

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0320-1371
Avery

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

Pages or sheets covered by this seal: E14237277 thru E14237287

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

North Carolina COA: C-0844



March 27, 2020

Gilbert, Eric

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

Job J0320-1371	Truss F1	Truss Type Floor	Qty 2	Ply 1	Avery	E14237277
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:29 2020 Page 1
ID:dRBT_d1wQgj7GT6Be0eMzX2x6-?C_uaxQKksPZ42F3zUg1lhqqlW3cn2Av9tR_9zWIKu

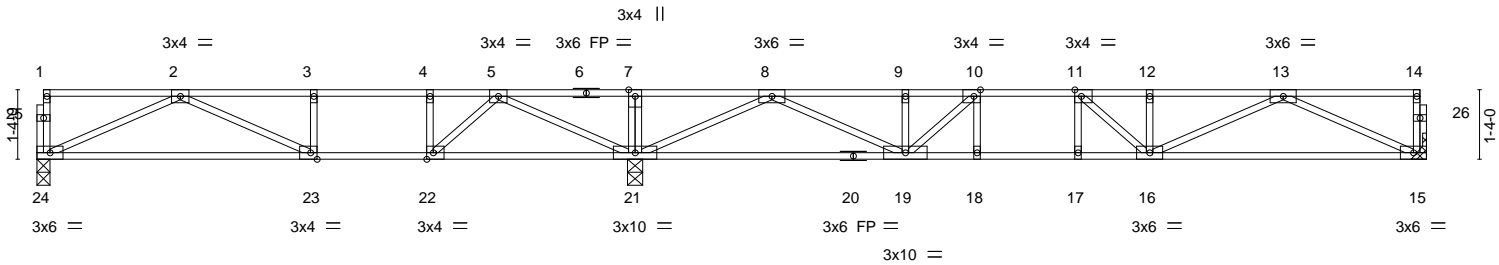


Plate Offsets (X,Y)--	[10:0-1-8,Edge], [11:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]
-----------------------	--

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.85	Vert(LL) -0.19 23-24 >728 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.64	Vert(CT) -0.30 23-24 >457 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.05 15 n/a n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S			
				Weight: 133 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 21-22.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 24=0-3-0, 21=0-3-8, 15=Mechanical
Max Grav 24=597(LC 3), 21=1587(LC 1), 15=785(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1327/0, 3-4=-1327/0, 4-5=-1327/0, 5-7=0/919, 7-8=0/919, 8-9=-2063/0, 9-10=-2063/0, 10-11=-2317/0, 11-12=-2214/0, 12-13=-2214/0
BOT CHORD 23-24=0/1031, 22-23=0/1327, 21-22=-250/925, 19-21=0/1134, 18-19=0/2317, 17-18=0/2317, 16-17=0/2317, 15-16=0/1443
WEBS 7-21=-301/0, 2-24=-1130/0, 5-21=-1284/0, 2-23=-106/327, 5-22=0/754, 4-22=-406/0, 13-15=-1582/0, 13-16=0/853, 12-16=-252/9, 8-21=-1771/0, 8-19=0/1122, 11-16=-347/149, 10-19=-572/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Refer to girder(s) for truss to truss connections.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - CAUTION, Do not erect truss backwards.



March 27, 2020

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 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.</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
---	---

Job J0320-1371	Truss F2	Truss Type Floor	Qty 3	Ply 1	Avery	E14237278
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:30 2020 Page 1
ID:dRBT_d1wQgihj7GT6Be0eMzX2x6-TPYGnHRyVAXPiCqFWCBGruN1QvQFWRb2OXBWczWIKt

