	G-J4	Jack-Open Girder	2	1	Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:40 2020 Page 1
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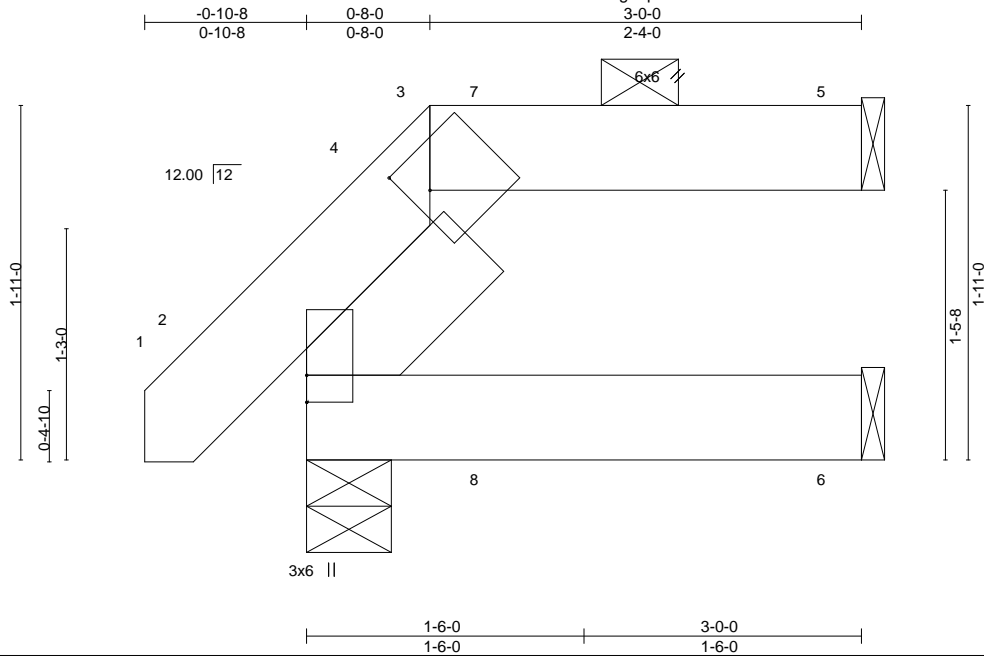
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Plate Offsets (X,Y)--   [3:0-1-5,0-2-7]

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)	-0.00	2	>999	360		MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	2-6	>999	240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2-6	>999	240		Weight: 21 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
SLIDER   Left 2x6 SP No.1 1-1-13
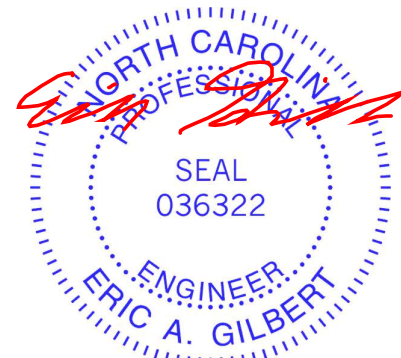
BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-0-0 oc purlins, except
                        2-0-0 oc purlins: 3-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   5=87/Mechanical, 2=230/0-5-8, 6=41/Mechanical
                        Max Horz 2=73(LC 8)
                        Max Uplift 5=-37(LC 5), 2=-20(LC 5)
                        Max Grav 5=87(LC 1), 2=230(LC 1), 6=59(LC 3)

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

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); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 29 lb down and 45 lb up at
    1-0-12 on top chord, and 15 lb down at 1-0-12 on bottom chord. The design/selection of such connection device(s) is the
    responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
    Uniform Loads (plf)
            Vert: 1-3=-60, 2-4=-60, 3-4=60, 3-5=-60, 2-6=-20
    Concentrated Loads (lb)
            Vert: 7=-3(F) 8=-7(F)

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048489
B0120-0237	G-J5	Jack-Open	2	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:41 2020 Page 1
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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	0.07	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	2-4	>999	240		
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		Wind(LL)	0.00	2	****	240	Weight: 13 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 3-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   3=68/Mechanical, 2=188/0-5-8, 4=27/Mechanical
Max Horz 2=51(LC 12)
Max Uplift 3=-38(LC 12), 2=-26(LC 8)
Max Grav 3=68(LC 1), 2=188(LC 1), 4=54(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; TCDL=6.0psf; BCDL=6.0psf; 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 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.

