

RE: J1220-5850  
 Lot 2 Byrd Farm

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J1220-5850  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

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

This package includes 31 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E14466335	A1	1/26/2021	21	E14466355	P1	1/26/2021
2	E14466336	A2	1/26/2021	22	E14466356	P2	1/26/2021
3	E14466337	A3	1/26/2021	23	E14466357	P3	1/26/2021
4	E14466338	A4	1/26/2021	24	E14466358	VB-1	1/26/2021
5	E14466339	A5	1/26/2021	25	E14466359	VB-2	1/26/2021
6	E14466340	B1	1/26/2021	26	E14466360	VB-3	1/26/2021
7	E14466341	B2	1/26/2021	27	E14466361	VB-4	1/26/2021
8	E14466342	C1	1/26/2021	28	E14466362	VB-5	1/26/2021
9	E14466343	C2	1/26/2021	29	E14466363	VC-1	1/26/2021
10	E14466344	C3	1/26/2021	30	E14466364	VC-2	1/26/2021
11	E14466345	D1	1/26/2021	31	E14466365	VC-3	1/26/2021
12	E14466346	D2	1/26/2021				
13	E14466347	G1	1/26/2021				
14	E14466348	G2	1/26/2021				
15	E14466349	M1	1/26/2021				
16	E14466350	M2	1/26/2021				
17	E14466351	M3	1/26/2021				
18	E14466352	M4	1/26/2021				
19	E14466353	M5	1/26/2021				
20	E14466354	M6	1/26/2021				

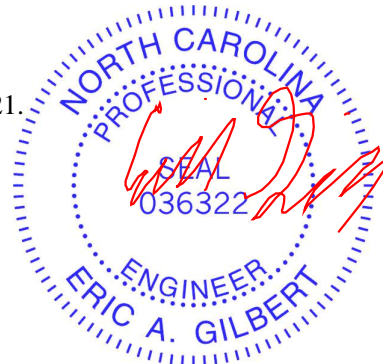
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

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

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.



January 26, 2021

Job J1220-5850	Truss A1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466335
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:20 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-UaEOXu8hXG\_WGJWEPQr3jOqJ9KZITegQi7yerzAltV

33-0-0 33-10-8  
16-6-0 0-10-8

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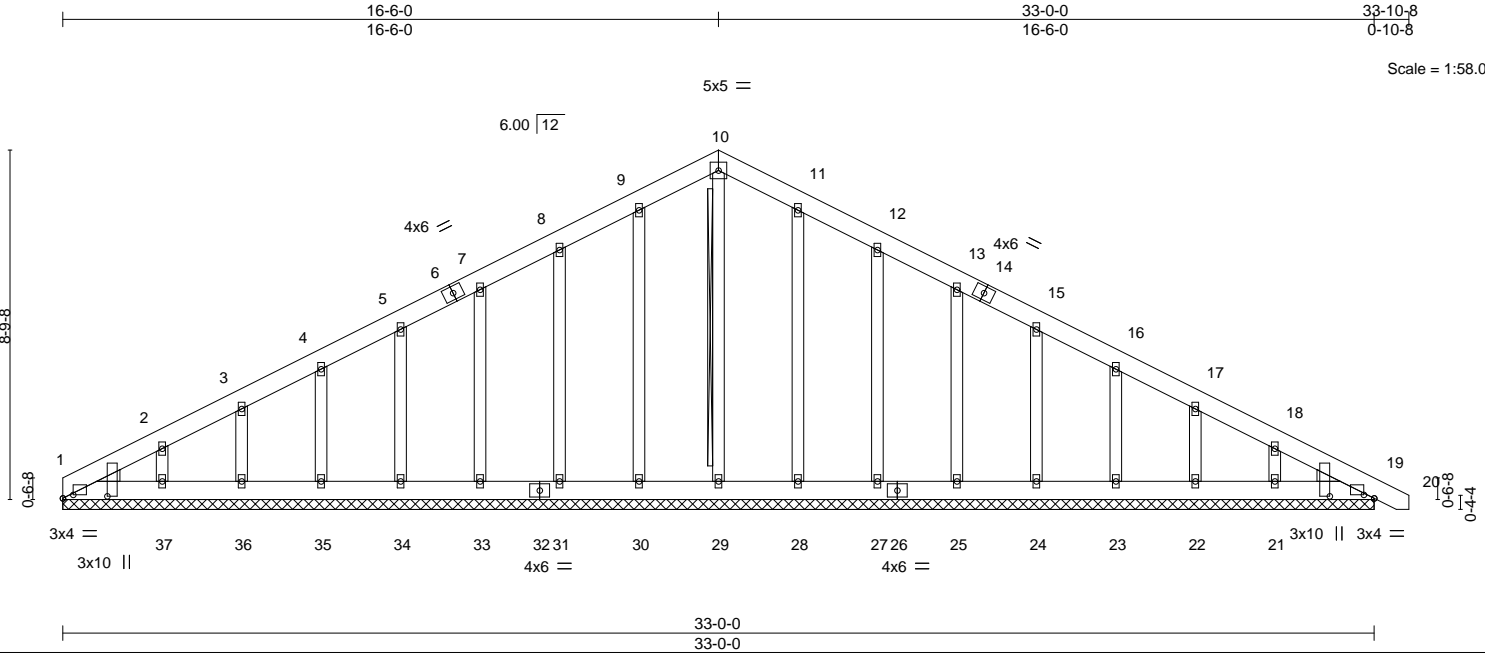


Plate Offsets (X, Y)-- [1:0-3-2,0-1-1], [1:0-0-10,1-1-7], [19:0-3-2,0-1-1], [19:0-0-10,1-1-7]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) 0.00 19 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) 0.00 19 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.01 19 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 261 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 10-29  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.**

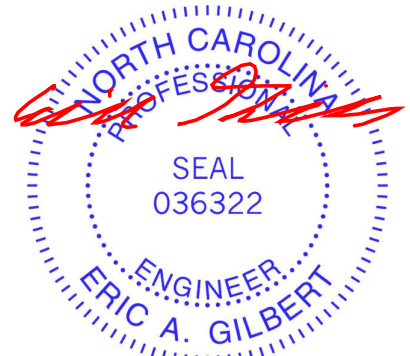
All bearings 33-0-0.  
 (lb) - Max Horz 1=180(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21  
 Max Grav All reactions 250 lb or less at joint(s) 1, 29, 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21, 19

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

TOP CHORD 9-10=114/289, 10-11=114/289

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 2, 2020

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

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



818 Soundside Road  
 Edenton, NC 27932

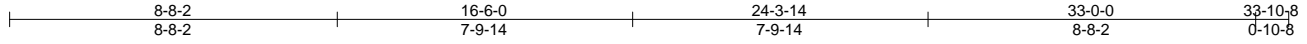
Job J1220-5850	Truss A2	Truss Type COMMON	Qty 5	Ply 1	Lot 2 Byrd Farm	E14466336
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Comtech, Inc, Fayetteville, NC - 28314,

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ID:BoL?hgXglYpqwdOiyUmcQyz41fz-ymomkE9Kla6NuT5Ry8MIFcNVZZWRurqfMVAHzAltu

Job Reference (optional)



5x5 =

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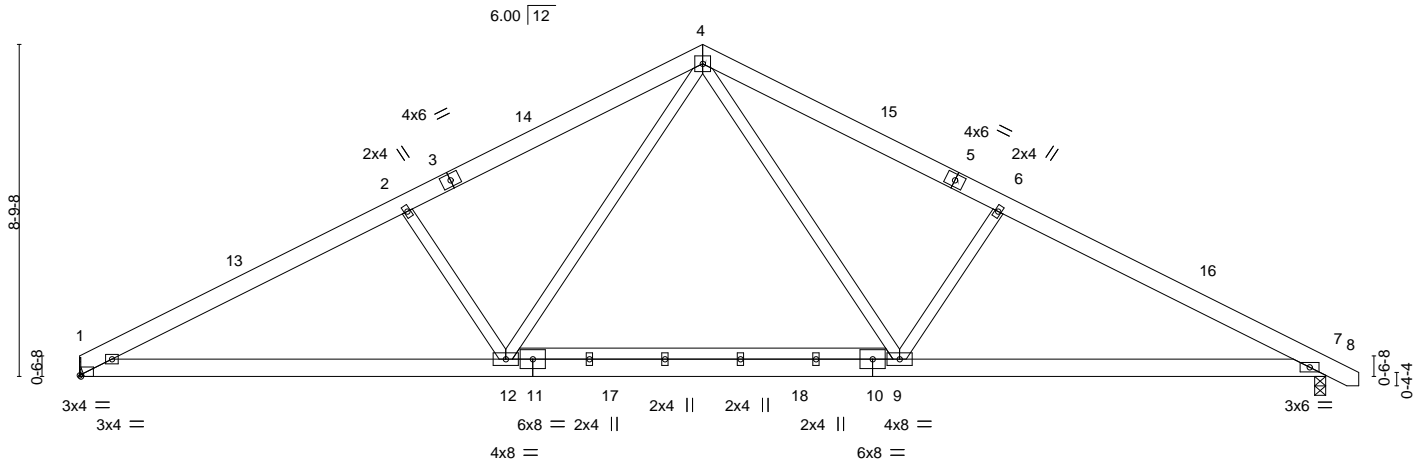


Plate Offsets (X,Y)-- [1:0-0-6,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.21	9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT) -0.28	9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	1-12	>999	240		
							Weight: 223 lb	FT = 20%

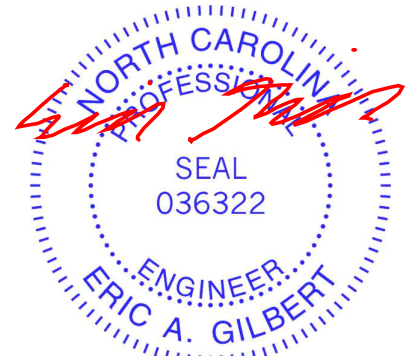
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

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

**REACTIONS.** (size) 1=Mechanical, 7=0-3-8  
 Max Horz 1=-113(LC 8)  
 Max Uplift 1=-79(LC 12), 7=-91(LC 13)  
 Max Grav 1=1311(LC 1), 7=1364(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2297/531, 2-4=-2064/545, 4-6=-2055/529, 6-7=-2283/512  
 BOT CHORD 1-12=-347/2015, 9-12=-110/1324, 7-9=-344/1965  
 WEBS 4-9=-142/850, 6-9=-495/297, 4-12=-145/865, 2-12=-509/305

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 16-6-0, Exterior(2) 16-6-0 to 20-10-13, Interior(1) 20-10-13 to 33-8-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.



June 2, 2020

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

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



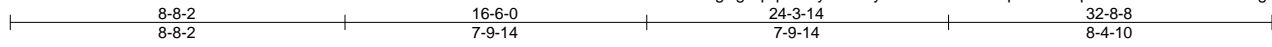
818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss A3	Truss Type COMMON	Qty 2	Ply 1	Lot 2 Byrd Farm	E14466337
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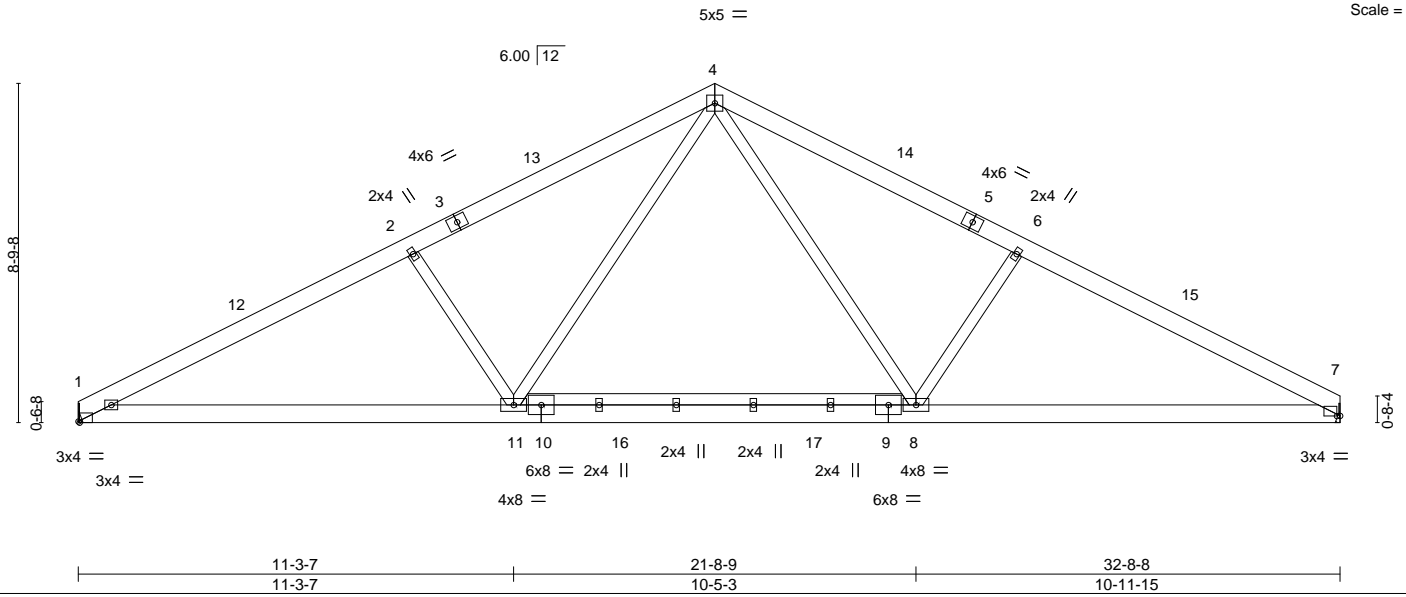
Comtech, Inc, Fayetteville, NC - 28314,

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Scale = 1:59.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.20	8-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(CT) -0.28	8-11	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	1-11	>999	240		
							Weight: 220 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-9 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=Mechanical, 7=Mechanical  
 Max Horz 1=-108(LC 8)  
 Max Uplift 1=-79(LC 12), 7=-78(LC 13)  
 Max Grav 1=1303(LC 1), 7=1303(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2280/528, 2-4=-2048/543, 4-6=-2021/538, 6-7=-2242/521  
 BOT CHORD 1-11=-354/1997, 8-11=-116/1306, 7-8=-347/1920  
 WEBS 4-8=-139/822, 6-8=-473/295, 4-11=-145/866, 2-11=-509/305

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 16-6-0, Exterior(2) 16-6-0 to 20-10-13, Interior(1) 20-10-13 to 32-7-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.

