

RE: B0119-0440  
Wayfare A

Trenco  
818 Soundside Rd  
Edenton, NC 27932

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

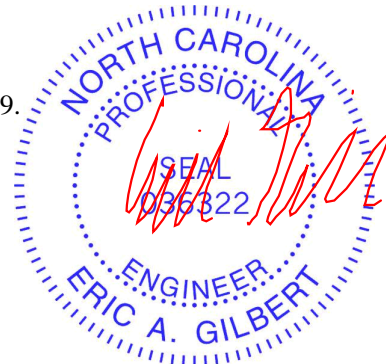
Design Code: IRC2015/TPI2014  
Wind Code: ASCE 7-10  
Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.1  
Wind Speed: 130 mph  
Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E12641364	a1	1/28/2019
2	E12641365	a2	1/28/2019
3	E12641366	a2-p	1/28/2019
4	E12641367	a3-p	1/28/2019
5	E12641368	a4	1/28/2019
6	E12641369	a4-p	1/28/2019
7	E12641370	a5	1/28/2019
8	E12641371	b1	1/28/2019
9	E12641372	b2	1/28/2019
10	E12641373	b3	1/28/2019
11	E12641374	c1	1/28/2019
12	E12641375	g1	1/28/2019
13	E12641376	g2	1/28/2019
14	E12641377	m1	1/28/2019
15	E12641378	m2	1/28/2019

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, 2019. North Carolina COA: C-0844

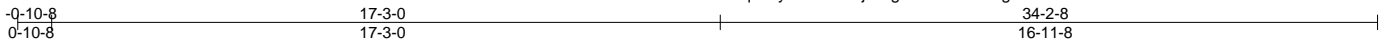


IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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.

Job B0119-0440	Truss A1	Truss Type GABLE	Qty 1	Ply 1	Wayfare A	E12641364
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:04 2019 Page 1  
ID:qBVty8JxTR2c0jviHgLUVLzeJa3-NgC0Btb6D2B7OJ7MOzV5VNbYZIiwV9BiShMRcWzqrO9



5x5 =

Scale = 1:59.4

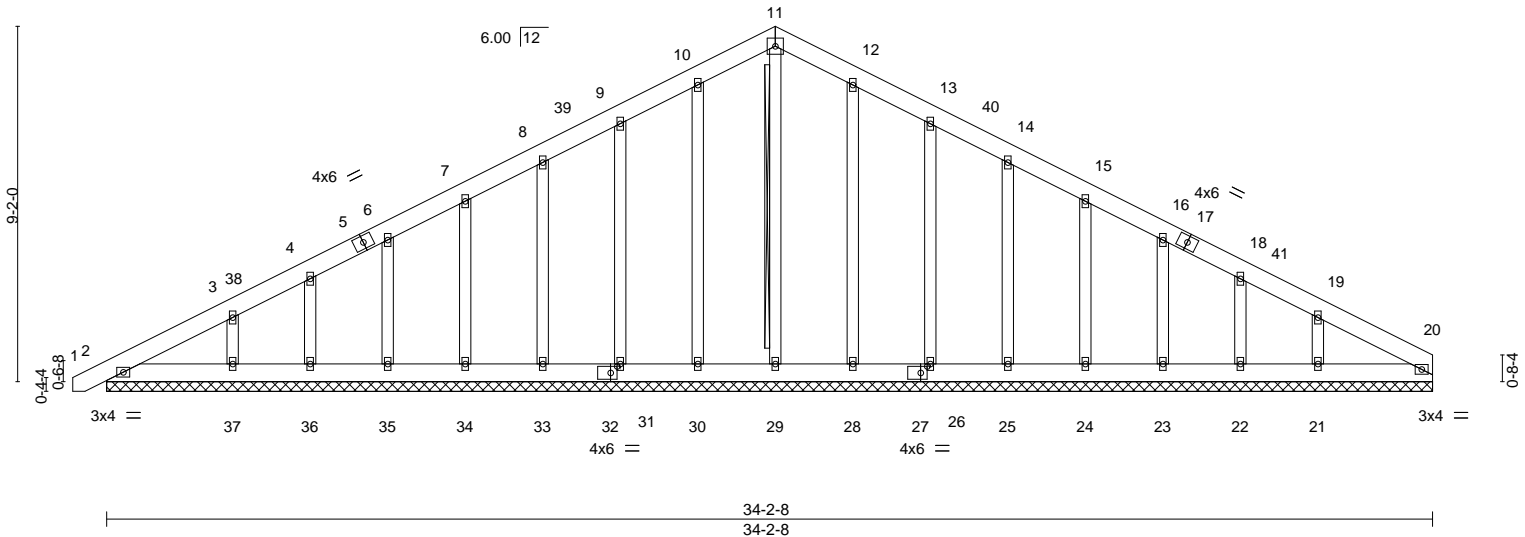


Plate Offsets (X,Y)--	[27:0-2-0,0-2-0], [32:0-2-0,0-2-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 274 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	T-Brace: 2x4 SPF No.2 - 11-29
	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 34-2-8.  
 (lb) - Max Horz 2=188(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except 37=111(LC 12), 21=116(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22, 21 except 29=269(LC 22), 37=253(LC 23)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=102/298, 10-11=117/339, 11-12=117/342, 12-13=102/302  
 WEBS 19-21=172/268

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-10 to 3-8-3, Exterior(2) 3-8-3 to 17-3-0, Corner(3) 17-3-0 to 21-7-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except (jt=lb) 37=111, 21=116.
  - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



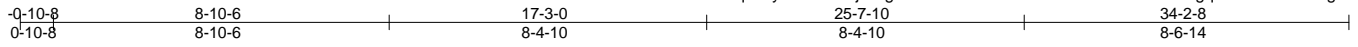
January 28, 2019

Job B0119-0440	Truss A2	Truss Type Common	Qty 8	Ply 1	Wayfare A	E12641365
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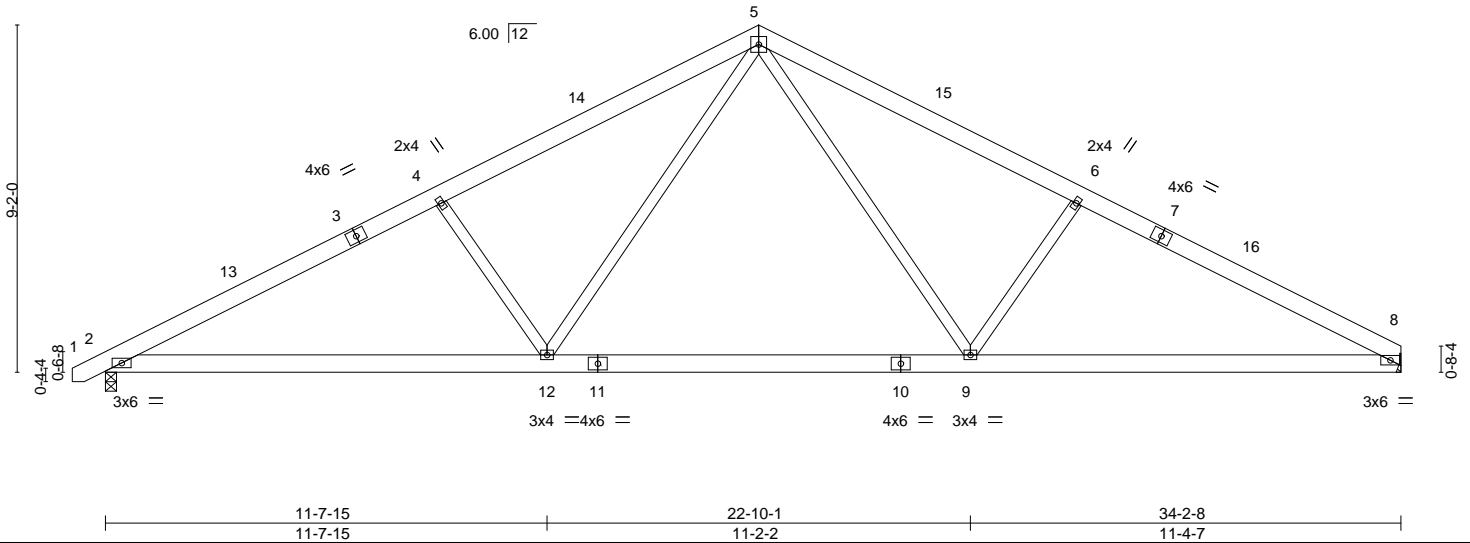
8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:06 2019 Page 1