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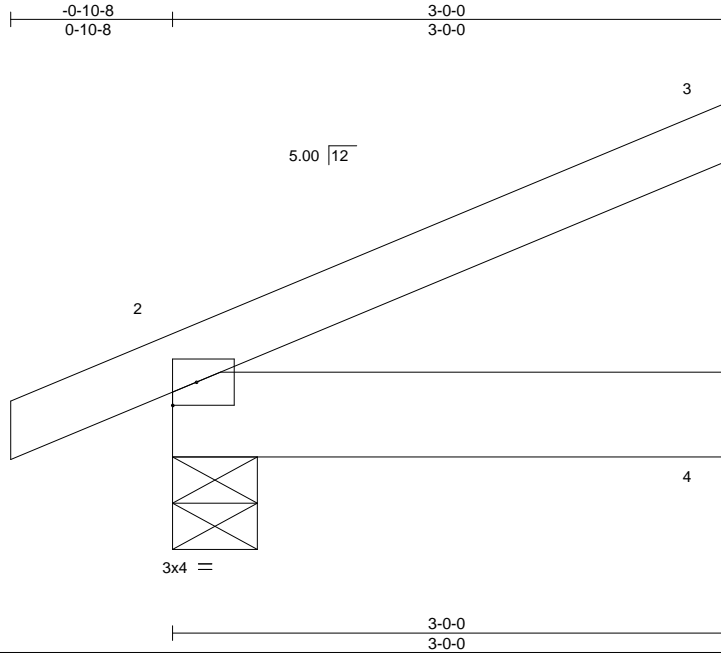
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	J01	Jack-Open	18	1		E14048490
					Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:41 2020 Page 1
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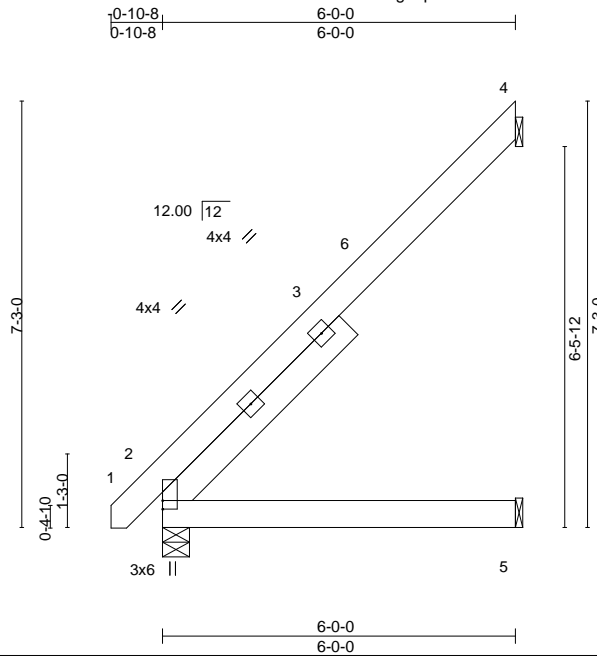
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0-10-8   6-0-0

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12.00 ⟦12

4x4 //

6

4x4 //

3

7-3-0

6-5-12

7-3-0

2

1

0-4-1-0 1-3-0

3x6 ‖

5

6-0-0
6-0-0

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	2-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.03	2-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 48 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
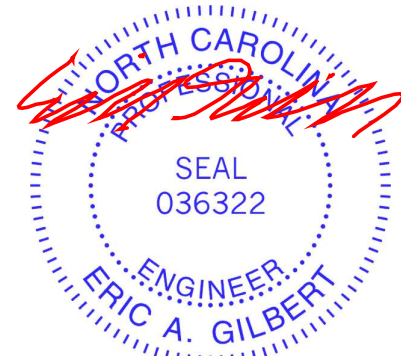SLIDER   Left 2x6 SP No.1 4-4-2

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)   4=175/Mechanical, 2=285/0-5-8, 5=59/Mechanical
Max Horz 2=217(LC 12)
Max Uplift 4=-181(LC 12)
Max Grav 4=219(LC 19), 2=285(LC 1), 5=119(LC 3)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-263/223

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) and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 5-11-4 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   4=181.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048491
B0120-0237	J02	Jack-Open	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:42 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-yc909zxts96sOKv1DFkeae_QvSiaj5ewu?xFHTznXWV

Scale = 1:33.0

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

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	0.23	Vert(LL)	-0.01	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.02	2-6	>999	240	Weight: 44 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
SLIDER   Left 2x6 SP No.1 3-4-7

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
             2-0-0 oc purlins: 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   5=161/Mechanical, 2=285/0-5-8, 6=74/Mechanical
                  Max Horz 2=173(LC 12)
                  Max Uplift 5=-92(LC 12)
                  Max Grav 5=161(LC 1), 2=285(LC 1), 6=108(LC 3)

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

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) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 4-7-8, Exterior(2) 4-7-8 to 5-11-4 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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 7,2020

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

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	J03	Jack-Open	4	1	Job Reference (optional)	E14048492

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:43 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-RojONJyVdTEj?UUDnzFt7sXchs21SYu37fhoqvznXWU

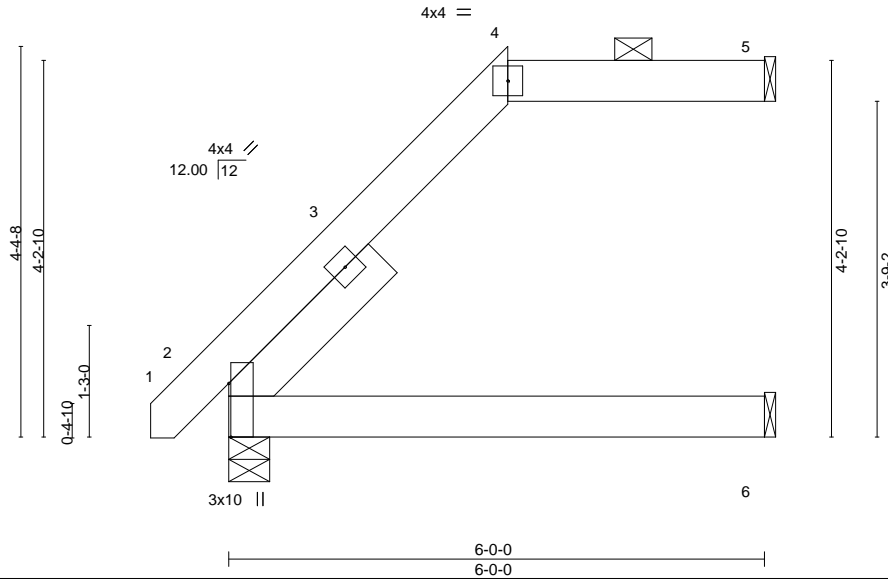-0-10-8 | 3-1-8 | 6-0-0
0-10-8 | 3-1-8 | 2-10-8