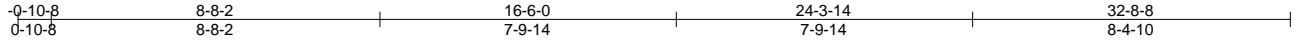


Job J1220-5850	Truss A4	Truss Type COMMON	Qty 4	Ply 1	Lot 2 Byrd Farm	E14466338
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Comtech, Inc., Fayetteville, NC - 28314,

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5x5 =

Scale = 1:60.8

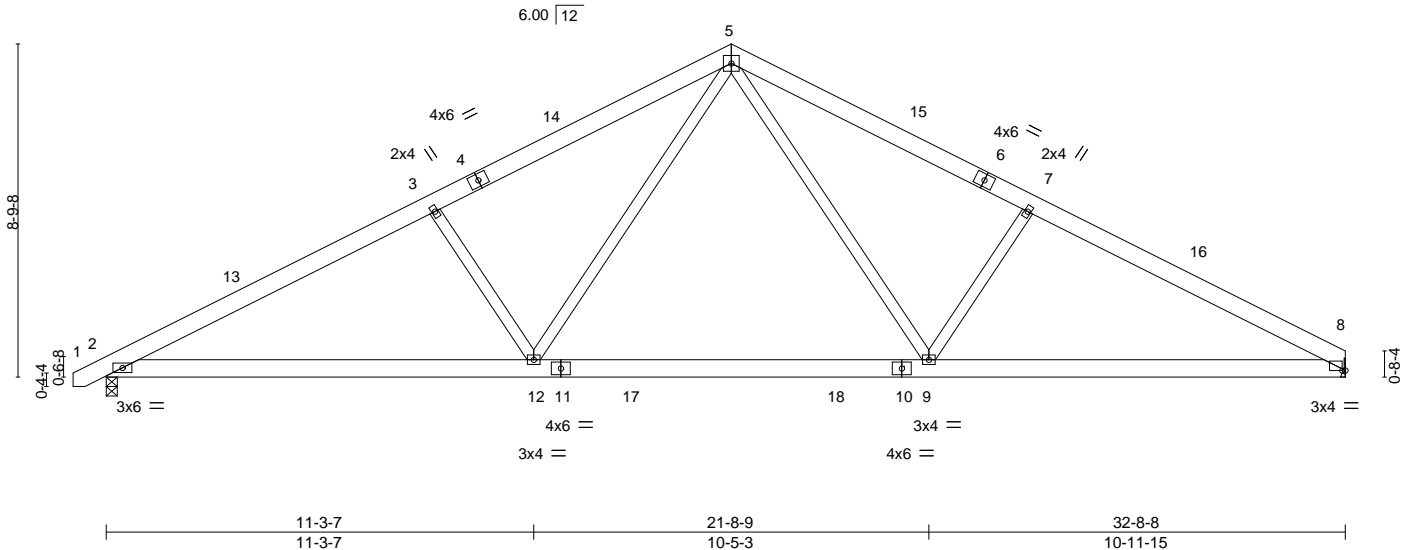


Plate Offsets (X,Y)--	[8:0-1-0,0-0-1]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -0.22	9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT) -0.29	9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.23	Horz(CT) 0.05	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	2-12	>999	240		
							Weight: 207 lb	FT = 20%

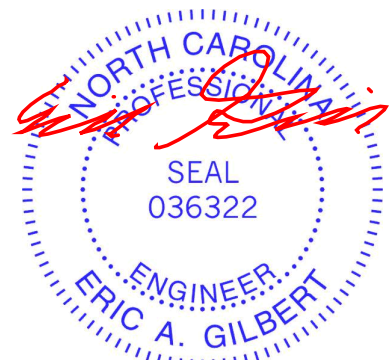
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

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

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical  
 Max Horz 2=113(LC 9)  
 Max Uplift 2=-91(LC 12), 8=-78(LC 13)  
 Max Grav 2=1352(LC 1), 8=1299(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2261/507, 3-5=-2051/524, 5-7=-2034/536, 7-8=-2238/519  
 BOT CHORD 2-12=-347/1992, 9-12=-113/1312, 8-9=-341/1925  
 WEBS 5-9=-137/833, 7-9=-473/294, 5-12=-141/861, 3-12=-495/297

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 16-6-0, Exterior(2) 16-6-0 to 20-10-13, Interior(1) 20-10-13 to 32-7-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



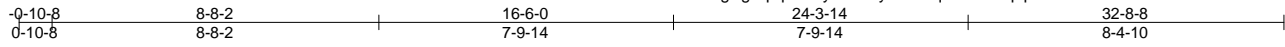
June 2, 2020

Job J1220-5850	Truss A5	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466339
Comtech, Inc, Fayetteville, NC - 28314,					Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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5x12 ||

Scale = 1:61.2

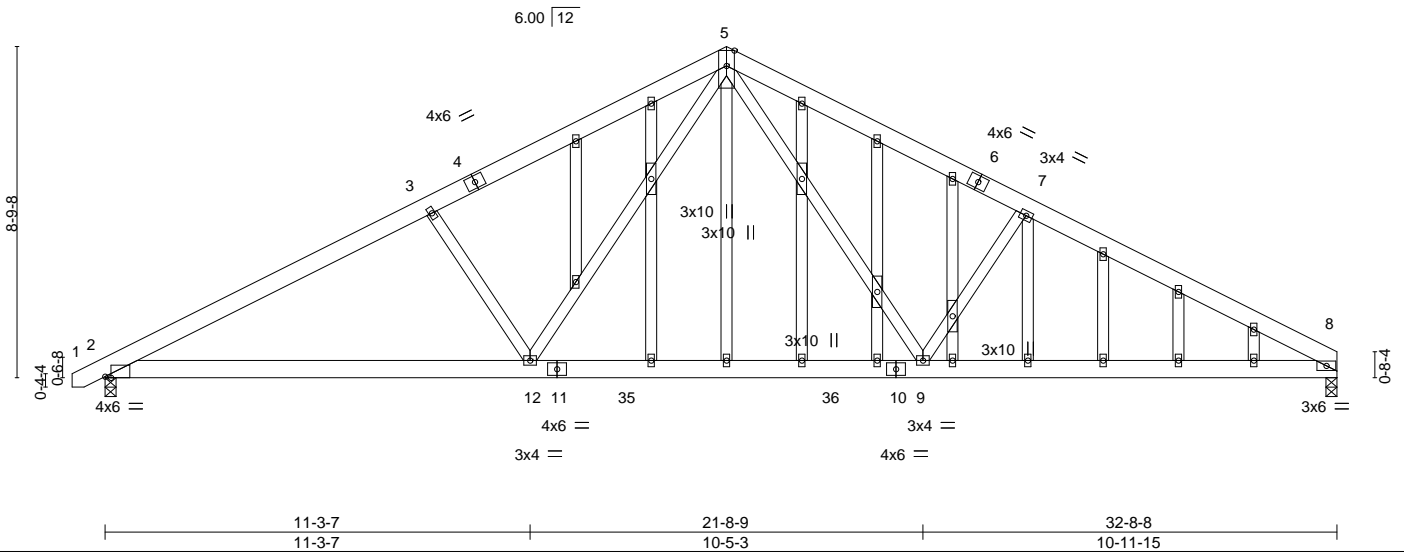


Plate Offsets (X,Y)-- [2:0-1-14,Edge]	11-3-7 11-3-7	21-8-9 10-5-3	32-8-8 10-11-15		
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) -0.22 9-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT) -0.29 9-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.45	Horz(CT) 0.05 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07 2-12 >999 240		
				Weight: 274 lb	FT = 20%

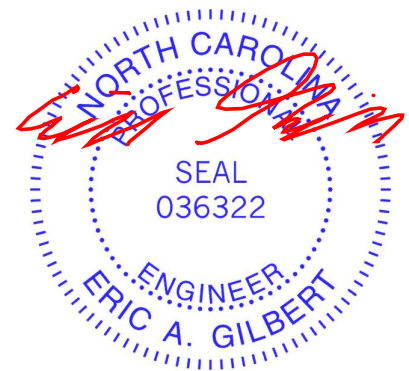
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 9-11-5 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=180(LC 16)  
 Max Uplift 2=293(LC 12), 8=265(LC 13)  
 Max Grav 2=1349(LC 1), 8=1296(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2254/830, 3-5=-2044/833, 5-7=-2019/825, 7-8=-2221/818  
 BOT CHORD 2-12=-615/1947, 9-12=-244/1297, 8-9=-602/1906  
 WEBS 5-9=-259/807, 7-9=-463/412, 5-12=-272/845, 3-12=-495/423

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=293, 8=265.



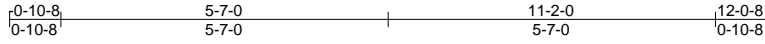
June 2, 2020

Job J1220-5850	Truss B1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466340
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:26 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-lkbfnxDS66kf?F\_OlhyTyf4R1aNx6BsZoeaGsVzAltP



5x5 =

Scale = 1:39.3

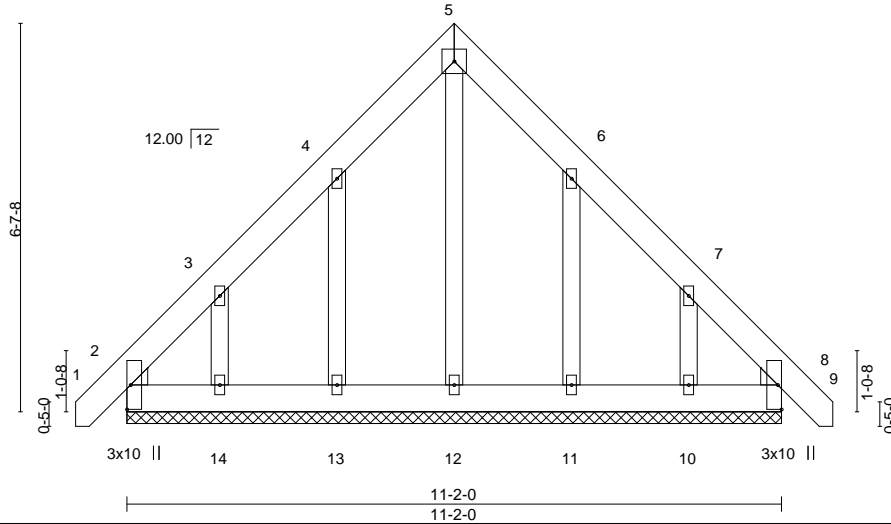


Plate Offsets (X, Y)-- [2:0-0-6,0-0-6], [2:0-0-12,0-3-1], [8:0-0-6,0-0-6], [8:0-0-12,0-3-1]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) -0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00	8	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 95 lb	FT = 20%

**LUMBER-**

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

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

**BRACING-**

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

**REACTIONS.**

All bearings 11-2-0.  
 (lb) - Max Horz 2=190(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8 except 13=130(LC 12), 14=189(LC 12), 11=127(LC 13), 10=185(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-9-2 to 3-6-13, Exterior(2) 3-6-13 to 5-7-0, Corner(3) 5-7-0 to 9-11-13, Exterior(2) 9-11-13 to 11-11-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8 except (jt=lb) 13=130, 14=189, 11=127, 10=185.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



June 2, 2020

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

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

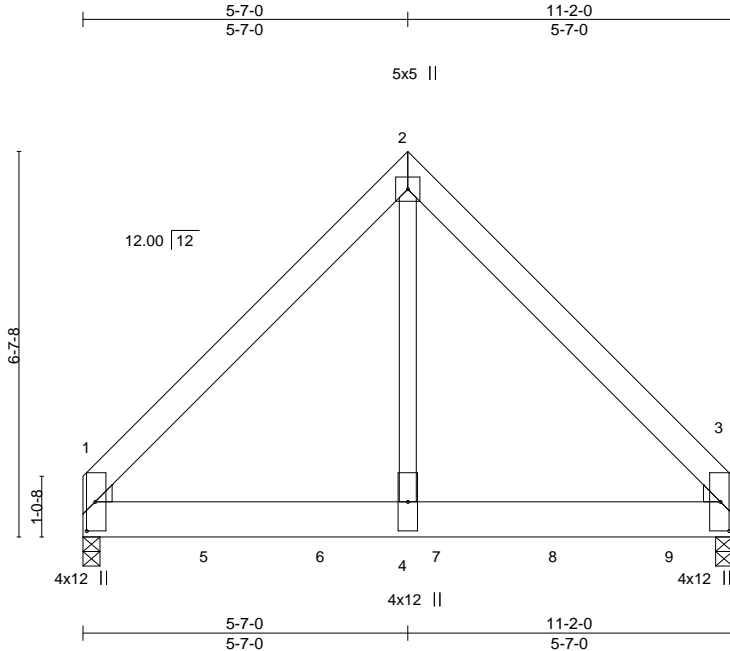


818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss B2	Truss Type COMMON GIRDER	Qty 1	Ply 2	Lot 2 Byrd Farm	E14466341
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:27 2020 Page 1  
ID:BoL?hgXglYpqwdOiyUmcQyz41fz-mw92?HE5tQsWcOZbJOTIVtdWy\_a6rWzi1IKpOxzAlto



Scale = 1:39.6

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

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.03 3-4 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.52	Vert(CT) -0.06 3-4 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.01 3 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 3-4 >999 240	Weight: 165 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

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

**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=-144(LC 23)  
 Max Uplift 1=-301(LC 9), 3=-265(LC 8)  
 Max Grav 1=4586(LC 1), 3=3979(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-3212/267, 2-3=-3207/266  
 BOT CHORD 1-4=-137/2118, 3-4=-137/2118  
 WEBS 2-4=-239/4237