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5x5 =

Scale = 1:60.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.38 9-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.48 9-12 >852 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 2-12 >999 240	Weight: 217 lb	FT = 20%

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

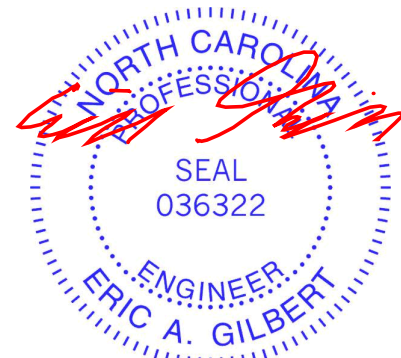
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-6-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1412/0-3-8, 8=1359/Mechanical  
Max Horz 2=118(LC 9)  
Max Uplift 2=-95(LC 12), 8=-81(LC 13)  
Max Grav 2=1484(LC 2), 8=1443(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-2680/531, 4-5=-2438/541, 5-6=-2414/552, 6-8=-2630/543  
BOT CHORD 2-12=-363/2347, 9-12=-118/1547, 8-9=-356/2267  
WEBS 5-9=-135/1010, 6-9=-488/304, 5-12=-139/1047, 4-12=-514/308

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 17-3-0, Exterior(2) 17-3-0 to 21-7-13 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 with a clearance greater than 6-0-0 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.



January 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



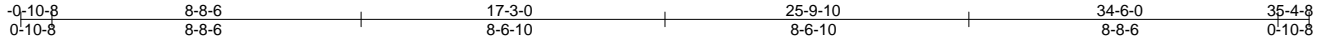
818 Soundside Road  
Edenton, NC 27932

Job B0119-0440	Truss A2-P	Truss Type COMMON	Qty 3	Ply 1	Wayfare A	E12641366
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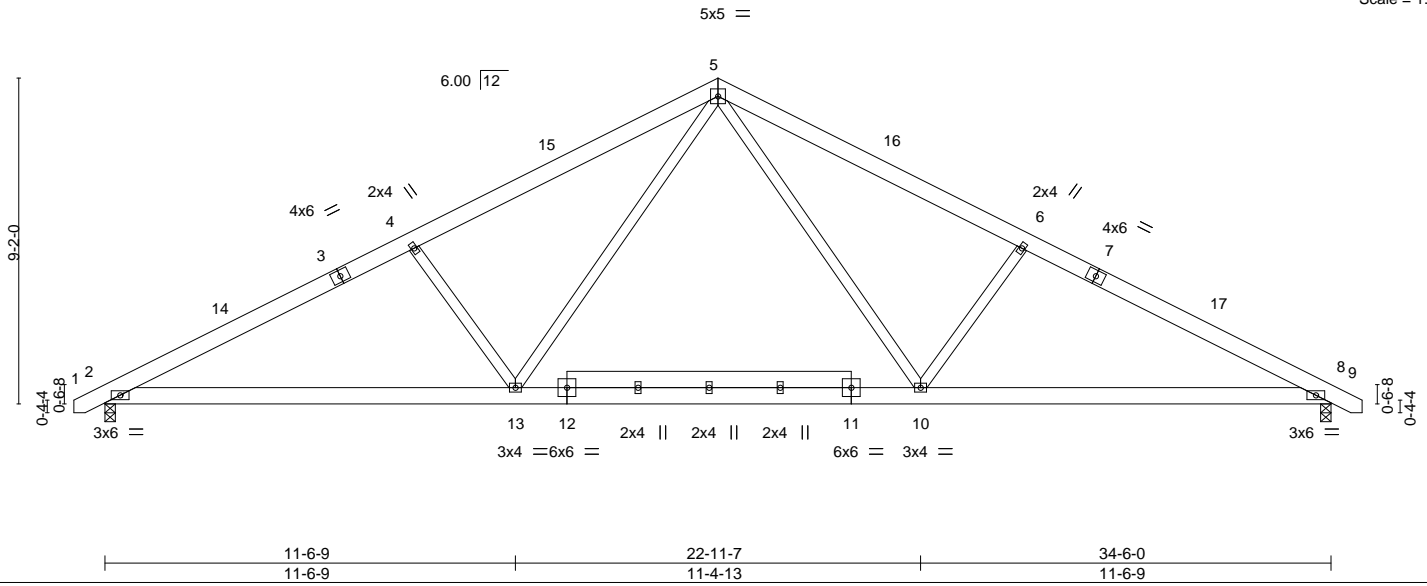
Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:07 2019 Page 1

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Scale = 1:64.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.41 10-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.51 10-13	>799	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S	Wind(LL)	0.06 2-13	>999	240	Weight: 239 lb	FT = 20%

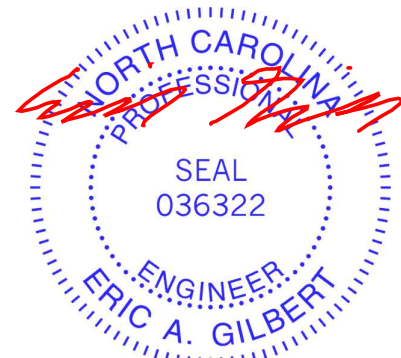
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 11-12: 2x6 SP No.1

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-5 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1420/0-3-8, 8=1420/0-3-8  
 Max Horz 2=117(LC 11)  
 Max Uplift 2=-95(LC 12), 8=-95(LC 13)  
 Max Grav 2=1497(LC 2), 8=1497(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2722/536, 4-5=-2476/542, 5-6=-2476/543, 6-8=-2722/536  
 BOT CHORD 2-13=-348/2389, 10-13=-111/1572, 8-10=-359/2344  
 WEBS 5-10=-134/1056, 6-10=-515/308, 5-13=-134/1056, 4-13=-515/308

- 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 17-3-0, Exterior(2) 17-3-0 to 21-7-13 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



January 28, 2019

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818 Soundside Road  
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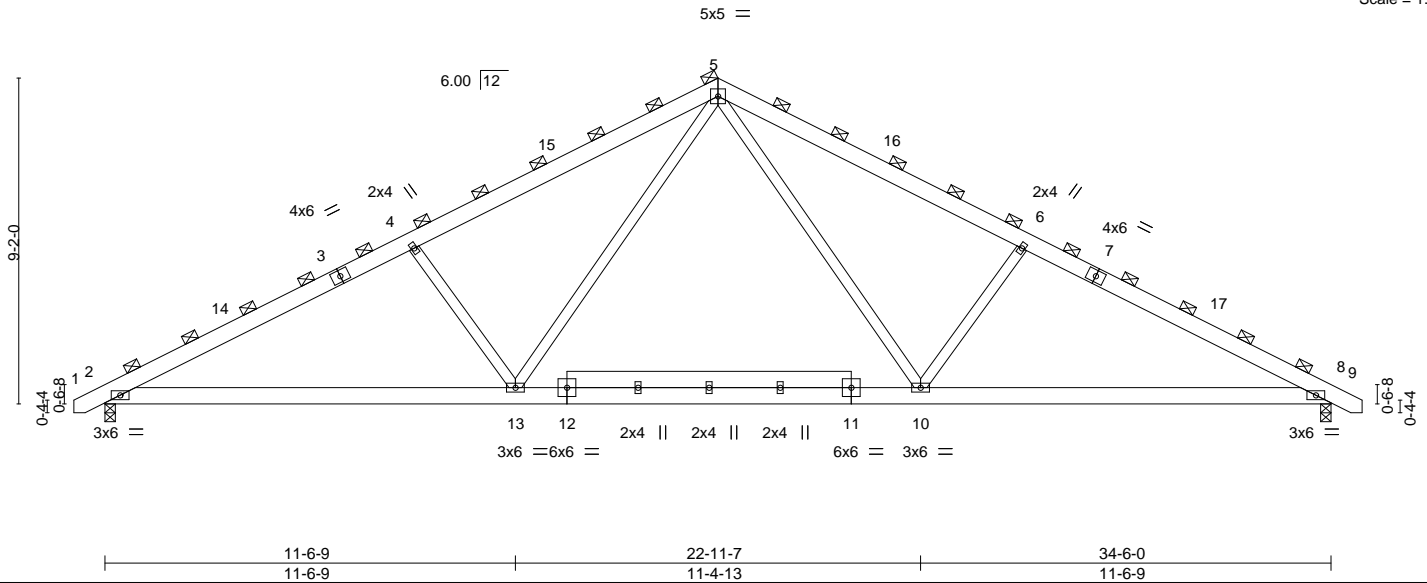
Job B0119-0440	Truss A3-P	Truss Type COMMON	Qty 1	Ply 1	Wayfare A	E12641367
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Comtech, Inc., Fayetteville, NC 28309