Scale = 1:25.8

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

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	0.17	Vert(LL)	-0.01	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.06	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.02	2-6	>999	240	Weight: 40 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
SLIDER   Left 2x6 SP No.1 2-3-12

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
                    2-0-0 oc purlins: 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   5=159/Mechanical, 2=285/0-5-8, 6=76/Mechanical
                    Max Horz 2=124(LC 12)
                    Max Uplift 5=-60(LC 9)
                    Max Grav 5=159(LC 1), 2=285(LC 1), 6=110(LC 3)

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

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) 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) 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	J04	Jack-Open Girder	4	1	Job Reference (optional)	E14048493

Comtech, Inc., Fayetteville, NC 28309
8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:45 2020 Page 1
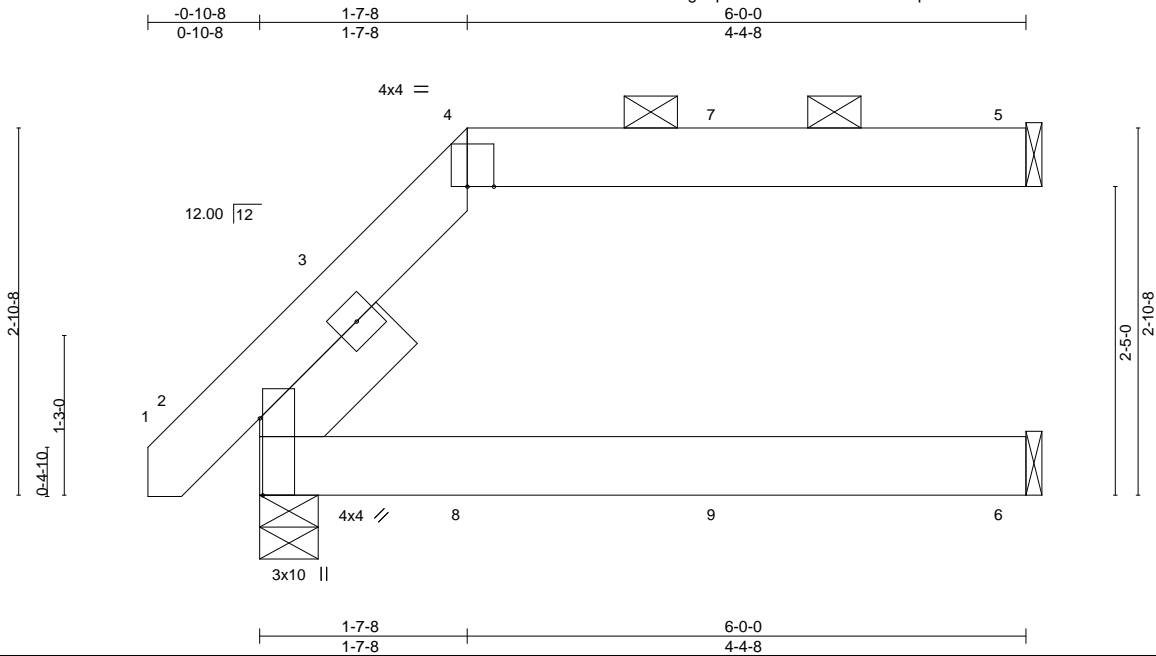ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-NBq9o?zl94URFoecuOHLCHcxlfkwwSNMazAvuoznXWS

Scale = 1:18.0

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

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	0.19	Vert(LL)	-0.01	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.03	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.02	2-6	>999	240	Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
SLIDER   Left 2x6 SP No.1 1-4-11

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
               2-0-0 oc purlins: 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   5=176/Mechanical, 2=287/0-5-8, 6=86/Mechanical
               Max Horz 2=80(LC 8)
               Max Uplift 5=-127(LC 5), 2=-51(LC 8)
               Max Grav 5=181(LC 36), 2=287(LC 1), 6=133(LC 3)

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

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); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb)
   5=127.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 66 lb up at
   1-7-8, and 75 lb down and 63 lb up at 3-8-4, and 68 lb down and 65 lb up at 5-11-4 on top chord, and 10 lb down at 1-8-4, and 10
   lb down at 3-8-4, and 19 lb down at 5-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility
   of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
          Vert: 1-4=-60, 4-5=-60, 2-6=-20
   Concentrated Loads (lb)
   Vert: 5=-16(F) 6=-10(F) 8=-2(F) 9=-2(F)

February 7,2020

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

Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	J05	Jack-Open	12	1		E14048494
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:46 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-rNOX?K_NwOcIsyDoS5oalU89t363fvdVpdvTQEznXWR

