

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0423-1840  
29 (LOT 38L) LONGLEAF COURT

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: I59571889 thru I59571934

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



July 18, 2023

Gilbert, Eric

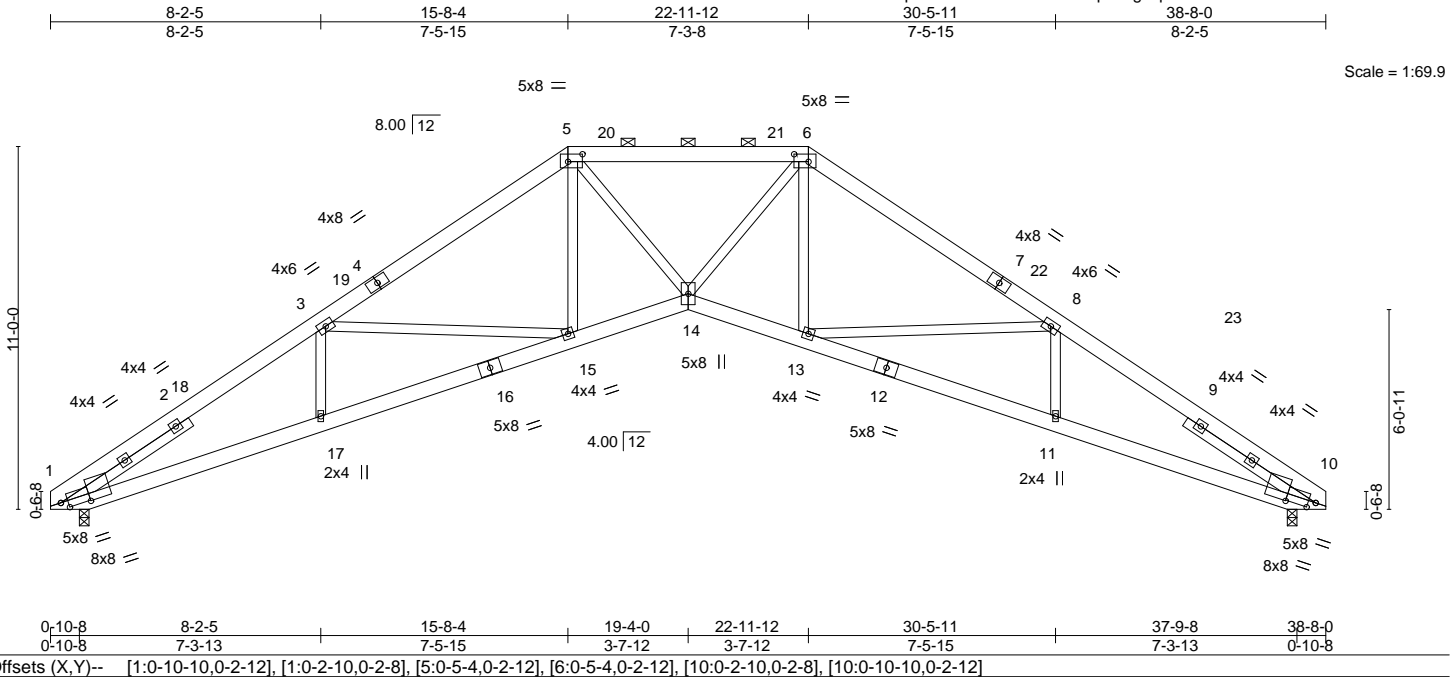
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 J0423-1840	Truss A1	Truss Type Piggyback Base	Qty 4	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571889
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Comtech, Inc, Fayetteville, NC - 28314,

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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 0.41	Vert(LL)	-0.21	14	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.42	14	>999	240	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.41	10	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.13	14	>999	240	Weight: 277 lb FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1

BOT CHORD 2x6 SP No.1

WEBS 2x4 SP No.2

SLIDER Left 2x4 SP No.2 4-7-13, Right 2x4 SP No.2 4-7-13

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except 2-0-0 oc purlins (4-0-8 max.): 5-6.

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

**REACTIONS.** (size) 1=0-3-8, 10=0-3-8

Max Horz 1=261(LC 9)

Max Uplift 1=-66(LC 12), 10=-66(LC 13)

Max Grav 1=1547(LC 1), 10=1547(LC 1)

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

TOP CHORD 1-3=-4049/794, 3-5=-3230/633, 5-6=-3297/635, 6-8=-3230/626, 8-10=-4049/788

BOT CHORD 1-17=-570/3395, 15-17=-572/3406, 14-15=-205/2734, 13-14=-192/2734, 11-13=-560/3406, 10-11=-558/3395

WEBS 3-17=0/317, 3-15=-852/345, 5-15=-72/504, 5-14=-75/1105, 6-14=-83/1105, 6-13=-72/504, 8-13=-852/345, 8-11=0/317

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-12, Exterior(2) 22-11-12 to 29-2-7, Interior(1) 29-2-7 to 38-8-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 1, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 1 and 66 lb uplift at joint 10.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



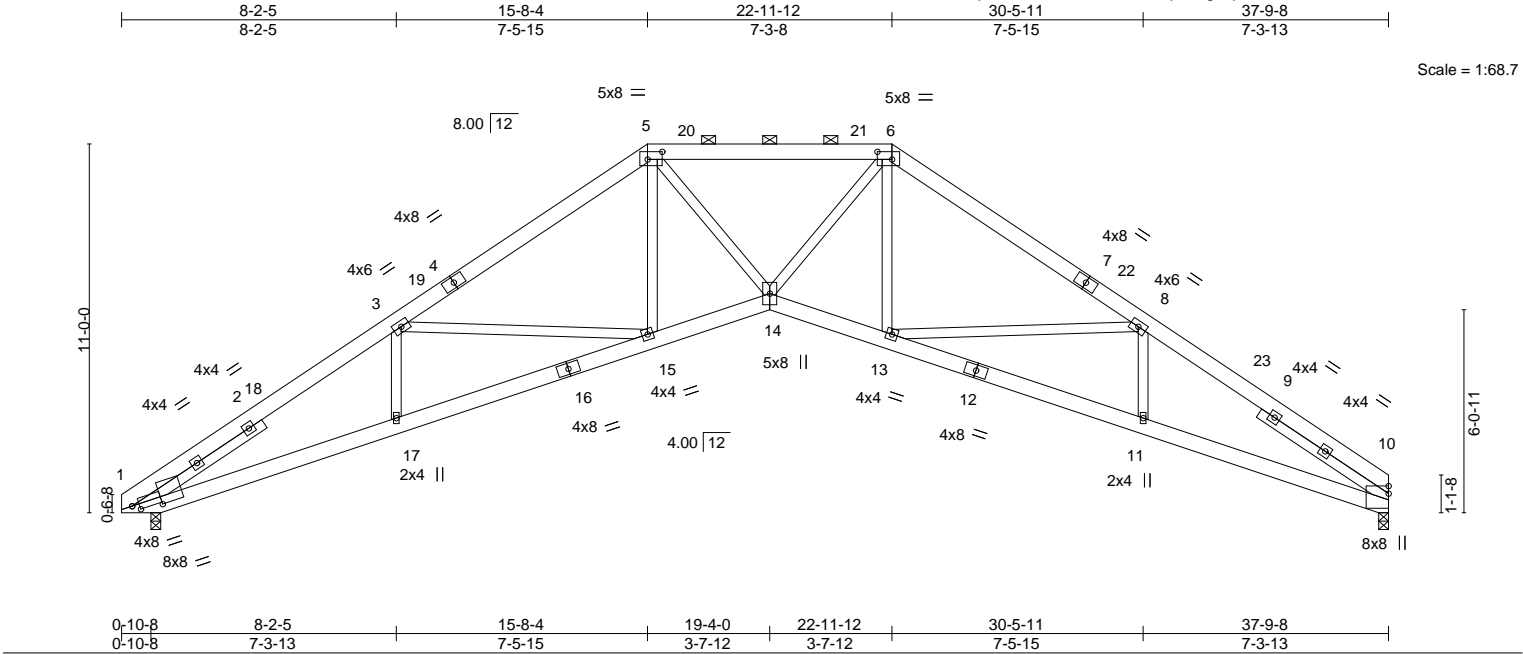
July 18,2023

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	A2	Piggyback Base	6	1	I59571890
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

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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 0.71	Vert(LL)	-0.19	14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.39	14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.88	Horz(CT)	0.37	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.12	14	>999	240	Weight: 272 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1

BOT CHORD 2x6 SP No.1

WEBS 2x4 SP No.2

SLIDER Left 2x4 SP No.2 4-7-13, Right 2x4 SP No.2 4-7-13

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-11-1 oc purlins, except

BOT CHORD 2-0-0 oc purlins (4-2-4 max.): 5-6.

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

**REACTIONS.** (size) 10=0-3-8, 1=0-3-8

Max Horz 1=261(LC 9)

Max Uplift 10=59(LC 13), 1=66(LC 12)

Max Grav 10=1506(LC 1), 1=1506(LC 1)

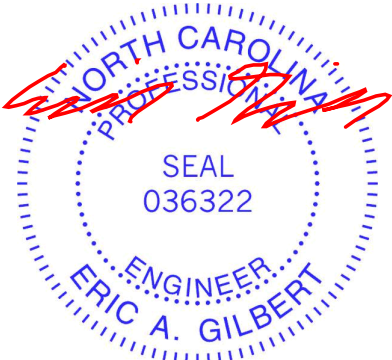
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-3=-3923/781, 3-5=-3094/618, 5-6=-3122/617, 6-8=-3005/597, 8-10=-3595/711

BOT CHORD 1-17=-569/3288, 15-17=-571/3299, 14-15=-202/2614, 13-14=-183/2566, 11-13=-486/2926, 10-11=-480/2905

WEBS 3-17=0/318, 3-15=-862/346, 5-15=-72/508, 5-14=-66/1008, 6-14=-88/1078, 6-13=-45/403, 8-13=-574/285, 8-11=0/274

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-12, Exterior(2) 22-11-12 to 29-2-7, Interior(1) 29-2-7 to 37-7-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 10, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 10 and 66 lb uplift at joint 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

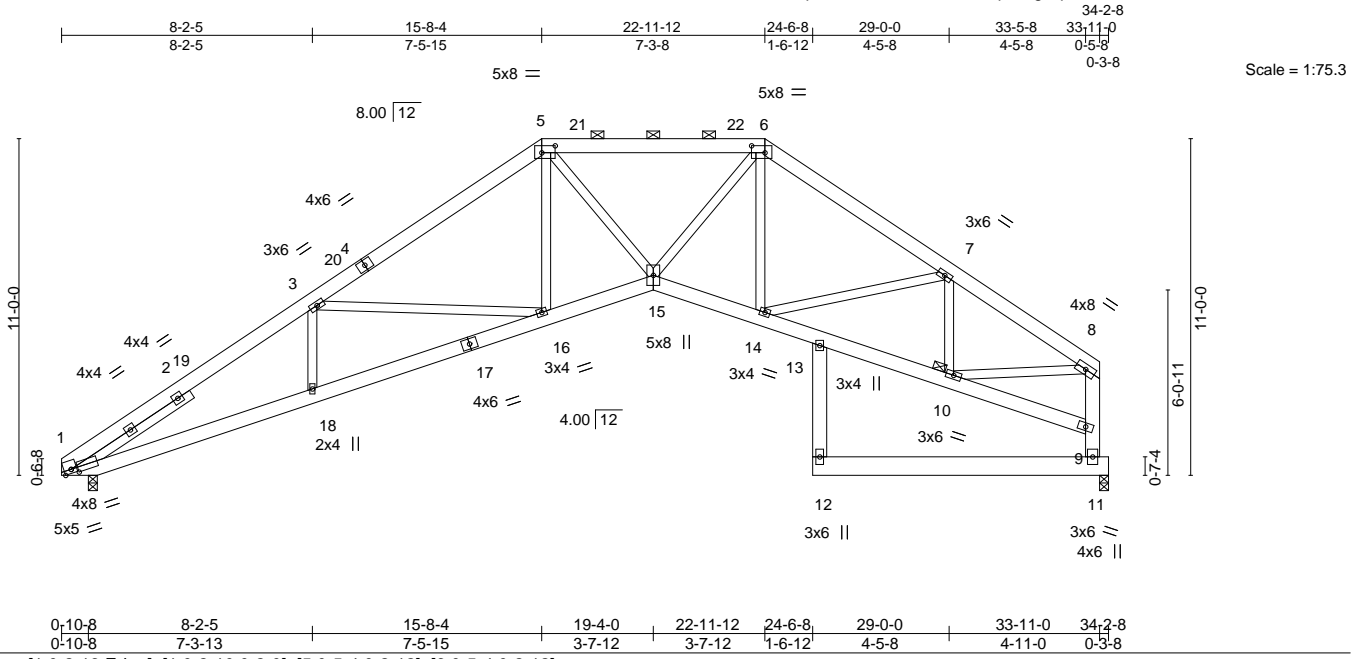


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Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571891
J0423-1840	A3	Piggyback Base	4	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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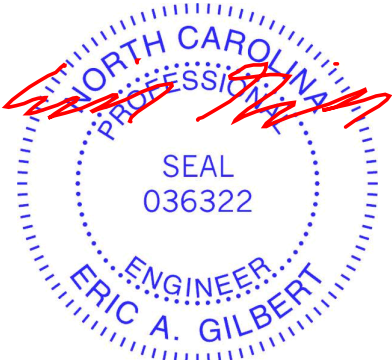
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.12 16-18	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.26 16-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.24 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09 16-18	>999	240	Weight: 294 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-2-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-6 max.): 5-6.
BOT CHORD 2x6 SP No.1 *Except* 11-12: 2x8 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-0-13 oc bracing.
WEBS 2x4 SP No.2 *Except* 8-11: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 10
SLIDER Left 2x4 SP No.2 4-7-13	

**REACTIONS.** (size) 11=0-3-8, 1=0-3-8  
Max Horz 1=257(LC 9)  
Max Uplift 11=-36(LC 13), 1=-62(LC 12)  
Max Grav 11=1347(LC 1), 1=1347(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-3435/801, 3-5=-2568/643, 5-6=-2430/646, 6-7=-2239/566, 7-8=-1828/492, 9-11=-1257/348, 8-9=-1254/342  
BOT CHORD 1-18=-746/2872, 16-18=-749/2880, 15-16=-384/2154, 14-15=-285/1872, 13-14=-358/1579, 10-13=-383/1508  
WEBS 3-18=0/324, 3-16=-890/342, 5-16=-72/513, 5-15=-62/610, 6-15=-192/1032, 7-14=-75/416, 7-10=-632/179, 8-10=-343/1407

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-12, Exterior(2) 22-11-12 to 29-0-0, Interior(1) 29-0-0 to 33-8-4 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearing at joint(s) 1 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 capable of withstanding 36 lb uplift at joint 11 and 62 lb uplift at joint 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



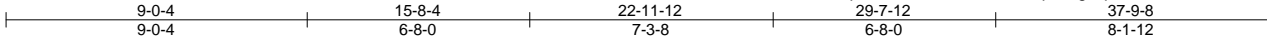
July 18,2023

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571892
J0423-1840	A4	Piggyback Base	6	1	Job Reference (optional)	

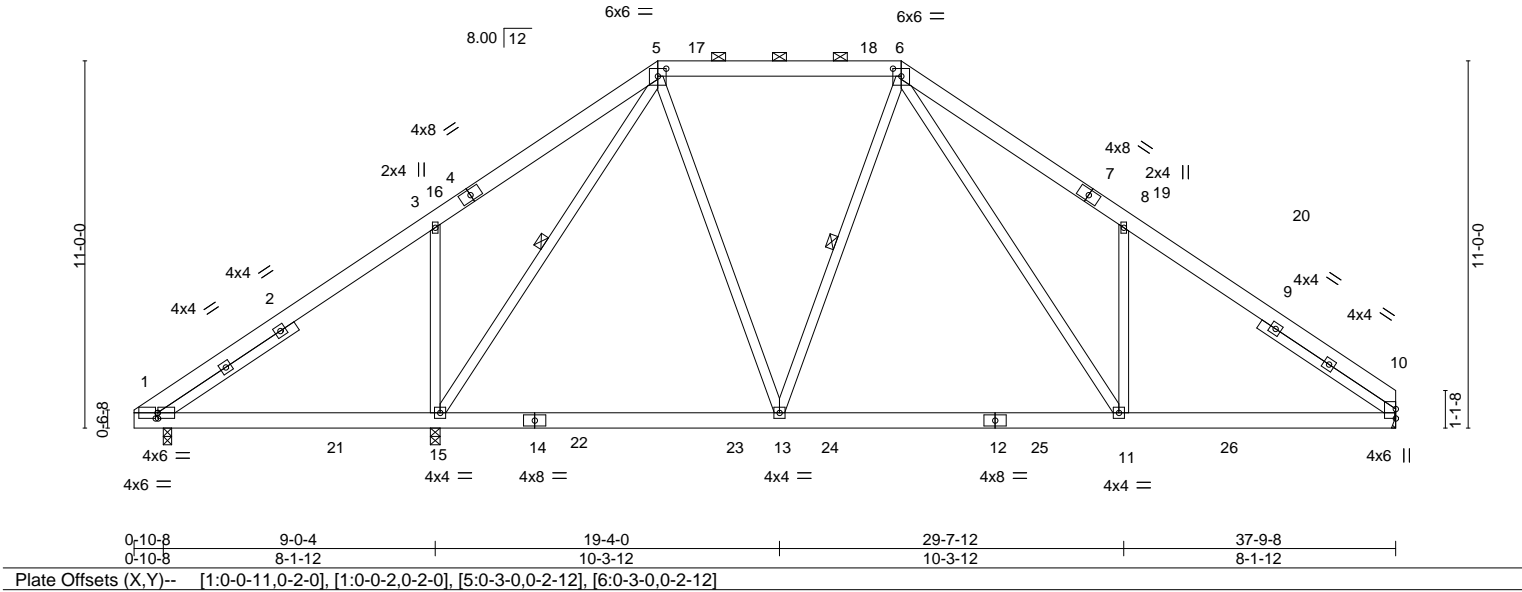
Comtech, Inc., Fayetteville, NC - 28314,

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Scale = 1:69.0



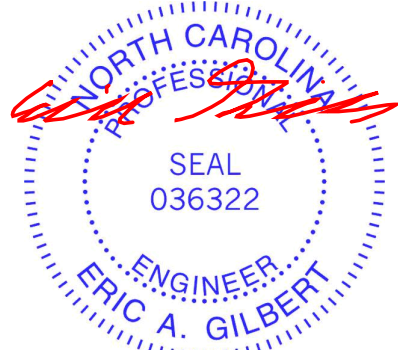
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.14 11-13 >999 360	MT20		244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.20 11-13 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.03 10 n/a n/a				
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.08 1-15 >999 240				
								Weight: 290 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-6-9 oc purlins, except
BOT CHORD	2x6 SP No.1		2-0-0 oc purlins (6-0-0 max.): 5-6.
WEBS	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x4 SP No.2 4-10-15, Right 2x4 SP No.2 4-10-7	WEBS	1 Row at midpt 5-15, 6-13