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ID:WeU20\_wZYqtA5MeuIVrNlzoaVc-FSSX1FecHHhZtwR7dpa1fDI8DMtXRt7INIKelHzqrO5  
 25-9-10 8-6-10 34-6-0 8-8-6 35-4-8 0-10-8

Scale = 1:64.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-1-8	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) -0.44 10-13 >943 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.46	Vert(CT) -0.55 10-13 >752 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.07 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 2-13 >999 240	Weight: 239 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 11-12: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (4-4-5 max.)  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

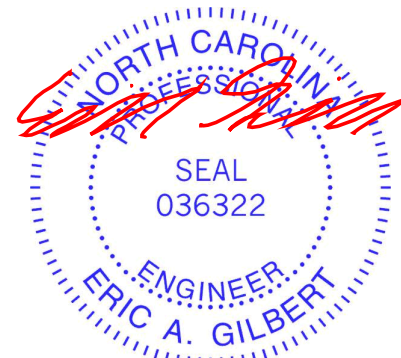
(lb/size) 2=1509/0-3-8, 8=1509/0-3-8  
 Max Horz 2=124(LC 11)  
 Max Uplift 2=100(LC 12), 8=100(LC 13)  
 Max Grav 2=1591(LC 2), 8=1591(LC 2)

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

TOP CHORD 2-4=-2892/570, 4-5=-2631/576, 5-6=-2631/576, 6-8=-2892/570  
 BOT CHORD 2-13=-370/2539, 10-13=-118/1670, 8-10=-381/2491  
 WEBS 5-10=-142/1122, 6-10=-547/327, 5-13=-142/1122, 4-13=-547/327

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 17-3-0, Exterior(2) 17-3-0 to 21-7-13 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 with a clearance greater than 6-0-0 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=100, 8=100.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 28, 2019

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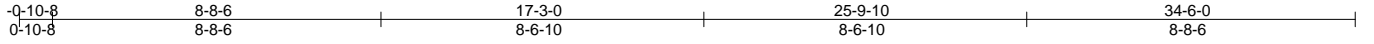


818 Soundside Road  
 Edenton, NC 27932

Job B0119-0440	Truss A4	Truss Type COMMON	Qty 5	Ply 1	Wayfare A	E12641368
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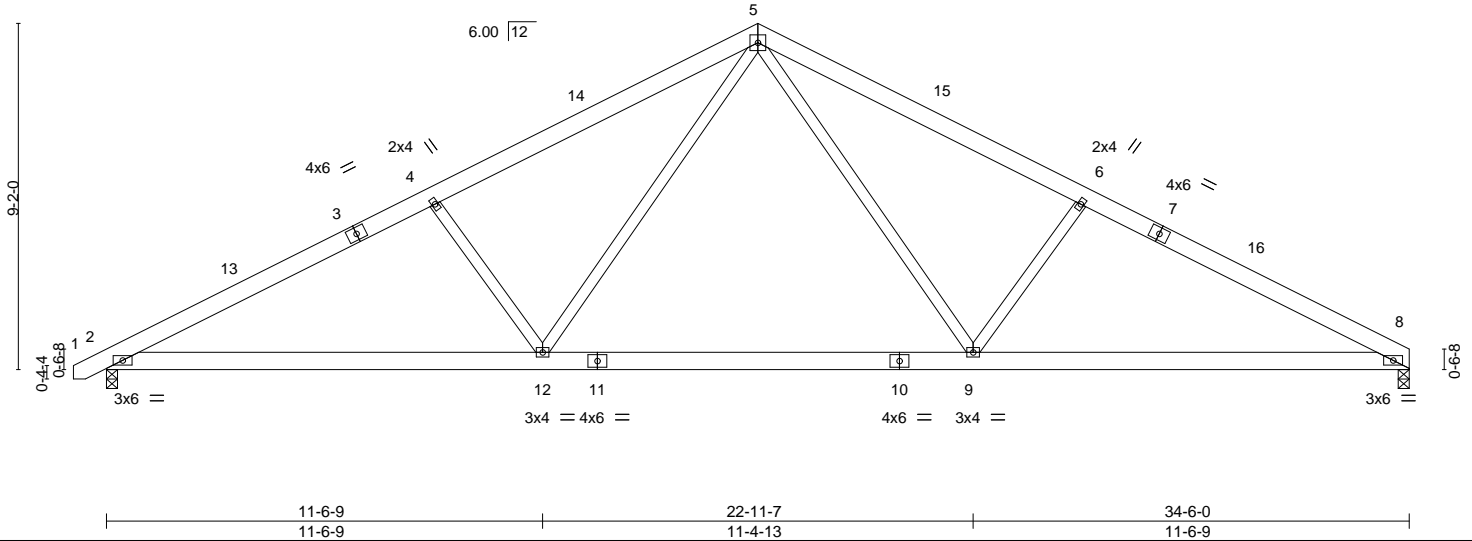
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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:09 2019 Page 1  
ID:WeU20\_wZYqTA5MeuIVrNlzoaVc-je0vEbfE2apQV40JBW5GCQIL6mFcALmRby3CHKzqrO4



5x5 =

Scale = 1:61.0



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.70	Vert(LL) -0.41 9-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.51 9-12 >798 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 2-12 >999 240	Weight: 218 lb	FT = 20%

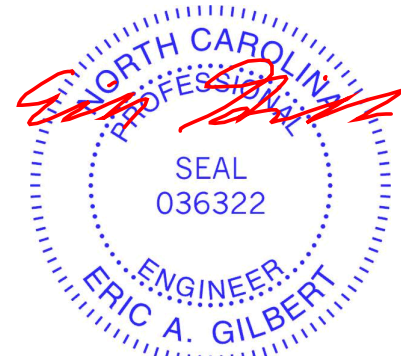
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-5-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1421/0-3-8, 8=1368/0-3-8  
Max Horz 2=118(LC 9)  
Max Uplift 2=-95(LC 12), 8=-82(LC 13)  
Max Grav 2=1497(LC 2), 8=1453(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-2723/537, 4-5=-2478/543, 5-6=-2479/558, 6-8=-2706/554  
BOT CHORD 2-12=-372/2386, 9-12=-123/1568, 8-9=-373/2349  
WEBS 5-9=-137/1059, 6-9=-518/312, 5-12=-135/1056, 4-12=-515/308

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 17-3-0, Exterior(2) 17-3-0 to 21-7-13 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



January 28, 2019

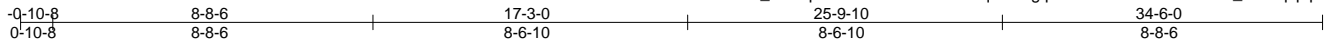
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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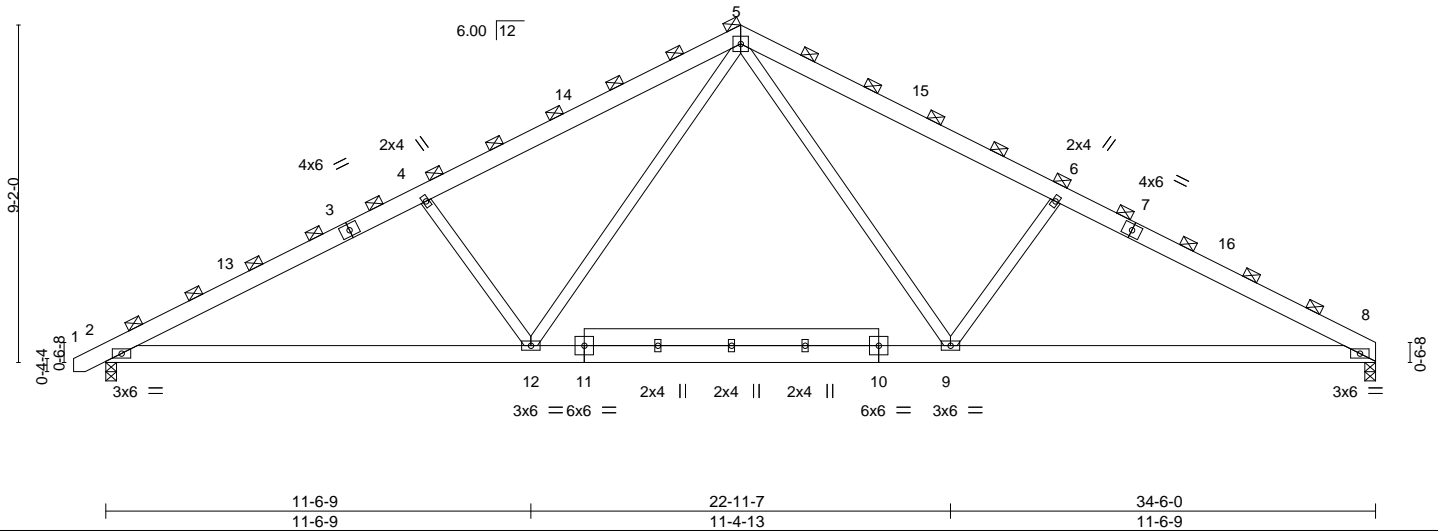
Job B0119-0440	Truss A4-P	Truss Type COMMON	Qty 1	Ply 1	Wayfare A	E12641369
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:10 2019 Page 1  
ID:WeU20\_wZYqtTA5MeulVrNlzoaVc-BqaHSxgtpuxH6EbWkEcVkerUe9Z\_vnbaqcplpAzqrO3