-0-10-8 | 2-6-0
0-10-8 | 2-6-0
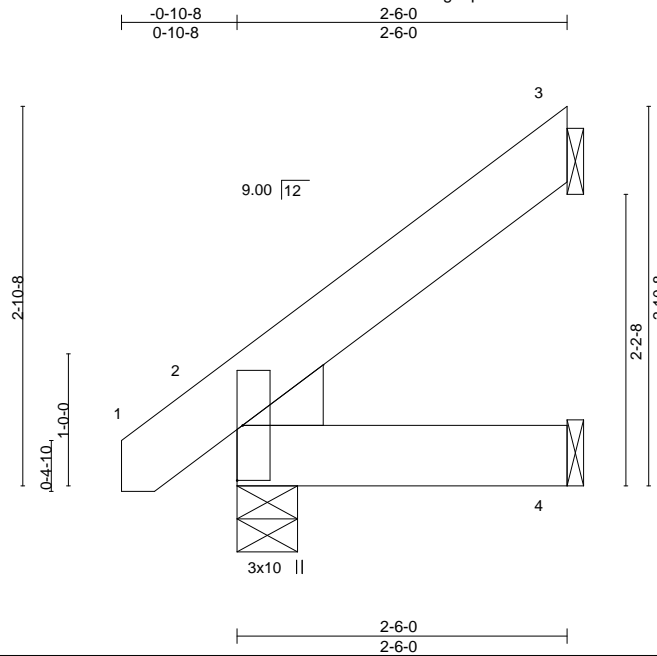
Scale = 1:17.5

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

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	0.04	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2	>999	240		
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		Wind(LL)	0.00	2	****	240	Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x6 SP No.1
WEDGE
Left: 2x6 SP No.1

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 2-6-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (lb/size)   3=53/Mechanical, 2=160/0-5-8, 4=22/Mechanical
                Max Horz 2=77(LC 12)
                Max Uplift 3=-59(LC 12)
                Max Grav 3=68(LC 19), 2=160(LC 1), 4=44(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; TCDL=6.0psf; BCDL=6.0psf; 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 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.

February 7,2020

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048495
B0120-0237	M1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:49 2020 Page 1
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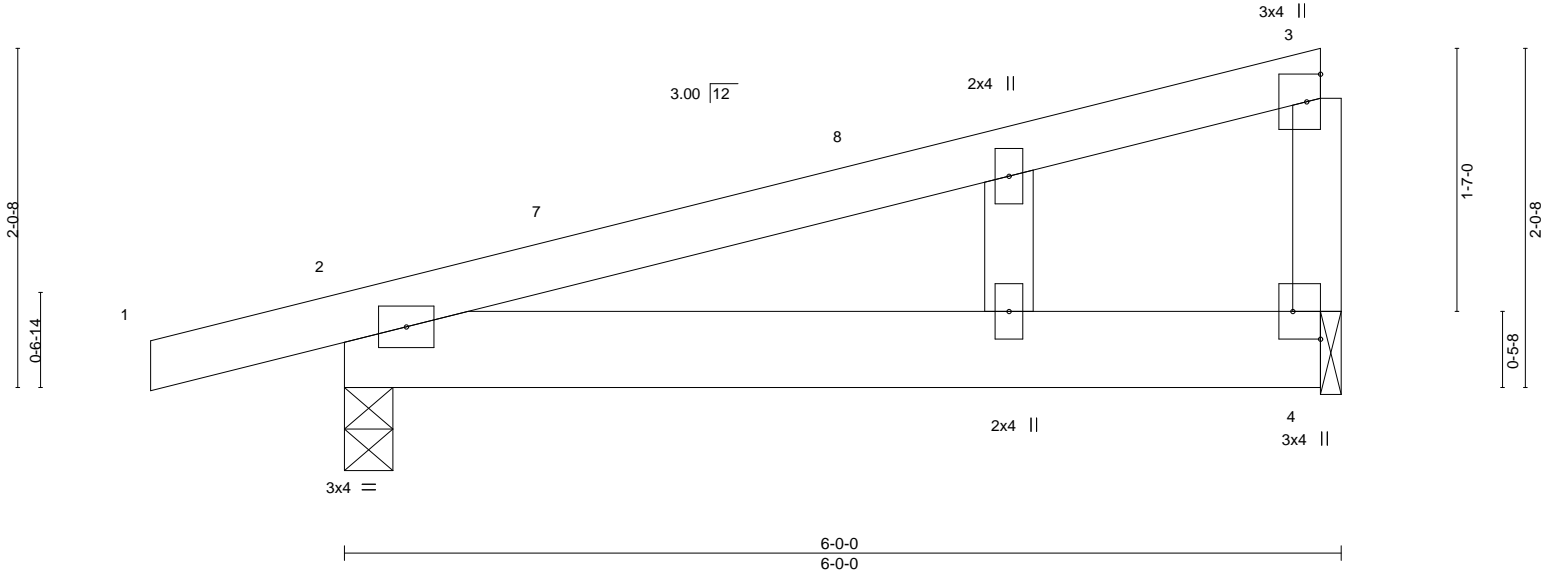
Scale = 1:13.9

