

RE: J0121-0605  
 Lot 56 Sierra Village

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0121-0605  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 24 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E15396296	A01	2/10/2021	21	E15396316	M02	2/10/2021
2	E15396297	A02	2/10/2021	22	E15396317	M03	2/10/2021
3	E15396298	A03	2/10/2021	23	E15396318	PS-8	2/10/2021
4	E15396299	A04	2/10/2021	24	E15396319	PS-8G	2/10/2021
5	E15396300	A05	2/10/2021				
6	E15396301	A06	2/10/2021				
7	E15396302	A07	2/10/2021				
8	E15396303	A08	2/10/2021				
9	E15396304	A09	2/10/2021				
10	E15396305	A10	2/10/2021				
11	E15396306	A11	2/10/2021				
12	E15396307	B01	2/10/2021				
13	E15396308	B02	2/10/2021				
14	E15396309	B03	2/10/2021				
15	E15396310	B04	2/10/2021				
16	E15396311	J01	2/10/2021				
17	E15396312	J02	2/10/2021				
18	E15396313	J03	2/10/2021				
19	E15396314	J04	2/10/2021				
20	E15396315	M01	2/10/2021				

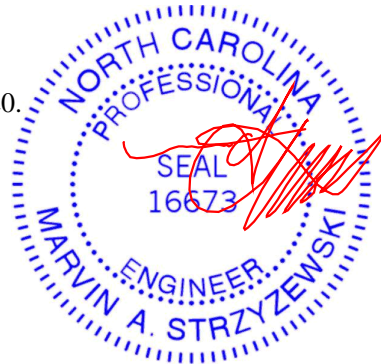
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Strzyzewski, Marvin

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

North Carolina COA: C-0844

**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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396296
J0121-0605	A01	COMMON	3	1		

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ID:WeU20\_wZYqtTA5MeulVrNlzoaVc-Hy?RccYgZ5EdHbrc7vCirw0g0oxUHhP6dFkFwzmpq?

Job Reference (optional)

-0-10-8 7-9-4 15-3-0 22-8-12 30-6-0 31-4-8  
 0-10-8 7-9-4 7-5-12 7-5-12 7-9-4 0-10-8

Scale: 3/16"=1'

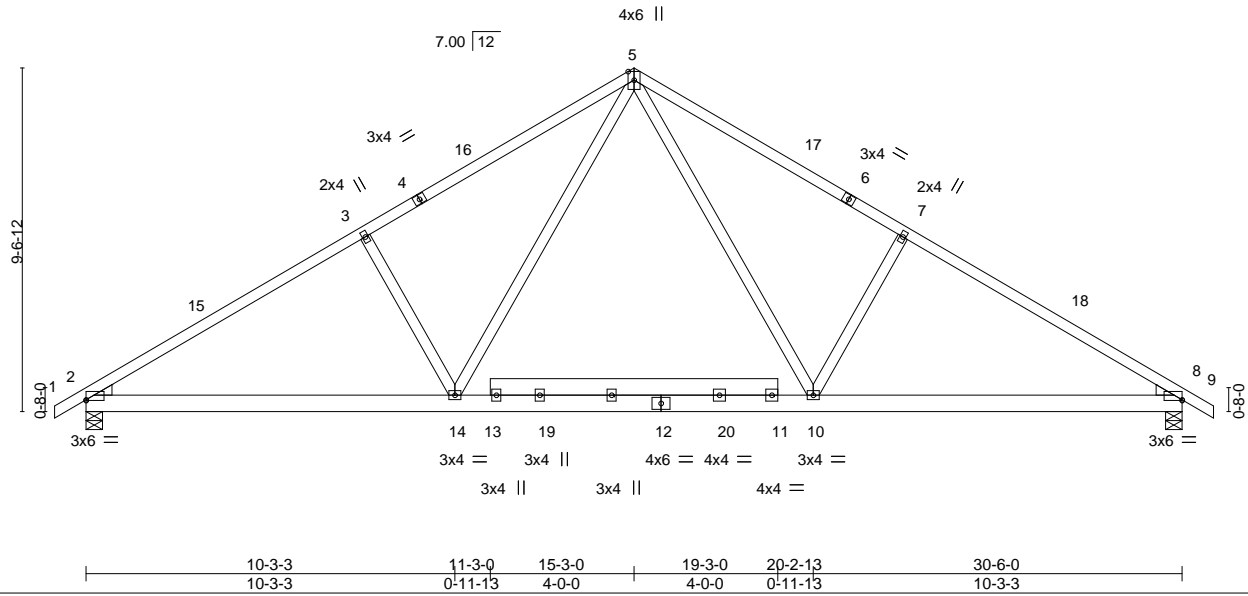


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [8:0-0-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.08 10-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Vert(CT) -0.19 10-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 2-14 >999 240	Weight: 192 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 11-13: 2x6 SP No.1

**WEDGE**

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

**REACTIONS.**

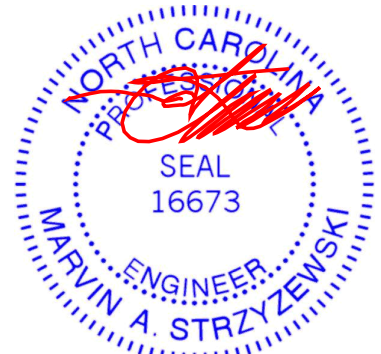
(size) 2=0-5-8, 8=0-5-8  
 Max Horz 2=226(LC 10)  
 Max Grav 2=1368(LC 1), 8=1368(LC 1)

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

TOP CHORD 2-3=-2041/186, 3-5=-1854/246, 5-7=-1855/246, 7-8=-2041/186  
 BOT CHORD 2-14=-35/1775, 10-14=0/1171, 8-10=-40/1631  
 WEBS 5-10=-24/875, 7-10=-430/277, 5-14=-24/874, 3-14=-430/277

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 15-3-0, Exterior(2) 15-3-0 to 19-7-13, Interior(1) 19-7-13 to 31-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 200.0lb AC unit load placed on the bottom chord, 15-3-0 from left end, supported at two points, 5-0-0 apart.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



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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



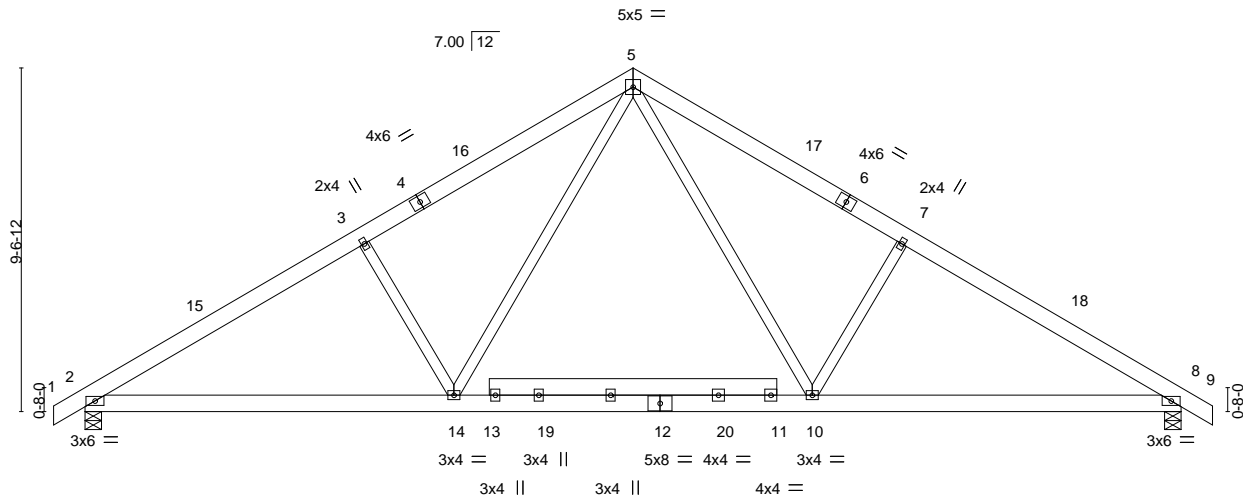
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396297
J0121-0605	A02	COMMON	2	1		
					Job Reference (optional)	

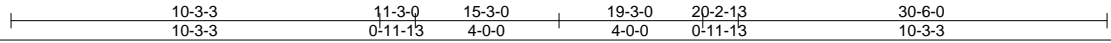
Comtech, Inc., Fayetteville, NC - 28314,

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ID:WeU20\_wZYqtTA5MeulVrNlzoaVc-Hy?RcqYgZ5EdHbhc7vCirw5N0o3UHTP6dFkFwzmpq?



Scale: 3/16"=1'



<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	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.08	10-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.17	10-14	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.23	Horz(CT) 0.04	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	10-14	>999	240		
							Weight: 222 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 11-13: 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

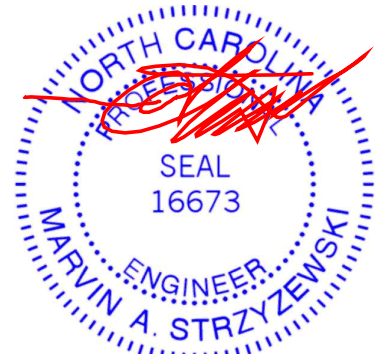
(size) 2=0-5-8, 8=0-5-8  
 Max Horz 2=-240(LC 10)  
 Max Grav 2=1447(LC 1), 8=1447(LC 1)

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

TOP CHORD 2-3=-2163/211, 3-5=-1975/269, 5-7=-1975/269, 7-8=-2163/211  
 BOT CHORD 2-14=48/1915, 10-14=0/1249, 8-10=-58/1761  
 WEBS 5-10=-30/931, 7-10=-489/300, 5-14=-30/930, 3-14=-489/300

**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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 15-3-0, Exterior(2) 15-3-0 to 19-7-13, Interior(1) 19-7-13 to 31-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 200.0lb AC unit load placed on the bottom chord, 15-3-0 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396298
J0121-0605	A03	COMMON	1	1		

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Job Reference (optional)

ID:WeU20\_wZYqtA5MeuVrNlzoaVc-DL6B1WZx5iULWurEjYygoG?MOpvNyBaizXkqJpzmpz

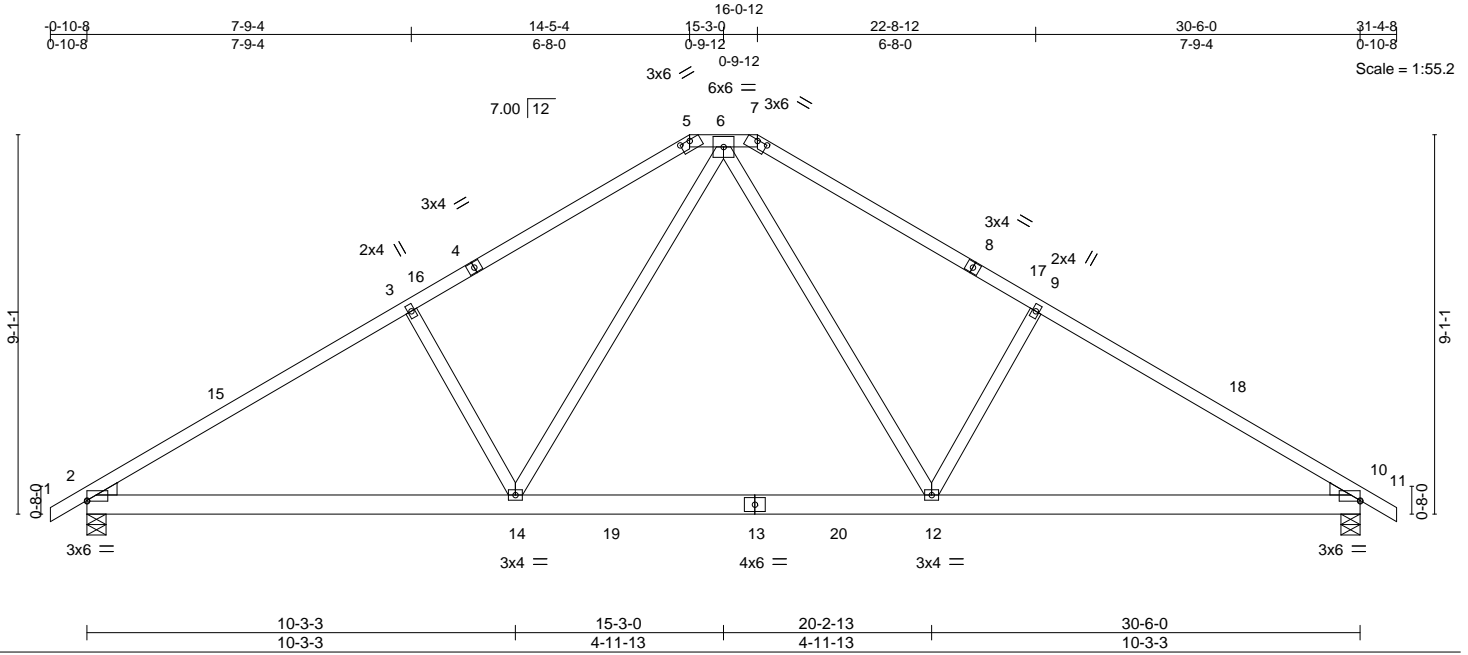


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [5:0-3-0,0-0-4], [7:0-3-0,0-0-4], [10:Edge,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.14	12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.21	12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06	2-14	>999	240		
							Weight: 172 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except 2-0-0 oc purlins (4-6-10 max.); 5-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