0-1-8



0-1-8
Scale = 1:33.9

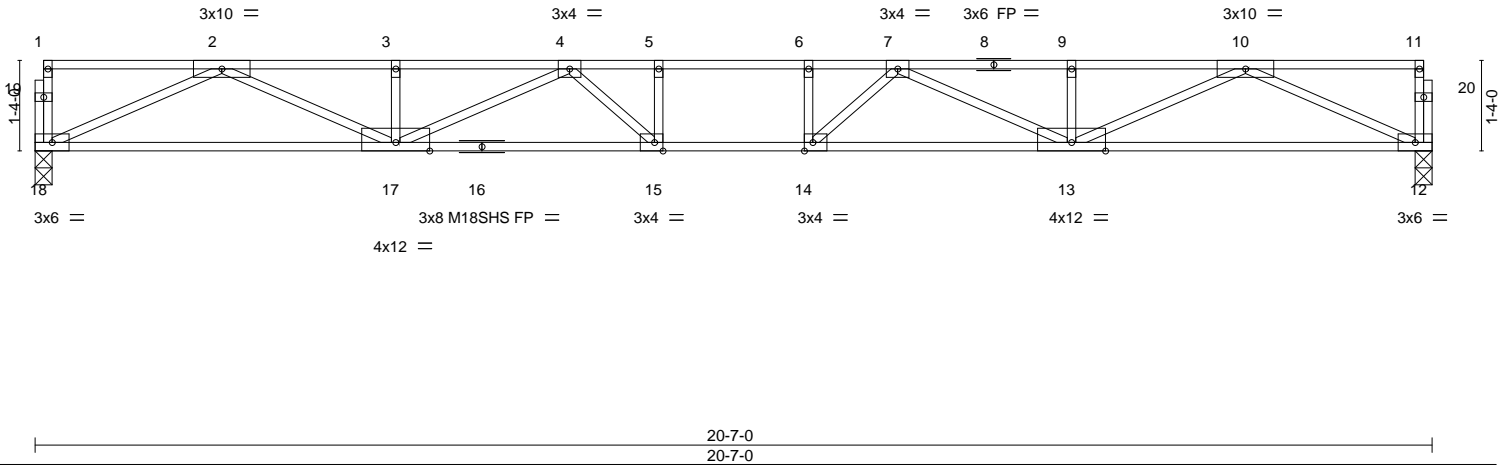


Plate Offsets (X,Y)--	[14:0-1-8,Edge], [15:0-1-8,Edge]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.76	Vert(LL) -0.36 14-15 >673 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.55	Vert(CT) -0.50 14-15 >489 360	M18SHS	244/190
BCLL 0.0	Rep Stress Incr YES	WB 0.78	Horz(CT) 0.08 12 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 102 lb	FT = 20%F, 11%E

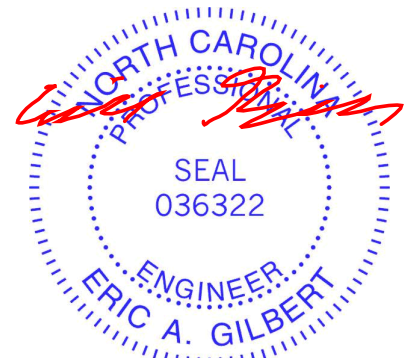
LUMBER-
TOP CHORD 2x4 SP No.1 (flat)
BOT CHORD 2x4 SP 2400F 2.0E (flat)
WEBS 2x4 SP No.3 (flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 18=0-3-0, 12=0-3-0
Max Grav 18=1112(LC 1), 12=1112(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3625/0, 3-4=-3625/0, 4-5=-4659/0, 5-6=-4659/0, 6-7=-4659/0, 7-9=-3625/0, 9-10=-3625/0
BOT CHORD 17-18=0/2146, 15-17=0/4450, 14-15=0/4659, 13-14=0/4450, 12-13=0/2146
WEBS 2-18=-2357/0, 2-17=0/1635, 3-17=-255/0, 10-12=-2357/0, 10-13=0/1635, 9-13=-255/0, 7-13=-912/0, 4-17=-912/0, 4-15=-129/661, 5-15=-339/29, 7-14=-129/661, 6-14=-339/29

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are MT20 plates unless otherwise indicated.
 - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 4) Plates checked for a plus or minus 1 degree rotation about its center.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 27, 2020

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 J0320-1371	Truss F3	Truss Type Floor	Qty 6	Ply 1	Avery	E14237279
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:30 2020 Page 1
ID:dRBT_d1wQgihj7GT6Be0eMzX2x6-TPYGnHRyVAXPiCqFWCBGruN7yPPWWX20XBWczWIKt

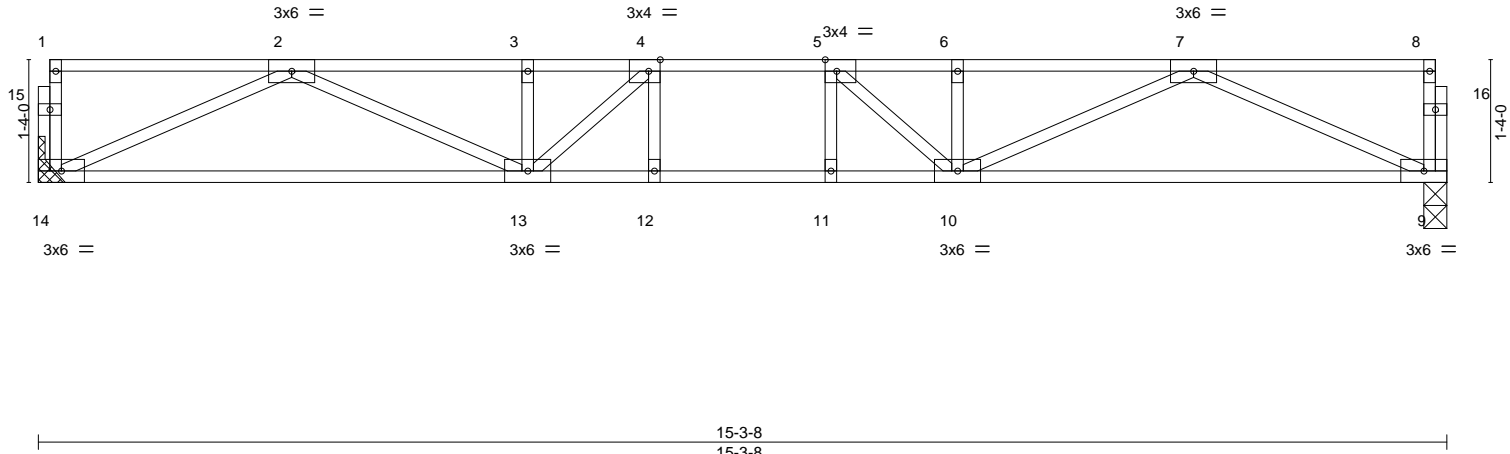
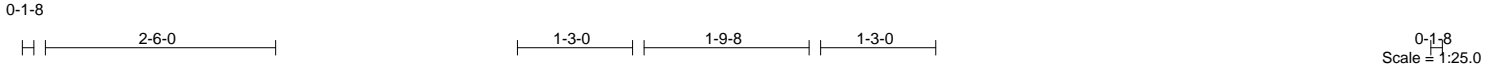


