

RE: J0623-3174  
 Lot 101 South Creek

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0623-3174  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

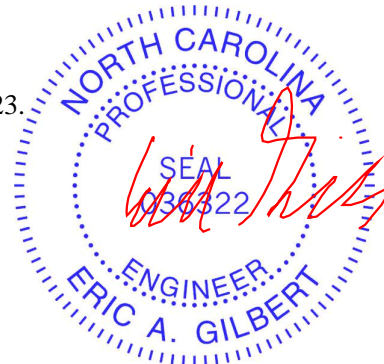
Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-16 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I59148701	A1	6/26/2023	21	I59148721	VB5	6/26/2023
2	I59148702	A1GE	6/26/2023	22	I59148722	VB6	6/26/2023
3	I59148703	A1GRD	6/26/2023	23	I59148723	VB7	6/26/2023
4	I59148704	A2	6/26/2023	24	I59148724	VB8	6/26/2023
5	I59148705	A2GRD	6/26/2023	25	I59148725	VB9	6/26/2023
6	I59148706	A3	6/26/2023	26	I59148726	VC1GE	6/26/2023
7	I59148707	B1	6/26/2023	27	I59148727	VC2	6/26/2023
8	I59148708	B1GE	6/26/2023	28	I59148728	VC3	6/26/2023
9	I59148709	VA1GE	6/26/2023	29	I59148729	VC4	6/26/2023
10	I59148710	VA2	6/26/2023	30	I59148730	VC5	6/26/2023
11	I59148711	VA3	6/26/2023				
12	I59148712	VA4	6/26/2023				
13	I59148713	VA5	6/26/2023				
14	I59148714	VA6	6/26/2023				
15	I59148715	VA7	6/26/2023				
16	I59148716	VA8	6/26/2023				
17	I59148717	VB1	6/26/2023				
18	I59148718	VB2	6/26/2023				
19	I59148719	VB3	6/26/2023				
20	I59148720	VB4	6/26/2023				

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



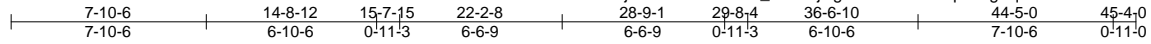
June 26, 2023

Job J0623-3174	Truss A1	Truss Type ATTIC	Qty 9	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148701
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Comtech, Inc. Fayetteville, NC - 28314,

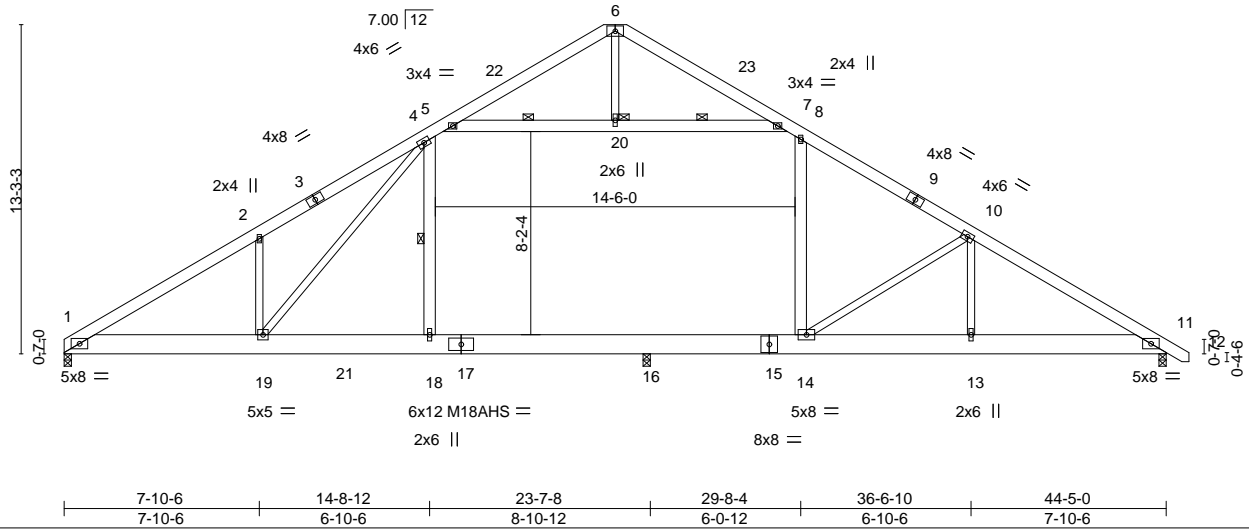
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:03 2023 Page 1

ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



5x8 =

Scale = 1:92.9



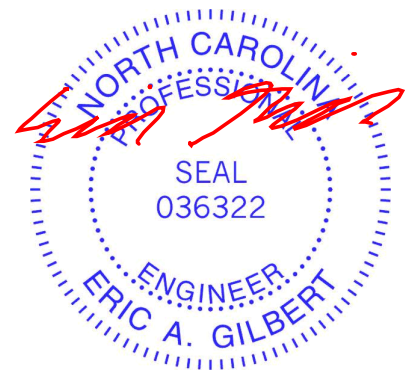
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.40 18-19	>693	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.58 18-19	>484	240	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.06 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.23 18-19	>999	240		
								Weight: 411 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-8-9 oc purlins.
BOT CHORD 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 5-20, 7-20, 4-18
5-7,4-18,8-14: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 20

**REACTIONS.** (size) 1=0-3-8, 11=0-3-8, 16=0-3-8  
 Max Horz 1=317(LC 8)  
 Max Grav 1=2210(LC 20), 11=2056(LC 21), 16=1385(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-3848/168, 2-4=-3944/353, 4-5=-2355/244, 5-6=-640/109, 6-7=-650/107,  
 7-8=-2426/251, 8-10=-2987/194, 10-11=-3420/212  
 BOT CHORD 1-19=-33/3462, 18-19=0/2560, 16-18=0/2560, 14-16=0/2560, 13-14=-51/2846,  
 11-13=-51/2846  
 WEBS 5-20=-2076/234, 7-20=-2076/234, 4-18=-211/366, 8-14=-64/694, 2-19=-577/285,  
 10-13=-118/433, 4-19=-263/1439, 10-14=-875/273

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 22-2-8, Exterior(2R) 22-2-8 to 26-7-5, Interior(1) 26-7-5 to 45-2-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Ceiling dead load (10.0 psf) on member(s) 4-5, 7-8, 5-20, 7-20; Wall dead load (5.0psf) on member(s) 4-18, 8-14
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 16-18, 14-16
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Attic room checked for L/360 deflection.

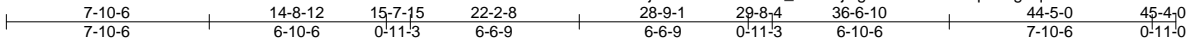


Job	Truss	Truss Type	Qty	Ply	Lot 101 South Creek	159148702
J0623-3174	A1GE	GABLE	2	1		

Comtech, Inc. Fayetteville, NC - 28314,

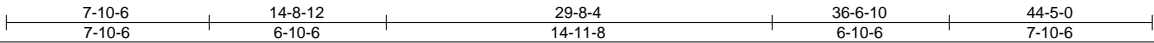
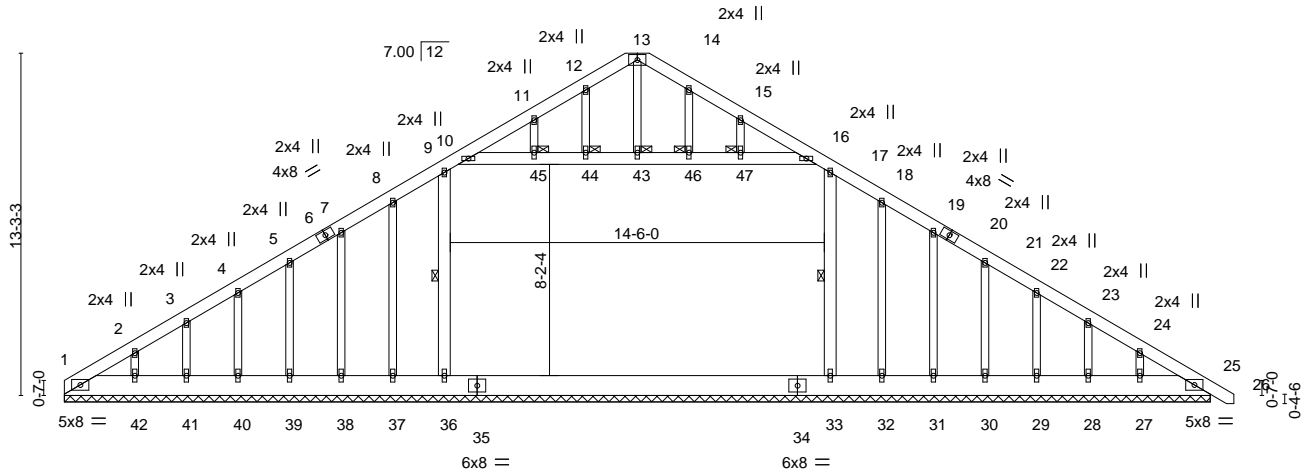
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:06 2023 Page 1

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5x8 =

Scale = 1:89.3



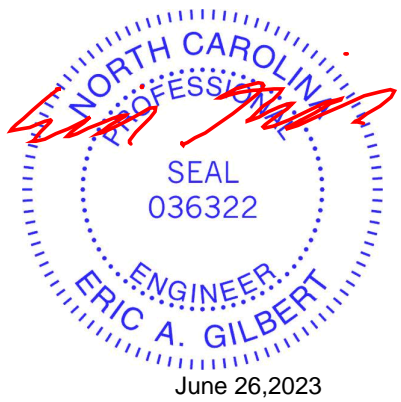
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	0.00 25	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	0.00 25	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.01 25	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 453 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 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	WEBS 1 Row at midpt 9-36, 17-33
13-43: 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 43, 44, 45, 46, 47
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 44-5-0.  
 (lb) - Max Horz 1=397(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 25, 38, 39, 40, 41, 31, 30, 29, 28, 27 except 37=1046(LC 18), 42=101(LC 12), 32=1046(LC 18)  
 Max Grav All reactions 250 lb or less at joint(s) 39, 40, 41, 30, 29, 28 except 1=314(LC 21), 36=2001(LC 20), 33=1948(LC 21), 25=301(LC 20), 38=446(LC 20), 42=290(LC 20), 31=447(LC 21), 27=281(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-502/177, 2-3=-489/170, 3-4=-472/167, 4-5=-459/195, 5-7=-448/231, 7-8=-434/269, 8-9=-374/305, 9-10=-541/301, 10-11=-728/132, 11-12=-657/181, 12-13=-636/229, 13-14=-636/229, 14-15=-657/181, 15-16=-728/132, 16-17=-535/301, 17-18=-320/253, 18-19=-345/212, 19-21=-356/150, 21-22=-368/113, 22-23=-381/77, 23-24=-397/52, 24-25=-414/60  
 BOT CHORD 1-42=-41/348, 41-42=-41/348, 40-41=-41/348, 39-40=-41/348, 38-39=-41/348, 37-38=-41/348, 36-37=-41/348, 33-36=-41/348, 32-33=-41/348, 31-32=-41/348, 30-31=-41/348, 29-30=-41/348, 28-29=-41/348, 27-28=-41/348, 25-27=-41/348  
 WEBS 10-45=0/334, 44-45=0/334, 43-44=0/334, 43-46=0/334, 46-47=0/334, 16-47=0/334, 9-36=-773/76, 17-33=-721/29, 13-43=-104/348

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 4-4-13, Exterior(2N) 4-4-13 to 22-2-8, Corner(3R) 22-2-8 to 26-7-5, Exterior(2N) 26-7-5 to 45-2-5 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 2x6 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, with BCDL = 10.0psf.
  - Ceiling dead load (10.0 psf) on member(s). 9-10, 16-17, 10-45, 44-45, 43-44, 43-46, 46-47, 16-47; Wall dead load (5.0psf) on member(s). 9-36, 17-33



Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job J0623-3174	Truss A1GE	Truss Type GABLE	Qty 2	Ply 1	Lot 101 South Creek I59148702 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:06 2023 Page 2  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

**NOTES-**

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 25, 38, 39, 40, 41, 31, 30, 29, 28, 27 except (jt=lb) 37=1046, 42=101, 32=1046.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 13) Attic room checked for L/360 deflection.

