

RE: J0920-4177
Lot 12 Sierra Villas

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0920-4177
Lot/Block: Model:
Address: Subdivision:
City: State:

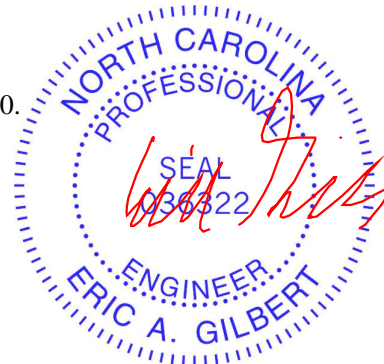
General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.1
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 13 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E14133292	ET1	9/18/2020
2	E14133293	ET2	9/18/2020
3	E14133294	F1	9/18/2020
4	E14133295	F2	9/18/2020
5	E14133296	F2A	9/18/2020
6	E14133297	F3	9/18/2020
7	E14133298	F4	9/18/2020
8	E14133299	F4A	9/18/2020
9	E14133300	F5	9/18/2020
10	E14133301	F6	9/18/2020
11	E14133302	F7	9/18/2020
12	E14133303	FG1	9/18/2020
13	E14133304	FG2	9/18/2020

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, 2020. North Carolina COA: C-0844



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

September 18, 2020

Job J0920-4177	Truss ET1	Truss Type Floor Supported Gable	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133292
					Job Reference (optional)	

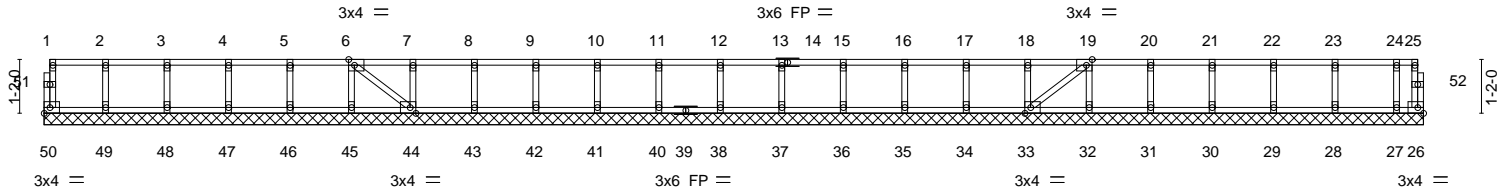
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:03 2020 Page 1
ID:52Teu6pVqhXamGD1jN0kr4yxDe9-RlhE5uOHwMZdJ?fdL708ZZd_tMSfjEdvWvkenozej7E

0-1/8

0-1/8

Scale = 1:50.0



29-11-0
29-11-0

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [19:0-1-8,Edge], [33:0-1-8,Edge], [44:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.06	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT) n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) -0.00	26	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S						
							Weight: 128 lb	FT = 20%F, 11%E

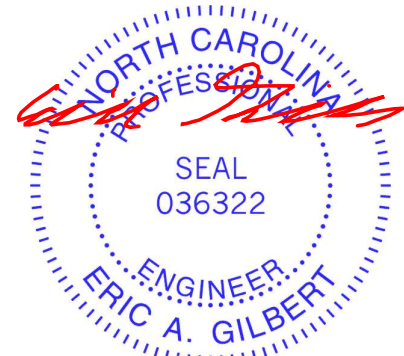
LUMBER-
TOP CHORD 2x4 SP No.1 (flat)
BOT CHORD 2x4 SP No.1 (flat)
WEBS 2x4 SP No.3 (flat)
OTHERS 2x4 SP No.3 (flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 49-50,48-49,47-48,46-47,45-46,44-45.

REACTIONS. All bearings 29-11-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 26
Max Grav All reactions 250 lb or less at joint(s) 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26.
7) 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 3, 2020

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

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

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TRENCO
A MiTek Affiliate

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Edenton, NC 27932

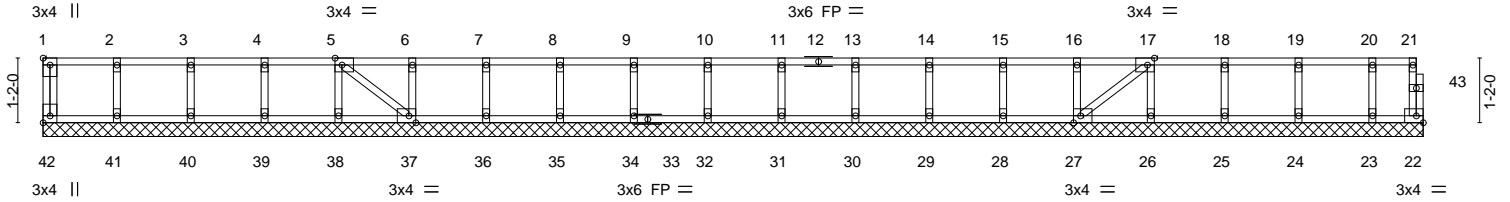
Job J0920-4177	Truss ET2	Truss Type Floor Supported Gable	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133293
					Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:04 2020 Page 1
ID:52Teu6pVqhXamGD1jN0kr4yxDe9-vyFdJEPvghUx8EqvqXN5mA9bmouShs3lZTCKEzej7D

0-1/8

Scale = 1:41.6



24-11-0
24-11-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [17:0-1-8,Edge], [27:0-1-8,Edge], [37:0-1-8,Edge], [42:Edge,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 0.06	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	27	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 108 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 6-0-0 oc bracing.

REACTIONS. All bearings 24-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 42, 22, 41, 40, 39, 38, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23

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.
 - 7) CAUTION, Do not erect truss backwards.



