

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 2489096  
Lamco Custom - Jackson

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: E15026420 thru E15026428

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

North Carolina COA: C-0844



October 28,2020

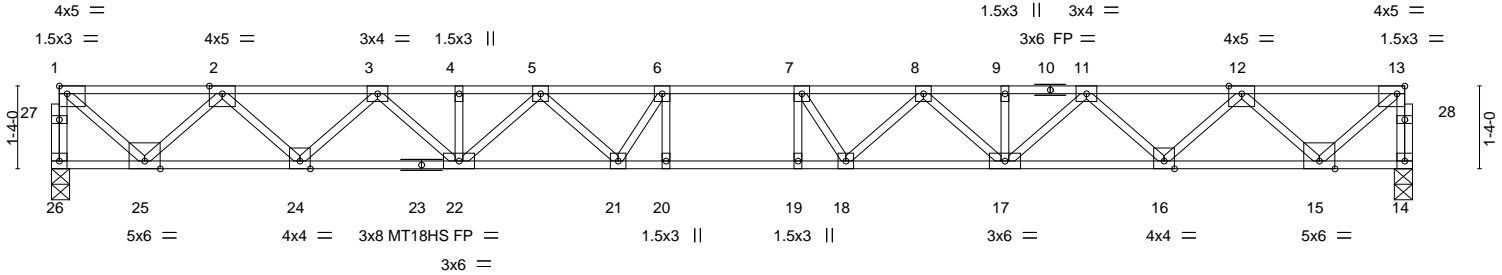
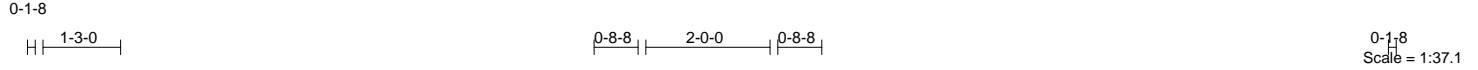
Gilbert, Eric

**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 2489096	Truss F1	Truss Type Floor	Qty 2	Ply 1	Lamco Custom - Jackson Job Reference (optional)	E15026420
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:49 2020 Page 1  
ID:TzqElgM?vNsmIVITkhYcdxyrx\_7-UtzwH9qCO0j4UB6DlarmOj\_TgmaME6bnjd9oyP9bK



9-11-8 9-11-8	10-11-8 1-0-0	11-11-8 1-0-0	21-11-0 9-11-8
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Plate Offsets (X,Y)-- [1:Edge,0-1-8], [13:0-1-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.60	Vert(LL)	-0.43 19-20	>599	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.74	Vert(CT)	-0.60 19-20	>435	360	MT18HS	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.09 14	n/a	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 115 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 5-1-3 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat) *Except* 14-23: 2x4 SP 2400F 2.0E (flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

**REACTIONS.** (size) 26=0-3-8, 14=0-3-8  
Max Grav 26=1185(LC 1), 14=1185(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-26=-1180/0, 13-14=-1180/0, 1-2=-1230/0, 2-3=-3110/0, 3-4=-4454/0, 4-5=-4454/0, 5-6=-5160/0, 6-7=-5304/0, 7-8=-5160/0, 8-9=-4453/0, 9-11=-4453/0, 11-12=-3110/0, 12-13=-1229/0  
**BOT CHORD** 24-25=0/2322, 22-24=0/3871, 21-22=0/4911, 20-21=0/5304, 19-20=0/5304, 18-19=0/5304, 17-18=0/4911, 16-17=0/3871, 15-16=0/2322  
**WEBS** 6-20=-292/318, 7-19=-292/318, 1-25=0/1589, 2-25=-1520/0, 2-24=0/1096, 3-24=-1058/0, 3-22=0/792, 5-22=-621/0, 5-21=0/545, 6-21=-657/210, 13-15=0/1588, 12-15=-1519/0, 12-16=0/1096, 11-16=-1059/0, 11-17=0/791, 8-17=-622/0, 8-18=0/545, 7-18=-657/210

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x3 MT20 unless otherwise indicated.
  - 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.