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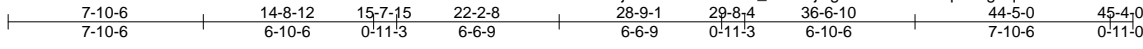
818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss A1GRD	Truss Type ATTIC	Qty 1	Ply 2	Lot 101 South Creek I59148703
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Comtech, Inc. Fayetteville, NC - 28314,

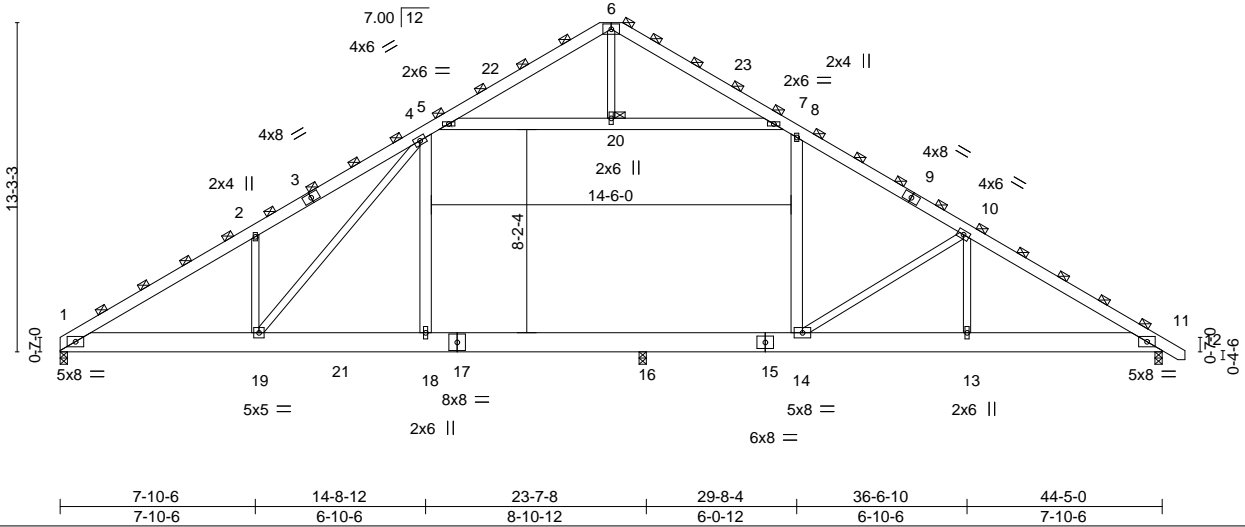
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:07 2023 Page 1

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5x8 =

Scale = 1:92.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	3-0-0	TC 0.33	Vert(LL)	-0.30 18-19	>924	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(CT)	-0.43 18-19	>646	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.31	Horz(CT)	0.05 11	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL)	0.18 18	>999	240		
	Code IRC2018/TPI2014						Weight: 822 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 5-7,4-18,8-14: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
 (Switched from sheeted: Spacing > 2-8-0).  
 Rigid ceiling directly applied or 10-0-0 oc bracing.  
 BOT CHORD 1 Brace at Jt(s): 6, 20

**REACTIONS.** (size) 1=0-3-8, 11=0-3-8, 16=0-3-8  
 Max Horz 1=-476(LC 10)  
 Max Grav 1=3315(LC 20), 11=3084(LC 21), 16=2077(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5772/252, 2-4=-5915/529, 4-5=-3533/366, 5-6=-960/163, 6-7=-974/160,  
 7-8=-3639/376, 8-10=-4481/291, 10-11=-5129/319  
 BOT CHORD 1-19=-49/5193, 18-19=0/3840, 16-18=0/3840, 14-16=0/3840, 13-14=-77/4269,  
 11-13=-77/4269  
 WEBS 5-20=-3115/352, 7-20=-3115/352, 4-18=-316/549, 8-14=-97/1041, 2-19=-865/427,  
 10-13=-176/650, 4-19=-394/2158, 10-14=-1312/410, 6-20=0/270

**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: 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
- 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 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 22-2-8, Exterior(2R) 22-2-8 to 26-7-5, Interior(1) 26-7-5 to 45-2-5 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.
- Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-20, 7-20; Wall dead load (5.0psf) on member(s).4-18, 8-14
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 16-18, 14-16
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 101 South Creek	159148704
J0623-3174	A2	ATTIC	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						Job Reference (optional)

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:09 2023 Page 1

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5x8 =

Scale = 1:92.9

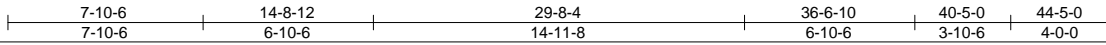
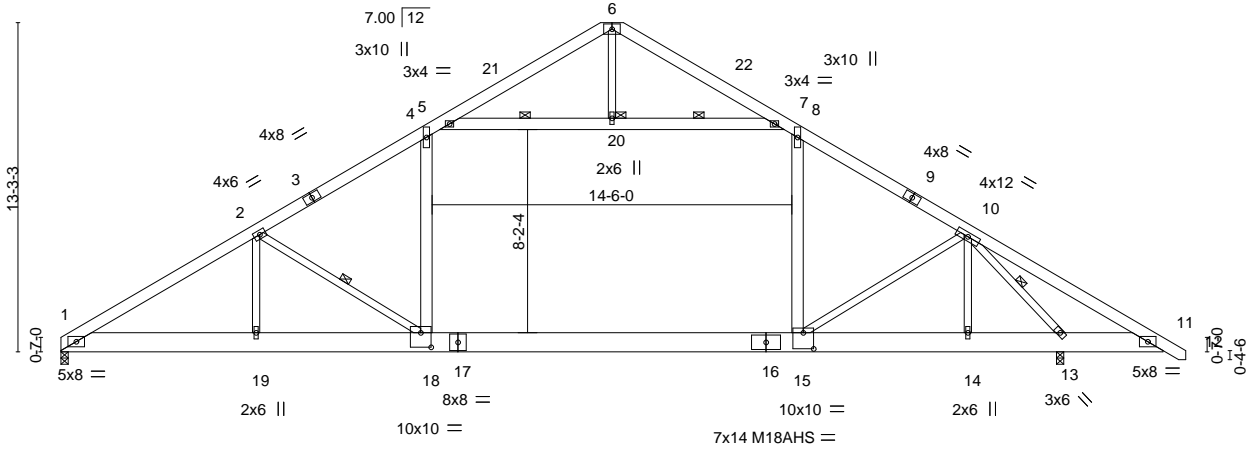


Plate Offsets (X,Y)-- [15:0-5-0,0-7-12], [18:0-5-0,0-7-0]

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)	-0.33	15-18	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(CT)	-0.59	15-18	>823	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr YES	WB 0.40	Horz(CT)	0.05	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL)	0.23	18	>999		Weight: 415 lb FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP 2400F 2.0E  
 BOT CHORD 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 5-7,4-18,8-15: 2x6 SP No.1

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-20, 7-20, 2-18, 10-13  
 JOINTS 1 Brace at Jt(s): 20

**REACTIONS.** (size) 1=0-3-8, 13=0-3-8  
 Max Horz 1=-317(LC 10)  
 Max Grav 1=2260(LC 20), 13=2712(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4030/13, 2-4=-3429/0, 4-5=-2694/60, 5-6=-629/113, 6-7=-661/117, 7-8=-2752/56,  
 8-10=-3414/0, 10-11=-314/206  
 BOT CHORD 1-19=0/3625, 18-19=0/3625, 15-18=0/2929, 14-15=0/1643, 13-14=0/1643, 11-13=-80/367  
 WEBS 5-20=-2448/6, 7-20=-2448/6, 4-18=0/1067, 8-15=0/943, 2-19=-77/403, 10-14=-1113/96,  
 2-18=-929/287, 10-15=0/1611, 10-13=-2446/157

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 22-2-8, Exterior(2R) 22-2-8 to 26-7-5, Interior(1) 26-7-5 to 45-2-5 zone; cantilever right exposed :C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-20, 7-20; Wall dead load (5.0psf) on member(s).4-18, 8-15
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 15-18
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Attic room checked for L/360 deflection.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss A2GRD	Truss Type ATTIC	Qty 1	Ply 2	Lot 101 South Creek Job Reference (optional)	159148705
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Comtech, Inc. Fayetteville, NC - 28314,

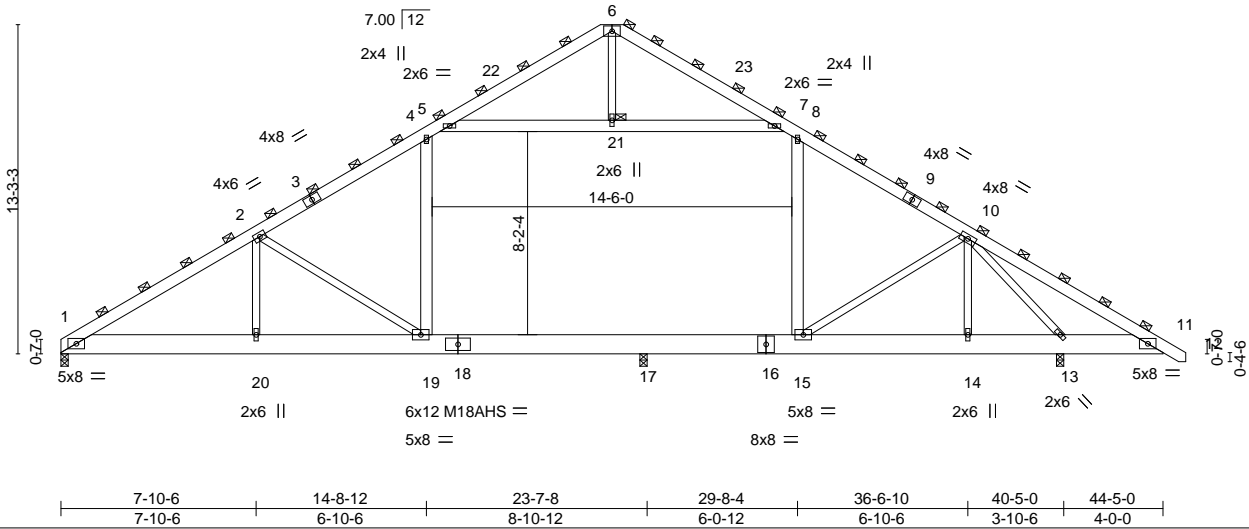
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:11 2023 Page 1

ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



5x8 =

Scale = 1:92.9



LOADING (psf)	SPACING-	3-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.28	19	>983	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.51	19-20	>546	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.03	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21	19	>999		
								Weight: 830 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
BOT CHORD 2x10 SP No.1	(Switched from sheeted: Spacing > 2-8-0).
WEBS 2x4 SP No.2 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-7,4-19,8-15: 2x6 SP No.1	6-0-0 oc bracing: 11-13.
	JOINTS 1 Brace at Jt(s): 6, 21

**REACTIONS.** (size) 1=0-3-8, 13=0-3-8, 17=0-3-8  
 Max Horz 1=476(LC 10)  
 Max Grav 1=2697(LC 20), 13=3116(LC 1), 17=1835(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4825/243, 2-4=-3386/212, 4-5=-2756/316, 5-6=-959/164, 6-7=-1011/167,  
 7-8=-2890/315, 8-10=-3431/202, 10-11=-446/466  
 BOT CHORD 1-20=-32/4382, 19-20=-32/4382, 17-19=0/2957, 15-17=0/2957, 14-15=0/1759,  
 13-14=0/1759, 11-13=-258/529  
 WEBS 5-21=-2192/278, 7-21=-2192/278, 4-19=0/644, 8-15=-149/507, 2-20=0/862,  
 10-14=-937/269, 2-19=-1706/349, 10-15=-126/1511, 6-21=0/266, 10-13=-2933/397

- 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: 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
  - 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 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 22-2-8, Exterior(2R) 22-2-8 to 26-7-5, Interior(1) 26-7-5 to 45-2-5 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-21, 7-21; Wall dead load (5.0psf) on member(s).4-19, 8-15
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 17-19, 15-17
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Attic room checked for L/360 deflection.



