

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0320-1196
Ben Stout/38 Blackberry Manor/Harnett

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: E14472594 thru E14472604

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

North Carolina COA: C-0844



June 3, 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 J0320-1196	Truss F01	Truss Type Floor	Qty 6	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472594
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:33 2020 Page 1
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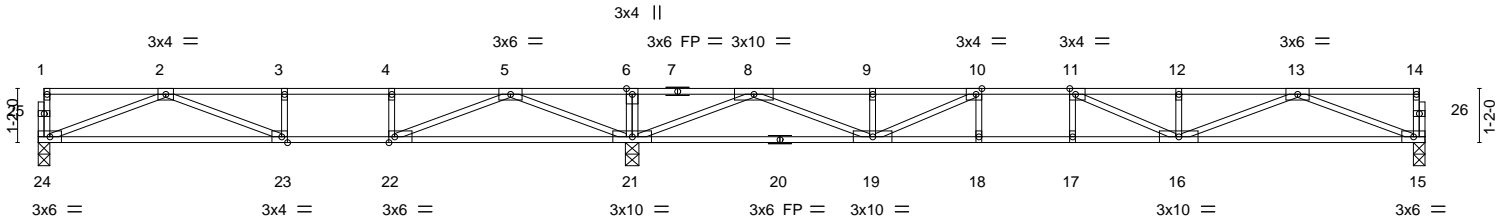


Plate Offsets (X,Y)--	[10:0-1-8,Edge], [11:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.84	Vert(LL)	-0.26 16-17	>787	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.92	Vert(CT)	-0.36 23-24	>417	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.79	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=0-3-0, 21=0-3-8, 15=0-3-0
Max Grav 24=622(LC 3), 21=1882(LC 1), 15=851(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1683/96, 3-4=-1683/96, 4-5=-1683/96, 5-6=0/1858, 6-8=0/1858, 8-9=-2403/0, 9-10=-2403/0, 10-11=-3148/0, 11-12=-2914/0, 12-13=-2914/0
BOT CHORD 23-24=0/1257, 22-23=-96/1683, 21-22=-713/765, 19-21=-181/967, 18-19=0/3148, 17-18=0/3148, 16-17=0/3148, 15-16=0/1833
WEBS 6-21=-299/0, 2-24=-1346/0, 2-23=-197/460, 5-21=-1814/0, 5-22=0/1285, 4-22=-391/0, 8-21=-2386/0, 8-19=0/1652, 9-19=-260/24, 13-15=-1966/0, 13-16=0/1167, 10-19=-1091/0, 12-16=-304/0, 11-16=-466/205

- 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.



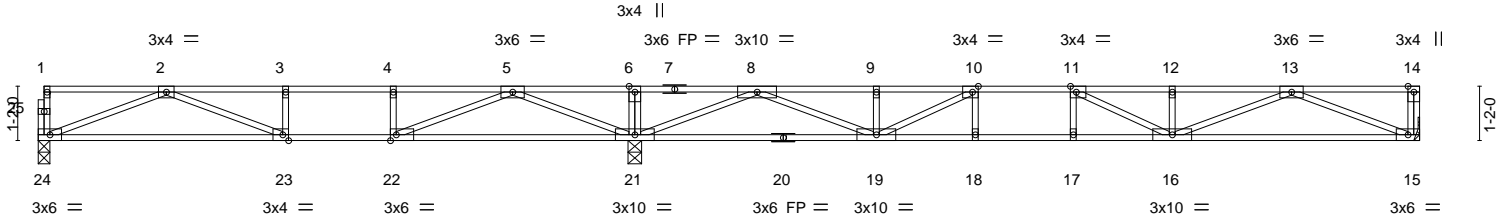
June 3, 2020

<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</p>  <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J0320-1196	Truss F02	Truss Type Floor Girder	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472595
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Comtech, Inc, Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:35 2020 Page 1
ID:IFcNqFeBMDbEpQt48prlavzQQxj-HV1zpKDaJceGLLWnGuBleZIBv_gXZvo4vn4koCz9ykA



12-9-12	17-11-4	29-8-0
12-9-12	5-1-8	11-8-12
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 0.82	Vert(LL)	-0.25 16-17	>814	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.90	Vert(CT)	-0.36 23-24	>423	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/TP12014		Matrix-S						
								Weight: 142 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=0-3-0, 21=0-3-8, 15=Mechanical
Max Grav 24=624(LC 3), 21=1862(LC 1), 15=846(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1691/68, 3-4=-1691/68, 4-5=-1691/68, 5-6=0/1801, 6-8=0/1801, 8-9=-2375/0, 9-10=-2375/0, 10-11=-3059/0, 11-12=-2852/0, 12-13=-2852/0
BOT CHORD 23-24=0/1260, 22-23=-68/1691, 21-22=-669/778, 19-21=-175/984, 18-19=0/3059, 17-18=0/3059, 16-17=0/3059, 15-16=0/1808
WEBS 6-21=-297/0, 2-24=-1350/0, 2-23=-180/465, 5-21=-1802/0, 5-22=0/1267, 4-22=-386/0, 13-15=-1945/0, 13-16=0/1127, 12-16=-295/0, 8-21=-2346/0, 8-19=0/1606, 10-19=-1042/0, 11-16=-437/209

- 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.