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.34	Vert(LL)	-0.13 11-12	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.60	Vert(CT)	-0.18 11-12	>979	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.04 9	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S					Weight: 79 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1 (flat)
BOT CHORD 2x4 SP No.1 (flat)
WEBS 2x4 SP No.3 (flat)

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) 14=Mechanical, 9=0-3-0
Max Grav 14=821(LC 1), 9=821(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2364/0, 3-4=-2364/0, 4-5=-2541/0, 5-6=-2364/0, 6-7=-2364/0
BOT CHORD 13-14=0/1521, 12-13=0/2541, 11-12=0/2541, 10-11=0/2541, 9-10=0/1521
WEBS 7-9=-1668/0, 7-10=0/932, 2-14=-1668/0, 2-13=0/932, 4-13=-493/76, 5-10=-493/76

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

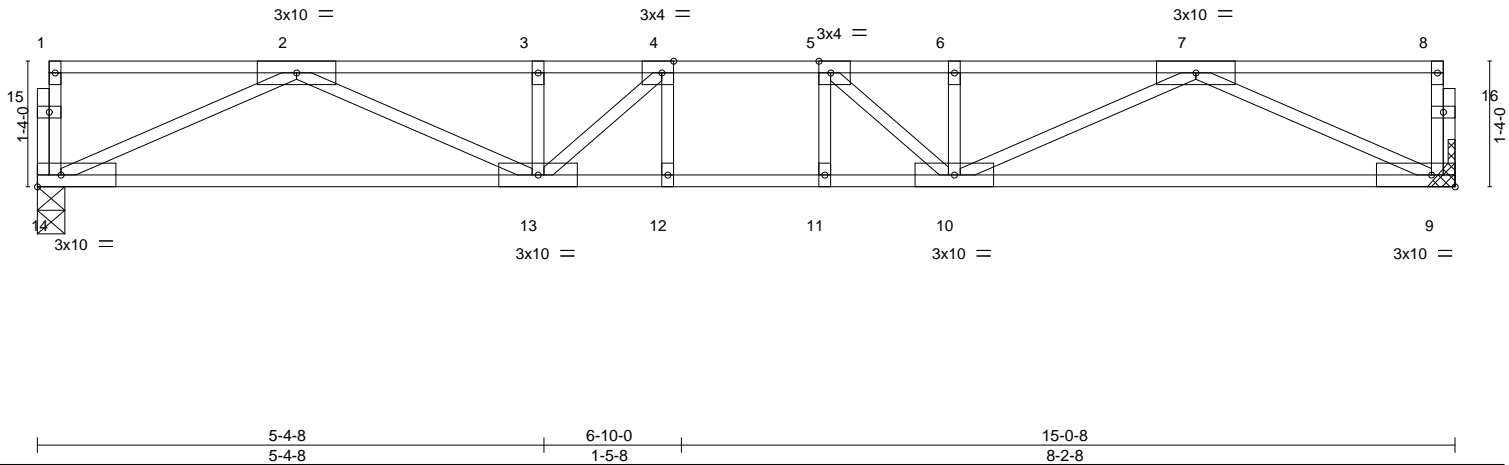
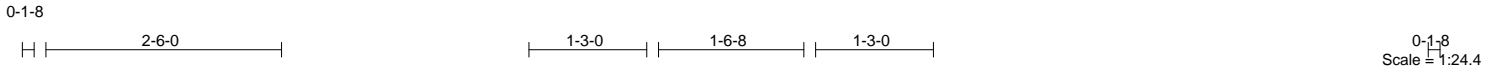


March 27, 2020

Job J0320-1371	Truss F4	Truss Type Floor	Qty 1	Ply 1	Avery	E14237280
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:31 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-xb6f?dSaGUfGKMOR4viVN6vCVJfrFuiBcBw422zWIKs



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.97	Vert(LL) -0.21 11-12 >826 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.79	Vert(CT) -0.30 11-12 >596 360		
BCDL 5.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.07 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 78 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 14=0-3-8, 9=Mechanical
Max Grav 14=1394(LC 1), 9=1394(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3969/0, 3-4=-3969/0, 4-5=-4254/0, 5-6=-3969/0, 6-7=-3969/0
BOT CHORD 13-14=0/2591, 12-13=0/4254, 11-12=0/4254, 10-11=0/4254, 9-10=0/2591
WEBS 2-14=-2842/0, 2-13=0/1524, 3-13=-393/0, 7-9=-2842/0, 7-10=0/1524, 6-10=-393/0, 5-10=-623/0, 4-13=-623/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 9-14=-10, 1-8=-180



March 27, 2020

Job J0320-1371	Truss F5	Truss Type Floor	Qty 6	Ply 1	Avery	E14237281
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:31 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-xb6f?dSaGUfGKMOR4viVN6vl3JmkF_jBcBw422zWIKs