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

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	0.52	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x6 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,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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.
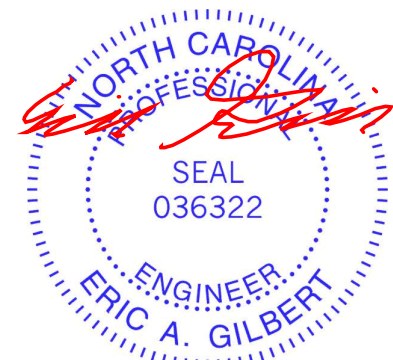
February 7,2020

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048496
B0120-0237	M2	MONOPITCH	6	1	Job Reference (optional)	

Comtech, Inc.,   Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:51 2020 Page 1
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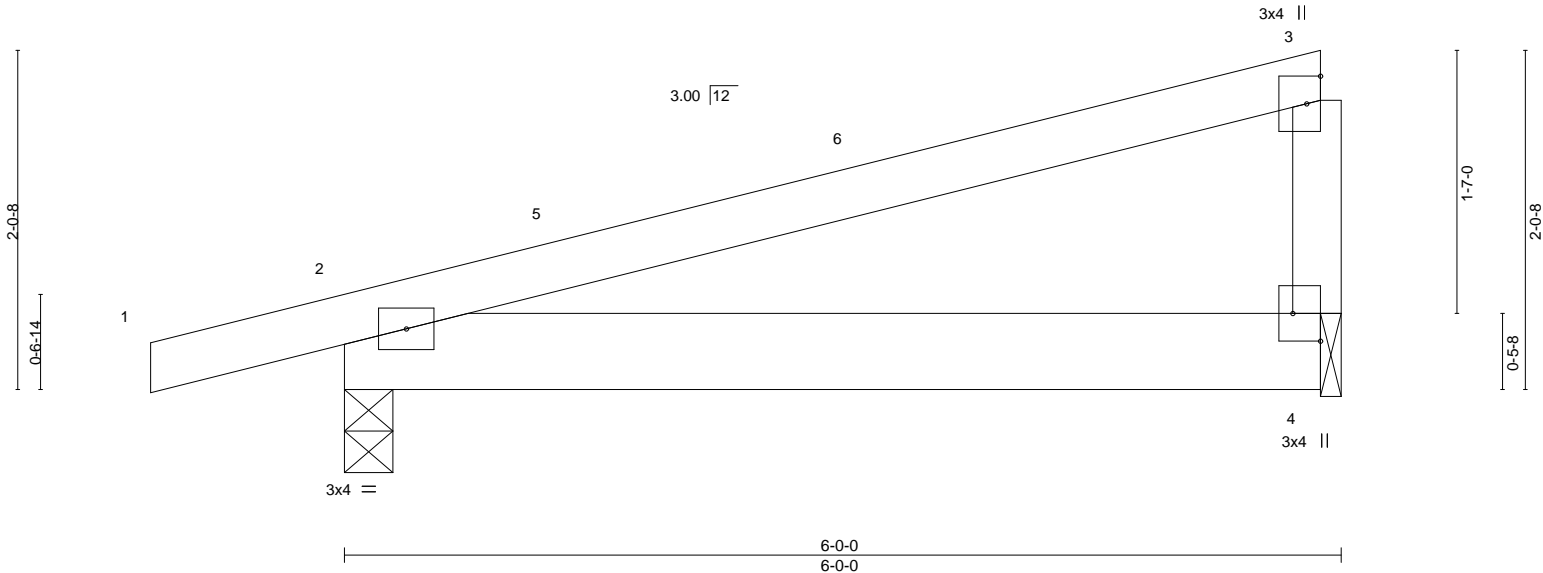
Scale = 1:13.9

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

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	0.43	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD   2x4 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, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

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; TCDL=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.

SEAL
036322
NORTH CAROLINA
PROFESSIONAL ENGINEER
ERIC A. GILBERT

February 7,2020

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	M3	MONOPITCH	3	1	Job Reference (optional)	E14048497

