

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J0221-0664  
Lot 1 Cool Springs

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: E15384746 thru E15384770

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



February 5, 2021

Gilbert, Eric

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384746
J0221-0664	A1	COMMON	1	1		

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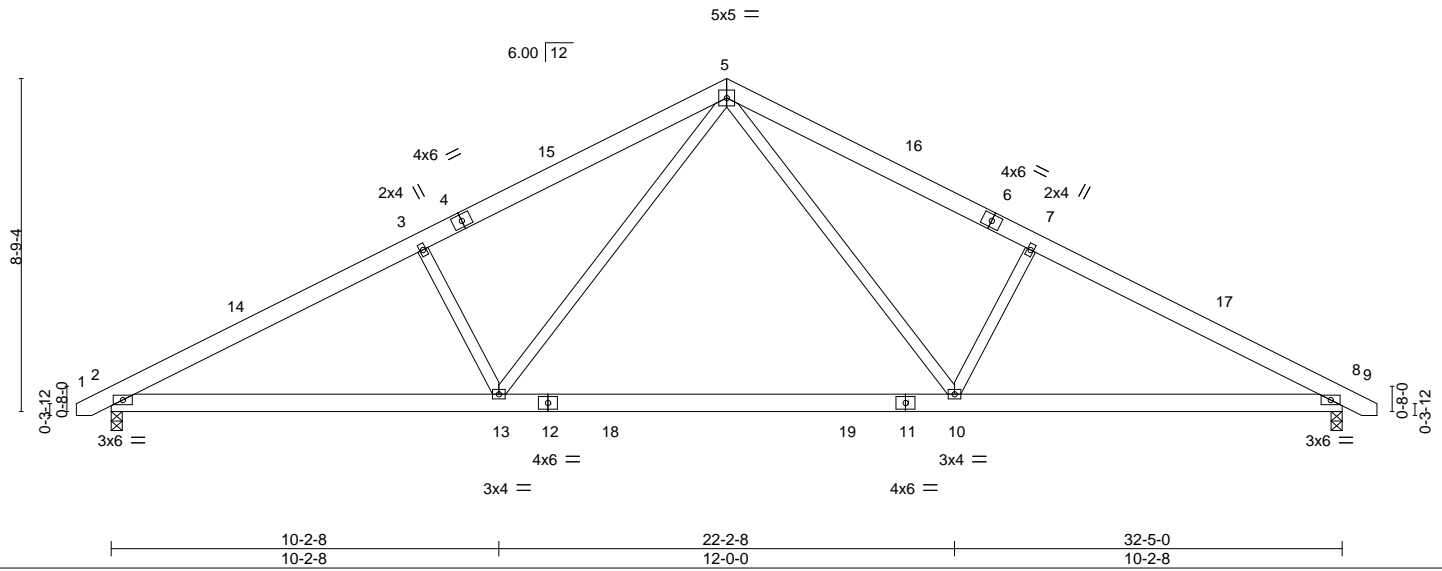
8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:39 2021 Page 1

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Job Reference (optional)

0-11-0 8-2-8 16-2-8 24-2-8 32-5-0 33-4-0  
 0-11-0 8-2-8 8-0-0 8-0-0 8-2-8 0-11-0

Scale = 1:60.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.34 10-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.47 10-13 >824 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 2-13 >999 240	Weight: 208 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

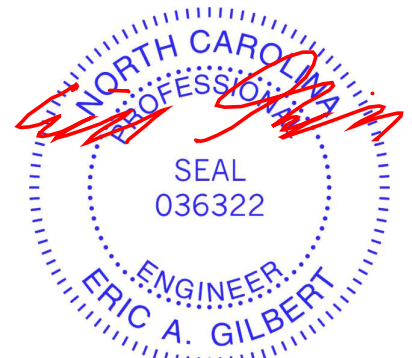
(size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=110(LC 10)  
 Max Uplift 2=89(LC 12), 8=89(LC 13)  
 Max Grav 2=1337(LC 1), 8=1337(LC 1)

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

TOP CHORD 2-3=-2307/486, 3-5=-2125/534, 5-7=-2125/534, 7-8=-2307/486  
 BOT CHORD 2-13=-316/2007, 10-13=-106/1303, 8-10=-320/1964  
 WEBS 5-10=-147/921, 7-10=-454/288, 5-13=-147/921, 3-13=-454/288

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 16-2-8, Exterior(2) 16-2-8 to 20-7-5, Interior(1) 20-7-5 to 33-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 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) 2, 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384747
J0221-0664	A1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

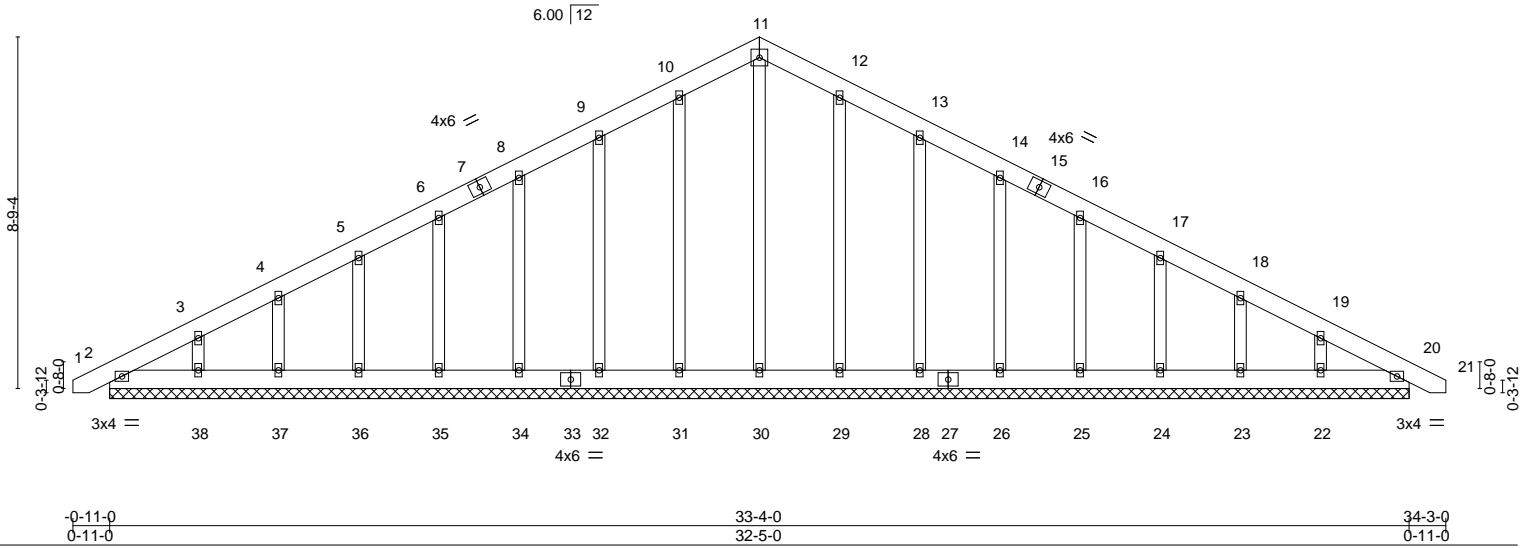
Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:41 2021 Page 1  
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-0-11-0 17-1-8 33-4-0 34-3-0  
 0-11-0 16-2-8 16-2-8 0-11-0

5x5 =

Scale = 1:57.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.04	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) 0.00 20 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) 0.00 20 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 20 n/a n/a		
	Code IRC2015/TPI2014			Weight: 258 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 32-5-0.  
 (lb) - Max Horz 2=171(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22  
 Max Grav All reactions 250 lb or less at joint(s) 2, 30, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22, 20

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11=-114/284, 11-12=-114/284

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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) 2, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



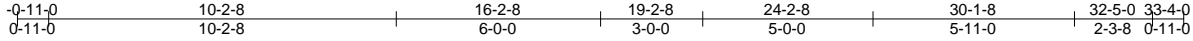
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Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384748
J0221-0664	A2	ROOF SPECIAL	4	1		

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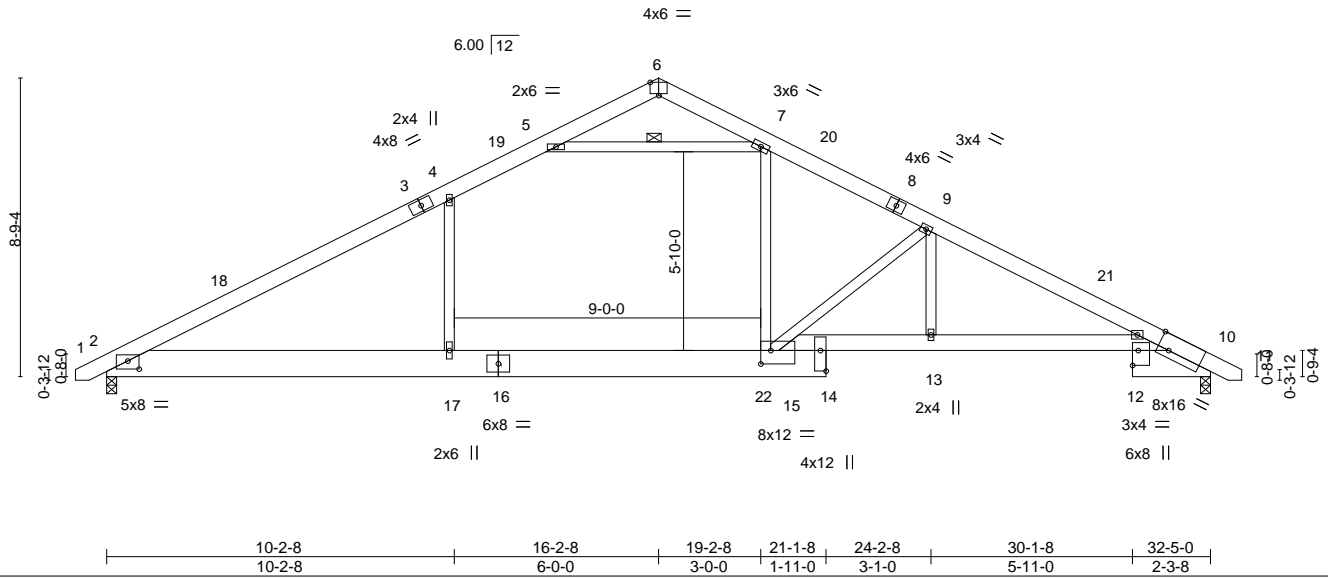


Plate Offsets (X,Y)-- [2:0-4-0,0-2-14], [6:0-3-0,Edge], [10:0-4-0,Edge], [12:Edge,0-2-0], [14:Edge,0-2-0], [15:0-3-8,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.21	17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.38	17	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Horz(CT) 0.09	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.17	2-17	>999	240		
							Weight: 247 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1 \*Except\*  
 10-15: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-7

**REACTIONS.**

(size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=110(LC 11)  
 Max Uplift 2=-90(LC 12), 10=-90(LC 13)  
 Max Grav 2=1393(LC 2), 10=1353(LC 2)

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

TOP CHORD 2-4=-2217/403, 4-5=-1870/483, 7-9=-2258/519, 9-10=-2889/551  
 BOT CHORD 2-17=-193/1848, 15-17=-195/1860, 13-15=-371/2525, 10-13=-380/2525  
 WEBS 4-17=-29/402, 7-15=-114/967, 9-15=-1075/232, 9-13=0/616, 5-7=-1955/459