March 3, 2020

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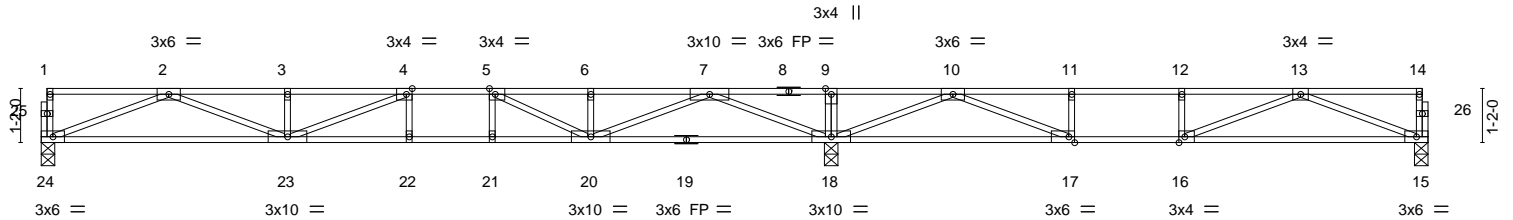
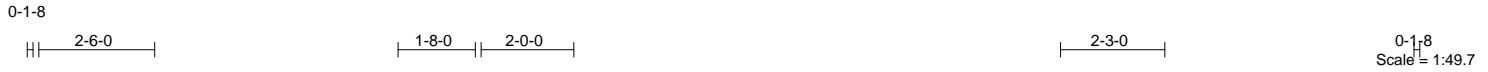
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road
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Job J0920-4177	Truss F1	Truss Type Floor	Qty 7	Ply 1	Lot 12 Sierra Villas	E14133294
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)	

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:05 2020 Page 1
ID:52Teu6pVqhXamGD1jN0kr4yxDe9-N8p?WaPYS_pLZlp0TY3ce_i779wxByTC_CDIsqzej7C



	17-0-8	29-11-0
	17-0-8	12-10-8
Plate Offsets (X,Y)--	[4:0-1-8,Edge], [5:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge]	

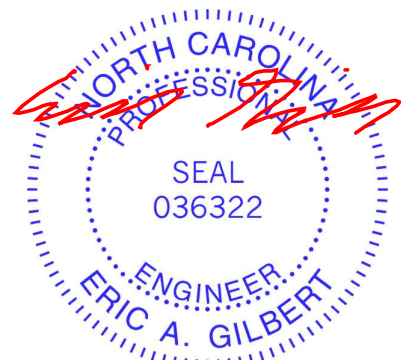
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.84	Vert(LL)	-0.27	22-23	>754	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.91	Vert(CT)	-0.37	15-16	>414	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.06	15	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 143 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 2-2-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 24=0-3-8, 15=0-3-8, 18=0-3-8
Max Grav 24=851(LC 7), 15=627(LC 3), 18=1876(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2928/0, 3-4=-2928/0, 4-5=-3143/0, 5-6=-2422/0, 6-7=-2422/0, 7-9=0/1834, 9-10=0/1834, 10-11=-1704/68, 11-12=-1704/68, 12-13=-1704/68
BOT CHORD 23-24=0/1831, 22-23=0/3143, 21-22=0/3143, 20-21=0/3143, 18-20=-179/1010, 17-18=-674/776, 16-17=-68/1704, 15-16=0/1267
WEBS 9-18=-298/0, 2-24=-1963/0, 2-23=0/1183, 3-23=-320/0, 4-23=-443/238, 7-18=-2374/0, 7-20=0/1634, 5-20=-1073/0, 13-15=-1357/0, 13-16=-181/471, 10-18=-1812/0, 10-17=0/1285, 11-17=-392/0

- 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.
 - 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 3, 2020

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0920-4177	Truss F2	Truss Type Floor	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133295
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)	

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:06 2020 Page 1
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Scale = 1:49.4

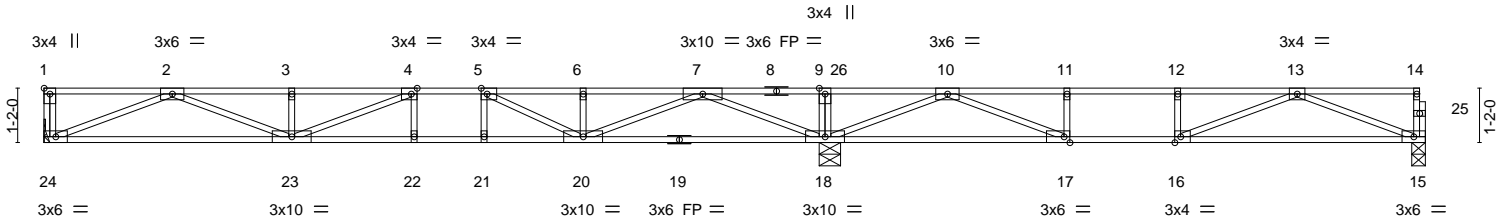


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [4:0-1-8,Edge], [5:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge]
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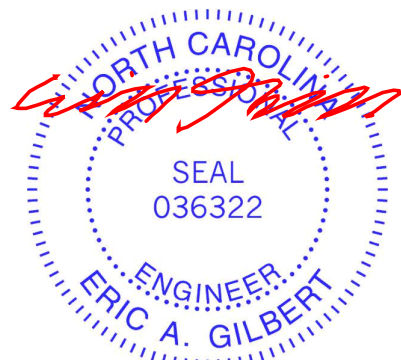
LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.84	Vert(LL)	-0.25	15-16	>619	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.83	Vert(CT)	-0.37	15-16	>416	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.06	15	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 143 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.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 24=Mechanical, 18=0-5-8, 15=0-3-8
 Max Grav 24=841(LC 7), 18=1861(LC 1), 15=626(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2845/0, 3-4=-2845/0, 4-5=-3033/0, 5-6=-2366/0, 6-7=-2366/0, 7-9=0/1836, 9-10=0/1836, 10-11=-1698/58, 11-12=-1698/58, 12-13=-1698/58
 BOT CHORD 23-24=0/1793, 22-23=0/3033, 21-22=0/3033, 20-21=0/3033, 18-20=-193/990, 17-18=-659/767, 16-17=-58/1698, 15-16=0/1265
 WEBS 9-18=-298/0, 2-24=-1929/0, 2-23=0/1135, 3-23=-311/0, 4-23=-405/267, 7-18=-2337/0, 7-20=0/1602, 6-20=-252/17, 5-20=-1008/0, 10-18=-1811/0, 10-17=0/1283, 11-17=-391/0, 13-15=-1354/0, 13-16=-175/468