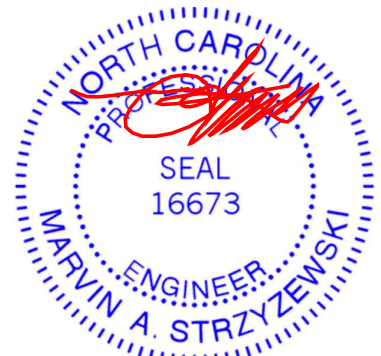
(size) 2=0-5-8, 10=0-5-8  
 Max Horz 2=-215(LC 10)  
 Max Uplift 2=-79(LC 12), 10=-79(LC 13)  
 Max Grav 2=1268(LC 1), 10=1268(LC 1)

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

TOP CHORD 2-3=-1837/402, 3-5=-1644/457, 7-9=-1645/457, 9-10=-1837/402, 5-6=-1422/454, 6-7=-1422/454  
 BOT CHORD 2-14=-232/1596, 12-14=-31/1038, 10-12=-229/1456  
 WEBS 6-12=-142/764, 9-12=-416/274, 6-14=-142/764, 3-14=-416/274

**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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 14-5-4, Exterior(2) 14-5-4 to 22-3-7, Interior(1) 22-3-7 to 31-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396299
J0121-0605	A04	HIP	1	1		

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ID:WeU20\_wZYqtA5MeulVrNlzoaVc-hXgZEsaZs0cC82QQHGTvKTXXcDthfhsobUOrFzmpy

0-10-8 6-0-14 11-10-5 18-7-11 24-5-2 30-6-0 31-4-8  
 0-10-8 6-0-14 5-9-6 6-9-7 5-9-6 6-0-14 0-10-8

Scale = 1:53.4

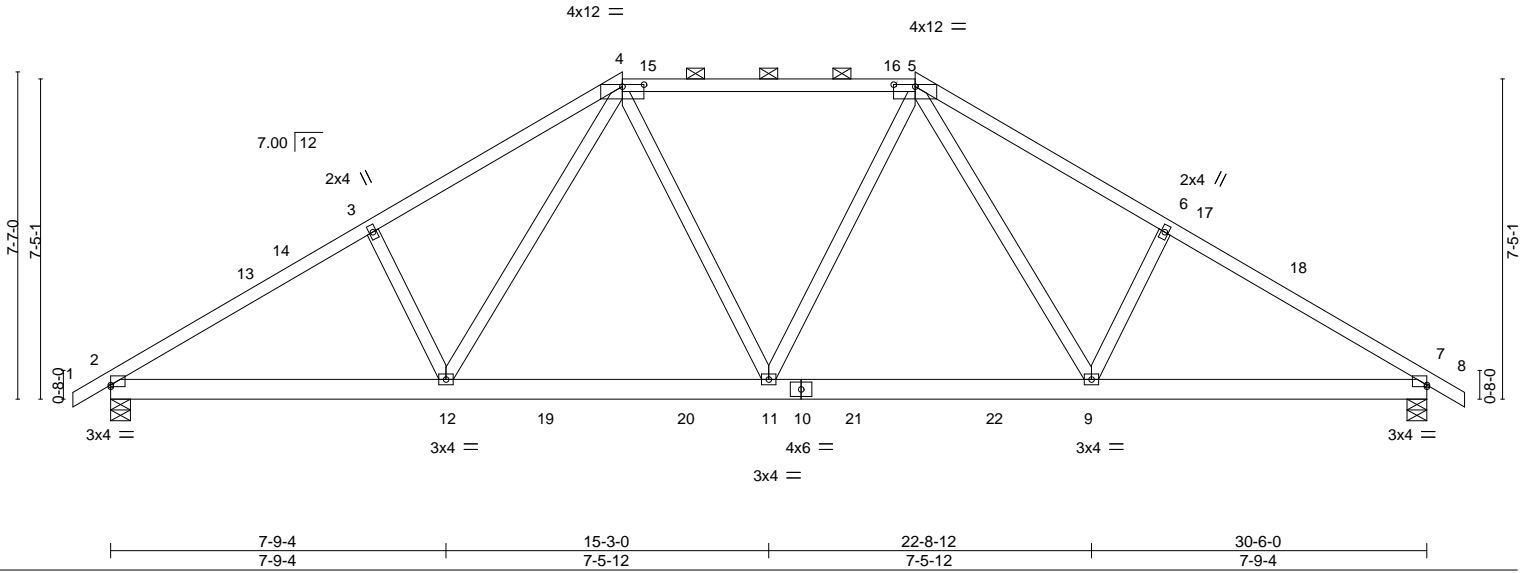


Plate Offsets (X,Y)-- [2:Edge,0-0-8], [4:0-6-0,0-0-9], [5:0-6-0,0-0-9], [7:0-0-0,0-0-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.62	Vert(LL) -0.06 9-11 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.12 9-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT) 0.04 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04 11 >999 240	Weight: 183 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-3-10 oc purlins, except 2-0-0 oc purlins (4-4-7 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

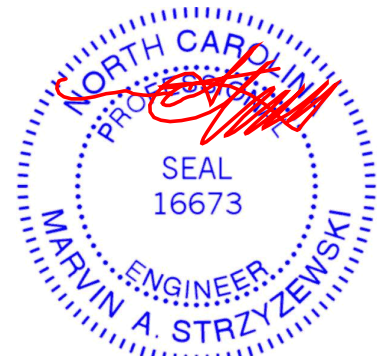
(size) 7=0-5-8, 2=0-5-8  
 Max Horz 2=176(LC 11)  
 Max Uplift 7=-67(LC 13), 2=-67(LC 12)  
 Max Grav 7=1268(LC 1), 2=1268(LC 1)

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

TOP CHORD 2-3=-1893/453, 3-4=-1727/511, 4-5=-1266/414, 5-6=-1727/511, 6-7=-1893/453  
 BOT CHORD 2-12=-293/1588, 11-12=-149/1225, 9-11=-147/1209, 7-9=-292/1512  
 WEBS 3-12=-297/209, 4-12=-113/518, 5-9=-113/518, 6-9=-297/209

**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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 11-10-5, Exterior(2) 11-10-5 to 18-0-15, Interior(1) 18-0-15 to 18-7-11, Exterior(2) 18-7-11 to 24-10-6, Interior(1) 24-10-6 to 31-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10, 2021

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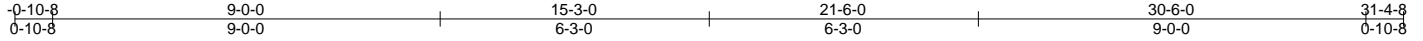
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396300
J0121-0605	A05	HIP	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

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Scale = 1:53.5

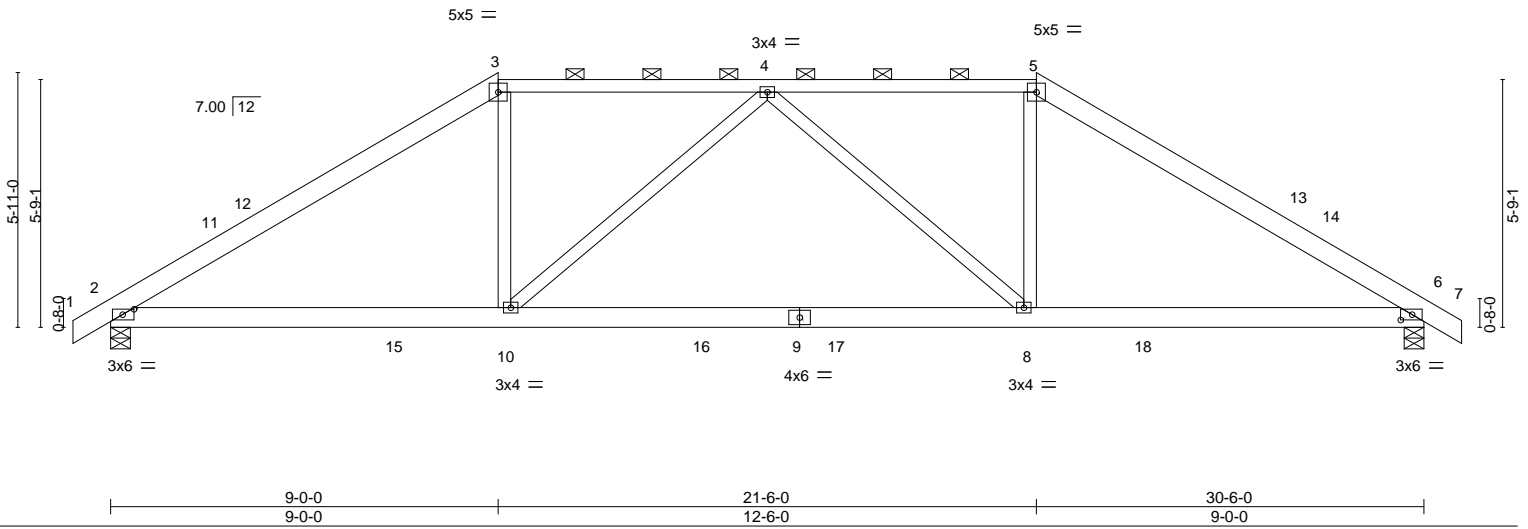


Plate Offsets (X,Y)-- [2:0-3-3,0-1-8], [6:0-3-3,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.46	Vert(LL) -0.11	8-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.46	Vert(CT) -0.24	8-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.46	Horz(CT) 0.04	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	2-10	>999	240		
							Weight: 183 lb	FT = 20%

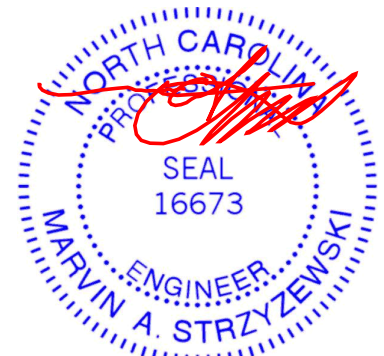
**LUMBER-**  
 TOP CHORD 2x6 SP No.1 \*Except\*  
 3-5: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins, except  
 2-0-0 oc purlins (4-10-12 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 6=0-5-8  
 Max Horz 2=138(LC 11)  
 Max Uplift 2=-49(LC 12), 6=-49(LC 13)  
 Max Grav 2=1268(LC 1), 6=1268(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1845/408, 3-4=-1487/431, 4-5=-1487/431, 5-6=-1845/408  
 BOT CHORD 2-10=-196/1472, 8-10=-307/1684, 6-8=-195/1472  
 WEBS 3-10=0/578, 4-10=-401/185, 4-8=-401/185, 5-8=0/578

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 9-0-0, Exterior(2) 9-0-0 to 15-3-0, Interior(1) 15-3-0 to 21-6-0, Exterior(2) 21-6-0 to 27-8-11, Interior(1) 27-8-11 to 31-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10, 2021