June 3, 2020

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Job J0320-1196	Truss F02G	Truss Type Floor Girder	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472596
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Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:36 2020 Page 1
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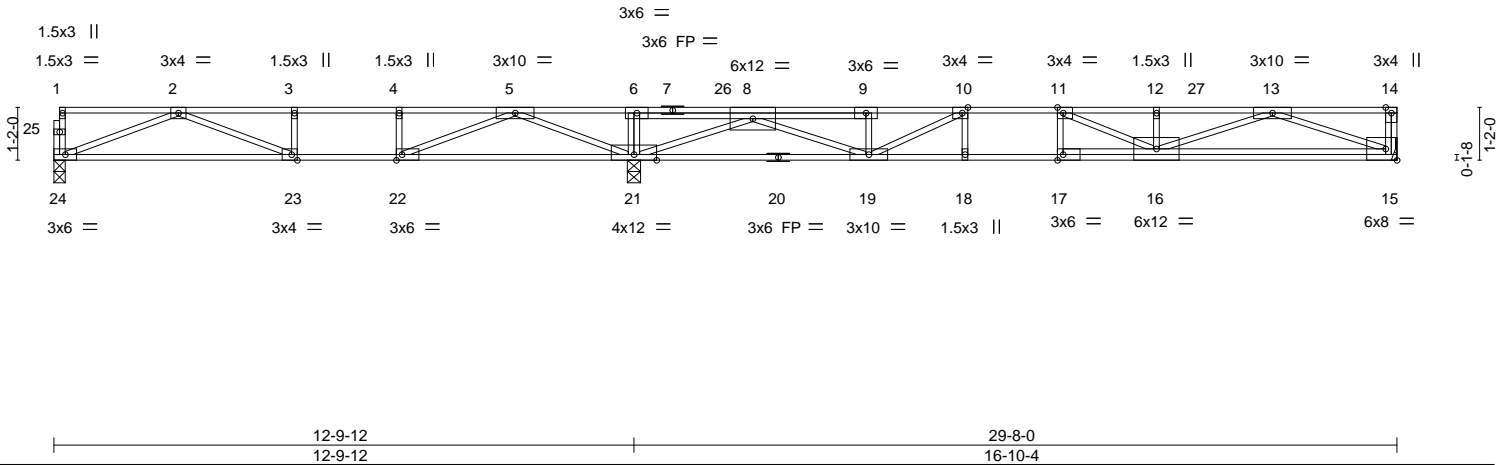


Plate Offsets (X,Y)--	[10:0-1-8,Edge], [11:0-1-8,Edge], [17:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.64	Vert(LL) -0.23 17 >884 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.79	Vert(CT) -0.31 17 >643 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.91	Horz(CT) 0.04 15 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 160 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)

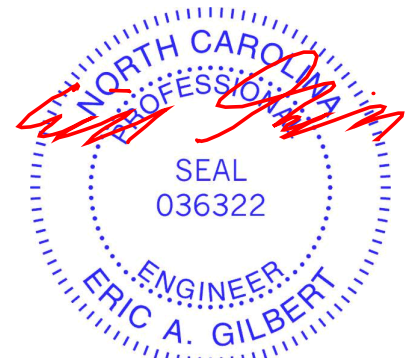
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-23,21-22.

REACTIONS. (size) 24=0-3-0, 21=0-3-8, 15=Mechanical
Max Grav 24=592(LC 3), 21=2319(LC 1), 15=1031(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1499/188, 3-4=-1499/188, 4-5=-1499/188, 5-6=0/2160, 6-8=0/2113, 8-9=-2992/0, 9-10=-2988/0, 10-11=-3738/0, 11-12=-3799/0, 12-13=-3799/0
BOT CHORD 23-24=0/1180, 22-23=-188/1499, 21-22=-866/461, 19-21=0/1691, 18-19=0/3738, 17-18=0/3738, 16-17=0/3740, 15-16=0/2418
WEBS 6-21=-400/0, 2-24=-1263/0, 2-23=-255/345, 5-21=-1938/0, 5-22=0/1355, 4-22=-411/0, 13-15=-2581/0, 13-16=0/1479, 12-16=-444/0, 8-21=-3358/0, 8-19=0/1527, 10-19=-1103/0, 11-16=-103/478