- 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 3, 2020

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Job J0920-4177	Truss F2A	Truss Type Floor	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133296
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:07 2020 Page 1
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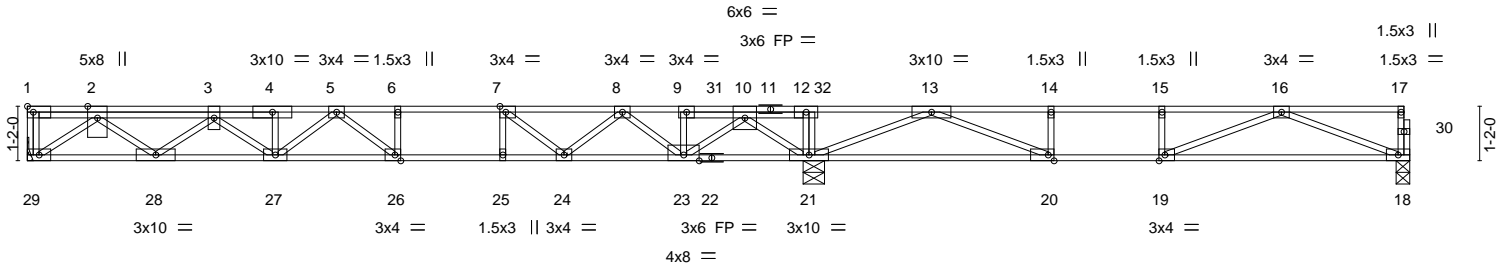


Plate Offsets (X,Y)--	[7:0-1-8,Edge], [19:0-1-8,Edge], [20:0-1-8,Edge], [26:0-1-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.63	Vert(LL) -0.24	26-27	>835	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.74	Vert(CT) -0.33	26-27	>603	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.76	Horz(CT) 0.05	18	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 156 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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, Except: 6-0-0 oc bracing: 21-23,20-21,19-20.

REACTIONS. (size) 29=Mechanical, 21=0-5-8, 18=0-3-8
Max Grav 29=1010(LC 7), 21=2309(LC 1), 18=599(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2248/0, 3-4=-3425/0, 4-5=-3419/0, 5-6=-3629/0, 6-7=-3629/0, 7-8=-3007/0,
8-9=-1736/0, 9-10=-1752/0, 10-12=0/2052, 12-13=0/2093, 13-14=-1535/141,
14-15=-1535/141, 15-16=-1535/141
BOT CHORD 28-29=0/1333, 27-28=0/3140, 26-27=0/3657, 25-26=0/3629, 24-25=0/3629, 23-24=0/2478,
21-23=-158/547, 20-21=-794/496, 19-20=-141/1535, 18-19=0/1195
WEBS 12-21=-261/0, 2-29=-1636/0, 2-28=0/1163, 3-28=-1133/0, 3-27=0/348, 10-21=-2313/0,
10-23=0/1592, 9-23=-296/0, 8-23=-1010/0, 13-21=-1945/0, 8-24=0/780, 13-20=0/1340,
14-20=-402/0, 16-18=-1280/0, 16-19=-226/366, 7-24=-940/0, 5-27=-303/4,
5-26=-329/191, 7-25=0/255

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x6 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.
 - 6) CAUTION, Do not erect truss backwards.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 241 lb down at 4-1-12, and 526 lb down at 14-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

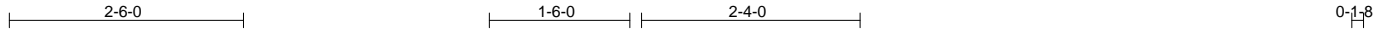
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 18-29=-10, 1-17=-100
Concentrated Loads (lb)
Vert: 3=-161(F) 31=-446(F)



March 3, 2020

Job J0920-4177	Truss F3	Truss Type Floor	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133297
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)	

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:07 2020 Page 1
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Scale = 1:24.6