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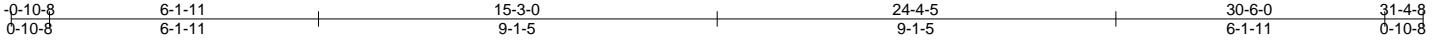
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396301
J0121-0605	A06	Hip Girder	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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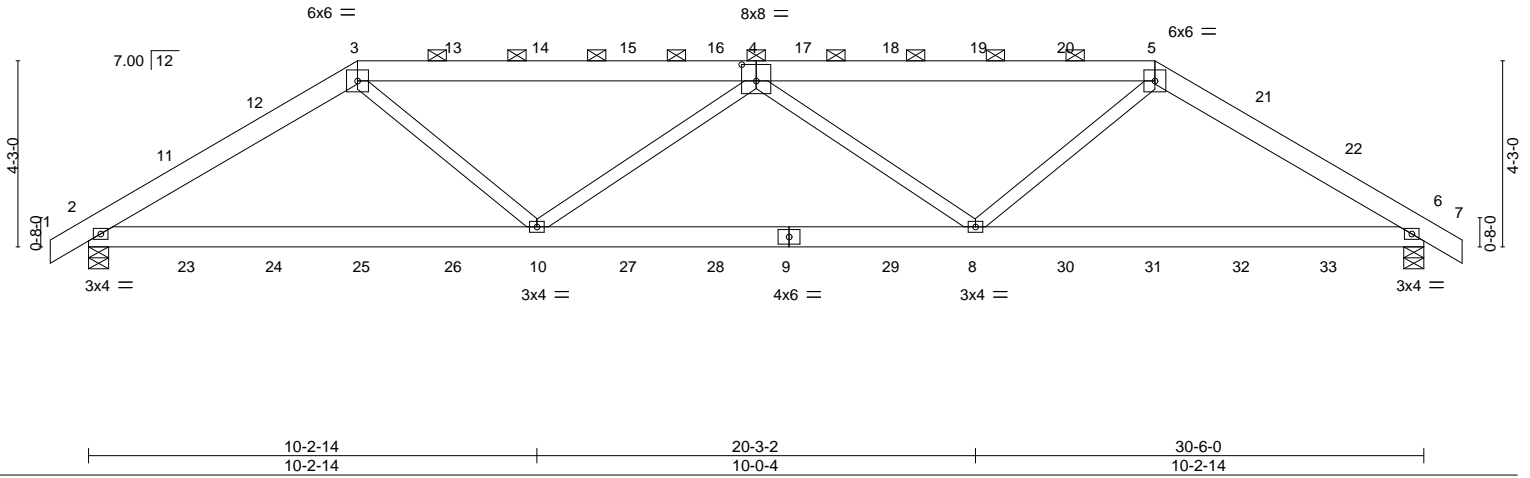


Plate Offsets (X,Y)-- [4:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.27	Vert(LL) -0.05	6-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.12	6-8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.13	Horz(CT) 0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06	8-10	>999	240		
							Weight: 373 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.); 3-5.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

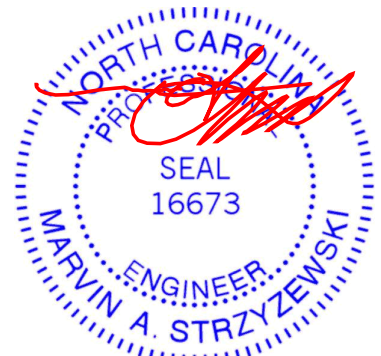
(size) 2=0-5-8, 6=0-5-8  
 Max Horz 2=99(LC 7)  
 Max Uplift 2=-426(LC 5), 6=-428(LC 4)  
 Max Grav 2=1680(LC 1), 6=1681(LC 1)

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

TOP CHORD 2-3=-2520/821, 3-4=-2841/849, 4-5=-2841/851, 5-6=-2522/825  
 BOT CHORD 2-10=-729/2062, 8-10=-1228/3380, 6-8=-668/2063  
 WEBS 3-10=-196/1078, 4-10=-700/526, 4-8=-699/524, 5-8=-195/1077

**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 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=426, 6=428.
- 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) 78 lb down and 78 lb up at 2-2-7, 75 lb down and 73 lb up at 4-2-7, 106 lb down and 111 lb up at 6-1-11, 111 lb down and 108 lb up at 8-3-9, 111 lb down and 108 lb up at 10-3-9, 111 lb down and 108 lb up at 12-3-9, 111 lb down and 108 lb up at 14-3-9, 111 lb down and 108 lb up at 16-3-9, 111 lb down and 108 lb up at 18-3-9, 111 lb down and 108 lb up at 20-3-9, 111 lb down and 108 lb up at 22-3-9, 106 lb down and 111 lb up at 24-4-5, and 75 lb down and 73 lb up at 26-3-9, and 78 lb down and 78 lb up at 28-3-9 on top chord, and 32 lb down at 2-2-7, 31 lb down at 4-2-7, 34 lb down at 6-2-7, 34 lb down at 8-3-9, 34 lb down at 10-3-9, 34 lb down at 12-3-9, 34 lb down at 14-3-9, 34 lb down at 16-3-9, 34 lb down at 18-3-9, 34 lb down at 20-3-9, 34 lb down at 22-3-9, 34 lb down at 24-3-9, and 31 lb down at 26-3-9, and 32 lb down at 28-3-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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Continued on page 2

**LOAD CASE(S)** Standard

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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 56 Sierra Village	E15396301
J0121-0605	A06	Hip Girder	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:18 2021 Page 2  
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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-7=-60, 2-6=-20

Concentrated Loads (lb)

Vert: 3=-41(F) 5=-41(F) 9=-17(F) 10=-17(F) 8=-17(F) 11=-38(F) 12=-35(F) 13=-41(F) 14=-41(F) 15=-41(F) 16=-41(F) 17=-41(F) 18=-41(F) 19=-41(F) 20=-41(F) 21=-35(F) 22=-38(F) 23=-25(F) 24=-23(F) 25=-17(F) 26=-17(F) 27=-17(F) 28=-17(F) 29=-17(F) 30=-17(F) 31=-17(F) 32=-23(F) 33=-25(F)

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396302
J0121-0605	A07	COMMON	5	1		

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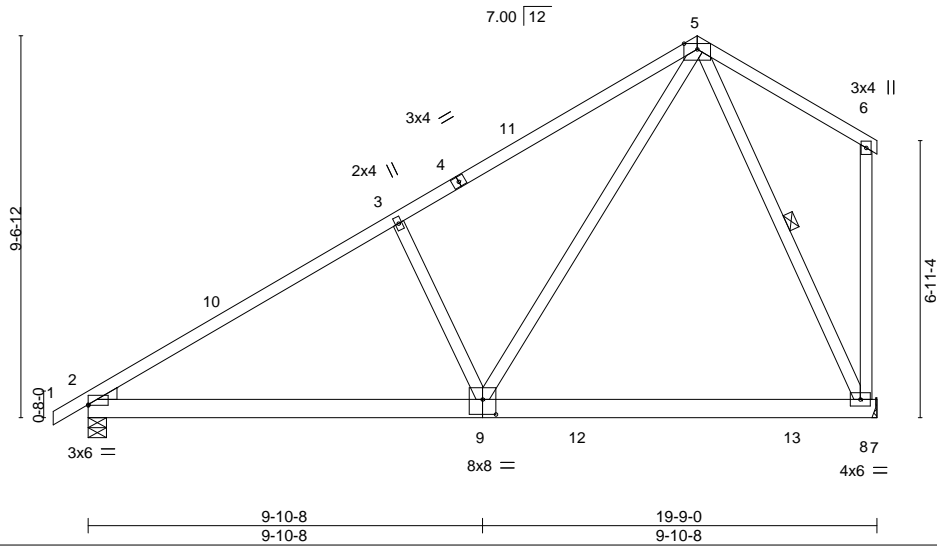


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [9:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.12	8-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.18	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.31	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	2-9	>999	240		
							Weight: 129 lb	FT = 20%

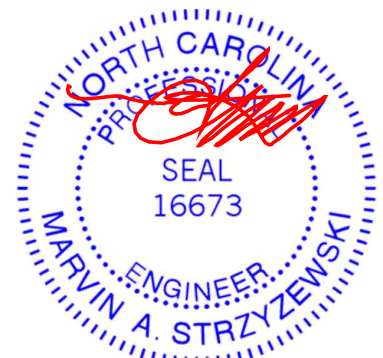
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-5-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-8

**REACTIONS.** (size) 2=0-5-8, 8=Mechanical  
 Max Horz 2=254(LC 12)  
 Max Uplift 2=-43(LC 12), 8=-84(LC 12)  
 Max Grav 2=842(LC 19), 8=869(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1079/155, 3-5=-930/234  
 BOT CHORD 2-9=-276/929, 8-9=-84/309  
 WEBS 3-9=-480/281, 5-9=-150/868, 5-8=-709/199

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 15-3-0, Exterior(2) 15-3-0 to 19-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



February 10, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396303
J0121-0605	A08	COMMON	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:21 2021 Page 1  
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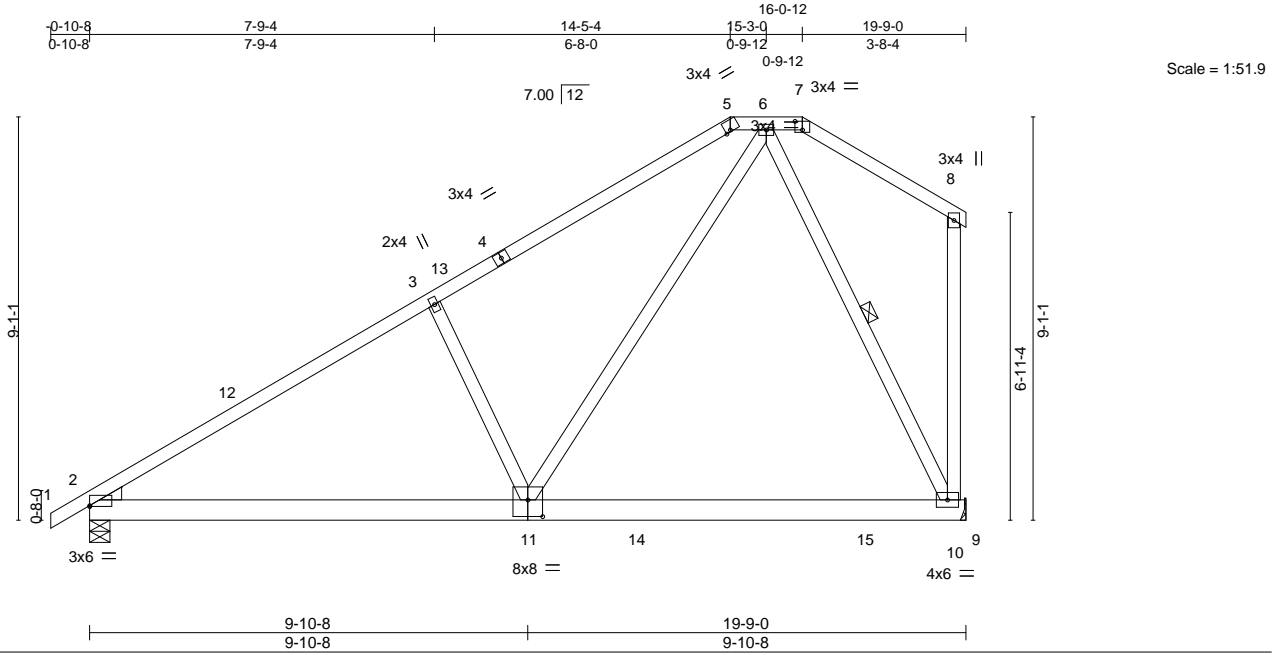


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [5:0-1-6,Edge], [7:0-2-0,0-2-5], [11:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.12	10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.18	10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.01	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	2-11	>999	240		
							Weight: 128 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-10