- 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: 2x8 - 2 rows staggered at 0-6-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=301, 3=265.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1293 lb down and 88 lb up at 0-1-12, 1283 lb down and 98 lb up at 2-2-0, 1279 lb down and 98 lb up at 4-2-0, 1279 lb down and 98 lb up at 6-2-0, and 1279 lb down and 98 lb up at 8-2-0, and 1281 lb down and 96 lb up at 10-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



June 2, 2020

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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Job J1220-5850	Truss B2	Truss Type COMMON GIRDER	Qty 1	Ply <b>2</b>	Lot 2 Byrd Farm Job Reference (optional)	E14466341
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:27 2020 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 1-3=-20

Concentrated Loads (lb)

Vert: 1=-1293(F) 5=-1283(F) 6=-1279(F) 7=-1279(F) 8=-1279(F) 9=-1281(F)

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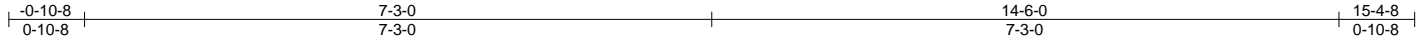


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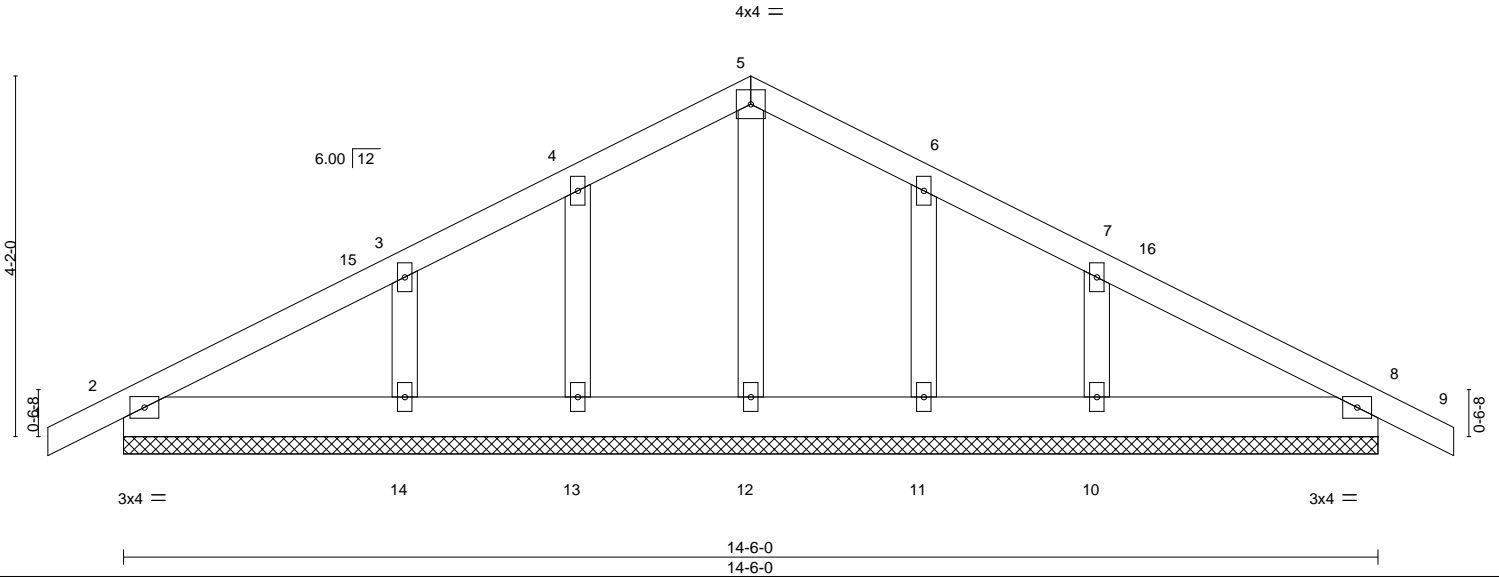
Job J1220-5850	Truss C1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466342
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:27 2020 Page 1  
ID:BoL?hgXglYpqwdOiyUmcQyz41fz-mw92?HE5tQsWcOZbJOTIVtdbl\_j\_reRi1IKpOxzAlto



Scale = 1:26.6



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 8 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 9 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 78 lb	FT = 20%

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

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

**REACTIONS.** All bearings 14-6-0.  
(lb) - Max Horz 2=82(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 11 except 14=112(LC 12), 10=112(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=250(LC 1), 10=250(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-3-0, Exterior(2) 3-3-0 to 7-3-0, Corner(3) 7-3-0 to 11-7-13, Exterior(2) 11-7-13 to 15-4-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 11 except (jt=lb) 14=112, 10=112.



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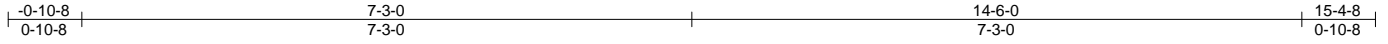
Job J1220-5850	Truss C2	Truss Type COMMON	Qty 3	Ply 1	Lot 2 Byrd Farm	E14466343
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:29 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-jJHoPzFLP17EsiizQpVAalispnMDJXH?UcpwSqzAltM

Job Reference (optional)



Scale = 1:27.4

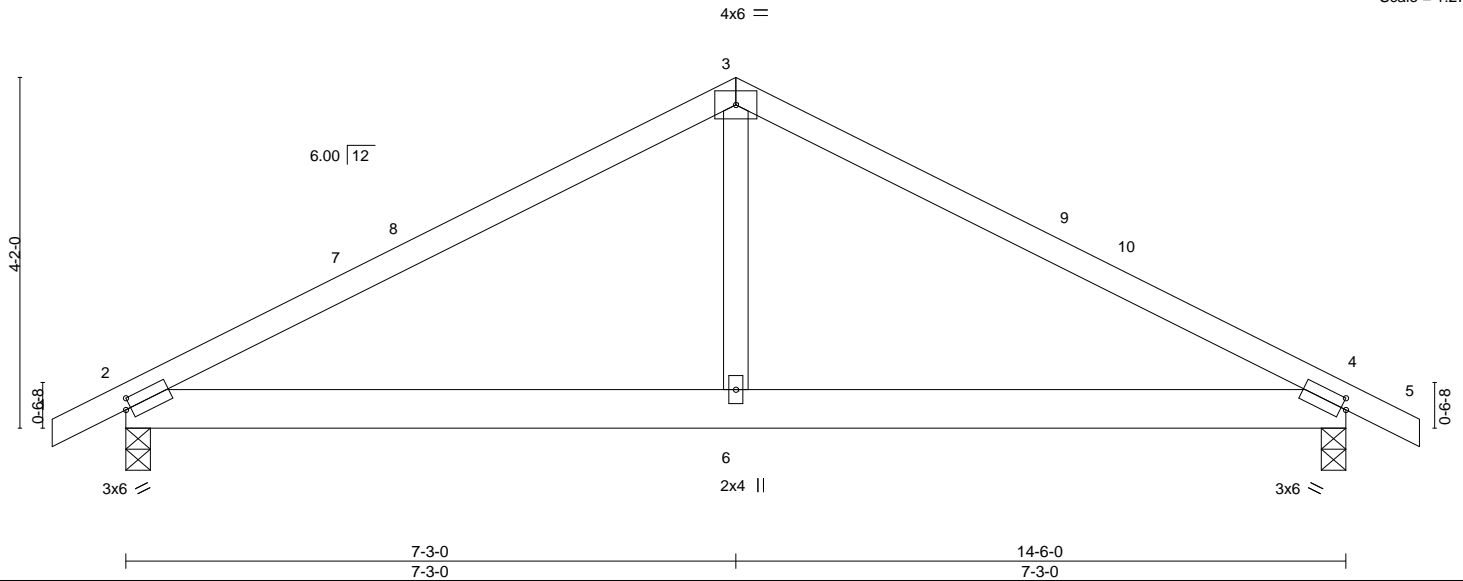


Plate Offsets (X,Y)--	[2:0-0-12,0-1-8], [4:0-0-12,0-1-8]
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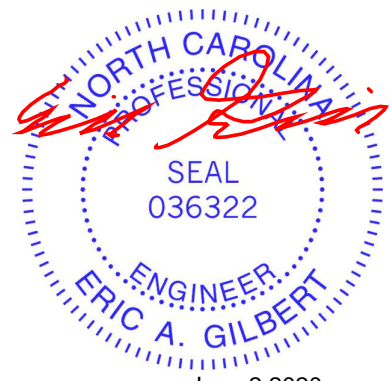
LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.02	2-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.05	2-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02	2-6	>999	240		
							Weight: 66 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 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=-53(LC 10)  
 Max Uplift 2=-48(LC 12), 4=-48(LC 13)  
 Max Grav 2=630(LC 1), 4=630(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-803/237, 3-4=-803/237  
 BOT CHORD 2-6=-75/617, 4-6=-75/617  
 WEBS 3-6=0/366

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



Job J1220-5850	Truss C3	Truss Type COMMON GIRDER	Qty 1	Ply 2	Lot 2 Byrd Farm	E14466344
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:31 2020 Page 1  
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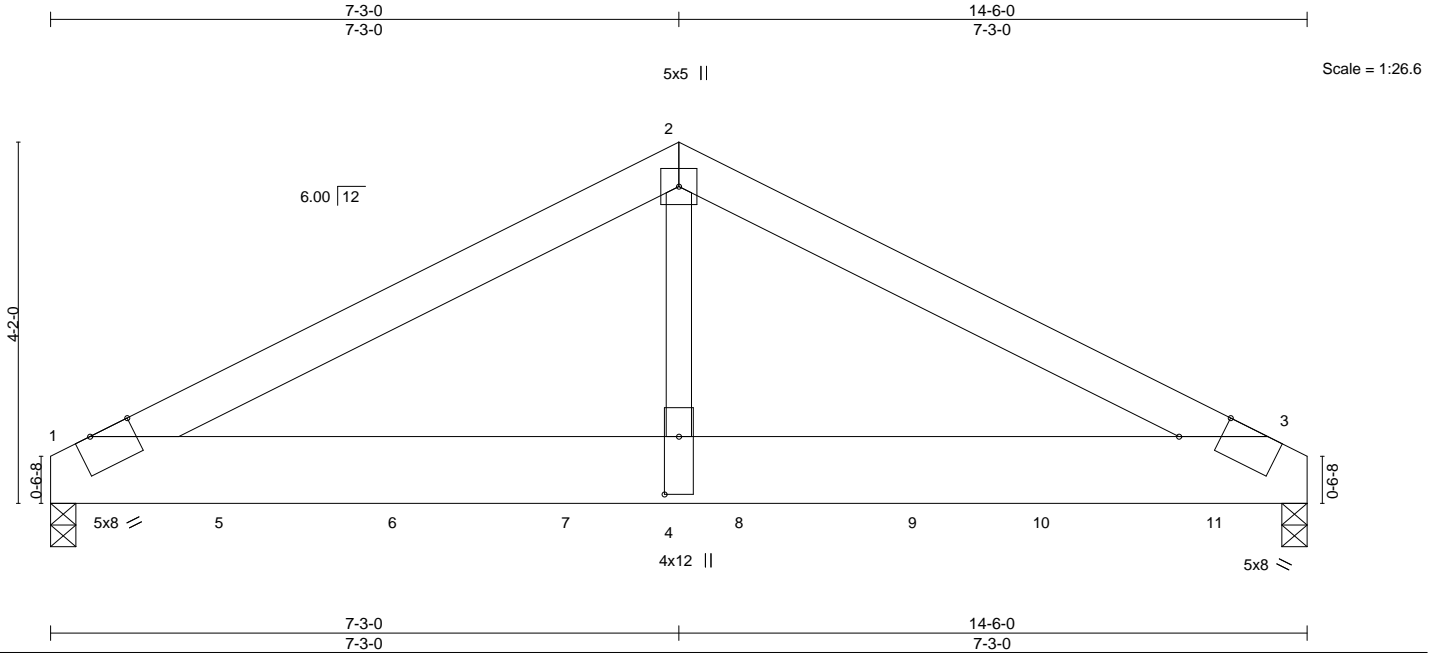


Plate Offsets (X,Y)--		[1:0-5-12,Edge], [3:0-5-4,Edge], [4:0-8-0,0-2-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.07	3-4	>999	360	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.13	3-4	>999	240	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.74	Horz(CT)	0.02	3	n/a	n/a	
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S	Wind(LL)	0.05	3-4	>999	240	
								Weight: 194 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x10 SP No.1  
WEBS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-11-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 3=0-3-8  
Max Horz 1=46(LC 24)  
Max Uplift 1=-325(LC 8), 3=-383(LC 9)  
Max Grav 1=4770(LC 2), 3=5623(LC 2)

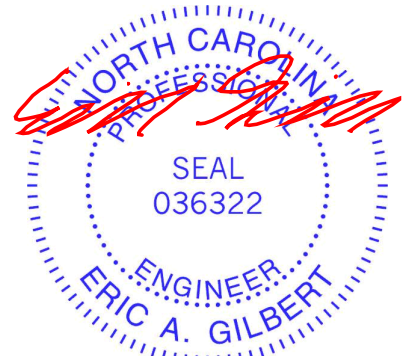
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-7301/503, 2-3=-7297/502  
BOT CHORD 1-4=-399/6499, 3-4=-399/6499  
WEBS 2-4=-312/6009

**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 0-6-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=325, 3=383.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1345 lb down and 99 lb up at 2-0-12, 1345 lb down and 99 lb up at 4-0-12, 1345 lb down and 99 lb up at 6-0-12, 1345 lb down and 99 lb up at 8-0-12, 1345 lb down and 99 lb up at 10-0-12, and 1337 lb down and 99 lb up at 11-6-0, and 1338 lb down and 98 lb up at 13-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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



June 2, 2020

Continued on page 2

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss C3	Truss Type COMMON GIRDER	Qty 1	Ply <b>2</b>	Lot 2 Byrd Farm Job Reference (optional)	E14466344
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:31 2020 Page 2  
ID:BoL?hgXglYpqwdOiyUmcQyz41fz-fiPYqeHbxfNy50sMYEXefjnDQbrwnHYlyw1XizAItk