REACTIONS.	
(size)	1=0-3-0, 15=0-3-8, 10=Mechanical
Max Horz	1=-252(LC 8)
Max Uplift	1=-68(LC 8), 15=-81(LC 12), 10=-73(LC 13)
Max Grav	1=459(LC 1), 15=1702(LC 2), 10=1402(LC 20)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-3=-481/147, 3-5=-534/399, 5-6=-986/363, 6-8=-1966/610, 8-10=-1952/364
BOT CHORD	1-15=-99/322, 13-15=-29/781, 11-13=0/1011, 10-11=-161/1462
WEBS	3-15=-658/417, 5-15=-937/0, 5-13=0/755, 6-11=-304/1010, 8-11=-530/361

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-12, Exterior(2) 22-11-12 to 29-2-7, Interior(1) 29-2-7 to 37-9-8 zone; cantilever left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 1, 81 lb uplift at joint 15 and 73 lb uplift at joint 10.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



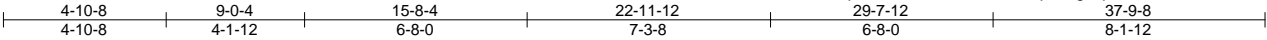
July 18, 2023

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571893
J0423-1840	A4GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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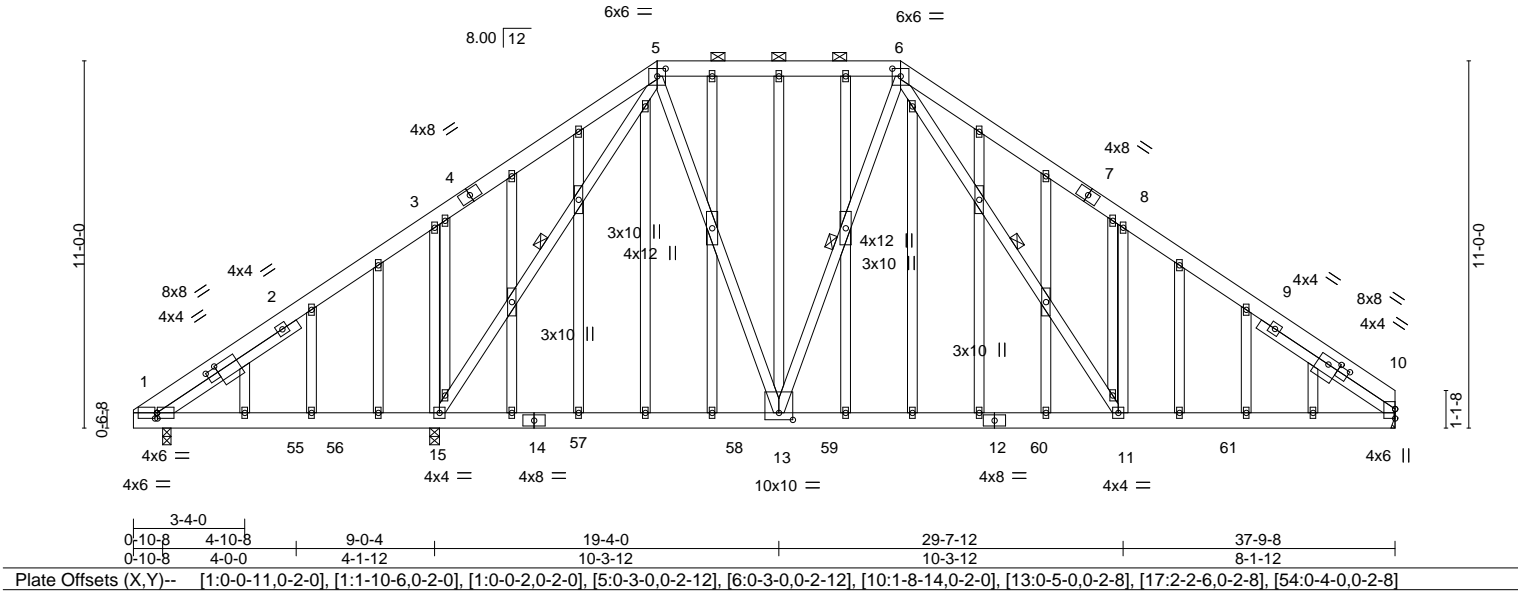


Plate Offsets (X,Y)--		[1:0-0-11,0-2-0], [1:1-10-6,0-2-0], [1:0-0-2,0-2-0], [5:0-3-0,0-2-12], [6:0-3-0,0-2-12], [10:1-8-14,0-2-0], [13:0-5-0,0-2-8], [17:2-2-6,0-2-8], [54:0-4-0,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.30
TCDL 10.0	Lumber DOL	1.15	BC 0.53
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.14 11-13	>999	360
Vert(CT)	-0.20 11-13	>999	240
Horz(CT)	0.03 10	n/a	n/a
Wind(LL)	0.08 1-15	>999	240
PLATES	GRIP		
MT20	244/190		
Weight: 453 lb		FT = 20%	

**LUMBER-**

TOP CHORD 2x6 SP No.1

BOT CHORD 2x6 SP No.1

WEBS 2x4 SP No.2

OTHERS 2x4 SP No.2

SLIDER Left 2x4 SP No.2 5-0-3, Right 2x4 SP No.2 4-10-7

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-6-12 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.

WEBS 1 Row at midpt 5-15, 6-13, 6-11

**REACTIONS.** (size) 1=0-3-0, 15=0-3-8, 10=Mechanical

Max Horz 1=-315(LC 8)

Max Uplift 1=-91(LC 8), 15=-288(LC 12), 10=-244(LC 13)

Max Grav 1=457(LC 1), 15=1704(LC 2), 10=1383(LC 20)

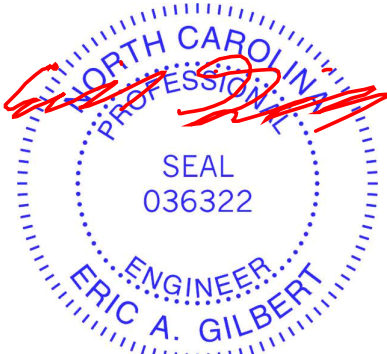
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-3=-485/199, 3-5=-529/439, 5-6=-977/412, 6-8=-1943/715, 8-10=-1912/439

BOT CHORD 1-15=-145/334, 13-15=-105/797, 11-13=-18/1010, 10-11=-198/1461

WEBS 3-15=-658/505, 5-15=-939/31, 5-13=-47/761, 6-11=-424/1045, 8-11=-530/466

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph 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) 0-4-5 to 4-9-1, Exterior(2) 4-9-1 to 15-8-4, Corner(3) 15-8-4 to 20-1-1, Exterior(2) 20-1-1 to 22-11-12, Corner(3) 22-11-12 to 27-4-9, Exterior(2) 27-4-9 to 37-9-8 zone; cantilever left exposed ; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCdL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 1, 288 lb uplift at joint 15 and 244 lb uplift at joint 10.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18,2023

Job J0423-1840	Truss A5	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571894
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8-2-5	15-8-4	22-11-13	30-5-11	35-2-8	35-10-0
8-2-5	7-5-15	7-3-8	7-5-15	4-8-13	0-7-8

Scale = 1:68.5

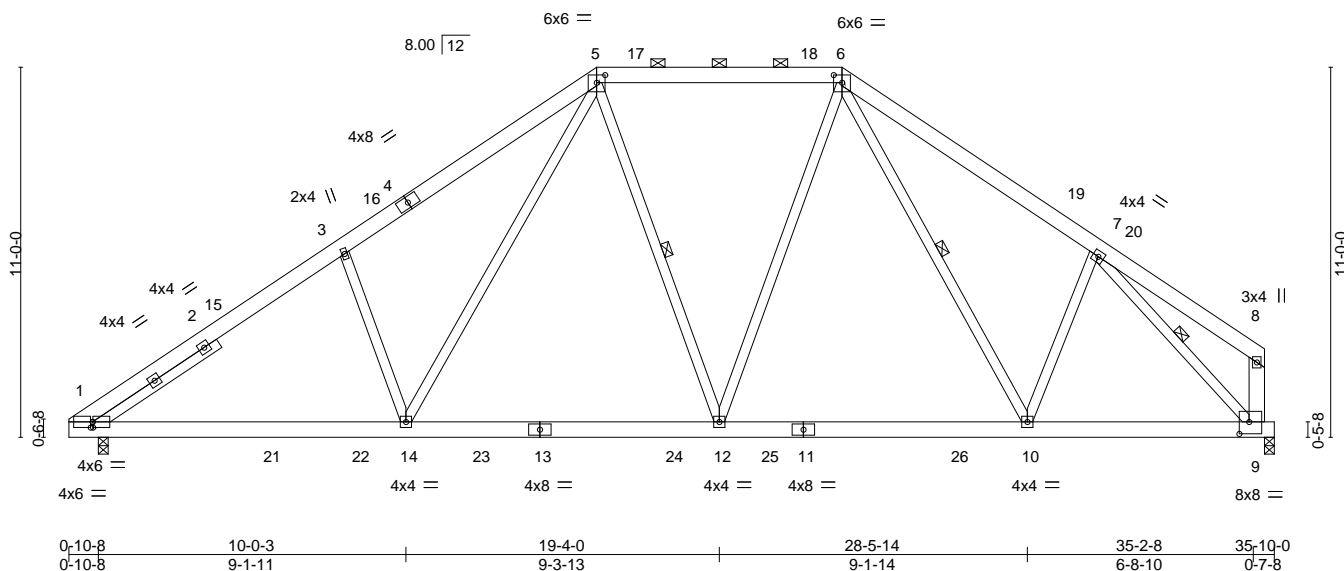


Plate Offsets (X, Y)--		[1:0-0-11,0-2-0], [1:0-0-2,0-2-0], [5:0-3-0,0-2-12], [6:0-3-0,0-2-12], [9:0-3-8,0-4-4]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.11 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.17 10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 14	>999	240	Weight: 284 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2 \*Except\*  
8-9: 2x6 SP No.1  
SLIDER Left 2x4 SP No.2 4-5-2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-12, 6-10, 7-9

#### REACTIONS.

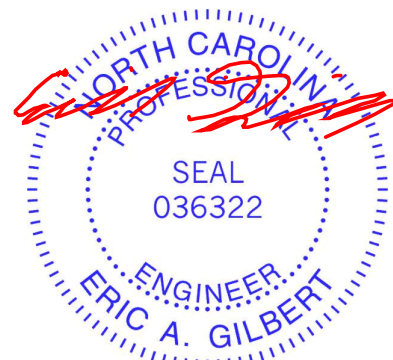
(size) 1=0-3-8, 9=0-3-8  
Max Horz 1=250(LC 9)  
Max Uplift 1=64(LC 12), 9=46(LC 13)  
Max Grav 1=1594(LC 19), 9=1527(LC 20)

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

TOP CHORD 1-3=-2334/472, 3-5=-2245/603, 5-6=-1390/452, 6-7=-1684/507  
BOT CHORD 1-14=-366/2000, 12-14=-160/1409, 10-12=-131/1249, 9-10=-236/1229  
WEBS 3-14=-514/323, 5-14=-208/939, 6-12=-44/516, 6-10=-108/260, 7-10=-81/294, 7-9=-1778/352

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-13, Exterior(2) 22-11-13 to 29-2-7, Interior(1) 29-2-7 to 35-3-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 1 and 46 lb uplift at joint 9.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18,2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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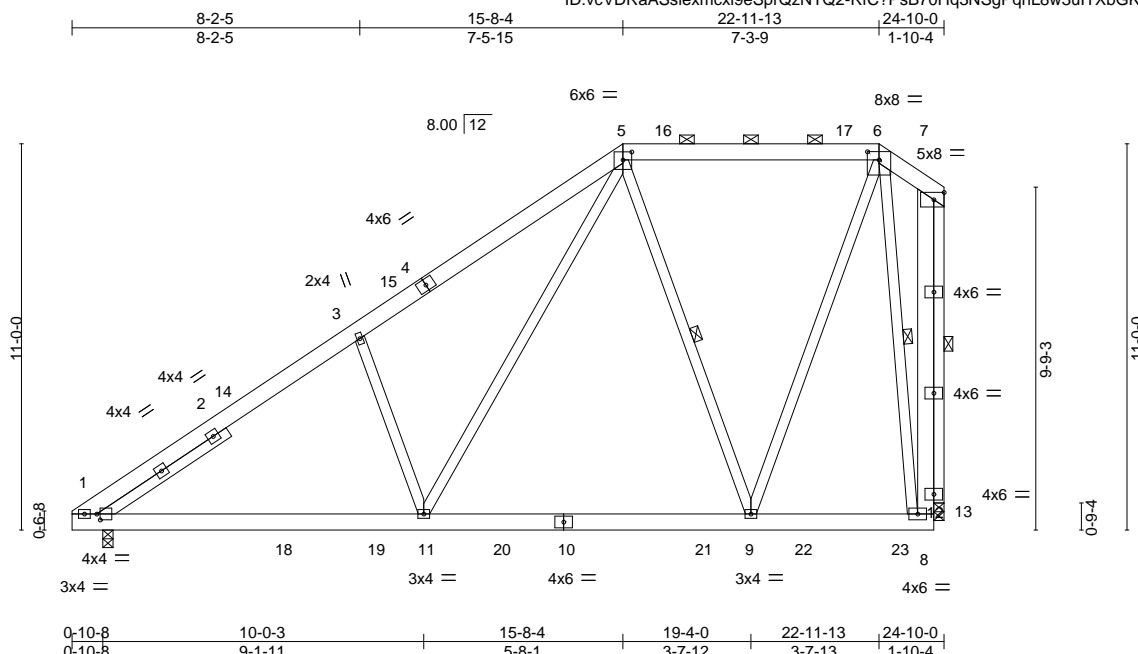
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss A5A	Truss Type PIGGYBACK BASE	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571895
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Comtech, Inc., Fayetteville, NC - 28314,

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ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:65.6

Plate Offsets (X,Y)--		[1:0-1-2,0-2-0], [5:0-3-0,0-2-12], [6:0-4-0,0-2-13]		S-1		S-12		S-13		P-14			
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	0.26	Vert(LL)	-0.11 9-11	>999	360			MT20	244/190
TCDL	10.0	Lumber DOL 1.15		BC	0.41	Vert(CT)	-0.16 9-11	>999	240				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.53	Horz(CT)	0.02 13	n/a	n/a				
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03 11	>999	240			Weight: 237 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2 \*Except\*  
7-8: 2x6 SP No.1  
OTHERS 2x4 SP No.1  
SLIDER Left 2x4 SP No.2 4-5-2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-9, 6-8, 7-13

#### REACTIONS.

(size) 1=0-3-8, 13=0-3-8  
Max Horz 1=324(LC 12)  
Max Uplift 1=18(LC 12), 13=84(LC 12)  
Max Grav 1=1116(LC 19), 13=1126(LC 2)

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

TOP CHORD 1-3=-1517/183, 3-5=-1435/316, 5-6=-474/149, 8-12=-302/1031, 7-12=-302/1031  
BOT CHORD 1-11=-421/1280, 9-11=-209/654  
WEBS 6-9=-181/929, 5-9=-533/286, 5-11=-216/998, 3-11=-535/331, 6-8=-967/317, 7-13=-1127/313

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-13, Exterior(2) 22-11-13 to 24-3-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 84 lb uplift at joint 13.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18,2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571896
J0423-1840	A5GE	GABLE	1	1	Job Reference (optional)	

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Scale = 1:70.8

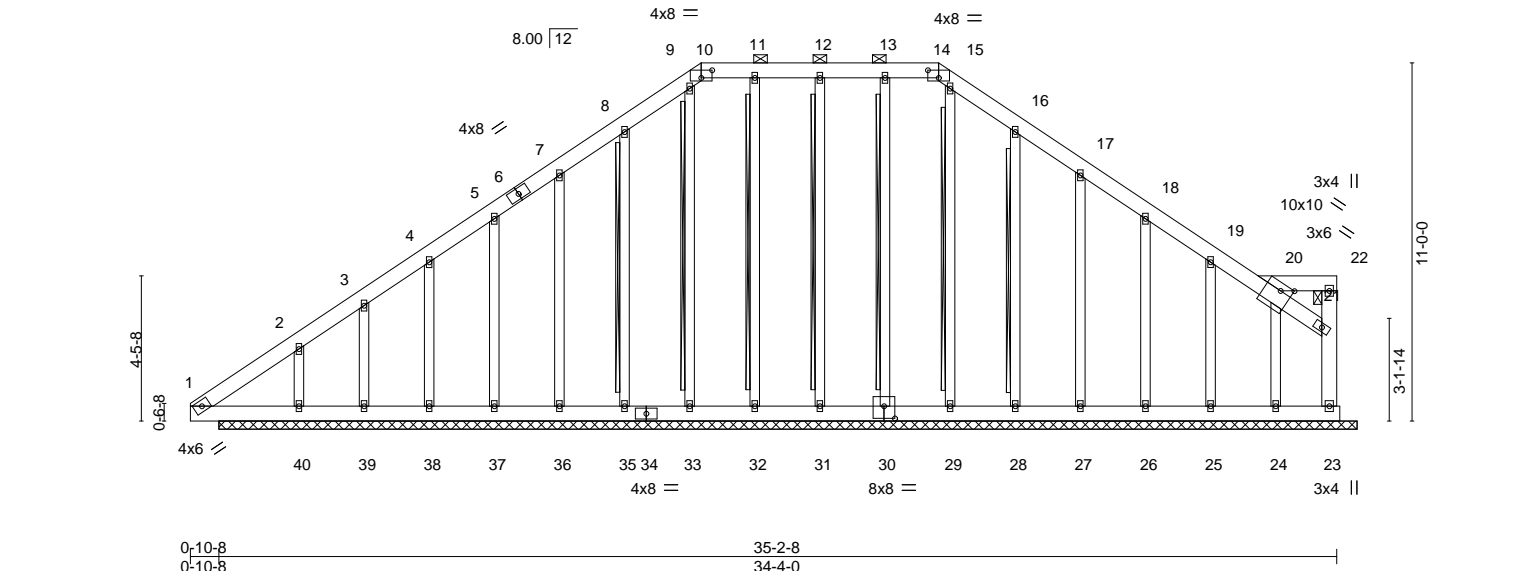


Plate Offsets (X,Y)--		[10:0-4-0,0-2-13], [14:0-4-0,0-2-13], [20:0-4-5,0-2-12], [30:0-4-0,0-4-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	23	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 355 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.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-14, 20-21, 20-22.

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

WEBS T-Brace: 2x4 SPF No.2 - 8-35, 9-33, 11-32, 12-31, 13-30, 15-29, 16-28

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 34-11-8.