Comtech, Inc., Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:52 2020 Page 1
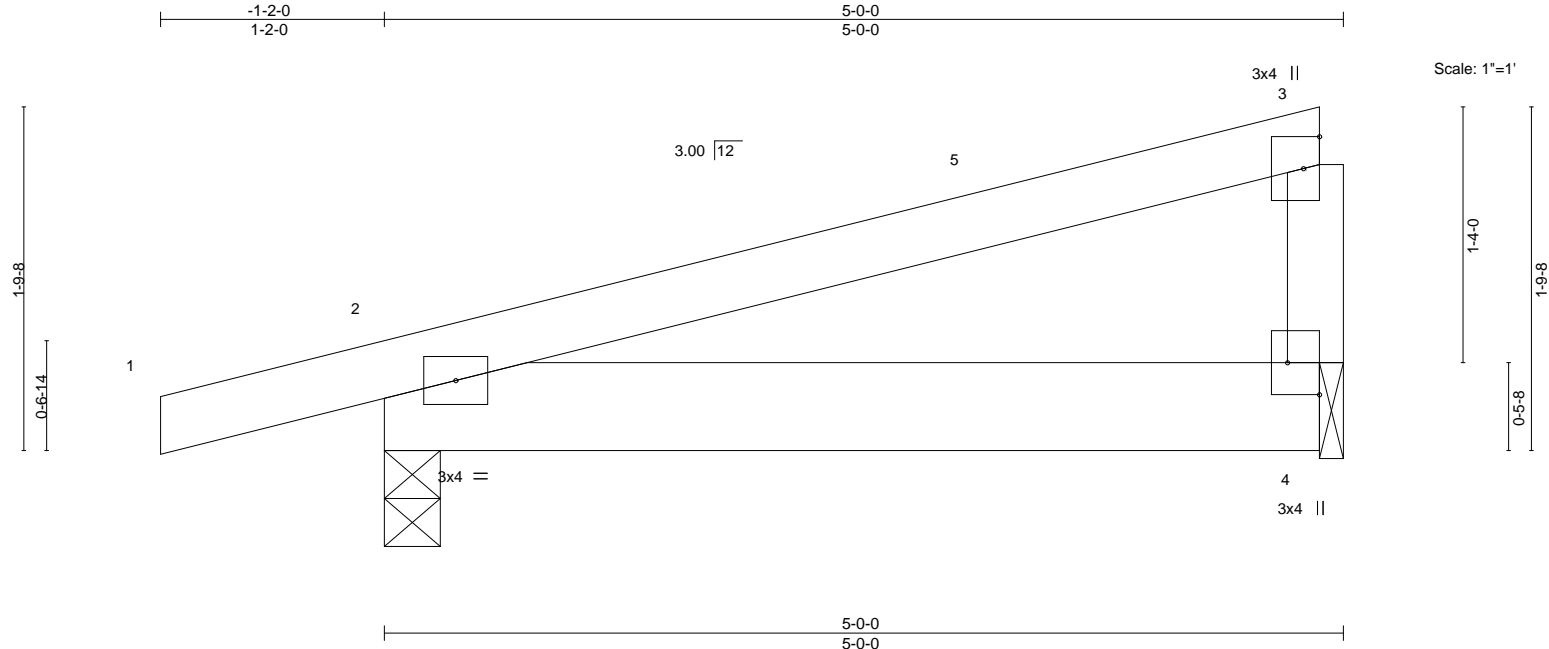ID:nl3Qa?g25pDAIPQix6eoV?zvBz3-gXmoGO38WEMSatgypMv__IO7sU8Q3d6OBZMneuznXWL

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

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	0.27	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 22 lb	FT = 20%

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

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

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; TCDL=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.
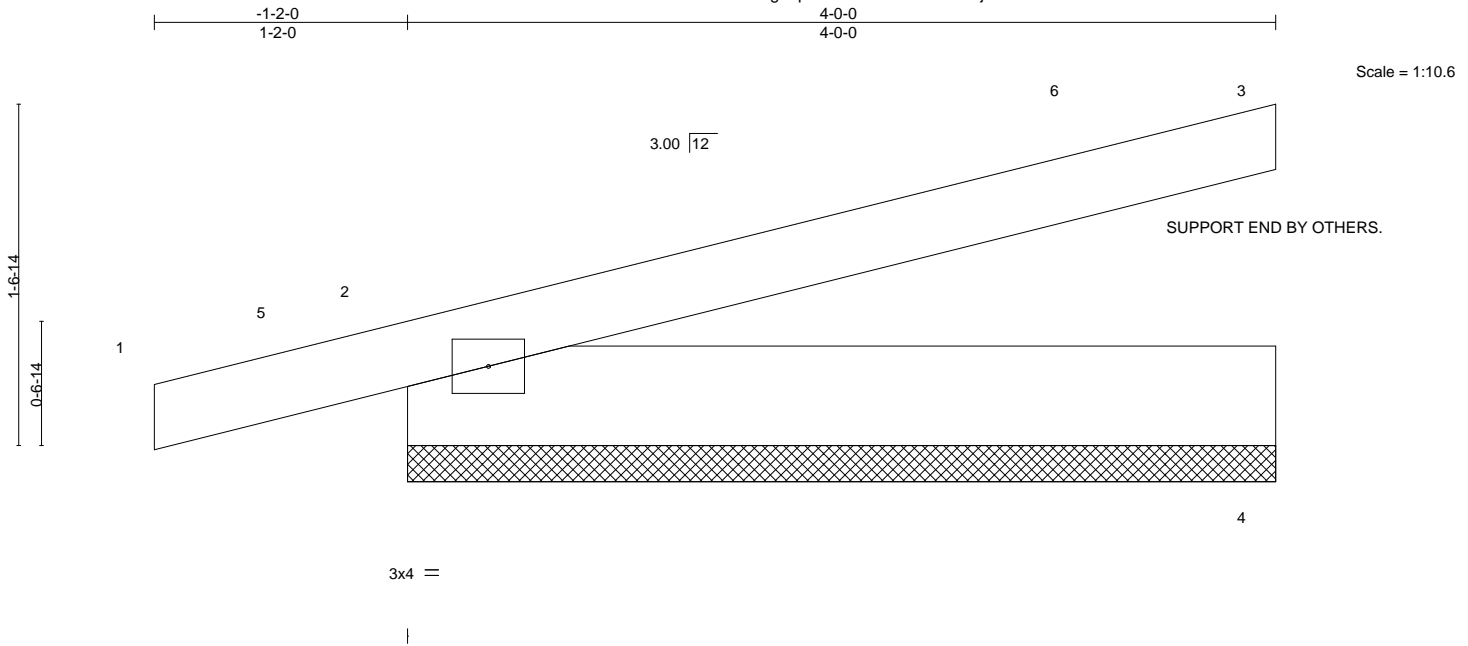

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February 7,2020

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048498
B0120-0237	M4	GABLE	1	1	Job Reference (optional)	

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8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:53 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-8jJATk3mHXUJC1F8M3QDXzxJxuV2o4MXQD6KAKznXWK

-1-2-0
1-2-0
4-0-0
4-0-0

Scale = 1:10.6

3.00 |12

SUPPORT END BY OTHERS.