Scale = 1:62.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-1-8	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) -0.44 9-12 >940 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.46	Vert(CT) -0.55 9-12 >751 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.07 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 2-12 >999 240	Weight: 237 lb	FT = 20%

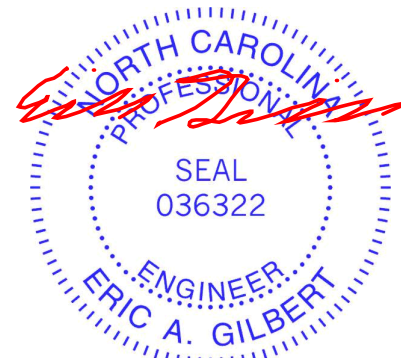
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 10-11: 2x6 SP No.1

**BRACING-**  
 TOP CHORD 2-0-0 oc purlins (4-3-14 max.)  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1510/0-3-8, 8=1453/0-3-8  
 Max Horz 2=125(LC 9)  
 Max Uplift 2=-101(LC 12), 8=-88(LC 13)  
 Max Grav 2=1591(LC 2), 8=1544(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2893/571, 4-5=-2632/577, 5-6=-2634/593, 6-8=-2875/589  
 BOT CHORD 2-12=-395/2535, 9-12=-131/1667, 8-9=-396/2496  
 WEBS 5-9=-145/1125, 6-9=-550/332, 5-12=-143/1122, 4-12=-547/327

- 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 17-3-0, Exterior(2) 17-3-0 to 21-7-13 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 with a clearance greater than 6-0-0 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) 8 except (jt=lb) 2=101.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 28, 2019

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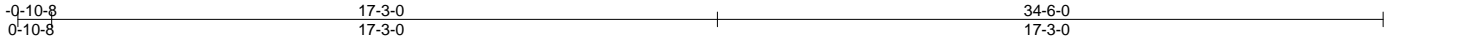


818 Soundside Road  
 Edenton, NC 27932

Job B0119-0440	Truss A5	Truss Type GABLE	Qty 1	Ply 1	Wayfare A	E12641370
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:11 2019 Page 1  
ID:WeU20\_wZYqtTA5MeulVrNlzoaVc-g07ffHgVaC38kOAILx7kHrNloZ5ZeJwk3GYILczqrO2



5x5 =

Scale = 1:59.7

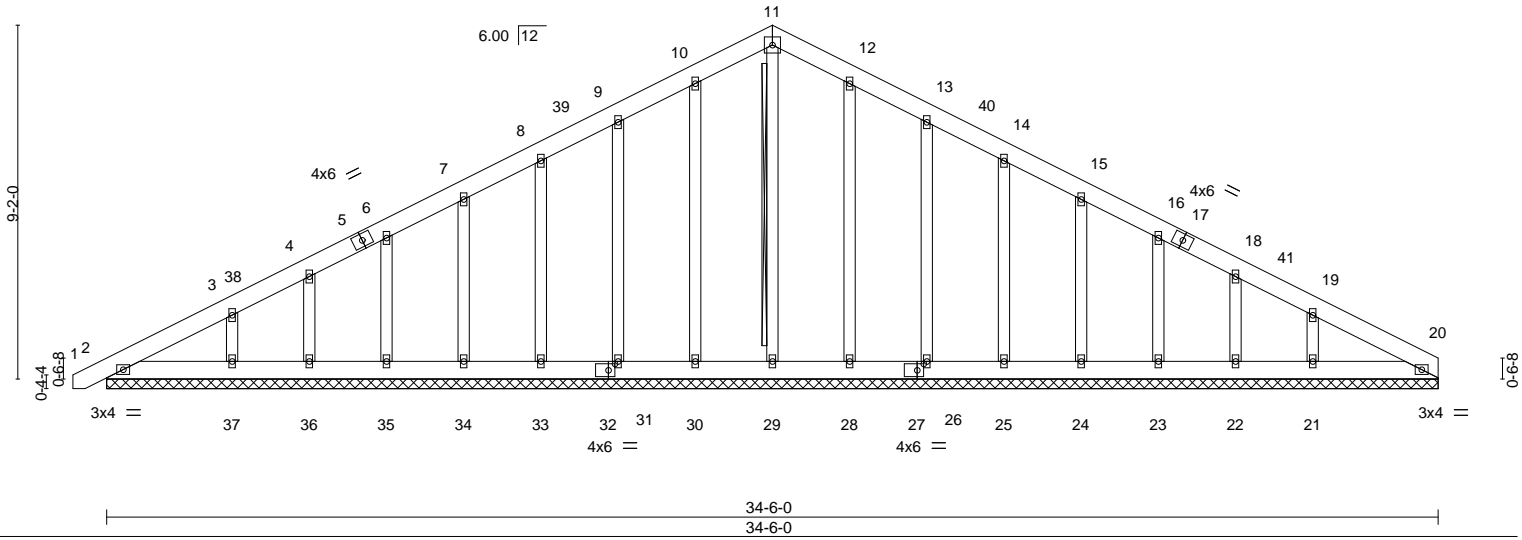


Plate Offsets (X,Y)-- [27:0-2-0,0-2-0], [32:0-2-0,0-2-0]

<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 0.05	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 275 lb	FT = 20%

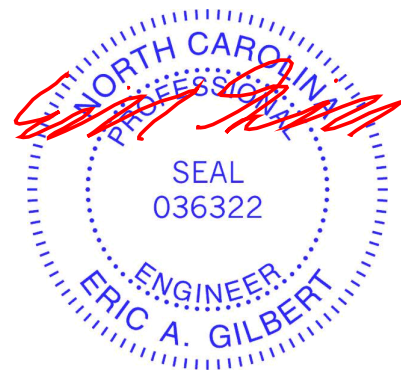
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 11-29  
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 34-6-0.  
(lb) - Max Horz 2=188(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except 37=-111(LC 12), 21=-115(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except 29=269(LC 22), 37=253(LC 23), 21=262(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 9-10=-102/298, 10-11=-117/339, 11-12=-117/341, 12-13=-102/300  
WEBS 19-21=-187/275

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-10 to 3-8-3, Exterior(2) 3-8-3 to 17-3-0, Corner(3) 17-3-0 to 21-7-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 30, 31, 33, 34, 35, 36, 28, 26, 25, 24, 23, 22 except (jt=lb) 37=111, 21=115.
  - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