June 26, 2023

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

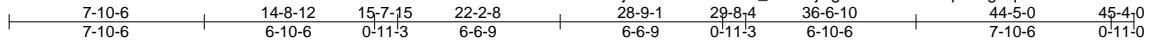
818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss A3	Truss Type ATTIC	Qty 7	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148706
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Comtech, Inc. Fayetteville, NC - 28314,

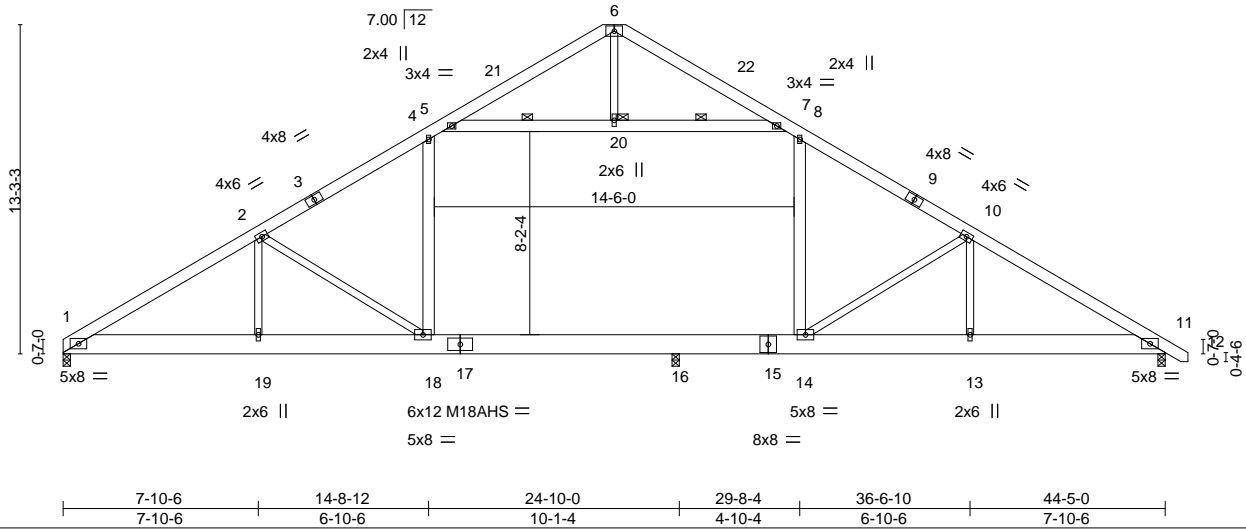
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:13 2023 Page 1

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5x8 =

Scale = 1:92.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.35 16-18	>852	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.56 18	>523	240	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.06 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21 18	>999	240		
								Weight: 407 lb	FT = 20%

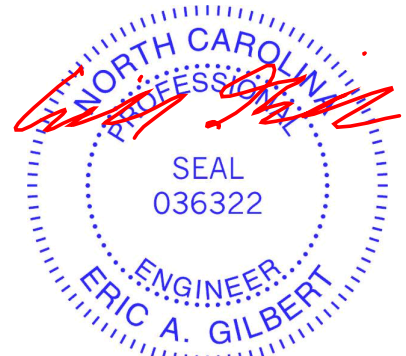
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 5-7,4-18,8-14: 2x6 SP No.1

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-1 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-20, 7-20  
 JOINTS 1 Brace at Jt(s): 20

**REACTIONS.** (size) 1=0-3-8, 11=0-3-8, 16=0-3-8  
 Max Horz 1=317(LC 10)  
 Max Grav 1=2043(LC 20), 11=1836(LC 20), 16=1312(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-3634/145, 2-4=-2856/136, 4-5=-2317/212, 5-6=-637/111, 6-7=-654/108,  
 7-8=-2391/224, 8-10=-2937/160, 10-11=-3117/199  
 BOT CHORD 1-19=-14/3281, 18-19=-14/3281, 16-18=0/2517, 14-16=0/2517, 13-14=-38/2629,  
 11-13=-38/2629  
 WEBS 5-20=-2027/203, 7-20=-2027/203, 4-18=0/641, 8-14=-113/675, 2-19=0/421,  
 10-13=-196/373, 2-18=-914/201, 10-14=-800/297

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 22-2-8, Exterior(2R) 22-2-8 to 26-7-5, Interior(1) 26-7-5 to 45-2-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Ceiling dead load (10.0 psf) on member(s) 4-5, 7-8, 5-20, 7-20; Wall dead load (5.0psf) on member(s) 4-18, 8-14
  - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 16-18, 14-16
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Attic room checked for L/360 deflection.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



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 Edenton, NC 27932

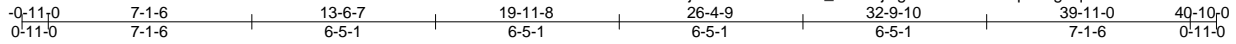


Job J0623-3174	Truss B1	Truss Type COMMON	Qty 6	Ply 1	Lot 101 South Creek Job Reference (optional)	159148707
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:14 2023 Page 1

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5x8 =

Scale = 1:80.5

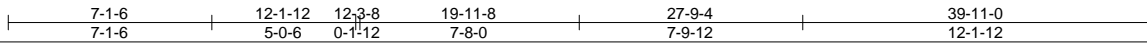
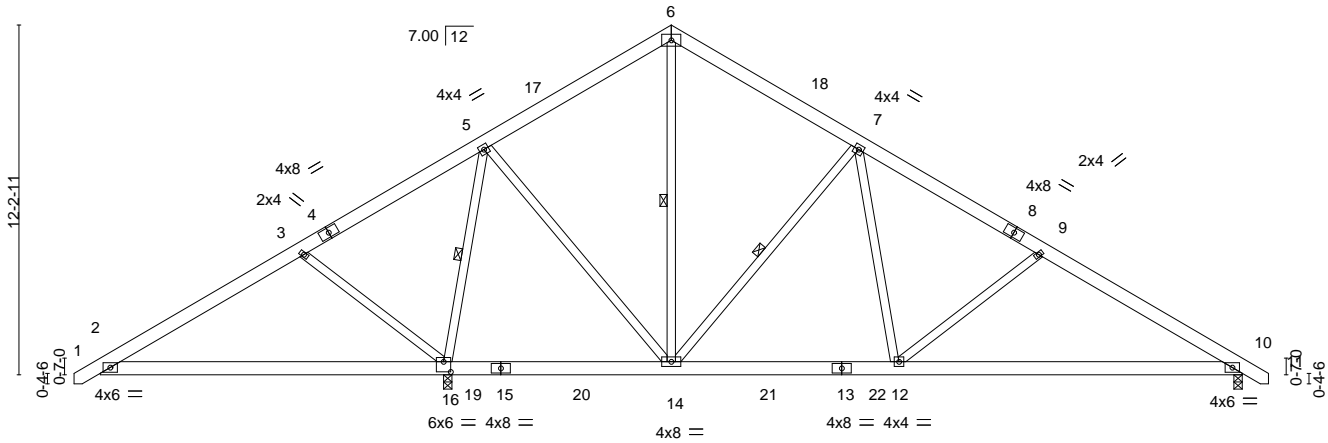


Plate Offsets (X, Y)--	[16:0-3-0-0-4-4]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.31	Vert(LL) -0.13	10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.49	Vert(CT) -0.27	10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.75	Horz(CT) 0.02	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) -0.07	14-16	>999	240	Weight: 294 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-16, 6-14, 7-14

**REACTIONS.** (size) 16=0-3-8, 10=0-3-8  
 Max Horz 16=290(LC 10)  
 Max Uplift 16=146(LC 12), 10=97(LC 13)  
 Max Grav 16=2649(LC 2), 10=1160(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-685/770, 3-5=-762/1079, 5-6=-448/196, 6-7=-469/175, 7-9=-1226/154, 9-10=-1534/183  
 BOT CHORD 2-16=-560/641, 14-16=-653/774, 12-14=0/865, 10-12=-63/1249  
 WEBS 3-16=-460/321, 5-16=-1927/792, 5-14=-420/1286, 6-14=-294/307, 7-14=-978/270, 7-12=-38/765, 9-12=-424/231

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) -0-9-5 to 3-7-8, Interior(1) 3-7-8 to 19-11-8, Exterior(2R) 19-11-8 to 24-4-5, Interior(1) 24-4-5 to 40-8-5 zone; cantilever 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 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) 10 except (jt=lb) 16=146.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



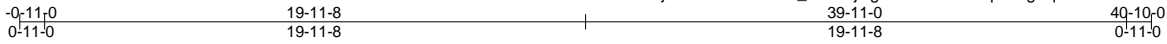
June 26, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0623-3174	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148708
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:17 2023 Page 1  
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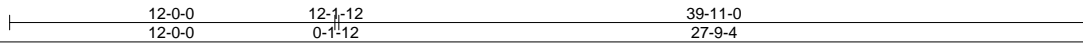
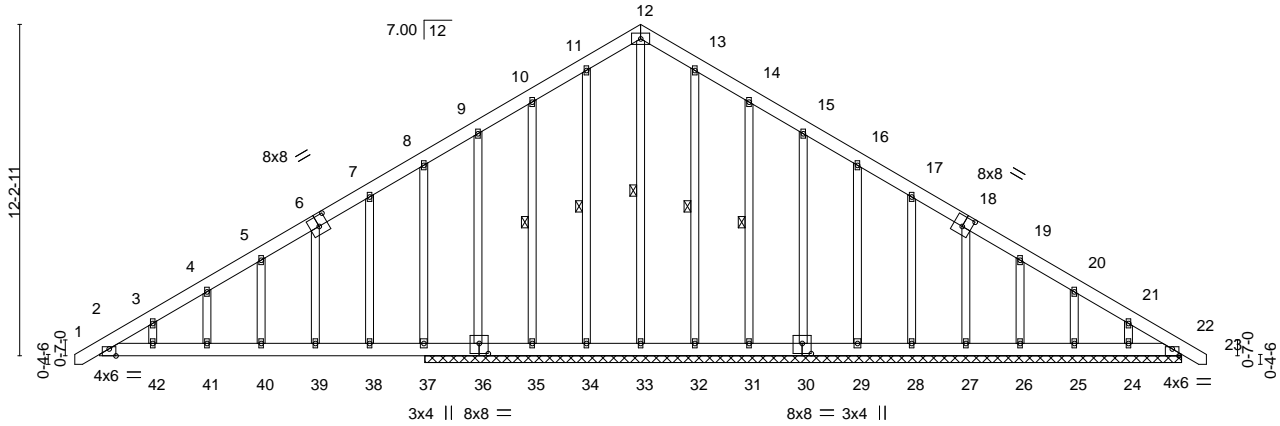


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [6:0-4-0,0-4-8], [18:0-4-0,0-4-8], [22:0-3-0,Edge], [30:0-4-0,0-4-8], [36:0-4-0,0-4-8]

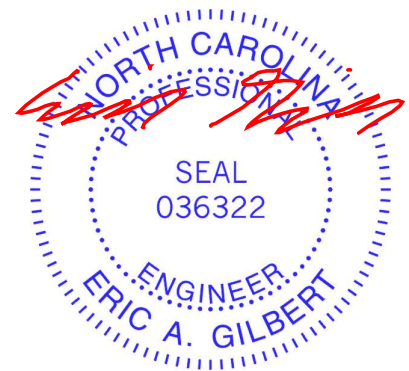
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.00	22	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	0.00	22	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.02	22	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 371 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 7-2-15 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 12-33, 11-34, 10-35, 13-32, 14-31

**REACTIONS.** All bearings 27-11-0.  
 (lb) - Max Horz 37=362(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 34, 32, 31, 30, 29, 28, 27, 26, 25, 24 except 22=389(LC 25), 35=171(LC 12), 36=776(LC 1), 37=676(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 22, 34, 31, 30, 29, 28, 27, 26, 25, 24 except 33=808(LC 1), 35=311(LC 25), 36=344(LC 12), 37=1454(LC 1), 32=282(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-908/779, 3-4=-891/811, 4-5=-884/846, 5-6=-860/874, 6-7=-878/940, 7-8=-808/932, 8-9=-448/695, 9-10=-581/850, 10-11=-525/862, 11-12=-428/795, 12-13=-428/795, 13-14=-521/858, 14-15=-572/841, 15-16=-631/839, 16-17=-690/839, 17-18=-750/840, 18-19=-810/840, 19-20=-870/846, 20-21=-931/864, 21-22=-1009/898  
 BOT CHORD 2-42=-701/904, 41-42=-701/904, 40-41=-701/904, 39-40=-701/904, 38-39=-701/904, 37-38=-701/904, 36-37=-751/893, 35-36=-750/892, 34-35=-750/892, 33-34=-750/892, 32-33=-750/892, 31-32=-750/892, 30-31=-750/892, 29-30=-749/891, 28-29=-749/891, 27-28=-749/891, 26-27=-750/892, 25-26=-750/892, 24-25=-750/892, 22-24=-750/892  
 WEBS 12-33=-756/418, 11-34=-254/171, 9-36=-294/192, 8-37=-591/693

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-9-5 to 3-7-8, Exterior(2N) 3-7-8 to 19-11-8, Corner(3R) 19-11-8 to 24-4-5, Exterior(2N) 24-4-5 to 40-8-5 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 34, 32, 31, 30, 29, 28, 27, 26, 25, 24 except (jt=lb) 22=389, 35=171, 36=776, 37=676.
  - 9) Non Standard bearing condition. Review required.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