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 5=-1291(B) 6=-1291(B) 7=-1291(B) 8=-1291(B) 9=-1291(B) 10=-1283(B) 11=-1285(B)

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818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss D1	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466345
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:33 2020 Page 1  
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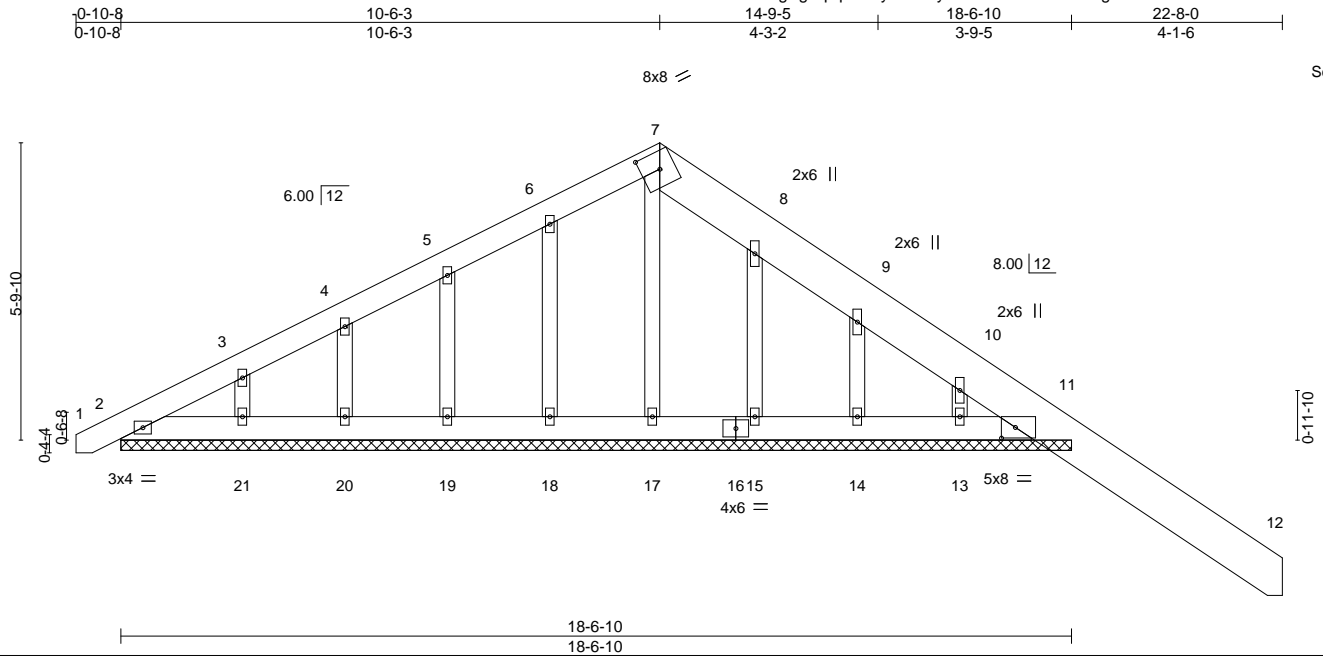


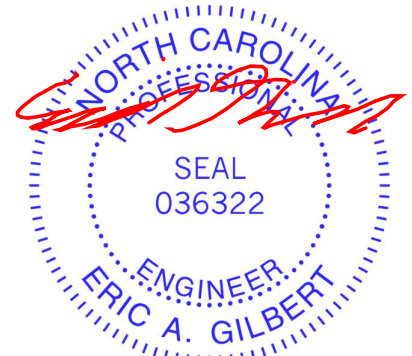
Plate Offsets (X,Y)--	[7:0-4-6,0-4-0], [11:0-3-4,0-2-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.03 12 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.06 12 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 160 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
7-12: 2x10 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD 2x6 SP No.1	6-0-0 oc bracing: 11-13.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 18-6-10.  
 (lb) - Max Horz 2--215(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 19, 20, 21, 15 except 11--489(LC 13), 14--121(LC 13), 13--420(LC 1)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 17, 18, 19, 20, 21, 15, 14 except 11=877(LC 1), 13=311(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11--323/382  
 WEBS 10-13--511/351

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 18, 19, 20, 21, 15 except (jt=lb) 11=489, 14=121, 13=420.



June 2, 2020

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

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



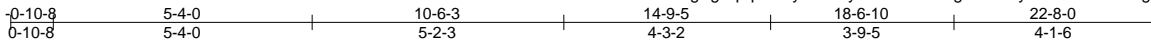
818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss D2	Truss Type ROOF SPECIAL	Qty 6	Ply 1	Lot 2 Byrd Farm	E14466346
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:34 2020 Page 1

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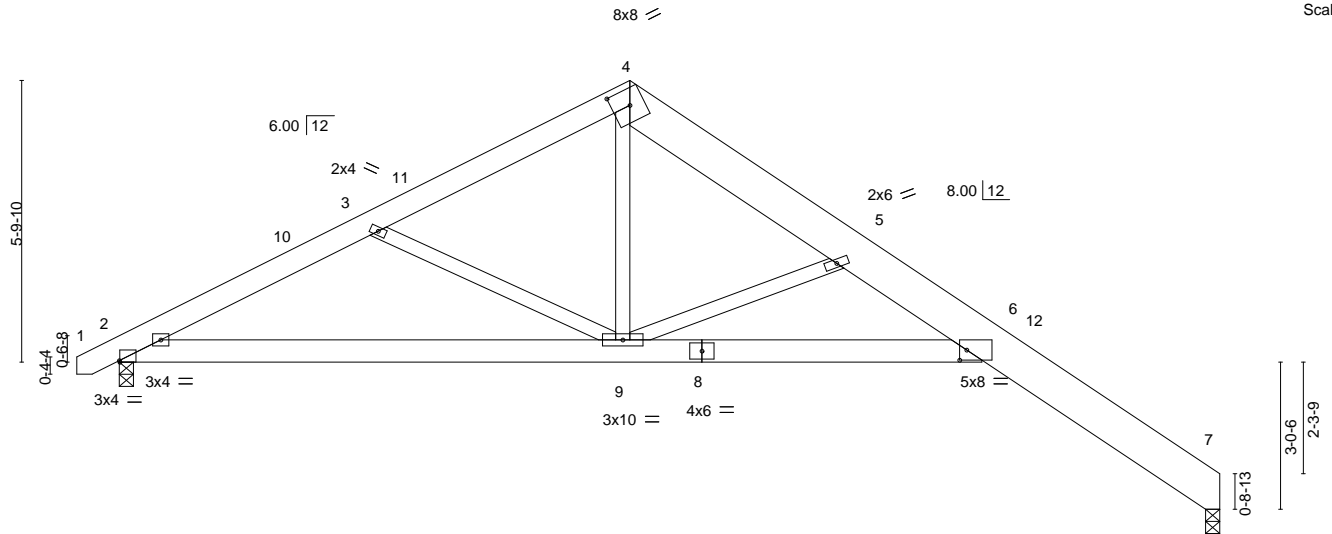


Plate Offsets (X,Y)--	[2:0-0-2,Edge], [4:0-4-6,0-4-0], [6:0-1-12,0-2-8]
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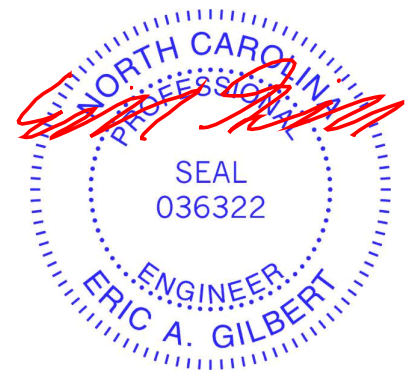
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.20	6-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.40	6-9	>677	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.52	Horz(CT) 0.26	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.13	6	>999	240	Weight: 153 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 4-7: 2x10 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8  
 Max Horz 2=176(LC 11)  
 Max Uplift 7=57(LC 13), 2=58(LC 12)  
 Max Grav 7=909(LC 1), 2=949(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1528/386, 3-4=-1206/274, 4-5=-1286/301, 5-6=-2001/430, 6-7=-452/169  
 BOT CHORD 2-9=-189/1315, 6-9=-273/2152  
 WEBS 3-9=-349/230, 4-9=-109/874, 5-9=-1256/333

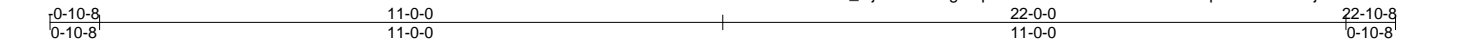
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 10-6-3, Exterior(2) 10-6-3 to 15-1-11, Interior(1) 15-1-11 to 22-6-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.



Job J1220-5850	Truss G1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466347
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:36 2020 Page 1  
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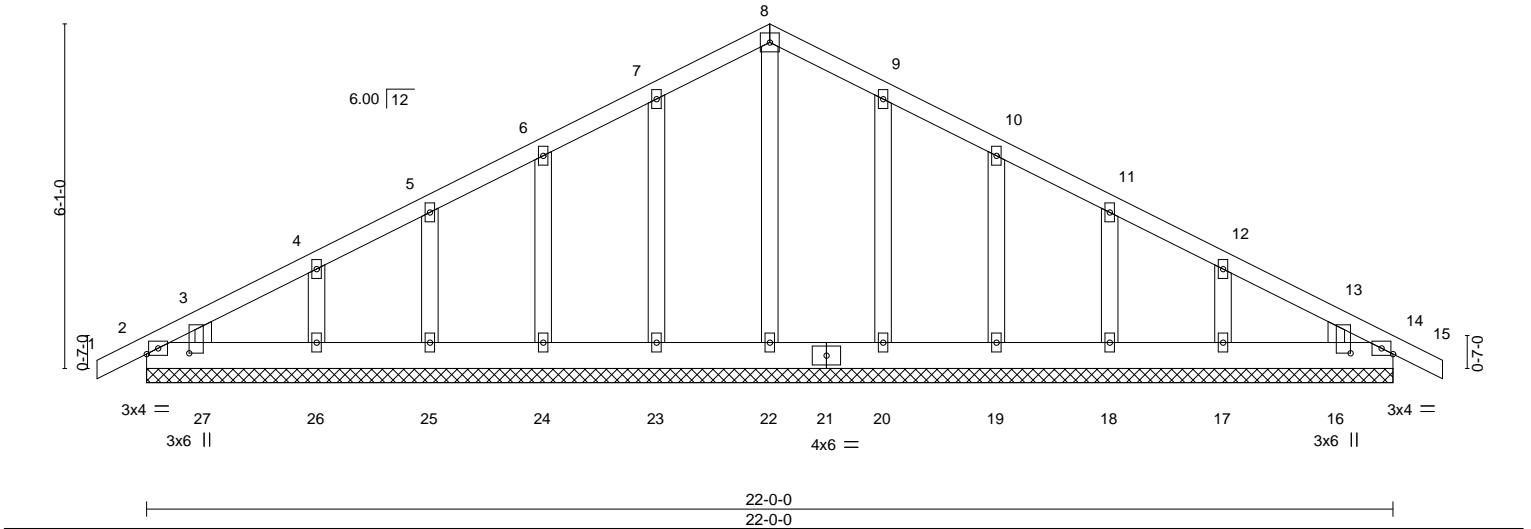


Plate Offsets (X, Y)-- [3:0-0-14,0-1-12], [13:0-0-14,0-1-12], [16:0-0-0,0-1-12], [16:0-0-3,0-9-0], [27:0-0-0,0-1-12], [27:0-0-3,0-9-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(LL) -0.00 14 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Vert(CT) -0.00 15 n/r 120		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Horz(CT) 0.00 14 n/a n/a		
				Weight: 134 lb	FT = 20%

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

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

**REACTIONS.** All bearings 22-0-0.  
(lb) - Max Horz 2=-120(LC 17)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14  
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2'-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14.



June 2, 2020

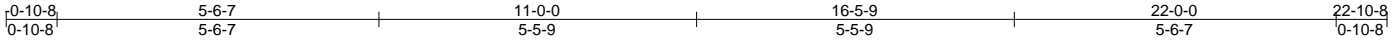


Job J1220-5850	Truss G2	Truss Type Common	Qty 6	Ply 1	Lot 2 Byrd Farm	E14466348
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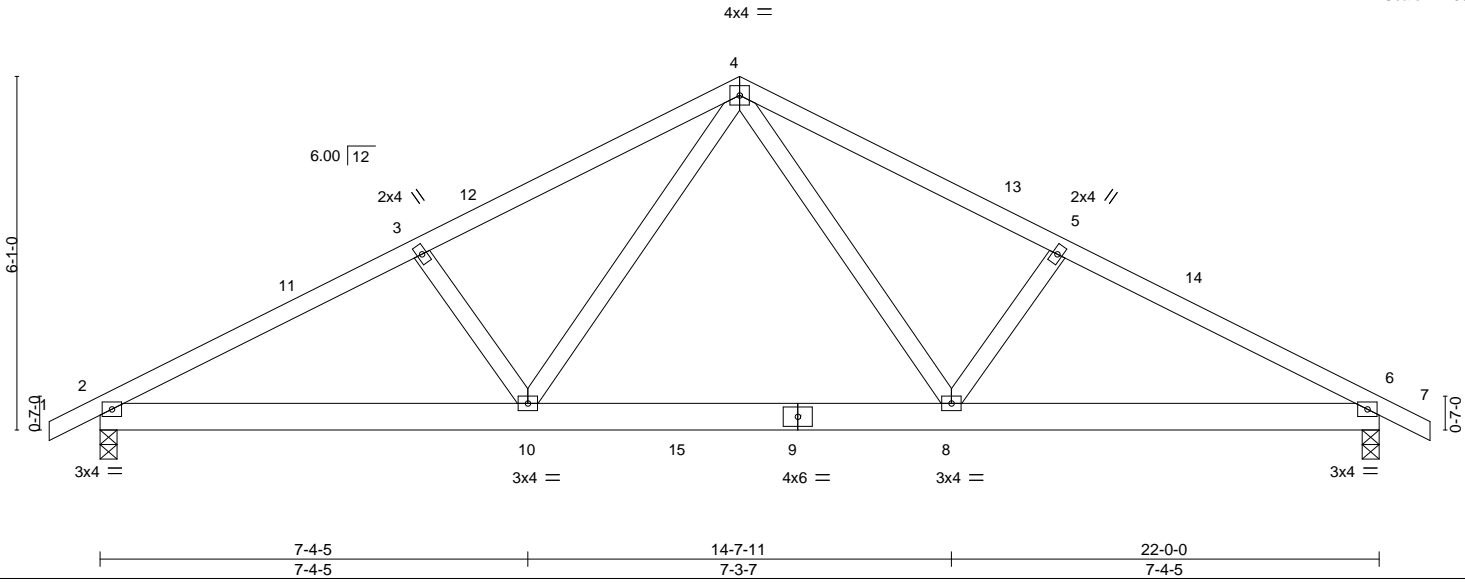
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:38 2020 Page 1