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 16-2-8, Exterior(2) 16-2-8 to 20-7-5, Interior(1) 20-7-5 to 33-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 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) 2, 10.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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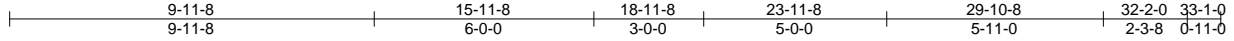


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384749
J0221-0664	A3	ROOF SPECIAL	2	1		

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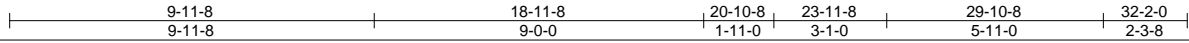
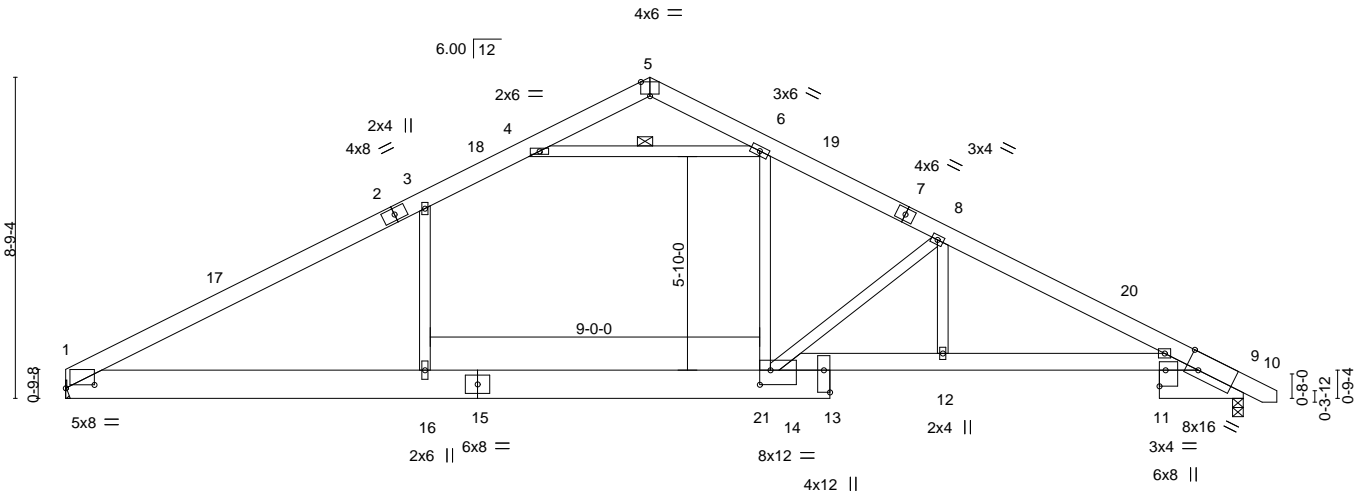


Plate Offsets (X,Y)-- [1:0-9-6,0-1-2], [5:0-3-0,Edge], [9:0-4-0,Edge], [11:Edge,0-2-0], [13:Edge,0-2-0], [14:0-3-8,0-4-12]

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 0.76	Vert(LL)	-0.21	16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.36	16	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.09	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.16	1-16	>999	240		
									Weight: 243 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1 \*Except\*  
 9-14: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-6

**REACTIONS.**

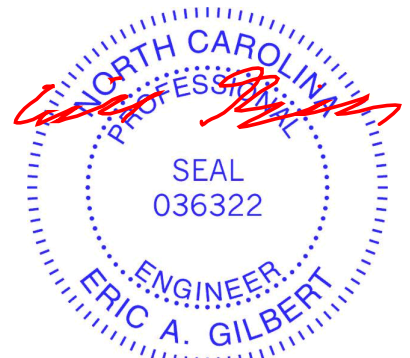
(size) 1=Mechanical, 9=0-3-8  
 Max Horz 1=-111(LC 8)  
 Max Uplift 1=-76(LC 12), 9=-90(LC 13)  
 Max Grav 1=1345(LC 2), 9=1347(LC 2)

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

TOP CHORD 1-3=-2189/401, 3-4=-1853/491, 6-8=-2237/517, 8-9=-2874/549  
 BOT CHORD 1-16=-198/1827, 14-16=-200/1839, 12-14=-375/2511, 9-12=-384/2511  
 WEBS 6-14=-117/966, 3-16=-53/392, 4-6=-1931/474, 8-14=-1081/228, 8-12=0/620

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 15-11-8, Exterior(2) 15-11-8 to 20-4-5, Interior(1) 20-4-5 to 32-10-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 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 100 lb uplift at joint(s) 1, 9.



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Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384750
J0221-0664	A4	COMMON	2	1	Job Reference (optional)	

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Scale = 1:59.9

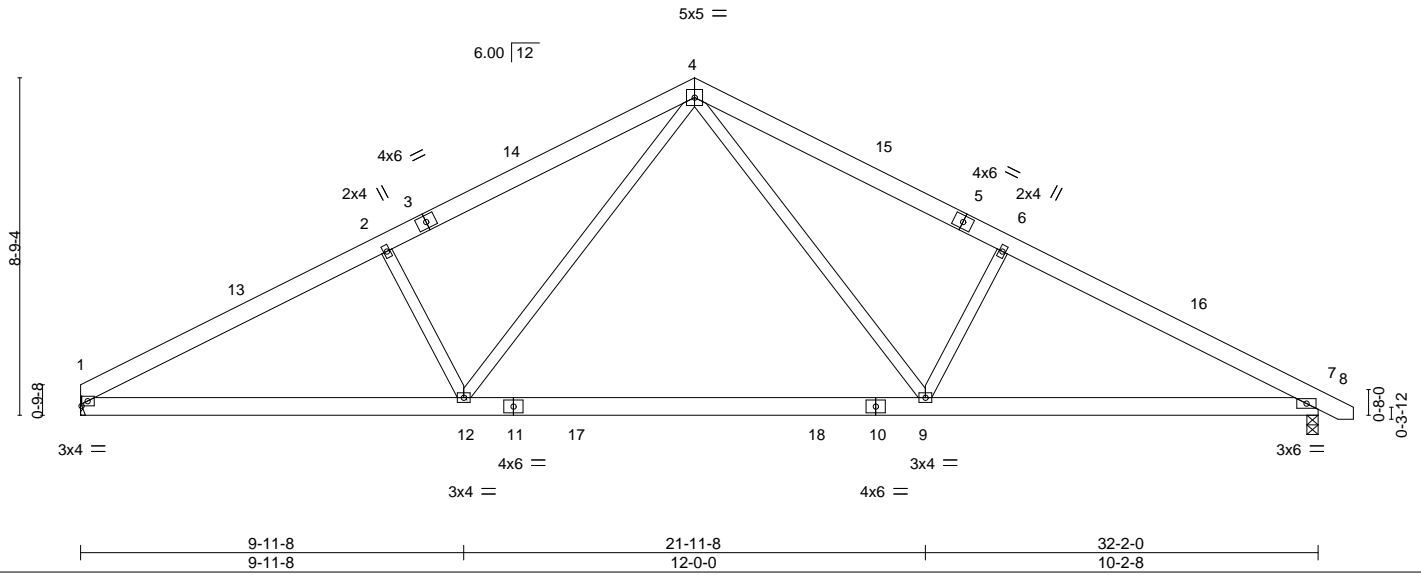


Plate Offsets (X,Y)-- [1:0-1-14,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.34	9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.47	9-12	>822	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	12	>999	240	Weight: 204 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

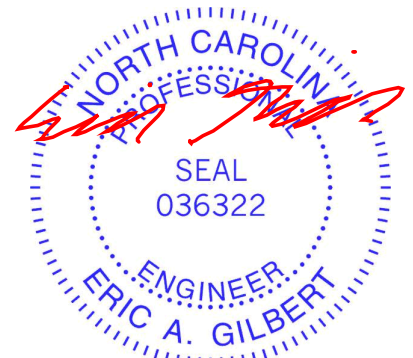
(size) 1=Mechanical, 7=0-3-8  
 Max Horz 1=-111(LC 8)  
 Max Uplift 1=-76(LC 12), 7=-89(LC 13)  
 Max Grav 1=1278(LC 1), 7=1331(LC 1)

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

TOP CHORD 1-2=-2276/496, 2-4=-2096/546, 4-6=-2113/532, 6-7=-2294/484  
 BOT CHORD 1-12=-319/1973, 9-12=-109/1291, 7-9=-324/1953  
 WEBS 4-9=-147/922, 6-9=-454/288, 4-12=-144/897, 2-12=-437/286

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 15-11-8, Exterior(2) 15-11-8 to 20-4-5, Interior(1) 20-4-5 to 32-10-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 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 100 lb uplift at joint(s) 1, 7.



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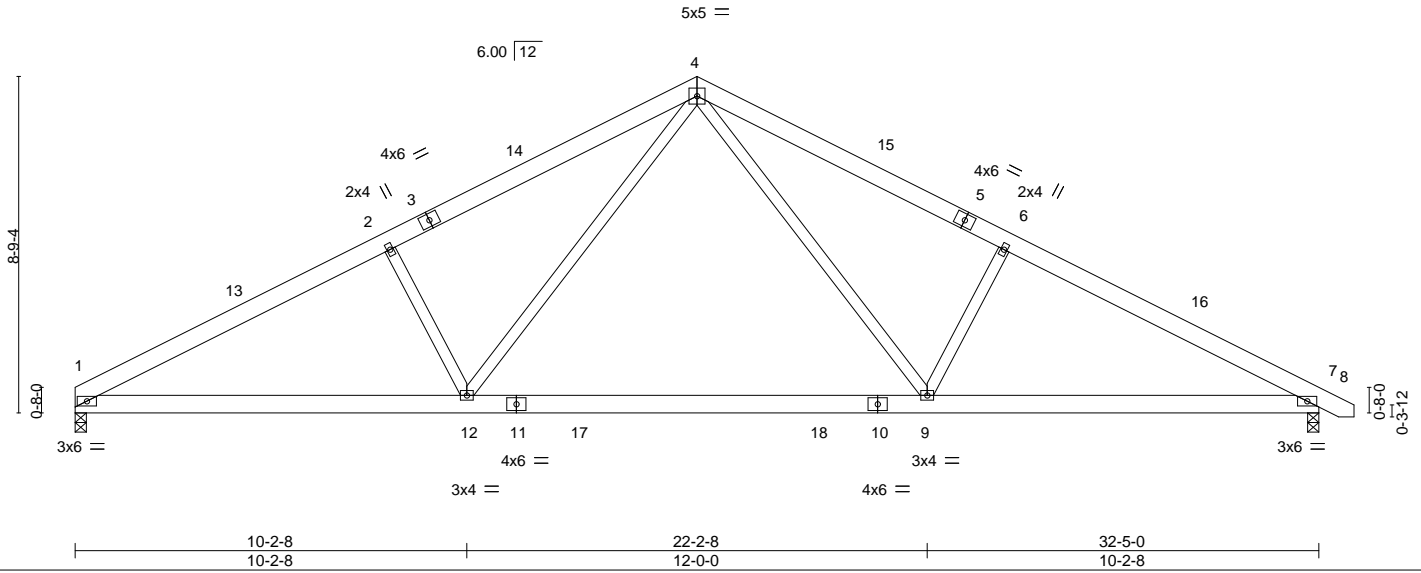
Job J0221-0664	Truss A5	Truss Type COMMON	Qty 4	Ply 1	Lot 1 Cool Springs Job Reference (optional)	E15384751
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Scale = 1:60.1