(lb) - Max Horz 40=320(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 40, 38, 37, 36, 35, 32, 31, 30, 28, 27, 26, 25 except 23=326(LC 11), 39=289(LC 12), 24=128(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 23, 39, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28, 27, 26, 25 except 40=532(LC 20), 24=342(LC 20)

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

TOP CHORD 7-8=-175/273, 8-9=-233/340, 9-10=-209/296, 10-11=-218/319, 11-12=-218/319, 12-13=-218/319, 13-14=-218/319, 14-15=-209/296, 15-16=-234/340, 16-17=-176/273, 20-21=-197/351

WEBS 2-40=-277/107

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph 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) 0-0-0 to 4-4-13, Exterior(2) 4-4-13 to 15-8-4, Corner(3) 15-8-4 to 20-1-1, Exterior(2) 20-1-1 to 22-11-13, Corner(3) 22-11-13 to 27-4-0, Exterior(2) 27-4-0 to 34-11-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 40, 38, 37, 36, 35, 32, 31, 30, 28, 27, 26, 25 except (jt=lb) 23=326, 39=289, 24=128.
  - Non Standard bearing condition. Review required.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



July 18,2023

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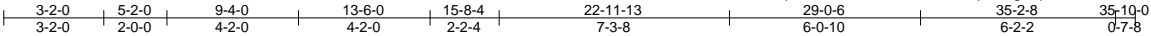
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571897
J0423-1840	A6	PIGGYBACK BASE	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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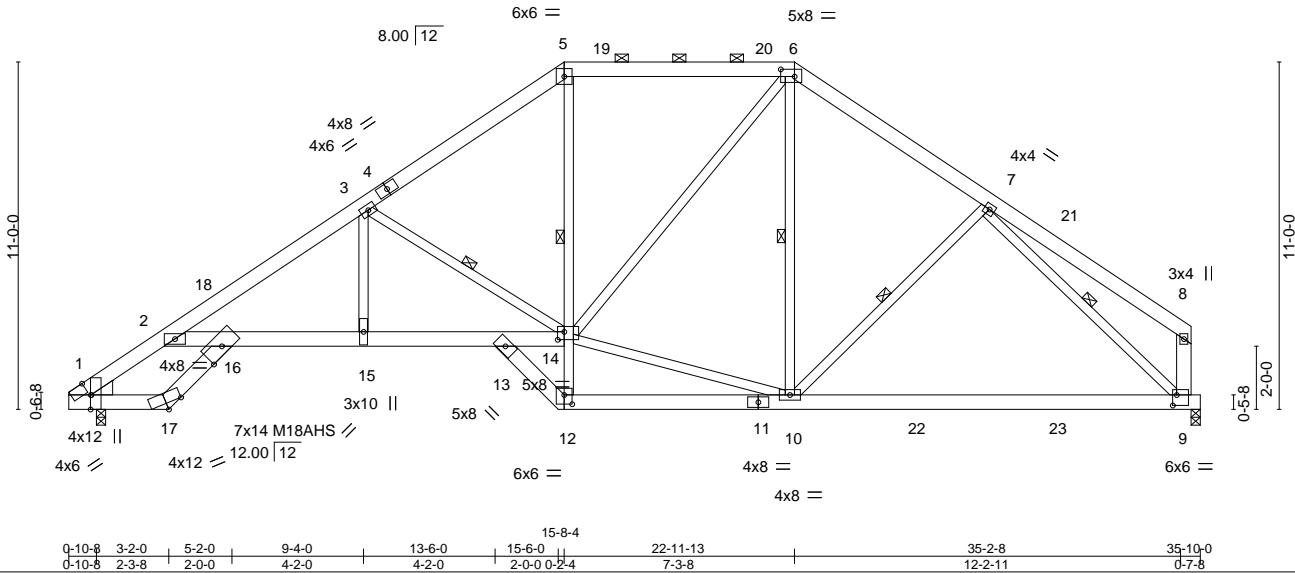


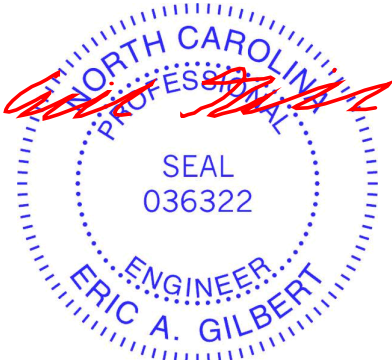
Plate Offsets (X,Y)-- [1:0-0-7,Edge], [1:0-5-8,Edge], [6:0-5-4,0-2-12], [9:0-1-8,0-4-0], [12:0-3-0,0-3-8], [14:0-2-8,0-3-0], [17:0-6-0,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl
TCLL 20.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.28 15-16	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.56 15-16	>743 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.36 9	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.24 15-16	>999 240
						<b>PLATES</b>
						MT20 244/190
						M18AHS 186/179
						Weight: 299 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.1 *Except* 16-17,2-14: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 15-16.
WEBS 2x4 SP No.2 *Except* 8-9: 2x6 SP No.1	WEBS 1 Row at midpt 5-12, 6-10, 3-14, 7-10, 7-9
WEDGE Left: 2x6 SP No.1	

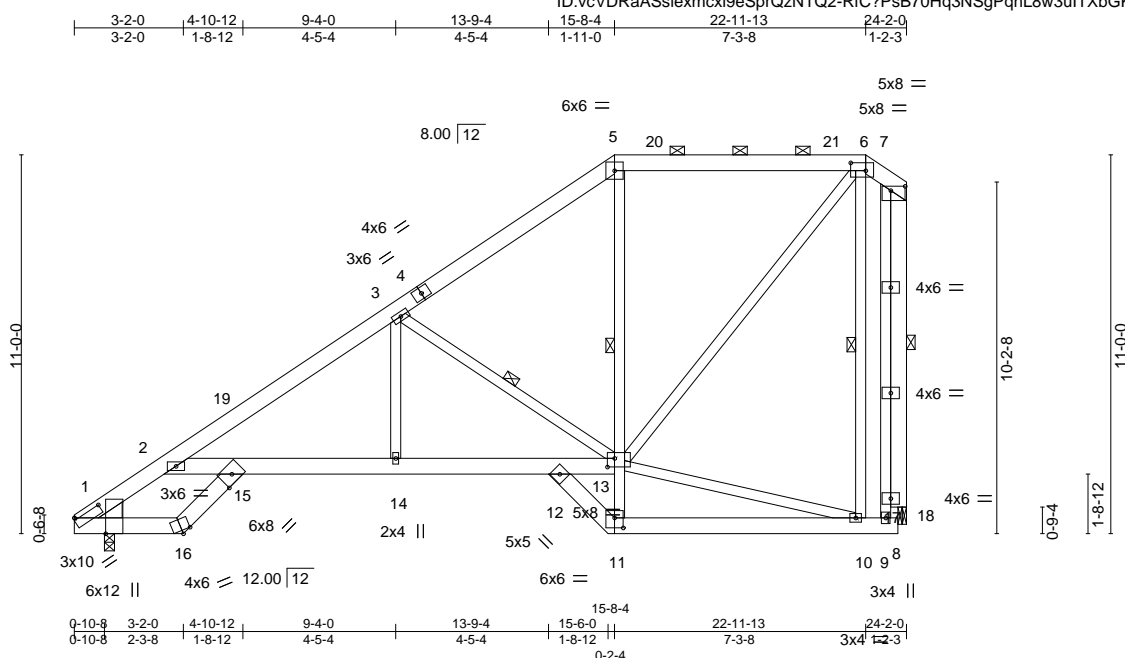
**REACTIONS.** (size) 9=0-3-8, 1=0-3-8  
Max Horz 1=250(LC 9)  
Max Uplift 9=46(LC 13), 1=64(LC 12)  
Max Grav 9=1398(LC 1), 1=1398(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2244/506, 2-3=-2948/688, 3-5=-1746/508, 5-6=-1344/490, 6-7=-1425/459, 7-8=-343/119, 8-9=-320/141  
BOT CHORD 1-17=-357/1496, 16-17=-323/1405, 2-16=-159/979, 15-16=-517/2445, 13-15=-517/2445, 13-14=-406/2115, 10-12=-111/363, 9-10=-244/1109, 12-13=-155/476  
WEBS 12-14=-274/132, 5-14=-72/584, 6-10=-33/263, 10-14=0/791, 6-14=-117/446, 3-15=-113/919, 3-14=-1384/423, 7-9=-1413/363

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-13, Exterior(2) 22-11-13 to 29-2-6, Interior(1) 29-2-6 to 35-3-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18,2023



Scale = 1:66.9

Plate Offsets (X,Y)-- [1:0-5-8,Edge], [1:0-9-7,0-0-13], [6:0-5-4,0-2-12], [7:0-5-0,0-1-8], [11:0-3-0,0-3-8], [13:0-2-8,0-3-0]											
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	0.41	Vert(LL)	-0.17	14-15	>999	360	MT20 244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.35	14-15	>823	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.18	18	n/a	n/a	
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.19	14-15	>999	240	Weight: 245 lb FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 5-3-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.	
WEBS	1 Row at midpt	5-11, 6-10, 3-13, 7-18

REACTIONS.

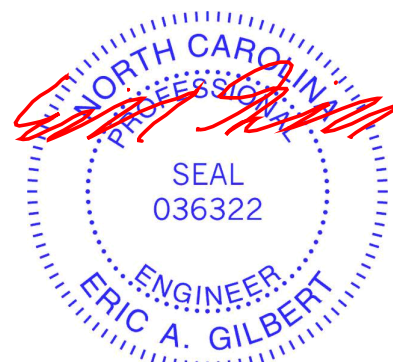
(size) 1=0-3-8, 18=0-3-0  
 Max Horz 1=334(LC 12)  
 Max Uplift 1=-12(LC 12), 18=-89(LC 12)  
 Max Grav 1=947(LC 1), 18=916(LC 1)

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

TOP CHORD	1-2=-1423/183, 2-3=-1646/355, 3-5=-807/194, 5-6=-570/228, 6-7=-399/107, 9-17=-173/334, 7-17=-173/334
BOT CHORD	1-16=-406/1037, 15-16=-361/967, 2-15=-155/430, 14-15=-555/1454, 12-14=-555/1454, 12-13=-443/1239, 11-12=-161/260
WEBS	6-13=-297/775, 3-14=-104/596, 3-13=-1103/421, 7-18=-919/316

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDF=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-5 to 4-9-1, Interior(1) 4-9-1 to 15-8-4, Exterior(2) 15-8-4 to 21-10-15, Interior(1) 21-10-15 to 22-11-13, Exterior(2) 22-11-13 to 23-6-12 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 18.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18, 2023

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

**WARNING – Velly design parameters are listed below and included within key reference 1. See MIF-1419.1 for 3/15/2020 per ONE USE.**  
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ENGINEERING BY**  
**TRENCO**  
A MITek Affiliat

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	B1	ATTIC	8	1	I59571899

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:36 2023 Page 1

ID:vcVDRaASslexmcl9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Job Reference (optional)

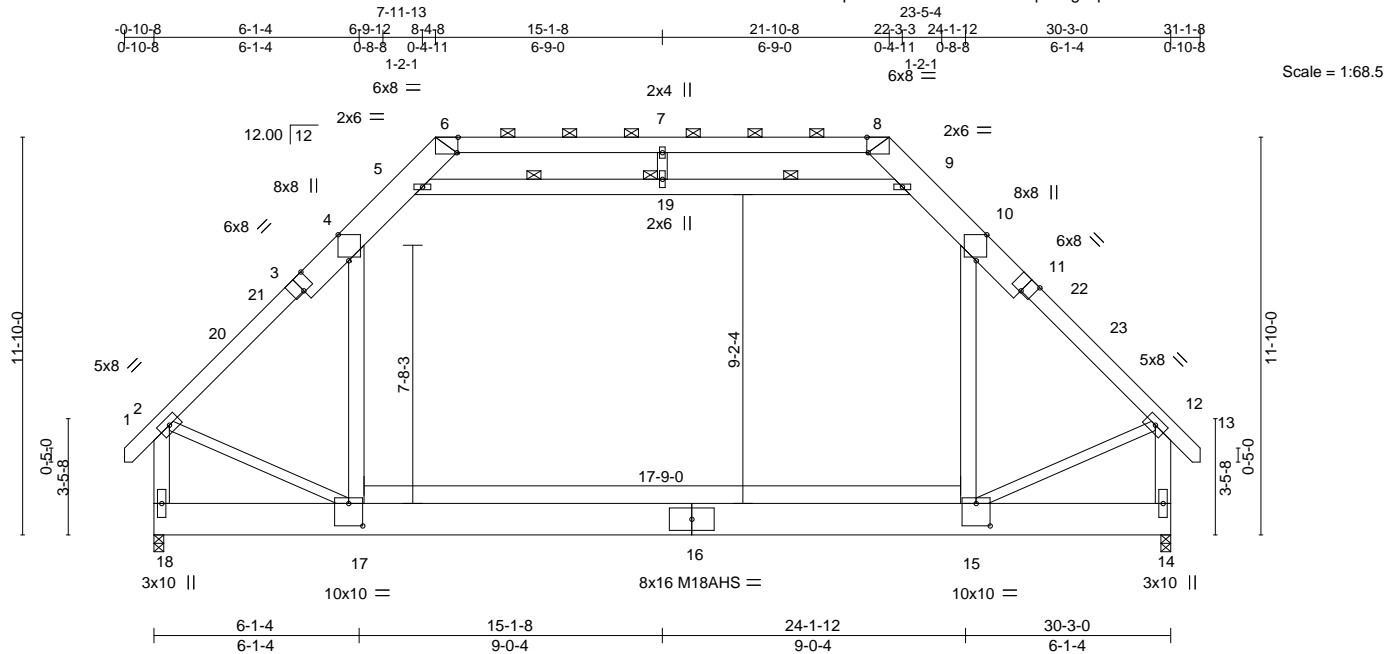


Plate Offsets (X,Y)--	[3:0-4-0,Edge], [4:0-9-5,Edge], [6:0-0-7,Edge], [8:0-0-7,Edge], [10:0-9-5,Edge], [11:0-4-0,Edge], [15:0-5-0,0-8-0], [17:0-5-0,0-8-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	L/defl
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.30 15-17	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.46 15-17	>777 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.01 14	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.07 15-17	>999 240
						<b>PLATES</b>
						MT20 244/190
						M18AHS 186/179
						Weight: 358 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
3-6,8-11: 2x10 SP No.1	
BOT CHORD 2x12 SP No.1	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	WEBS 1 Row at midpt 5-19, 9-19
2-17,12-15,7-19: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 19

<b>REACTIONS.</b>	(size) 18=0-3-8, 14=0-3-8
	Max Horz 18=221(LC 11)
	Max Grav 18=2088(LC 2), 14=2088(LC 2)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2193/0, 4-5=-1479/208, 5-6=-874/239, 6-7=-758/249, 7-8=-758/249, 8-9=-874/238, 9-10=-1479/208, 10-12=-2193/0, 2-18=-2398/0, 12-14=-2398/0
BOT CHORD	17-18=-227/290, 15-17=0/1475
WEBS	4-17=0/1019, 5-19=-1534/0, 9-19=-1534/0, 10-15=0/1019, 2-17=0/1600, 12-15=0/1601

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 8-8-5, Exterior(2) 8-8-5 to 15-1-8, Interior(1) 15-1-8 to 21-6-11, Exterior(2) 21-6-11 to 27-9-6, Interior(1) 27-9-6 to 31-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 9-10, 5-19, 9-19; Wall dead load (5.0psf) on member(s).4-17, 10-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-17
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



July 18,2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:38 2023 Page 1

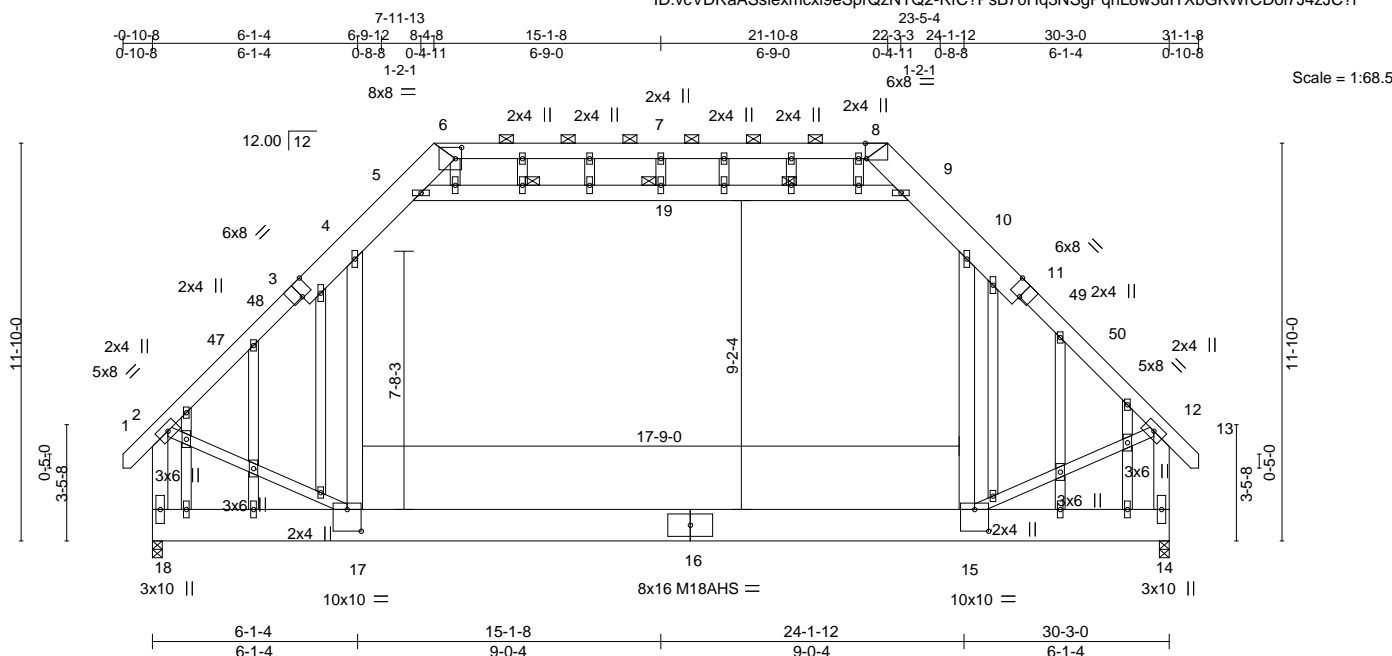


Plate Offsets (X,Y)-- [3:0-4-0,Edge], [6:0-2-4,0-4-0], [8:0-0-7,Edge], [11:0-4-0,Edge], [15:0-5-0,0-7-12], [17:0-5-0,0-7-12]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.30 15-17 >999 360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.46 15-17 >777 240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.01 14 n/a n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09 15-17 >999 240	Weight: 408 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.1 *Except* 3-6,8-11: 2x10 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 5-0-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD	2x12 SP No.1	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2x6 SP No.1 *Except* 2-17,12-15,7-19: 2x4 SP No.2	WEBS	1 Row at midpt 5-19, 9-19
OTHERS	2x4 SP No.2	JOINTS	1 Brace at Jt(s): 19

**REACTIONS.** (size) 18=0-3-8, 14=0-3-8  
Max Horz 18=-403(LC 10)  
Max Gray 18=2088(LC 2). 14=2088(LC 2)

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

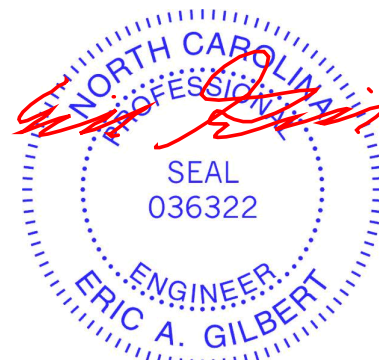
**TOP CHORD** 2-4=-2193/0, 4-5=-1479/211, 5-6=-874/429, 6-7=-758/445, 7-8=-758/445, 8-9=-874/430,  
9-10=-1479/211, 10-12=-2193/0, 2-18=-2398/0, 12-14=-2398/0