**REACTIONS.**

(size) 2=0-5-8, 10=Mechanical  
 Max Horz 2=249(LC 12)  
 Max Uplift 2=-43(LC 12), 10=-74(LC 12)  
 Max Grav 2=838(LC 1), 10=840(LC 19)

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

TOP CHORD 2-3=-1059/168, 3-5=-906/243, 5-6=-747/269  
 BOT CHORD 2-11=-297/899, 10-11=-99/296  
 WEBS 3-11=-441/283, 6-11=-155/835, 6-10=-642/226

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 14-5-4, Exterior(2) 14-5-4 to 19-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396304
J0121-0605	A09	HALF HIP	1	1		

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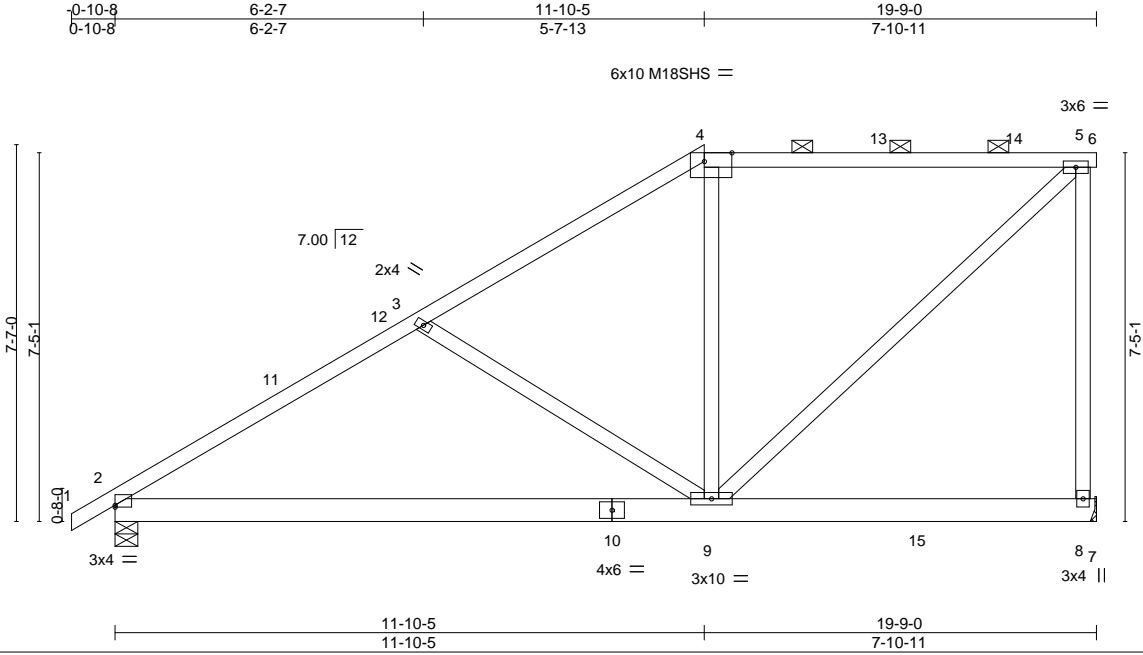


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [4:0-6-10,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.91	Vert(LL) -0.13	2-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.28	2-9	>838	240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.37	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	2-9	>999	240		
							Weight: 124 lb	FT = 20%

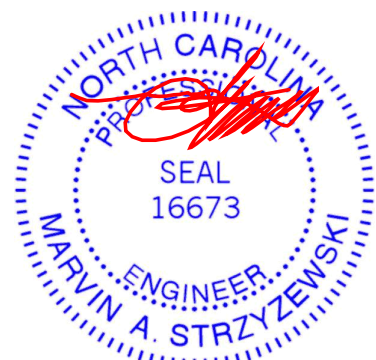
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-12 max.); 4-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=Mechanical, 2=0-5-8  
 Max Horz 2=237(LC 12)  
 Max Uplift 8=-78(LC 9), 2=-38(LC 12)  
 Max Grav 8=779(LC 1), 2=838(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1044/204, 3-4=-718/131, 4-5=-545/165, 5-8=-726/268  
 BOT CHORD 2-9=-373/856  
 WEBS 3-9=-403/246, 5-9=-206/712

- 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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 11-10-5, Exterior(2) 11-10-5 to 18-0-15, Interior(1) 18-0-15 to 19-9-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 10, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396305
J0121-0605	A10	HALF HIP	1	1		

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:24 2021 Page 1

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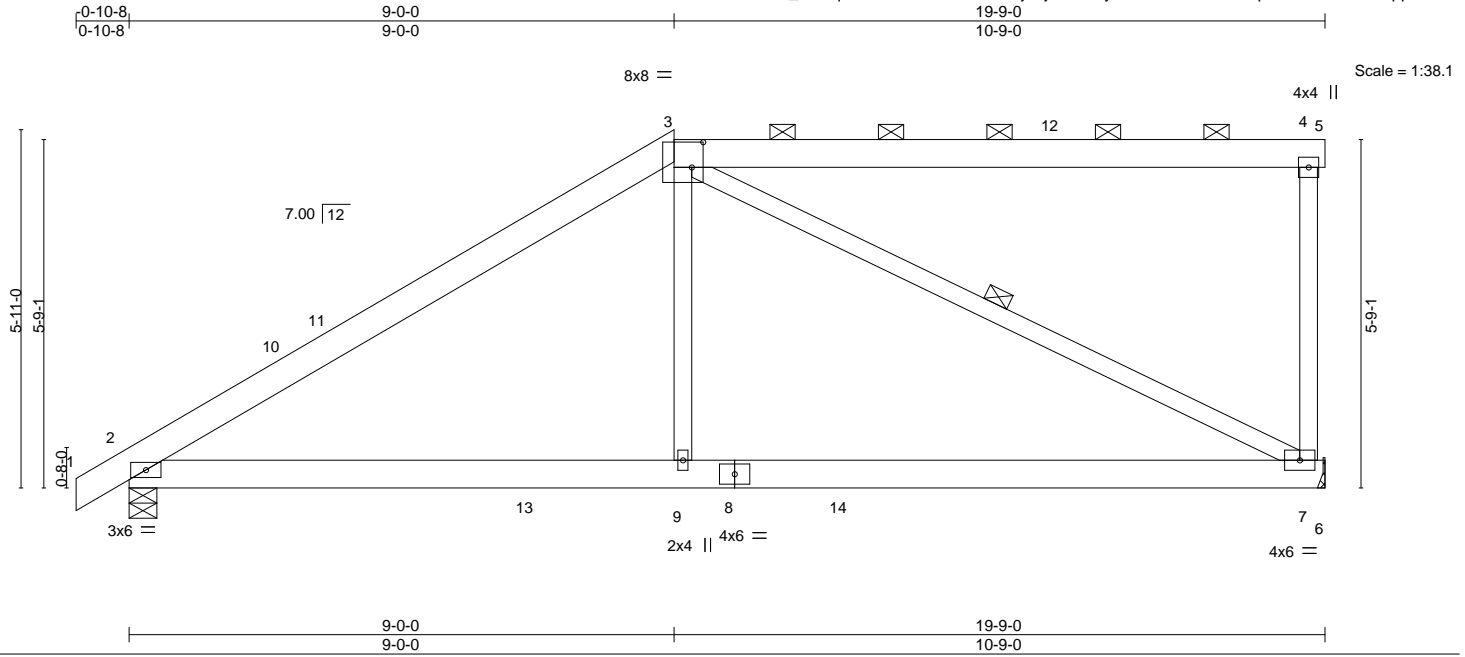


Plate Offsets (X,Y)-- [3:0-2-4,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.08	7-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.15	7-9	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.54	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	2-9	>999	240	Weight: 130 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

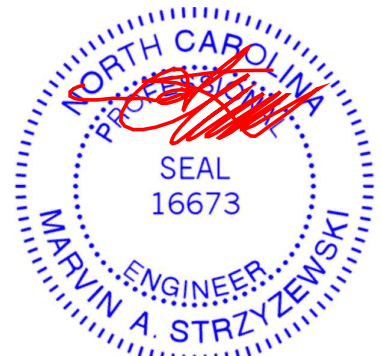
(size) 7=Mechanical, 2=0-5-8  
 Max Horz 2=182(LC 12)  
 Max Uplift 7=-80(LC 9), 2=-40(LC 12)  
 Max Grav 7=779(LC 1), 2=846(LC 19)

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

TOP CHORD 2-3=-1063/177, 4-7=-310/157  
 BOT CHORD 2-9=-241/818, 7-9=-237/829  
 WEBS 3-9=0/463, 3-7=-891/253

**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) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 9-0-0, Exterior(2) 9-0-0 to 15-2-11, Interior(1) 15-2-11 to 19-9-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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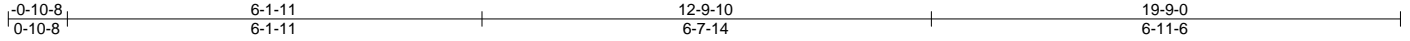
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396306
J0121-0605	A11	Half Hip Girder	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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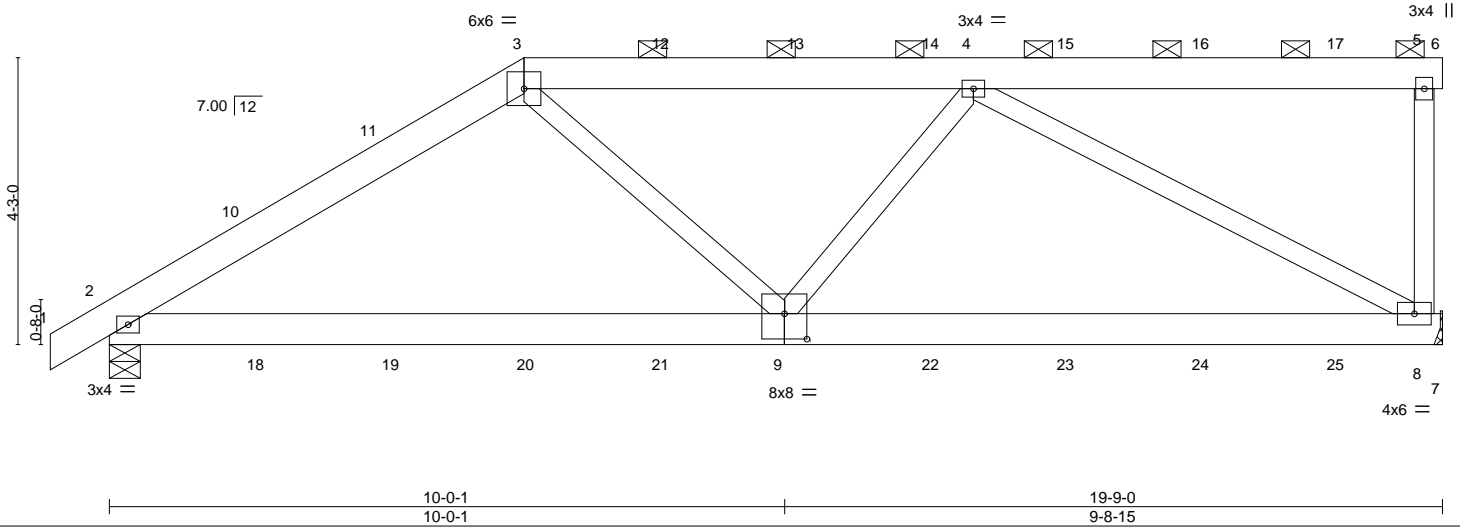


Plate Offsets (X,Y)-- [9:0-4-0-0-4-8]

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) -0.03	2-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(CT) -0.08	2-9	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.32	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02	2-9	>999	240		
							Weight: 255 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 8=Mechanical, 2=0-5-8  
 Max Horz 2=132(LC 8)  
 Max Uplift 8=-368(LC 5), 2=-246(LC 8)  
 Max Grav 8=1052(LC 1), 2=1095(LC 1)