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) -0.34 9-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.47 9-12 >822 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.05 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05 12 >999 240	Weight: 206 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-10-13 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=-111(LC 10)  
 Max Uplift 1=-77(LC 12), 7=-89(LC 13)  
 Max Grav 1=1284(LC 1), 7=1337(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2310/503, 2-4=-2129/551, 4-6=-2126/535, 6-7=-2308/487  
 BOT CHORD 1-12=-327/2012, 9-12=-111/1304, 7-9=-326/1966  
 WEBS 4-9=-147/921, 6-9=-454/288, 4-12=-149/924, 2-12=-458/292

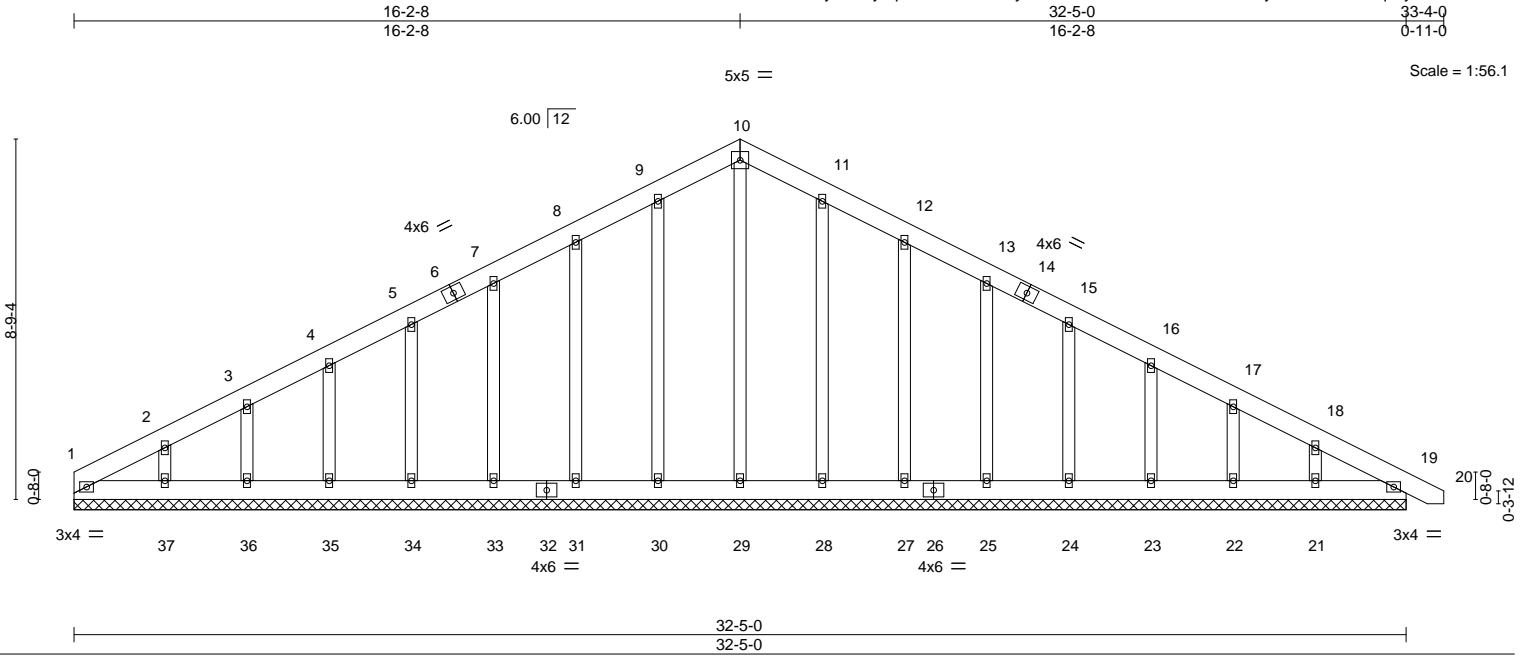
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 16-2-8, Exterior(2) 16-2-8 to 20-7-5, Interior(1) 20-7-5 to 33-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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, 7.



Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384752
J0221-0664	A5GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:46 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-wLeiuImZ7EMESIXG87EyeWifvIdBZEsqsvywzoDOF



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.04	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) 0.00 19 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) 0.00 19 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 19 n/a n/a		
	Code IRC2015/TPI2014			Weight: 256 lb	FT = 20%

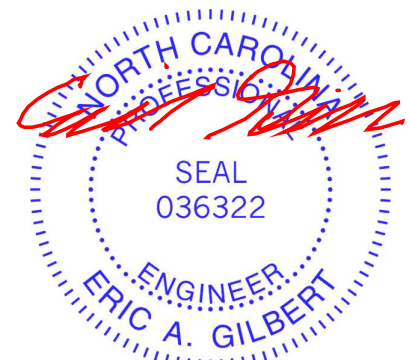
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2

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

**REACTIONS.** All bearings 32-5-0.  
 (lb) - Max Horz 1=-175(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 30, 31, 33, 34, 35, 36, 28, 27, 25, 24, 23, 22, 21 except 37=-101(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 29, 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21, 19

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-114/284, 10-11=-114/284

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 30, 31, 33, 34, 35, 36, 28, 27, 25, 24, 23, 22, 21 except (j=lb) 37=101.



February 5, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384753
J0221-0664	B1	COMMON	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

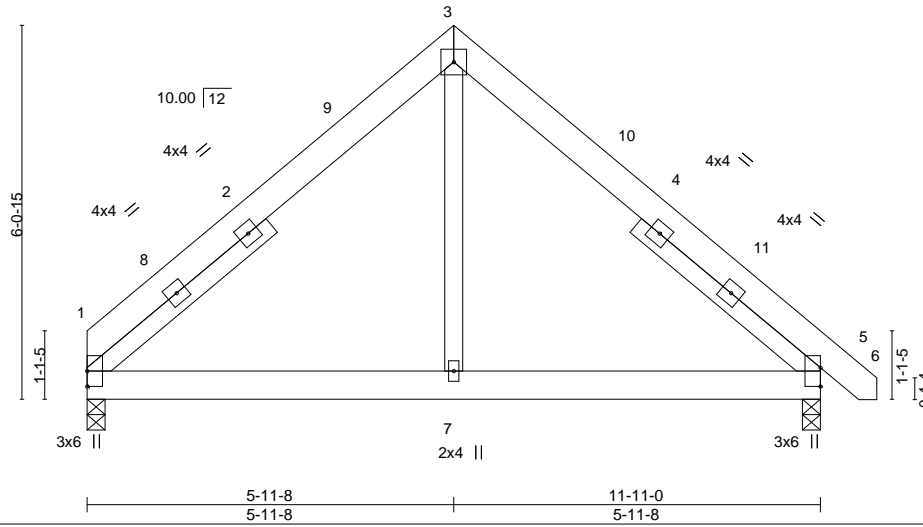
8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:47 2021 Page 1

ID:1yUksKymplk2404ufZYCrxyoKUD-OXC46emOKQMDscKjqrTVs3rvJ4DNglO5UcSVMzoDOE



5x5 =

Scale = 1:37.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	-0.01	1-7	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.02	1-7	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.01	5-7	>999	240	Weight: 87 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 - 3-9-13, Right 2x4 SP No.2 -x 3-9-13

**BRACING-**

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

**REACTIONS.**

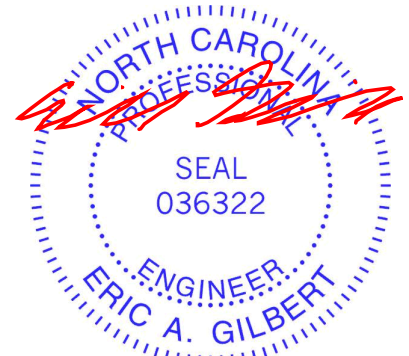
(size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-134(LC 10)  
 Max Uplift 1=-18(LC 12), 5=-29(LC 13)  
 Max Grav 1=475(LC 1), 5=524(LC 1)

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

TOP CHORD 1-3=-491/156, 3-5=-517/155  
 BOT CHORD 1-7=0/307, 5-7=0/307  
 WEBS 3-7=0/277

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 5-11-8, Exterior(2) 5-11-8 to 10-4-5, Interior(1) 10-4-5 to 12-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



February 5, 2021

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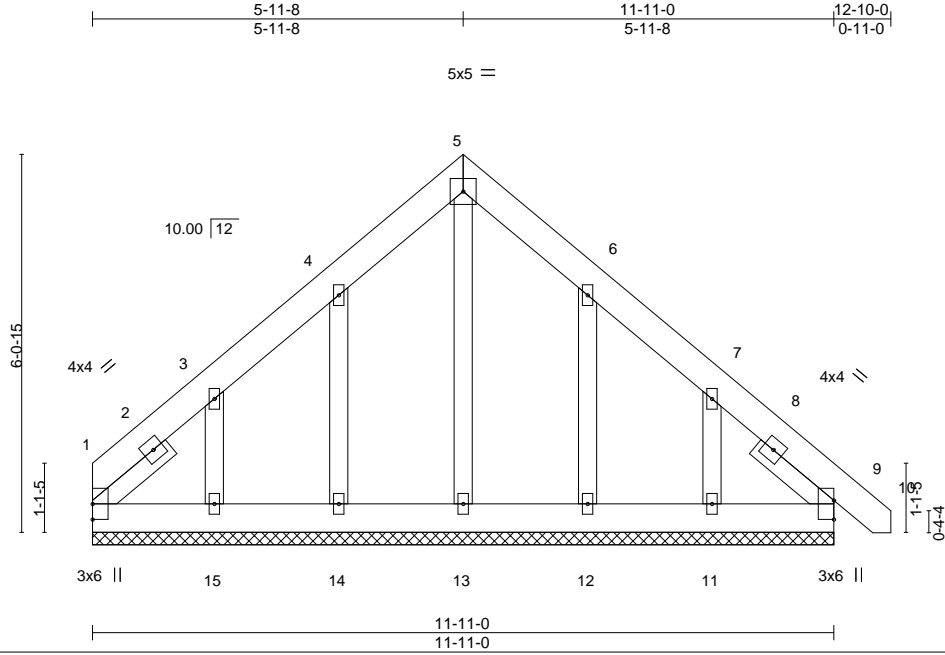


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384754
J0221-0664	B1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:48 2021 Page 1  
 ID:1yUksKypmkl2404ufZYCrxyoKUD-tkmTJ\_n15kU3TmvvOZai13b2OIR167nXK8L01pzoDOD



Scale = 1:37.0

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 0.03	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 96 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -x 1-6-11, Right 2x4 SP No.2 -x 1-6-11

**BRACING-**

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

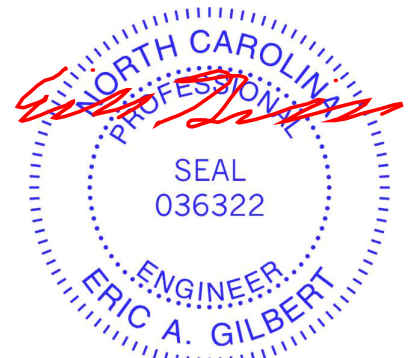
**REACTIONS.**

All bearings 11-11-0.  
 (lb) - Max Horz 1=167(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 12 except 15=-181(LC 12), 11=-169(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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, 9, 14, 12 except (jt=lb) 15=181, 11=169.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9.