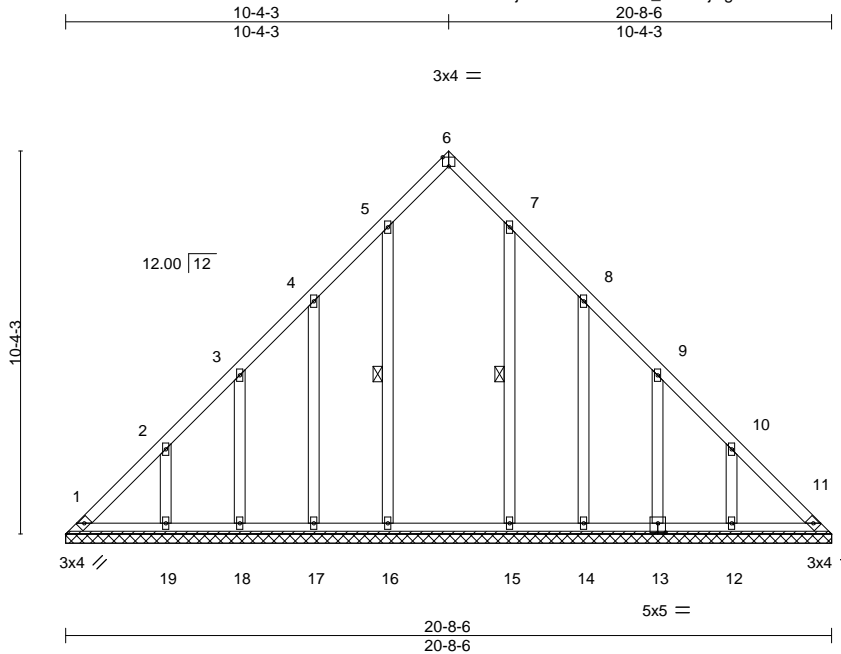
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job J0623-3174	Truss VA1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	159148709
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:19 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjcg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:62.3

Plate Offsets (X, Y)--	[6:0-2-0,Edge], [13:0-2-8,0-3-0]				
<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 0.06	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.01 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Weight: 134 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.  
WEBS 1 Row at midpt 5-16, 7-15

**REACTIONS.** All bearings 20-8-6.  
(lb) - Max Horz 1=300(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 16, 15 except 17=163(LC 12), 18=124(LC 12), 19=176(LC 12), 14=167(LC 13), 13=124(LC 13), 12=177(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 17, 18, 14, 13 except 1=331(LC 12), 11=324(LC 13), 16=315(LC 19), 19=277(LC 19), 15=303(LC 20), 12=277(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-501/241, 2-3=-343/152, 9-10=-332/148, 10-11=-490/242  
BOT CHORD 1-19=-184/389, 18-19=-184/389, 17-18=-184/389, 16-17=-184/389, 15-16=-184/389, 14-15=-184/389, 13-14=-184/389, 12-13=-184/390, 11-12=-184/390

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 4-8-7, Interior(1) 4-8-7 to 10-4-3, Exterior(2R) 10-4-3 to 14-9-0, Interior(1) 14-9-0 to 20-4-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 11, 16, 15 except (jt=lb) 17=163, 18=124, 19=176, 14=167, 13=124, 12=177.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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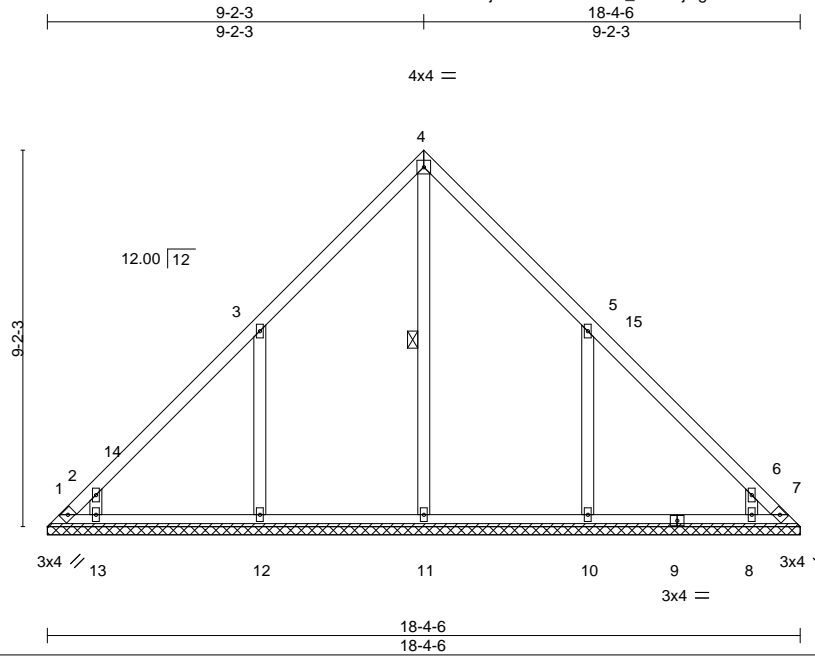


818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VA2	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	159148710
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:20 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjcg-RIC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:56.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 93 lb	FT = 20%

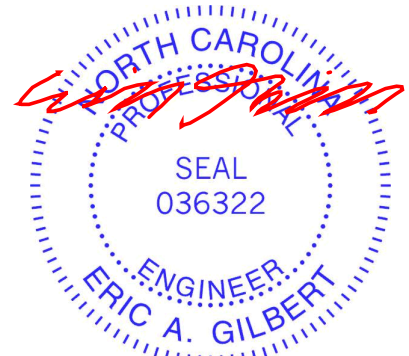
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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.  
 WEBS 1 Row at midpt 4-11

**REACTIONS.** All bearings 18-4-6.  
 (lb) - Max Horz 1=212(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-176(LC 10), 7=-141(LC 11), 12=-184(LC 12), 13=-142(LC 12), 10=-184(LC 13), 8=-142(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=421(LC 22), 12=521(LC 19), 13=361(LC 19), 10=520(LC 20), 8=362(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-296/210, 6-7=-288/181  
 WEBS 3-12=-318/314, 2-13=-258/235, 5-10=-317/314, 6-8=-258/235

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 9-2-3, Exterior(2R) 9-2-3 to 13-7-0, Interior(1) 13-7-0 to 18-0-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 unless otherwise indicated.
  - 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 176 lb uplift at joint 1, 141 lb uplift at joint 7, 184 lb uplift at joint 12, 142 lb uplift at joint 13, 184 lb uplift at joint 10 and 142 lb uplift at joint 8.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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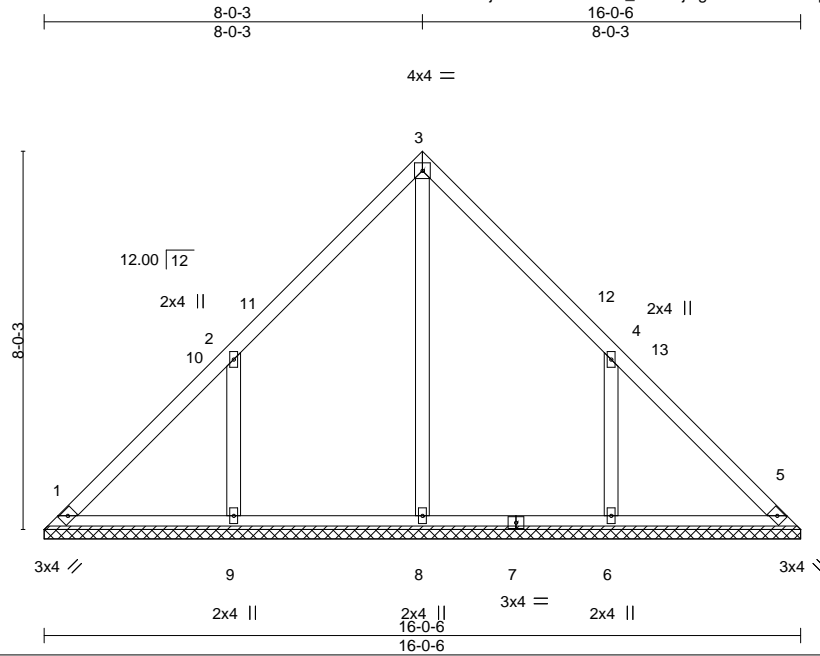


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VA3	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148711
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:22 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:48.8

<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 0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 77 lb	FT = 20%

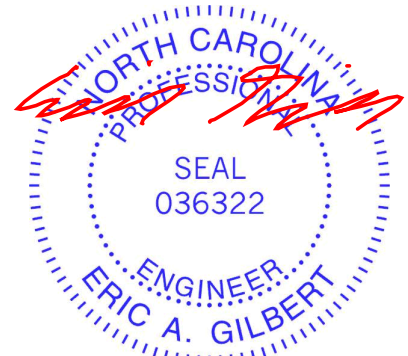
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**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 16-0-6.  
(lb) - Max Horz 1=184(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=192(LC 12), 6=192(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=407(LC 22), 9=539(LC 19), 6=538(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-324/344, 4-6=-324/344

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 8-0-3, Exterior(2R) 8-0-3 to 12-5-0, Interior(1) 12-5-0 to 15-8-3 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) 9=192, 6=192.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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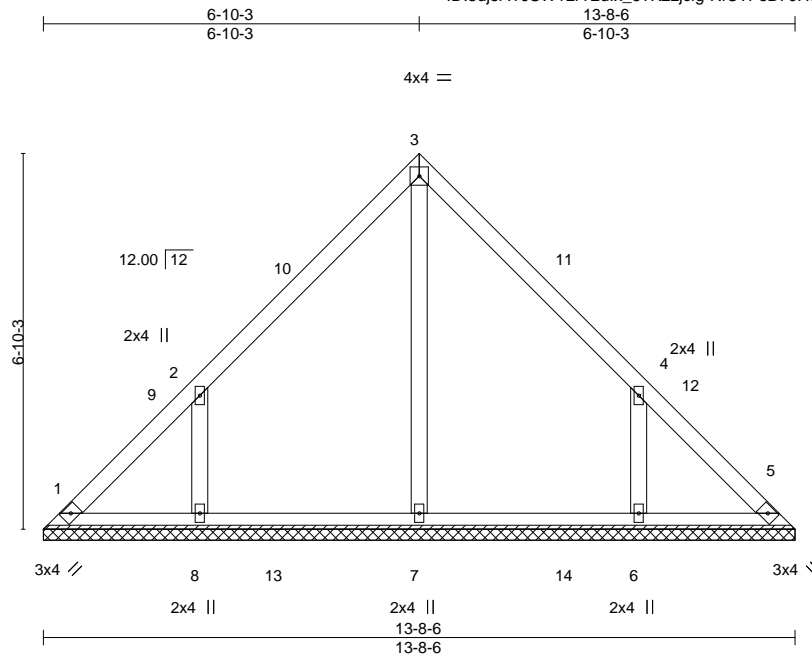


818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VA4	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148712
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:23 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjcg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:42.0

<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 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/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

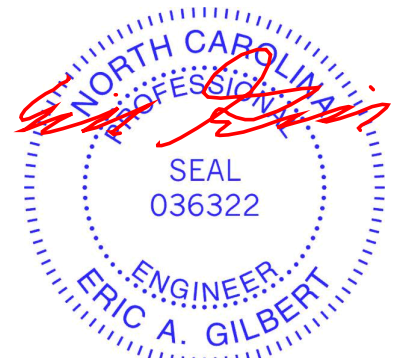
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-8-6.  
(lb) - Max Horz 1=156(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=167(LC 12), 6=167(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=399(LC 19), 8=436(LC 19), 6=436(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-297/355, 4-6=-297/355

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-10-3, Exterior(2R) 6-10-3 to 11-3-0, Interior(1) 11-3-0 to 13-4-3 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, 5 except (jt=lb) 8=167, 6=167.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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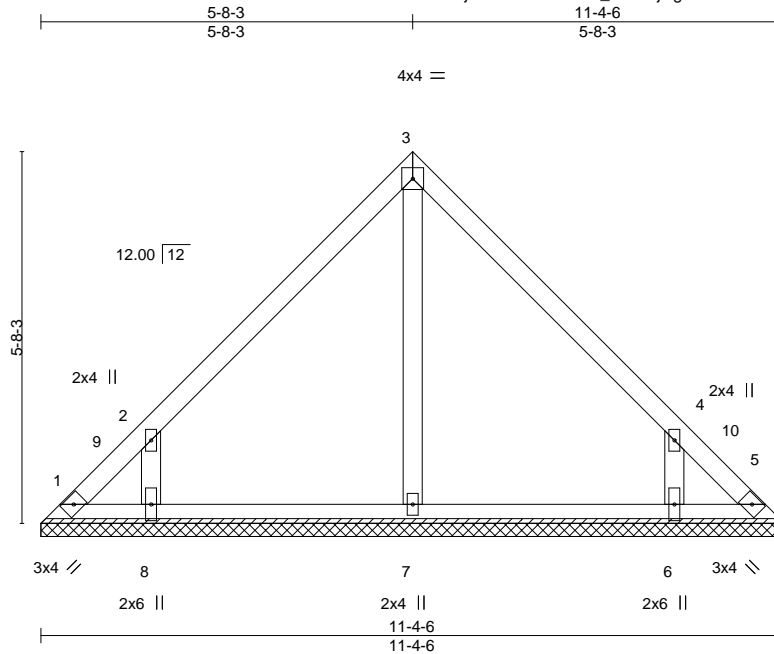