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Scale = 1:39.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(LL) -0.05 8-10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.10 8-10 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.03 8-10 >999 240	Weight: 120 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-77(LC 10)  
 Max Uplift 2=-66(LC 12), 6=-66(LC 13)  
 Max Grav 2=930(LC 1), 6=930(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1464/353, 3-4=-1284/366, 4-5=-1284/366, 5-6=-1464/353  
 BOT CHORD 2-10=-228/1223, 8-10=-70/829, 6-8=-236/1223  
 WEBS 4-8=-98/488, 5-8=-284/207, 4-10=-98/489, 3-10=-284/207

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 11-0-0, Exterior(2) 11-0-0 to 15-4-13, Interior(1) 15-4-13 to 22-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



June 2, 2020

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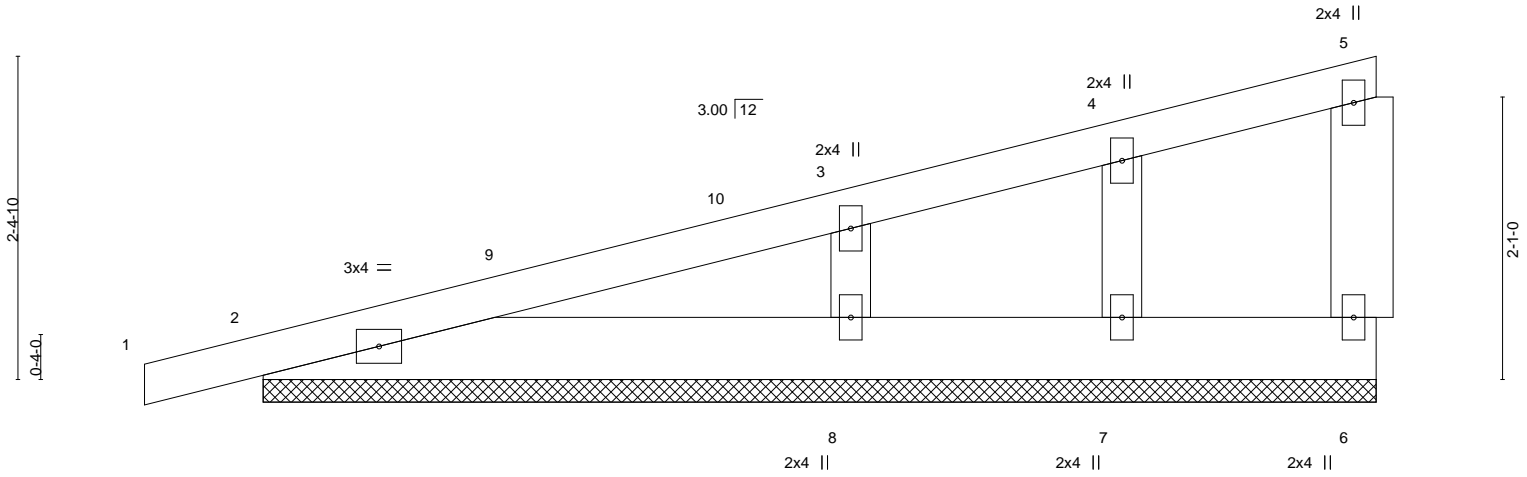
Job J1220-5850	Truss M1	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466349
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:40 2020 Page 1  
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Scale = 1:17.0



LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.16	Vert(LL) -0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) 0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 40 lb	FT = 20%

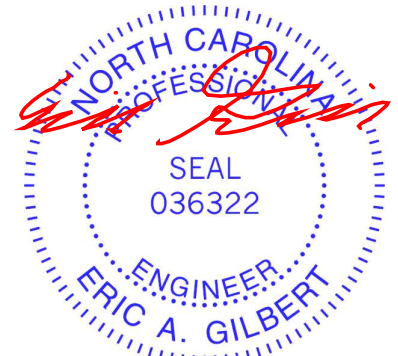
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1  
OTHERS 2x4 SP No.2

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

**REACTIONS.** All bearings 8-2-8.  
(lb) - Max Horz 2=109(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7 except 8=107(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=344(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-8=-255/218

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7 except (j=lb) 8=107.



June 2, 2020

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

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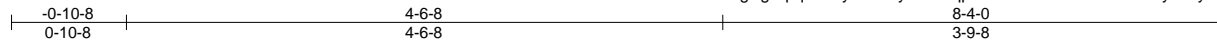


818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss M2	Truss Type MONOPITCH	Qty 5	Ply 1	Lot 2 Byrd Farm	E14466350
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:42 2020 Page 1  
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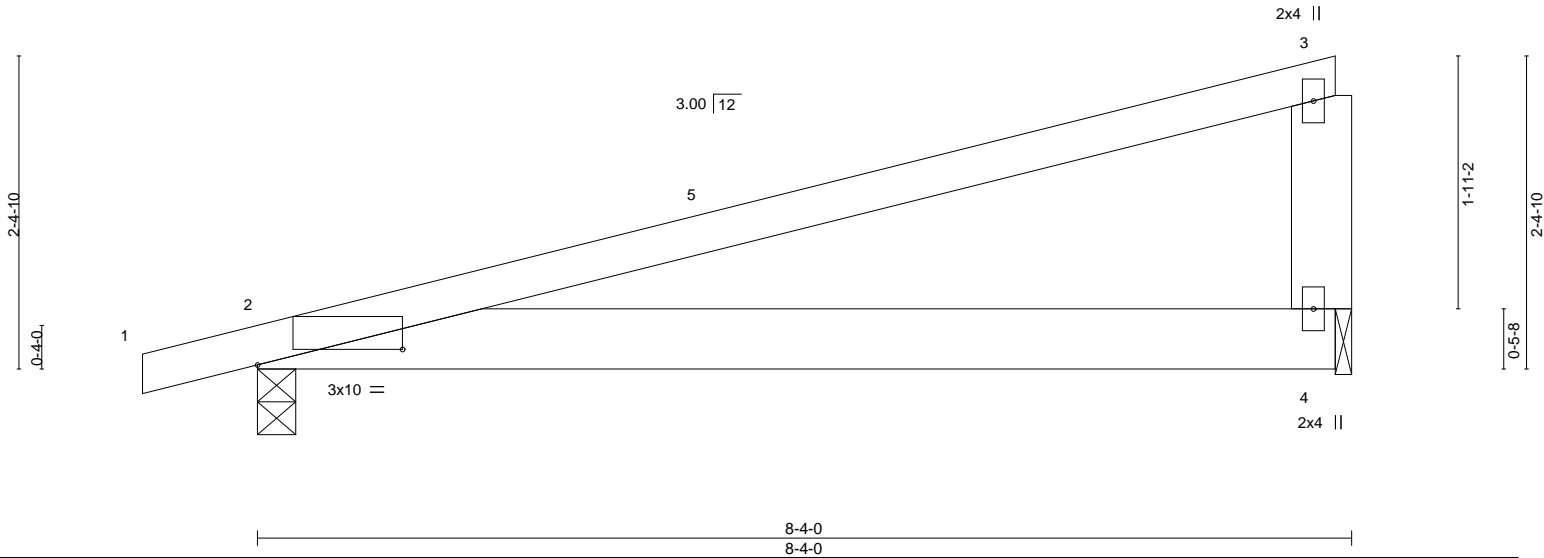


Plate Offsets (X,Y)-- [2:1-1-4,0-1-7]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.95	Vert(LL) -0.05	2-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.26	Vert(CT) -0.11	2-4	>880	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00		n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.00	2	****	240		
	Code IRC2015/TPI2014						Weight: 37 lb	FT = 20%

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

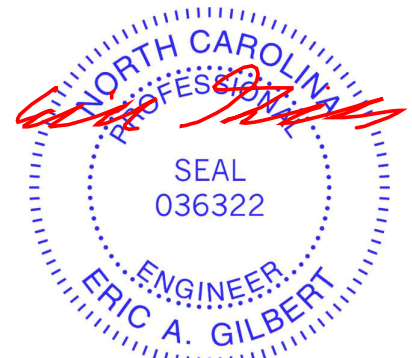
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=0-1-8  
 Max Horz 2=77(LC 8)  
 Max Uplift 2=-66(LC 8), 4=-41(LC 12)  
 Max Grav 2=384(LC 1), 4=314(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 8-1-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



June 2,2020

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818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss M3	Truss Type ROOF SPECIAL	Qty 6	Ply 1	Lot 2 Byrd Farm	E14466351
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:42 2020 Page 1  
ID:BoL?hgXglYpqwdOiyUmcQyz41fz-qpZi8PQVL11OviCTh2EDc11?G1easRnwU7S6QazAltZ



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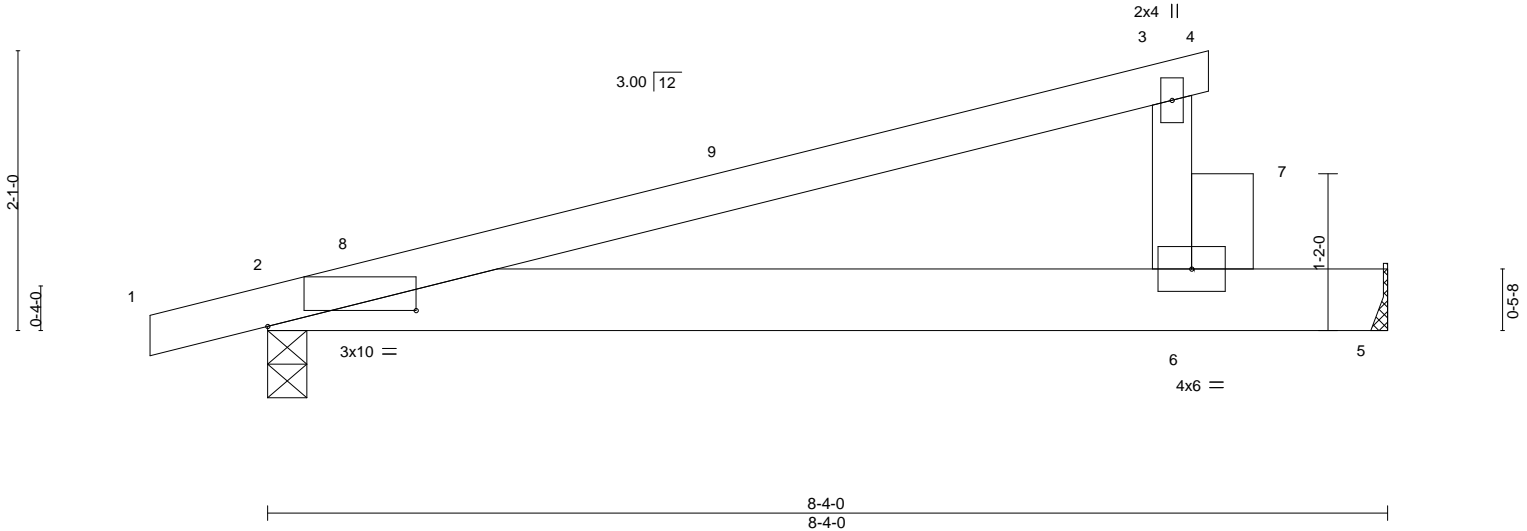


Plate Offsets (X,Y)--	[2:1-1-4,0-1-7]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.71	Vert(LL) -0.11 2-6 >884 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.86	Vert(CT) -0.26 2-6 >373 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.17 2-6 >569 240		
				Weight: 35 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 7-8-6 oc bracing.
WEBS 2x4 SP No.2 *Except* 6-7: 2x6 SP No.1	

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical  
Max Horz 2=68(LC 8)  
Max Uplift 2=75(LC 8), 5=58(LC 12)  
Max Grav 2=468(LC 1), 5=656(LC 1)

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

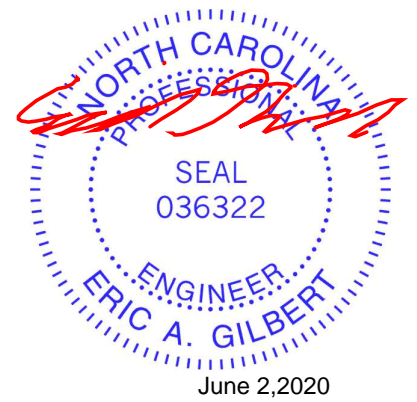
- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 7-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 500 lb down and 265 lb up at 7-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-20, 2-5=-20