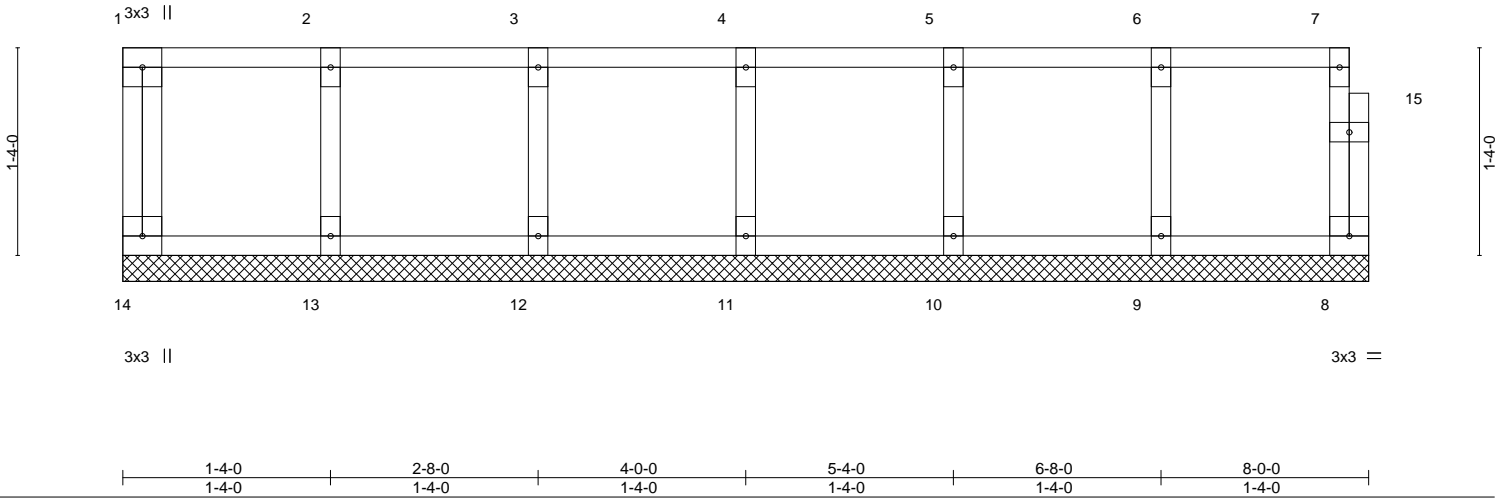
Job	Truss	Truss Type	Qty	Ply	Lamco Custom - Jackson	E15026422
2489096	F2E	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:52 2020 Page 1  
 ID:TzqElGM?vNsmIvITkhYcdyxr\_7-uStf2JGBiVJPHxxwhut8YO1LeBlzmZmC2Th\_Hm7yP9bH

0'-1'-8"

Scale = 1:14.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 5.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 38 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.

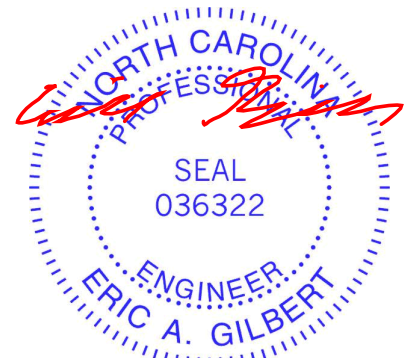
**REACTIONS.**

All bearings 8-0-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

**NOTES-**

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.



October 28, 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 2489096	Truss F2G	Truss Type Floor Girder	Qty 1	Ply 1	Lamco Custom - Jackson	E15026423
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Probuild East, Albemarle, NC 28001

8.240 s Jun 26 2020 MiTek Industries, Inc. Wed Oct 28 07:25:09 2020 Page 1  
ID:TzqElGm?vNsmIvITkhYcdyxr\_7-f5SvJkHfzSfuc6MDkWXijGxz\_f7Lz?GeRITz0QyOzFe