January 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

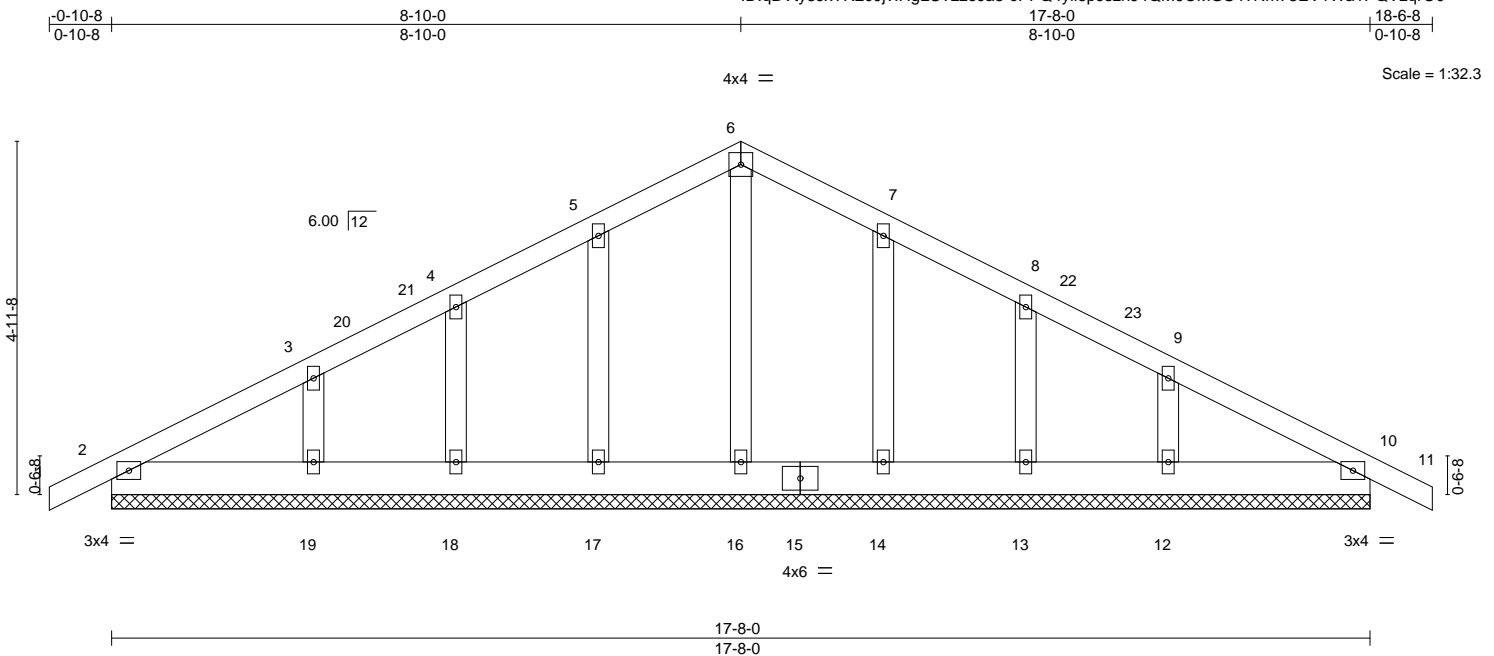
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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Job B0119-0440	Truss B1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Wayfare A	E12641371
Comtech, Inc., Fayetteville, NC 28309					Job Reference (optional)	



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) 0.00 10 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.00 10 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 100 lb	FT = 20%

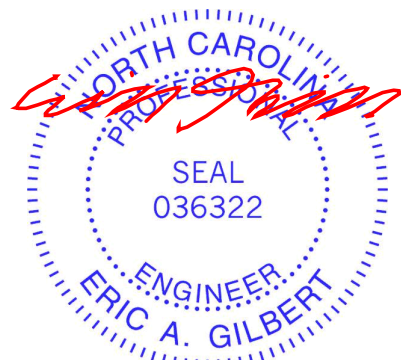
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 17-8-0.  
 (lb) - Max Horz 2=98(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 17, 18, 14, 13, 12, 2 except 19=-101(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 10, 16, 17, 18, 19, 14, 13, 12, 2

**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; TCCL=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 3-6-5, Exterior(2) 3-6-5 to 8-10-0, Corner(3) 8-10-0 to 13-2-13 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 with a clearance greater than 6-0-0 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) 10, 17, 18, 14, 13, 12, 2 except (jt=lb) 19=101.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

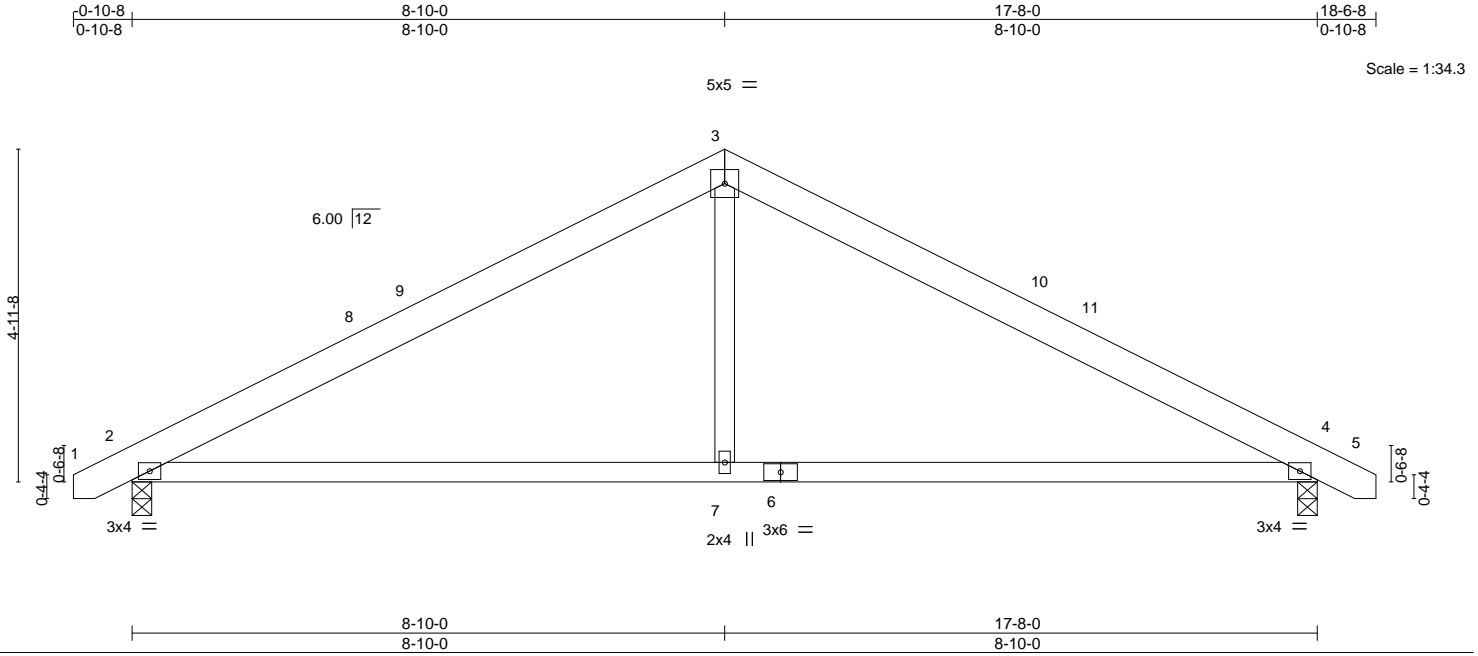


January 28, 2019

Job B0119-0440	Truss B2	Truss Type COMMON	Qty 1	Ply 1	Wayfare A	E12641372
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:14 2019 Page 1  
ID:qBVty8JxTR2c0jvIHgLUvLzeJa3-4bpoHljN7RjbruHz4gRvU?ACn\_nqgMAIEzyxqR0?



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.42	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.10 2-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.22 2-7 >945 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 2-7 >999 240	Weight: 84 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 4=747/0-3-8, 2=747/0-3-8  
 Max Horz 2=62(LC 11)  
 Max Uplift 4=-54(LC 13), 2=-54(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-946/241, 3-4=-946/241  
 BOT CHORD 2-7=-78/765, 4-7=-78/765  
 WEBS 3-7=0/403

- 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; BC DL=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 8-10-0, Exterior(2) 8-10-0 to 13-2-13 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 with a clearance greater than 6-0-0 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) 4, 2.