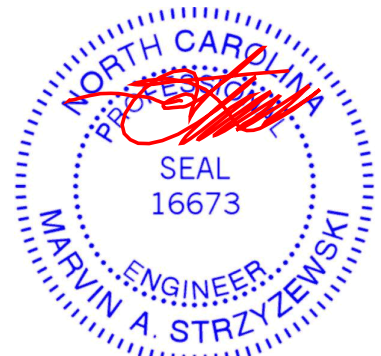
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1430/449, 3-4=-1363/383  
 BOT CHORD 2-9=-413/1135, 8-9=-504/1284  
 WEBS 3-9=0/461, 4-9=0/396, 4-8=-1435/574

**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, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) except (jt=lb) 8=368, 2=246.
- 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) 75 lb down and 78 lb up at 2-2-7, 44 lb down and 73 lb up at 4-2-7, 106 lb down and 111 lb up at 6-1-11, 111 lb down and 108 lb up at 8-2-7, 111 lb down and 108 lb up at 10-2-7, 111 lb down and 108 lb up at 12-2-7, 111 lb down and 108 lb up at 14-2-7, and 111 lb down and 108 lb up at 16-2-7, and 111 lb down and 108 lb up at 18-2-7 on top chord, and 32 lb down at 2-2-7, 31 lb down at 4-2-7, 34 lb down at 6-2-7, 34 lb down at 8-2-7, 34 lb down at 10-2-7, 34 lb down at 12-2-7, 34 lb down at 14-2-7, and 34 lb down at 16-2-7, and 34 lb down at 18-2-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard



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Continued on page 2

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

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396306
J0121-0605	A11	Half Hip Girder	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-6=-20, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-41(B) 9=-17(B) 10=-38(B) 11=-35(B) 12=-41(B) 13=-41(B) 14=-41(B) 15=-41(B) 16=-41(B) 17=-41(B) 18=-25(B) 19=-23(B) 20=-17(B) 21=-17(B) 22=-17(B)  
 23=-17(B) 24=-17(B) 25=-17(B)

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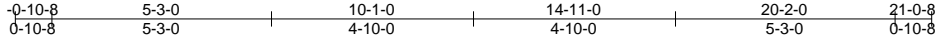
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396307
J0121-0605	B01	GABLE	1	1		

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5x5 =

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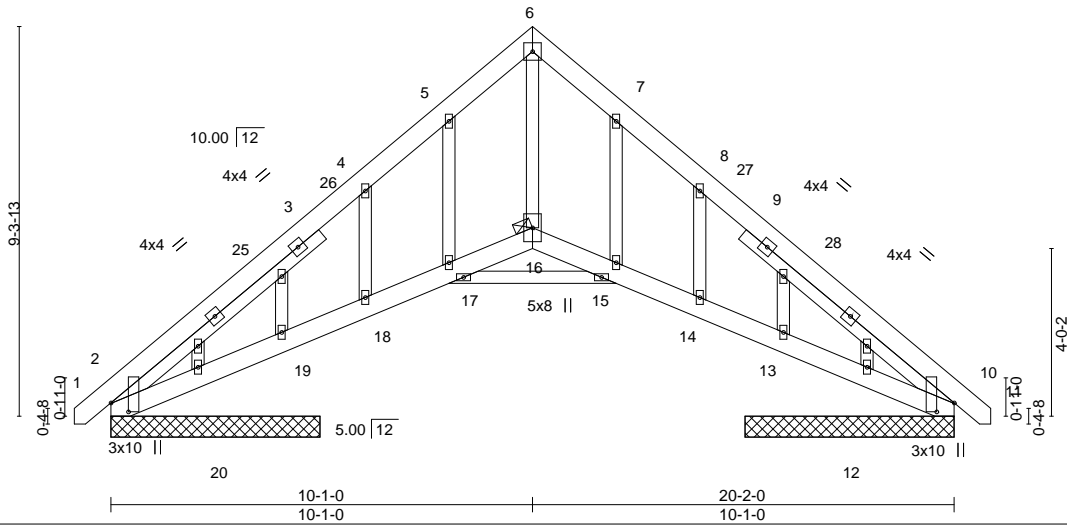


Plate Offsets (X,Y)-- [2:0-2-9,0-5-0], [10:0-2-9,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.02	17	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.04	17	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03	17-18	>999	240		
							Weight: 176 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.3 -x 6-5-12, Right 2x4 SP No.3 -x 6-5-12

**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.**

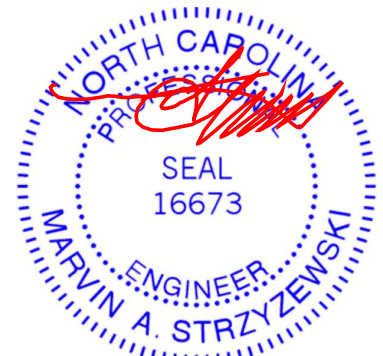
All bearings 5-0-0.  
 (lb) - Max Horz 2=-301(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 12 except 2=-109(LC 11), 19=-328(LC 10), 20=-102(LC 17), 13=-267(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 12 except 2=466(LC 1), 10=466(LC 1), 19=550(LC 17), 13=483(LC 18)

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

TOP CHORD 2-4=-765/0, 4-5=-695/218, 5-6=-590/266, 6-7=-613/298, 7-8=-712/253, 8-10=-839/145  
 BOT CHORD 2-20=-129/643, 19-20=-145/699, 18-19=-52/525, 17-18=-131/657, 16-17=-352/674, 15-16=-340/674, 14-15=-103/636, 13-14=-153/578, 12-13=-91/659, 10-12=-105/626  
 WEBS 6-16=-247/516, 15-17=-472/531, 4-18=-404/381, 8-14=-404/365

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-14 to 3-7-14, Interior(1) 3-7-14 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 16-6-2, Exterior(2) 16-6-2 to 20-10-14 zone:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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) 2, 10, 19, 20, 13, 12 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) 10, 12 except (jt=lb) 2=109, 19=328, 20=102, 13=267.



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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396308
J0121-0605	B02	SCISSORS	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

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-0-10-8 5-2-4 10-1-0 14-11-12 20-2-0 21-0-8  
 0-10-8 5-2-4 4-10-12 4-10-12 5-2-4 0-10-8

4x4 =

Scale = 1:55.4

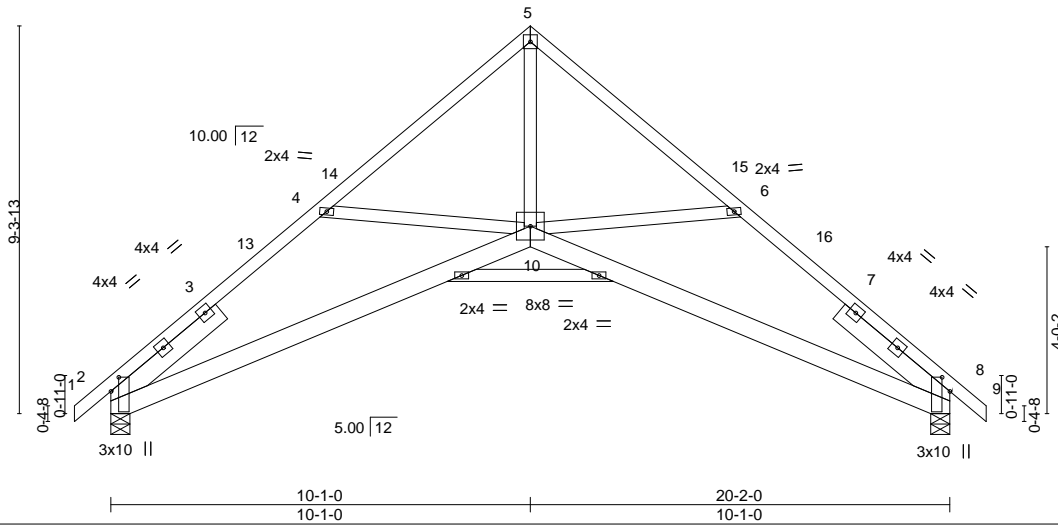


Plate Offsets (X,Y)-- [2:0-4-1,0-2-4], [8:0-4-1,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.41	Vert(LL) -0.08	2-10	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.18	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.26	Horz(CT) 0.11	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	10	>999	240		
							Weight: 138 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 -x 3-5-1, Right 2x6 SP No.1 -x 3-5-1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

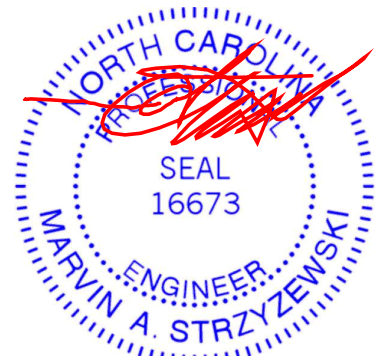
(size) 2=0-5-8, 8=0-5-8  
 Max Horz 2=-244(LC 8)  
 Max Uplift 2=-99(LC 10), 8=-99(LC 11)  
 Max Grav 2=855(LC 1), 8=855(LC 1)

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

TOP CHORD 2-4=-1489/445, 4-5=-1173/257, 5-6=-1173/257, 6-8=-1489/445  
 BOT CHORD 2-10=-232/1282, 8-10=-207/1121  
 WEBS 5-10=-124/1089, 6-10=-374/332, 4-10=-374/332

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-7 to 3-6-5, Interior(1) 3-6-5 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 16-7-11, Exterior(2) 16-7-11 to 21-0-7 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 40.0psf 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) 2, 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) 2, 8.



February 10, 2021

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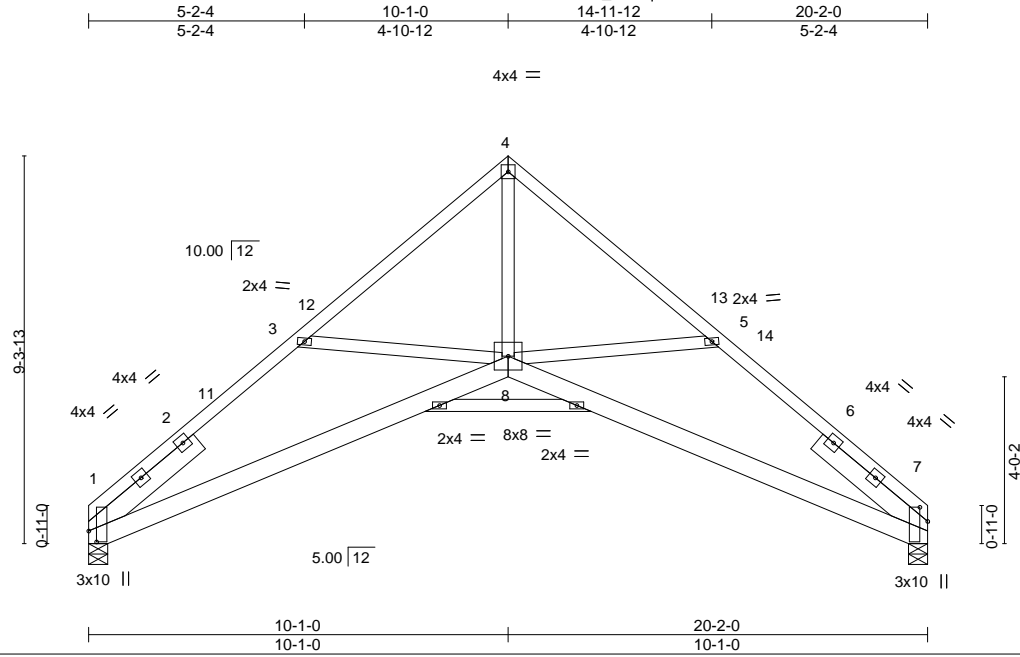


Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396309
J0121-0605	B03	SCISSORS	6	1		

Comtech, Inc, Fayetteville, NC - 28314,

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Scale = 1:55.4

Plate Offsets (X,Y)-- [1:0-3-2,0-2-4], [7:0-4-1,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.43	Vert(LL) -0.08	1-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.18	1-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.26	Horz(CT) 0.11	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04	8	>999	240		
							Weight: 134 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 -x 3-5-1, Right 2x6 SP No.1 -x 3-5-1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

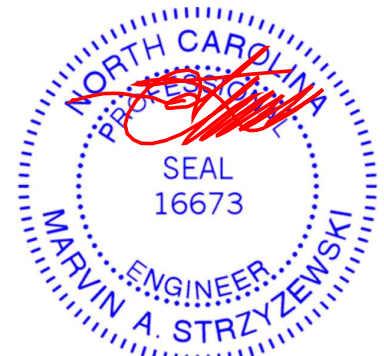
(size) 1=0-5-8, 7=0-5-8  
 Max Horz 1=-240(LC 6)  
 Max Uplift 1=-81(LC 10), 7=-81(LC 11)  
 Max Grav 1=793(LC 1), 7=793(LC 1)

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

TOP CHORD 1-3=-1501/485, 3-4=-1184/286, 4-5=-1184/286, 5-7=-1501/485  
 BOT CHORD 1-8=-251/1288, 7-8=-251/1133  
 WEBS 4-8=-163/1097, 5-8=-371/348, 3-8=-371/348

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-2 to 4-6-15, Interior(1) 4-6-15 to 5-8-3, Exterior(2) 5-8-3 to 14-5-13, Interior(1) 14-5-13 to 15-7-1, Exterior(2) 15-7-1 to 19-11-14 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1, 7 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.