818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VA5	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148713
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:25 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:35.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	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 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 50 lb	FT = 20%

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

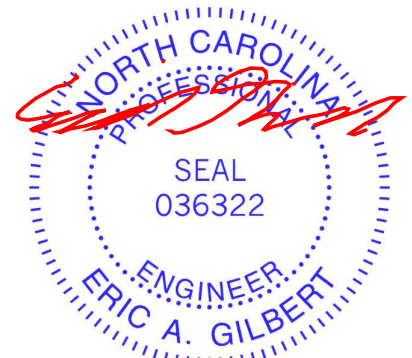
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 11-4-6.  
 (lb) - Max Horz 1=128(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=163(LC 12), 6=163(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=342(LC 19), 6=342(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-311/427, 4-6=-311/426

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-8-3, Exterior(2R) 5-8-3 to 10-1-0, Interior(1) 10-1-0 to 11-0-3 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.
- 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=163, 6=163.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VA6	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek I59148714
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Comtech, Inc. Fayetteville, NC - 28314,

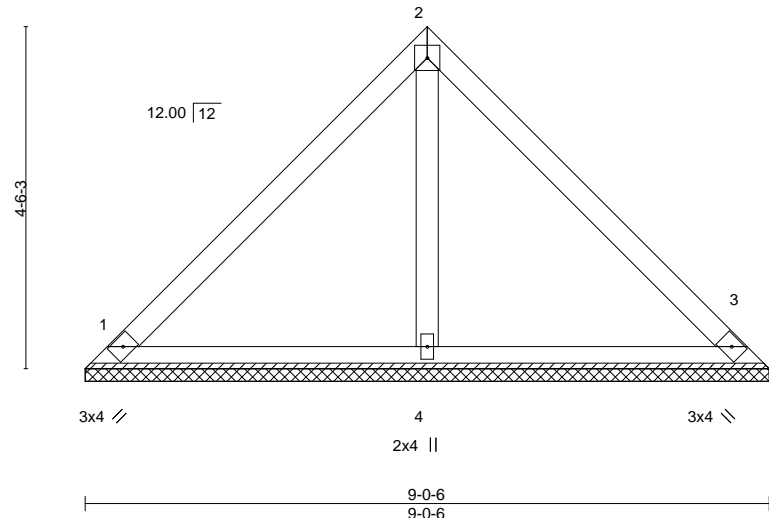
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:26 2023 Page 1

ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x4 =

Scale = 1:30.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	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 IRC2018/TPI2014		Matrix-S					Weight: 37 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=9-0-6, 3=9-0-6, 4=9-0-6  
 Max Horz 1=-100(LC 8)  
 Max Uplift 1=-25(LC 13), 3=-25(LC 13)  
 Max Grav 1=189(LC 1), 3=189(LC 1), 4=289(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)





Job J0623-3174	Truss VA7	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148715
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Comtech, Inc. Fayetteville, NC - 28314,

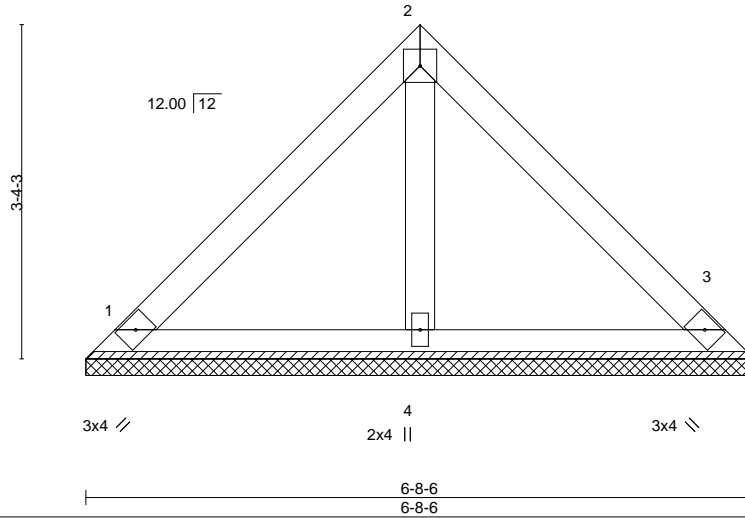
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:27 2023 Page 1

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4x4 =

Scale = 1:23.1



<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 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 27 lb	FT = 20%

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

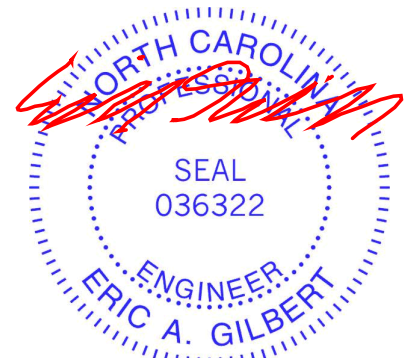
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=6-8-6, 3=6-8-6, 4=6-8-6  
Max Horz 1=-72(LC 8)  
Max Uplift 1=-26(LC 13), 3=-26(LC 13)  
Max Grav 1=146(LC 1), 3=146(LC 1), 4=188(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VA8	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek I59148716
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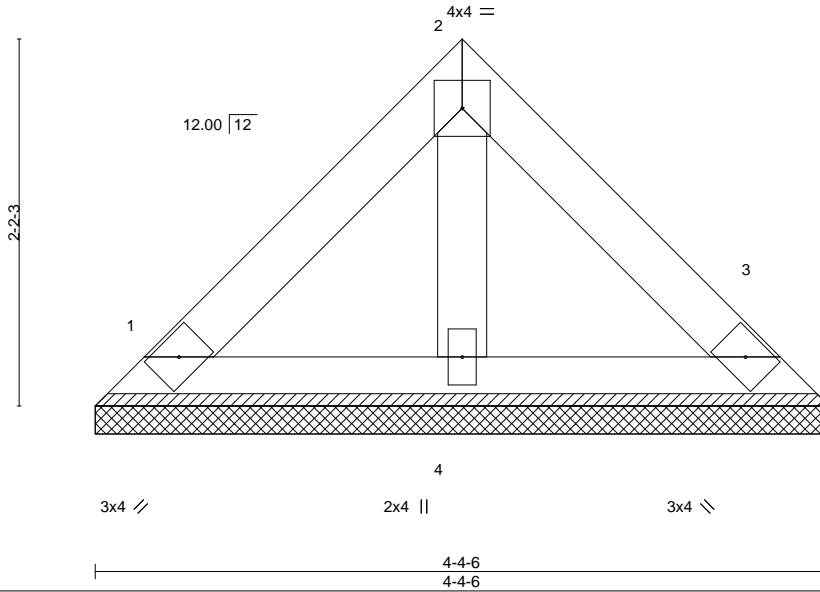
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:28 2023 Page 1

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Scale = 1:13.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

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

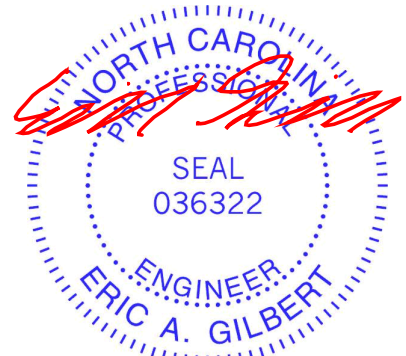
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-4-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-4-6, 3=4-4-6, 4=4-4-6  
 Max Horz 1=-44(LC 8)  
 Max Uplift 1=-16(LC 13), 3=-16(LC 13)  
 Max Grav 1=89(LC 1), 3=89(LC 1), 4=115(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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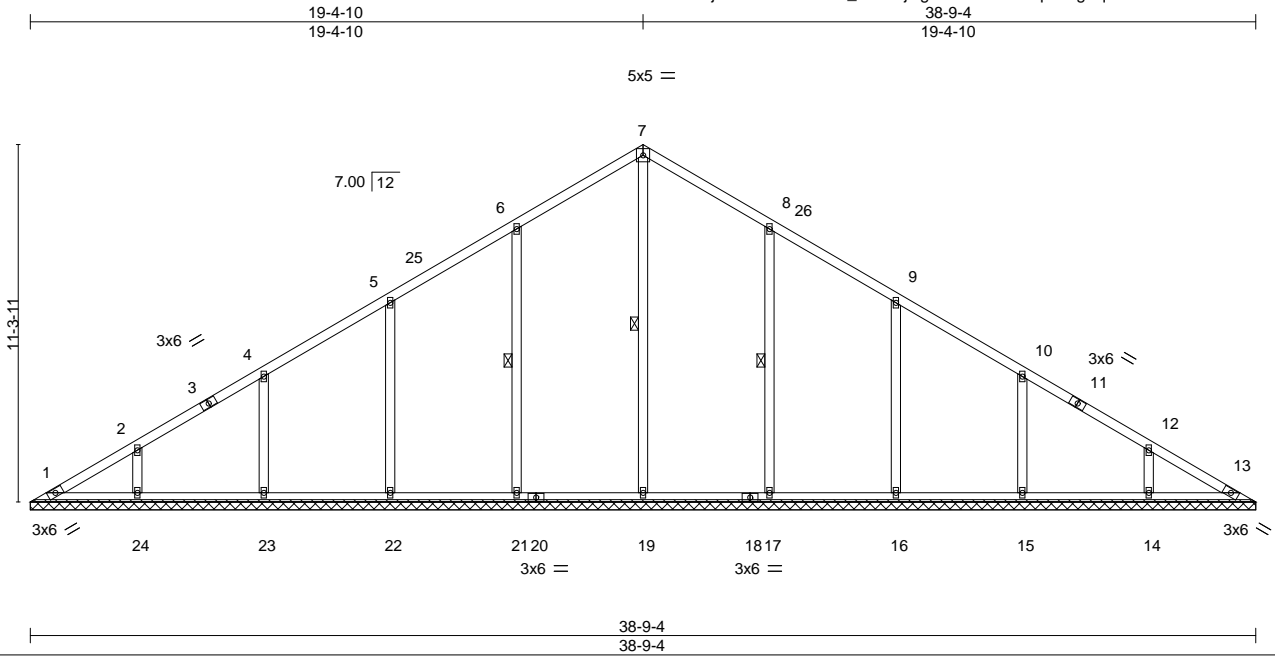


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VB1	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148717
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:30 2023 Page 1  
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Scale = 1:72.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 197 lb	FT = 20%

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

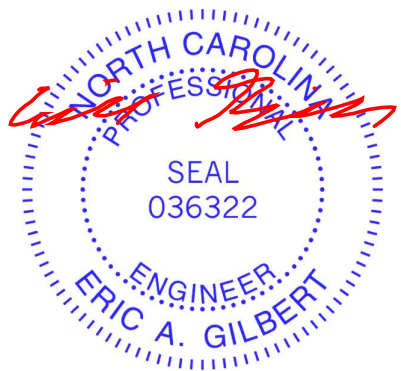
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-19, 6-21, 8-17

**REACTIONS.** All bearings 38-9-4.  
(lb) - Max Horz 1=264(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 21, 22, 23, 24, 17, 16, 15, 14  
Max Grav All reactions 250 lb or less at joint(s) 1, 13 except 19=467(LC 22), 21=536(LC 19), 22=520(LC 19), 23=466(LC 19), 24=369(LC 19), 17=535(LC 20), 16=521(LC 20), 15=466(LC 20), 14=369(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 6-7=-212/277, 7-8=-212/270  
WEBS 6-21=-278/183, 5-22=-253/148, 4-23=-264/153, 8-17=-277/183, 9-16=-253/147, 10-15=-264/153

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 19-4-10, Exterior(2R) 19-4-10 to 23-9-7, Interior(1) 23-9-7 to 38-2-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 21, 22, 23, 24, 17, 16, 15, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