1-3-0

1-3-12

0-3-12

0-1-8

Scale = 1:27.7

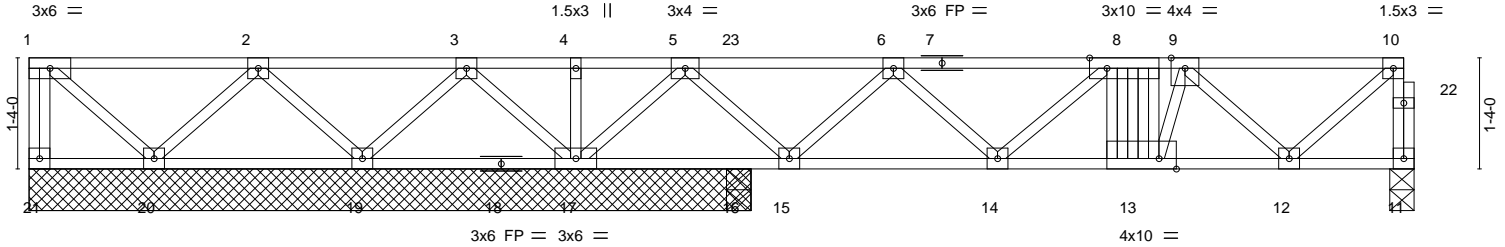


Plate Offsets (X,Y)--	[8:0-2-8,Edge], [13:0-2-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.35	Vert(LL)	-0.02	14-15	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.25	Vert(CT)	-0.03	14-15	>999		
BCLL 0.0	Lumber DOL 1.00	WB 0.28	Horz(CT)	0.01	11	n/a		
BCDL 5.0	Rep Stress Incr NO	Matrix-S						
	Code IRC2015/TPI2014						Weight: 96 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.** (lb/size) 21=62/8-8-0 (min. 0-1-8), 11=507/0-3-8 (min. 0-1-8), 20=157/8-8-0 (min. 0-1-8), 19=95/8-8-0 (min. 0-1-8), 17=963/8-8-0 (min. 0-1-8), 16=127/0-3-8 (min. 0-1-8)  
Max Uplift 19=-126(LC 4)  
Max Grav 21=71(LC 3), 11=509(LC 4), 20=178(LC 3), 19=212(LC 3), 17=963(LC 1), 16=128(LC 4)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-21=-66/1, 11-22=-504/0, 10-22=-504/0, 1-2=0/52, 2-3=0/175, 3-4=0/692, 4-5=0/692, 5-23=-240/0, 6-23=-240/0, 6-7=-821/0, 7-8=-821/0, 8-9=-934/0, 9-10=-459/0  
BOT CHORD 20-21=0/0, 19-20=-48/83, 18-19=-382/0, 17-18=-382/0, 16-17=-166/0, 15-16=-166/0, 14-15=0/679, 13-14=0/945, 12-13=0/849, 11-12=0/26  
WEBS 8-13=-167/0, 1-20=-69/0, 2-20=-173/32, 2-19=-302/0, 3-19=-4/346, 3-17=-498/0, 4-17=-110/0, 5-17=-783/0, 5-15=0/500, 6-15=-618/0, 6-14=0/208, 8-14=-172/0, 10-12=0/588, 9-12=-543/0, 9-13=0/193

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x3 MT20 unless otherwise indicated.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 19.
  - 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) 115 lb down at 13-3-0 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: 11-21=-10, 1-10=-100  
Concentrated Loads (lb)  
Vert: 8=-115(F)