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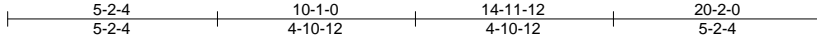
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396310
J0121-0605	B04	Common Girder	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:37 2021 Page 1

ID:WeU20\_wZYqtTA5MeulVrNlzoaVc- 97eH3tcCOeo0kF2hluXlXXdVuvuJR00JKlfhszmpa



Scale = 1:57.0

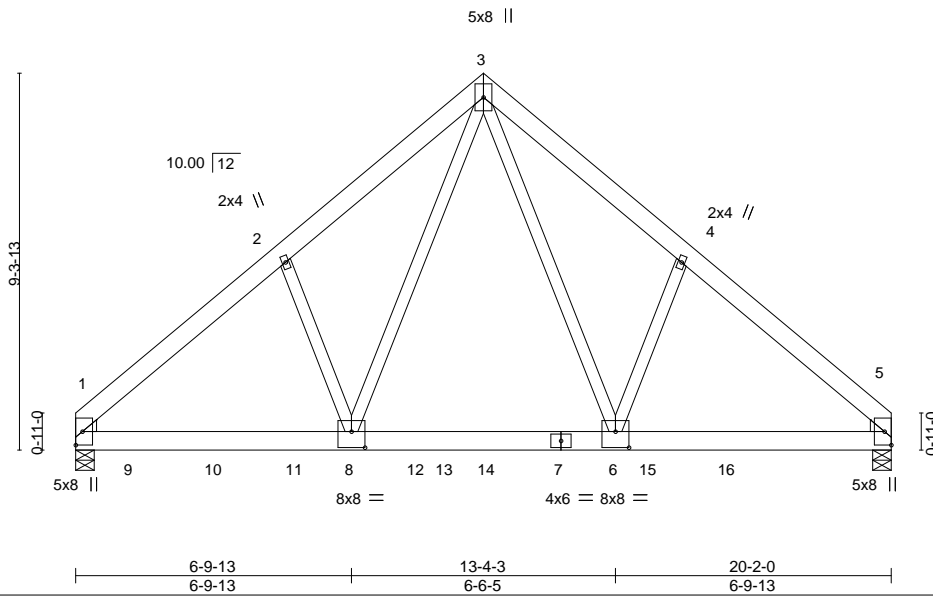


Plate Offsets (X,Y)-- [1:0-0-13,0-1-0], [1:0-1-11,0-4-13], [5:0-1-11,0-4-13], [5:0-0-13,0-1-0], [6:0-4-0,0-4-12], [8:0-4-0,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.94	Vert(LL) -0.08 6-8 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.16 1-8 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.03 5 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.08 5-6 >999 240	Weight: 302 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=0-5-8, 5=0-5-8  
 Max Horz 1=-235(LC 4)  
 Max Uplift 1=-607(LC 8), 5=-659(LC 9)  
 Max Grav 1=4730(LC 2), 5=3930(LC 1)

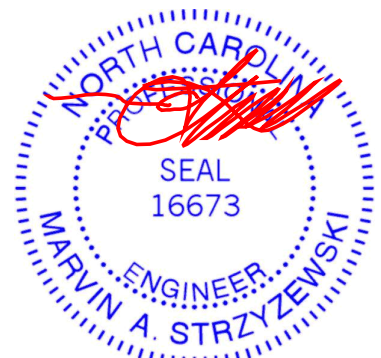
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-5258/712, 2-3=-5071/805, 3-4=-4878/890, 4-5=-5090/797  
 BOT CHORD 1-8=-536/3803, 6-8=-337/2648, 5-6=-522/3650  
 WEBS 3-6=-668/2983, 4-6=-263/394, 3-8=-481/3489, 2-8=-265/385

**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 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=607, 5=659.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 779 lb down and 103 lb up at 1-4-4, 779 lb down and 103 lb up at 3-4-4, 779 lb down and 103 lb up at 5-4-4, 779 lb down and 103 lb up at 7-0-12, 754 lb down and 103 lb up at 9-0-12, 754 lb down and 93 lb up at 10-1-4, 759 lb down and 97 lb up at 12-1-4, and 759 lb down and 100 lb up at 14-1-4, and 1032 lb down and 388 lb up at 16-0-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



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Continued on page 2

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396310
J0121-0605	B04	Common Girder	1	<b>2</b>	Job Reference (optional)	

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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-759(B) 8=-754(B) 9=-754(B) 10=-754(B) 11=-754(B) 13=-754(B) 14=-754(B) 15=-759(B) 16=-1032(B)

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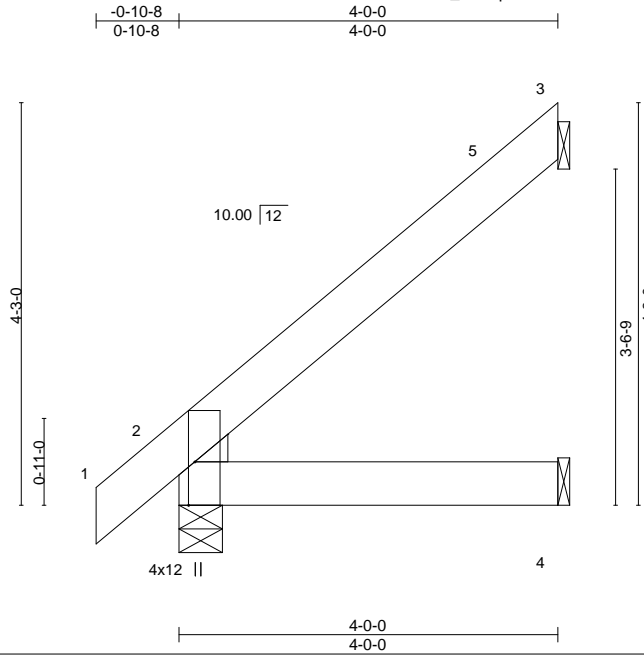
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396311
J0121-0605	J01	Jack-Open	17	1	Job Reference (optional)	

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8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:38 2021 Page 1

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Scale = 1:24.3

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 26 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

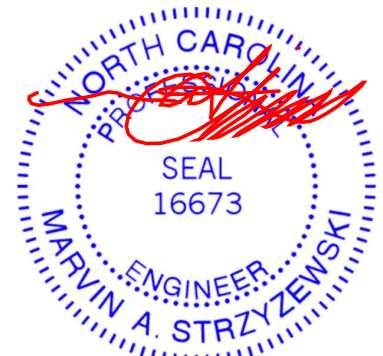
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
 Max Horz 2=128(LC 12)  
 Max Uplift 3=95(LC 12)  
 Max Grav 3=124(LC 19), 2=224(LC 1), 4=74(LC 3)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 3-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.



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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396312
J0121-0605	J02	Jack-Open	3	1		

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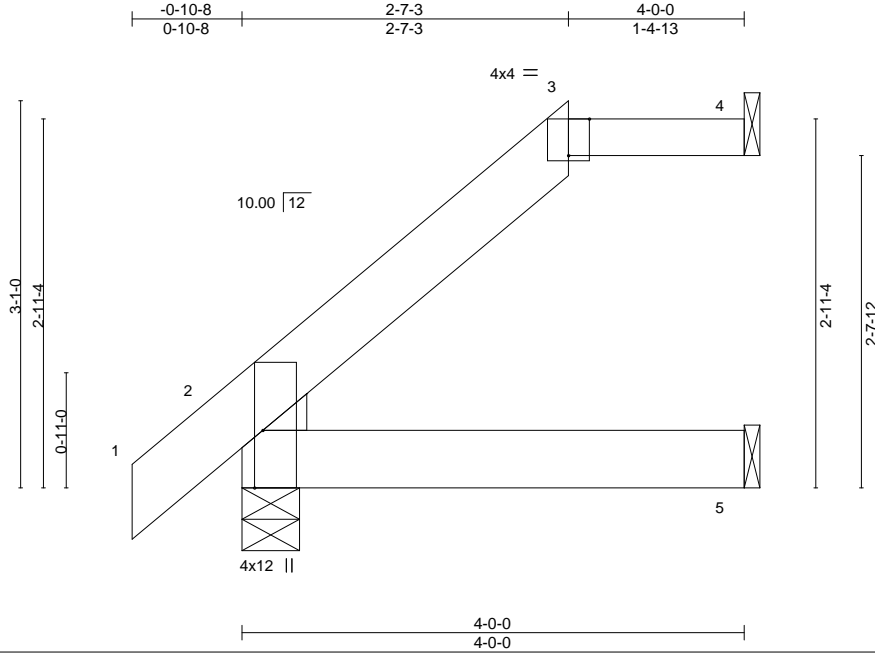


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [2:0-1-11,0-4-13], [2:0-0-13,0-1-0], [3:0-2-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.12	Vert(LL) -0.00	2-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) -0.00	2-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2-5	>999	240		
							Weight: 23 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1 \*Except\*  
3-4: 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEDGE  
Left: 2x4 SP No.2

**BRACING-**

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

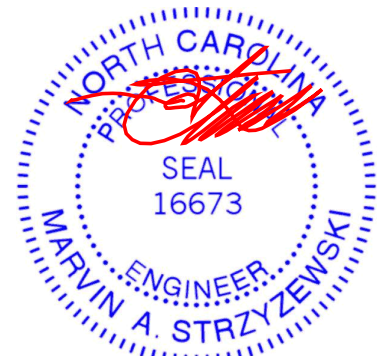
**REACTIONS.**

(size) 4=Mechanical, 2=0-5-8, 5=Mechanical  
Max Horz 2=92(LC 12)  
Max Uplift 4=-38(LC 9), 2=-2(LC 12)  
Max Grav 4=92(LC 1), 2=224(LC 1), 5=71(LC 3)

**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
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 4, 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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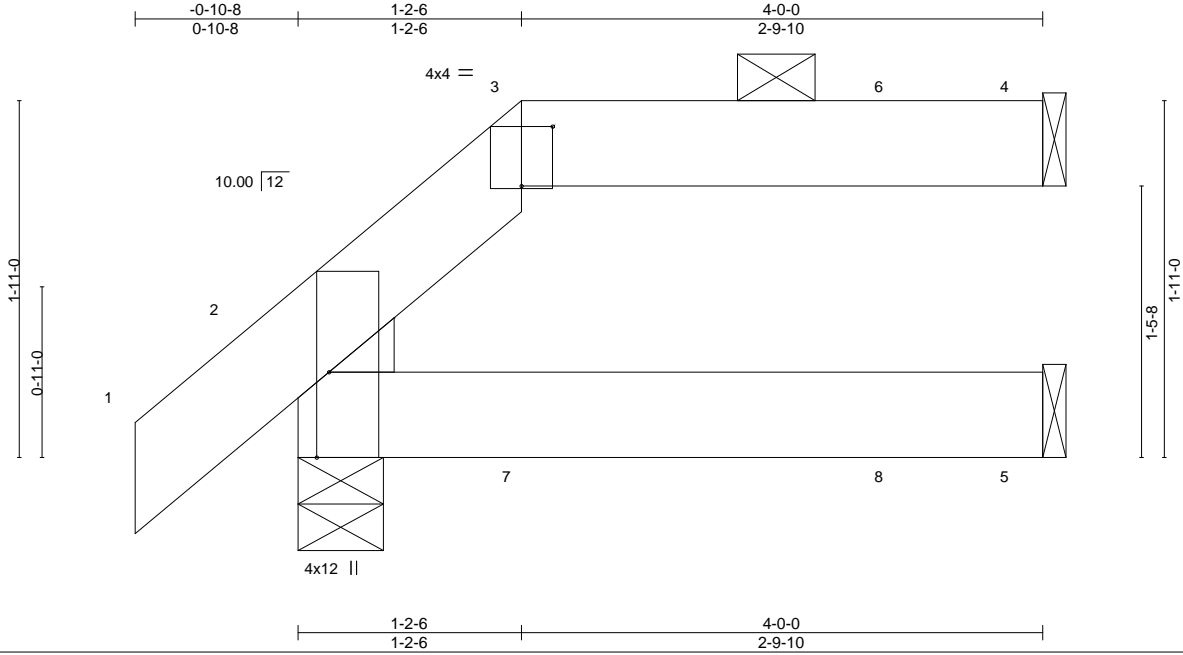
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396313
J0121-0605	J03	Jack-Open Girder	3	1		

