

RE: J0124-0344  
 Precision/Lot 69 Liberty Meadows/Harnett

**Trenco**  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0124-0344  
 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 8.4  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 22 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I57003248	A1-SG	3/6/2023	21	I57003268	VA2	3/6/2023
2	I57003249	A2	3/6/2023	22	I57003269	VA3	3/6/2023
3	I57003250	A3	3/6/2023				
4	I57003251	A4	3/6/2023				
5	I57003252	B1-GE	3/6/2023				
6	I57003253	B2	3/6/2023				
7	I57003254	B3	3/6/2023				
8	I57003255	B4	3/6/2023				
9	I57003256	B5-GE	3/6/2023				
10	I57003257	C1-GE	3/6/2023				
11	I57003258	C2	3/6/2023				
12	I57003259	C3	3/6/2023				
13	I57003260	C4	3/6/2023				
14	I57003261	D1-GE	3/6/2023				
15	I57003262	D2	3/6/2023				
16	I57003263	M1-GE	3/6/2023				
17	I57003264	M2	3/6/2023				
18	I57003265	M3	3/6/2023				
19	I57003266	P1	3/6/2023				
20	I57003267	VA1	3/6/2023				

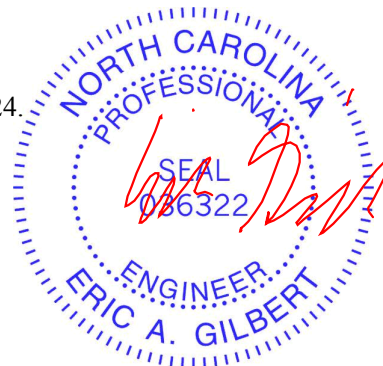
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

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.



March 06, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	A1-SG	GABLE	1	1		157003248
						Job Reference (optional)

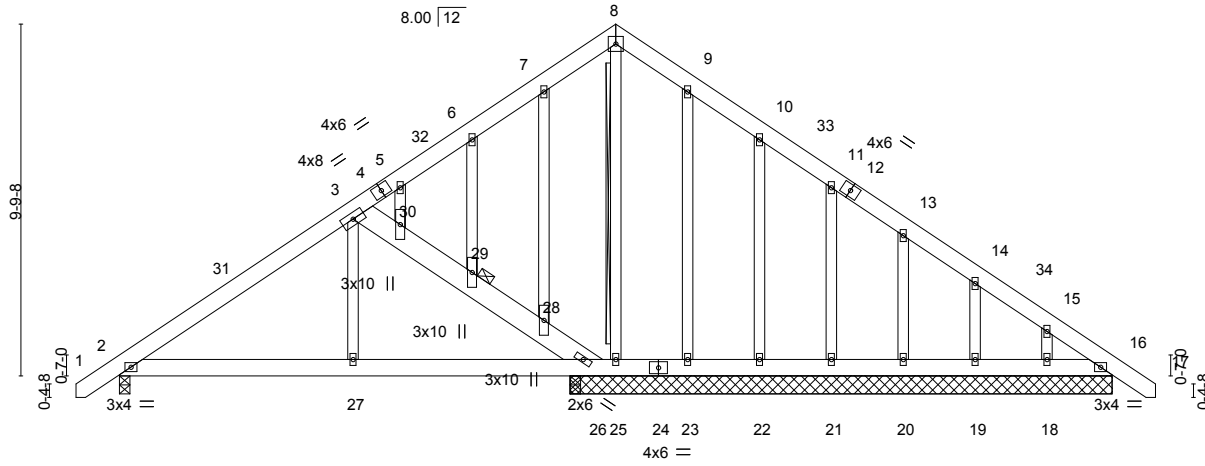
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:32:47 2023 Page 1  
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5x5 =

Scale: 3/16"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.01	2-27	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	2-27	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	26	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.01	2-27	>999		
								Weight: 248 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 3-26: 2x8 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
 10-0-0 oc bracing: 2-27,26-27.  
 WEBS T-Brace: 2x4 SPF No.2 - 8-25  
 Fasten (2X) T and I braces to narrow edge of web with 10d  
 (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.  
 JOINTS 1 Brace at Jt(s): 29