**BOT CHORD** 17-18=-390/432, 15-17=0/1475

**WEBS** 4-17=0/1019, 5-19=-1534/86, 9-19=-1534/86, 10-15=0/1019, 2-17=0/1592, 12-15=0/1593

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 8-8-5, Exterior(2) 8-8-5 to 15-1-8, Interior(1) 15-1-8 to 21-6-11, Exterior(2) 21-6-11 to 27-9-6, Interior(1) 27-9-6 to 31-0-2 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x6 MT20 unless otherwise indicated.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (10.0 psf) on member(s). 4-5, 9-10, 5-19, 9-19; Wall dead load (5.0psf) on member(s). 4-17, 10-15
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-17
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



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Edenton, NC 27932

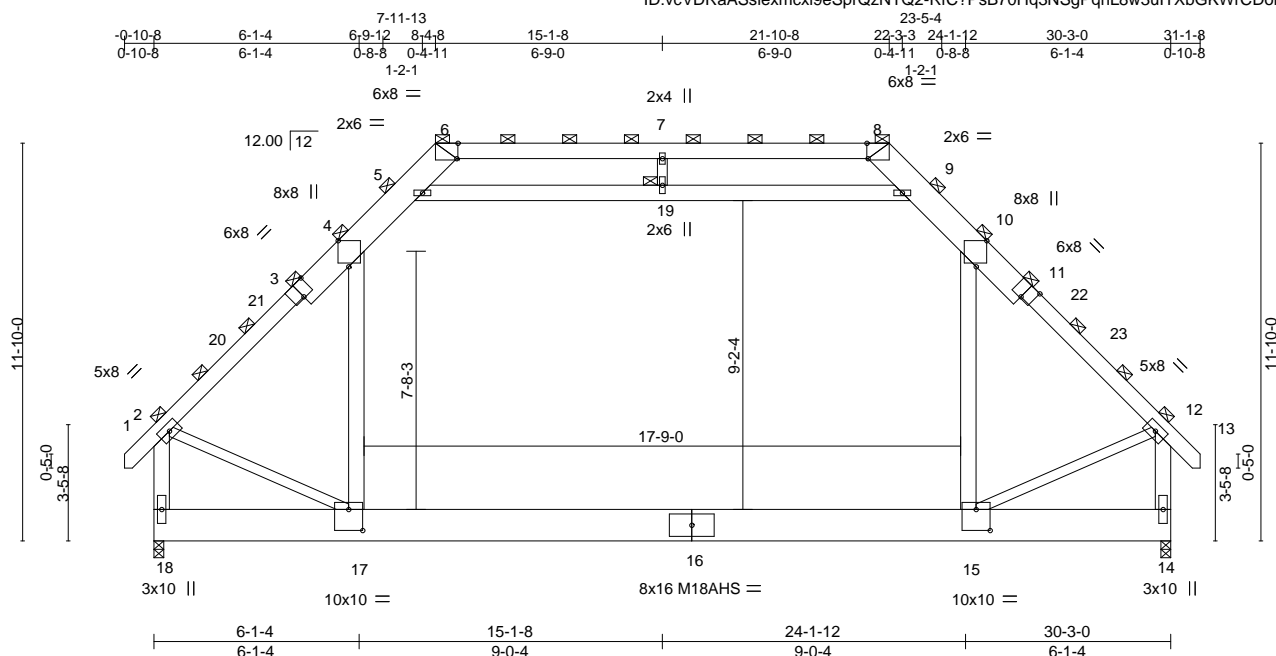


Plate Offsets (X,Y)-- [3:0-4:0,Edge], [4:0-9:5,Edge], [6:0-0:7,Edge], [8:0-0:7,Edge], [10:0-9:5,Edge], [11:0-4:0,Edge], [15:0-5:0,0-7:8], [17:0-5:0,0-7:8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 4-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.25 15-17 >999 360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.39 15-17 >920 240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01 14 n/a n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.06 15-17 >999 240	Weight: 717 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SP No.1 *Except* 3-6,8-11: 2x10 SP No.1	TOP CHORD	2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	2x12 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x6 SP No.1 *Except* 2-17,12-15,7-19: 2x4 SP No.2	JOINTS	1 Brace at Jt(s): 6, 8, 2, 12, 19

**REACTIONS.** (size) 18=0-3-8, 14=0-3-8  
Max Horz 18=-443(LC 10)  
Max Grav 18=4175(LC 2), 14=4175(LC 2)

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

**TOP CHORD** 2-4=-4374/0, 4-5=-2951/415, 5-6=-1751/477, 6-7=-1518/497, 7-8=-1518/497,  
8-9=-1751/477, 9-10=-2951/415, 10-12=-4374/0, 2-18=-4773/0, 12-14=-4773/0

**BOT CHORD** 17-18=-443/580, 15-17=0/2942

**WEBS** 4-17=0/2029, 5-19=-3052/0, 9-19=-3052/0, 10-15=0/2029, 2-17=0/3165, 12-15=0/3166,  
7-19=0/322

**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, 2x10 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x12 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-9-2 to 3-7-11, Interior(1) 3-7-11 to 8-8-5, Exterior(2) 8-8-5 to 15-1-8, Interior(1) 15-1-8 to 21-6-11, Exterior(2) 21-6-11 to 27-9-6, Interior(1) 27-9-6 to 31-0-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Ceiling dead load (10.0 psf) on member(s). 4-5, 9-10, 5-19, 9-19; Wall dead load (5.0psf) on member(s). 4-17, 10-15
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-17
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.



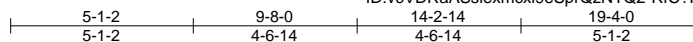
July 18, 2023

Job J0423-1840	Truss C1	Truss Type COMMON	Qty 2	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571902
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:41 2023 Page 1

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5x8 ||

Scale: 3/16"=1'

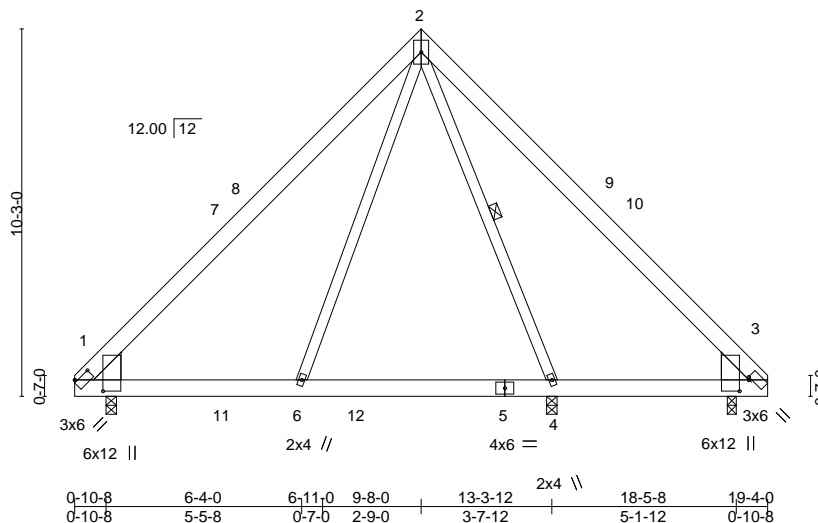


Plate Offsets (X,Y)--	[1:0-5-4,0-0-12], [1:0-3-12,0-9-7], [3:0-0-12,0-0-11], [3:0-3-12,0-3-3]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.04	4-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.05	4-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	3-4	>999	240	Weight: 145 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x10 SP No.1 , Right: 2x10 SP No.1

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 2-4

#### REACTIONS.

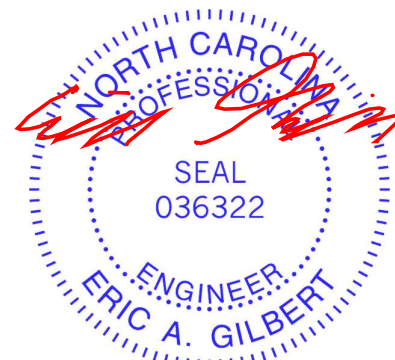
(size) 4=0-3-8, 1=0-3-8, 3=0-3-0  
Max Horz 1=-232(LC 8)  
Max Uplift 1=-40(LC 13), 3=-53(LC 13)  
Max Grav 4=625(LC 2), 1=659(LC 20), 3=406(LC 1)

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

TOP CHORD 1-2=-778/167, 2-3=-387/160  
BOT CHORD 1-6=-25/481, 4-6=-43/339  
WEBS 2-6=0/443, 2-4=-401/65

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-3-8 to 4-8-5, Interior(1) 4-8-5 to 9-8-0, Exterior(2) 9-8-0 to 14-0-13, Interior(1) 14-0-13 to 19-0-8 zone; cantilever left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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818 Soundside Road  
Edenton, NC 27932

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:43 2023 Page 1

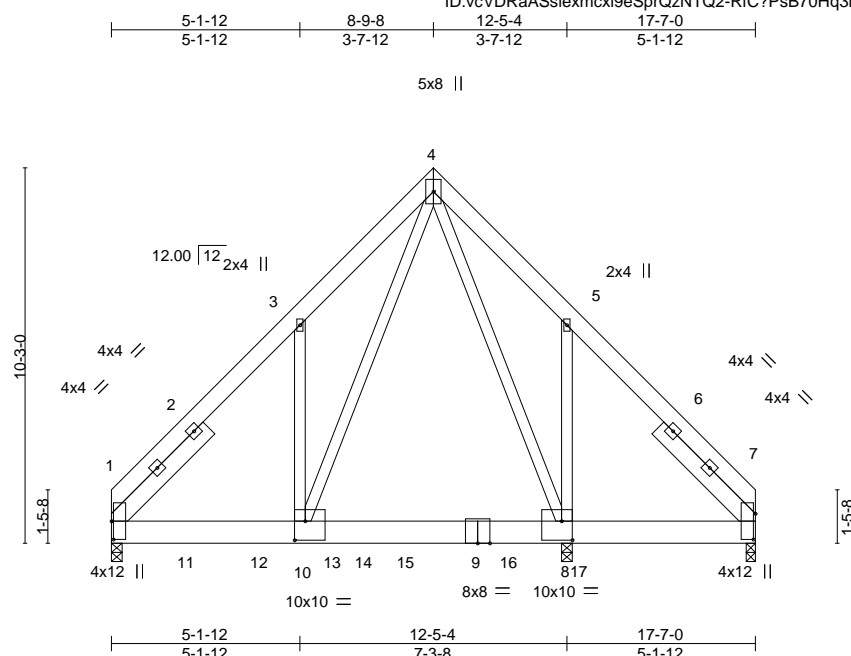


Plate Offsets (X,Y)-- [1:0-6,0-0-10], [7:0-8,0-0-10], [8:0-3,8-0-6-4], [10:0-3,8-0-6-4]													
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	8-10	>999	360	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.15	8-10	>999	240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.01	7	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	8-10	>999	240	Weight: 353 lb	FT = 20%	

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 3-8-3, Right 2x6 SP No.1 3-8-3

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

**REACTIONS.** (size) 1=0-3-8, 7=0-3-0, 8=0-3-8  
 Max Horz 1=-231(LC 23)  
 Max Uplift 1=-243(LC 8), 7=-87(LC 24), 8=-359(LC 4)  
 Max Grav 1=3965(LC 2), 7=270(LC 1), 8=5088(LC 2)

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

TOP CHORD	1-3=-4110/295, 3-4=-3661/469, 4-5=-614/260, 5-7=-788/124
BOT CHORD	1-10=-288/2626, 8-10=-131/1019, 7-8=-68/439
WEBS	4-8=-1740/191, 5-8=-334/360, 4-10=-484/4552, 3-10=-281/538

**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: 2x8 - 2 rows staggered at 0-7-0 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;  $V_{ult}=130\text{mph}$   $V_{asd}=103\text{mph}$ ;  $TCDL=6.0\text{psf}$ ;  $BCDL=6.0\text{psf}$ ;  $h=15\text{ft}$ ; Cat. II; Exp C; Enclosed; MWFRS (envelope); end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with  $BCDL = 10.0\text{psf}$ .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=243, 8=359.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1323 lb down and 93 lb up at 1-11-8, 1323 lb down and 93 lb up at 3-11-8, 1320 lb down and 93 lb up at 5-11-8, 1278 lb down and 93 lb up at 7-11-8, and 1282 lb down and 93 lb up at 9-11-8, and 1323 lb down and 93 lb up at 11-11-8 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, 4-7=-60, 1-7=-20



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Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**Safety Information:** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.

**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliat

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	C1GR	Common Girder	1	2	I59571903
					Job Reference (optional)

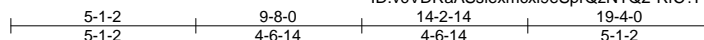
**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 9=-1165(F) 11=-1165(F) 12=-1165(F) 13=-1165(F) 15=-1165(F) 17=-1165(F)

Job J0423-1840	Truss C1SGE	Truss Type GABLE	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571904
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Comtech, Inc., Fayetteville, NC - 28314,

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ID:vcVDRaASslexmcl9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x12 ||

Scale: 3/16"=1'

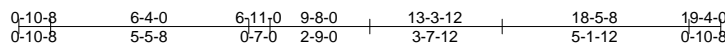
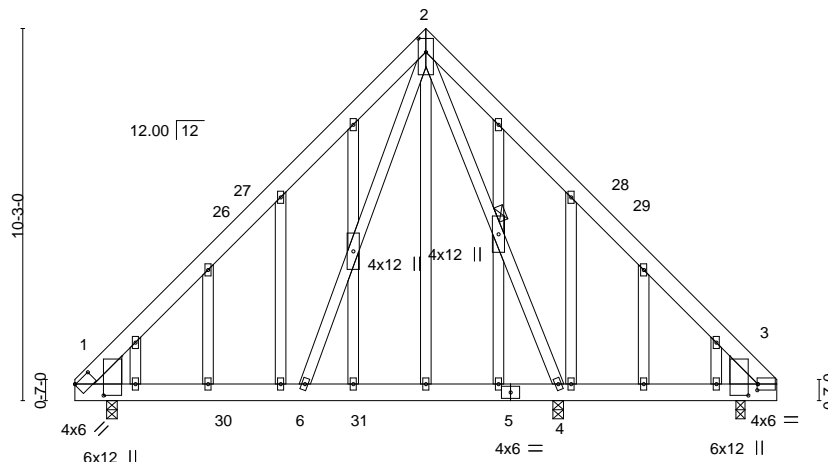


Plate Offsets (X,Y)-- [1:0-3-12,0-9-7], [1:0-5-12,0-0-4], [2:0-4-8,0-2-8], [3:0-0-4,0-2-0], [3:0-3-12,0-3-3]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.04 4-6 >999 360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.05 4-6 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00 3 n/a n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04 1-6 >999 240	Weight: 209 lb	FT = 20%

#### LUMBER-

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

Left: 2x10 SP No.1 , Right: 2x10 SP No.1

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 2-4

#### REACTIONS.

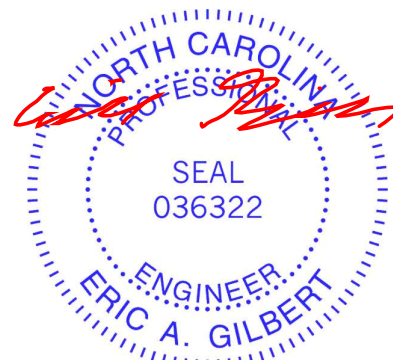
(size) 4=0-3-8, 1=0-3-8, 3=0-3-0  
Max Horz 1=291(LC 8)  
Max Uplift 4=25(LC 12), 1=121(LC 13), 3=113(LC 13)  
Max Grav 4=625(LC 2), 1=656(LC 20), 3=406(LC 1)

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

TOP CHORD 1-2=-786/199, 2-3=-392/175  
BOT CHORD 1-6=-56/504, 4-6=-71/360  
WEBS 2-6=0/443, 2-4=-409/100

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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) 0-3-8 to 4-8-5, Interior(1) 4-8-5 to 9-8-0, Exterior(2) 9-8-0 to 14-0-13, Interior(1) 14-0-13 to 19-0-8 zone; cantilever left and right exposed ; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 1=121, 3=113.



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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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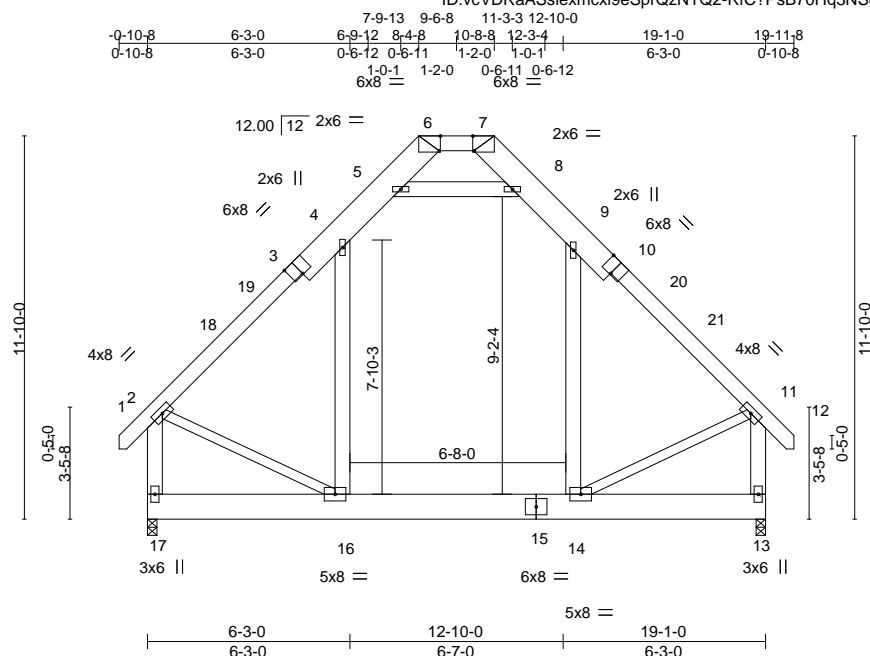


Plate Offsets (X,Y)-- [3:0-4-0,Edge], [6:0-0-7,Edge], [7:0-0-7,Edge], [10:0-4-0,Edge]													
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	0.03	16	>999	240	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	14-16	>999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	13	n/a	n/a			
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Attic	-0.02	14-16	5427	360	Weight: 236 lb	FT = 20%	

<b>LUMBER-</b> TOP CHORD 2x6 SP No.1 *Except* 3-6,7-10: 2x10 SP No.1 BOT CHORD 2x10 SP No.1 WEBS 2x6 SP No.1 *Except* 2-16,11-14: 2x4 SP No.2		<b>BRACING-</b> TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-7. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
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**REACTIONS.** (size) 17=0-3-8, 13=0-3-8  
 Max Horz 17=407(LC 11)  
 Max Grav 17=1146(LC 21), 13=1150(LC 20)

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

TOP CHORD 2-4=-1050/86, 4-5=-627/180, 5-6=-128/271, 6-7=-165/406, 7-8=-128/269, 8-9=-633/179,  
9-11=-1050/85, 2-17=-1181/104, 11-13=-1187/102