Concentrated Loads (lb)  
Vert: 6=500



Job J1220-5850	Truss M4	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466352
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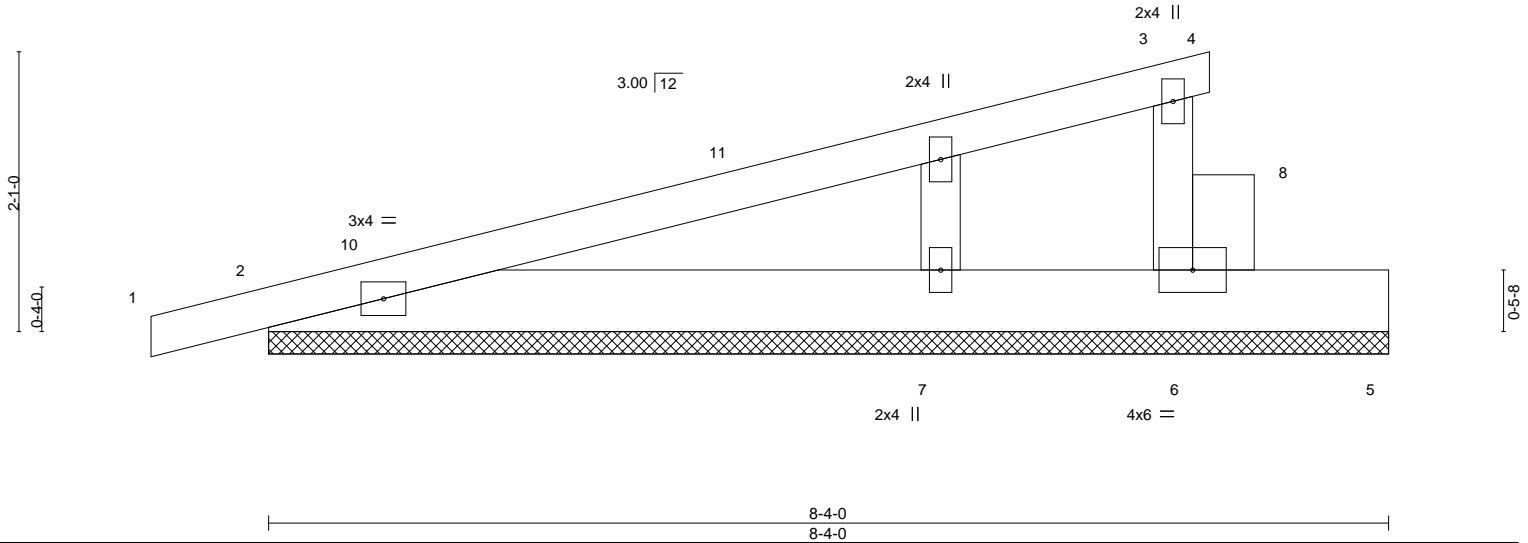
Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:44 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-nChTZ5Rlte0690MspTGhhSqMqVUKLHCxRxDUSzAltX



Scale = 1:17.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.66	Vert(LL) -0.01	4	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) 0.01	4	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 37 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 6-8: 2x6 SP No.1  
 OTHERS 2x4 SP No.2

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

**REACTIONS.** (size) 6=8-4-0, 2=8-4-0, 7=8-4-0  
 Max Horz 2=96(LC 8)  
 Max Uplift 6=109(LC 12), 2=133(LC 8)  
 Max Grav 6=235(LC 1), 2=303(LC 1), 7=181(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 7-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=109, 2=133.



June 2, 2020

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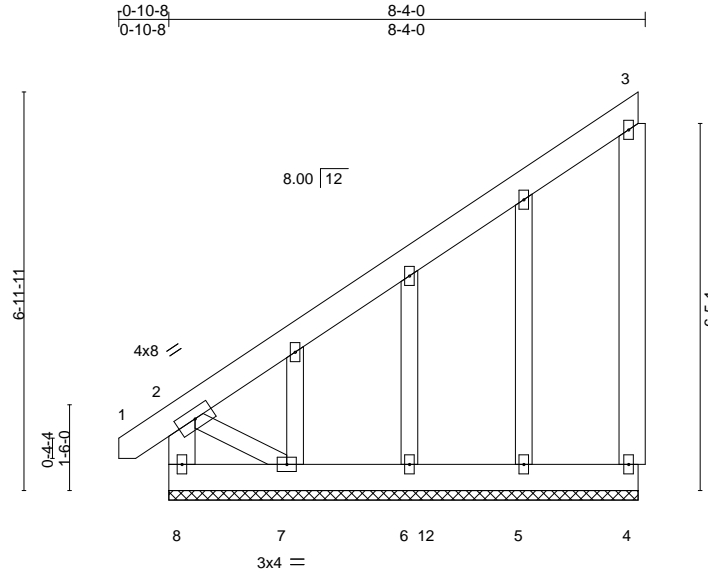
818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss M5	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466353
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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:45 2020 Page 1

ID:BoL?hgXglYppwdOiyUmcQyz41fz-FOFrmRSNey8zm9x2MAnwEgNbUEsN3nZMA5hm1uzAltW



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LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.40	Vert(LL) -0.02	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) 0.01	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) -0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 79 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x6 SP No.1 \*Except\*  
 2-7: 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

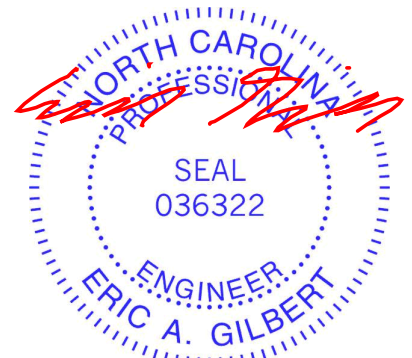
All bearings 8-2-8.  
 (lb) - Max Horz 8=271(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) except 4=206(LC 12), 7=142(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 5, 6, 7 except 4=311(LC 19), 8=311(LC 1)

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

TOP CHORD 3-4=-301/227, 2-8=-298/0  
 BOT CHORD 7-8=-302/225  
 WEBS 2-7=-265/356

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 206 lb uplift at joint 4 and 142 lb uplift at joint 7.



June 2, 2020

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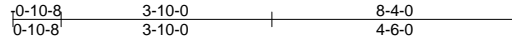
818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss M6	Truss Type MONOPITCH	Qty 6	Ply 1	Lot 2 Byrd Farm	E14466354
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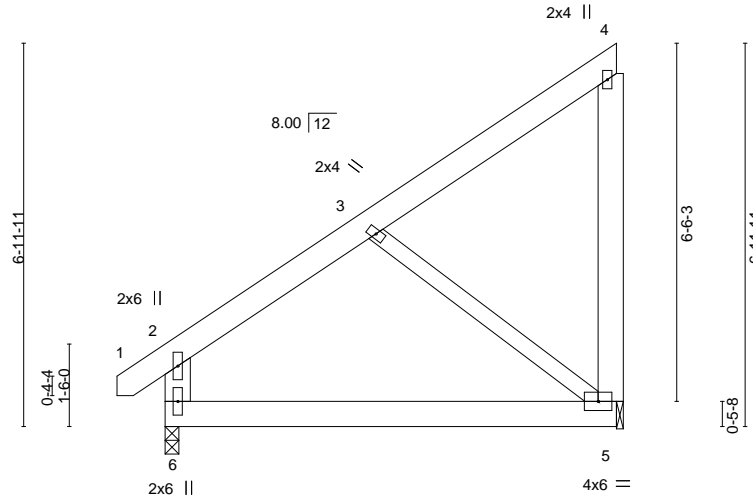
Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:46 2020 Page 1

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Scale = 1:41.9



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	Vert(LL) -0.03	5-6	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(CT) -0.06	5-6	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Horz(CT) -0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.07	5-6	>999	240		
	Code IRC2015/TPI2014						Weight: 69 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 6=0-3-0, 5=0-1-8  
 Max Horz 6=178(LC 12)  
 Max Uplift 6=-27(LC 9), 5=-143(LC 9)  
 Max Grav 6=376(LC 1), 5=310(LC 1)

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

TOP CHORD 2-3=-268/39, 2-6=-290/86  
 BOT CHORD 5-6=-250/259  
 WEBS 3-5=-313/285

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-12 to 3-7-11, Interior(1) 3-7-11 to 8-1-0 zone; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 6 and 143 lb uplift at joint 5.



June 2, 2020

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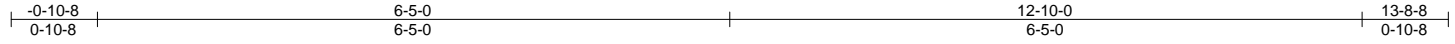
Job J1220-5850	Truss P1	Truss Type GABLE	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466355
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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:48 2020 Page 1

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Job Reference (optional)



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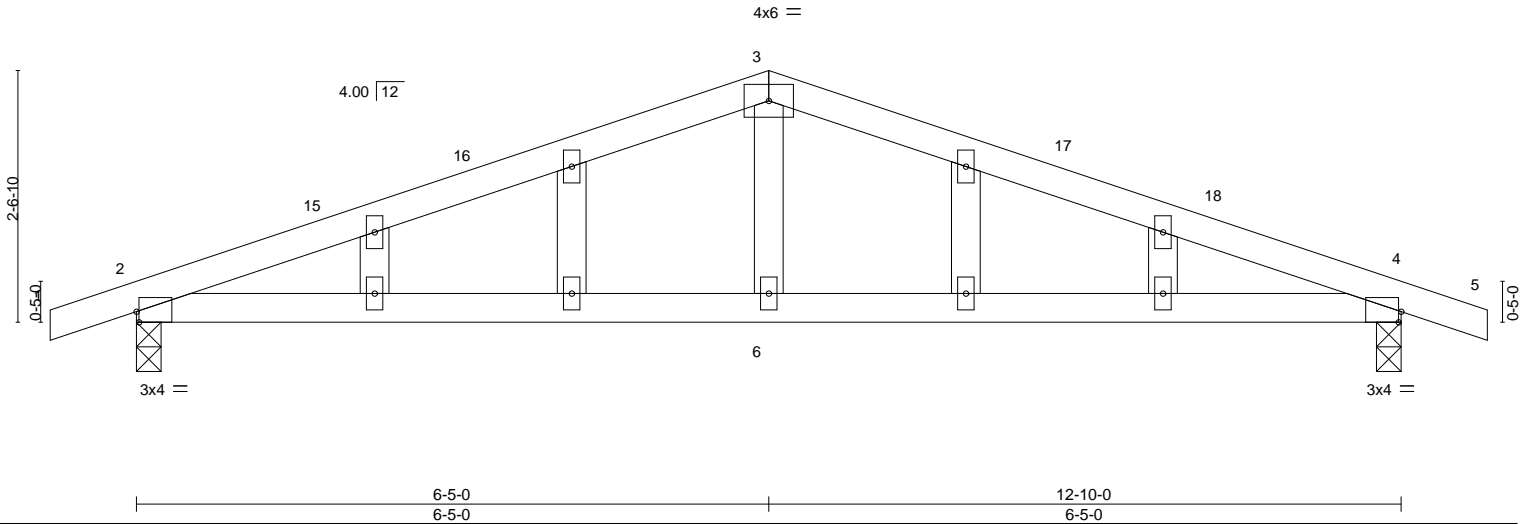


Plate Offsets (X,Y)--	[2:0-0-5,Edge], [4:0-0-5,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) 0.11 4-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.09 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 51 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-9-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-6-10 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
Max Horz 2=-49(LC 17)  
Max Uplift 2=-309(LC 8), 4=-309(LC 9)  
Max Grav 2=563(LC 1), 4=563(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-910/965, 3-4=-910/965  
BOT CHORD 2-6=-828/799, 4-6=-828/799  
WEBS 3-6=-383/303

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 6-5-0, Exterior(2) 6-5-0 to 10-9-13, Interior(1) 10-9-13 to 13-8-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 309 lb uplift at joint 2 and 309 lb uplift at joint 4.





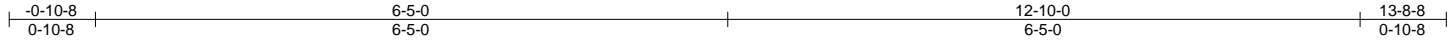
Job J1220-5850	Truss P2	Truss Type COMMON	Qty 2	Ply 1	Lot 2 Byrd Farm	E14466356
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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:49 2020 Page 1

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Job Reference (optional)



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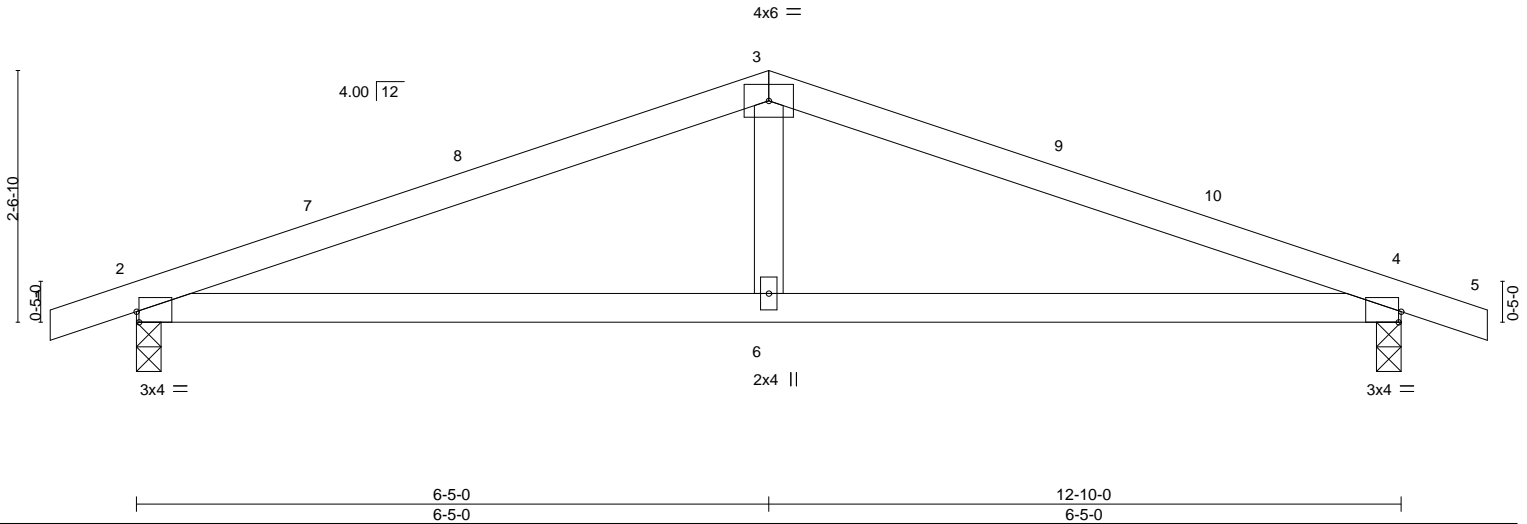


Plate Offsets (X,Y)--	[2:0-0-5,Edge], [4:0-0-5,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) 0.11 4-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.09 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 45 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-9-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-6-10 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=-29(LC 13)  
 Max Uplift 2=-217(LC 8), 4=-217(LC 9)  
 Max Grav 2=563(LC 1), 4=563(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-910/965, 3-4=-910/965  
 BOT CHORD 2-6=-828/799, 4-6=-828/799  
 WEBS 3-6=-383/303

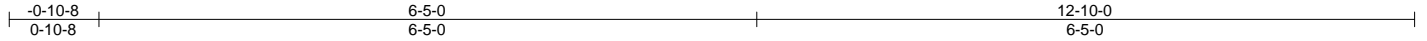
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 6-5-0, Exterior(2) 6-5-0 to 10-9-13, Interior(1) 10-9-13 to 13-8-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 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 217 lb uplift at joint 2 and 217 lb uplift at joint 4.