**REACTIONS.**

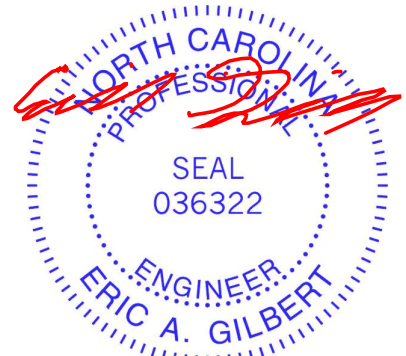
All bearings 15-1-0 except (jt=length) 2=0-3-8, 26=0-3-8, 26=0-3-8.  
 (lb) - Max Horz 2=238(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 23, 22, 21, 20, 19, 18, 26  
 except 25=-103(LC 3)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 25, 23, 22, 21, 20, 19, 18  
 except 2=547(LC 1), 26=674(LC 3), 26=628(LC 1)

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

TOP CHORD 2-3=-556/124, 15-16=-205/297  
 BOT CHORD 2-27=-77/463, 26-27=-78/461, 25-26=-263/220, 23-25=-263/220, 22-23=-263/220,  
 21-22=-263/220, 20-21=-263/220, 19-20=-263/220, 18-19=-263/220, 16-18=-263/220  
 WEBS 3-27=0/285, 3-30=-658/224, 29-30=-587/184, 28-29=-648/227, 26-28=-711/263,  
 8-25=-271/10

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 28-8-7 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 23, 22, 21, 20, 19, 18, 26 except (jt=lb) 25=103.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



March 6, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	A2	COMMON	1	1		157003249
Comtech, Inc. Fayetteville, NC - 28314,						Job Reference (optional)