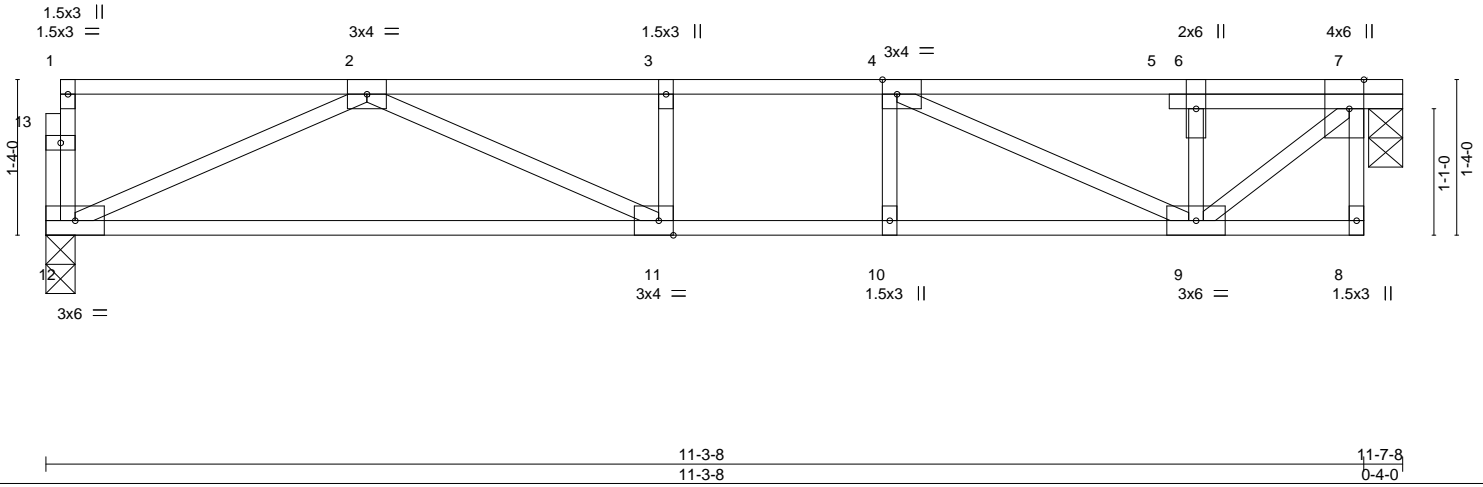
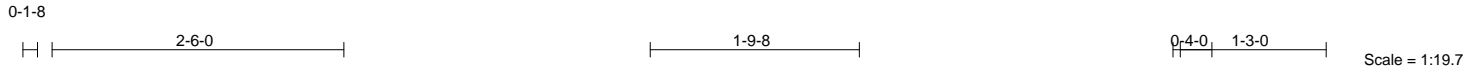


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [7:0-3-0,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.53	Vert(LL) -0.14 11-12 >949 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.40	Vert(CT) -0.23 11-12 >586 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 7 n/a n/a		
	Code IRC2015/TPI2014			Weight: 60 lb	FT = 20%F, 11%E

LUMBER-
 TOP CHORD 2x4 SP No.1(flat)
 BOT CHORD 2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)

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) 12=0-3-0, 7=0-3-8
 Max Grav 12=604(LC 1), 7=611(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1386/0, 3-4=-1386/0, 4-6=-653/0, 6-7=-650/0
 BOT CHORD 11-12=0/1049, 10-11=0/1386, 9-10=0/1386
 WEBS 6-9=-257/46, 7-9=0/846, 2-12=-1149/0, 2-11=0/478, 4-9=-835/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Plates checked for a plus or minus 1 degree rotation about its center.
 - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 4) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
 - 5) CAUTION, Do not erect truss backwards.



March 27, 2020

Job J0320-1371	Truss F7	Truss Type Floor	Qty 1	Ply 1	Avery	E14237282
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:32 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-Pnf1CzSD1nn7xWzdedDkwJSQBj9s_RuLrrgebUzWIKr

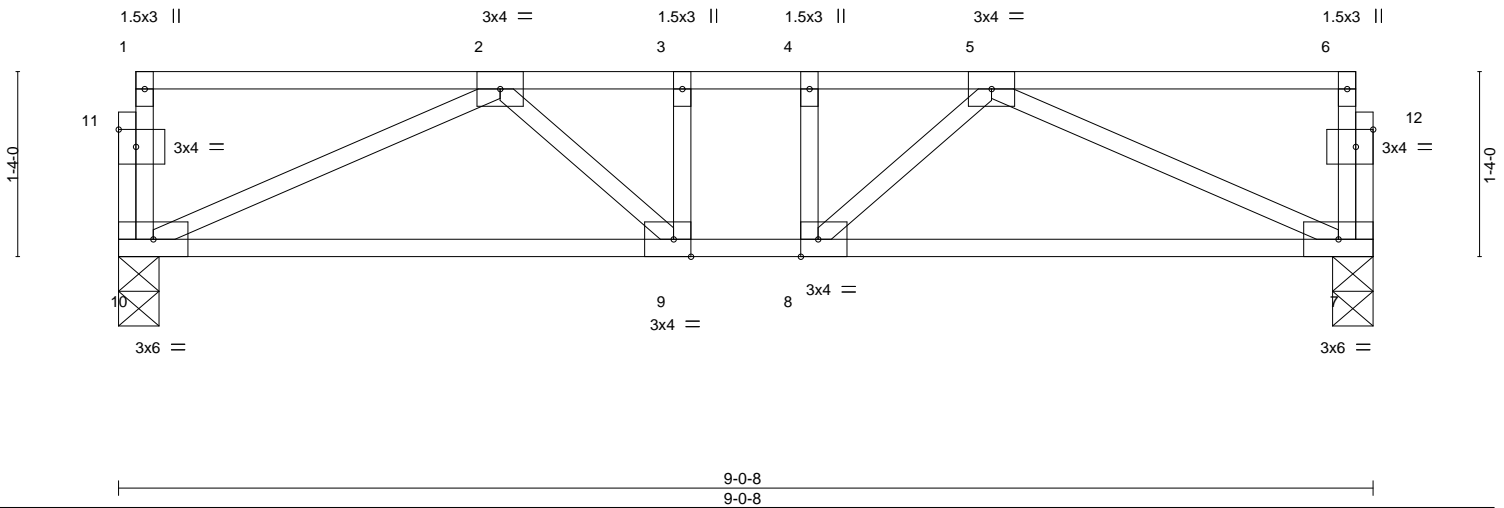
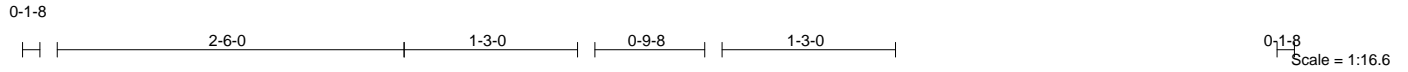