- 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) 498 lb down at 14-9-12, and 283 lb down at 25-3-4 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: 15-24=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 26=-418(F) 27=-203(F)



June 3, 2020

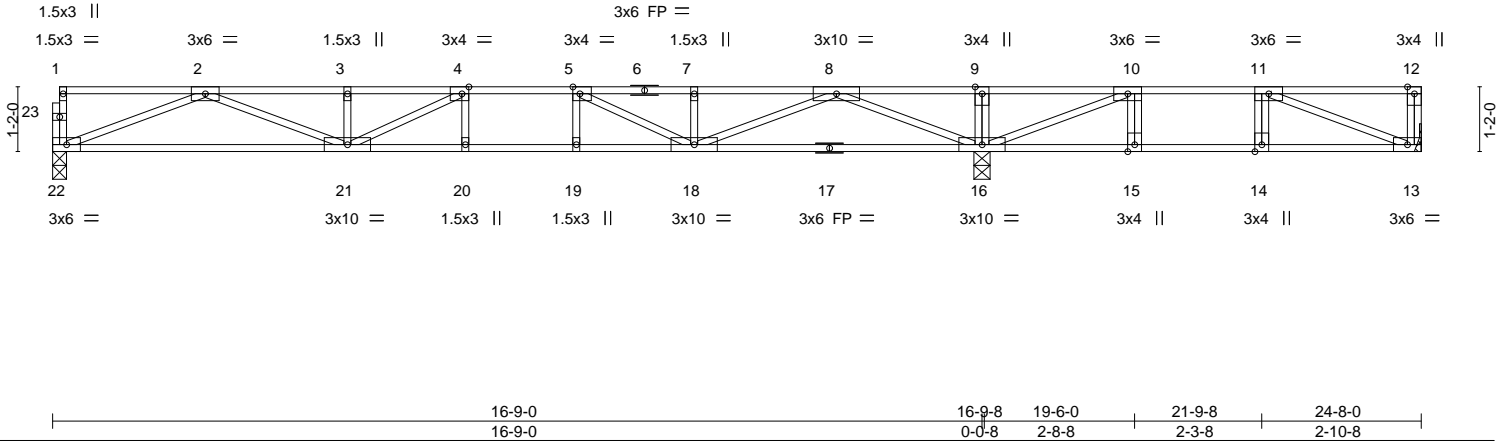
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 J0320-1196	Truss F03	Truss Type FLOOR	Qty 10	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472597
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:39 2020 Page 1
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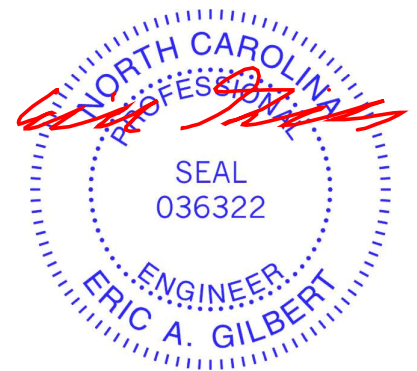
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.63	Vert(LL) -0.24	20	>824	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.84	Vert(CT) -0.33	20	>603	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.70	Horz(CT) 0.06	13	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 122 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) 22=0-3-0, 13=Mechanical, 16=0-3-8
Max Uplift 13=-2(LC 3)
Max Grav 22=864(LC 10), 13=388(LC 4), 16=1531(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2969/0, 3-4=-2969/0, 4-5=-3261/0, 5-7=-2689/0, 7-8=-2689/0, 8-9=0/1077, 9-10=0/1077, 10-11=-638/228
BOT CHORD 21-22=0/1867, 20-21=0/3261, 19-20=0/3261, 18-19=0/3261, 16-18=0/1392, 15-16=-228/638, 14-15=-228/638, 13-14=-228/638
WEBS 2-22=-2002/0, 2-21=0/1190, 3-21=-283/0, 8-16=-2237/0, 8-18=0/1479, 7-18=-262/17, 4-21=-584/90, 5-18=-889/0, 11-13=-682/244, 10-16=-1269/0

- 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
 - 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.