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4x6 =

Scale = 1:59.0

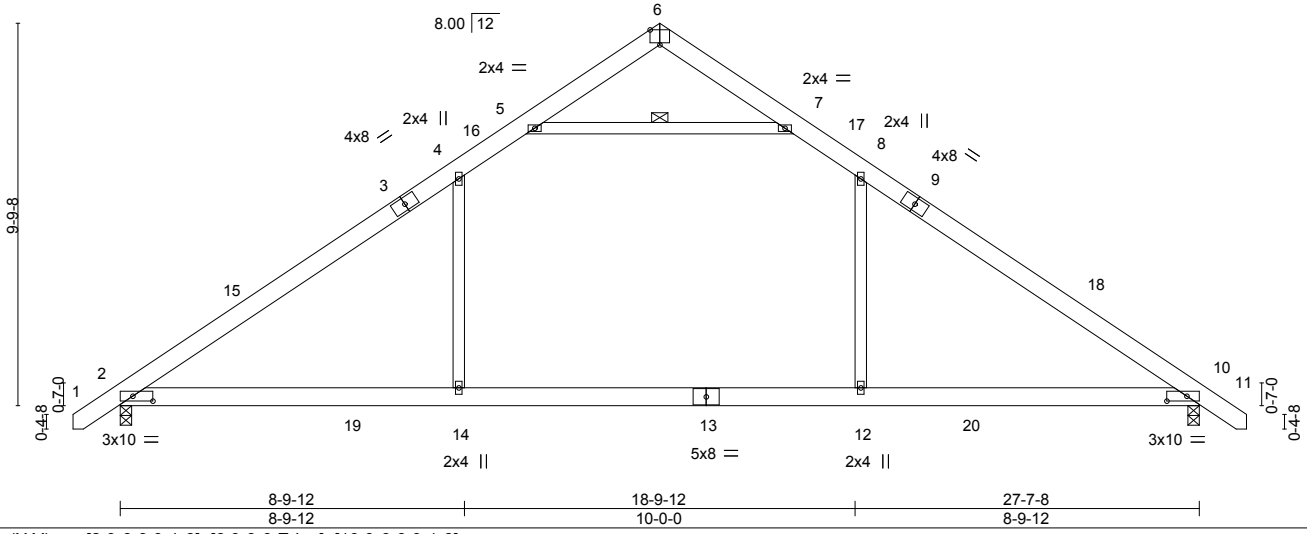


Plate Offsets (X,Y)--	[2:0-6-3,0-1-8], [6:0-3-0,Edge], [10:0-6-3,0-1-8]
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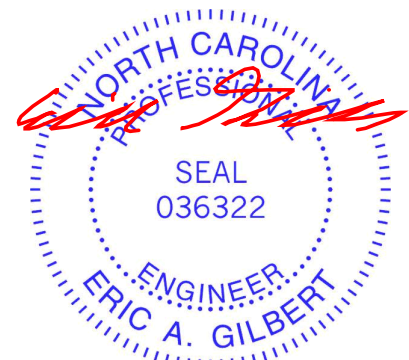
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.62	Vert(LL) -0.30 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.41	Vert(CT) -0.40 12-14 >817 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.25 2-14 >999 240	Weight: 176 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 5-7

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=238(LC 11)  
 Max Uplift 2=-75(LC 12), 10=-75(LC 13)  
 Max Grav 2=1442(LC 19), 10=1442(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2031/287, 4-5=-1424/353, 5-6=-29/298, 6-7=-29/299, 7-8=-1424/353, 8-10=-2031/287  
 BOT CHORD 2-14=-60/1578, 12-14=-60/1578, 10-12=-60/1578  
 WEBS 2-12=0/717, 4-14=0/717, 5-7=-1831/434

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 28-8-7 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



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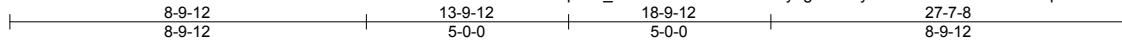
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0124-0344	Truss A3	Truss Type COMMON	Qty 2	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett	157003250
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4x6 =

Scale = 1:57.0

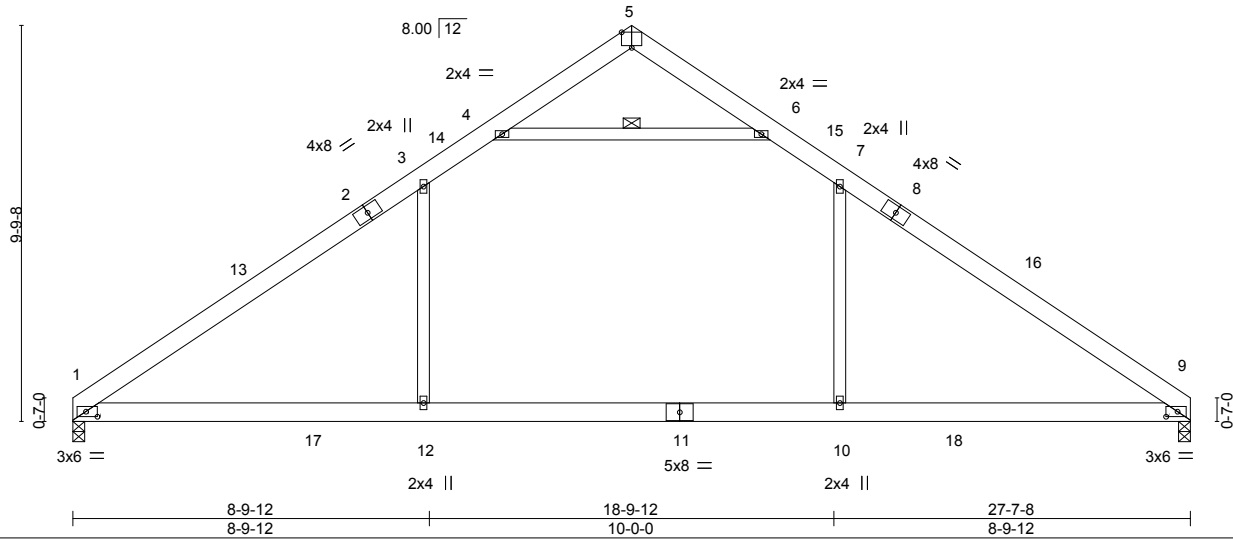


Plate Offsets (X,Y)-- [1:0-3-7,0-1-8], [5:0-3-0,Edge], [9:0-3-6,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL) -0.31 10-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.41 10-12 >799 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.25 1-12 >999 240	Weight: 170 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-6