Plate Offsets (X,Y)--	[8:0-1-8,Edge], [9:0-1-8,Edge], [11:0-1-8,0-1-8], [12:0-1-8,0-1-8]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.55	Vert(LL) -0.04 9 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.35	Vert(CT) -0.06 9-10 >999 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.41	Horz(CT) 0.02 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 49 lb	FT = 20%F, 11%E

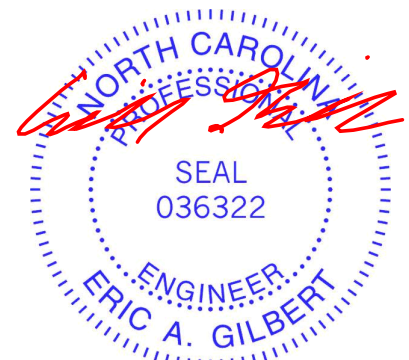
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 10=0-3-8, 7=0-3-8
Max Grav 10=824(LC 1), 7=824(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1505/0, 3-4=-1505/0, 4-5=-1505/0
BOT CHORD 9-10=0/1348, 8-9=0/1505, 7-8=0/1348
WEBS 2-10=-1473/0, 5-7=-1473/0, 5-8=0/330, 2-9=0/330

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 7-10=-10, 1-6=-180



March 27, 2020

Job J0320-1371	Truss F8	Truss Type Floor	Qty 2	Ply 1	Avery	E14237283
-------------------	-------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:32 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-Pnf1CzSD1nn7xWzdedDkwJSQcj71_TGLrgeUzWIKr

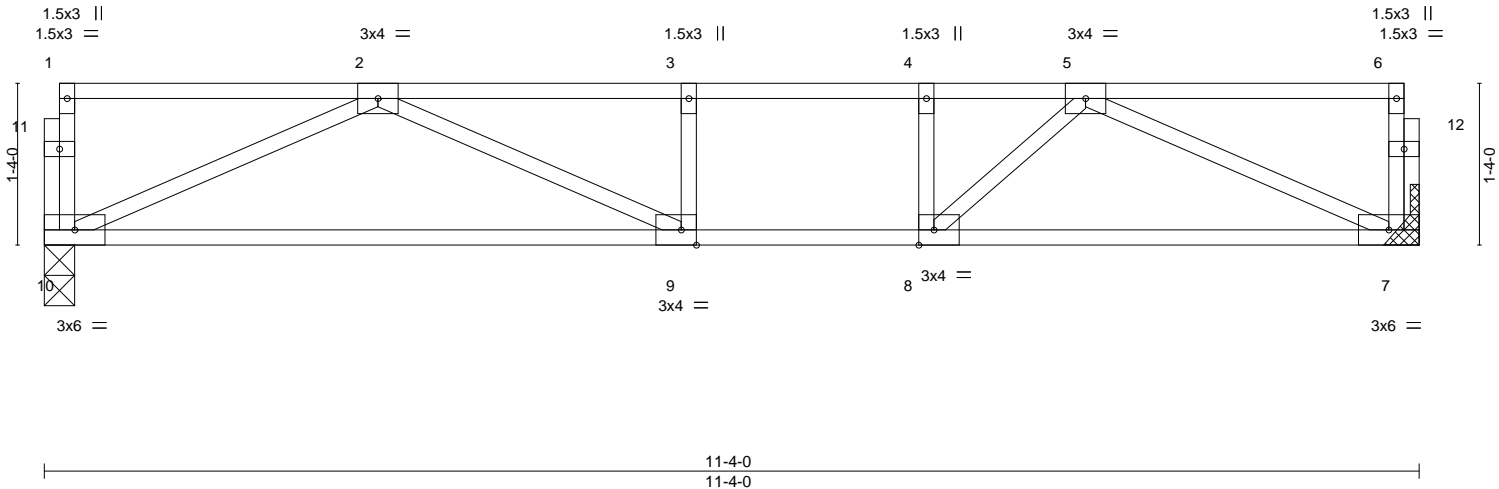
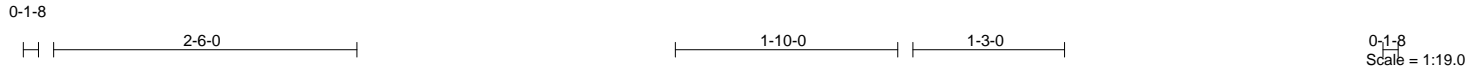