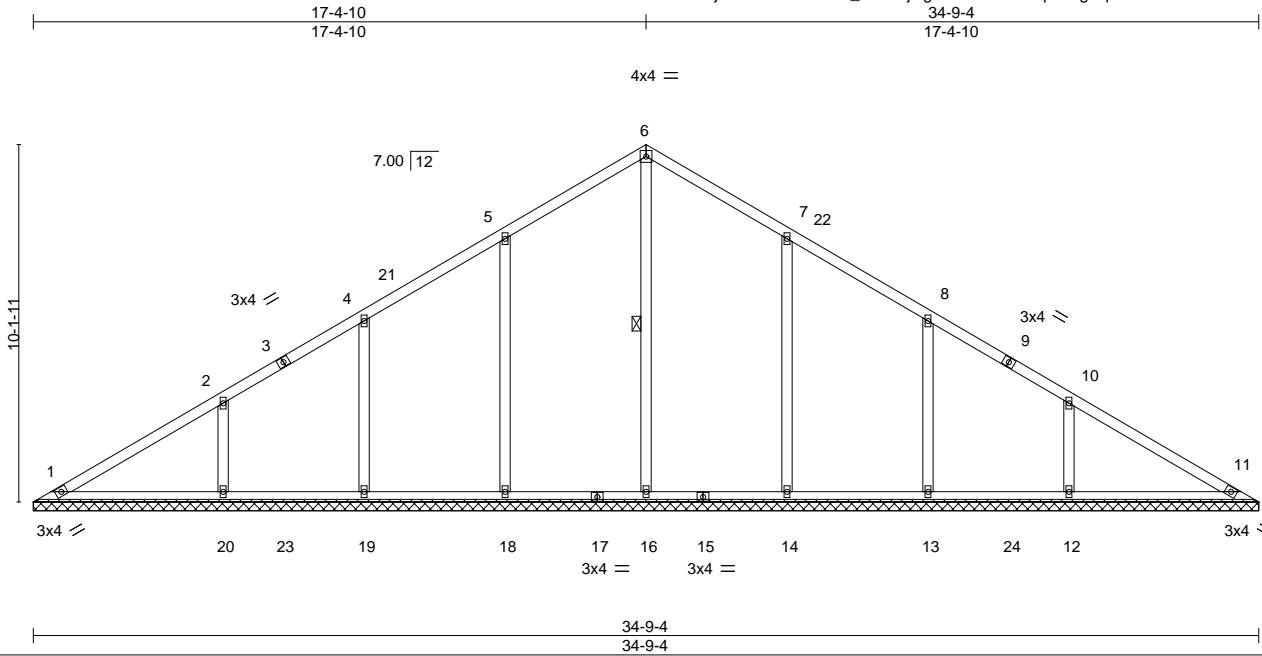


June 26, 2023

Job J0623-3174	Truss VB2	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148718
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:32 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:65.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(CT)	0.01	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 168 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.  
 WEBS 1 Row at midpt 6-16

**REACTIONS.** All bearings 34-9-4.  
 (lb) - Max Horz 1=236(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 18, 19, 14, 13 except 20=102(LC 12), 12=102(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 11 except 16=452(LC 22), 18=548(LC 19), 19=474(LC 19), 20=531(LC 19), 14=548(LC 20), 13=474(LC 20), 12=531(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 5-18=283/186, 2-20=328/183, 7-14=283/186, 10-12=328/183

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 17-4-10, Exterior(2R) 17-4-10 to 21-9-7, Interior(1) 21-9-7 to 34-2-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 18, 19, 14, 13 except (jt=lb) 20=102, 12=102.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

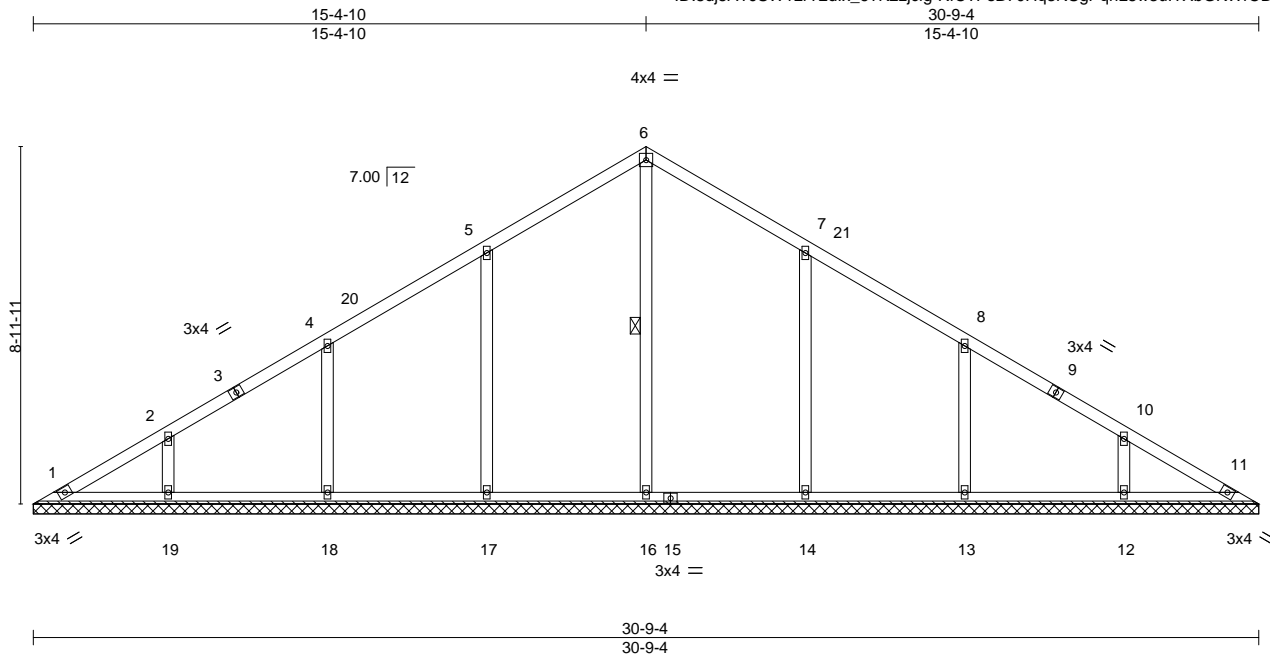


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VB3	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148719
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:34 2023 Page 1  
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Scale = 1:57.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 143 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.  
WEBS 1 Row at midpt 6-16

**REACTIONS.**

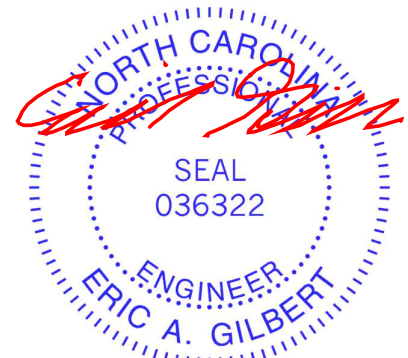
All bearings 30-9-4.  
(lb) - Max Horz 1=-208(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 17, 18, 19, 14, 13, 12  
Max Grav All reactions 250 lb or less at joint(s) 1, 11 except 16=442(LC 22), 17=545(LC 19), 18=460(LC 19), 19=371(LC 19), 14=544(LC 20), 13=460(LC 20), 12=371(LC 20)

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

WEBS 5-17=-277/184, 4-18=-258/150, 7-14=-276/184, 8-13=-258/150

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 15-4-10, Exterior(2R) 15-4-10 to 19-9-7, Interior(1) 19-9-7 to 30-2-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 18, 19, 14, 13, 12.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

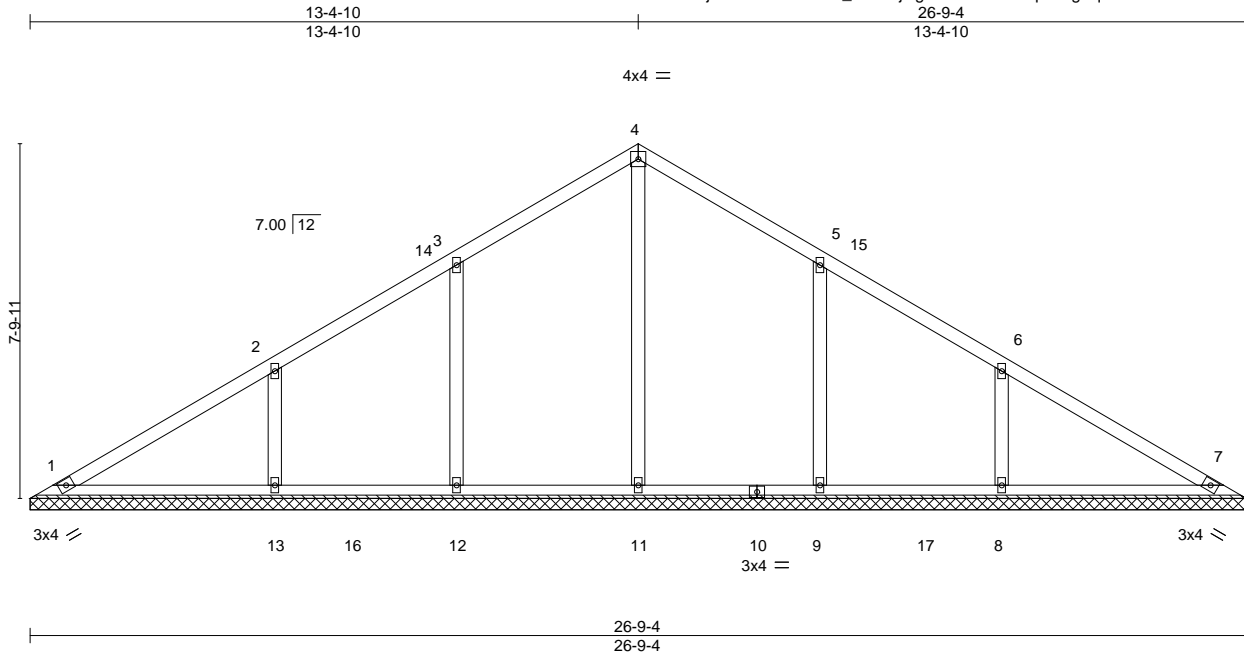


818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VB4	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148720
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:36 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:50.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 117 lb	FT = 20%

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

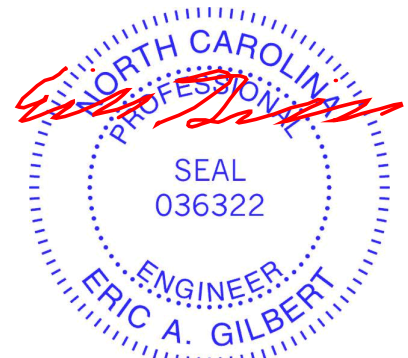
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 26-9-4.  
 (lb) - Max Horz 1=180(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 13, 9 except 8=100(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=452(LC 19), 12=497(LC 19), 13=526(LC 19), 9=496(LC 20), 8=526(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-12=257/174, 2-13=323/181, 5-9=256/174, 6-8=323/181

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 13-4-10, Exterior(2R) 13-4-10 to 17-9-7, Interior(1) 17-9-7 to 26-2-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 12, 13, 9 except (jt=lb) 8=100.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

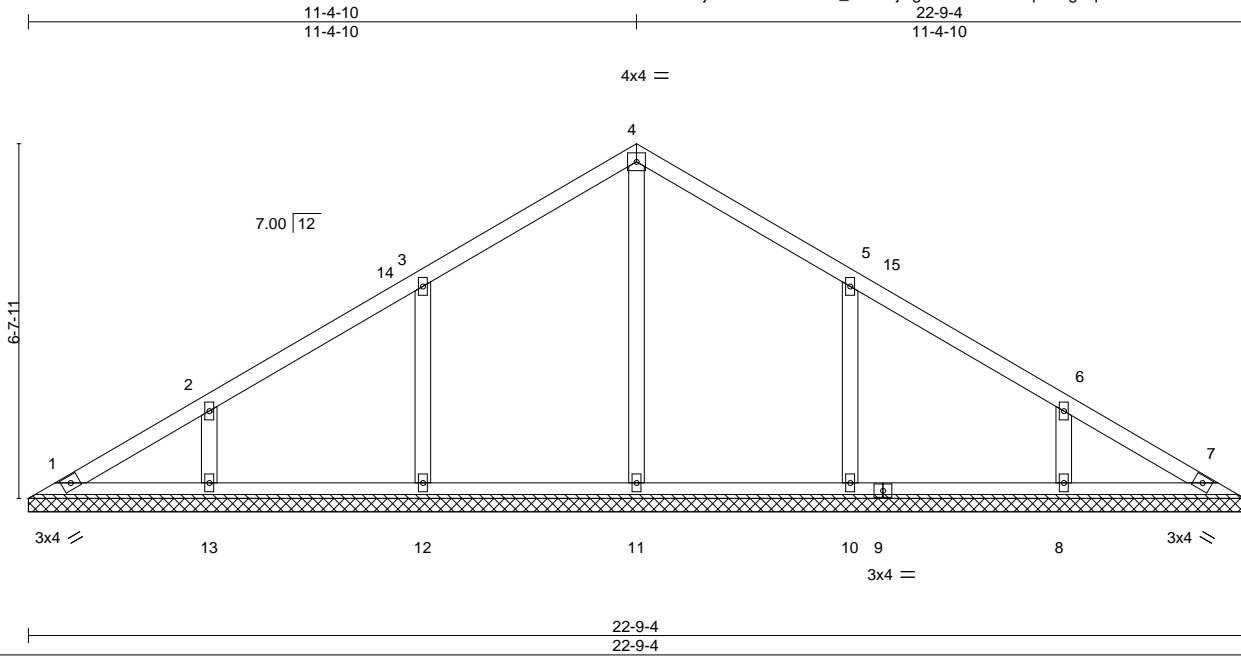


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VB5	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148721
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:37 2023 Page 1  
ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:43.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 96 lb	FT = 20%