BOT CHORD 16-17=-401/425, 14-16=-6/745

WEBS 4-16=-66/349, 5-8=-1136/418, 9-14=-71/342, 2-16=-24/799, 11-14=-25/802

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDF=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9.2 to 3-7.11, Interior(1) 3-7.11 to 8-8.5, Exterior(2) 8-8.5 to 16-7.6, Interior(1) 16-7.6 to 19-10.2 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Ceiling dead load (10.0 psf) on member(s). 4-5, 8-9, 5-8; Wall dead load (5.0psf) on member(s). 4-16, 9-14
- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-16
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Attic room checked for L/360 deflection.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**ENGINEERING BY**  
**TRENCO**  
A MITek Affiliat

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	D1GE	GABLE	1	1	159571906
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

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ID:vcVDRaASslexmcl9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f  
 0-10-8 6-3-0 6-9-12 8-4-8 10-8-8 12-3-4 19-1-0 19-11-8  
 0-10-8 6-3-0 0-6-12 0-5-11 1-2-0 1-1-1 1-1-1 0-6-12  
 1-1-1 1-2-0 0-5-11 0-6-12  
 6x8 = 2x4 || 6x8 =  
 Scale = 1:72.6

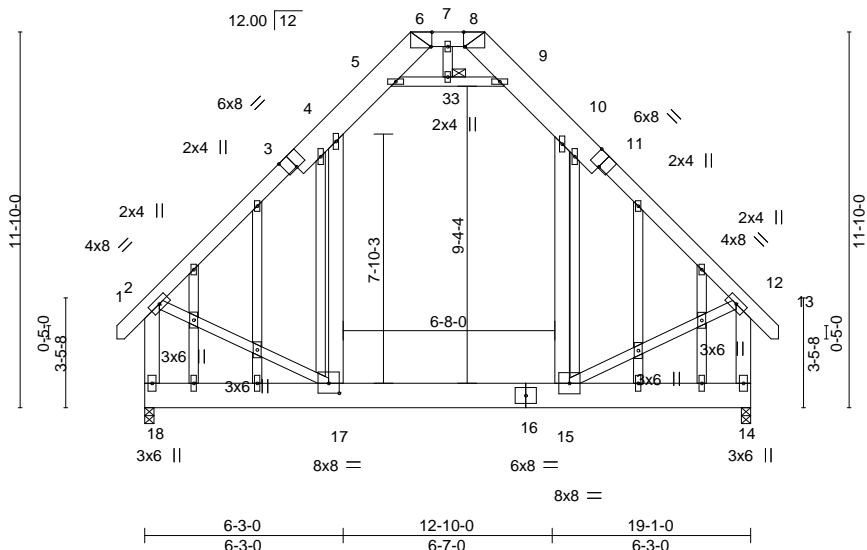


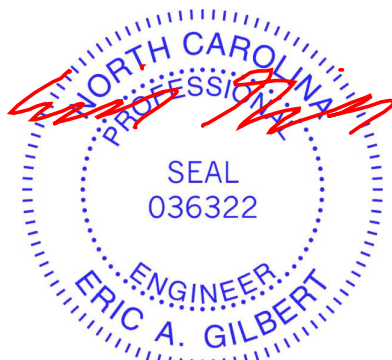
Plate Offsets (X,Y)--	[3:0-4-0,Edge], [6:0-0-7,Edge], [8:0-0-7,Edge], [11:0-4-0,Edge], [17:0-4-0,0-3-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(LL) -0.03 15-17 >999 360	GRIP 244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Vert(CT) -0.05 15-17 >999 240	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Horz(CT) 0.00 14 n/a n/a	
				Wind(LL) 0.04 17 >999 240	
					Weight: 282 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-8.
3-6,8-11: 2x10 SP No.1	
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	JOINTS 1 Brace at Jt(s): 33
5-9: 2x4 SP No.1, 2-17,12-15,7-33: 2x4 SP No.2	
OTHERS 2x4 SP No.2	

<b>REACTIONS.</b>	(size) 18=0-3-8, 14=0-3-8
	Max Horz 18=407(LC 11)
	Max Grav 18=1146(LC 21), 14=1150(LC 20)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-1048/95, 4-5=-622/200, 6-7=-208/385, 7-8=-208/385, 9-10=-630/199, 10-12=-1048/95, 2-18=-1179/109, 12-14=-1185/107
BOT CHORD	17-18=-399/427, 15-17=-6/740
WEBS	4-17=-65/352, 5-33=-1113/495, 9-33=-1113/495, 10-15=-70/344, 2-17=-25/790, 12-15=-26/794

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-9-2 to 3-7-11, Exterior(2) 3-7-11 to 8-8-5, Corner(3) 8-8-5 to 14-9-8, Exterior(2) 14-9-8 to 19-10-2 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x6 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 9-10, 5-33, 9-33; Wall dead load (5.0psf) on member(s). 4-17, 10-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-17
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



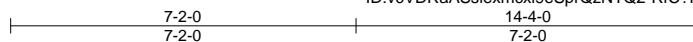
July 18,2023

Job J0423-1840	Truss E1	Truss Type COMMON	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571907
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5x5 =

Scale: 1/4"=1'

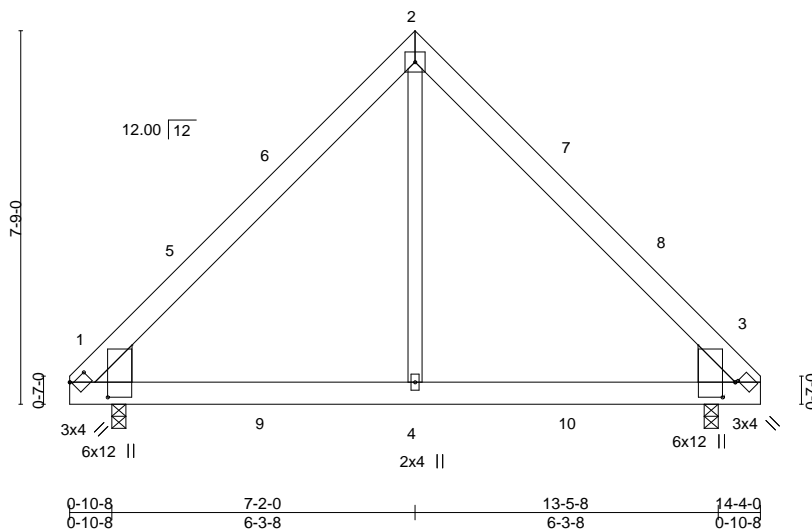


Plate Offsets (X, Y)--		[1:0-4-4,0-0-12], [1:0-3-12,0-9-7], [3:0-0-4,0-0-12], [3:0-3-12,0-3-3]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 20.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2015/TPI2014
		<b>CSI.</b>	
		TC	0.24
		BC	0.23
		WB	0.11
		Matrix-S	
		<b>DEFL.</b>	
		in (loc)	l/defl L/d
		Vert(LL)	-0.02 1-4 >999 360
		Vert(CT)	-0.04 1-4 >999 240
		Horz(CT)	0.00 3 n/a n/a
		Wind(LL)	0.01 1-4 >999 240
		<b>PLATES</b>	<b>GRIP</b>
		MT20	244/190
		Weight: 97 lb	FT = 20%

#### LUMBER-

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

Left: 2x10 SP No.1 , Right: 2x10 SP No.1

#### BRACING-

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

#### REACTIONS.

(size) 1=0-3-8, 3=0-3-8  
Max Horz 1=173(LC 9)  
Max Uplift 1=-20(LC 13), 3=-20(LC 12)  
Max Grav 1=639(LC 20), 3=639(LC 19)

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

TOP CHORD 1-2=-709/163, 2-3=-709/163  
BOT CHORD 1-4=-0/457, 3-4=-0/457  
WEBS 2-4=0/509

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-3-8 to 4-8-5, Interior(1) 4-8-5 to 7-2-0, Exterior(2) 7-2-0 to 11-6-13, Interior(1) 11-6-13 to 14-0-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

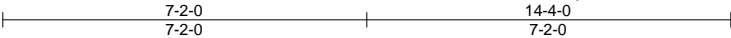
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	E1GE	Common Supported Gable	1	1	I59571908
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

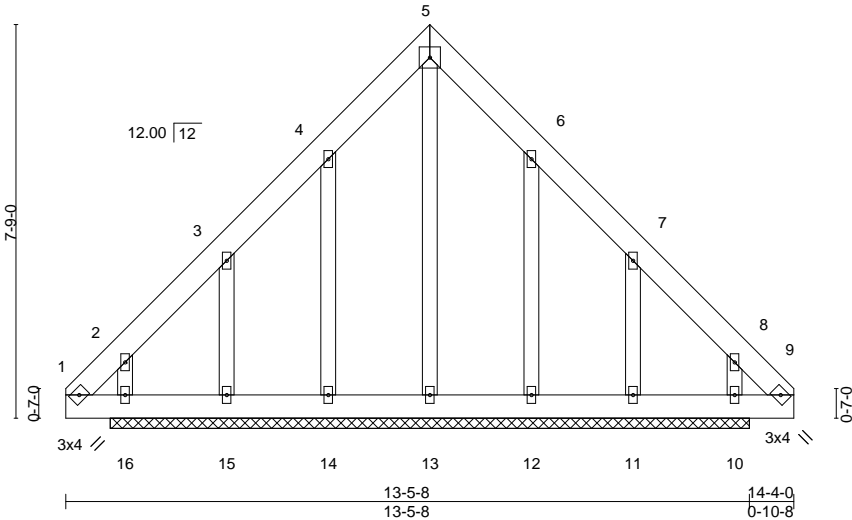
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:49 2023 Page 1

ID:vcVDRaASslexmcl9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x5 =

Scale = 1:45.4



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 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 116 lb	FT = 20%

LUMBER-

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

BRACING-

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

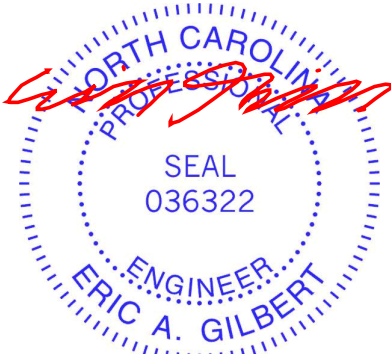
REACTIONS.

All bearings 12-7-0.  
 (lb) - Max Horz 16=-216(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 12, 10 except 15=-275(LC 12), 16=-112(LC 8), 11=-268(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 13, 14, 12, 11, 10 except 15=250(LC 19), 16=267(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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) 0-0-0 to 4-4-13, Exterior(2) 4-4-13 to 7-2-0, Corner(3) 7-2-0 to 11-6-13, Exterior(2) 11-6-13 to 14-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 12, 10 except (jt=lb) 15=275, 16=112, 11=268.
- Non Standard bearing condition. Review required.



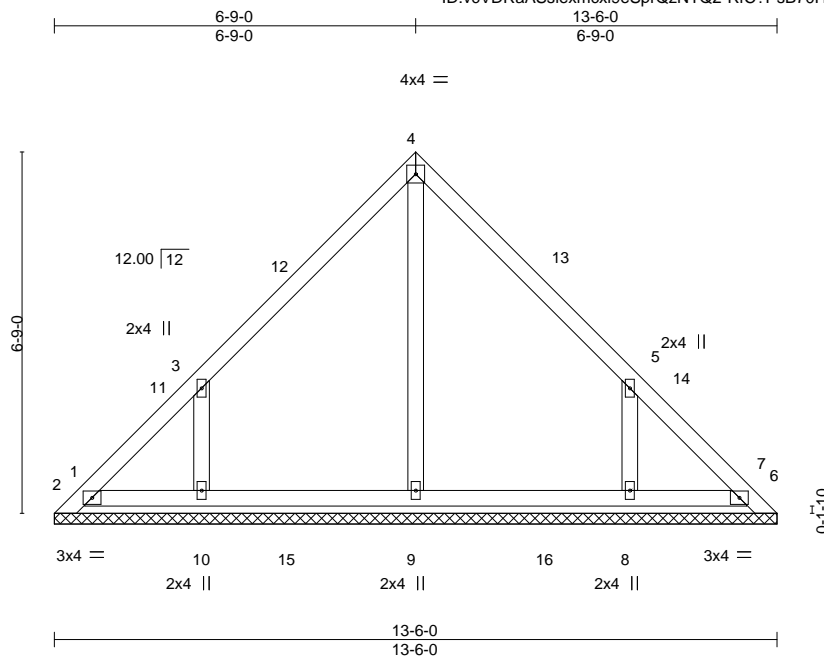
July 18,2023

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	PB1	GABLE	8	1	I59571909
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:51 2023 Page 1

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Scale = 1:43.0

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 0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 62 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

All bearings 13-6-0.  
(lb) - Max Horz 1=157(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 1=108(LC 8), 10=167(LC 12), 8=166(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6 except 9=387(LC 19), 10=381(LC 19), 8=380(LC 20)

#### FORCES.

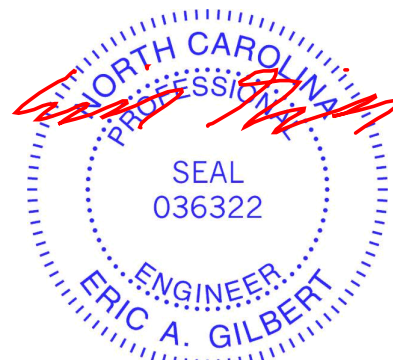
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### WEBS

3-10=360/298, 5-8=360/298

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-8 to 4-7-4, Interior(1) 4-7-4 to 6-9-0, Exterior(2) 6-9-0 to 11-1-13, Interior(1) 11-1-13 to 13-3-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 1=108, 10=167, 8=166.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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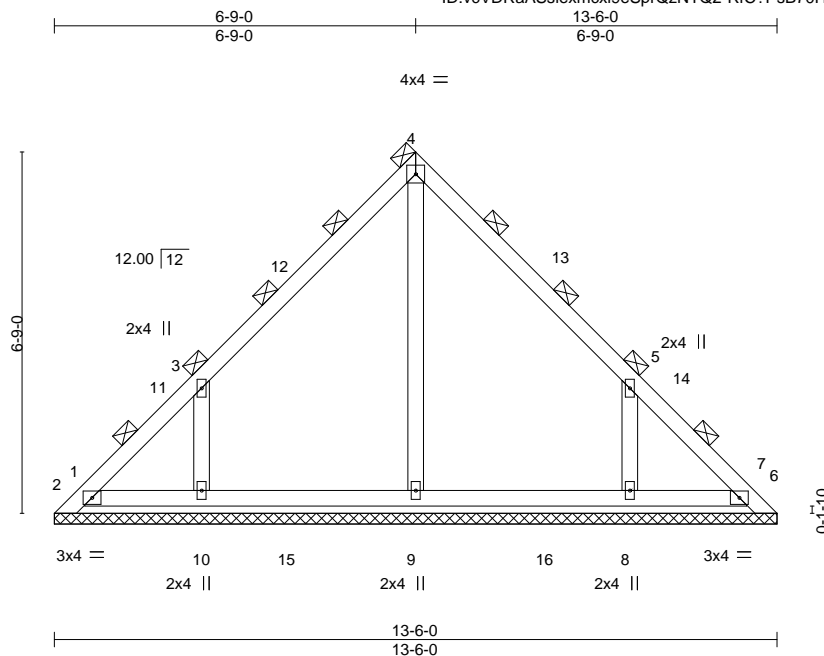
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	PB1-2P	GABLE	1	2	I59571910

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:52 2023 Page 1

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Scale = 1:43.0

LOADING (psf)	SPACING-	4-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.05	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 123 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheathed: Spacing > 2-8-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

All bearings 13-6-0.  
(lb) - Max Horz 1=314(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 1=217(LC 8), 10=334(LC 12), 8=332(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6 except 9=775(LC 19), 10=763(LC 19), 8=759(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=389/395, 2-3=322/256, 3-4=335/286, 4-5=328/286, 5-6=271/185  
WEBS 4-9=274/0, 3-10=720/597, 5-8=720/597

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-8 to 4-7-4, Interior(1) 4-7-4 to 6-9-0, Exterior(2) 6-9-0 to 11-1-13, Interior(1) 11-1-13 to 13-3-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 1=217, 10=334, 8=332.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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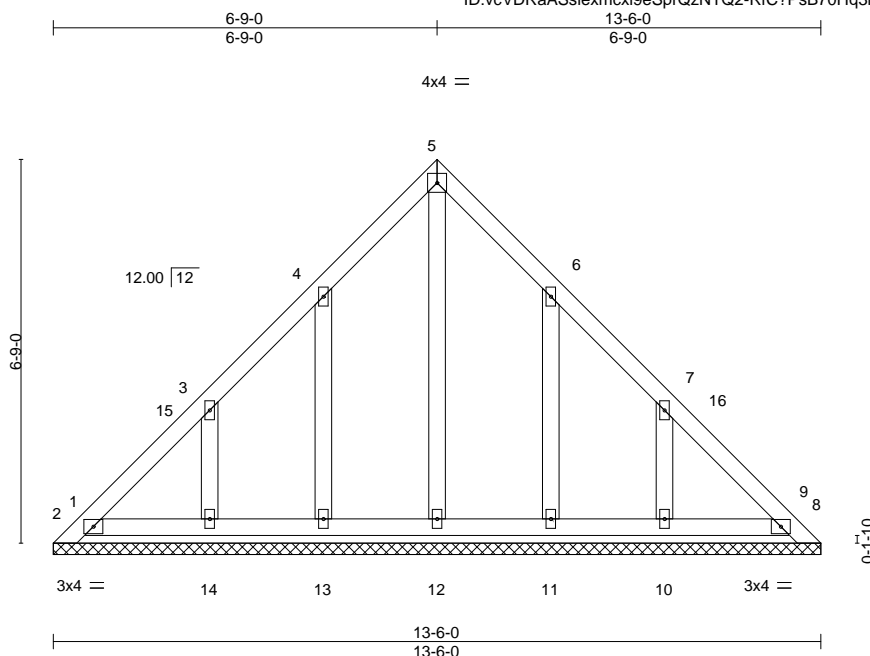
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT	I59571911
J0423-1840	PB1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:54 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDdi7J4zJC?f



Scale = 1:40.5

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)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 74 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

All bearings 13'-6".  
(lb) - Max Horz 1=-196(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 8 except 1=-197(LC 10), 13=-142(LC 12), 14=-155(LC 12), 11=-140(LC 13), 10=-154(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 11, 10

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-266/286

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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) 0-2-8 to 4-9-0, Interior(1) 4-9-0 to 6-9-0, Exterior(2) 6-9-0 to 11-1-13, Interior(1) 11-1-13 to 13-3-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2, 8 except (jt=lb) 1=197, 13=142, 14=155, 11=140, 10=154.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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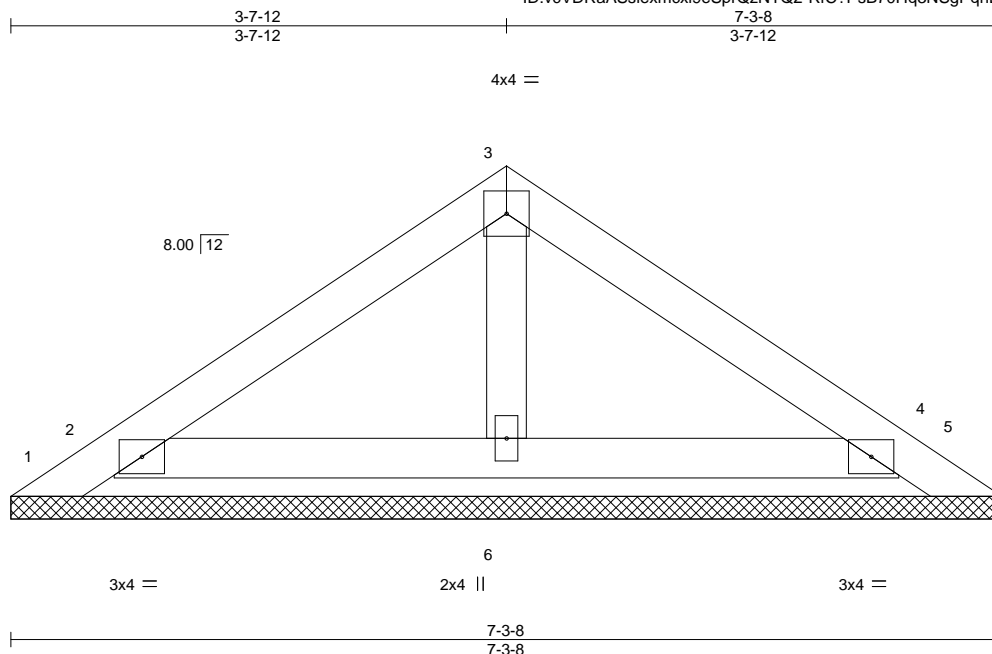
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss PB2	Truss Type GABLE	Qty 27	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571912
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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:55 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

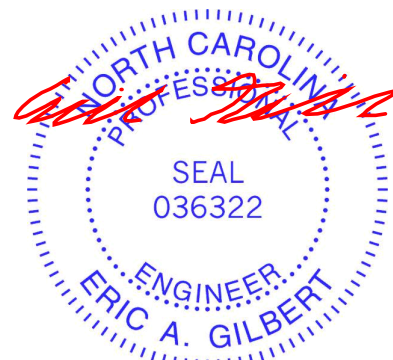
#### REACTIONS.