Plate Offsets (X,Y)--	[8:0-1-8,Edge], [9:0-1-8,Edge]
-----------------------	--------------------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.52	Vert(LL) -0.14	9-10	>975	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.47	Vert(CT) -0.22	9-10	>596	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.02	7	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 57 lb	FT = 20%F, 11%E

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

REACTIONS. (size) 10=0-3-0, 7=Mechanical
Max Grav 10=603(LC 1), 7=603(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1375/0, 3-4=-1375/0, 4-5=-1375/0
BOT CHORD 9-10=0/1046, 8-9=0/1375, 7-8=0/1052
WEBS 2-10=-1146/0, 2-9=0/474, 5-7=-1152/0, 5-8=0/559, 4-8=-294/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Plates checked for a plus or minus 1 degree rotation about its center.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 27, 2020

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 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.</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
---	---

Job J0320-1371	Truss KW2	Truss Type GABLE	Qty 1	Ply 1	Avery Job Reference (optional)	E14237284
-------------------	--------------	---------------------	----------	----------	-----------------------------------	-----------

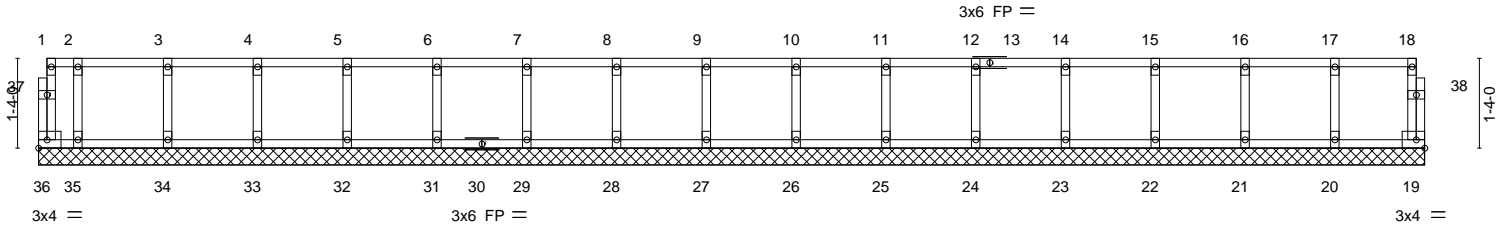
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:33 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-t_DPPJTro5v_ZgYqCKkzTX?ja7ajj_0U4VPB7xzWIKq

0-1/8

0-1/8

Scale = 1:34.2



0-7-0	1-11-0	3-3-0	4-7-0	5-11-0	7-3-0	8-7-0	9-11-0	11-3-0	12-7-0	13-11-0	15-3-0	16-7-0	17-11-0	19-3-0	20-7-0
0-7-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	19	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-R						
								Weight: 91 lb	FT = 20%F, 11%E

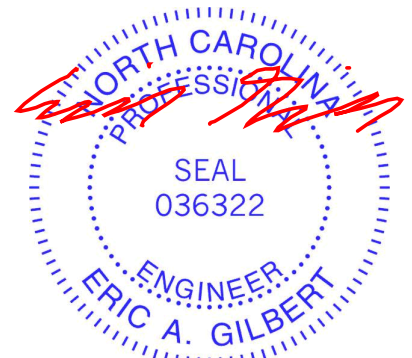
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 20-7-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 36, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 2) Plates checked for a plus or minus 1 degree rotation about its center.
 - 3) Gable requires continuous bottom chord bearing.
 - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 5) Gable studs spaced at 1-4-0 oc.
 - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 27, 2020

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 J0320-1371	Truss KW3	Truss Type Floor Supported Gable	Qty 1	Ply 1	Avery	E14237285
					Job Reference (optional)	

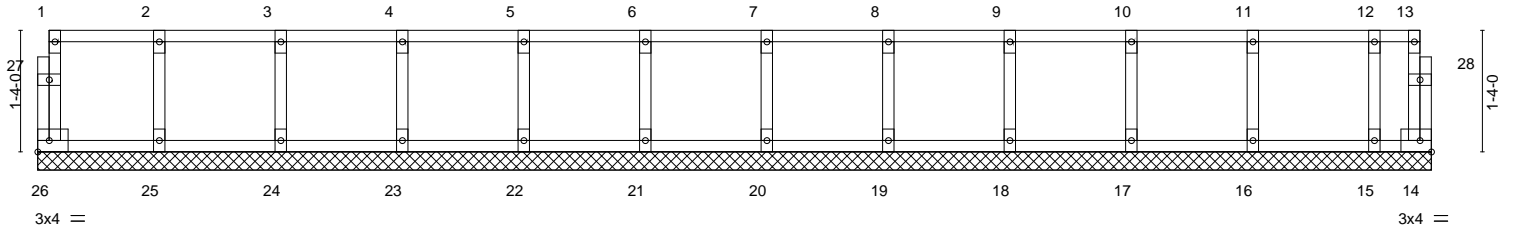
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:34 2020 Page 1
ID:dRBT_d1wQghj7GT6Be0eMzX2x6-LAnndfUTZP1rBq70I2FC?kXukXvYSRGeJ99lfNzWIKp

0-1-8

0-1-8

Scale = 1:25.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-R					Weight: 69 lb	FT = 20%F, 11%E