October 28, 2020

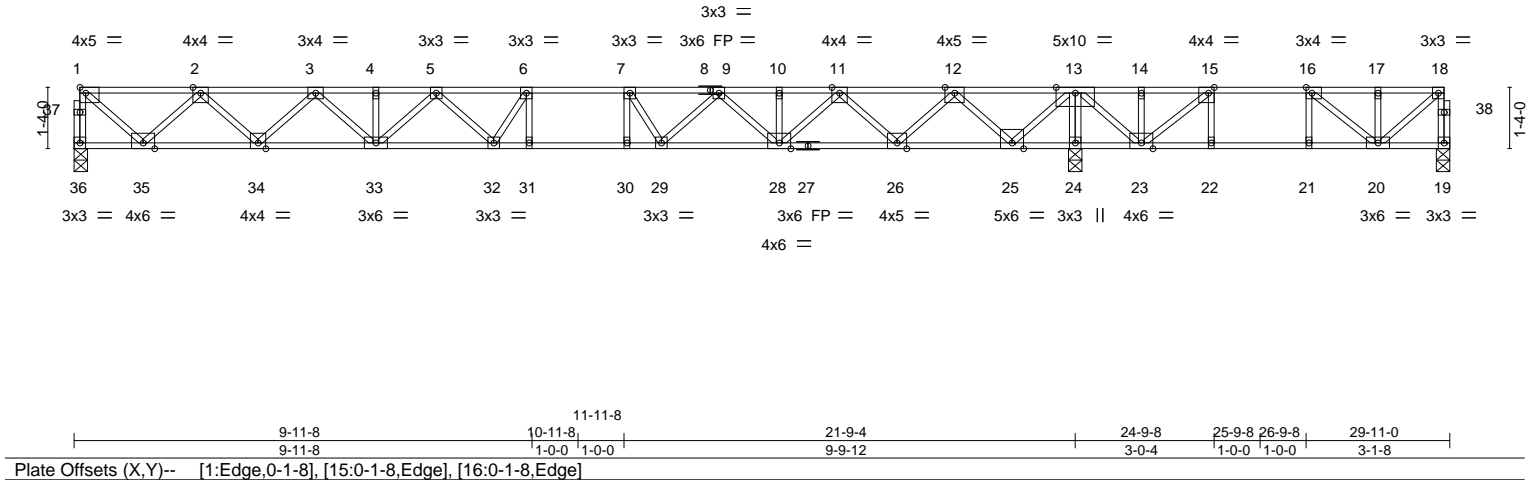
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	Lamco Custom - Jackson	E15026424
2489096	F3	Floor	7	1	Job Reference (optional)	

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:55 2020 Page 1  
ID:TzqElgM?vNsmIvTkhYcdyxr\_7-J1LBxIDboEnsoPeGZ0hF0fzxF5mRmxVUAFcYNSyP9bE



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.84	Vert(LL) -0.37	31	>707	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.91	Vert(CT) -0.50	31	>516	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.83	Horz(CT) 0.06	24	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 159 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except* 1-8: 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals.
BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except* 19-27: 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) 36=0-3-8, 19=0-3-8, 24=0-3-8  
Max Grav 36=1079(LC 10), 19=538(LC 4), 24=2057(LC 1)

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

TOP CHORD 1-36=-1073/0, 18-19=-539/0, 1-2=-1108/0, 2-3=-2769/0, 3-4=-3881/0, 4-5=-3881/0, 5-6=-4358/0, 6-7=-4349/0, 7-9=-4059/0, 9-10=-3126/0, 10-11=-3126/0, 11-12=-1553/0, 12-13=0/776, 13-14=0/1572, 14-15=0/1572, 15-16=-397/783, 16-17=-359/160, 17-18=-359/160

BOT CHORD 34-35=0/2091, 33-34=0/3419, 32-33=0/4240, 31-32=0/4349, 30-31=0/4349, 29-30=0/4349, 28-29=0/3678, 26-28=0/2429, 25-26=0/648, 24-25=-2079/0, 23-24=-2079/0, 22-23=-783/397, 21-22=-783/397, 20-21=-783/397

WEBS 6-31=-402/159, 7-30=-136/434, 15-22=0/298, 16-21=-257/0, 13-24=-1970/0, 1-35=0/1431, 2-35=-1367/0, 2-34=0/943, 3-34=-904/0, 3-33=0/629, 5-33=-488/0, 5-32=-70/381, 6-32=-403/387, 13-25=0/1735, 12-25=-1656/0, 12-26=0/1281, 11-26=-1240/0, 11-28=0/969, 9-28=-768/0, 9-29=0/666, 7-29=-839/0, 13-23=0/855, 15-23=-1287/0, 18-20=-216/441, 17-20=-341/0, 16-20=-49/799

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- All plates are 1.5x3 MT20 unless otherwise indicated.
- 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: 19-36=-10, 1-18=-100