1-6-14
0-6-14

3x4 =

LOADING (psf)		SPACING-		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-
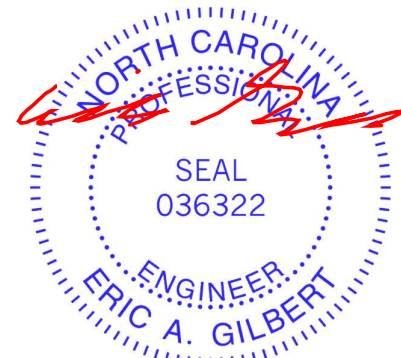TOP CHORD   2x4 SP No.1
BOT CHORD   2x6 SP No.1

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; TCDL=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.

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Job	Truss	Truss Type	Qty	Ply	Southport C-E	E14048499
B0120-0237	P1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:54 2020 Page 1
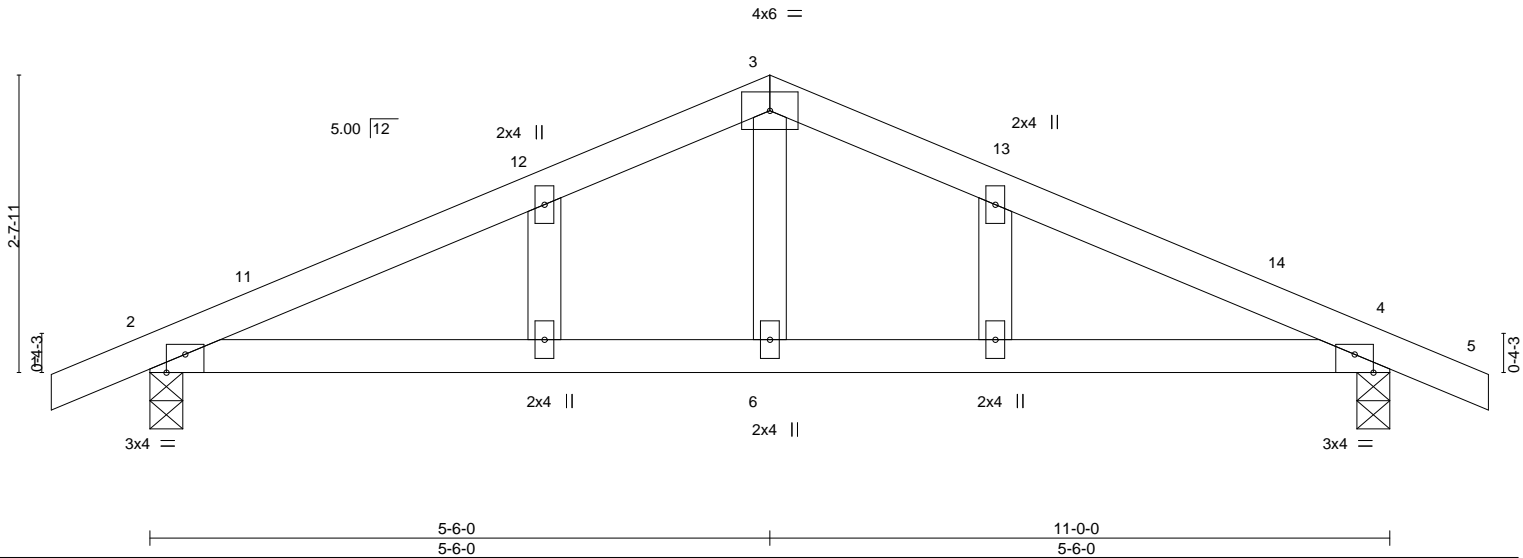ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-cwtZh44P1rc9qAqLwnxS4AUSPlnLXXihftrujnznXWJ
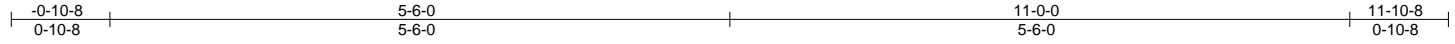
Scale = 1:20.4

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

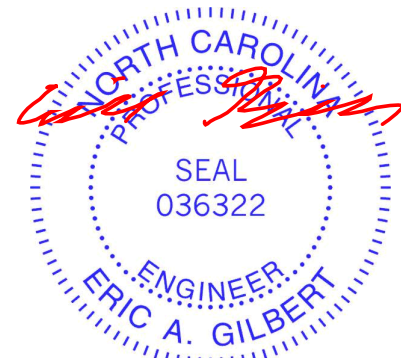| LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.02	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		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-
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) 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable 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) except (jt=lb)
   2=120, 4=120.