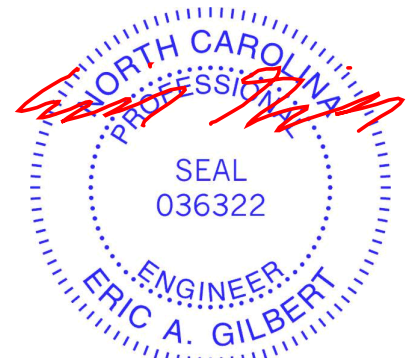
LUMBER-
 TOP CHORD 2x4 SP No.1(flat)
 BOT CHORD 2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)
 OTHERS 2x4 SP No.3(flat)

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 15-3-8.
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 27, 2020

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 J0320-1371	Truss KW5	Truss Type Floor Supported Gable	Qty 1	Ply 1	Avery	E14237286
-------------------	--------------	-------------------------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:34 2020 Page 1
ID:dRBT_d1wQgjhj7GT6Be0eMzX2x6-LAnndfUTZP1rBq70l2FC?kXuKXvfSRCeJ99lfNzWIKp

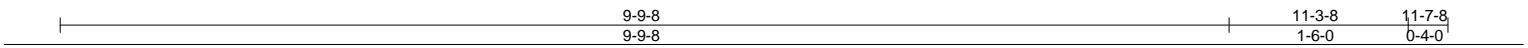
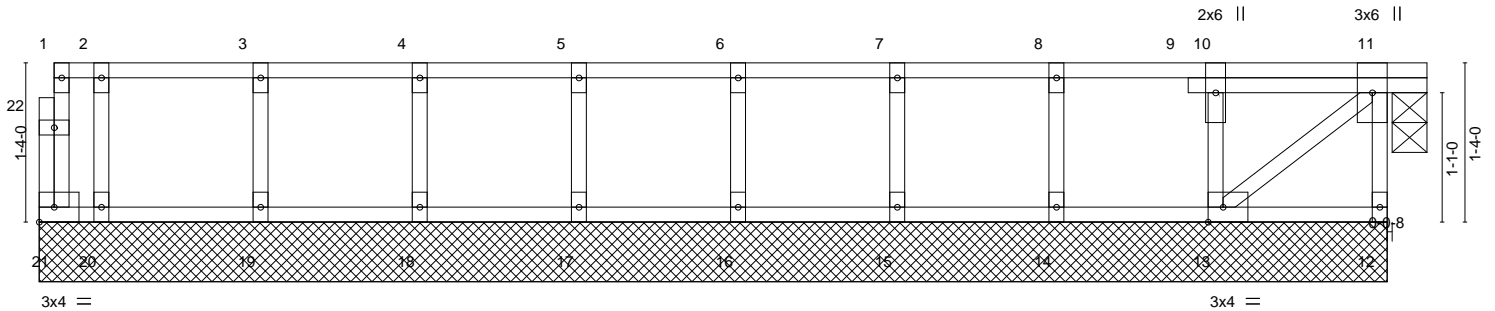
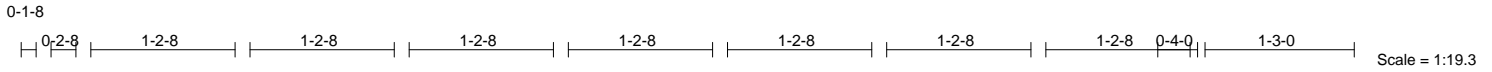


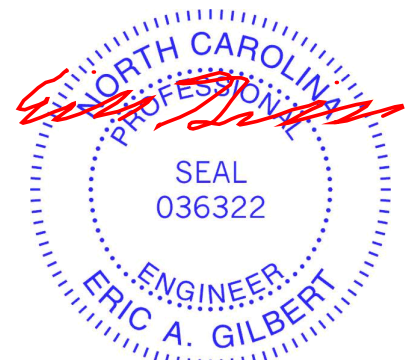
Plate Offsets (X,Y)-- [13:0-1-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	0.00	13	****	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	-0.00	13	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	11	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 56 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1 (flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1 (flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 12-13.
WEBS	2x4 SP No.3 (flat)		

REACTIONS. All bearings 11-3-8 except (jt=length) 11=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 21
Max Grav All reactions 250 lb or less at joint(s) 12, 11, 13, 14, 15, 16, 17, 18, 19, 20

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
 - CAUTION, Do not erect truss backwards.