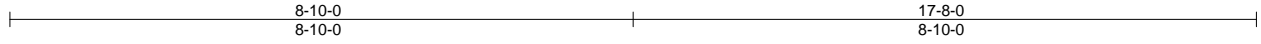


January 28, 2019

Job B0119-0440	Truss B3	Truss Type Common Girder	Qty 1	Ply 2	Wayfare A	E12641373
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:16 2019 Page 1  
ID:qBVty8JxTR2c0jvIHgLUvLzeJa3-0\_xYi\_kdPkhQq92f5Ujv\_v4QyacBISgTCYG30zqrNz



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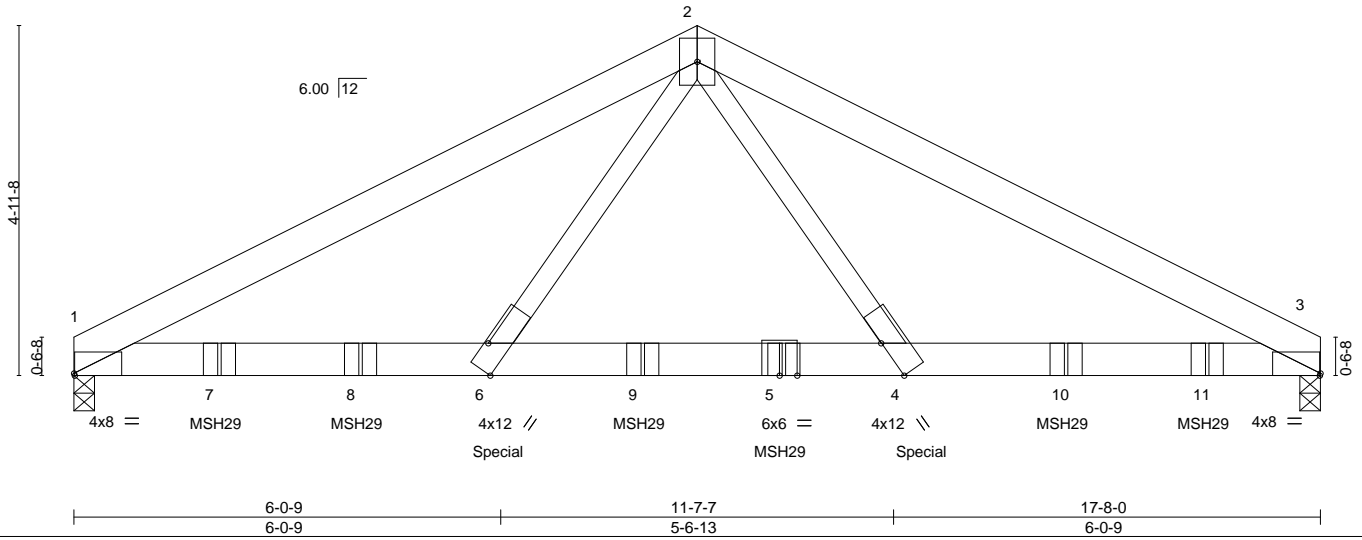


Plate Offsets (X,Y)--	[1:0-0-2,Edge], [3:0-0-2,Edge], [4:0-6-12,Edge], [6:0-4-5,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.12	4-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.23	4-6	>905		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.68	Horz(CT)	0.05	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.08	4-6	>999		
								Weight: 207 lb	FT = 20%

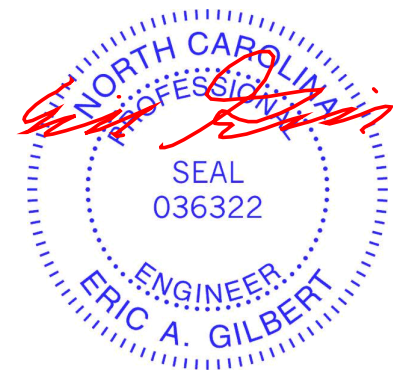
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) 1=5951/0-3-8, 3=6154/0-3-8  
 Max Horz 1=-58(LC 4)  
 Max Uplift 1=-407(LC 8), 3=-421(LC 9)  
 Max Grav 1=6191(LC 2), 3=6406(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-10658/677, 2-3=-10613/674  
 BOT CHORD 1-6=-551/9428, 4-6=-394/6403, 3-4=-536/9389  
 WEBS 2-4=-281/5446, 2-6=-285/5518

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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=407, 3=421.
  - Use USP MSH29 (With 10d nails into Girder & 10d nails into Truss) or equivalent spaced at 4-0-0 oc max. starting at 2-0-12 from the left end to 16-0-12 to connect truss(es) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1423 lb down and 101 lb up at 6-0-12, and 1423 lb down and 101 lb up at 12-0-12 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



January 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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

818 Soundside Road  
 Edenton, NC 27932

Job B0119-0440	Truss B3	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Wayfare A Job Reference (optional)	E12641373
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:16 2019 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: 5=-1339(B) 4=-1339(B) 6=-1339(B) 7=-1339(B) 8=-1339(B) 9=-1339(B) 10=-1339(B) 11=-1339(B)

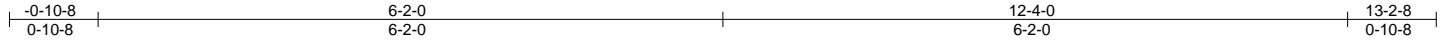
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



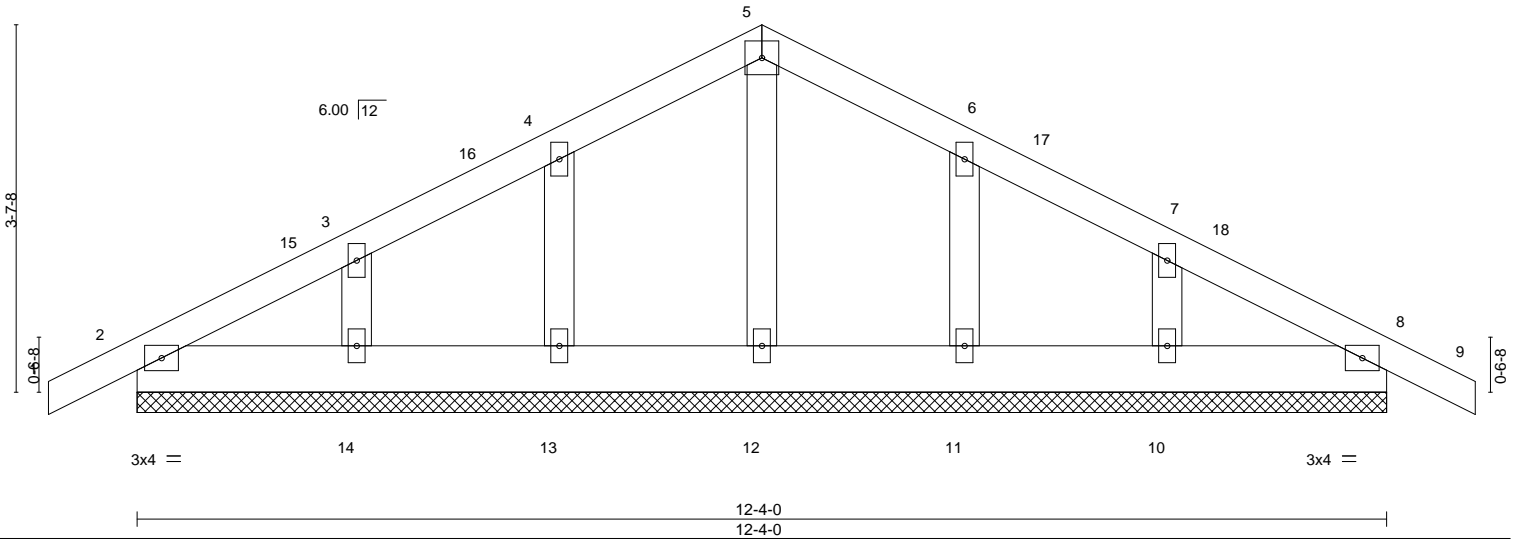
818 Soundside Road  
Edenton, NC 27932

Job B0119-0440	Truss C1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Wayfare A	E12641374
Comtech, Inc., Fayetteville, NC 28309					Job Reference (optional)	



4x4 =

Scale = 1:22.7



<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 0.05	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	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: 65 lb	FT = 20%

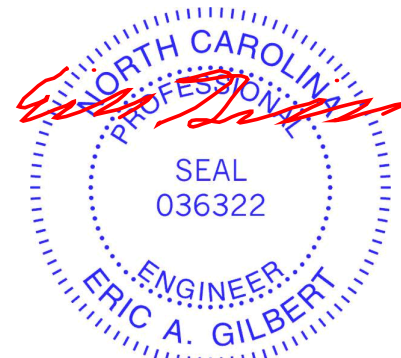
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 12-4-0.  
 (lb) - Max Horz 2=-71(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
 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) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 6-2-0, Corner(3) 6-2-0 to 10-6-13 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 with a clearance greater than 6-0-0 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, 14, 11, 10.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.