All bearings 7-3-8.  
(lb) - Max Horz 1=54(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 5, 4 except 1=121(LC 19), 2=108(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=293(LC 19), 4=278(LC 20)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4 except (jt=lb) 1=121, 2=108.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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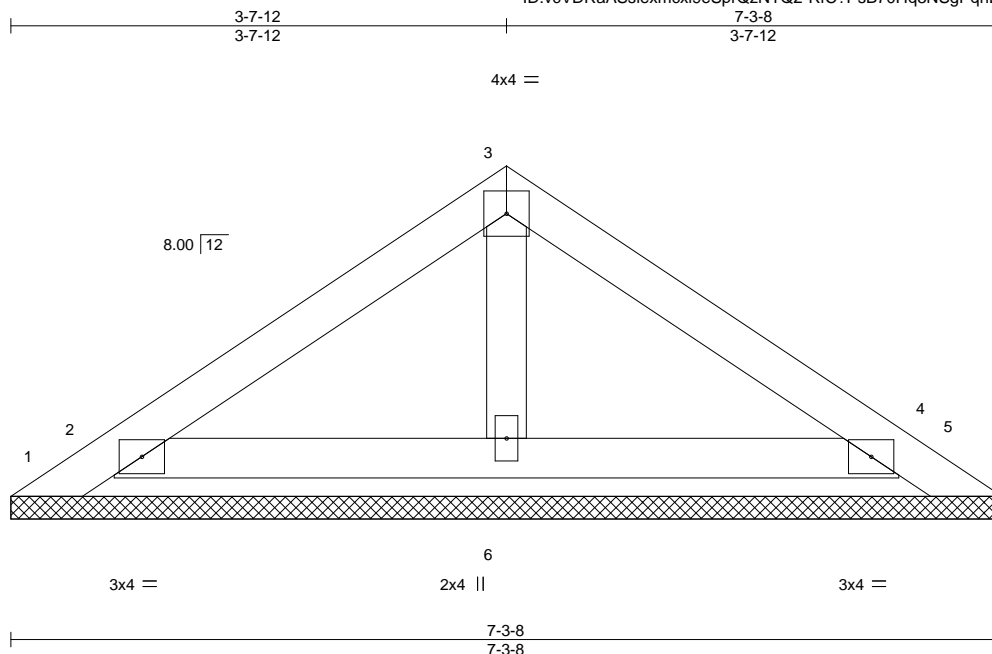
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss PB2GE	Truss Type GABLE	Qty 2	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571913
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:57 2023 Page 1

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Scale = 1:16.9

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)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

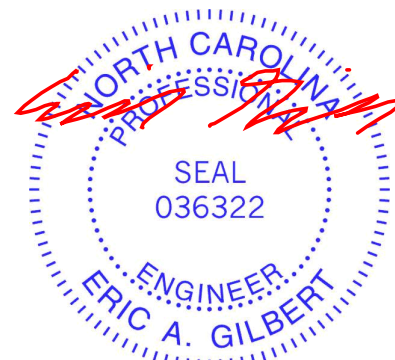
#### REACTIONS.

All bearings 7-3-8.  
(lb) - Max Horz 1=-68(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-131(LC 19), 5=-102(LC 20), 2=-185(LC 12), 4=-168(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=304(LC 19), 4=285(LC 20)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 1, 102 lb uplift at joint 5, 185 lb uplift at joint 2 and 168 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

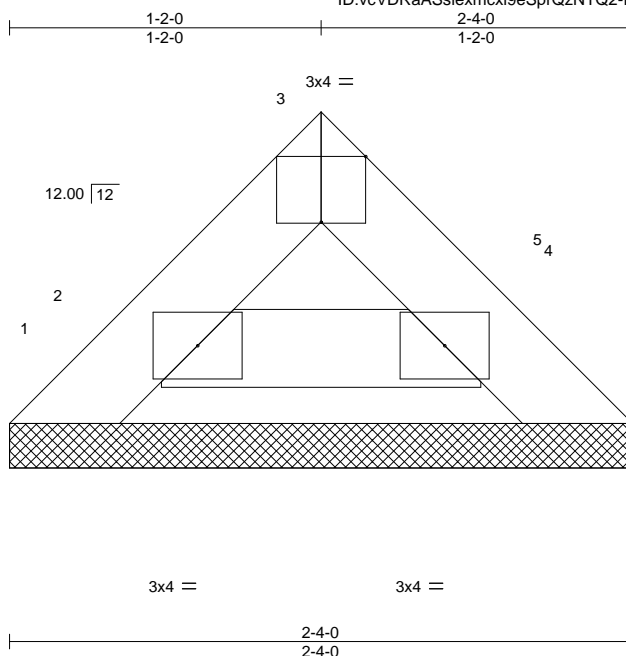
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss PB3	Truss Type GABLE	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571914
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:58 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:8.6

Plate Offsets (X,Y)-- [3:0-2:0,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

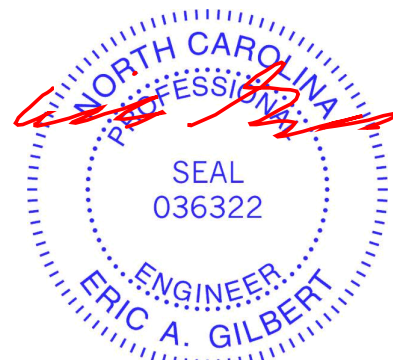
#### REACTIONS.

(size) 1=2-4-0, 5=2-4-0, 2=2-4-0  
Max Horz 1=23(LC 11)  
Max Uplift 1=20(LC 10), 5=-3(LC 13), 2=-10(LC 12)  
Max Grav 1=14(LC 9), 5=59(LC 1), 2=110(LC 19)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 3 lb uplift at joint 5 and 10 lb uplift at joint 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss PB3GE	Truss Type GABLE	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571915
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:33:59 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



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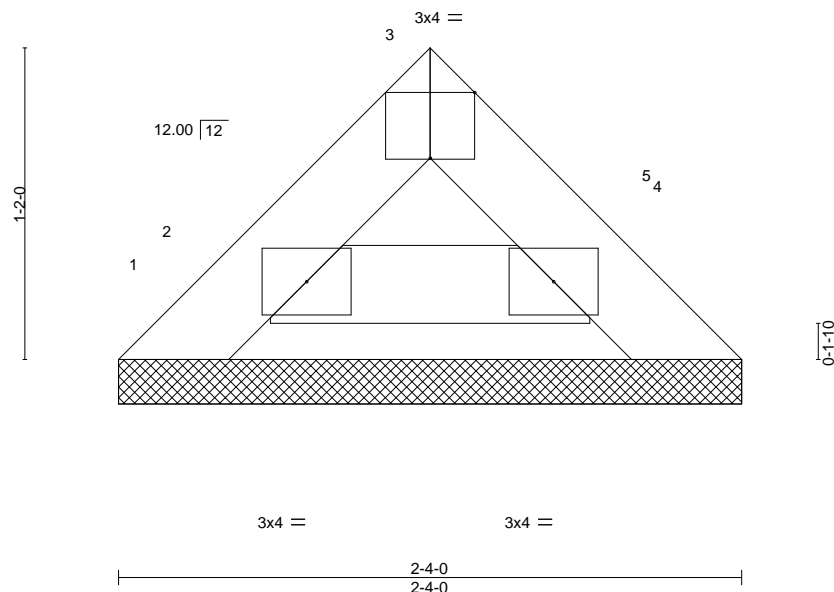


Plate Offsets (X,Y)--		[3:0-2-0,Edge]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

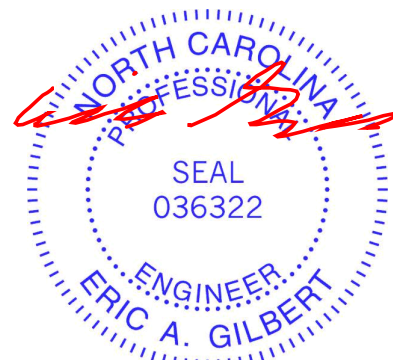
#### REACTIONS.

(size) 1=2-4-0, 5=2-4-0, 2=2-4-0  
Max Horz 1=29(LC 9)  
Max Uplift 1=23(LC 10), 5=12(LC 13), 2=29(LC 12)  
Max Grav 1=18(LC 9), 5=59(LC 1), 2=113(LC 19)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 12 lb uplift at joint 5 and 29 lb uplift at joint 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

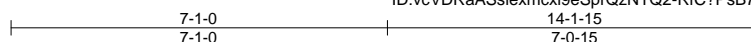
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss V1	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571916
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:00 2023 Page 1

ID:vcVDRaASslexmcx19eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:43.3

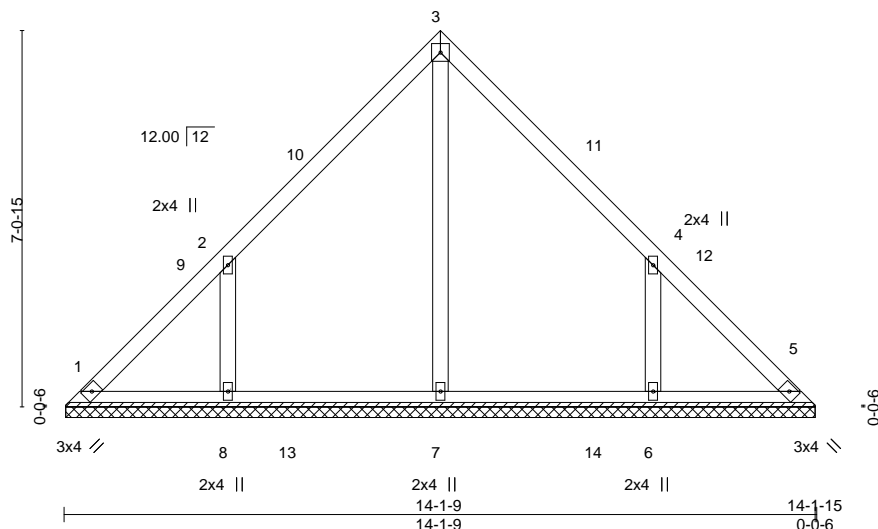


Plate Offsets (X,Y)--		[4:0-0-0,0-0-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	20.0	Plate Grip DOL 1.15		TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL 1.15		BC	0.17	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.11	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 66 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

All bearings 14-1-3.

(lb) - Max Horz 1=161(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=171(LC 12), 6=171(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=402(LC 19), 8=411(LC 19), 6=411(LC 20)

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

WEBS 2-8=-373/295, 4-6=-373/295

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-1-0, Exterior(2) 7-1-0 to 11-5-12, Interior(1) 11-5-12 to 13-9-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=171, 6=171.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

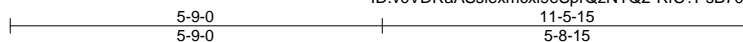
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss V2	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571917
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

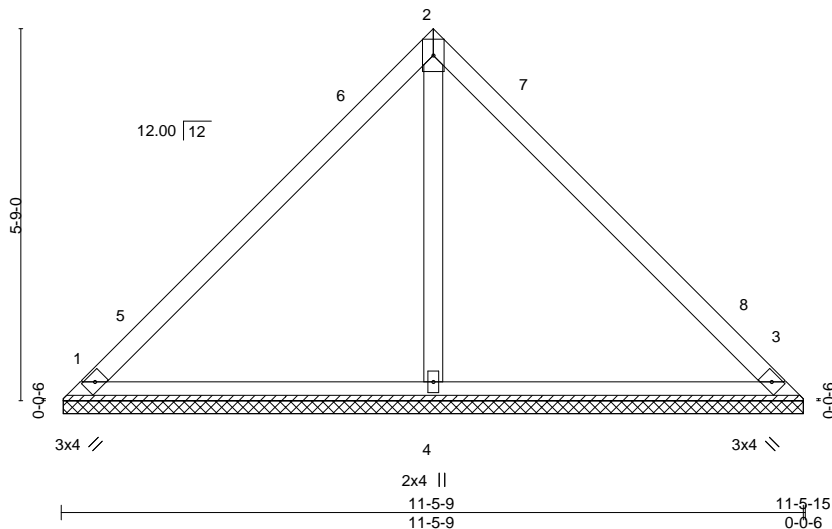
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:01 2023 Page 1

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4x6 ||

Scale = 1:35.6



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 0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 47 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

(size) 1=11-5-3, 3=11-5-3, 4=11-5-3  
Max Horz 1=129(LC 8)  
Max Uplift 1=32(LC 13), 3=32(LC 13)  
Max Grav 1=245(LC 1), 3=245(LC 1), 4=374(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-9-0, Exterior(2) 5-9-0 to 10-1-12, Interior(1) 10-1-12 to 11-1-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
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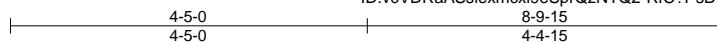
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss V3	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571918
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Comtech, Inc., Fayetteville, NC - 28314,

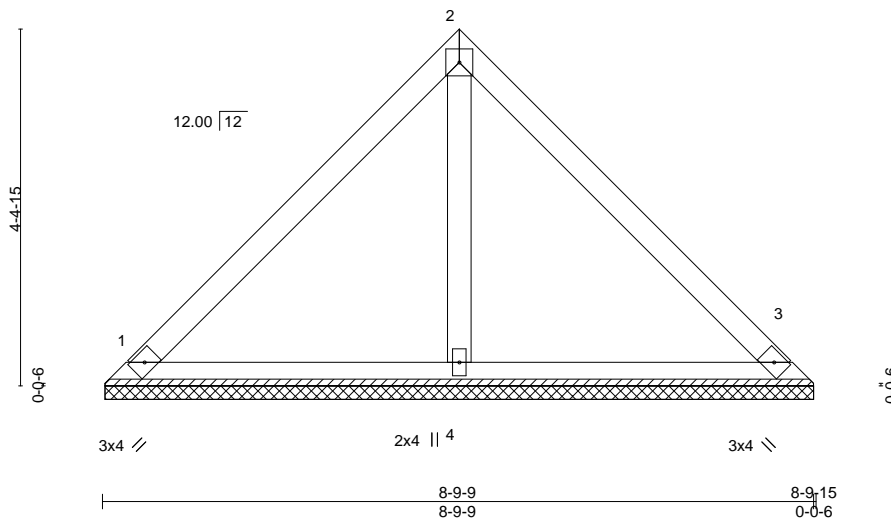
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:02 2023 Page 1

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4x4 =

Scale = 1:28.5



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 0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 36 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

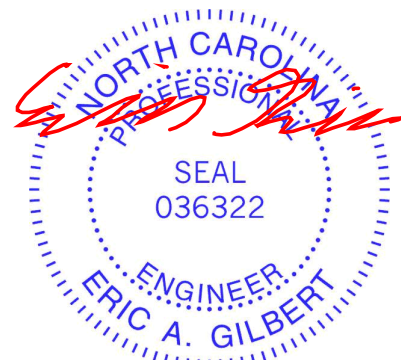
#### REACTIONS.

(size) 1=8-9-3, 3=8-9-3, 4=8-9-3  
Max Horz 1=97(LC 9)  
Max Uplift 1=35(LC 13), 3=35(LC 13)  
Max Grav 1=198(LC 1), 3=198(LC 1), 4=254(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

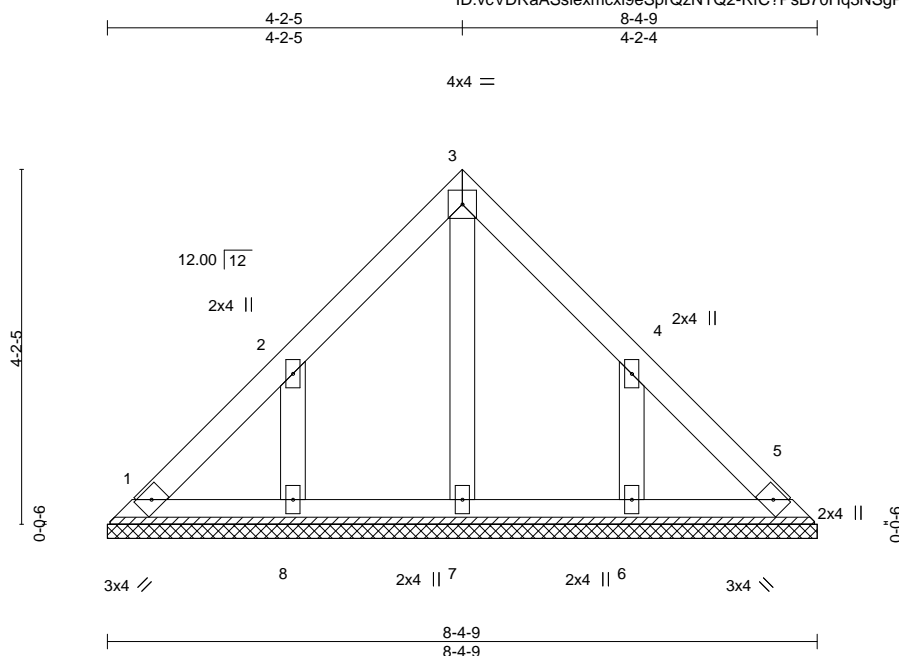


Plate Offsets (X,Y)-- [4:0-0,0-0-0]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 39 lb	FT = 20%

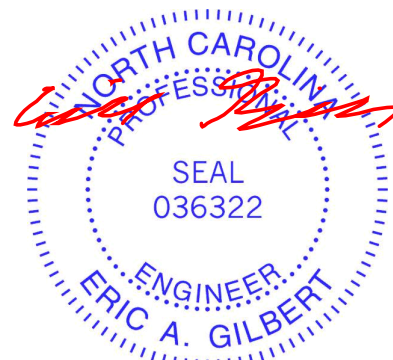
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.2		

**REACTIONS.** All bearings 8-4-9.  
(lb) - Max Horz 1=115(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=167(LC 12), 6=167(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

**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;  $V_{ult}=130\text{mph}$   $V_{asd}=103\text{mph}$ ;  $TCDL=6.0\text{psf}$ ;  $BCDL=6.0\text{psf}$ ;  $h=15\text{ft}$ ; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=167, 6=167.