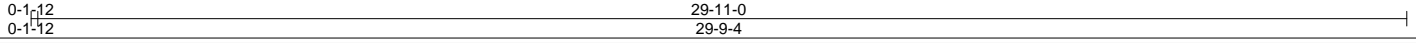
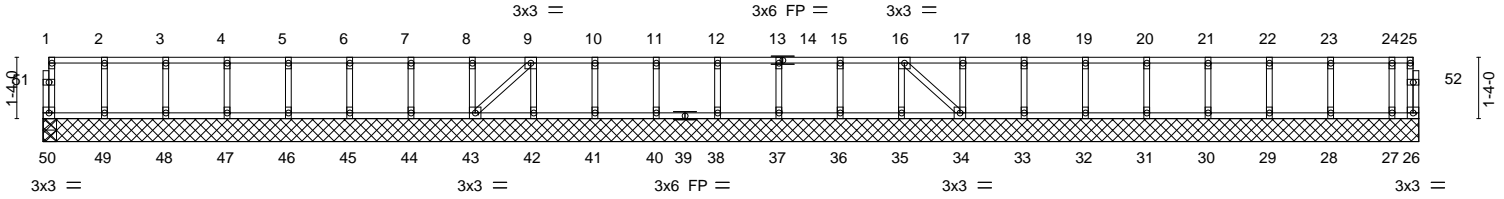
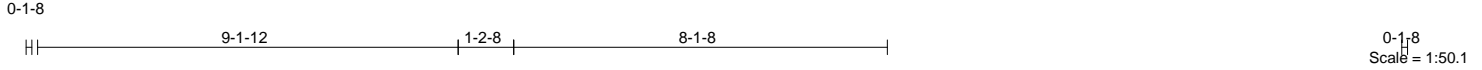
Concentrated Loads (lb)  
Vert: 18=-200



Job	Truss	Truss Type	Qty	Ply	Lamco Custom - Jackson	E15026425
2489096	F5E	Floor Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:56 2020 Page 1  
ID:TzqEIGM?vNsmIVitkhYcdxyrx\_7-nDuZ9dEDZYvjQZDS7jCUZtWJCUKiVaAdOjYvuyP9bD



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) 0.00	27	****	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT) -0.00	50	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00	34	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 135 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.

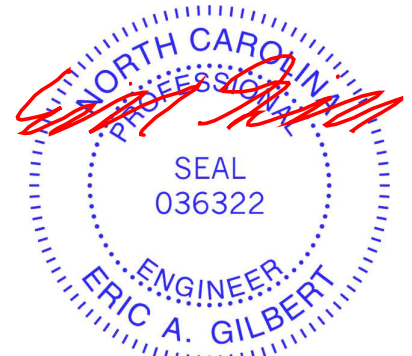
**REACTIONS.**

All bearings 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, 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-**

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26.
- 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.



October 28, 2020

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818 Soundside Road  
 Edenton, NC 27932

Job 2489096	Truss F6	Truss Type Floor	Qty 2	Ply 1	Lamco Custom - Jackson Job Reference (optional)	E15026426
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:57 2020 Page 1  
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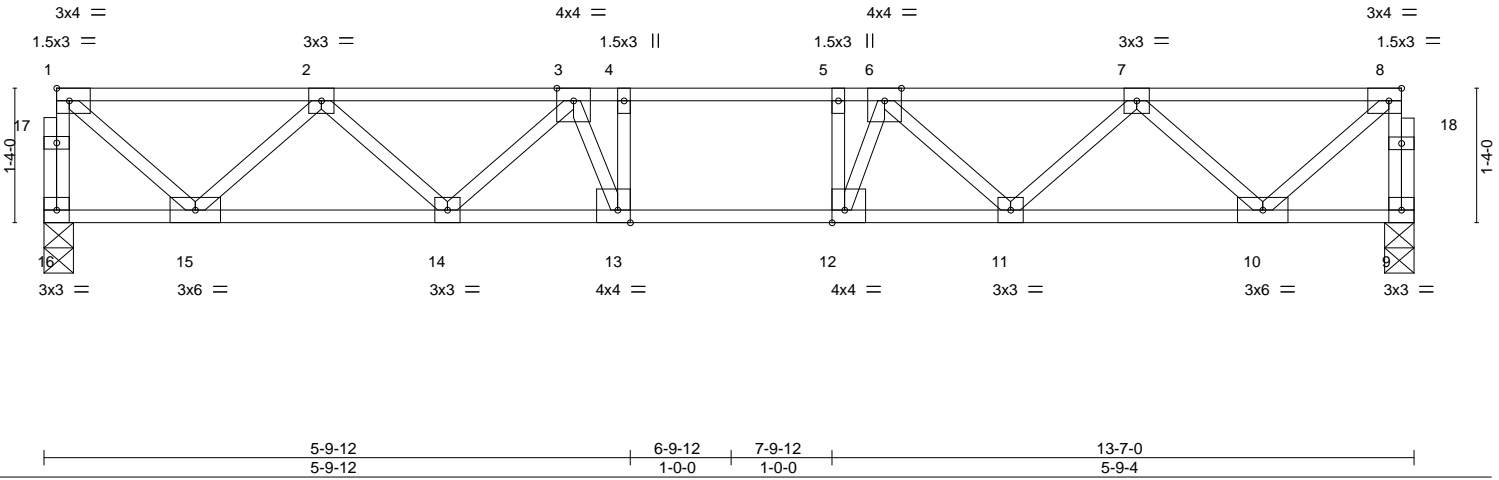
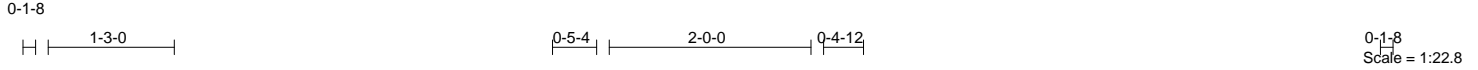