June 3, 2020

Job J0320-1196	Truss F03G	Truss Type FLOOR	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472598
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:42 2020 Page 1
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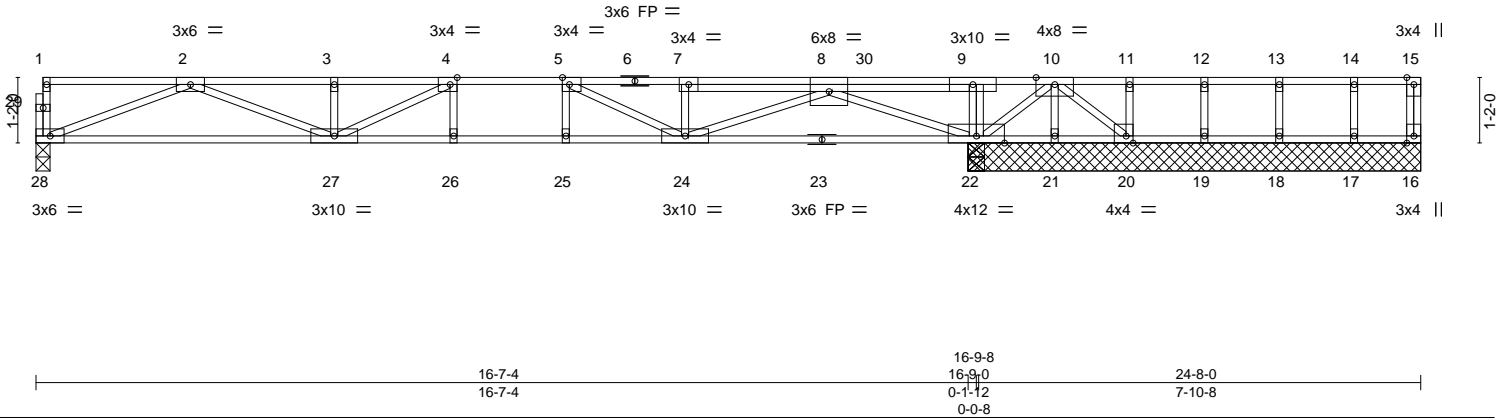


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge], [20:0-1-8,Edge]

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 0.66	Vert(LL)	-0.21 26-27	>952	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.88	Vert(CT)	-0.28 26-27	>699	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.89	Horz(CT)	0.04 22	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 128 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(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: 6-0-0 oc bracing: 21-22,20-21.

REACTIONS. All bearings 8-0-12 except (jt=length) 28=0-3-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 21=-409(LC 3), 20=-722(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 16, 19, 18, 17 except 22=2761(LC 1), 22=2761(LC 1), 28=783(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2583/0, 3-4=-2583/0, 4-5=-2618/0, 5-7=-1759/0, 7-8=-1764/0, 8-9=0/2698, 9-10=0/2715
BOT CHORD 27-28=0/1661, 26-27=0/2618, 25-26=0/2618, 24-25=0/2618, 22-24=0/434, 21-22=-1033/0, 20-21=-1033/0
WEBS 10-22=-2093/0, 9-22=-305/0, 2-28=-1781/0, 2-27=0/995, 10-21=0/379, 10-20=0/1311, 3-27=-298/0, 4-27=-378/165, 8-22=-3279/0, 8-24=0/1495, 5-24=-1003/0

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 409 lb uplift at joint 21 and 722 lb uplift at joint 20.
 - 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) 498 lb down at 14-9-12 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: 1-15=-100, 16-28=-10
Concentrated Loads (lb)
Vert: 30=-418(B)



June 3, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
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Job J0320-1196	Truss F04	Truss Type Floor	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472599
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:43 2020 Page 1
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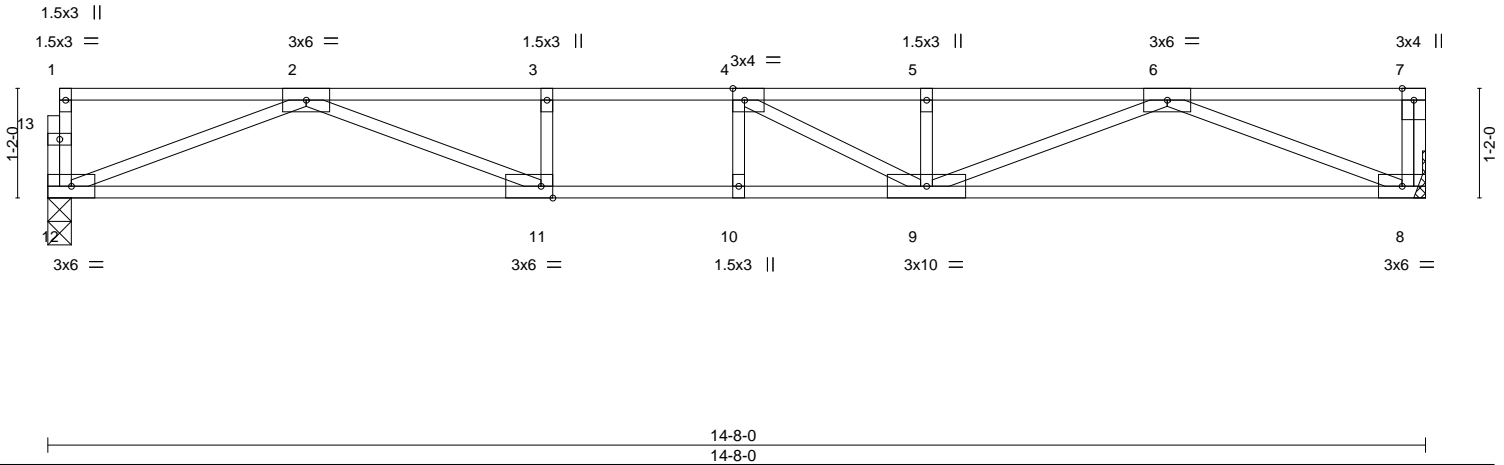