January 28, 2019

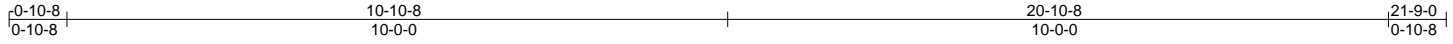
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job B0119-0440	Truss G1	Truss Type GABLE	Qty 1	Ply 1	Wayfare A	E12641375
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:18 2019 Page 1  
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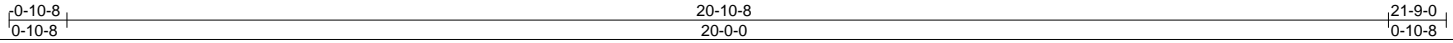
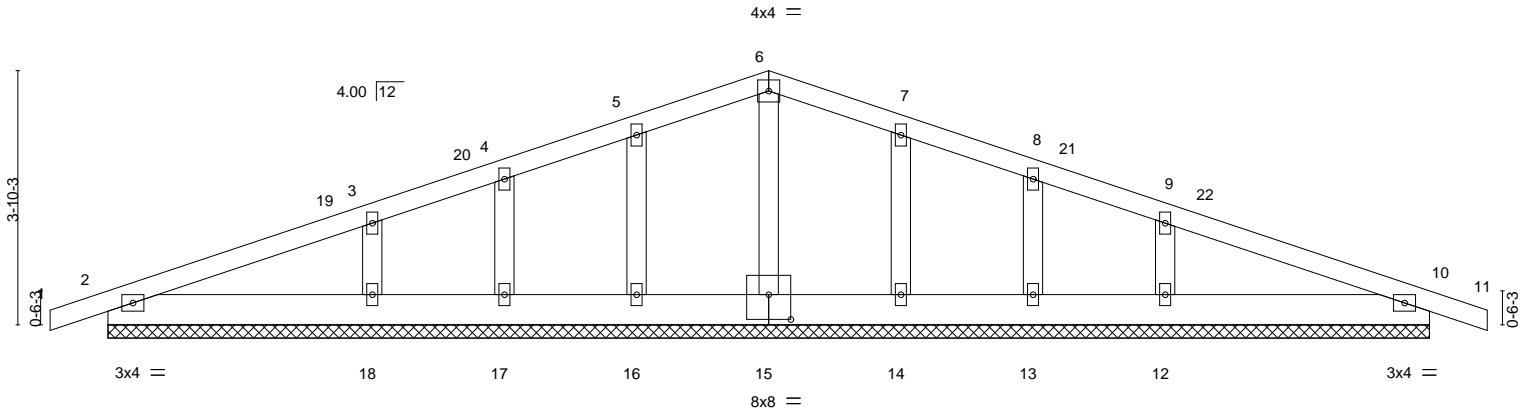


Plate Offsets (X,Y)-- [15:0-4-0,0-4-8]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	0.00	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 102 lb	FT = 20%

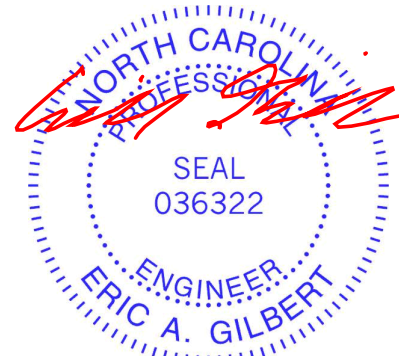
**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 20-0-0.  
(lb) - Max Horz 2=73(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 14, 13 except 18=112(LC 12), 12=112(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 14, 13 except 18=315(LC 23), 12=315(LC 24)

**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; TCCL=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 3-6-5, Exterior(2) 3-6-5 to 10-0-0, Corner(3) 10-0-0 to 14-4-13 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 with a clearance greater than 6-0-0 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, 10, 16, 17, 14, 13 except (jt=lb) 18=112, 12=112.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



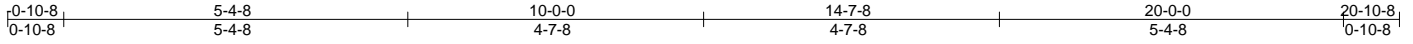
818 Soundside Road  
Edenton, NC 27932

Job B0119-0440	Truss G2	Truss Type Common	Qty 2	Ply 1	Wayfare A	E12641376
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:19 2019 Page 1

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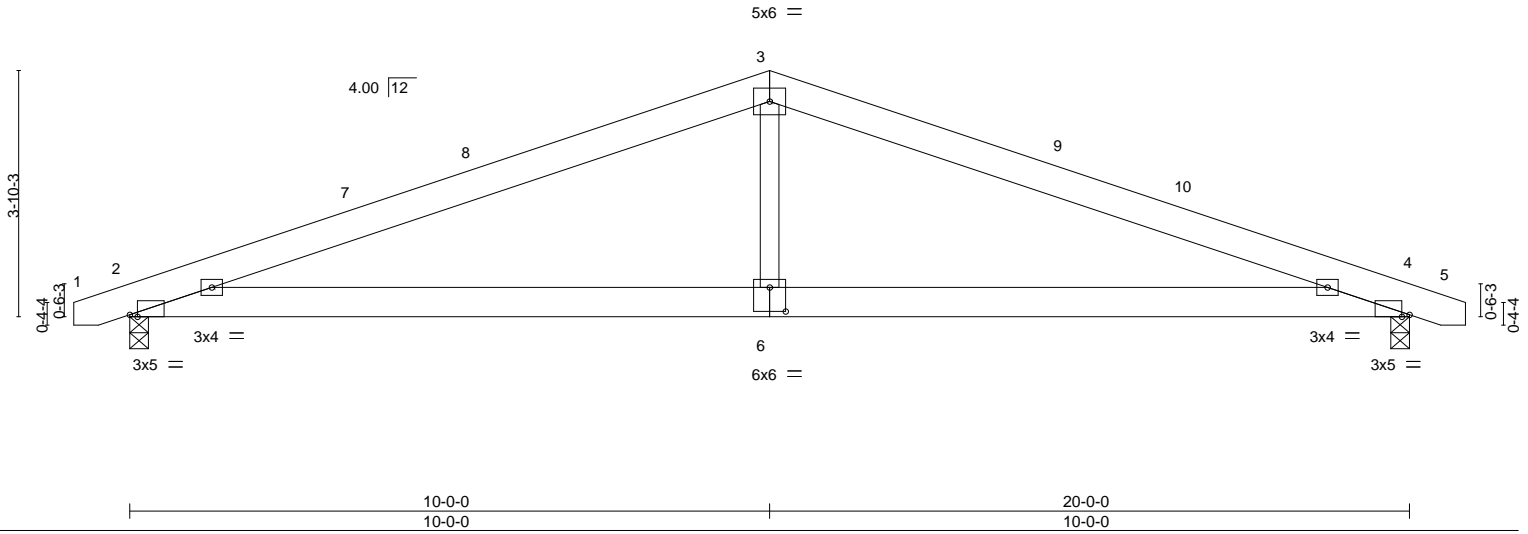


Plate Offsets (X,Y)--	[2:0-1-7,Edge], [4:0-1-7,Edge], [6:0-3-0,0-4-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	-0.06	4-6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.14	4-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04	2-6	>999	240		
									Weight: 105 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 2=838/0-3-8, 4=838/0-3-8  
Max Horz 2=43(LC 16)  
Max Uplift 2=-92(LC 8), 4=-92(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1494/344, 3-4=-1494/344  
BOT CHORD 2-6=-221/1328, 4-6=-221/1328  
WEBS 3-6=0/475

- 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) -0-8-3 to 3-8-10, Interior(1) 3-8-10 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13 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 with a clearance greater than 6-0-0 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, 4.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