February 5, 2021

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384755
J0221-0664	B2	ROOF SPECIAL	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:48 2021 Page 2  
ID:1yUksKymplk2404ufZYCrxyoKUD-ikmTJ\_n15kU3TmVvOZAI13b09iOj65fXK8L01pzoDOD

**LOAD CASE(S)** Standard

- 2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-250, 3-4=-50, 4-7=-50, 6-10=-20
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-220, 3-4=-20, 4-7=-20, 6-10=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-156, 3-4=27, 4-12=35, 6-12=27, 6-7=20, 6-10=-12  
Horz: 3-4=-39, 4-12=47, 6-12=39, 6-7=32
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-170, 3-4=35, 4-11=27, 6-11=35, 6-7=58, 6-10=-12  
Horz: 3-4=-47, 4-11=39, 6-11=47, 6-7=70
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-235, 3-4=-58, 4-6=-58, 6-7=-51, 6-10=-20  
Horz: 3-4=38, 4-6=-38, 6-7=-31
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-235, 3-4=-58, 4-6=-58, 6-7=11, 6-10=-20  
Horz: 3-4=38, 4-6=-38, 6-7=31
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-179, 3-4=-13, 4-6=11, 6-7=4, 6-10=-12  
Horz: 3-4=1, 4-6=23, 6-7=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-191, 3-4=11, 4-6=-13, 6-7=2, 6-10=-12  
Horz: 3-4=-23, 4-6=-1, 6-7=14
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-201, 3-4=-35, 4-6=-11, 6-7=-4, 6-10=-20  
Horz: 3-4=15, 4-6=9, 6-7=16
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-213, 3-4=-11, 4-6=-35, 6-7=-28, 6-10=-20  
Horz: 3-4=-9, 4-6=-15, 6-7=-8
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-179, 3-4=21, 4-6=9, 6-7=2, 6-10=-12  
Horz: 3-4=-33, 4-6=21, 6-7=14
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-191, 3-4=9, 4-6=21, 6-7=14, 6-10=-12  
Horz: 3-4=-21, 4-6=33, 6-7=26
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-179, 3-4=21, 4-6=9, 6-7=2, 6-10=-12  
Horz: 3-4=-33, 4-6=21, 6-7=14
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-191, 3-4=9, 4-6=21, 6-7=14, 6-10=-12  
Horz: 3-4=-21, 4-6=33, 6-7=26
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-201, 3-4=-1, 4-6=-13, 6-7=-6, 6-10=-20  
Horz: 3-4=-19, 4-6=7, 6-7=14
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-213, 3-4=-13, 4-6=-1, 6-7=6, 6-10=-20  
Horz: 3-4=-7, 4-6=19, 6-7=26
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-2=-220, 3-4=-20, 4-7=-20, 6-10=-20
- 19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-236, 3-4=-61, 4-6=-43, 6-7=-38, 6-10=-20  
Horz: 3-4=11, 4-6=7, 6-7=12
- 20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-245, 3-4=-43, 4-6=-61, 6-7=-56, 6-10=-20  
Horz: 3-4=-7, 4-6=-11, 6-7=-6
- 21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384755
J0221-0664	B2	ROOF SPECIAL	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:48 2021 Page 3  
 ID:1yUksKympk2404ufZYCrxyoKUD-tkmTJ\_n15kU3TmvvOZAi13b09iOj65fXK8L01pzoDOD

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-236, 3-4=-36, 4-6=-45, 6-7=-40, 6-10=-20

Horz: 3-4=-14, 4-6=5, 6-7=10

22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-245, 3-4=-45, 4-6=-36, 6-7=-31, 6-10=-20

Horz: 3-4=-5, 4-6=14, 6-7=19

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-260, 3-4=-60, 4-7=-20, 6-10=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-220, 3-4=-20, 4-7=-60, 6-10=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-250, 3-4=-50, 4-7=-20, 6-10=-20

26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-220, 3-4=-20, 4-7=-50, 6-10=-20

**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	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384756
J0221-0664	C1	Monopitch	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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ID:1yUksKymplk2404ufZYCrxyoKUD-LwKrXKnfr1dw5wT5yGhxaH80L6koramhYo5ZZFzoDOC  
8-0-0  
8-0-0



Scale = 1:17.0

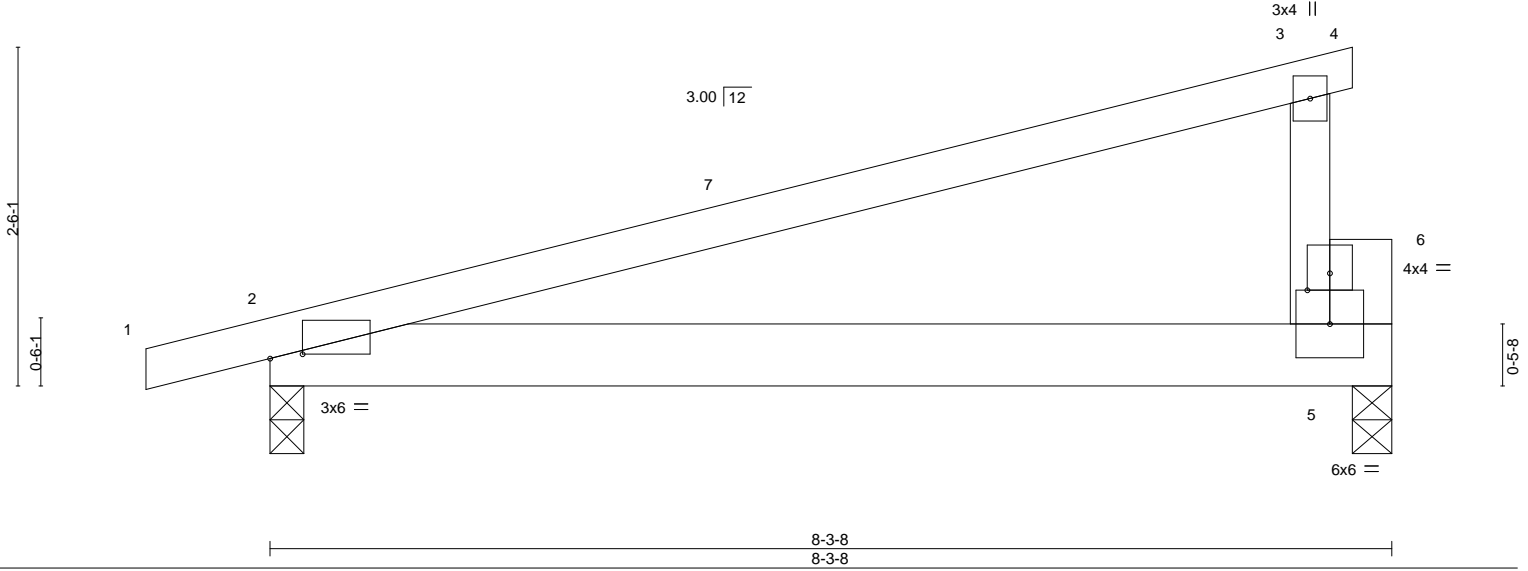


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6], [6:0-2-0,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.05	2-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.10	2-5	>969	240		
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-P	Wind(LL) 0.10	2-5	>886	240	Weight: 37 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 5=0-3-8  
Max Horz 2=74(LC 8)  
Max Uplift 2=150(LC 8), 5=127(LC 8)  
Max Grav 2=375(LC 1), 5=314(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 8-0-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 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 100 lb uplift at joint(s) except (it=lb) 2=150, 5=127.



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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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384757
J0221-0664	C1GE	GABLE	2	1	Job Reference (optional)	

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ID:1yUksKymplk2404ufZYCrxyoKUD-p6uDkfoHcLlnj42IVzCA6UHjQW3pa1oqnSq66hzoDOB  
8-0-0  
8-0-0

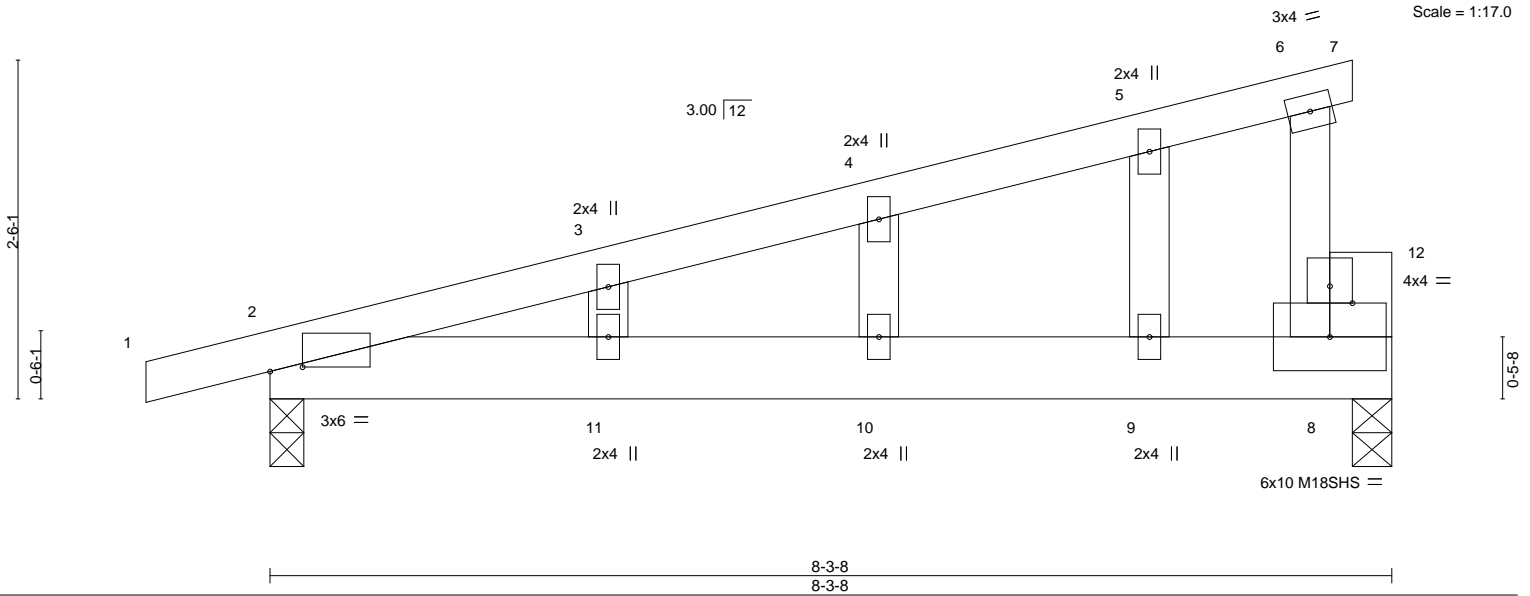


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6], [12:0-2-0,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) 0.09	10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(CT) -0.08	10-11	>999	240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT) -0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 41 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2 \*Except\*  
 8-12: 2x6 SP No.1

**BRACING-**

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

**REACTIONS.**

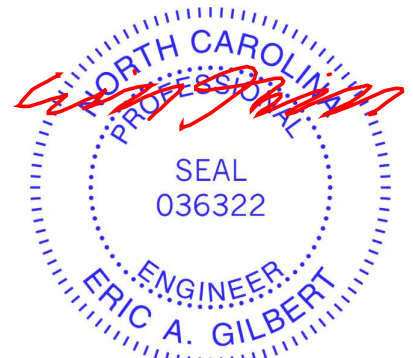
(size) 2=0-3-0, 8=0-3-8  
 Max Horz 2=105(LC 8)  
 Max Uplift 2=-216(LC 8), 8=-188(LC 8)  
 Max Grav 2=375(LC 1), 8=314(LC 1)

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

BOT CHORD 2-11=-284/207, 10-11=-284/207, 9-10=-284/207, 8-9=-284/207

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 8=188.