July 18, 2023

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

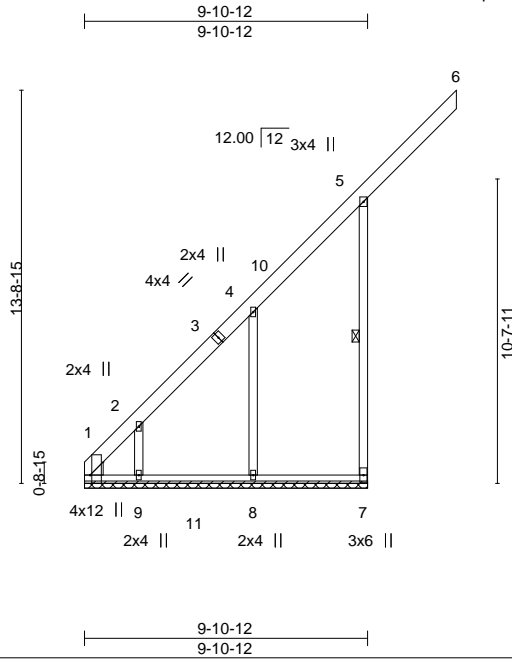
**ENGINEERING BY**  
**TRENCO**  
A MITek Affiliat

818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC01	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	159571920
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Comtech, Inc., Fayetteville, NC 28309

ID:vcVDRaASslexmcl9eSprQzNTQ2-erbTo?iPeHiTsd\_sTdQQIT?NE7W3H3yXUGvwdhyx5oy  
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 16:53:04 2023 Page 1



Scale = 1:80.5

Plate Offsets (X,Y)-- [1:0-3-8,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 0.39	Vert(LL)	0.05	5-6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 85 lb	FT = 20%

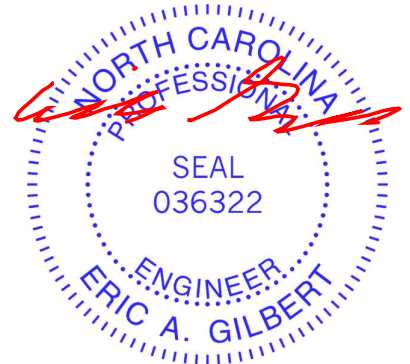
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-7
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x6 SP No.1	

**REACTIONS.** All bearings 9-10-12.  
(lb) - Max Horz 1=411(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) except 7=349(LC 9), 8=107(LC 12), 9=250(LC 12), 1=188(LC 10)  
Max Grav All reactions 250 lb or less at joint(s) except 7=513(LC 19), 8=479(LC 19), 9=379(LC 19), 1=486(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=1051/774, 2-3=668/458, 3-4=644/485, 4-10=586/299, 5-10=556/348, 5-7=556/739  
WEBS 4-8=519/194, 2-9=470/499

**NOTES-**  
1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 13-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
2) Gable requires continuous bottom chord bearing.  
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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.  
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 349 lb uplift at joint 7, 107 lb uplift at joint 8, 250 lb uplift at joint 9 and 188 lb uplift at joint 1.  
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 18,2023

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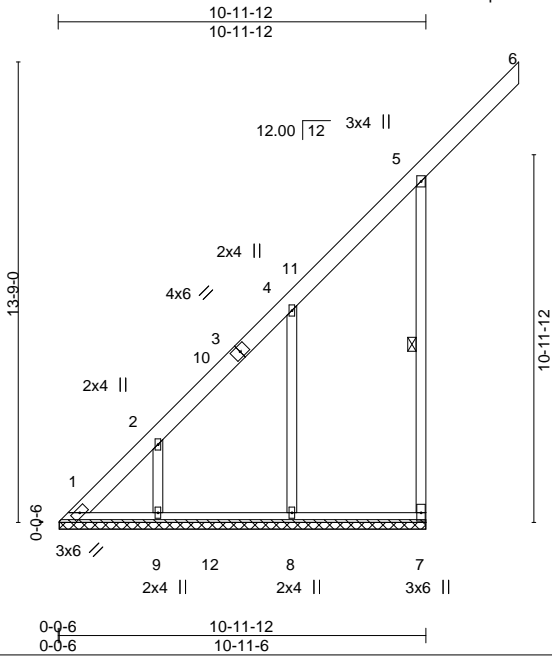
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	VC02	VALLEY	1	1	I59571921
Job Reference (optional)					

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:05 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDdi7J4zJC?f



Scale = 1:68.8

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 0.31	Vert(LL)	0.03	5-6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 88 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 5-7

REACTIONS.

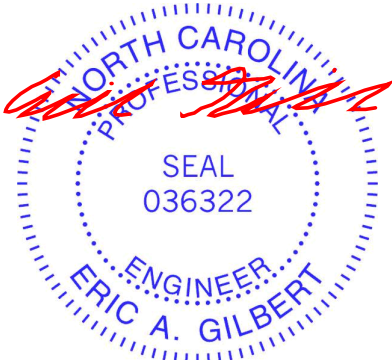
All bearings 10-11-6.  
(lb) - Max Horz 1=413(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) except 7=-307(LC 9), 1=-119(LC 10), 8=-120(LC 12), 9=-160(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) except 7=472(LC 19), 1=382(LC 12), 8=506(LC 19), 9=375(LC 19)

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

TOP CHORD 1-2=-876/670, 2-4=-624/467, 4-5=-518/312, 5-7=-499/648  
WEBS 4-8=-494/219, 2-9=-370/331

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 13-9-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 307 lb uplift at joint 7, 119 lb uplift at joint 1, 120 lb uplift at joint 8 and 160 lb uplift at joint 9.
- 5) Non Standard bearing condition. Review required.



July 18,2023

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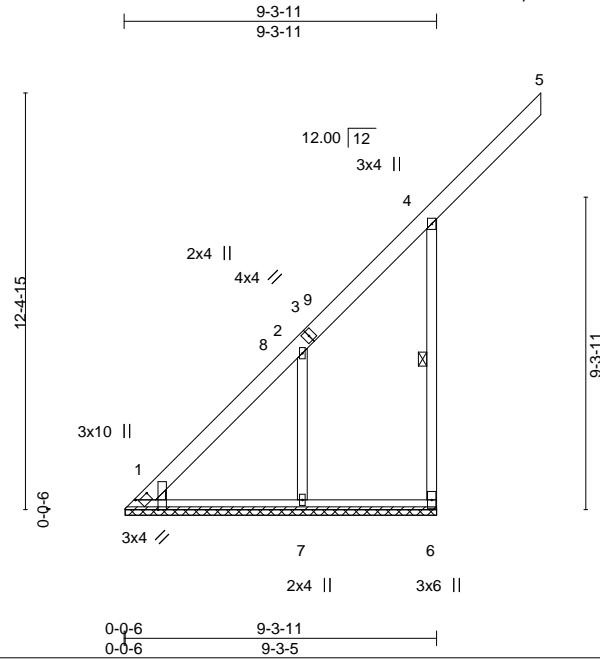


818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC03	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571922
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Comtech, Inc., Fayetteville, NC 28309

ID:vcVDRaASslexmcxI9eSprQzNTQ2-XQPGKoYvhAegy4hRBgvKT4nmKIi6gz7d7KkK3\_yx5o5  
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 16:54:00 2023 Page 1



Scale = 1:68.6

Plate Offsets (X,Y)-- [1:0-4-9,0-1-1], [1:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	Vert(LL) 0.05	4-5	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT) 0.00	5	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.22	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 73 lb	FT = 20%

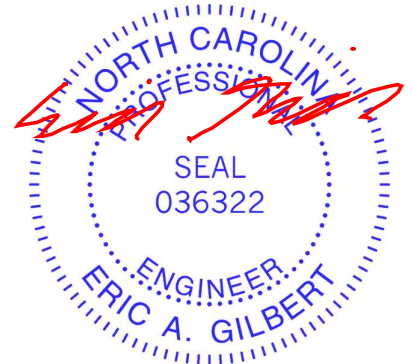
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-6
OTHERS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.2	

**REACTIONS.** (lb/size) 6=395/9-3-5 (min. 0-1-8), 7=330/9-3-5 (min. 0-1-8), 1=165/9-3-5 (min. 0-1-8)  
Max Horz 1=367(LC 12)  
Max Uplift 6=-342(LC 9), 7=-154(LC 12), 1=-12(LC 10)  
Max Grav 6=500(LC 19), 7=490(LC 19), 1=280(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-8=-740/538, 2-8=-699/544, 2-3=-575/281, 3-9=-573/287, 4-9=-547/336, 4-6=-538/725  
WEBS 2-7=-599/261

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 12-4-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 342 lb uplift at joint 6, 154 lb uplift at joint 7 and 12 lb uplift at joint 1.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



July 18,2023

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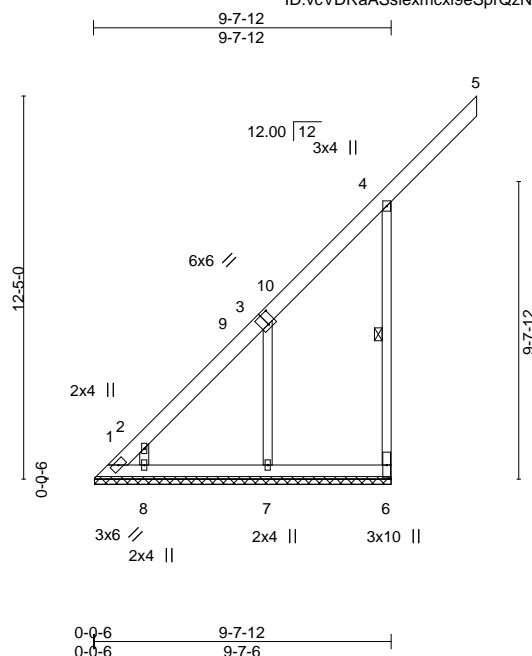
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC04	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:07 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.7

Plate Offsets (X,Y)-- [3:0-3-0,0-4-8]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES</b>	<b>GRIP</b>		
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	0.03	4-5	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 83 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-7-6.

(lb) - Max Horz 1=367(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) except 6=307(LC 9), 1=178(LC 10), 7=118(LC 12), 8=149(LC 12)

Max Grav All reactions 250 lb or less at joint(s) except 6=480(LC 19), 1=383(LC 12), 7=424(LC 19), 8=292(LC 19)

#### FORCES.

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

TOP CHORD 1-2=-895/654, 2-3=-643/466, 3-4=-526/318, 4-6=-507/658

WEBS 3-7=-494/222, 2-8=-350/350

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-6-10 to 4-11-7, Interior(1) 4-11-7 to 12-5-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 307 lb uplift at joint 6, 178 lb uplift at joint 1, 118 lb uplift at joint 7 and 149 lb uplift at joint 8.
- 5) Non Standard bearing condition. Review required.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
**TRENCO**  
A MITEK Affiliate

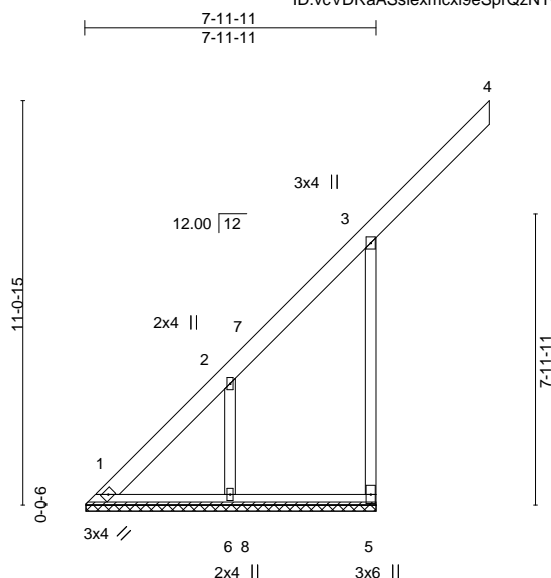
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC05	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:08 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:63.1

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 0.51	Vert(LL)	0.05	3-4	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.01	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 63 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

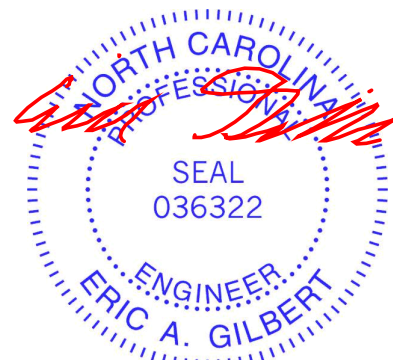
(size) 1=7-11-5, 5=7-11-5, 6=7-11-5  
Max Horz 1=324(LC 12)  
Max Uplift 1=-31(LC 10), 5=-355(LC 9), 6=-104(LC 12)  
Max Grav 1=255(LC 12), 5=519(LC 19), 6=381(LC 19)

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

TOP CHORD 1-2=-694/493, 2-3=-601/356, 3-5=-570/767  
WEBS 2-6=-540/197

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 11-0-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 355 lb uplift at joint 5 and 104 lb uplift at joint 6.



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

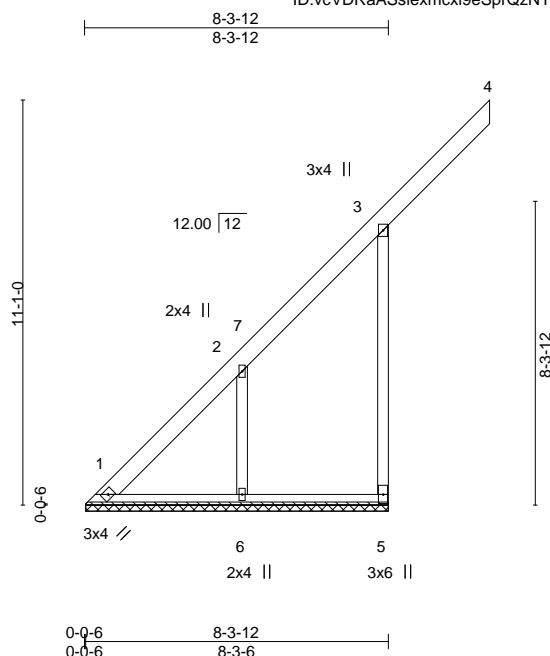
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC06	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:09 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDdi7J4zJC?f



Scale = 1:63.0

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 0.50	Vert(LL)	0.03	3-4	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	0.00	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 64 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

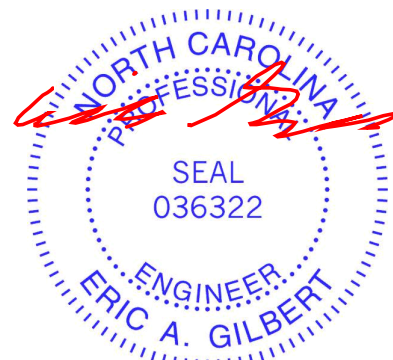
(size) 1=8-3-6, 5=8-3-6, 6=8-3-6  
Max Horz 1=326(LC 12)  
Max Uplift 1=-25(LC 10), 5=-310(LC 9), 6=-130(LC 12)  
Max Grav 1=255(LC 12), 5=475(LC 19), 6=446(LC 19)

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

TOP CHORD 1-2=-676/494, 2-3=-527/317, 3-5=-507/669  
WEBS 2-6=-538/247

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 11-1-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 310 lb uplift at joint 5 and 130 lb uplift at joint 6.
- 5) N/A



July 18, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

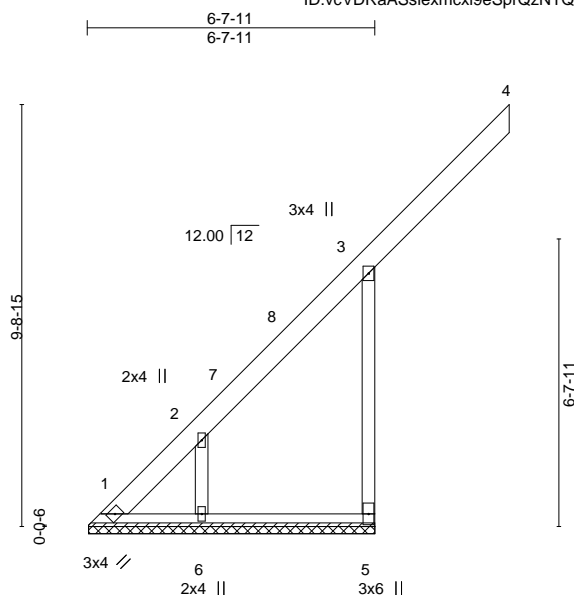
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

ENGINEERING BY  
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818 Soundside Road  
Edenton, NC 27932



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) 0.05 3-4 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) 0.01 4 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) -0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 52 lb	FT = 20%

**LUMBER-**  
**TOP CHO**  
**BOT CHO**  
**WEBS**  
**OTHERS**

**REACTION**

**FORCES.**  
**TOP CHO**  
**WEBS**

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

**BRACING-**  
TOP CHOR  
BOT CHOR

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

**REACTIONS.** (size) 1=6-7-5, 5=6-7-5, 6=6-7-5  
 Max Horz 1=280(LC 12)  
 Max Uplift 1=-55(LC 10), 5=-361(LC 9), 6=-62(LC 12)  
 Max Grav 1=231(LC 12), 5=456(LC 19), 6=210(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-647/438, 2-3=-628/371, 3-5=-592/806  
 WEBS 2-6=-509/130

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mpri Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 9-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 1, 361 lb uplift at joint 5 and 62 lb uplift at joint 6.