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Scale = 1:12.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00	2-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00	2-5	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2-5	>999	240	Weight: 24 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 4=Mechanical, 2=0-5-8, 5=Mechanical  
 Max Horz 2=56(LC 8)  
 Max Uplift 4=46(LC 5), 2=27(LC 8)  
 Max Grav 4=98(LC 20), 2=225(LC 1), 5=72(LC 3)

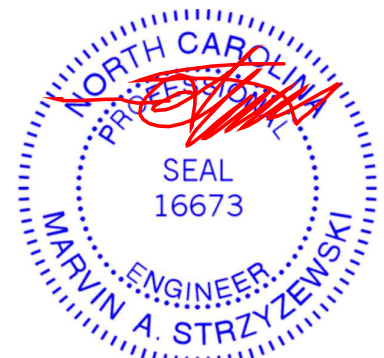
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**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); 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 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 4, 2.
- 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) 55 lb down and 37 lb up at 1-2-6, and 56 lb down and 35 lb up at 3-3-2 on top chord, and 7 lb down at 1-3-2, and 8 lb down at 3-3-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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



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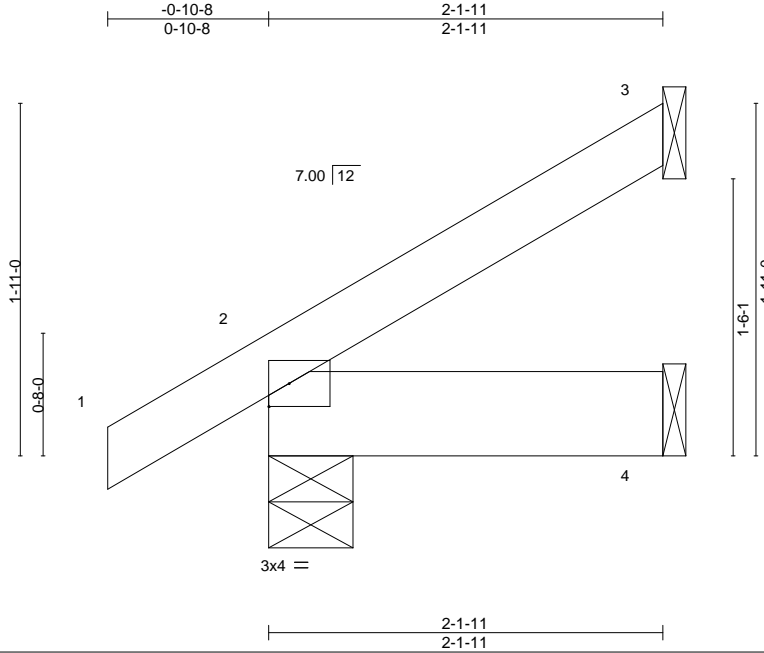
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396314
J0121-0605	J04	Jack-Open	6	1	Job Reference (optional)	

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Scale = 1:12.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****	240		
	Code IRC2015/TPI2014							Weight: 10 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-1-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

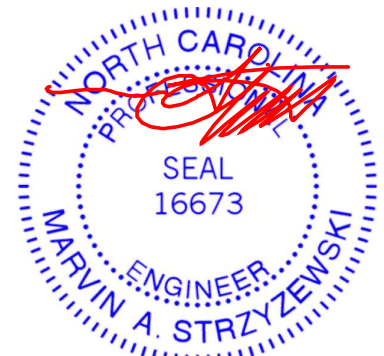
**REACTIONS.**

(size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=55(LC 12)  
Max Uplift 3=33(LC 12), 2=-9(LC 12)  
Max Grav 3=44(LC 19), 2=160(LC 1), 4=37(LC 3)

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

**NOTES-**

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



February 10, 2021

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

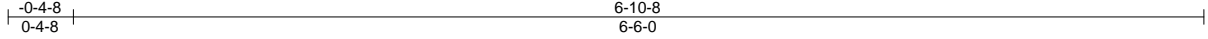
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396315
J0121-0605	M01	GABLE	1	1	Job Reference (optional)	

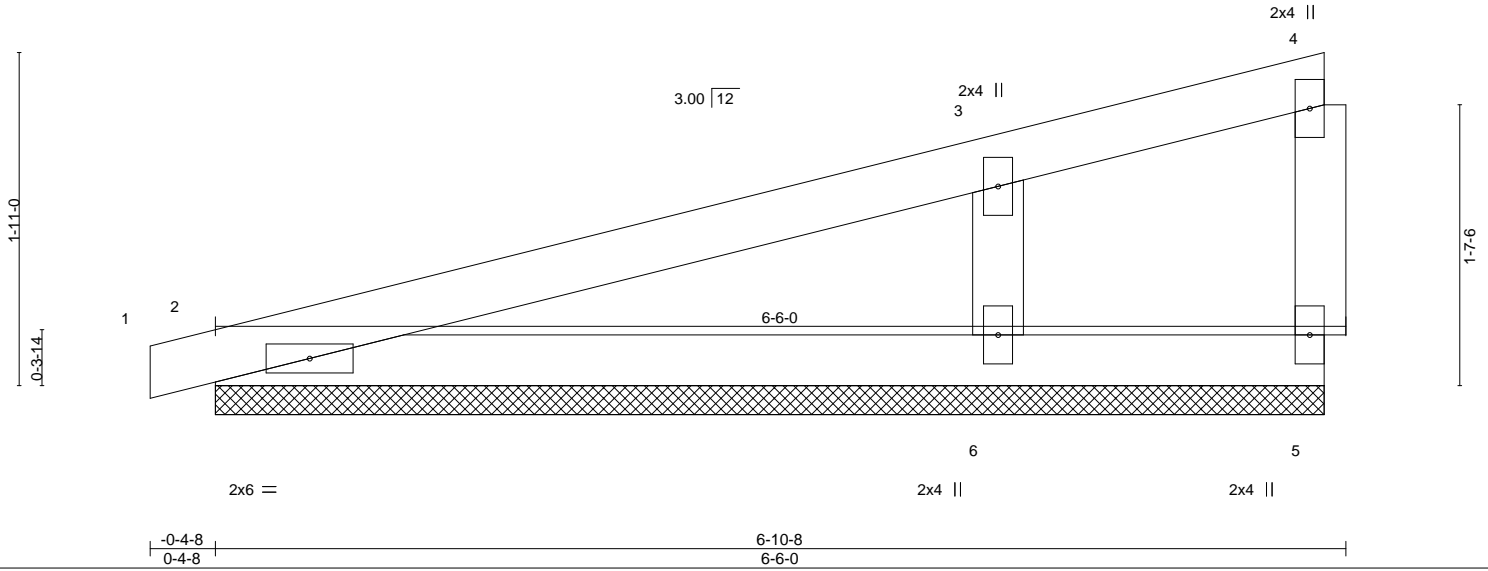
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:45 2021 Page 1

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Scale = 1:13.2



<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 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) -0.00 5 n/a n/a	Weight: 23 lb	FT = 20%
	Code IRC2015/TPI2014				

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 5=6-4-8, 2=6-4-8, 6=6-4-8  
 Max Horz 2=89(LC 6)  
 Max Uplift 5=-18(LC 1), 2=-128(LC 6), 6=-320(LC 10)  
 Max Grav 5=7(LC 10), 2=343(LC 1), 6=809(LC 1)

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

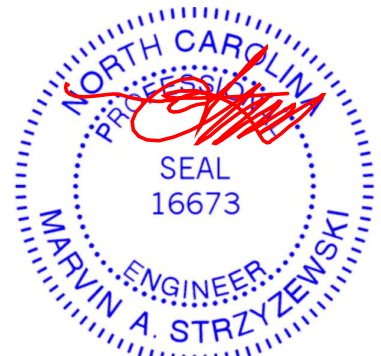
WEBS 3-6=-276/313

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; 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 requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 40.0psf 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) 5 except (jt=lb) 2=128, 6=320.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 2-5=-115(F=-95)



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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396316
J0121-0605	M02	MONOPITCH	10	1		

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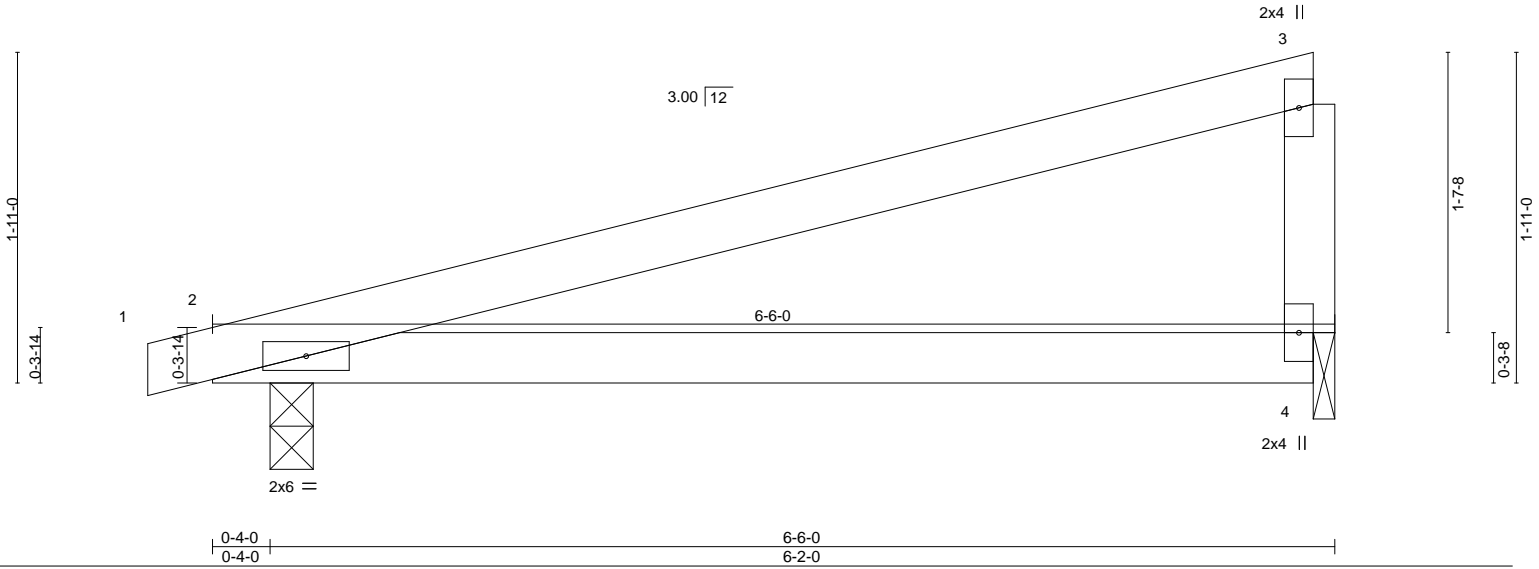
8.330 s Oct 7 2020 MiTek Industries, Inc. Tue Feb 9 16:11:46 2021 Page 1