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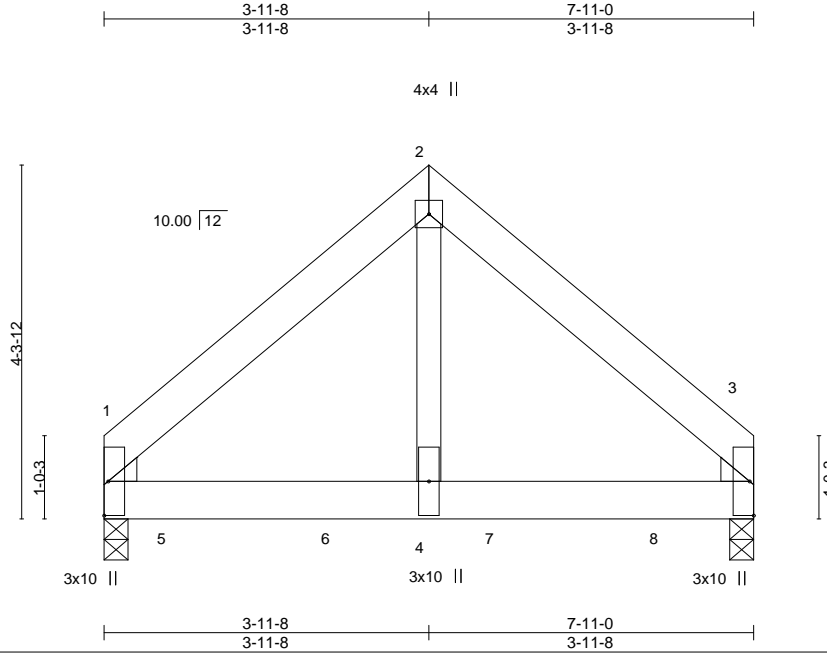


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384758
J0221-0664	D1-GR	Common Girder	1	2	Job Reference (optional)	

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 ID:1yUksKymplk2404ufZYCrxyoKUD-HJSby?pvNfteKdDj3hjPfiDU4wKEJOFz06age8zoDOA



Scale = 1:28.1

Plate Offsets (X,Y)-- [1:0-0-4,0-0-5], [1:0-0-8,0-3-6], [3:0-0-4,0-0-5], [3:0-0-8,0-3-6]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	Vert(LL)	-0.02	3-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(CT)	-0.04	3-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Horz(CT)	0.01	3	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Wind(LL)	0.01	3-4	>999	Weight: 100 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=91(LC 26)  
 Max Uplift 1=191(LC 8), 3=180(LC 9)  
 Max Grav 1=2919(LC 1), 3=2779(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2418/177, 2-3=-2418/177  
 BOT CHORD 1-4=-100/1678, 3-4=-100/1678  
 WEBS 2-4=-154/3142

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=191, 3=180.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1261 lb down and 93 lb up at 0-9-12, 1258 lb down and 96 lb up at 2-9-12, and 1325 lb down and 96 lb up at 4-9-12, and 1325 lb down and 96 lb up at 6-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-60, 2-3=-60, 1-3=-20



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Continued on page 2

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384758
J0221-0664	D1-GR	Common Girder	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 5--1261(B) 6--1258(B) 7--1258(B) 8--1258(B)

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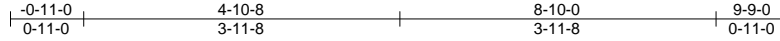
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384759
J0221-0664	D1GE	COMMON SUPPORTED GAB	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

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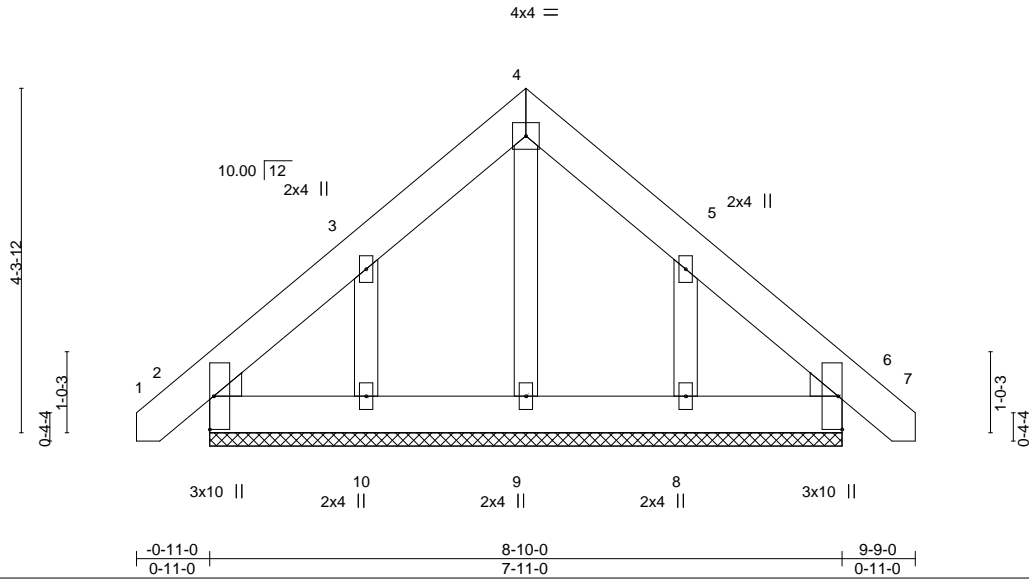


Plate Offsets (X,Y)-- [2:0-0-4,0-0-5], [2:0-0-8,0-3-6], [6:0-0-4,0-0-5], [6:0-0-8,0-3-6]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.02	Vert(LL) 0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.01	Vert(CT) 0.00	6	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 60 lb	FT = 20%

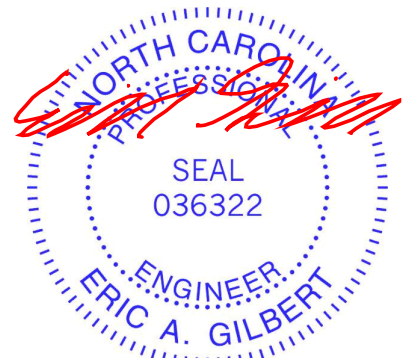
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

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

**REACTIONS.** All bearings 7-11-0.  
 (lb) - Max Horz 2=-118(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-152(LC 12), 8=-148(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; 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 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=152, 8=148.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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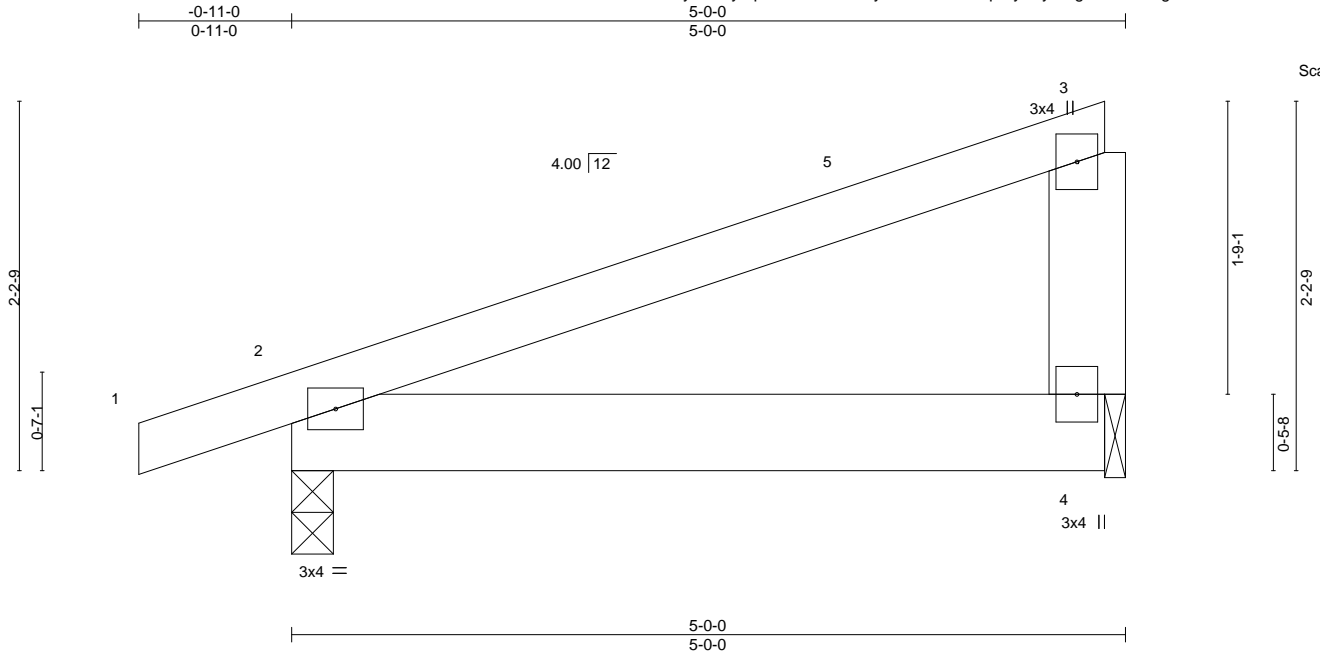
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384760
J0221-0664	M1	MONOPITCH	4	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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ID:1yUksKymplk2404ufZYCrxyoKUD-IV?z9LqX8y?VyNCgdOEeCvmgRKn02xW7EIJDAazoDO9



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)	-0.01	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.01	2-4	>999	240		
									Weight: 24 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=63(LC 8)  
 Max Uplift 2=102(LC 8), 4=-79(LC 8)  
 Max Grav 2=255(LC 1), 4=179(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 4-9-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=102.



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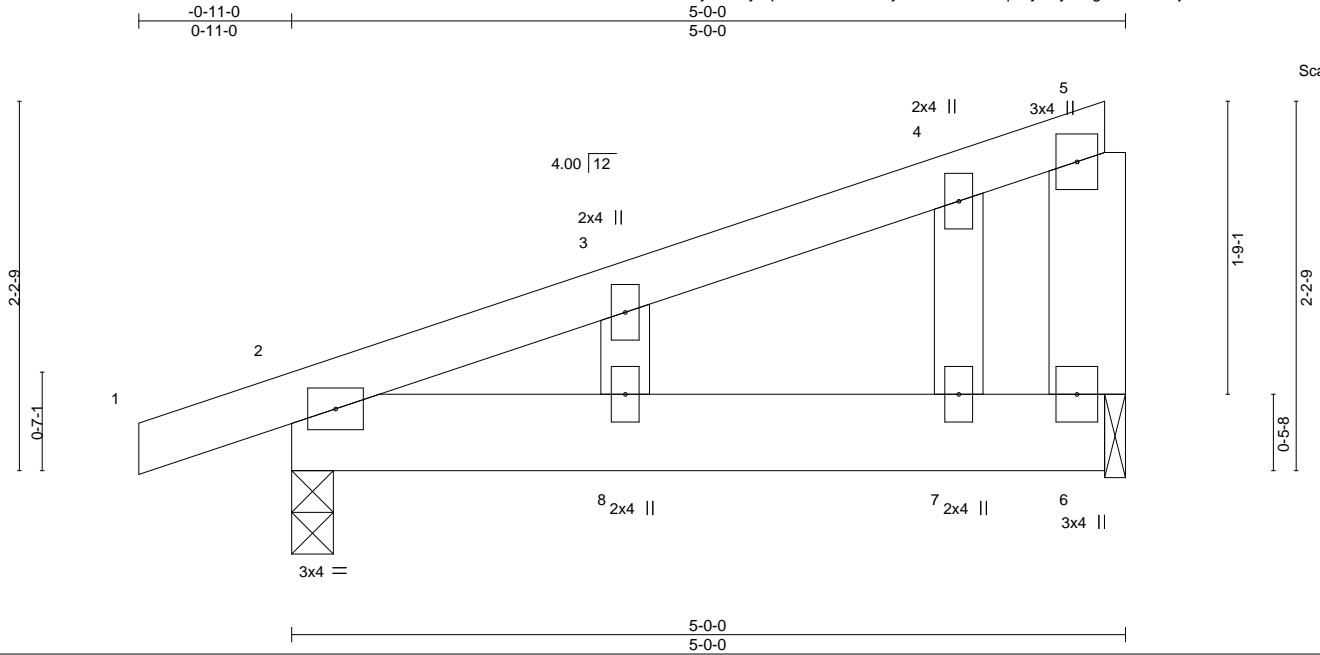
818 Soundside Road  
 Edenton, NC 27932