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.60	Vert(LL) -0.23	9-10	>748	480	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.88	Vert(CT) -0.30	9-10	>584	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.52	Horz(CT) 0.04	8	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TP12014						Weight: 72 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, 8=Mechanical
Max Grav 12=787(LC 1), 8=793(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2652/0, 3-4=-2652/0, 4-5=-2592/0, 5-6=-2592/0
BOT CHORD 11-12=0/1675, 10-11=0/2652, 9-10=0/2652, 8-9=0/1676
WEBS 2-12=-1795/0, 2-11=0/1098, 3-11=-299/0, 6-8=-1803/0, 6-9=0/990, 5-9=-292/0, 4-9=-448/214

- 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.



June 3, 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 J0320-1196	Truss F05	Truss Type FLOOR	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472600
					Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:43 2020 Page 1
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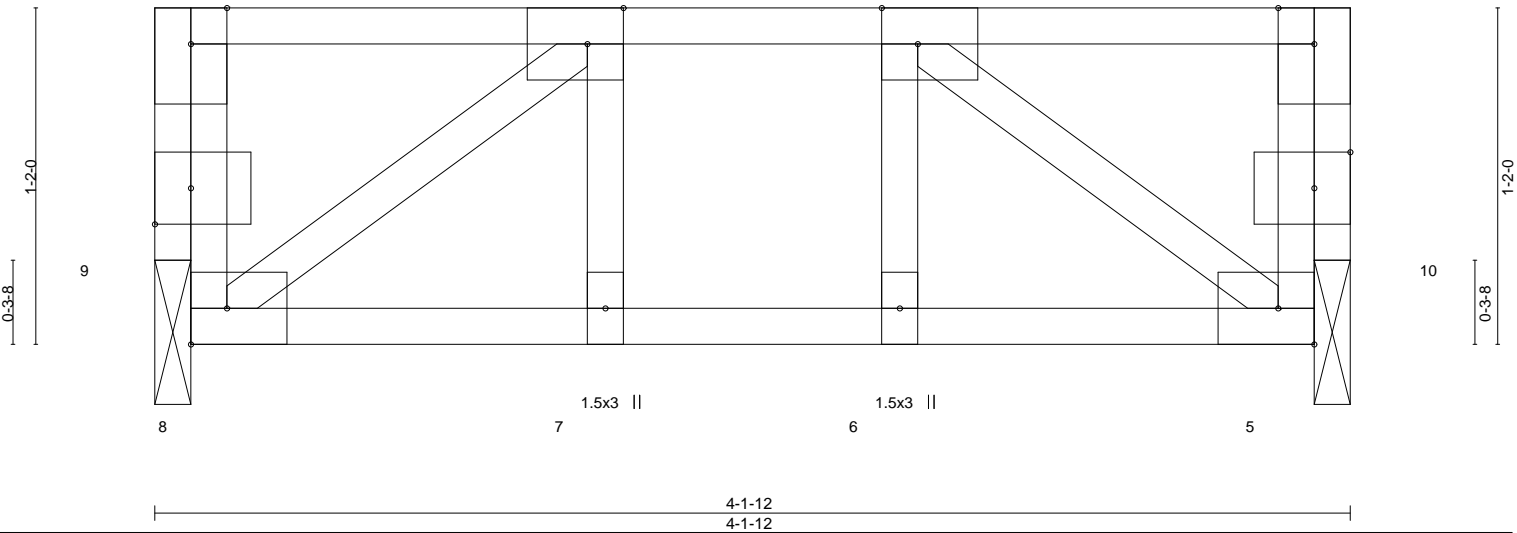
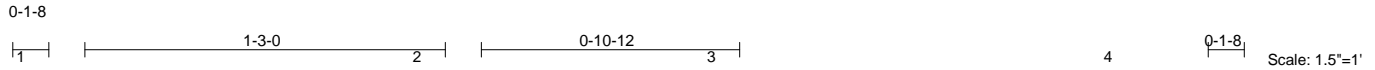