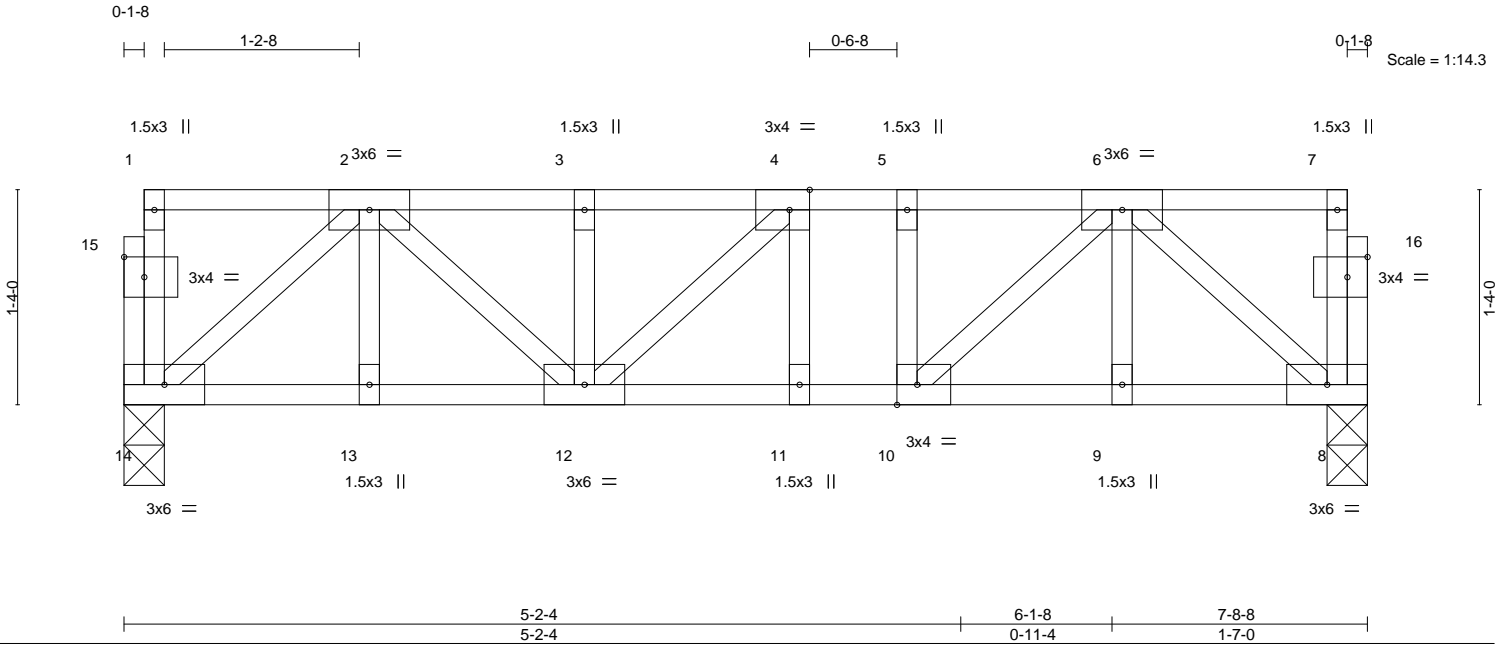


March 27, 2020

Job J0320-1371	Truss KW6	Truss Type Floor	Qty 1	Ply 1	Avery	E14237287
-------------------	--------------	---------------------	----------	----------	-------	-----------

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Mar 10 2020 MiTek Industries, Inc. Fri Mar 27 11:22:35 2020 Page 1
ID:dRBT_d1wQghj7GT6Be0eMzX2x6-pML9q?V5Ki9io_iCJImRY40Ow9XBqFnXpulBpzWIKo



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.23	Vert(LL)	-0.03 11-12	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.41	Vert(CT)	-0.04 11-12	>999	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.30	Horz(CT)	0.01 8	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 49 lb	FT = 20%F, 11%E

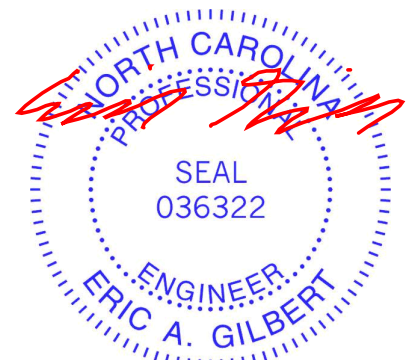
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 14=0-3-0, 8=0-3-0
Max Grav 14=862(LC 1), 8=862(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1288/0, 3-4=-1288/0, 4-5=-1310/0, 5-6=-1310/0
BOT CHORD 13-14=0/850, 12-13=0/850, 11-12=0/1310, 10-11=0/1310, 9-10=0/845, 8-9=0/845
WEBS 2-14=-1116/0, 2-12=0/590, 3-12=-339/0, 6-8=-1109/0, 6-10=0/640, 5-10=-301/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

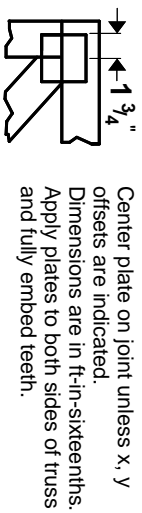
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 8-14=-10, 1-7=-225



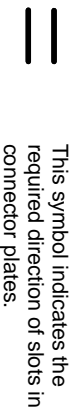
March 27, 2020

Symbols

PLATE LOCATION AND ORIENTATION



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



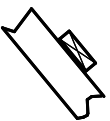
* Plate location details available in **MITrak 20/20 software or upon request.**

PLATE SIZE

4 X 4

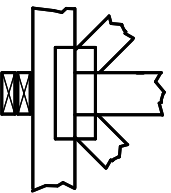
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

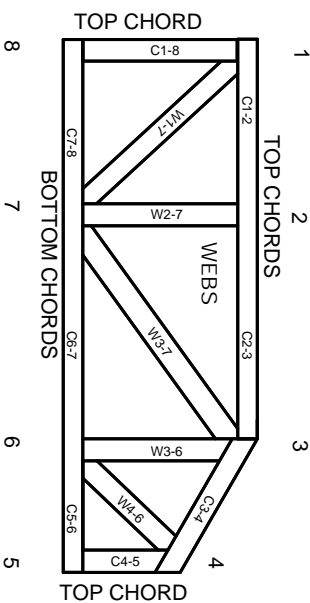


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
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.

© 2012 MITTEK® All Rights Reserved



MITek Engineering Reference Sheet: MI1-7473 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.