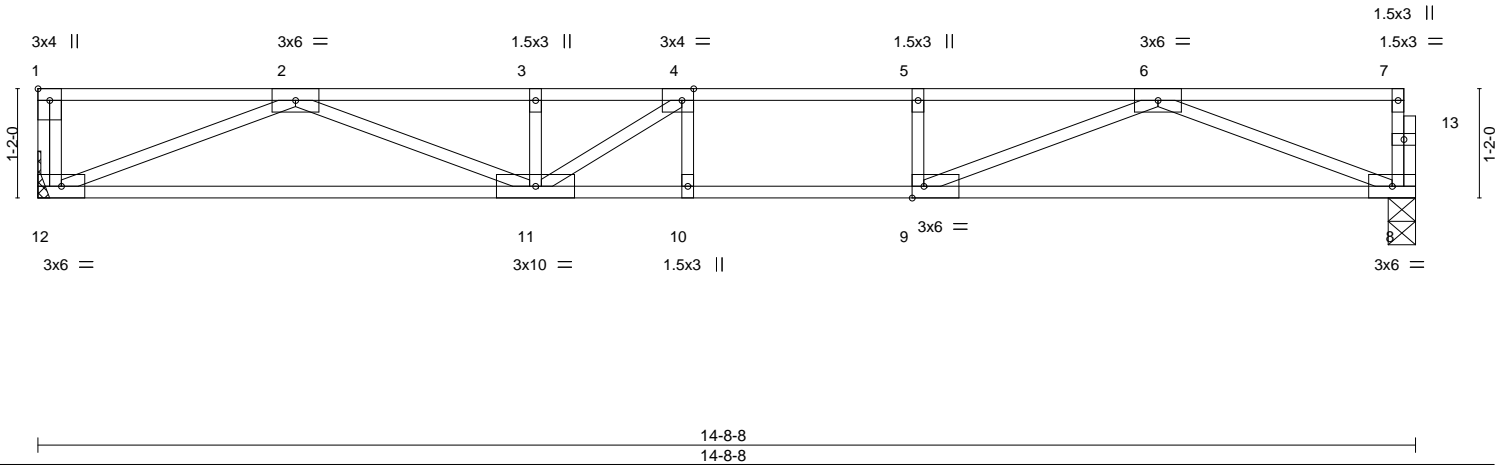


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [9:0-1-8,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.67	Vert(LL) -0.25	10-11	>692	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.93	Vert(CT) -0.32	10-11	>548	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.54	Horz(CT) 0.04	8	n/a	n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S						
							Weight: 71 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, Except: 2-2-0 oc bracing: 9-10.

REACTIONS. (size) 12=Mechanical, 8=0-3-8
 Max Grav 12=795(LC 1), 8=789(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2594/0, 3-4=-2594/0, 4-5=-2668/0, 5-6=-2668/0
 BOT CHORD 11-12=0/1683, 10-11=0/2668, 9-10=0/2668, 8-9=0/1678
 WEBS 6-8=-1799/0, 6-9=0/1124, 5-9=-313/0, 2-12=-1811/0, 2-11=0/983, 3-11=-280/22, 4-11=-476/198

- 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.
 - 5) CAUTION, Do not erect truss backwards.



March 3, 2020

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

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

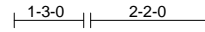
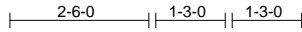


818 Soundside Road
 Edenton, NC 27932

Job J0920-4177	Truss F4	Truss Type Floor	Qty 4	Ply 1	Lot 12 Sierra Villas	E14133298
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:08 2020 Page 1
ID:52Teu6pVqhXamGD1jN0kr4yxDe9-njU79bSQLvCwQmYb8gcJGckfnN_1OK6egARPT?zej79



0-1-8

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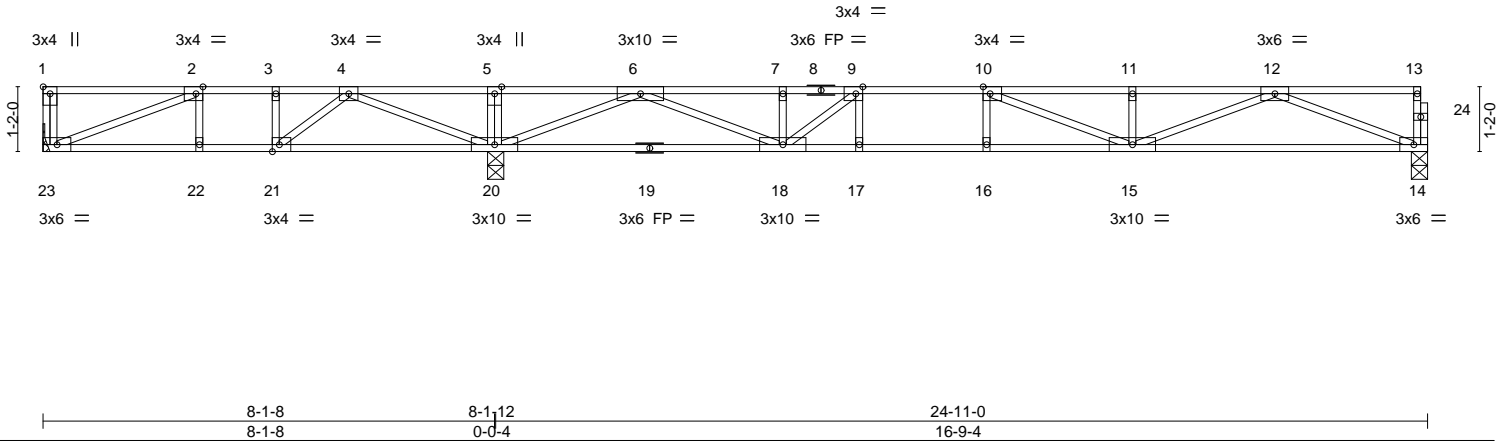


Plate Offsets (X,Y)--	[1:Edge,0-1-8],	[2:0-1-8,Edge],	[9:0-1-8,Edge],	[10:0-1-8,Edge],	[21:0-1-8,Edge]		
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00		TC 0.82	Vert(LL) -0.27 15-16 >731 480		MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.76	Vert(CT) -0.37 15-16 >536 360			
BCLL 0.0	Rep Stress Incr NO		WB 0.72	Horz(CT) 0.04 14 n/a n/a			
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S				
						Weight: 122 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 23=Mechanical, 20=0-3-8, 14=0-3-8
Max Grav 23=1873(LC 2), 20=1627(LC 1), 14=834(LC 4)

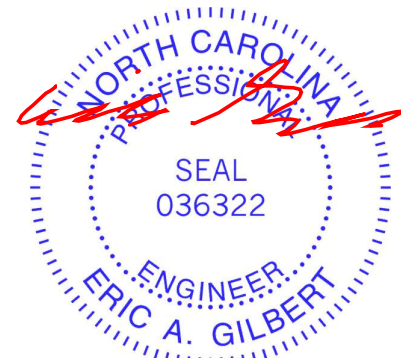
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-23=-1635/0, 2-3=-611/302, 3-4=-611/302, 4-5=0/1403, 5-6=0/1403, 6-7=-2311/0, 7-9=-2311/0, 9-10=-2965/0, 10-11=-2850/0, 11-12=-2850/0
BOT CHORD 22-23=-302/611, 21-22=-302/611, 20-21=-648/439, 18-20=0/956, 17-18=0/2965, 16-17=0/2965, 15-16=0/2965, 14-15=0/1792
WEBS 5-20=-293/0, 2-23=-655/324, 4-20=-1234/0, 4-21=0/603, 12-14=-1921/0, 12-15=0/1143, 11-15=-315/0, 6-20=-2272/0, 6-18=0/1510, 10-15=-425/178, 9-18=-1020/0, 9-17=0/267