Plate Offsets (X,Y)-- [8:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.36	Vert(LL)	-0.08 13-14	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.45	Vert(CT)	-0.11 13-14	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.03 9	n/a	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-S					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) 16=0-3-8, 9=0-3-8  
Max Grav 16=727(LC 1), 9=727(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-16=-722/0, 8-9=-723/0, 1-2=-711/0, 2-3=-1644/0, 3-4=-1991/0, 4-5=-1991/0, 5-6=-1991/0, 6-7=-1644/0, 7-8=-711/0  
BOT CHORD 14-15=0/1330, 13-14=0/1935, 12-13=0/1991, 11-12=0/1936, 10-11=0/1330  
WEBS 4-13=-348/69, 5-12=-371/77, 1-15=0/915, 2-15=-861/0, 2-14=0/437, 3-14=404/0, 3-13=-122/462, 8-10=0/915, 7-10=-861/0, 7-11=0/437, 6-11=-407/0, 6-12=-128/483

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) 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.



October 28, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



Job 2489096	Truss F8	Truss Type Floor	Qty 1	Ply 1	Lamco Custom - Jackson	E15026427
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:57 2020 Page 1  
ID:NsHwKVCEUkNBrgnAPVjLvzzRhS1-FQsXmzFrKs1a2joehRkj542M4uf3E0?ndzh2RLyP9bC