**REACTIONS.** (size) 1=0-3-8, 9=0-3-8  
 Max Horz 1=-223(LC 10)  
 Max Uplift 1=-58(LC 12), 9=-58(LC 13)  
 Max Grav 1=1373(LC 19), 9=1373(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-2035/293, 3-4=-1430/363, 4-5=-37/309, 5-6=-37/310, 6-7=-1429/363, 7-9=-2034/293  
 BOT CHORD 1-12=-92/1578, 10-12=-92/1578, 9-10=-92/1578  
 WEBS 7-10=0/713, 3-12=0/713, 4-6=-1851/461

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 13-9-12, Exterior(2) 13-9-12 to 18-2-9, Interior(1) 18-2-9 to 27-5-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9.



March 6, 2023

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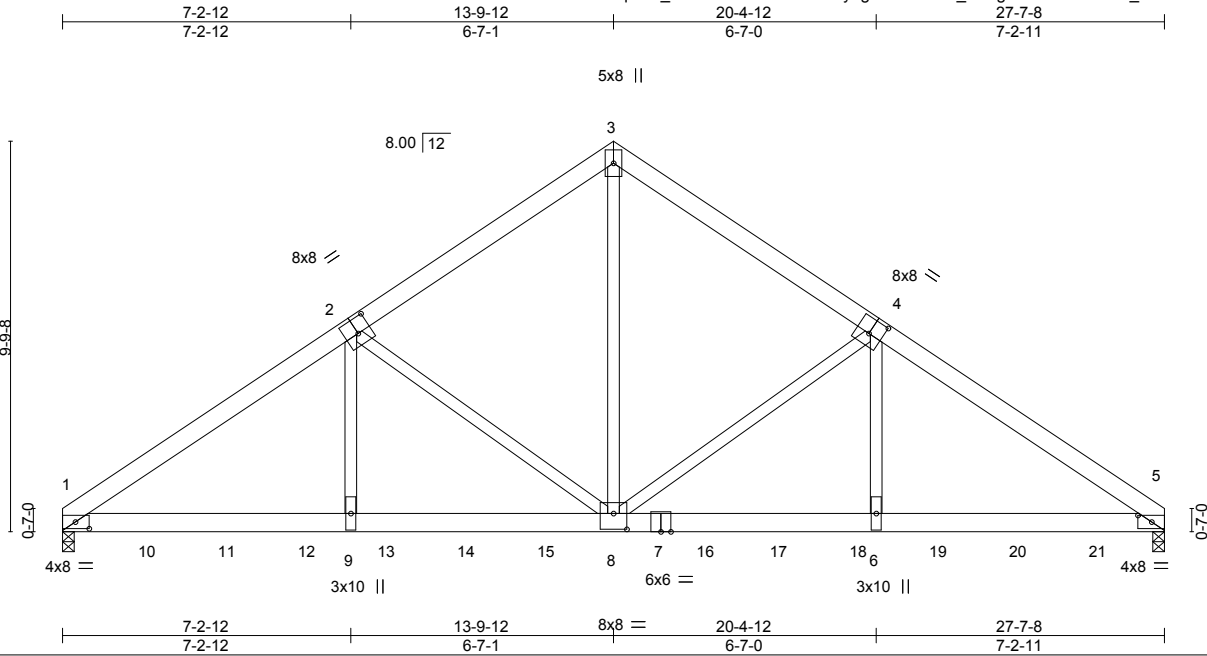


Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett	I57003251
J0124-0344	A4	Common Girder	1	2	Job Reference (optional)		