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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1500 lb down at 0-1-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 14-23=-10, 1-13=-100
Concentrated Loads (lb)
Vert: 1=-1500(F)



March 3, 2020

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

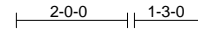
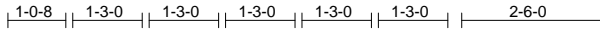
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



818 Soundside Road
Edenton, NC 27932

Job J0920-4177	Truss F4A	Truss Type Floor Girder	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133299
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)	

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:09 2020 Page 1
ID:52Teu6pVqhXamGD1jN0kr4yxDe9-Fv2VMxS2WCKn1w7niN7Yqoqn9nl27lmouqBz?Szej78



0-1-8

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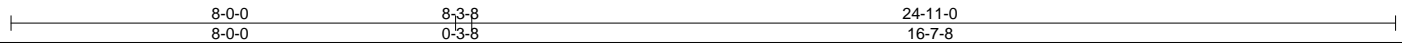
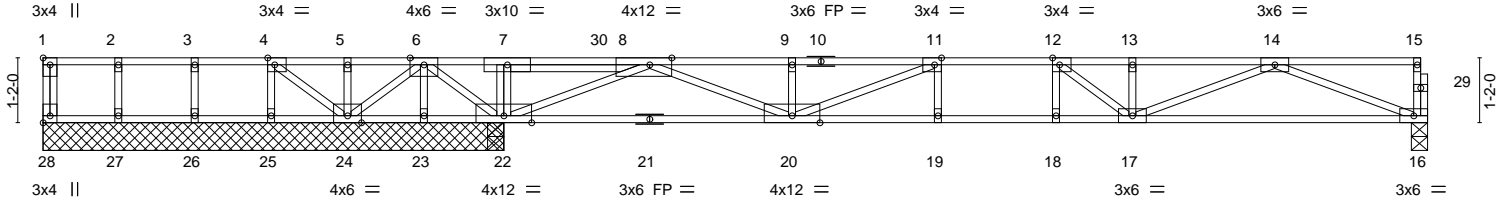


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [4:0-1-8,Edge], [8:0-4-12,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [28:Edge,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.97	Vert(LL)	-0.19	18	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.84	Vert(CT)	-0.26	18	>762		
BCLL 0.0	Rep Stress Incr	NO	WB 0.89	Horz(CT)	0.03	16	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 127 lb	FT = 20%F, 11%E

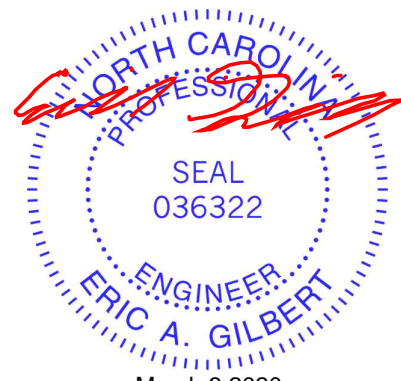
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 23-24,22-23,20-22.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. All bearings 8-3-8 except (jt=length) 16=0-3-8.
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) except 23=-486(LC 3), 24=-311(LC 3), 25=-242(LC 3)
 Max Grav All reactions 250 lb or less at joint(s) 28, 24, 25, 26, 27 except 22=2703(LC 1), 22=2703(LC 1), 16=761(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 4-5=0/381, 5-6=0/381, 6-7=0/2920, 7-8=0/2905, 8-9=-1628/0, 9-11=-1624/0, 11-12=-2504/0, 12-13=-2450/0, 13-14=-2450/0
 BOT CHORD 23-24=-1240/0, 22-23=-1240/0, 19-20=0/2504, 18-19=0/2504, 17-18=0/2504, 16-17=0/1611
 WEBS 6-22=-2070/0, 6-23=0/457, 6-24=0/1096, 4-24=-478/0, 4-25=-7/252, 14-16=-1727/0, 14-17=0/906, 13-17=-257/12, 8-22=-3022/0, 8-20=0/1860, 9-20=-261/27, 11-20=-958/0, 12-17=-381/155

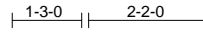
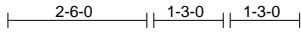
- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 1.5x3 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 1 degree rotation about its center.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 486 lb uplift at joint 23, 311 lb uplift at joint 24 and 242 lb uplift at joint 25.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 491 lb down at 10-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 16-28=-10, 1-15=-100
 Concentrated Loads (lb)
 Vert: 30=-411(B)



Job J0920-4177	Truss F5	Truss Type Floor	Qty 6	Ply 1	Lot 12 Sierra Villas	E14133300
Comtech, Inc., Fayetteville, NC - 28314,					Job Reference (optional)	

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:10 2020 Page 1
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0-1-8

Scale = 1:41.5

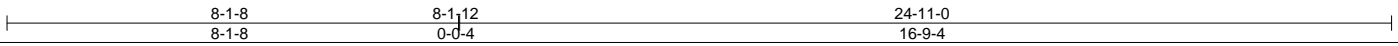
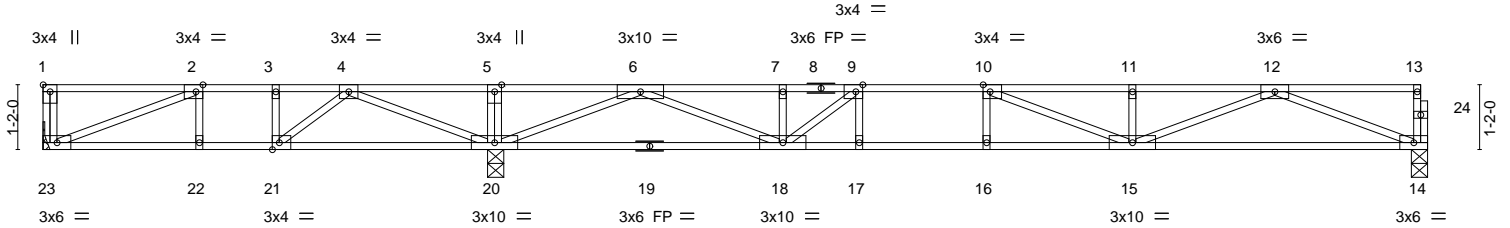