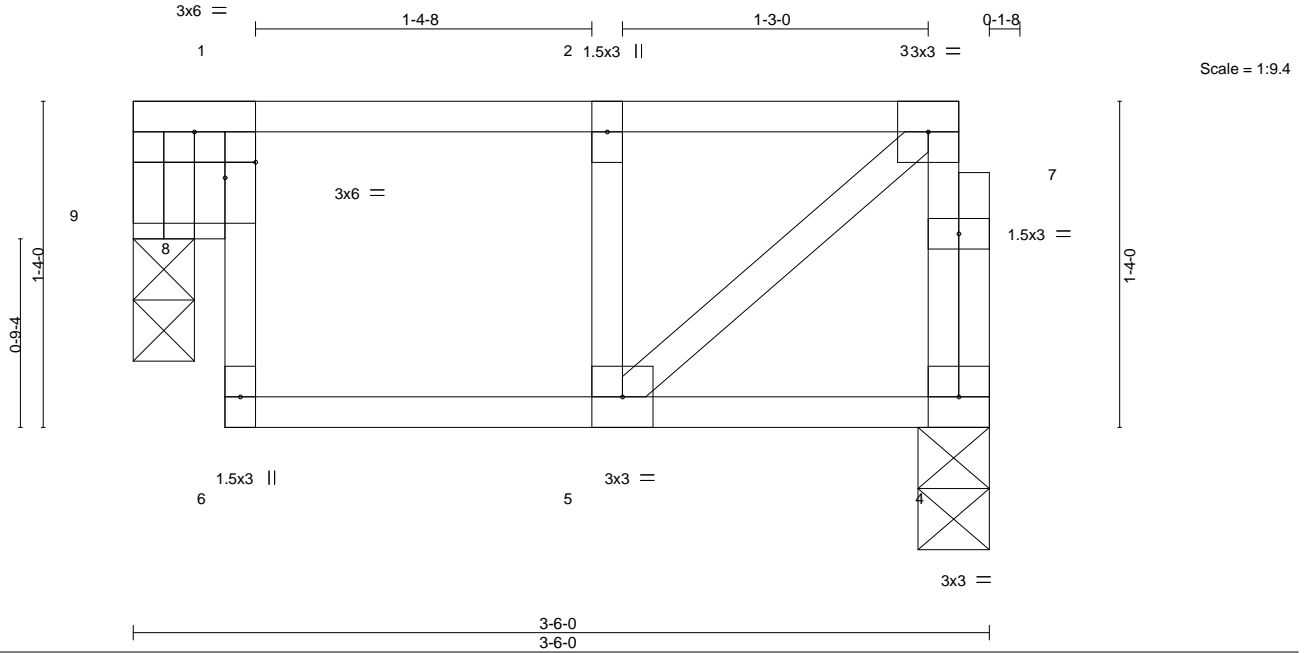


Plate Offsets (X,Y)-- [8:0-1-8,0-0-12], [9:0-0-12,0-2-10]

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 0.56	Vert(LL)	-0.02	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.13	Vert(CT)	-0.02	5	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.02	4	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 20 lb	FT = 20%F, 11%E

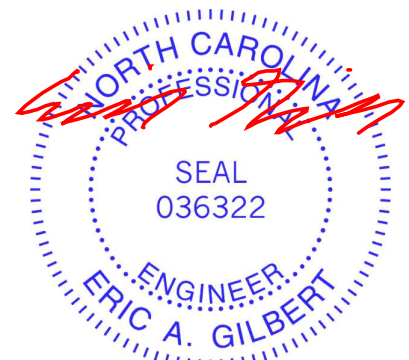
**LUMBER-**  
TOP CHORD 2x4 SP No.1 (flat)  
BOT CHORD 2x4 SP No.1 (flat)  
WEBS 2x4 SP No.3 (flat)  
OTHERS 2x4 SP No.3 (flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 9=0-3-0  
Max Grav 4=168(LC 1), 9=149(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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.



October 28, 2020

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

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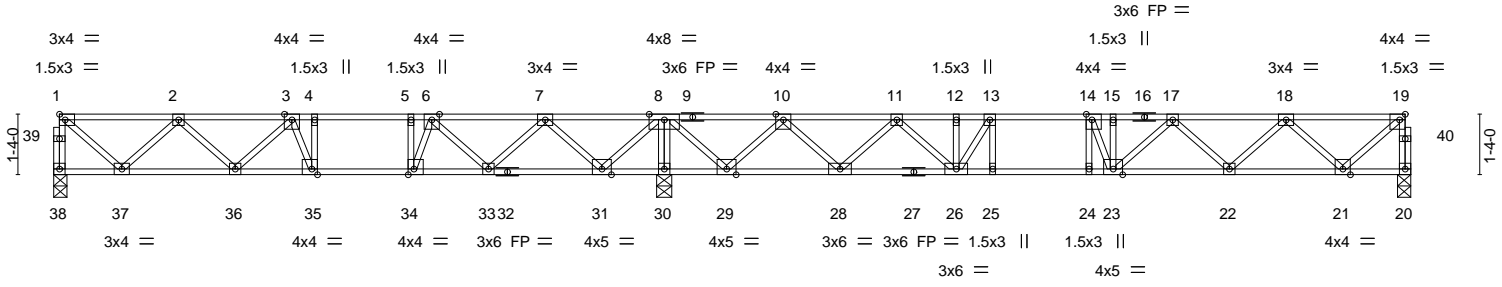


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lamco Custom - Jackson	E15026428
2489096	F10	Floor	8	1		

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 16:22:50 2020 Page 1  
ID:TzqElgm?vNsmIVitkhYcdyxr\_7-y3XluaASzi9aiemImS64JcG5d45k5jGI0NVBhFyP9bJ