Job J0221-0664	Truss M1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Cool Springs Job Reference (optional)	E15384761
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8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:52 2021 Page 1

ID:1yUksKymplk2404ufZYCrxyoKUD-IV?z9LqX8y?VyNCgdOEeCvmjLKnrxH7EJDAazoDO9



Scale = 1:13.8

<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 0.09	Vert(LL)	0.01	8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	8	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 27 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 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 5-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

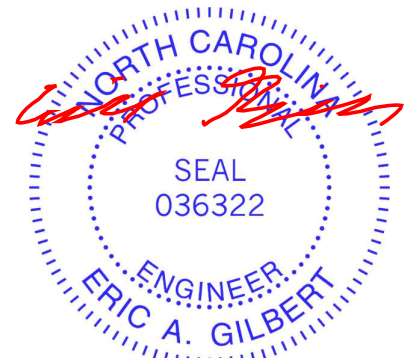
**REACTIONS.**

(size) 2=0-3-0, 6=0-1-8  
 Max Horz 2=90(LC 8)  
 Max Uplift 2=-147(LC 8), 6=-115(LC 8)  
 Max Grav 2=255(LC 1), 6=179(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=147, 6=115.



February 5, 2021

**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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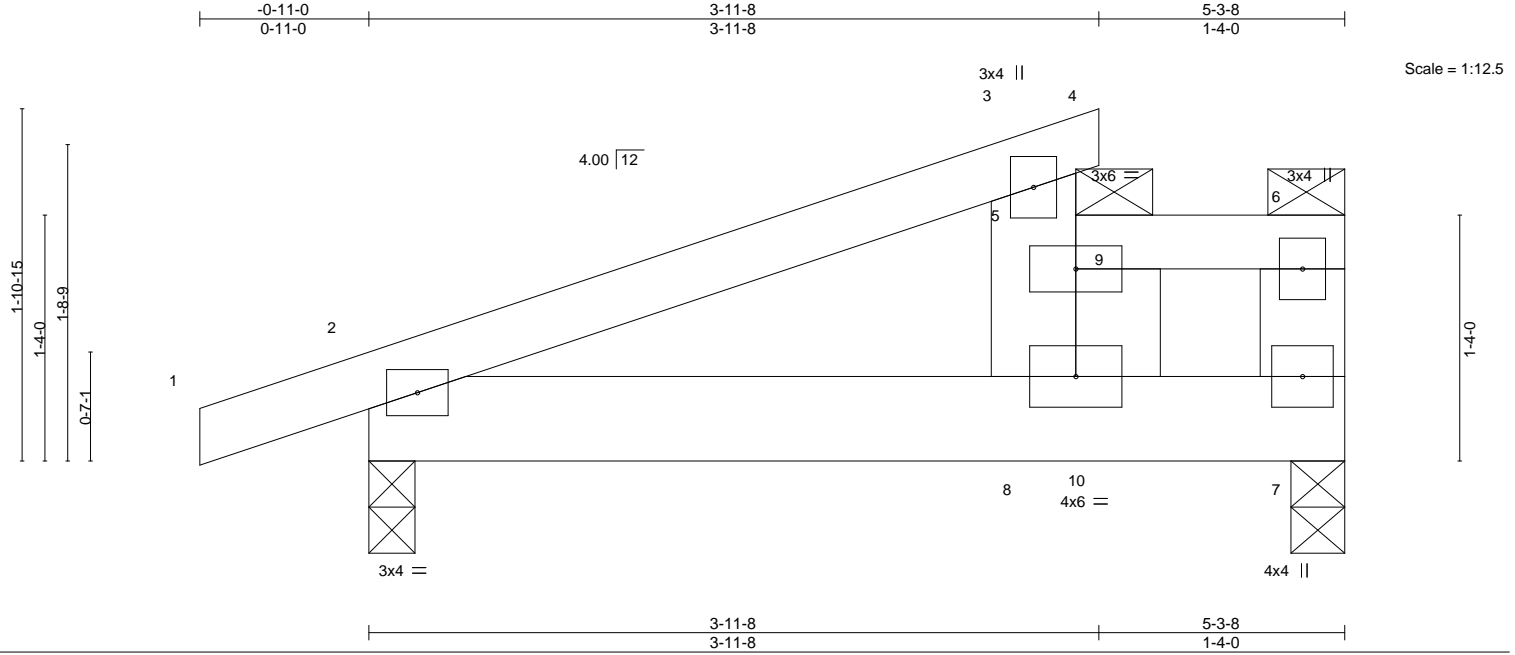


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384762
J0221-0664	M2	Half Hip	3	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:53 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-DhZLmhr9vG7MaXntB6ltk7Jslj5qnOIGTP3ni0zoDO8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	Vert(LL) -0.00	8	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT) -0.01	8	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.00	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Wind(LL) 0.02	8	>999	240		
	Code IRC2015/TPI2014						Weight: 28 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-8, 5-6. Except:
BOT CHORD 2x6 SP No.1	10-0-0 oc bracing: 3-5
WEBS 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-3-8, 2=0-3-0  
 Max Horz 2=69(LC 12)  
 Max Uplift 7=-173(LC 8), 2=-138(LC 8)  
 Max Grav 7=561(LC 19), 2=349(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-425/505, 5-8=-279/265, 5-6=-233/338, 6-7=-292/309  
 BOT CHORD 2-8=-546/359, 7-8=-338/233

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-7-4, Interior(1) 3-7-4 to 5-0-12 zone; porch 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=173, 2=138.
  - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 5-9=-40, 6-9=-80, 2-7=-20  
 Concentrated Loads (lb)  
 Vert: 9=400
- Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-50, 3-4=-50, 5-9=-100, 6-9=-130, 2-7=-20



February 5, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384762
J0221-0664	M2	Half Hip	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:53 2021 Page 2  
ID:1yUksKymplk2404ufZYCrxyoKUD-DhZLmhr9vG7MaXntB6ltk7Jslj5qnOIGTP3ni0zoD08

**LOAD CASE(S)** Standard

- Concentrated Loads (lb)  
Vert: 9=-350
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-40, 2-7=-40  
Concentrated Loads (lb)  
Vert: 9=-300
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=70, 2-3=58, 3-4=153, 5-6=12, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-82, 2-3=-70, 3-4=-165, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=548
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=51, 2-3=58, 3-4=51, 5-6=42, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-63, 2-3=-70, 3-4=-63, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=566
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-1, 2-3=-45, 3-4=17, 5-6=-58, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=-19, 2-3=25, 3-4=-37, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-39, 2-3=-45, 3-4=-39, 5-6=-58, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=19, 2-3=25, 3-4=19, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=36, 2-3=21, 3-4=14, 5-6=-11, 2-8=10, 8-10=33, 7-10=10  
Horz: 1-2=-48, 2-3=-33, 3-4=-26, 3-5=7  
Concentrated Loads (lb)  
Vert: 9=154
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=12, 3-4=28, 5-6=1, 2-7=-12  
Horz: 1-2=-18, 2-3=-24, 3-4=-40, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-33, 2-8=2, 8-10=25, 7-10=2  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=34  
Concentrated Loads (lb)  
Vert: 9=-339
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-21, 2-7=-20  
Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=0  
Concentrated Loads (lb)  
Vert: 9=-234
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384762
J0221-0664	M2	Half Hip	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:53 2021 Page 3  
ID:1yUksKymplk2404ufZYCrxyoKUD-DhZLmhr9vG7MaXntB6ltk7Jslj5qnOIGTP3ni0zoD08

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
- Concentrated Loads (lb)  
Vert: 9=43
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-33, 2-7=-20  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12  
Concentrated Loads (lb)  
Vert: 9=-234
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-21, 2-7=-20  
Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-234
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-120, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-200
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-95, 6-9=-125, 2-8=-3, 8-10=13, 7-10=-3  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=26  
Concentrated Loads (lb)  
Vert: 9=-454
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-37, 2-3=-42, 3-4=-37, 5-9=-86, 6-9=-116, 2-7=-20  
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-95, 6-9=-125, 2-7=-20  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9  
Concentrated Loads (lb)  
Vert: 9=-375
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-3=-45, 3-4=-40, 5-9=-86, 6-9=-116, 2-7=-20  
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-6=-40, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-40, 6-9=-80, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-6=-100, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-100, 6-9=-130, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350

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818 Soundside Road  
Edenton, NC 27932





Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384763
J0221-0664	M2-GR	HALF HIP	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:54 2021 Page 2  
ID:1yUksKymplk2404ufZYCrxyoKUD-hu7ka1mgaFDBhM3kpG6Hkr3P7SaWr?Qi3oKFSzoDO7

**LOAD CASE(S)** Standard

- Concentrated Loads (lb)  
Vert: 9=-400
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-9=-220, 6-9=-250, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-160, 2-7=-40  
Concentrated Loads (lb)  
Vert: 9=-300
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=70, 2-3=58, 3-4=153, 5-6=-108, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-82, 2-3=-70, 3-4=-165, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=548
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=51, 2-3=58, 3-4=51, 5-6=-78, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-63, 2-3=-70, 3-4=-63, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=566
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-1, 2-3=-45, 3-4=17, 5-6=-178, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=-19, 2-3=25, 3-4=-37, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-39, 2-3=-45, 3-4=-39, 5-6=-178, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=19, 2-3=25, 3-4=19, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=36, 2-3=21, 3-4=14, 5-6=-131, 2-8=10, 8-10=33, 7-10=10  
Horz: 1-2=-48, 2-3=-33, 3-4=-26, 3-5=7  
Concentrated Loads (lb)  
Vert: 9=154
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=12, 3-4=28, 5-6=-119, 2-7=-12  
Horz: 1-2=-18, 2-3=-24, 3-4=-40, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-153, 2-8=2, 8-10=25, 7-10=2  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=34  
Concentrated Loads (lb)  
Vert: 9=-339
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-141, 2-7=-20  
Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=0  
Concentrated Loads (lb)  
Vert: 9=-234
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

**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	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384763
J0221-0664	M2-GR	HALF HIP	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:54 2021 Page 3  
ID:1yUksKymplk2404ufZYCrxyoKUD-hu7ka1mgaFDBhM3kpG6HKr3P7SaWr?Qi3oKFSzoDO7

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
- Concentrated Loads (lb)  
Vert: 9=43
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-153, 2-7=-20  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12  
Concentrated Loads (lb)  
Vert: 9=-234
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-141, 2-7=-20  
Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-234
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-240, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-200
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-215, 6-9=-245, 2-8=-3, 8-10=13, 7-10=-3  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=26  
Concentrated Loads (lb)  
Vert: 9=-454
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-37, 2-3=42, 3-4=-37, 5-9=-206, 6-9=-236, 2-7=-20  
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-215, 6-9=-245, 2-7=-20  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9  
Concentrated Loads (lb)  
Vert: 9=-375
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-3=45, 3-4=-40, 5-9=-206, 6-9=-236, 2-7=-20  
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-6=-160, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-160, 6-9=-200, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-6=-220, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-220, 6-9=-250, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350