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [9:0-1-8,Edge], [10:0-1-8,Edge], [21:0-1-8,Edge]

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 0.82	Vert(LL)	-0.27 15-16	>731	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.76	Vert(CT)	-0.37 15-16	>536	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.72	Horz(CT)	0.04 14	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 122 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 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 23=Mechanical, 20=0-3-8, 14=0-3-8
 Max Uplift 23=-47(LC 3)
 Max Grav 23=373(LC 2), 20=1627(LC 1), 14=834(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-611/302, 3-4=-611/302, 4-5=0/1403, 5-6=0/1403, 6-7=-2311/0, 7-9=-2311/0,
 9-10=-2965/0, 10-11=-2850/0, 11-12=-2850/0
 BOT CHORD 22-23=-302/611, 21-22=-302/611, 20-21=-649/439, 18-20=0/956, 17-18=0/2965,
 16-17=0/2965, 15-16=0/2965, 14-15=0/1791
 WEBS 5-20=-293/0, 2-23=-655/324, 4-20=-1234/0, 4-21=0/603, 12-14=-1921/0, 12-15=0/1143,
 11-15=-315/0, 6-20=-2272/0, 6-18=0/1510, 10-15=-425/178, 9-18=-1020/0, 9-17=0/267

- 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 23.
 - 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 3, 2020

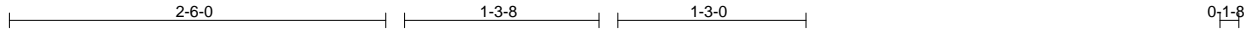
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



818 Soundside Road
 Edenton, NC 27932

Job J0920-4177	Truss F6	Truss Type Floor	Qty 2	Ply 1	Lot 12 Sierra Villas	E14133301
Comtech, Inc., Fayetteville, NC - 28314,					8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:10 2020 Page 1	
					ID:52Teu6pVqhXamGD1jN0kr4yxDe9-j6cuZHTgHwSef3hzF5enL1Q5PAnpsM1x7UwWXuzej77	
Job Reference (optional)						



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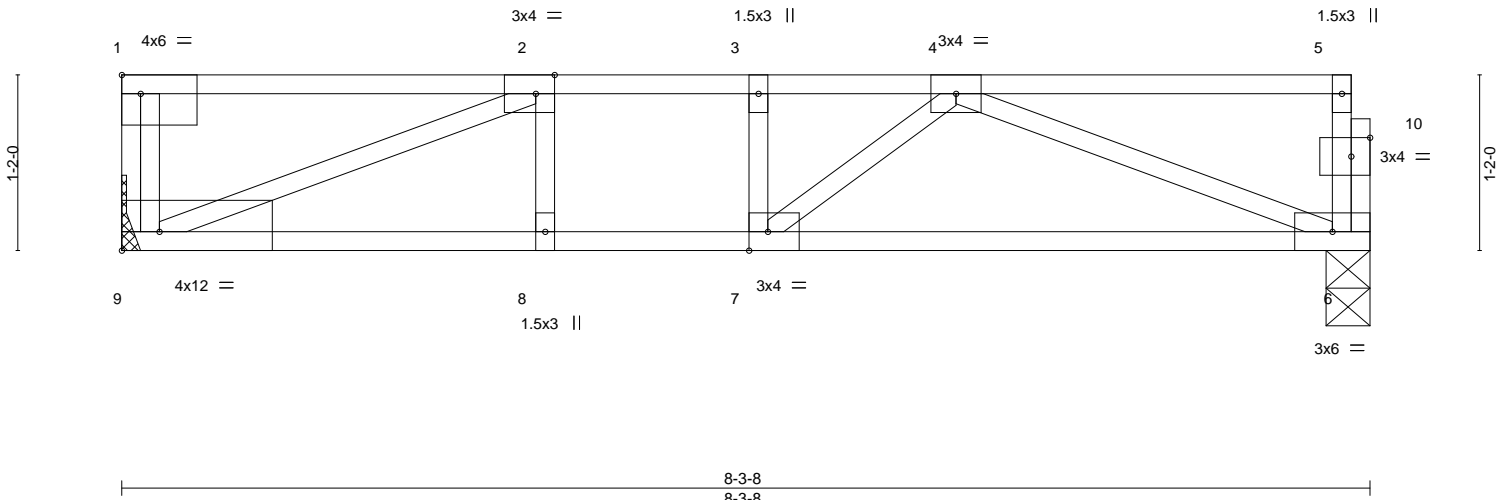


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [2:0-1-8,Edge], [7:0-1-8,Edge], [9:Edge,0-1-8], [10:0-1-8,0-1-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.42	Vert(LL) -0.05	6-7	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.29	Vert(CT) -0.08	6-7	>999	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.24	Horz(CT) 0.01	6	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 43 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) 9=Mechanical, 6=0-3-8
Max Grav 9=4092(LC 1), 6=436(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-3767/0, 2-3=-836/0, 3-4=-836/0
BOT CHORD 8-9=0/836, 7-8=0/836, 6-7=0/794
WEBS 2-9=-896/0, 4-6=-848/0

- 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.
 - 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-9=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 1=-3650