Job J1220-5850	Truss P3	Truss Type COMMON	Qty 3	Ply 1	Lot 2 Byrd Farm	E14466357
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:50 2020 Page 1  
ID:BoL?hgXglYpqwdOiyUmcQyz41fz-bL2kp8WWSUmFtxp09jN5xj4QuFUSk1i5KNOXi6zAltR



Scale = 1:22.5

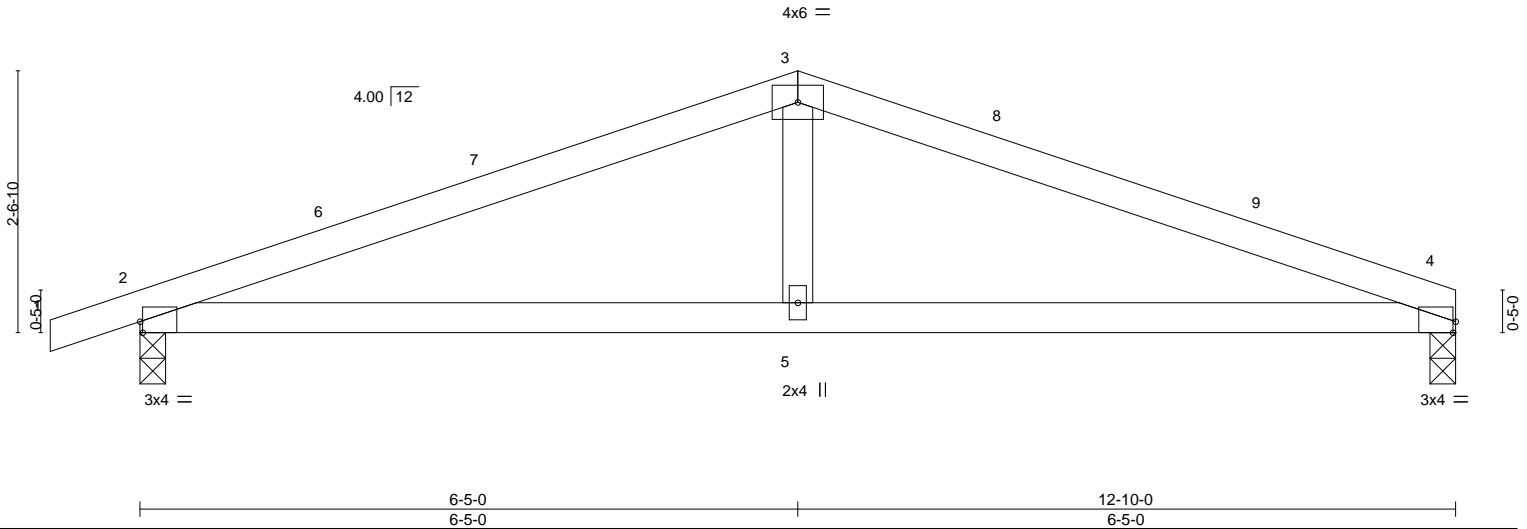


Plate Offsets (X,Y)--	[2:0-0-5,Edge], [4:0-0-5,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) 0.11 4-5 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.09 4-5 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 44 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-7-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-4-14 oc bracing.

**REACTIONS.** (size) 4=0-3-0, 2=0-3-0  
Max Horz 2=32(LC 12)  
Max Uplift 4=-179(LC 9), 2=-217(LC 8)  
Max Grav 4=501(LC 1), 2=566(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-918/984, 3-4=-916/993  
BOT CHORD 2-5=-866/807, 4-5=-866/807  
WEBS 3-5=-386/305

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 6-5-0, Exterior(2) 6-5-0 to 10-9-13, Interior(1) 10-9-13 to 12-8-8 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 4 and 217 lb uplift at joint 2.

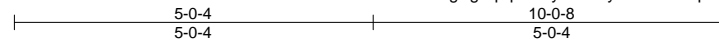


Job J1220-5850	Truss VB-1	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466358
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Comtech, Inc, Fayetteville, NC - 28314,

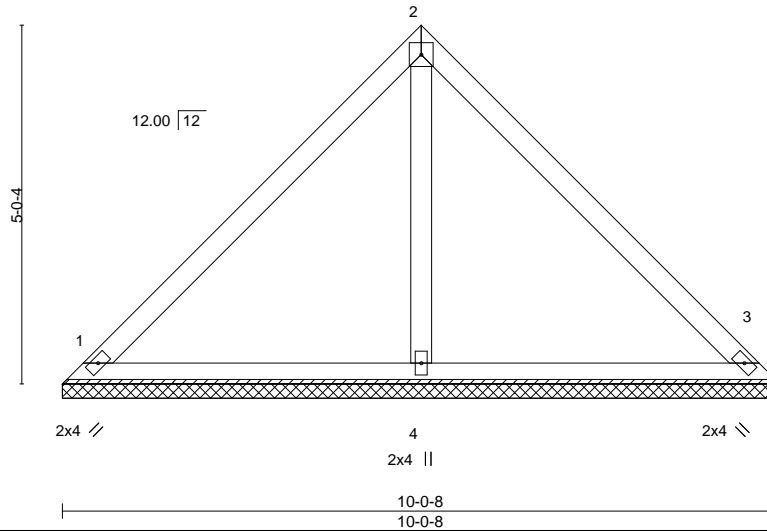
8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:50 2020 Page 1

ID:BoL?hgXglYpqqwDQiyUmcQyz41fz-bl2kp8WWSUmFtxp09jN5xj4UjFXLk1h5KNOXi6zAltR



4x4 =

Scale: 3/8"=1'



LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 41 lb	FT = 20%

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

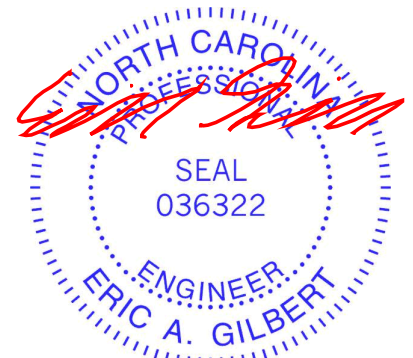
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=10-0-8, 3=10-0-8, 4=10-0-8  
Max Horz 1=112(LC 9)  
Max Uplift 1=-28(LC 13), 3=-28(LC 13)  
Max Grav 1=212(LC 1), 3=212(LC 1), 4=324(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 28 lb uplift at joint 3.



June 2, 2020

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

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



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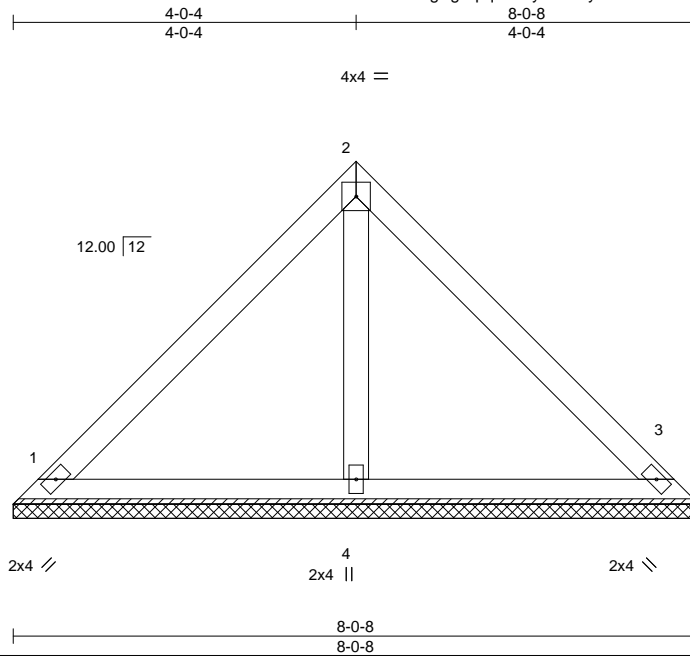
Job J1220-5850	Truss VB-2	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466359
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:51 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-4Yc61UX8Dou6U4OCjRuKtXcfbuYTVVEY185EYzAltQ

Job Reference (optional)



Scale = 1:27.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 33 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.

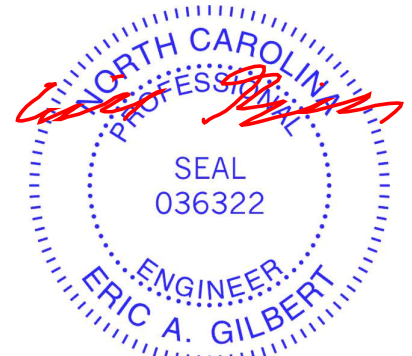
**REACTIONS.**

(size) 1=8-0-8, 3=8-0-8, 4=8-0-8  
 Max Horz 1=-88(LC 10)  
 Max Uplift 1=-32(LC 13), 3=-32(LC 13)  
 Max Grav 1=179(LC 1), 3=179(LC 1), 4=230(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 1 and 32 lb uplift at joint 3.



June 2, 2020

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



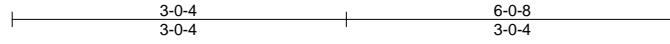
818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss VB-3	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466360
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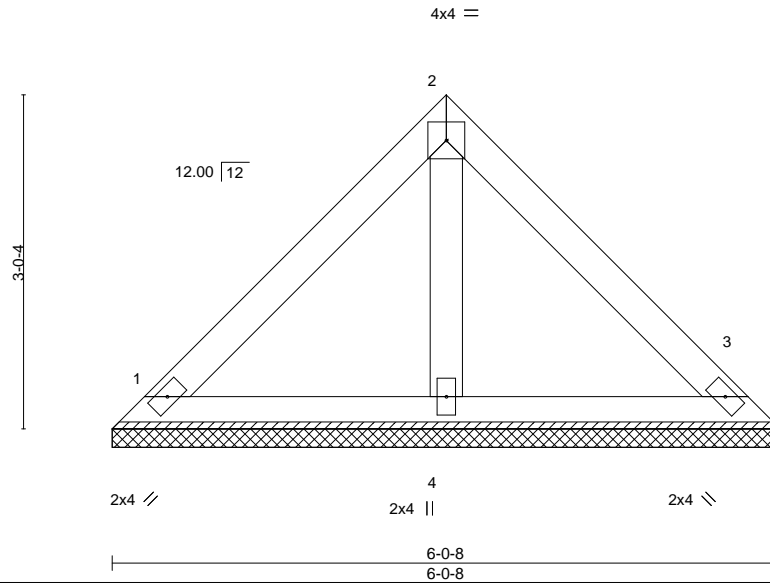
Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:52 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-YkAUEqXm\_60z6EzOH8PZ089s43FWCy1Onhitem\_zAltP



Scale = 1:20.8



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 0.12	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	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	IRC2015/TPI2014	Matrix-P					Weight: 24 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=6-0-8, 3=6-0-8, 4=6-0-8  
Max Horz 1=64(LC 9)  
Max Uplift 1=-23(LC 13), 3=-23(LC 13)  
Max Grav 1=130(LC 1), 3=130(LC 1), 4=167(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 23 lb uplift at joint 3.



June 2,2020

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

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

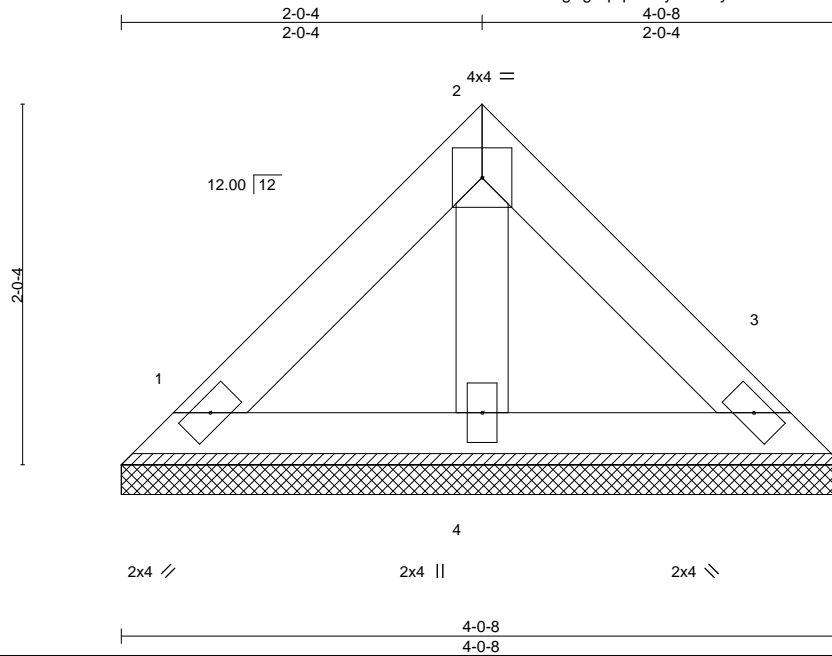
818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss VB-4	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466361
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:53 2020 Page 1

ID:BoL?hgXglYpqqwOiyUmcQyz41fz-0wktSAYOIP8qkOYaqsoYMi2zTbFxPPX0LdBJRzAltO



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 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/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 4-0-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

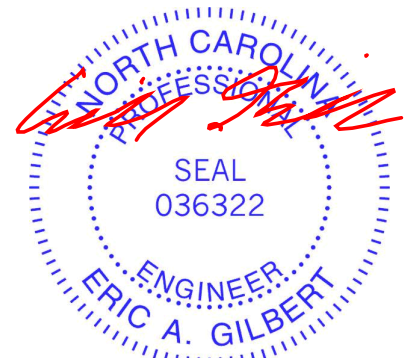
**REACTIONS.**

(size) 1=4-0-8, 3=4-0-8, 4=4-0-8  
 Max Horz 1=40(LC 10)  
 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-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 14 lb uplift at joint 1 and 14 lb uplift at joint 3.