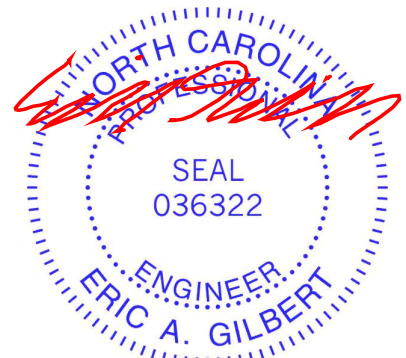
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**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 22-9-4.  
 (lb) - Max Horz 1=152(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 13, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=448(LC 19), 12=482(LC 19), 13=365(LC 19), 10=482(LC 20), 8=365(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-12=282/188, 5-10=282/188

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 11-4-10, Exterior(2R) 11-4-10 to 15-9-7, Interior(1) 15-9-7 to 22-2-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12, 13, 10, 8.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

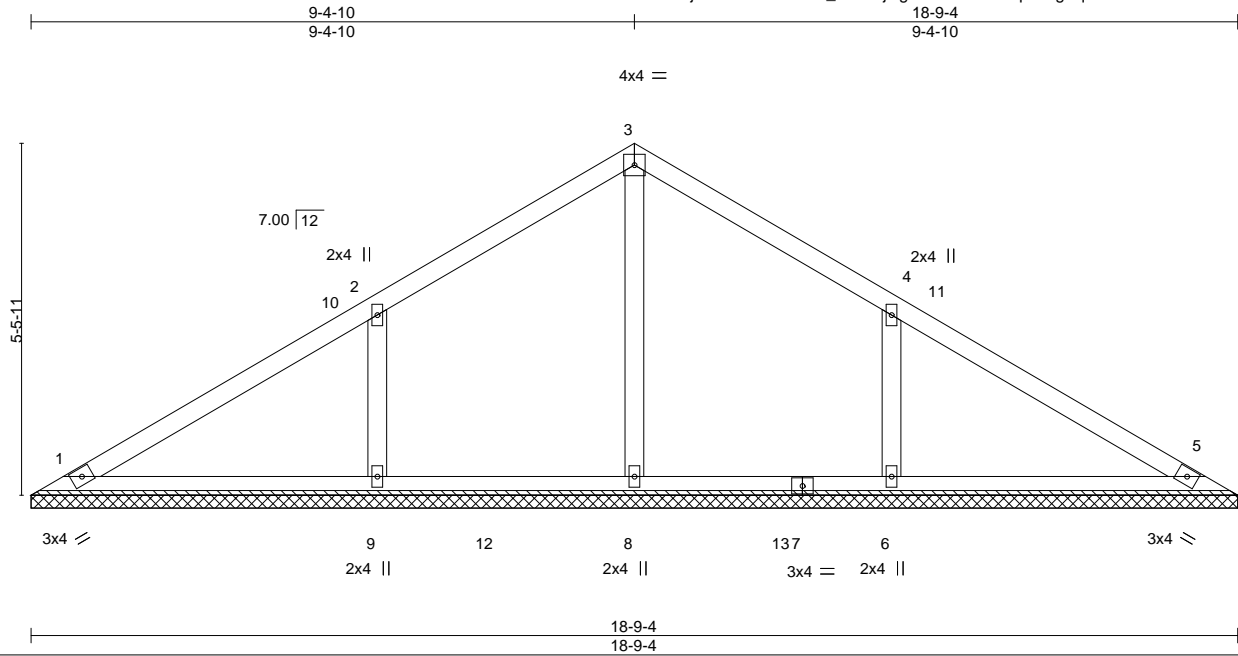


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3174	Truss VB6	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148722
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:39 2023 Page 1  
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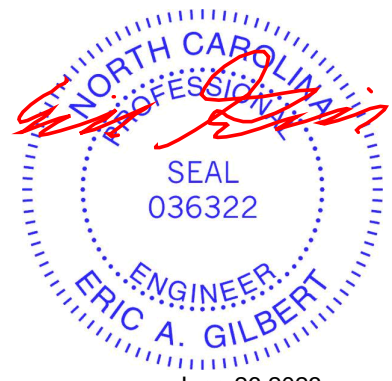
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 73 lb	FT = 20%

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

**REACTIONS.** All bearings 18-9-4.  
 (lb) - Max Horz 1=124(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-109(LC 12), 6=-109(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=373(LC 19), 9=550(LC 19), 6=550(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-344/218, 4-6=-344/217

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; 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(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 9-4-10, Exterior(2R) 9-4-10 to 13-9-7, Interior(1) 13-9-7 to 18-2-13 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) 9=109, 6=109.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



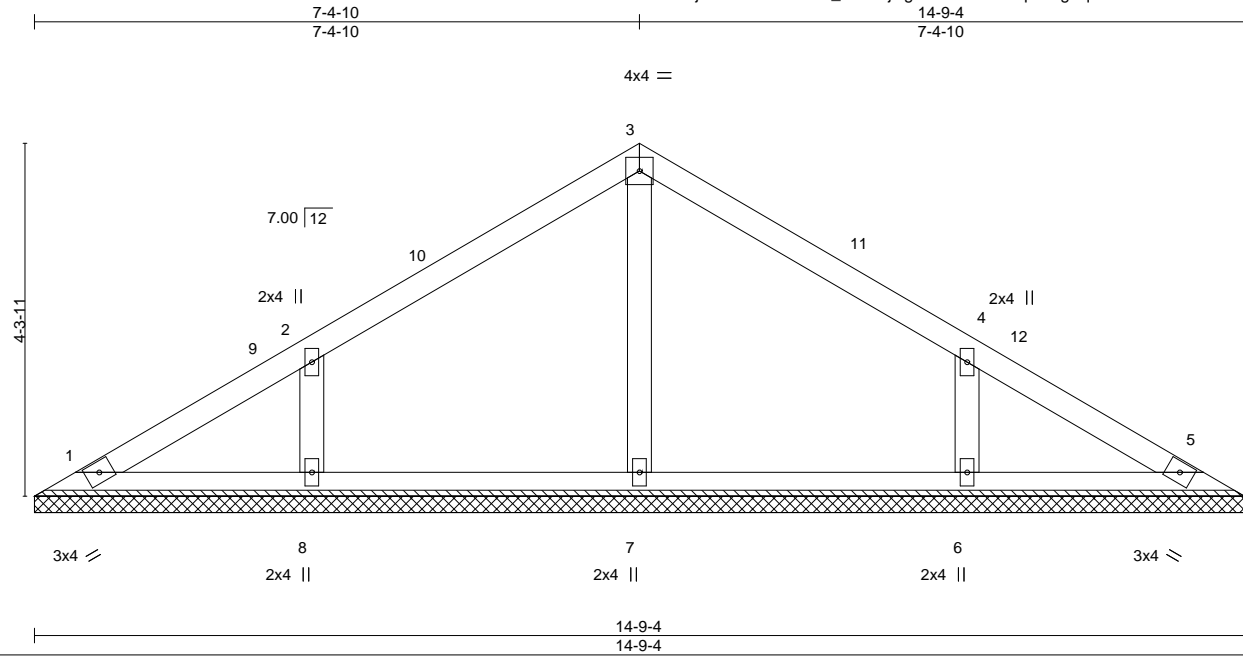
June 26, 2023



Job J0623-3174	Truss VB7	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148723
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:40 2023 Page 1  
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

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

**REACTIONS.** All bearings 14-9-4.  
 (lb) - Max Horz 1=-96(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=269(LC 1), 8=342(LC 19), 6=342(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-264/193, 4-6=-264/193

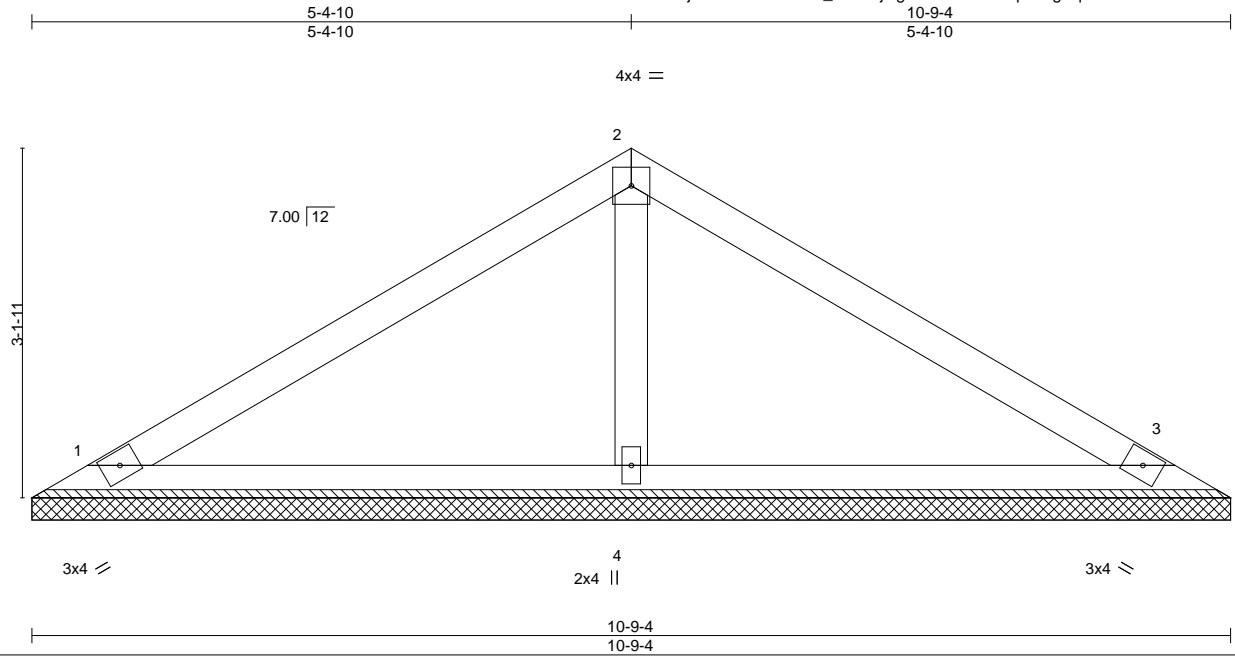
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 7-4-10, Exterior(2R) 7-4-10 to 11-9-7, Interior(1) 11-9-7 to 14-2-13 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, 8, 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job J0623-3174	Truss VB8	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148724
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:41 2023 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 37 lb	FT = 20%
	Code IRC2018/TPI2014							

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

**REACTIONS.** (size) 1=10-9-4, 3=10-9-4, 4=10-9-4  
 Max Horz 1=68(LC 10)  
 Max Uplift 1=24(LC 12), 3=31(LC 13)  
 Max Grav 1=185(LC 1), 3=185(LC 1), 4=406(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-4=-263/147

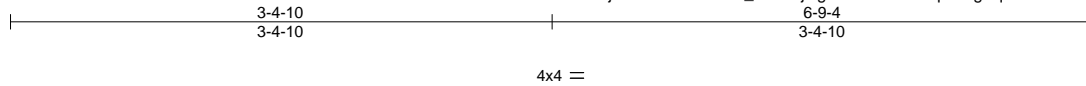
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-6-8 to 4-11-4, Interior(1) 4-11-4 to 5-4-10, Exterior(2R) 5-4-10 to 9-9-7, Interior(1) 9-9-7 to 10-2-13 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.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job J0623-3174	Truss VB9	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148725
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:43 2023 Page 1  
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Scale = 1:14.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=6-9-4, 3=6-9-4, 4=6-9-4  
Max Horz 1=-40(LC 10)  
Max Uplift 1=-19(LC 12), 3=-23(LC 13)  
Max Grav 1=120(LC 1), 3=120(LC 1), 4=216(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; 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(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VC1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 101 South Creek I59148726
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:44 2023 Page 1  
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4x4 =