March 3, 2020

Job J0920-4177	Truss F7	Truss Type FLOOR	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133302
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:11 2020 Page 1
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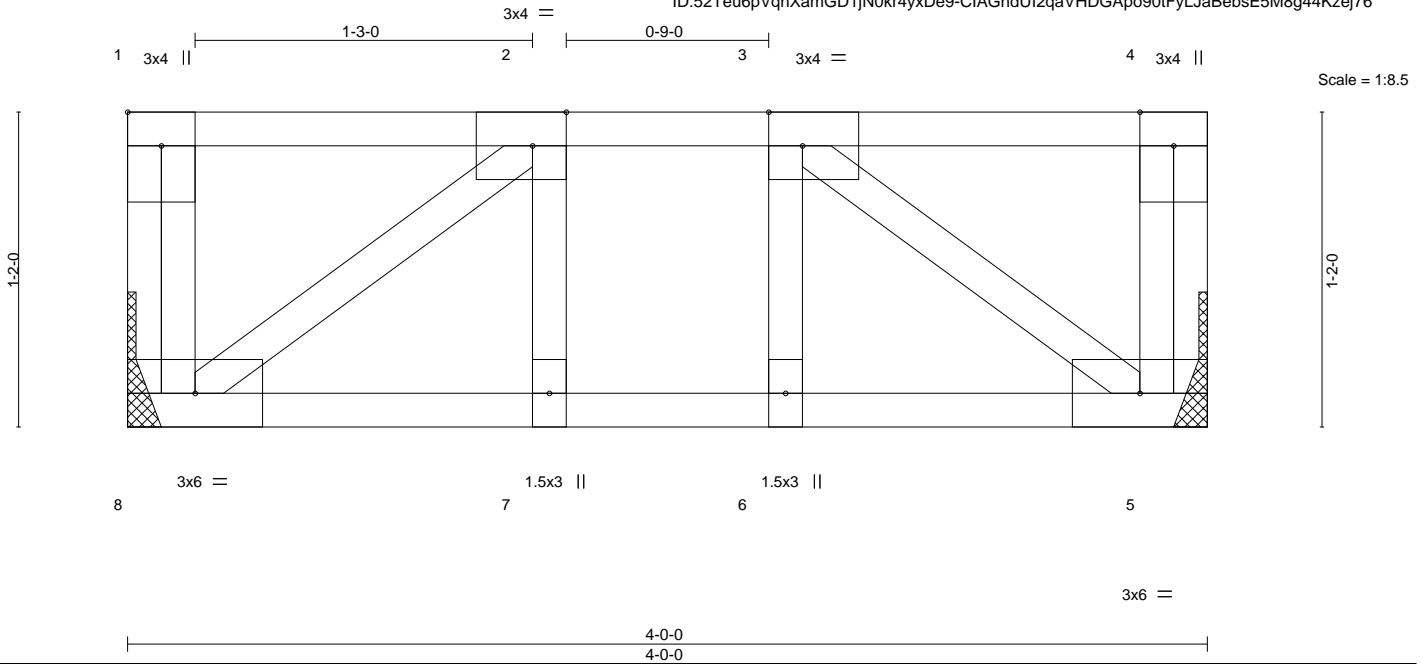


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.09	Vert(LL)	-0.00	7	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.06	Vert(CT)	-0.00	7	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 25 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 4-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 5=Mechanical
 Max Grav 8=206(LC 1), 5=206(LC 1)

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

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 3, 2020

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

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



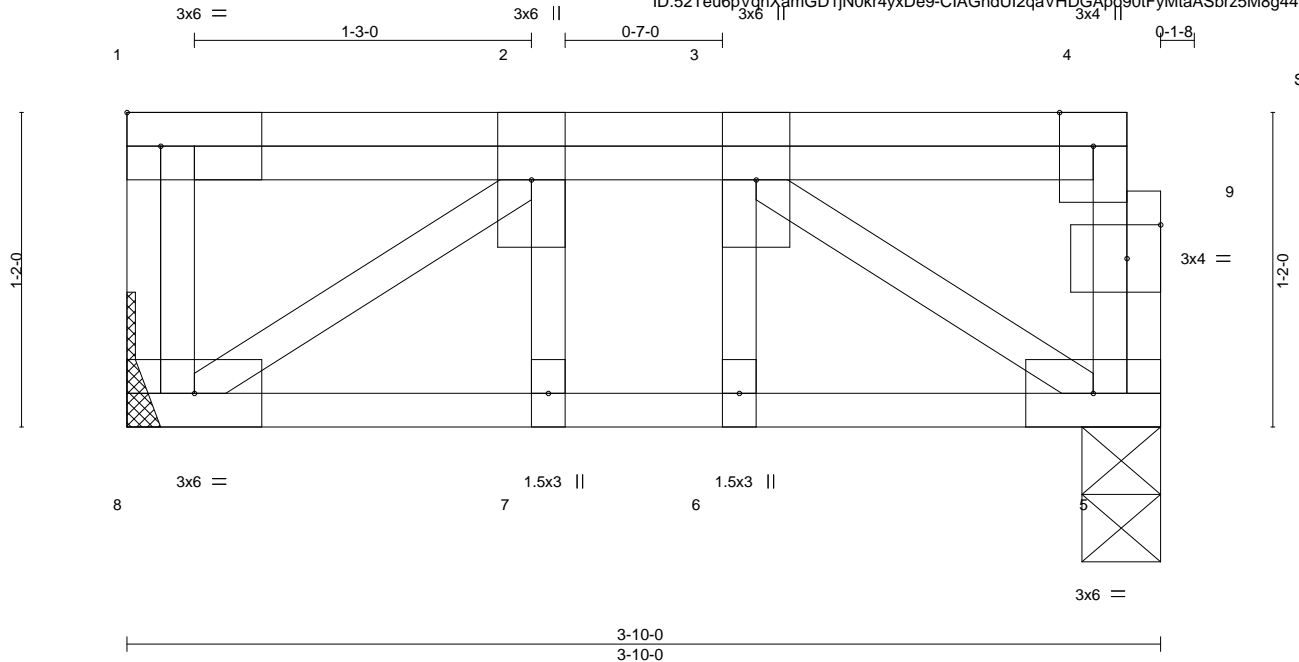
818 Soundside Road
 Edenton, NC 27932

Job J0920-4177	Truss FG1	Truss Type Floor Girder	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133303
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:11 2020 Page 1