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February 7,2020

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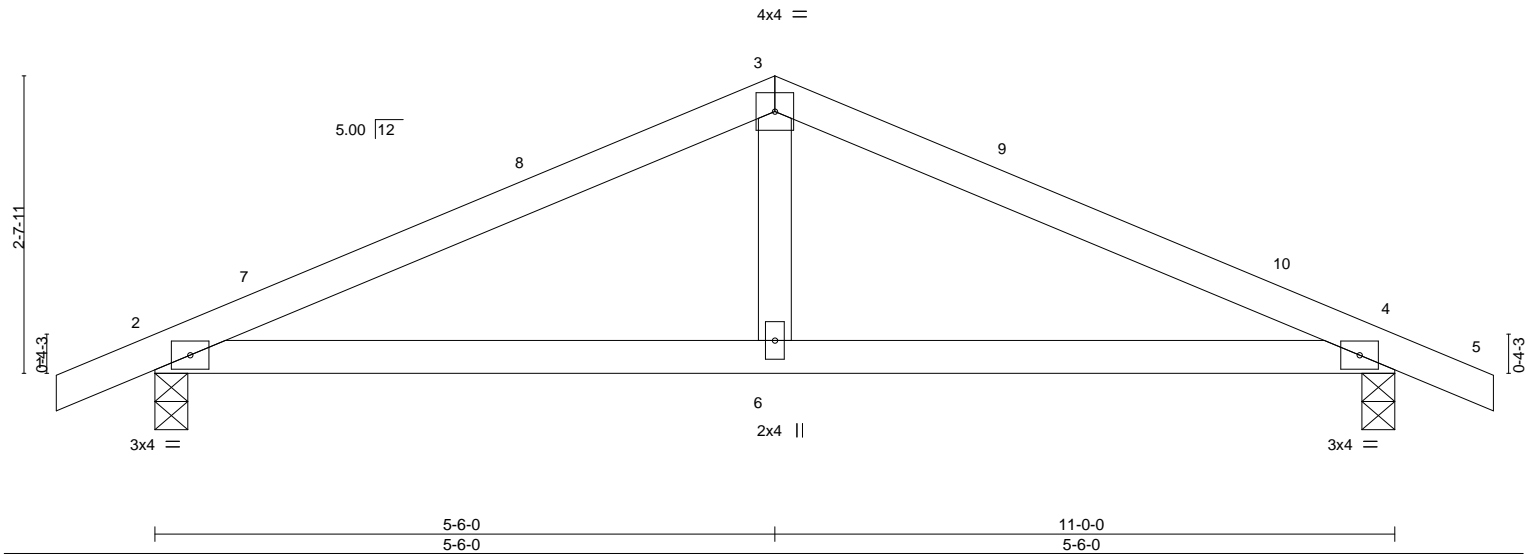| Job	Truss	Truss Type	Qty	Ply	Southport C-E	
B0120-0237	P2	Common	4	1	Job Reference (optional)	E14048500

Comtech, Inc.,   Fayetteville, NC 28309   8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Feb 7 12:11:55 2020 Page 1
ID:nI3Qa?g25pDAIPQix6eoV?zvBz3-46RxuP51o9l0RKPXUUThcO0eeh7aG_yqtXbRFDznXWI

-0-10-8   5-6-0   11-0-0   11-10-8
0-10-8   5-6-0   5-6-0   0-10-8

Scale = 1:20.4

5-6-0 | 11-0-0
5-6-0 | 5-6-0

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	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)	0.02	4-6	>999	240	Weight: 40 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 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
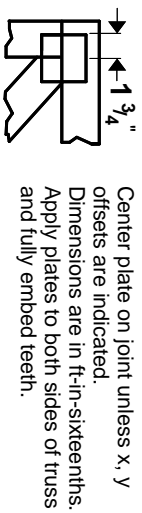BOT CHORD   2-6=-114/553, 4-6=-114/553
WEBS   3-6=0/257

NOTES-
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) -0-10-8 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
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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
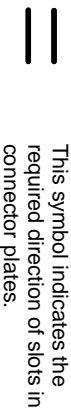
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Symbols

PLATE LOCATION AND ORIENTATION

$1\frac{3}{4}"$

$0-\frac{1}{16}"$

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.

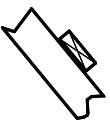This symbol indicates the required direction of slots in connector plates.

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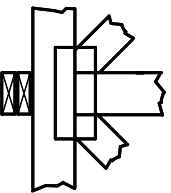
PLATE SIZE

4 x 4

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

LATERAL BRACING LOCATION

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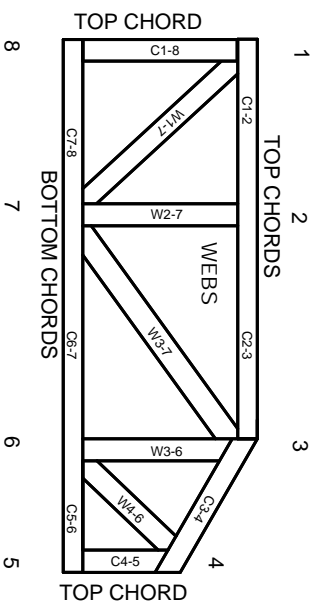
BEARING

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

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-89: Design Standard for Bracing.

BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

dimensions shown in ft-in-sixteenths
(Drawings not to scale)

6-4-8

TOP CHORD

TOP CHORDS

WEBS

BOTTOM CHORDS

TOP CHORD

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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⚠ 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 T or 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.