Scale = 1:39.6

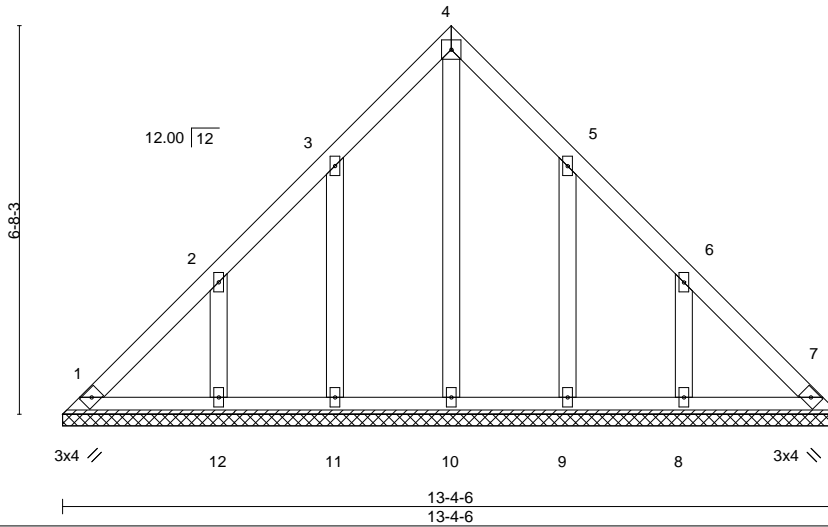


Plate Offsets (X,Y)--	[5:0-0-0,0-0-0], [6:0-0-0,0-0-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 74 lb	FT = 20%

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

**REACTIONS.** All bearings 13-4-6.  
 (lb) - Max Horz 1=-190(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-134(LC 12), 12=-175(LC 12), 9=-133(LC 13), 8=-175(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

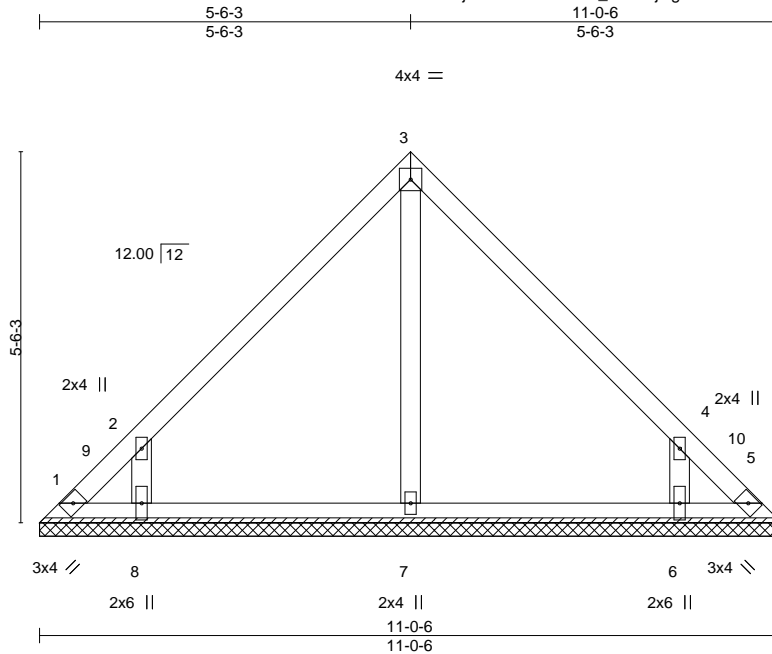
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; Gable Roof; Common Truss; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-4 to 4-8-3, Interior(1) 4-8-3 to 6-8-3, Exterior(2R) 6-8-3 to 11-1-0, Interior(1) 11-1-0 to 13-0-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 unless otherwise indicated.
  - 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, 7 except (jt=lb) 11=134, 12=175, 9=133, 8=175.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job J0623-3174	Truss VC2	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek I59148727
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:46 2023 Page 1  
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Scale = 1:34.3

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 0.18	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 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 48 lb	FT = 20%

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

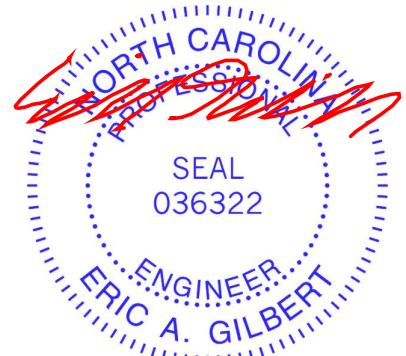
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 11-0-6.  
(lb) - Max Horz 1=124(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=167(LC 12), 6=167(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=349(LC 19), 6=349(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-323/451, 4-6=-323/451

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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(2E) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-6-3, Exterior(2R) 5-6-3 to 9-11-0, Interior(1) 9-11-0 to 10-8-3 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=167, 6=167.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VC3	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	I59148728
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Comtech, Inc. Fayetteville, NC - 28314,

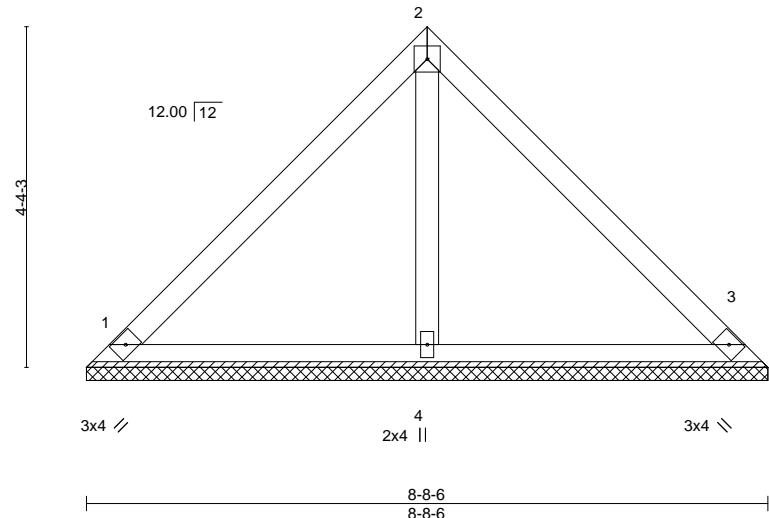
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:47 2023 Page 1

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4x4 =

Scale = 1:29.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 35 lb	FT = 20%

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

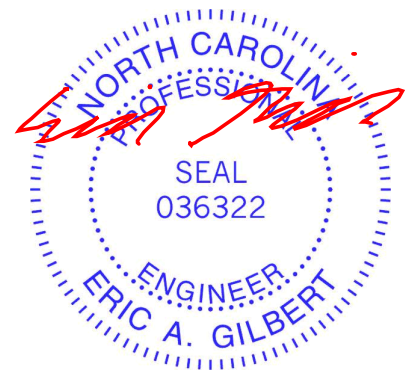
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=8-8-6, 3=8-8-6, 4=8-8-6  
 Max Horz 1=96(LC 9)  
 Max Uplift 1=35(LC 13), 3=35(LC 13)  
 Max Grav 1=195(LC 1), 3=195(LC 1), 4=250(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; 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(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



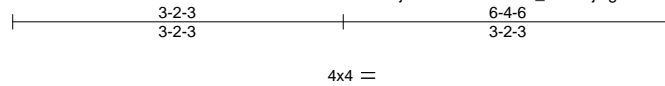
June 26, 2023

Job J0623-3174	Truss VC4	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek Job Reference (optional)	159148729
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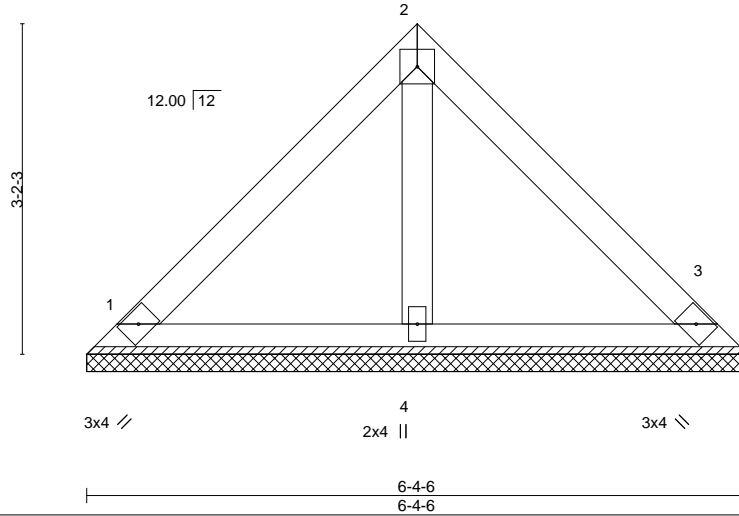
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:48 2023 Page 1

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Scale = 1:22.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 25 lb	FT = 20%

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

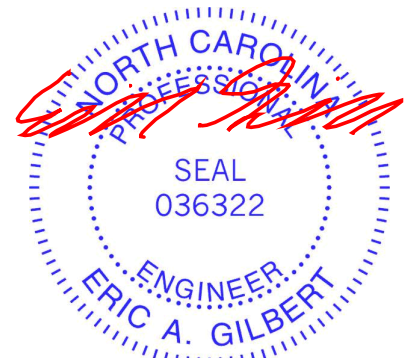
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=6-4-6, 3=6-4-6, 4=6-4-6  
Max Horz 1=-68(LC 8)  
Max Uplift 1=-25(LC 13), 3=-25(LC 13)  
Max Grav 1=138(LC 1), 3=138(LC 1), 4=177(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; 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(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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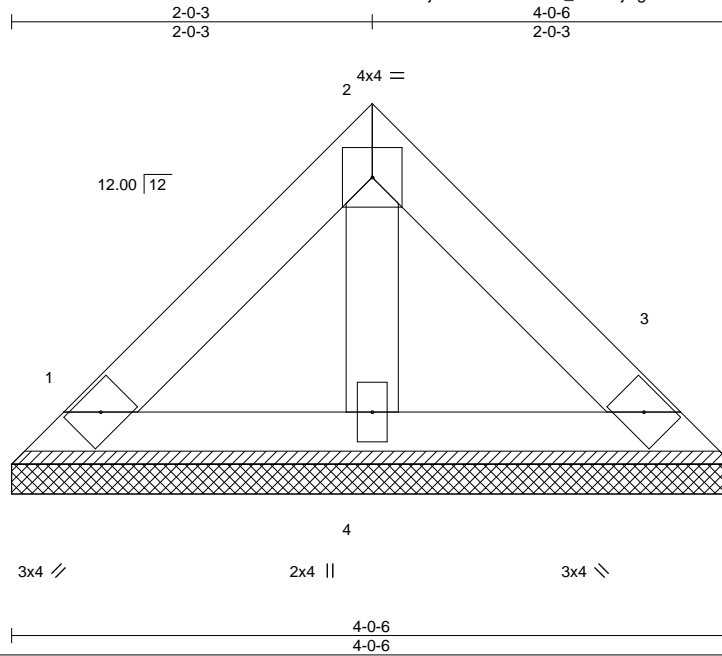
818 Soundside Road  
Edenton, NC 27932

Job J0623-3174	Truss VC5	Truss Type Valley	Qty 1	Ply 1	Lot 101 South Creek 159148730
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Jun 23 10:34:50 2023 Page 1

ID:8dj5ATJSW1LrT2dlx\_6?K2zjclg-RIC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:12.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 15 lb	FT = 20%

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

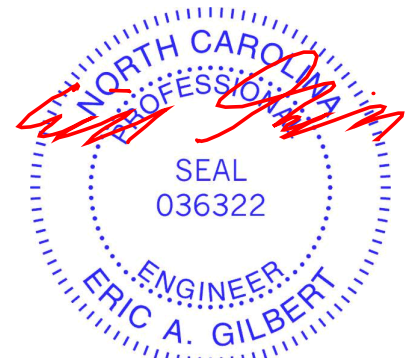
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-0-6, 3=4-0-6, 4=4-0-6  
 Max Horz 1=40(LC 8)  
 Max Uplift 1=14(LC 13), 3=14(LC 13)  
 Max Grav 1=81(LC 1), 3=81(LC 1), 4=104(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; 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(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 26, 2023

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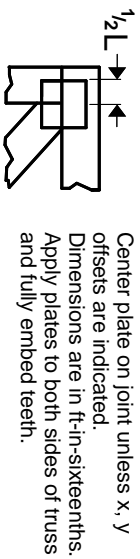


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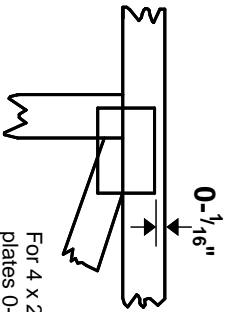


# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

\* Plate location details available in MITek 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

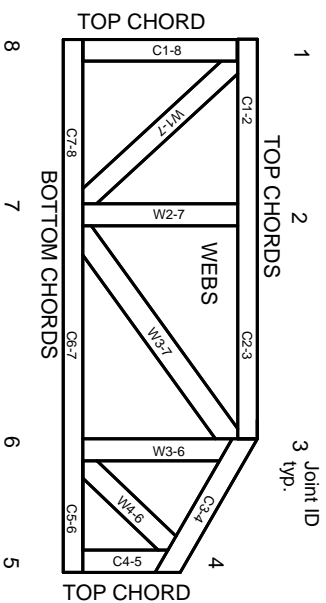


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

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 BY  
**TRENGO**  
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

# General Safety Notes

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

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