Plate Offsets (X,Y)--	[2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8], [10:0-1-8,0-1-8]				
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.06	Vert(LL) -0.00 7 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.05	Vert(CT) -0.00 7 >999 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 24 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 4-1-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-1-8, 10=0-1-8
Max Grav 9=207(LC 1), 10=207(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) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) Plates checked for a plus or minus 1 degree rotation about its center.
 - 4) Bearing at joint(s) 9, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9, 10.
 - 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.



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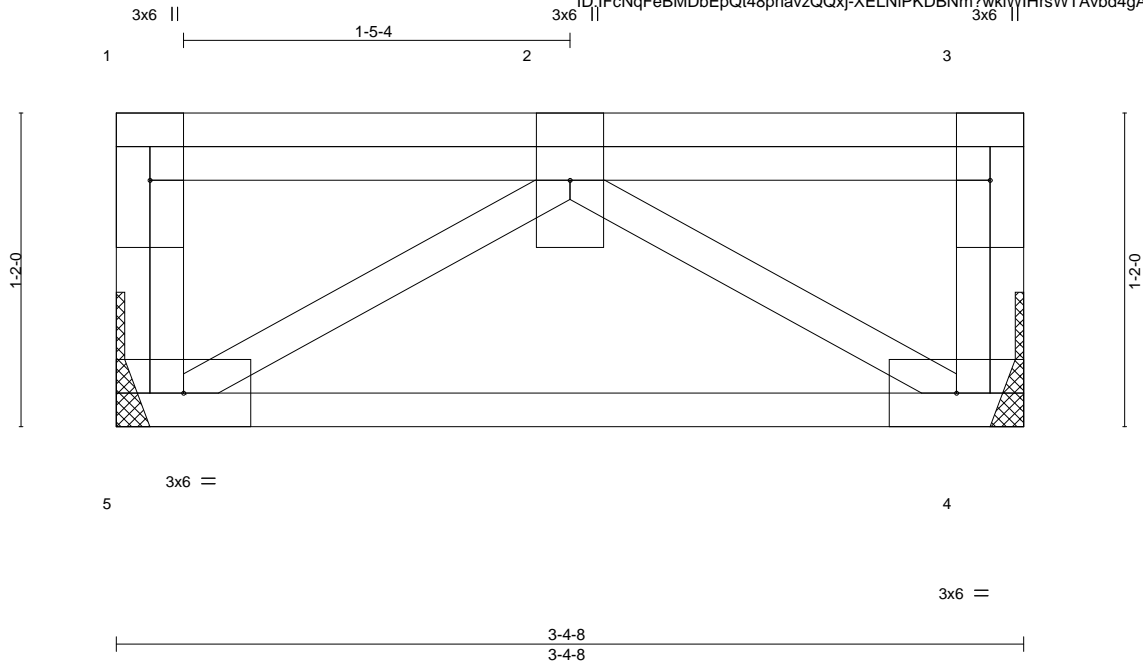
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job J0320-1196	Truss F06G	Truss Type Floor Girder	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472601
					Job Reference (optional)	

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8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:44 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 0.06	Vert(LL) 0.00	5	****	480	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.20	Vert(CT) -0.01	4-5	>999	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.19	Horz(CT) 0.00	4	n/a	n/a		
BCDL 5.0	Rep Stress Incr NO	Matrix-P					Weight: 25 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 3-4-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 4=Mechanical
 Max Grav 5=518(LC 1), 4=518(LC 1)

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

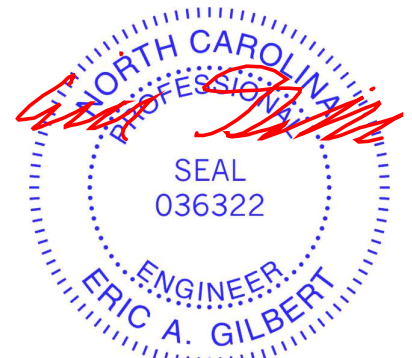
BOT CHORD 4-5=0/669
 WEBS 2-5=-790/0, 2-4=-790/0

NOTES-

- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 693 lb down at 1-6-4 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 4-5=-10, 1-3=-100
 Concentrated Loads (lb)
 Vert: 2=-693(F)