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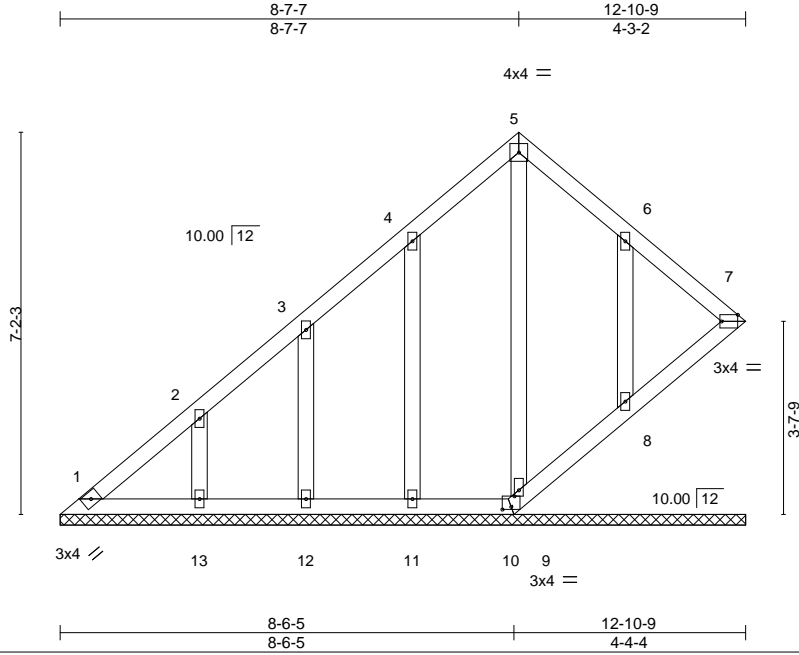


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384764
J0221-0664	V1GE	ROOF SPECIAL STRUCTU	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:55 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-94h6nNsQRtN4prxFIXoLpYOF3XqVFH1ZxjYtnvzoDO6



Scale = 1:43.3

Plate Offsets (X,Y)-- [7:0-3-11,Edge], [9:0-1-6,0-1-0], [10:0-2-0,0-0-10]

LOADING (psf)	SPACING-	CSL.	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	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 75 lb	FT = 20%

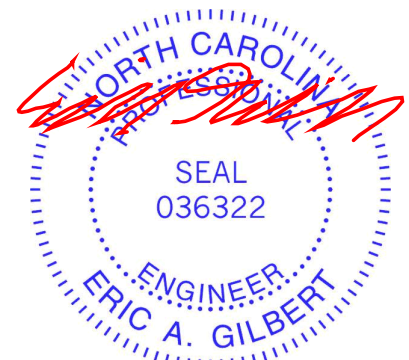
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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 12-10-9.  
 (lb) - Max Horz 1=231(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10 except 11=-112(LC 12), 12=-107(LC 12), 13=-133(LC 12), 8=-126(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 9, 11, 12, 13, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-295/189

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C 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.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas 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) 7, 9, 8 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) 1, 7, 10 except (jt=lb) 11=112, 12=107, 13=133, 8=126.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 9, 8.



February 5, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384765
J0221-0664	V2	VALLEY	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:56 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-eGFU?jt2CBVxR?WSsEJaMlxOcx8s\_k4j9NHRJLzoDO5

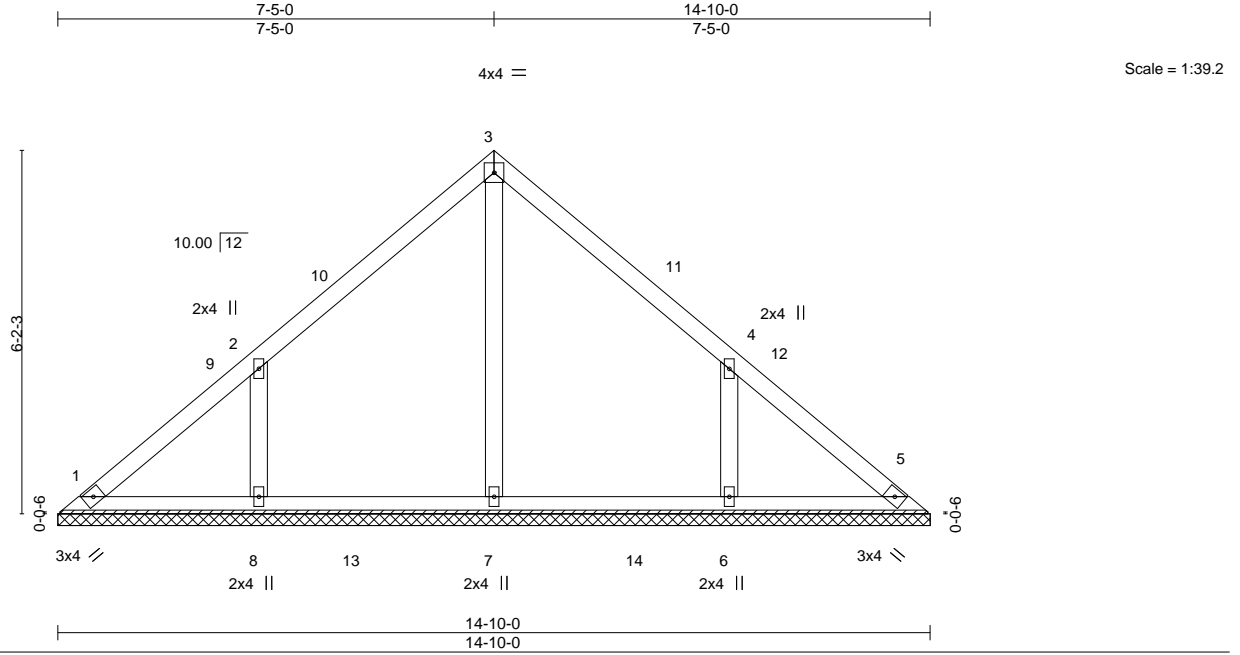


Plate Offsets (X,Y)-- [4:0-0-0-0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	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	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 64 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 14-10-0.  
 (lb) - Max Horz 1=140(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=135(LC 12), 6=135(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=400(LC 19), 8=393(LC 19), 6=393(LC 20)

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

WEBS 2-8=-338/247, 4-6=-338/247

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 7-5-0, Exterior(2) 7-5-0 to 11-9-13, Interior(1) 11-9-13 to 14-5-3 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=135, 6=135.



February 5, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384766
J0221-0664	V3	VALLEY	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:56 2021 Page 1  
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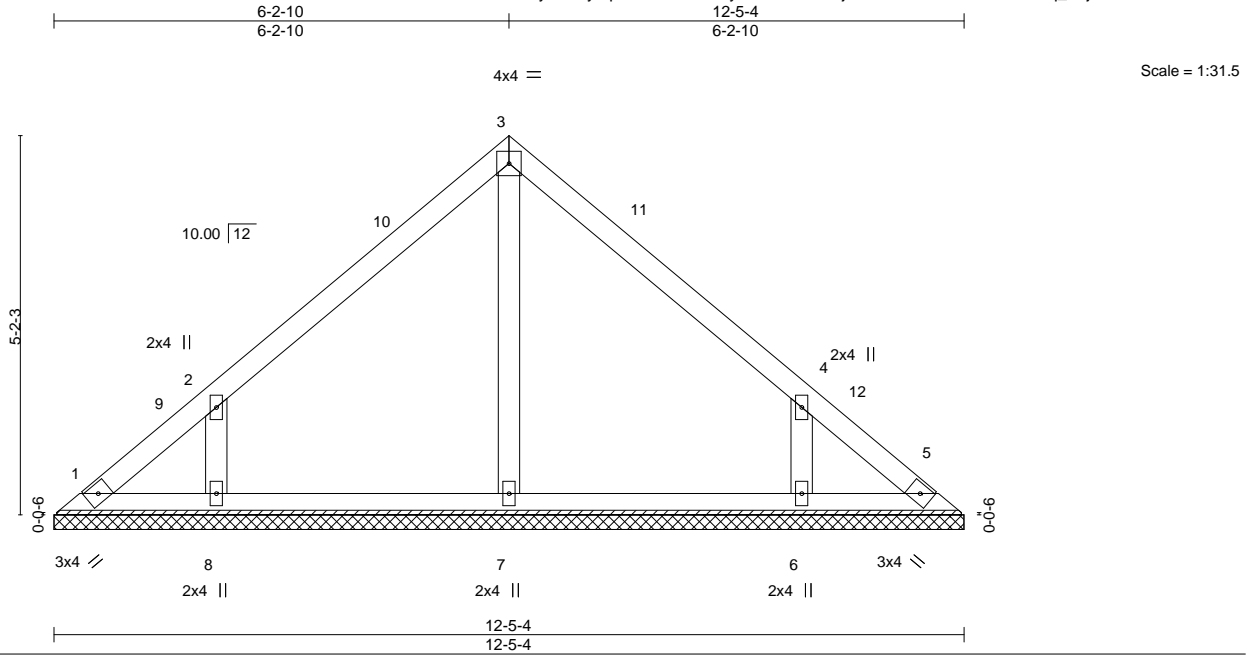


Plate Offsets (X,Y)-- [4:0-0-0-0-0]

<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 0.13	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 52 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 12-5-4.  
 (lb) - Max Horz 1=116(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=123(LC 12), 6=123(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=326(LC 19), 6=326(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-312/241, 4-6=-312/241

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 6-2-10, Exterior(2) 6-2-10 to 10-7-7, Interior(1) 10-7-7 to 12-0-7 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, 5 except (jt=lb) 8=123, 6=123.



February 5, 2021

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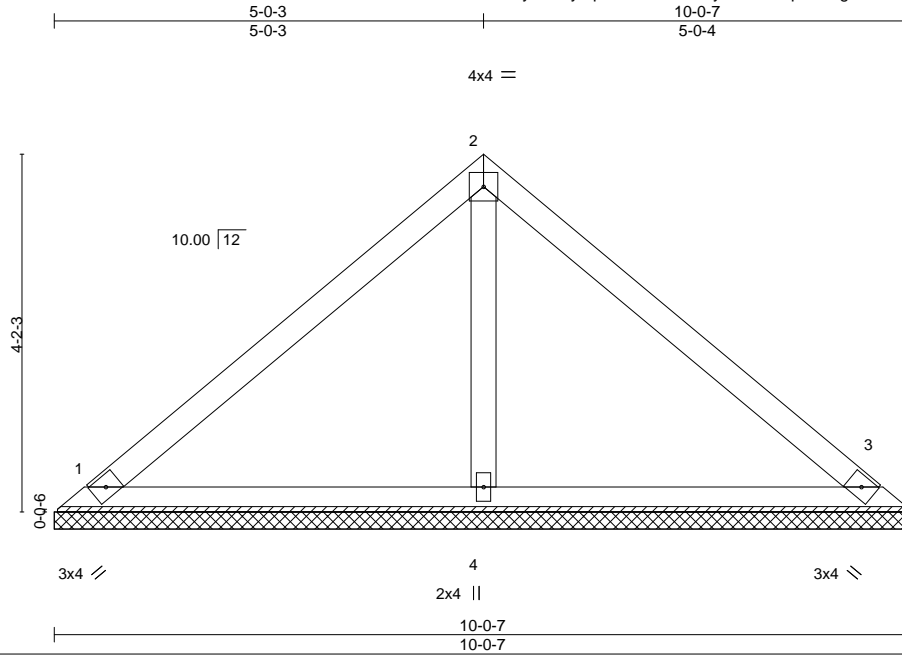


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384767
J0221-0664	V4	VALLEY	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:57 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-6TpsC3ugzVdo285eQyqpzvTY1LT?jCvsO11\_rnzoDO4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 38 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.