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Scale = 1:57.8

Plate Offsets (X, Y)--	[1:0-4-3,0-2-0], [2:0-4-0,0-4-8], [4:0-4-0,0-4-8], [5:0-4-3,0-2-0], [8:0-4-0,0-4-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.18	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.31	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.09	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09	5-6	>999	Weight: 386 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=223(LC 23)  
 Max Uplift 1=-360(LC 8), 5=-368(LC 9)  
 Max Grav 1=7614(LC 2), 5=7779(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-11164/539, 2-3=-7505/449, 3-4=-7505/449, 4-5=-11184/541  
 BOT CHORD 1-9=-464/9152, 8-9=-464/9152, 6-8=-361/9171, 5-6=-361/9171  
 WEBS 3-8=-381/7884, 4-8=-3746/323, 4-6=-95/4041, 2-8=-3722/321, 2-9=-94/4019

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=360, 5=368.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1037 lb down and 55 lb up at 2-0-12, 1037 lb down and 55 lb up at 4-0-12, 1037 lb down and 55 lb up at 6-0-12, 1037 lb down and 55 lb up at 8-0-12, 1037 lb down and 55 lb up at 10-0-12, 1037 lb down and 55 lb up at 12-0-12, 1037 lb down and 55 lb up at 14-0-12, 1037 lb down and 55 lb up at 16-0-12, 1037 lb down and 55 lb up at 17-10-12, 1037 lb down and 55 lb up at 19-10-12, 1037 lb down and 55 lb up at 21-10-12, and 1037 lb down and 55 lb up at 23-10-12, and 1037 lb down and 55 lb up at 25-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



March 6, 2023

Job J0124-0344	Truss A4	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Precision/Lot 69 Liberty Meadows/Harnett I57003251 Job Reference (optional)
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-868(B) 10=-868(B) 11=-868(B) 12=-868(B) 13=-868(B) 14=-868(B) 15=-868(B) 16=-868(B) 17=-868(B) 18=-868(B) 19=-868(B) 20=-868(B) 21=-868(B)

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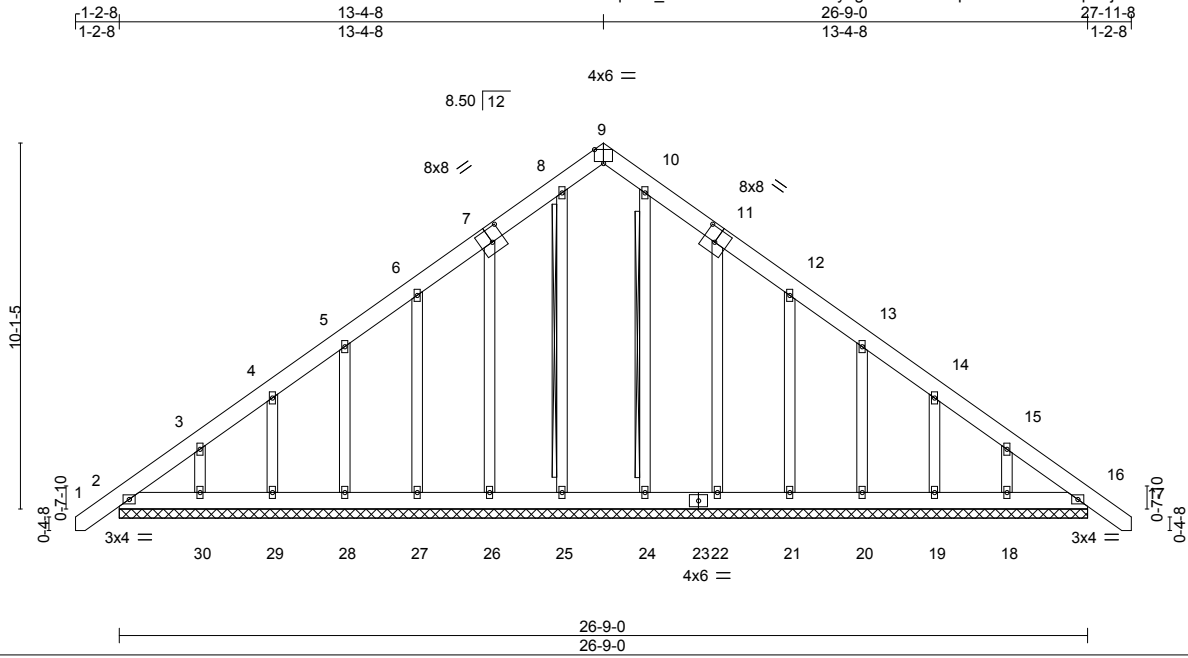