July 18, 2023

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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**TRENCO**  
A Mitek Affiliat

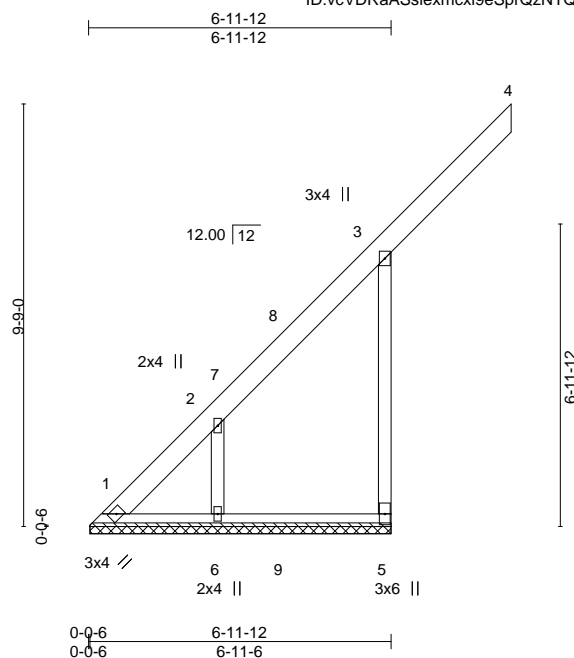
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC08	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:10 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



Scale = 1:53.2

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 0.35	Vert(LL)	0.03	3-4	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	0.00	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 54 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

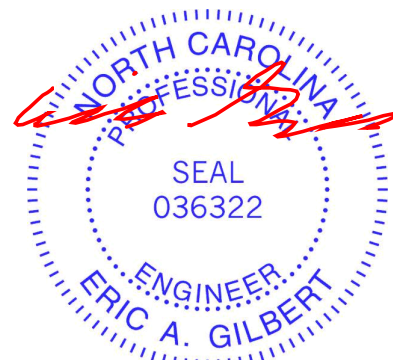
(size) 1=6-11-6, 5=6-11-6, 6=6-11-6  
Max Horz 1=283(LC 12)  
Max Uplift 1=-50(LC 10), 5=-316(LC 9), 6=-91(LC 12)  
Max Grav 1=233(LC 12), 5=478(LC 19), 6=312(LC 19)

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

TOP CHORD 1-2=-637/446, 2-3=-554/331, 3-5=-529/704  
WEBS 2-6=-490/187

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 9-9-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1, 316 lb uplift at joint 5 and 91 lb uplift at joint 6.
- 5) N/A



July 18, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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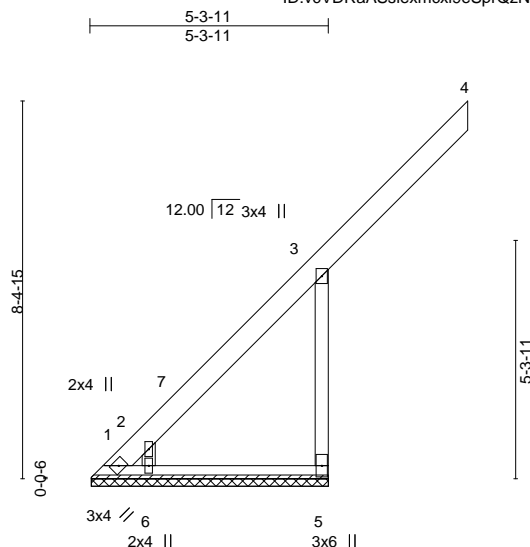
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC09	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571928
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:11 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWCDoi7J4zJC?f



Scale = 1:51.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	0.05	4	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.01	4	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 42 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-3-5, 5=5-3-5, 6=5-3-5  
Max Horz 1=237(LC 12)  
Max Uplift 1=-101(LC 10), 5=-368(LC 9), 6=-11(LC 12)  
Max Grav 1=194(LC 12), 5=460(LC 19), 6=187(LC 3)

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

TOP CHORD 1-2=-537/375, 2-3=-659/380, 3-5=-605/849  
WEBS 2-6=-648/66

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 5-1-12, Interior(1) 5-1-12 to 8-4-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 1, 368 lb uplift at joint 5 and 11 lb uplift at joint 6.



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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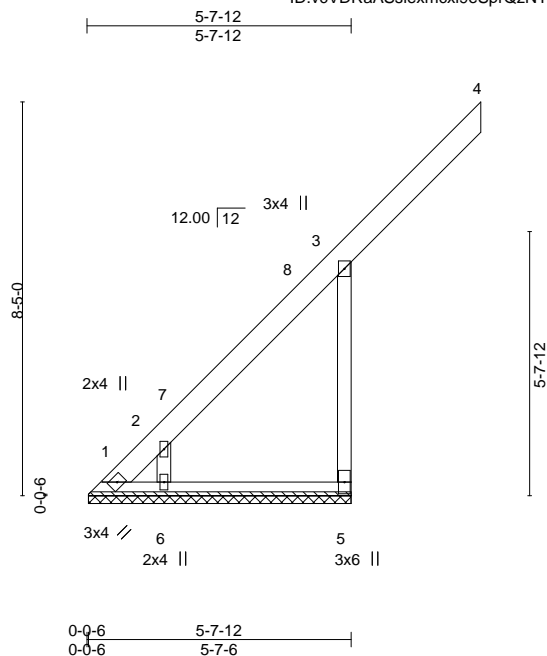
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VC10	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:12 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.2

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 0.34	Vert(LL)	0.03	4	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.00	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 43 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

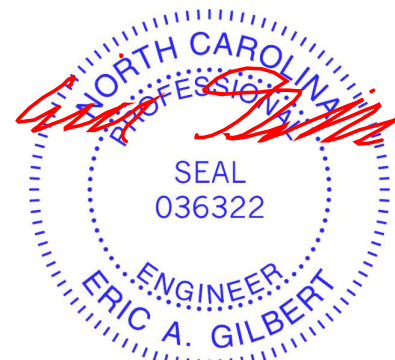
(size) 1=5-7-6, 5=5-7-6, 6=5-7-6  
Max Horz 1=239(LC 12)  
Max Uplift 1=-92(LC 10), 5=-321(LC 9), 6=-54(LC 12)  
Max Grav 1=211(LC 12), 5=416(LC 19), 6=202(LC 19)

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

TOP CHORD 1-2=-576/400, 2-3=-579/341, 3-5=-542/740  
WEBS 2-6=-536/133

#### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-10 to 4-10-7, Interior(1) 4-10-7 to 8-5-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 1, 321 lb uplift at joint 5 and 54 lb uplift at joint 6.
- 5) N/A



July 18, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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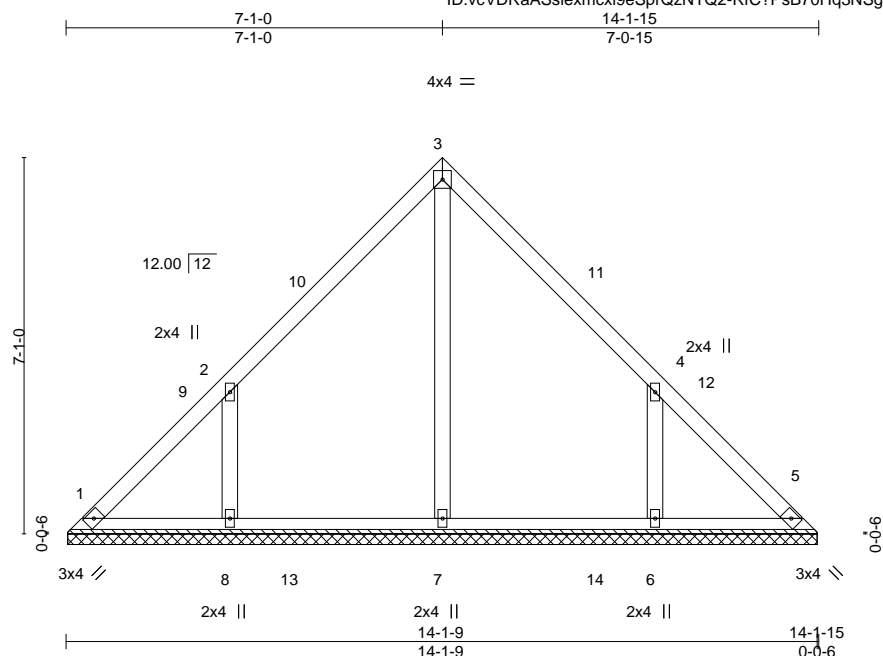
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VD1	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT Job Reference (optional)	I59571930
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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:14 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



Scale = 1:43.3

Plate Offsets (X,Y)--		[4:0-0-0,0-0-0]									
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	0.14	Vert(LL)	n/a	-	n/a	999	MT20 244/190
TCDL	10.0	Lumber DOL 1.15		BC	0.17	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.11	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 66 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

All bearings 14-1-3.

(lb) - Max Horz 1=-161(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-171(LC 12), 6=-171(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=402(LC 19), 8=411(LC 19), 6=411(LC 20)

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

WEBS 2-8=-373/295, 4-6=-373/295

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 7-1-0, Exterior(2) 7-1-0 to 11-5-12, Interior(1) 11-5-12 to 13-9-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=171, 6=171.



July 18,2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

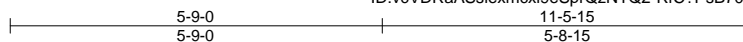
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VD2	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571931
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Comtech, Inc., Fayetteville, NC - 28314,

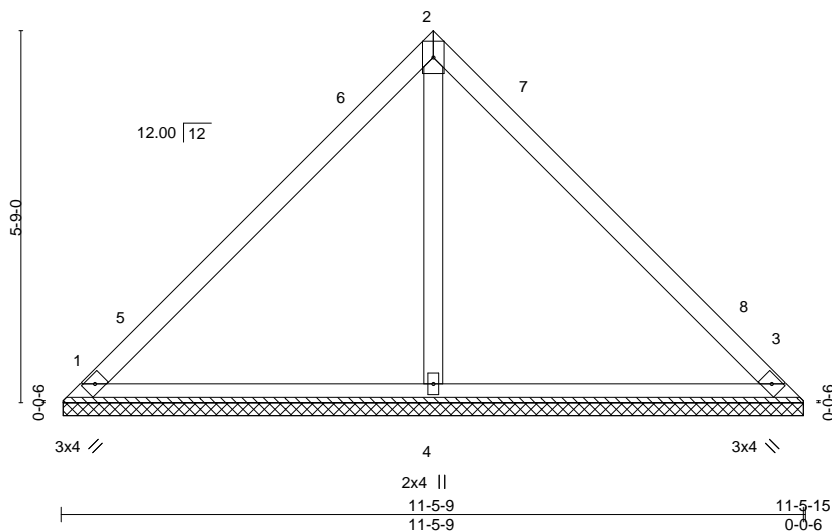
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:15 2023 Page 1

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4x6 ||

Scale = 1:35.6



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 0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 47 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

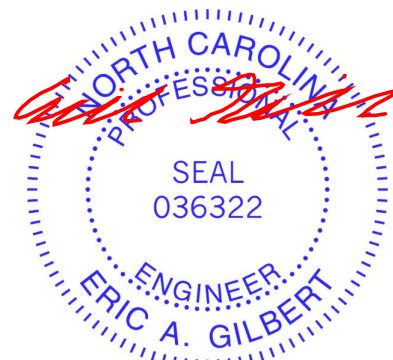
#### REACTIONS.

(size) 1=11-5-3, 3=11-5-3, 4=11-5-3  
Max Horz 1=129(LC 8)  
Max Uplift 1=32(LC 13), 3=32(LC 13)  
Max Grav 1=245(LC 1), 3=245(LC 1), 4=374(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-9-0, Exterior(2) 5-9-0 to 10-1-12, Interior(1) 10-1-12 to 11-1-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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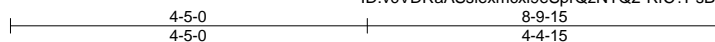
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VD3	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571932
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)

Comtech, Inc., Fayetteville, NC - 28314,

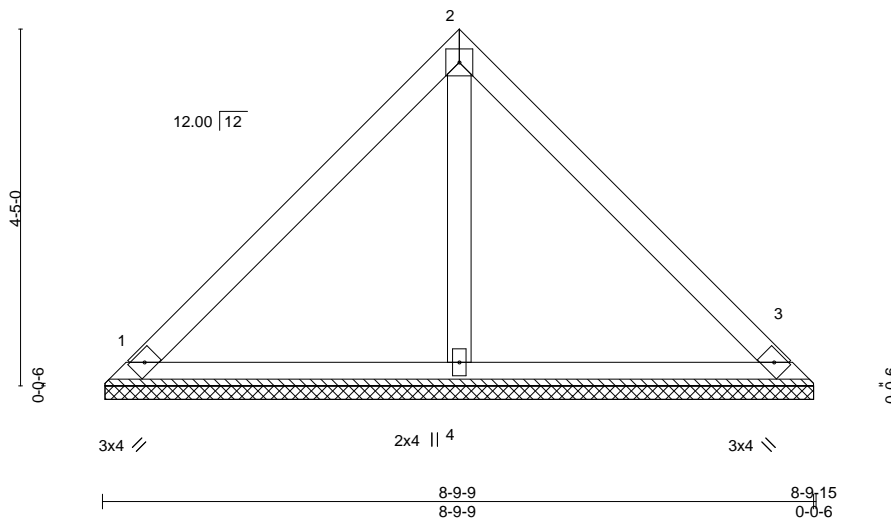
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:16 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f



4x4 =

Scale = 1:28.5



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 0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 36 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

(size) 1=8-9-3, 3=8-9-3, 4=8-9-3  
Max Horz 1=97(LC 8)  
Max Uplift 1=35(LC 13), 3=35(LC 13)  
Max Grav 1=198(LC 1), 3=198(LC 1), 4=254(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



July 18, 2023

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**TRENCO**  
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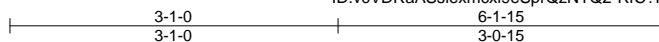
818 Soundside Road  
Edenton, NC 27932

Job J0423-1840	Truss VD4	Truss Type VALLEY	Qty 1	Ply 1	29 (LOT 38L) LONGLEAF COURT I59571933
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Comtech, Inc., Fayetteville, NC - 28314,

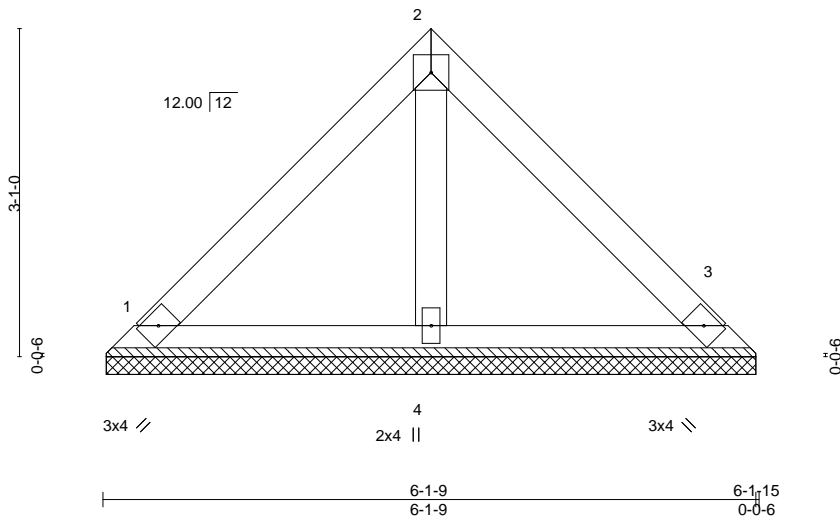
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:17 2023 Page 1

ID:vcVDRaASslexmcxI9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f



4x4 =

Scale = 1:21.6



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 0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

#### BRACING-

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

#### REACTIONS.

(size) 1=6-1-3, 3=6-1-3, 4=6-1-3  
Max Horz 1=65(LC 8)  
Max Uplift 1=24(LC 13), 3=24(LC 13)  
Max Grav 1=133(LC 1), 3=133(LC 1), 4=171(LC 1)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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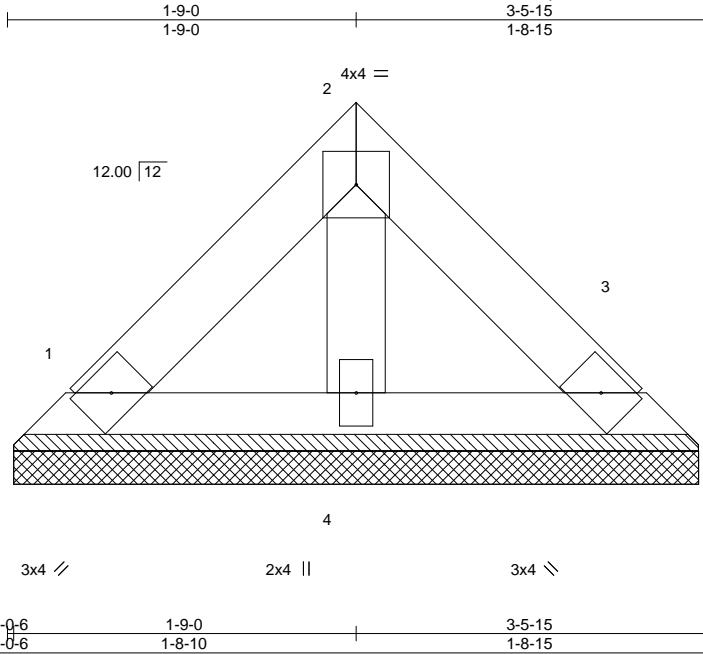
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	29 (LOT 38L) LONGLEAF COURT
J0423-1840	VD5	VALLEY	1	1	I59571934
Job Reference (optional)					

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Jul 17 13:34:18 2023 Page 1

ID:vcVDRaASslexmcl9eSprQzNTQ2-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCDoi7J4zJC?f



Scale = 1:11.5

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 0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 13 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 3-5-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

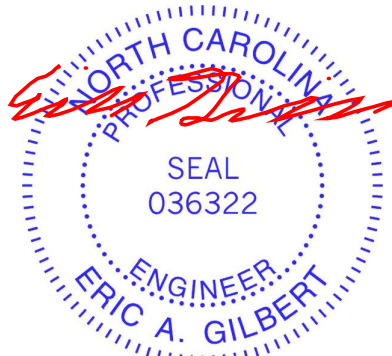
**REACTIONS.**

(size) 1=3-5-3, 3=3-5-3, 4=3-5-3  
Max Horz 1=33(LC 11)  
Max Uplift 1=12(LC 13), 3=-12(LC 13)  
Max Grav 1=68(LC 1), 3=68(LC 1), 4=87(LC 1)

**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 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) Gable requires continuous bottom chord bearing.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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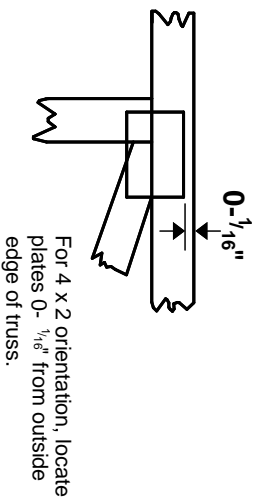
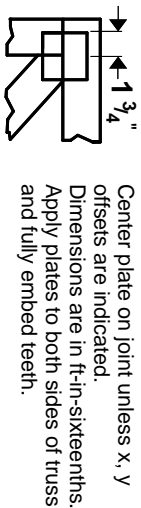
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818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



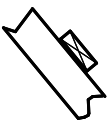
—  
—  
This symbol indicates the required direction of slots in connector plates.

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

## PLATE SIZE

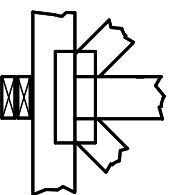
**4 X 4**  
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

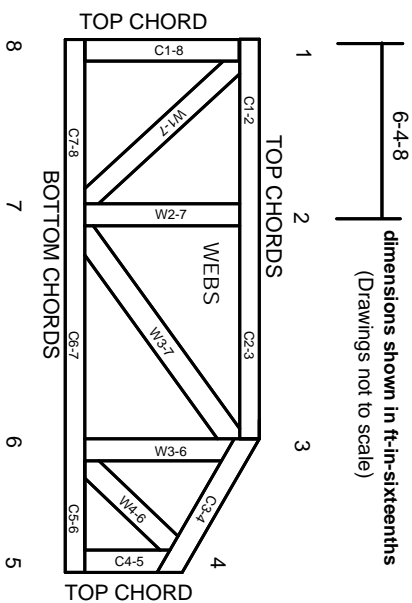
## BEARING



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/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:  
ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.