ID:52Teu6pVqhXamGD1jN0kr4yxDe9-CIAGndUI2qaVHDGApp90tFyMtaASbrz5M8g44Kzej76



Scale = 1:8.5

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.06	Vert(LL) -0.00	7	>999	480	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.08	Vert(CT) -0.00	7	>999	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.07	Horz(CT) 0.00	5	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	Matrix-S						
	Code IRC2015/TPI2014						Weight: 28 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 3-10-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 5=0-3-8
 Max Grav 8=261(LC 1), 5=234(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-257/0
 BOT CHORD 7-8=0/257, 6-7=0/257, 5-6=0/257
 WEBS 3-5=-307/0, 2-8=-311/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 135 lb down at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 5-8=-10, 1-4=-100
 Concentrated Loads (lb)
 Vert: 2=-106(F)



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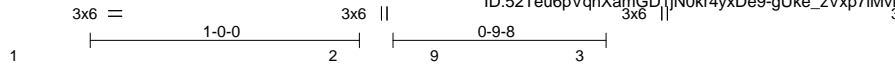
818 Soundside Road
 Edenton, NC 27932

Job J0920-4177	Truss FG2	Truss Type Floor Girder	Qty 1	Ply 1	Lot 12 Sierra Villas	E14133304
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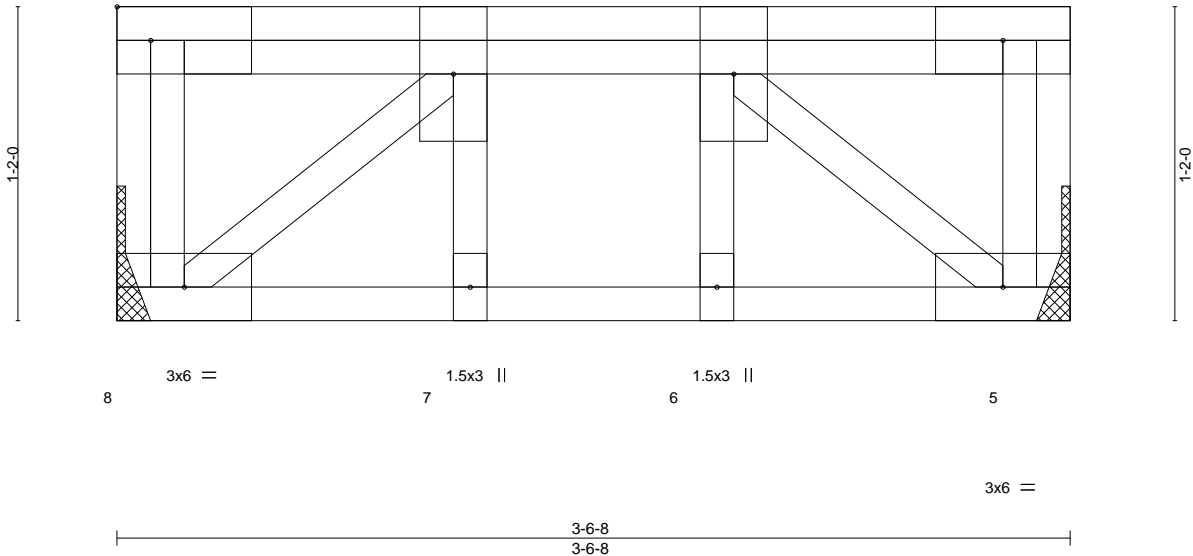
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s Feb 13 2020 MiTek Industries, Inc. Tue Mar 3 06:21:12 2020 Page 1

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Scale = 1:8.6



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.22	Vert(LL) -0.00	7	>999	480	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.16	Vert(CT) -0.01	7	>999	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.18	Horz(CT) 0.00	5	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	Matrix-S					Weight: 27 lb	FT = 20%F, 11%E
	Code IRC2015/TPI2014							

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 3-6-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=Mechanical, 5=Mechanical
 Max Grav 8=546(LC 1), 5=511(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-590/0
 BOT CHORD 7-8=0/590, 6-7=0/590, 5-6=0/590
 WEBS 2-8=-765/0, 3-5=-765/0

- 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.
 - 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 720 lb down at 1-8-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 5-8=-10, 1-4=-100
 Concentrated Loads (lb)
 Vert: 9=-695(B)



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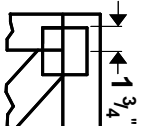
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



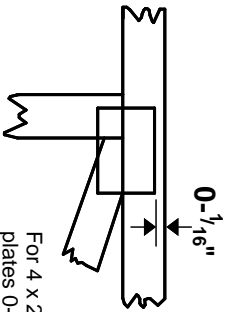
818 Soundside Road
 Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

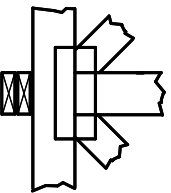
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



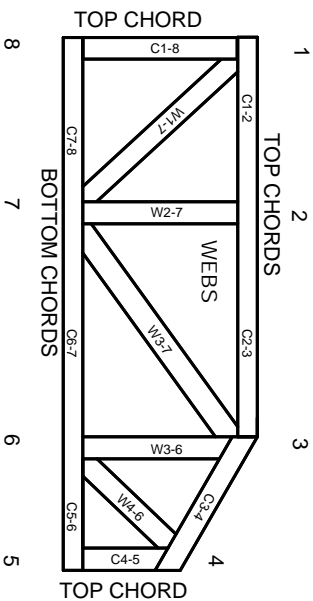
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or 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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.