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:32:53 2023 Page 1
J0124-0344	B1-GE	GABLE	1	1		8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:32:53 2023 Page 1
					Job Reference (optional)	157003252

Comtech, Inc. Fayetteville, NC - 28314,

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Scale: 3/16"=1'

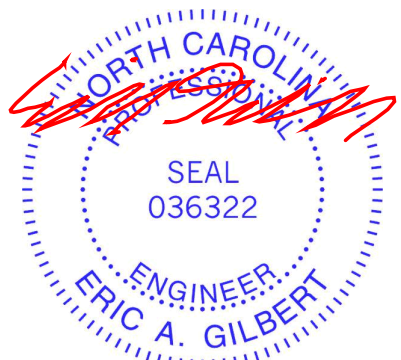
Plate Offsets (X,Y)--	[7:0-4-0,0-4-8], [9:0-3-0,Edge], [11:0-4-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 16 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 16 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.01 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 233 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 8-25, 10-24
	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
	Brace must cover 90% of web length.

**REACTIONS.** All bearings 26-9-0.  
 (lb) - Max Horz 2=-307(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 27, 28, 29, 21, 20, 19, 16 except 26=-111(LC 12), 30=-111(LC 12), 22=-115(LC 13), 18=-109(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 24, 22, 21, 20, 19, 18, 16

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-335/215, 15-16=-281/201  
 BOT CHORD 2-30=-186/285, 29-30=-186/285, 28-29=-186/285, 27-28=-186/285, 26-27=-186/285, 25-26=-187/286, 24-25=-187/286, 22-24=-187/286, 21-22=-186/285, 20-21=-186/285, 19-20=-186/285, 18-19=-186/285, 16-18=-186/285

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 27, 28, 29, 21, 20, 19, 16 except (jt=lb) 26=111, 30=111, 22=115, 18=109.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



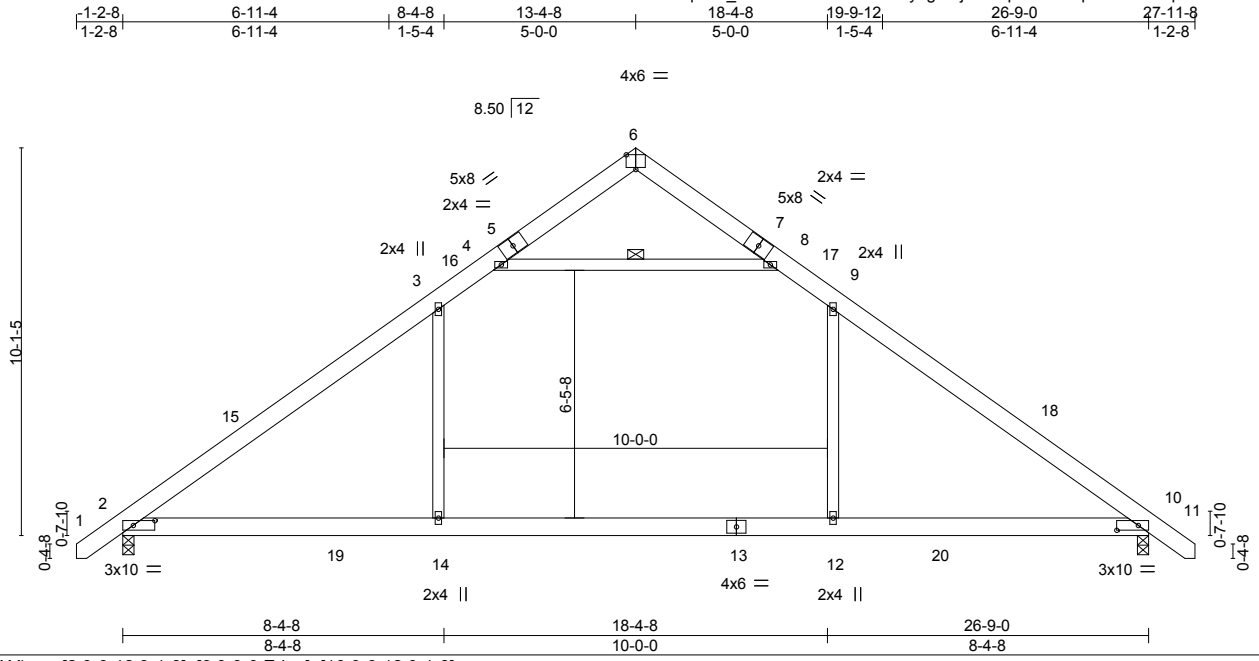
March 6, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett	157003253
J0124-0344	B2	COMMON	6	1	Job Reference (optional)		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:32:55 2023 Page 1