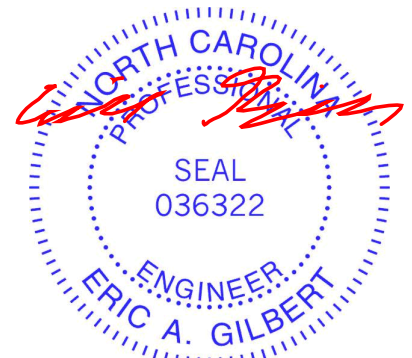
**REACTIONS.**

(size) 1=10-0-7, 3=10-0-7, 4=10-0-7  
 Max Horz 1=-92(LC 8)  
 Max Uplift 1=-22(LC 13), 3=-30(LC 13)  
 Max Grav 1=197(LC 1), 3=197(LC 1), 4=344(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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.



February 5, 2021

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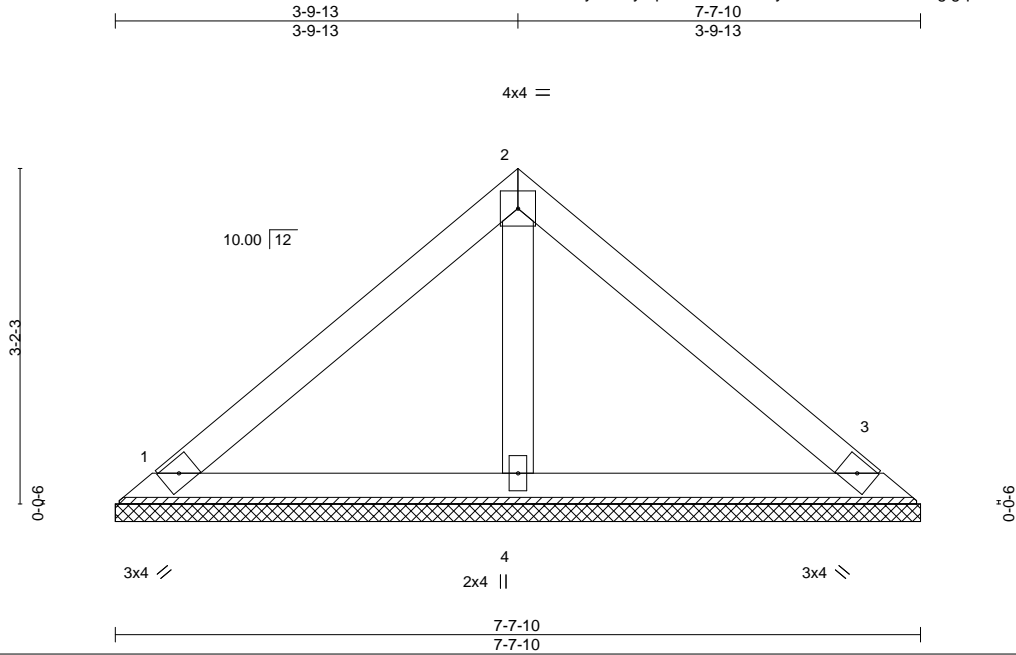


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384768
J0221-0664	V5	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:58 2021 Page 1  
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Scale = 1:21.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 28 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

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

**BRACING-**

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

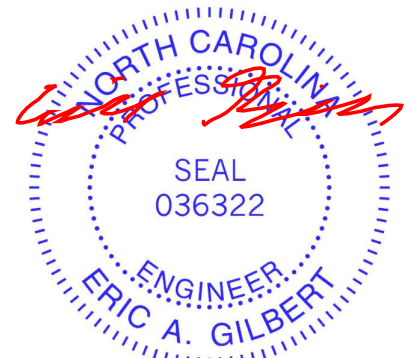
**REACTIONS.**

(size) 1=7-7-10, 3=7-7-10, 4=7-7-10  
 Max Horz 1=68(LC 9)  
 Max Uplift 1=-24(LC 13), 3=-30(LC 13)  
 Max Grav 1=158(LC 1), 3=158(LC 1), 4=230(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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.



February 5, 2021

**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 **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

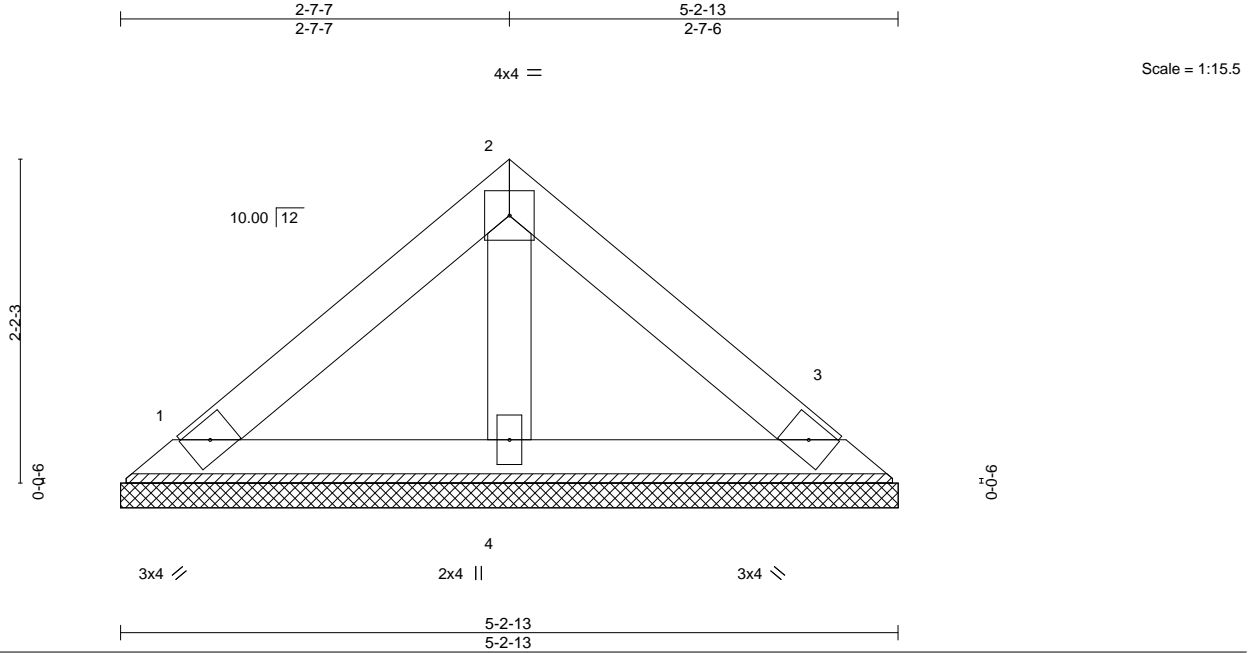


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384769
J0221-0664	V6	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:58 2021 Page 1  
ID:1yUksKymplk2404ufZYCrxyoKUD-afNEQOulkoIfglgzfL2RA0kDkr7Sfq?dhmYOEzoDO3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 19 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=5-2-13, 3=5-2-13, 4=5-2-13  
Max Horz 1=44(LC 8)  
Max Uplift 1=15(LC 13), 3=19(LC 13)  
Max Grav 1=102(LC 1), 3=102(LC 1), 4=149(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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.



February 5, 2021

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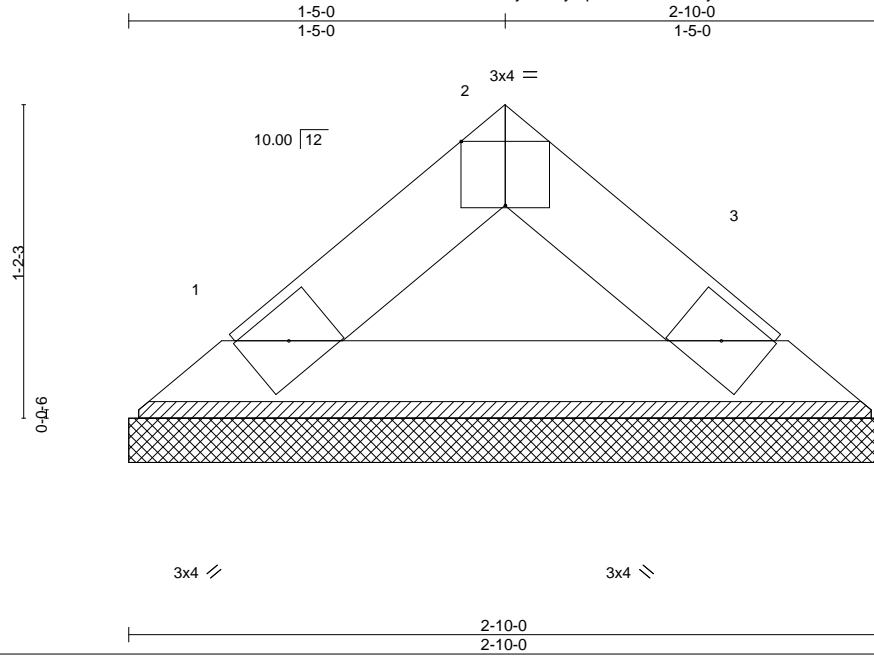


Job	Truss	Truss Type	Qty	Ply	Lot 1 Cool Springs	E15384770
J0221-0664	V7	VALLEY	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 5 10:16:59 2021 Page 1

ID:1yUksKymplk2404ufZYCrxyoKUD-2rwddkwV6tWISExMsH\_OZwn8BPB6E9rLW5wgzoDO2



Scale = 1:8.7

Plate Offsets (X,Y)-- [2:0-2-0,Edge]		CSI.		DEFL.		PLATES		GRIP	
LOADING (psf)	SPACING-	2-0-0	TC	0.01	in (loc)	l/defl	L/d	MT20	244/190
TCLL 20.0	Plate Grip DOL	1.15	BC	0.03	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.00	3	n/a	n/a
BCDL 10.0	Code	IRC2015/TPI2014							
								Weight: 8 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 2-10-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=2-10-0, 3=2-10-0  
Max Horz 1=-20(LC 8)  
Max Uplift 1=-4(LC 12), 3=-4(LC 13)  
Max Grav 1=81(LC 1), 3=81(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=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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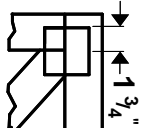
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



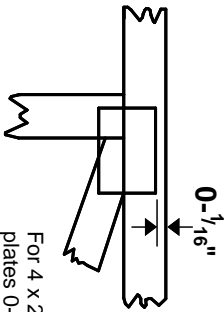
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

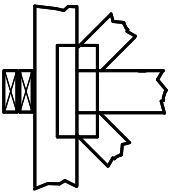
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



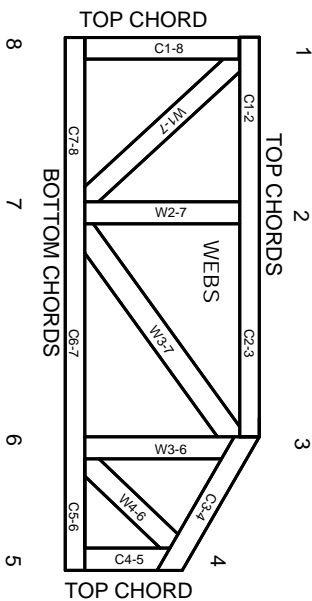
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

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

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



**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: Mill-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. Rewriting 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.