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-0-4-8  
0-4-8

6-6-0  
6-6-0

Scale = 1:13.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.08	2-4	>946	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.16	2-4	>473	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.19	2-4	>385	240	Weight: 22 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

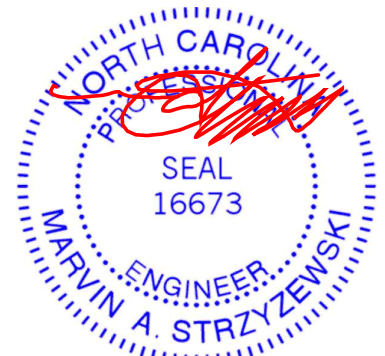
**REACTIONS.**

(size) 4=0-1-8, 2=0-3-0  
Max Horz 2=62(LC 6)  
Max Uplift 4=128(LC 6), 2=-136(LC 6)  
Max Grav 4=247(LC 1), 2=280(LC 1)

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

**NOTES-**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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
- 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 40.0psf 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) 4 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 at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=128, 2=136.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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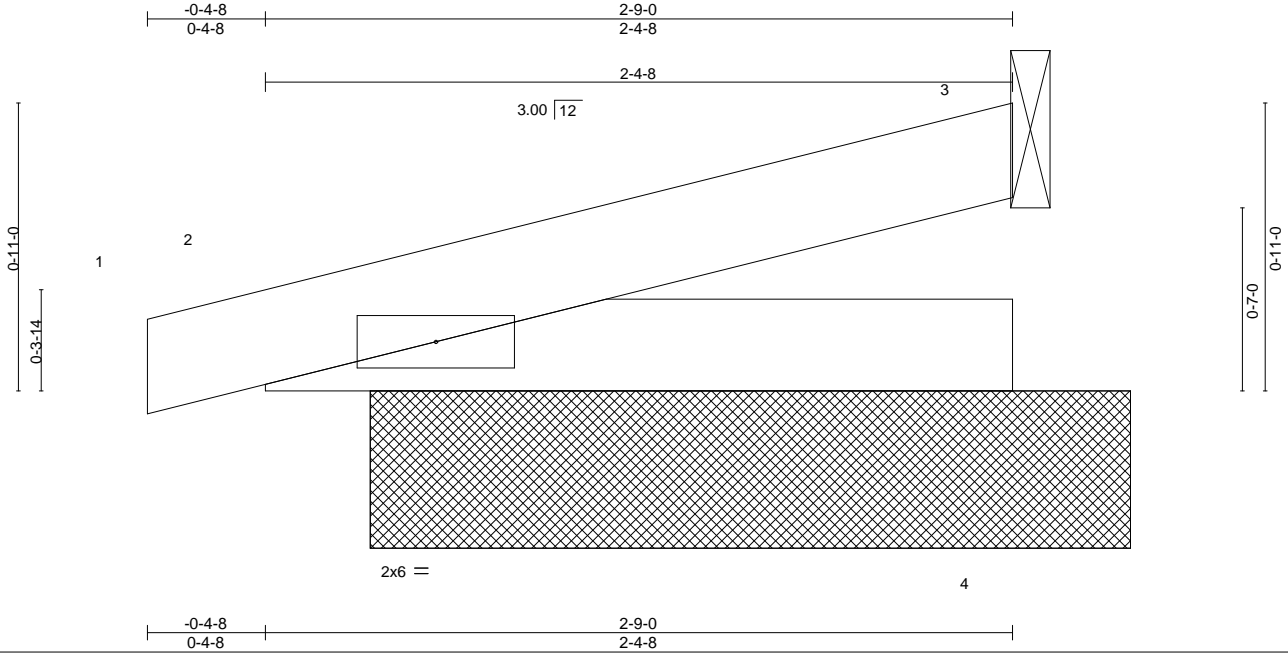
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396317
J0121-0605	M03	MONOPITCH SUPPORTED	1	1		

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Scale = 1:7.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(oc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL) -0.00	2-4	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00	2-4	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2	****	240			

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-4-8 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 2-5-0.  
 (lb) - Max Horz 2=36(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 3, 2  
 Max Grav All reactions 250 lb or less at joint(s) 3, 3, 2, 4

**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=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable 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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



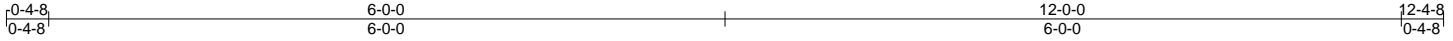
February 10, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396318
J0121-0605	PS-8	Common	3	1		

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Scale = 1:20.4

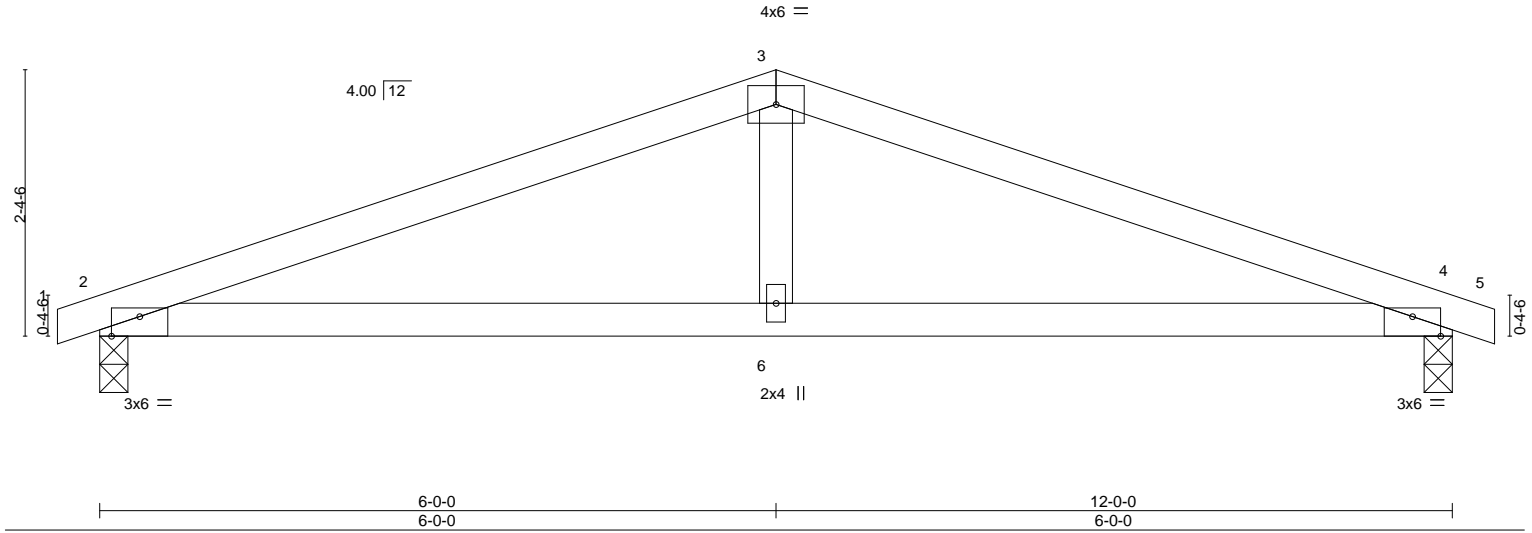


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [4:0-3-0,Edge]

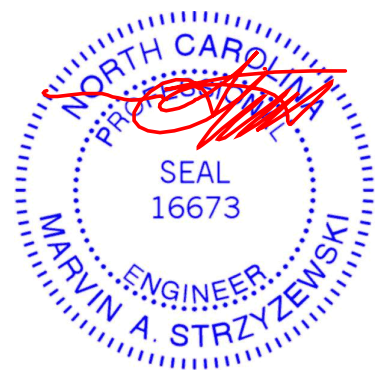
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) 0.10	2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.07	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) -0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 41 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 5-10-11 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=28(LC 10)  
 Max Uplift 2=-236(LC 6), 4=-236(LC 7)  
 Max Grav 2=500(LC 1), 4=500(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-873/1166, 3-4=-873/1166  
 BOT CHORD 2-6=-1022/771, 4-6=-1022/771  
 WEBS 3-6=-430/283

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=236, 4=236.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 10, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 56 Sierra Village	E15396319
J0121-0605	PS-8G	COMMON SUPPORTED GAB	1	1		

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Job Reference (optional)



Scale = 1:20.4

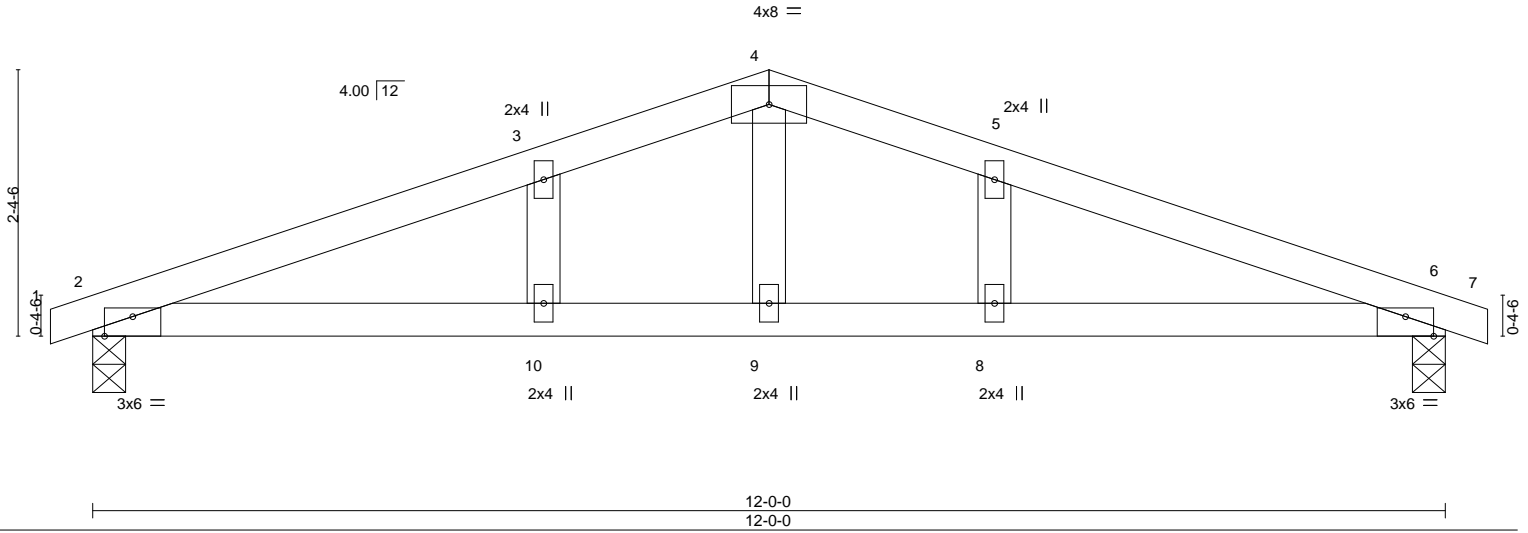


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [6:0-3-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) 0.11	2-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.09	2-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) -0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 44 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 5-0-8 oc bracing.

**REACTIONS.**

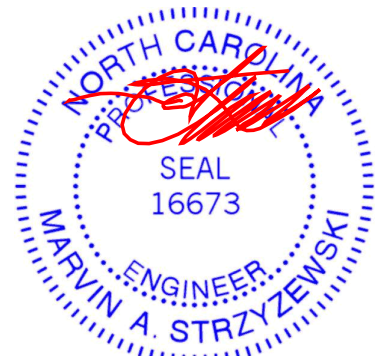
(size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=48(LC 14)  
 Max Uplift 2=-325(LC 6), 6=-325(LC 7)  
 Max Grav 2=500(LC 1), 6=500(LC 1)

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

TOP CHORD 2-3=-880/1434, 3-4=-829/1483, 4-5=-829/1483, 5-6=-880/1434  
 BOT CHORD 2-10=-1259/786, 9-10=-1259/786, 8-9=-1259/786, 6-8=-1259/786  
 WEBS 4-9=-559/291

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=325, 6=325.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



February 10, 2021

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# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 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/TP1: 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/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.