June 3, 2020

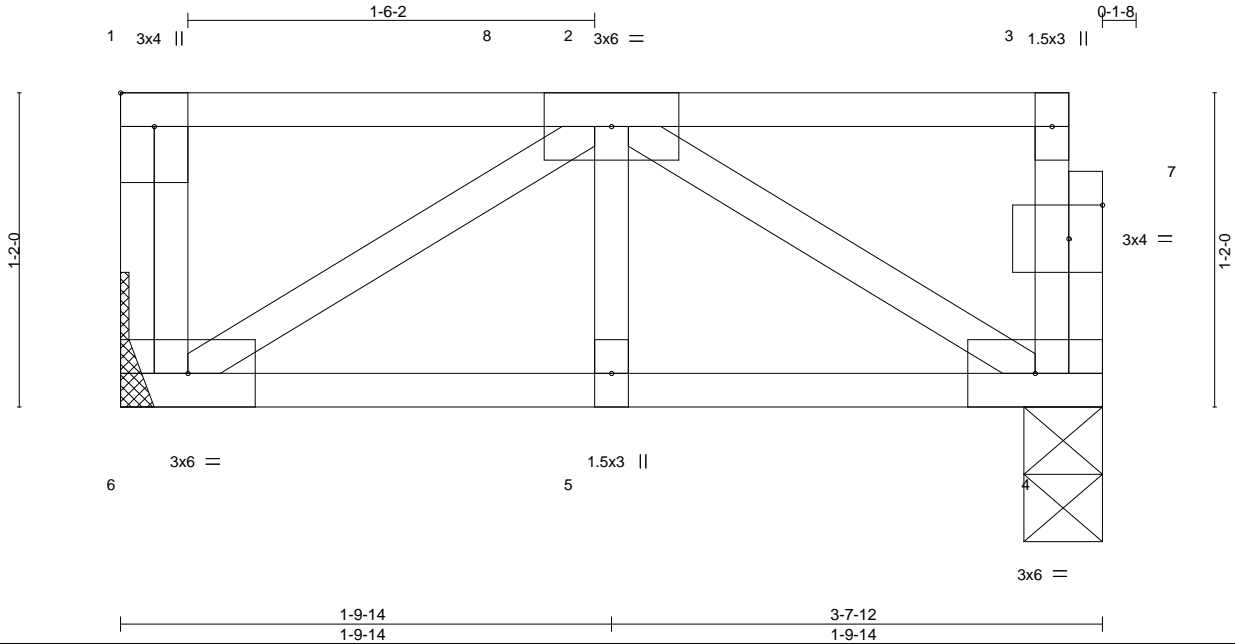
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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.



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Job J0320-1196	Truss F07G	Truss Type FLOOR GIRDER	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472602
Comtech, Inc., Fayetteville, NC - 28314,					8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:44 2020 Page 1	
					ID:IFcNqFeBMDbEpQt48prlavzQQxj-XELNiPKDBNm?wkiWIHrsWTAUd6gA8nPzgmBz9yk1	
Job Reference (optional)						



Scale = 1:8.6

Plate Offsets (X,Y)--	[1:Edge,0-1-8], [7:0-1-8,0-1-8]				
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 0.19	Vert(LL) -0.00 5 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.07	Vert(CT) -0.00 5 >999 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.08	Horz(CT) 0.00 4 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P			
				Weight: 22 lb	FT = 20%F, 11%E

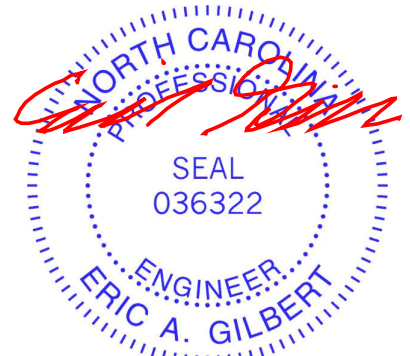
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

REACTIONS. (size) 6=Mechanical, 4=0-3-8
Max Grav 6=253(LC 1), 4=227(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 5-6=0/271, 4-5=0/271
WEBS 2-4=-315/0, 2-6=-318/0

- NOTES-**
- 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.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 8=-113



June 3, 2020

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Job J0320-1196	Truss KW1	Truss Type Floor Supported Gable	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472603
					Job Reference (optional)	

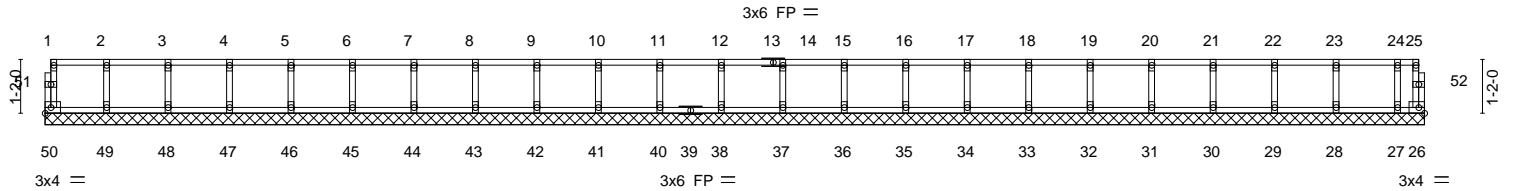
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:45 2020 Page 1
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0-1/8

0-1/8

Scale = 1:50.0



29-11-0
29-11-0

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	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/TPI2014		Matrix-R							
								Weight: 124 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 29-11-0.
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 50, 26, 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) 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.