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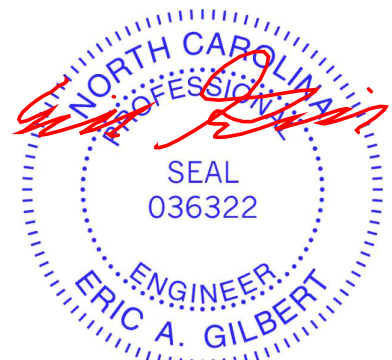
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.26 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.41	Vert(CT) -0.36 12-14 >886 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.23 2-14 >999 240	Weight: 175 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-1-2 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-8

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=245(LC 11)  
 Max Uplift 2=-70(LC 12), 10=-70(LC 13)  
 Max Grav 2=1404(LC 19), 10=1404(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1939/272, 3-4=-1321/341, 8-9=-1321/341, 9-10=-1939/272  
 BOT CHORD 2-14=-44/1474, 12-14=-44/1474, 10-12=-44/1474  
 WEBS 9-12=0/713, 3-14=0/713, 4-8=-1586/397

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-9-5, Interior(1) 17-9-5 to 27-9-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



March 6, 2023



Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	B3	COMMON	8	1		157003254

Comtech, Inc. Fayetteville, NC - 28314,

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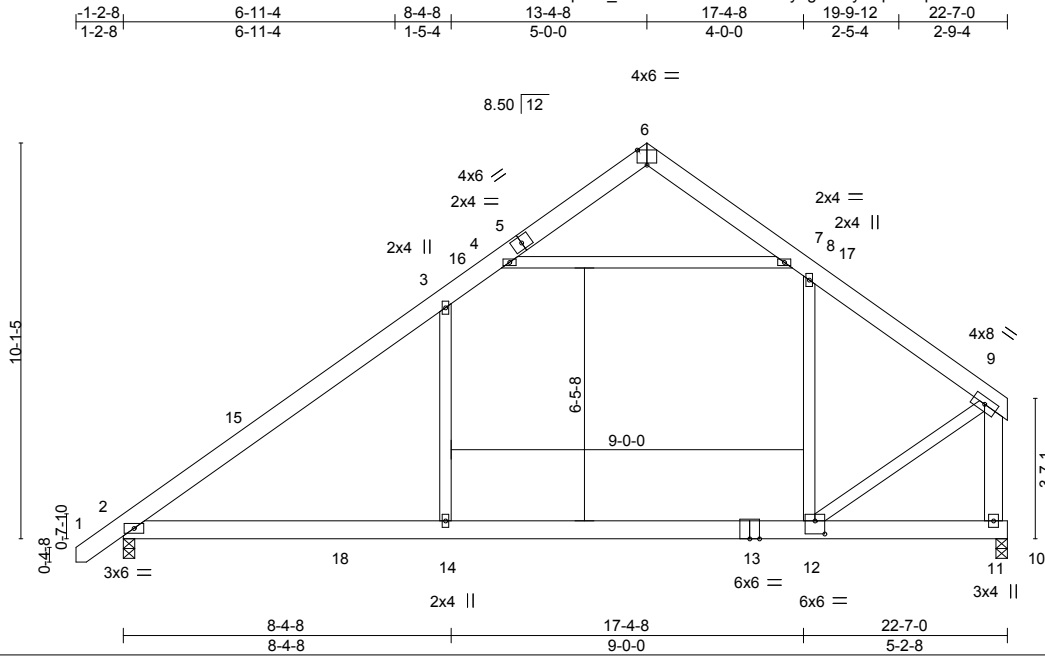