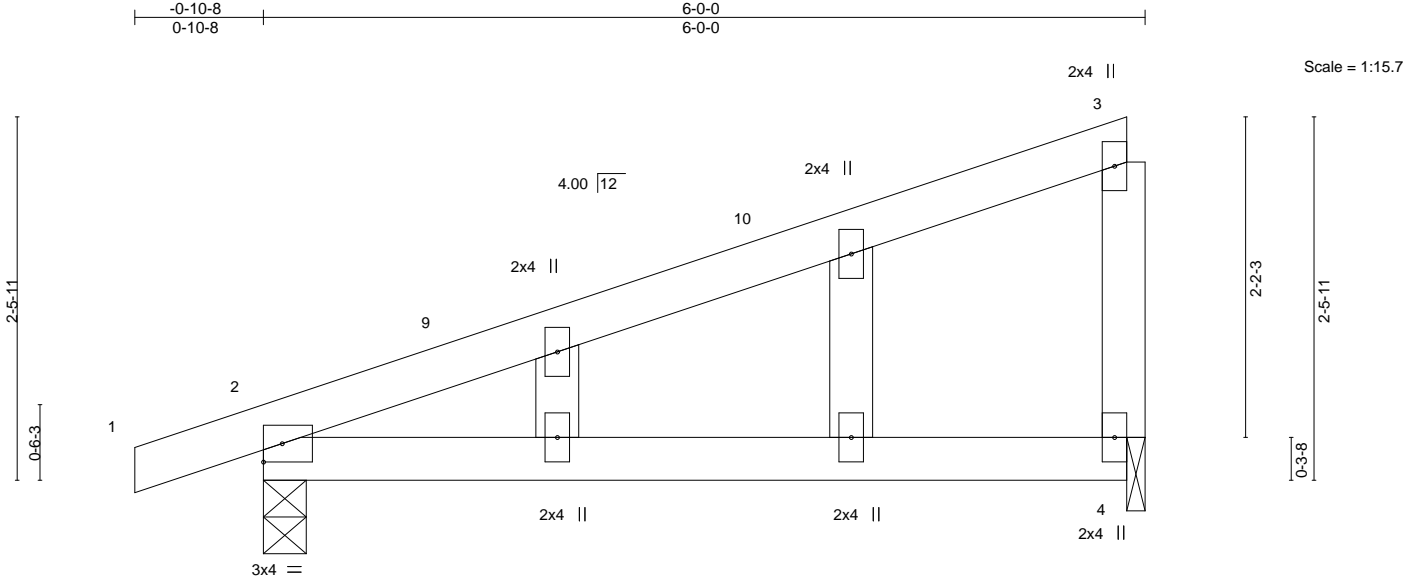


January 28, 2019

Job B0119-0440	Truss M1	Truss Type GABLE	Qty 2	Ply 1	Wayfare A	E12641377
Comtech, Inc., Fayetteville, NC 28309					Job Reference (optional)	

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:20 2019 Page 1

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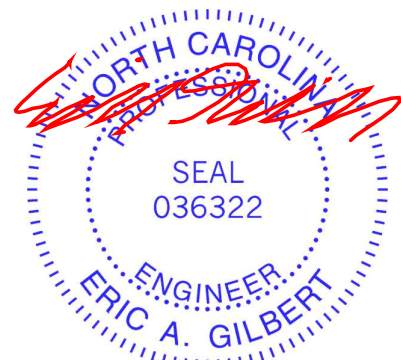
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.57	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(LL) -0.06 2-4 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.11 2-4 >615 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) -0.00 4 n/a n/a	Weight: 25 lb	FT = 20%
	Code IRC2015/TPI2014		Wind(LL) 0.00 2 **** 240		

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

**REACTIONS.** (lb/size) 2=295/0-3-8, 4=221/0-1-8  
 Max Horz 2=106(LC 8)  
 Max Uplift 2=-102(LC 8), 4=-81(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=-164/287

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 5-9-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable studs spaced at 2-0-0 oc.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 6) 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.
  - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=102.
  - 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



January 28, 2019

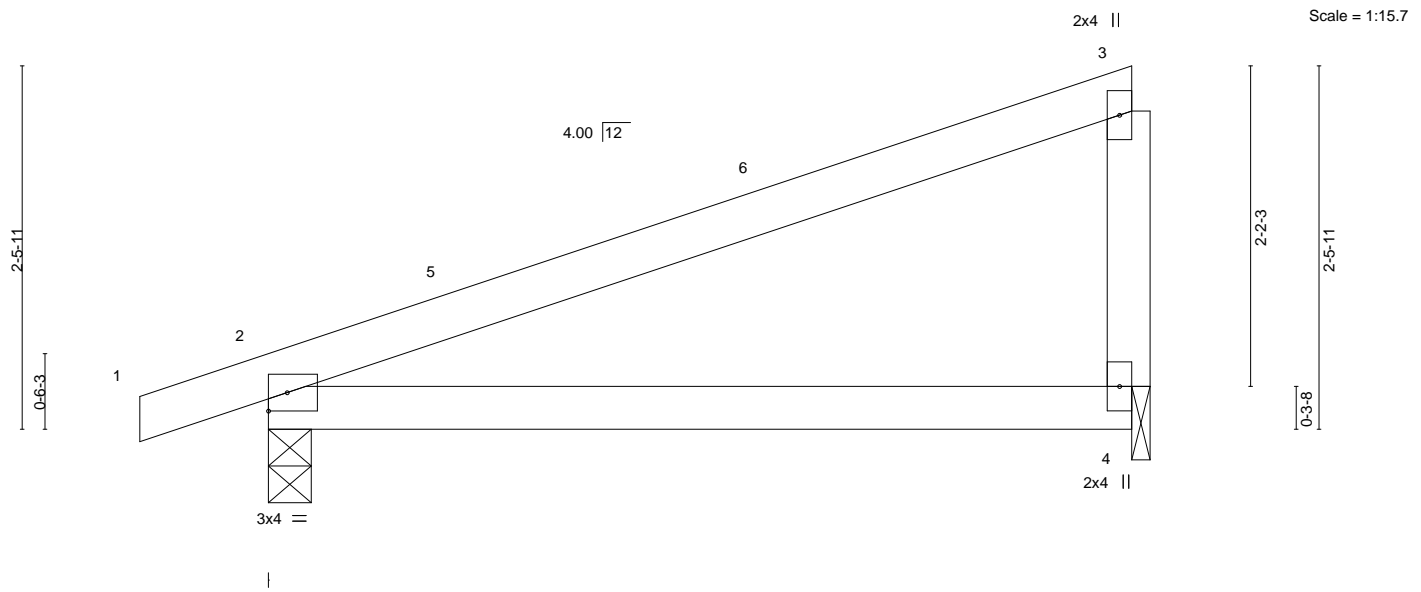


Job B0119-0440	Truss M2	Truss Type MONOPITCH	Qty 4	Ply 1	Wayfare A	E12641378
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Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Jan 28 11:08:21 2019 Page 1

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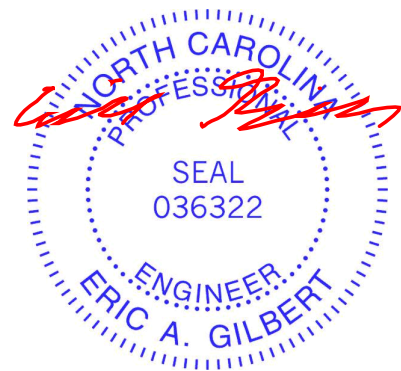
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.45	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.31	Vert(LL) -0.06 2-4 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.11 2-4 >615 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 4 n/a n/a	Weight: 22 lb	FT = 20%
	Code IRC2015/TPI2014		Wind(LL) 0.12 2-4 >554 240		

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

**REACTIONS.** (lb/size) 2=295/0-3-8, 4=221/0-1-8  
 Max Horz 2=74(LC 8)  
 Max Uplift 2=-115(LC 8), 4=-98(LC 8)

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

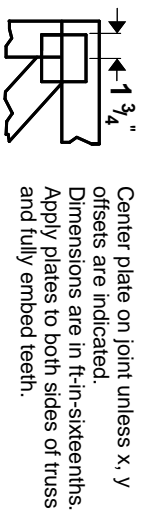
- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 5-9-15 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=115.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



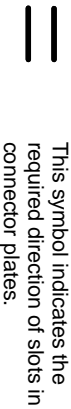
January 28, 2019

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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

## PLATE SIZE

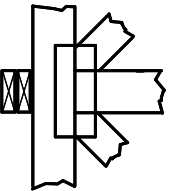
4 X 4

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

## LATERAL BRACING LOCATION



## BEARING

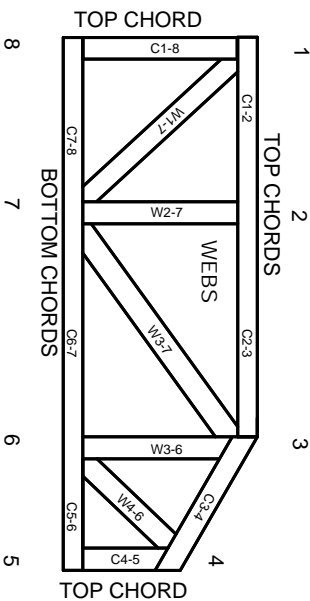


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# General Safety Notes

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

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