June 3, 2020

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Job J0320-1196	Truss KW2	Truss Type Floor Supported Gable	Qty 1	Ply 1	Ben Stout/38 Blackberry Manor/Harnett	E14472604
					Job Reference (optional)	

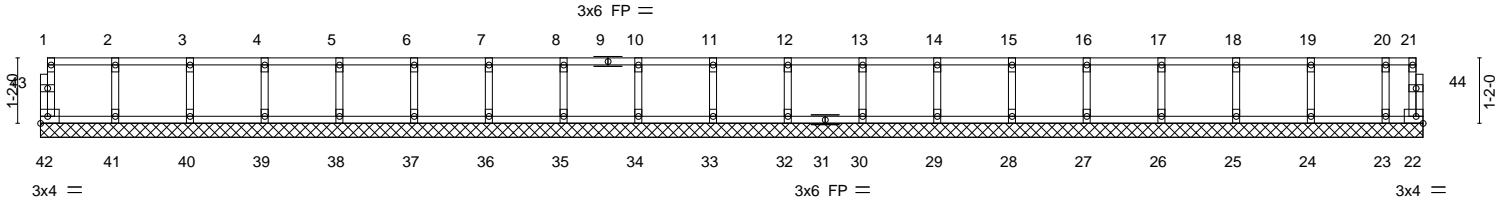
Comtech, Inc., Fayetteville, NC - 28314,

8.330 s May 6 2020 MiTek Industries, Inc. Wed Jun 3 14:56:46 2020 Page 1
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0-1/8

0-1/8

Scale = 1:41.1



24-8-0
24-8-0

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	22	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 102 lb	FT = 20%F, 11%E

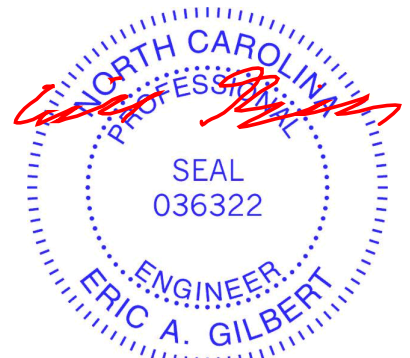
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 24-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 42, 22, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 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.



June 3, 2020

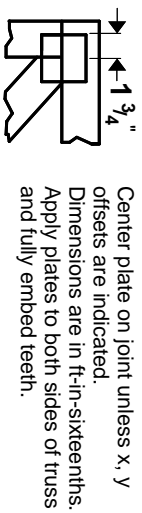
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
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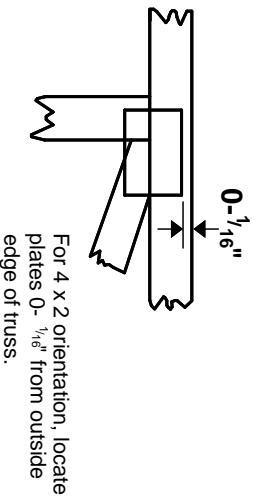
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Symbols

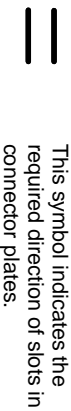
PLATE LOCATION AND ORIENTATION



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



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



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

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

PLATE SIZE

4 X 4

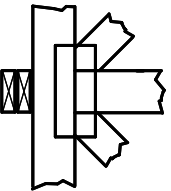
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

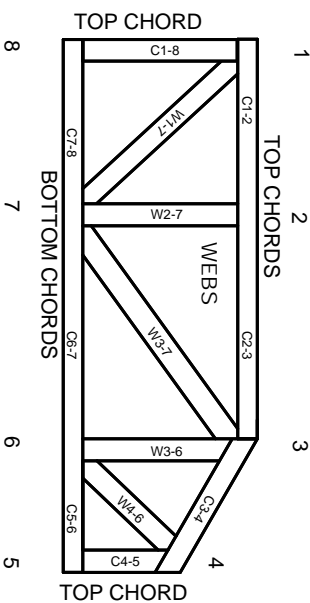


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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