June 2, 2020

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

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

ENGINEERING BY  
**TRENCO**  
 A MITEK Affiliate

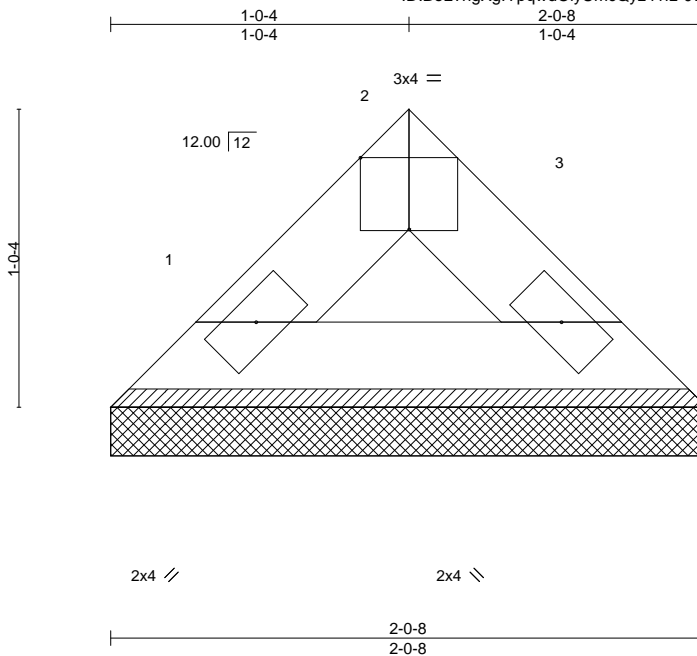
818 Soundside Road  
 Edenton, NC 27932

Job J1220-5850	Truss VB-5	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466362
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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:53 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-0wktSAYOIP8qkOYaqsoYMi2WTbMxPWXLdBJRzAltO



Scale = 1:7.9

Plate Offsets (X,Y)-- [2:0-2:0,Edge]		CSI.		DEFL.				PLATES	GRIP
LOADING (psf)	SPACING- 2-0-0	TC	0.01	in	(loc)	l/defl	L/d	MT20	244/190
TCLL 20.0	Plate Grip DOL 1.15	BC	0.01	Vert(LL)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB	0.00	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-P		Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014							Weight: 6 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-0-8, 3=2-0-8  
Max Horz 1=-16(LC 8)  
Max Uplift 1=-2(LC 12), 3=-2(LC 12)  
Max Grav 1=54(LC 1), 3=54(LC 1)

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

**NOTES-**

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



June 2,2020

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

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



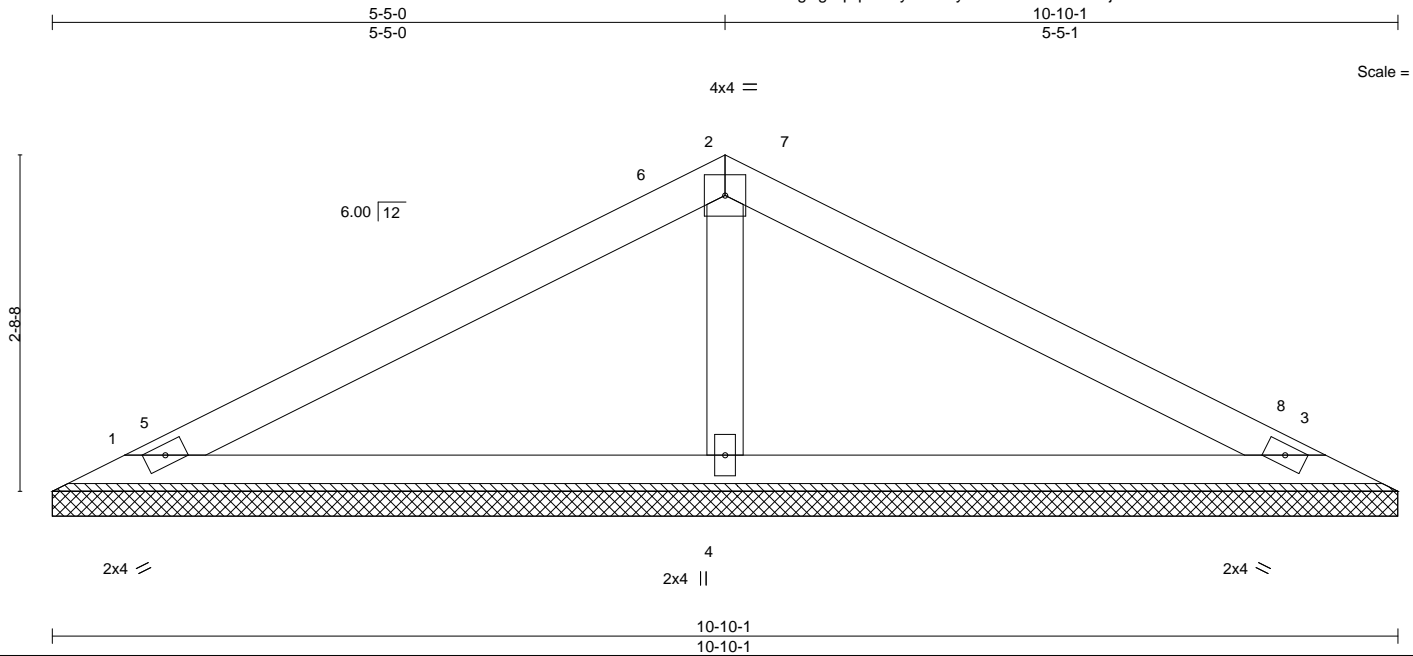
818 Soundside Road  
Edenton, NC 27932

Job J1220-5850	Truss VC-1	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466363
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:54 2020 Page 1

ID:BoL?hgXglYpqwdOiyUmcQyz41fz-U7HFfWZ0WjGhMY7nOZS15ZE AesvCfs9hE?MlirtzAltN



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	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: 35 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

**REACTIONS.** (size) 1=10-10-1, 3=10-10-1, 4=10-10-1  
 Max Horz 1=31(LC 11)  
 Max Uplift 1=-23(LC 12), 3=-29(LC 13)  
 Max Grav 1=178(LC 23), 3=178(LC 24), 4=417(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-4=-276/183

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-7-7 to 5-0-3, Interior(1) 5-0-3 to 5-5-0, Exterior(2) 5-5-0 to 9-9-13, Interior(1) 9-9-13 to 10-2-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 29 lb uplift at joint 3.
  - Non Standard bearing condition. Review required.



June 2, 2020

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

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 Edenton, NC 27932

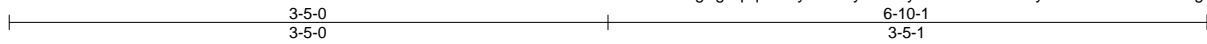


Job J1220-5850	Truss VC-2	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466364
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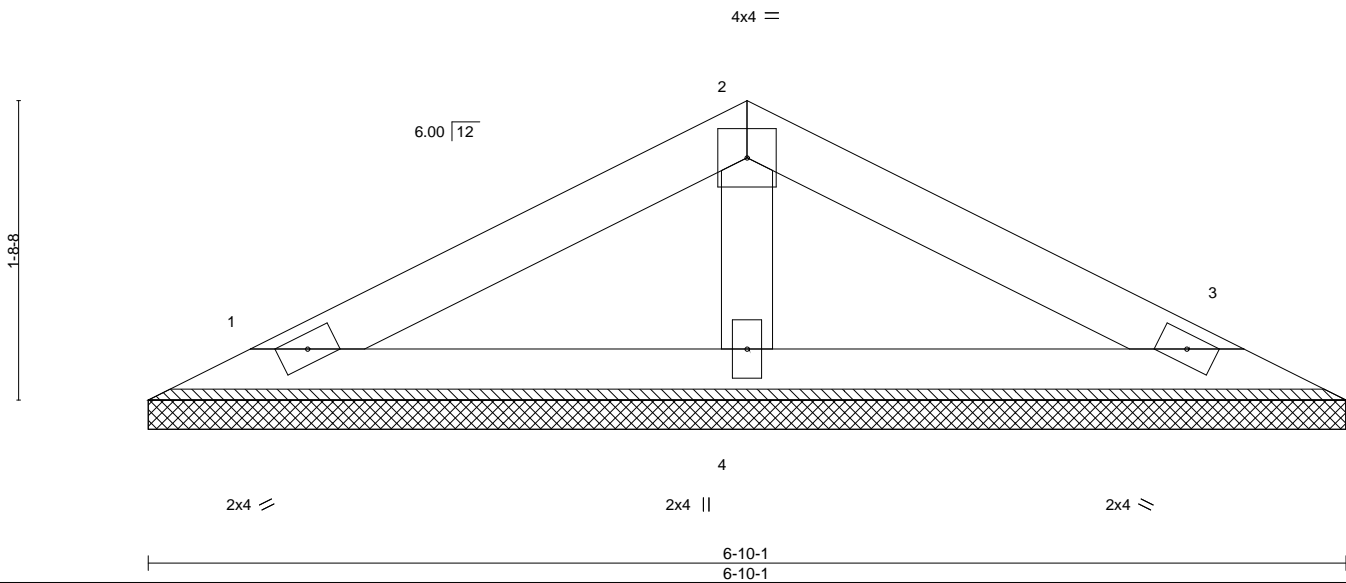
Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:55 2020 Page 1

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Scale = 1:13.2



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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 21 lb	FT = 20%

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

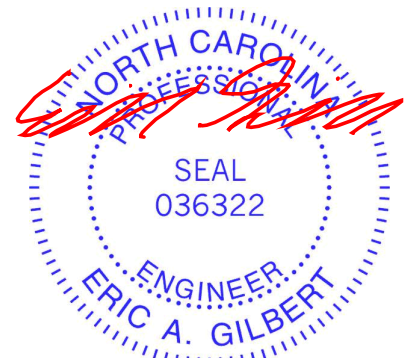
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=6-10-1, 3=6-10-1, 4=6-10-1  
Max Horz 1=-18(LC 8)  
Max Uplift 1=-18(LC 12), 3=-21(LC 13)  
Max Grav 1=114(LC 1), 3=114(LC 1), 4=220(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 18 lb uplift at joint 1 and 21 lb uplift at joint 3.
- Non Standard bearing condition. Review required.



June 2,2020

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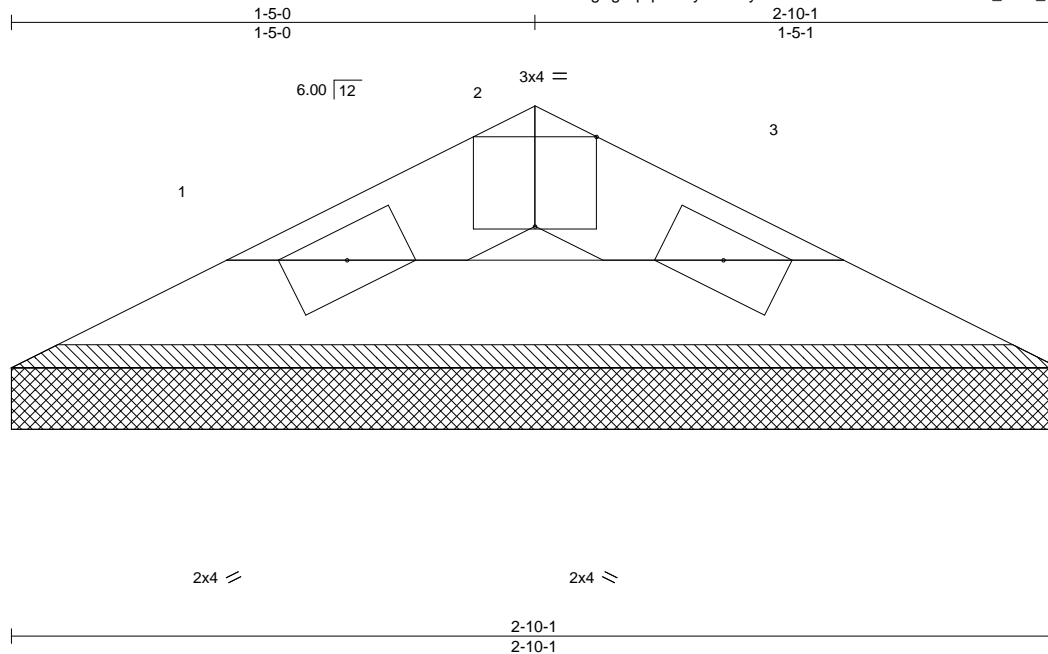
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Job J1220-5850	Truss VC-3	Truss Type VALLEY	Qty 1	Ply 1	Lot 2 Byrd Farm	E14466365
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8.330 s May 6 2020 MiTek Industries, Inc. Tue Jun 2 13:44:56 2020 Page 1

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Scale = 1:6.2

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

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

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

**REACTIONS.** (size) 1=2-10-1, 3=2-10-1  
Max Horz 1=5(LC 8)  
Max Uplift 1=4(LC 12), 3=4(LC 13)  
Max Grav 1=64(LC 1), 3=64(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 4 lb uplift at joint 1 and 4 lb uplift at joint 3.
- Non Standard bearing condition. Review required.



June 2, 2020

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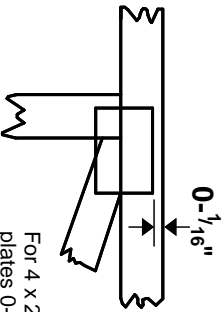
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# Symbols

## 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 20/20 software** or upon request.

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.