5-9-12	6-9-12	7-9-12	13-5-8	20-9-2	21-9-2	22-9-2	29-11-0
5-9-12	1-0-0	1-0-0	5-7-12	7-3-10	1-0-0	1-0-0	7-1-14

Plate Offsets (X,Y)-- [14:0-1-8,Edge], [19:0-1-8,Edge], [34:0-1-8,Edge], [35:0-1-8,Edge]

LOADING (psf)	SPACING-	CS.I.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.83	Vert(LL) -0.14	24	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.81	Vert(CT) -0.19	24	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.63	Horz(CT) 0.03	20	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 159 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) 38=0-3-8, 20=0-3-8, 30=0-4-0  
Max Grav 38=641(LC 3), 20=792(LC 4), 30=1931(LC 1)

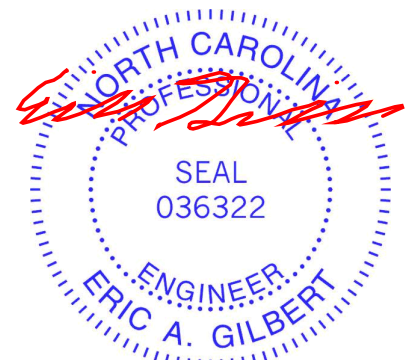
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD** 1-38=-634/0, 19-20=-787/0, 1-2=-610/0, 2-3=-1375/0, 3-4=-1514/136, 4-5=-1514/136, 5-6=-1514/136, 6-7=-960/521, 7-8=0/1031, 8-10=0/774, 10-11=-1140/129, 11-12=-2059/0, 12-13=-2059/0, 13-14=-2333/0, 14-15=-2364/0, 15-17=-2364/0, 17-18=-1851/0, 18-19=-783/0

**BOT CHORD** 36-37=0/1144, 35-36=-17/1553, 34-35=-136/1514, 33-34=-280/1370, 31-33=-743/557, 30-31=-1775/0, 29-30=-1775/0, 28-29=-354/543, 26-28=0/1704, 25-26=0/2333, 24-25=0/2333, 23-24=0/2333, 22-23=0/2206, 21-22=0/1469

**WEBS** 4-35=-12/332, 5-34=-640/0, 13-25=0/262, 14-24=-315/21, 8-30=-1896/0, 1-37=0/785, 2-37=-743/0, 2-36=-31/321, 3-35=-500/0, 8-31=0/1133, 7-31=-1051/0, 7-33=0/673, 6-33=-718/0, 6-34=0/864, 8-29=0/1332, 10-29=-1259/0, 10-28=0/888, 11-28=-840/0, 11-26=0/526, 19-21=0/1010, 18-21=-954/0, 18-22=0/530, 17-22=-495/0, 13-26=-816/0, 14-23=-232/497

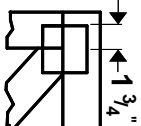
- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x3 MT20 unless otherwise indicated.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at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



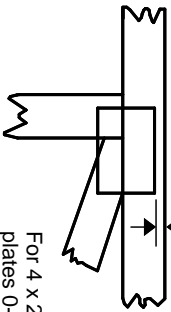
October 28, 2020

# 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- $\frac{1}{16}$ " from outside edge of truss.



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

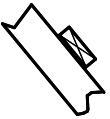
\* Plate location details available in **MITek 20/20 software or upon request.**

## PLATE SIZE

4 X 4

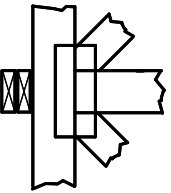
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



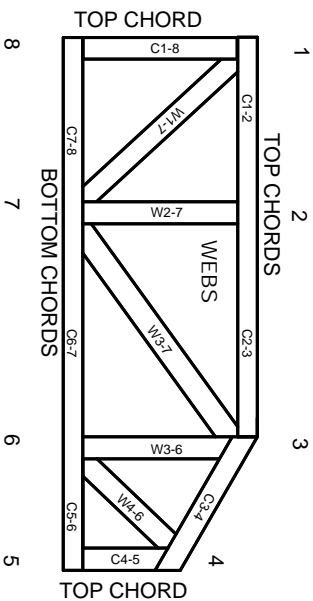
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### 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.