Plate Offsets (X,Y)--	[6:0-3-0,Edge], [12:0-3-0,0-4-0]
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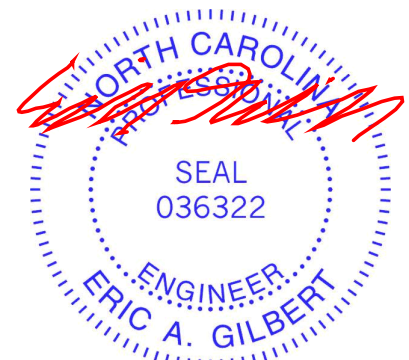
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.29	14	>900	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.46	2-14	>574		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.21	2-14	>999	Weight: 166 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 2x4 SP No.2 *Except* 9-11: 2x6 SP No.1	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=237(LC 9)  
 Max Uplift 2=-61(LC 12), 11=-35(LC 12)  
 Max Grav 2=1160(LC 19), 11=1086(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1321/171, 3-4=-858/263, 7-8=-949/289, 8-9=-1131/222, 9-11=-1339/249  
 BOT CHORD 2-14=-115/970, 12-14=-115/970  
 WEBS 3-14=0/484, 4-7=-1001/298, 9-12=-144/1304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-6-4, Interior(1) 17-6-4 to 22-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.



March 6, 2023

Job J0124-0344	Truss B4	Truss Type COMMON	Qty 5	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett	157003255
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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:32:57 2023 Page 1

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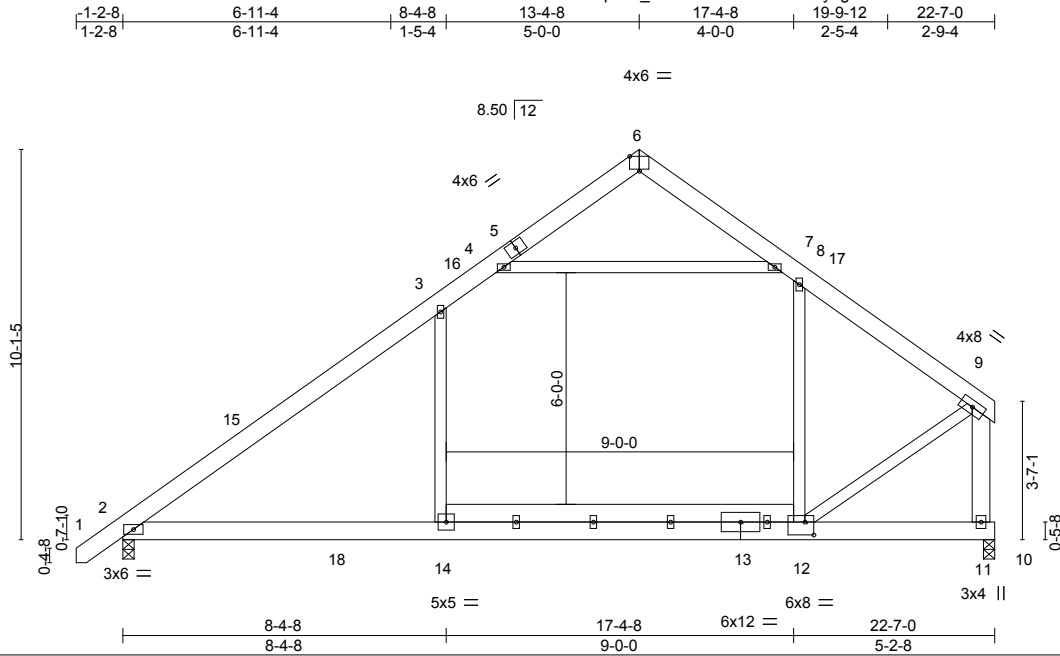


Plate Offsets (X,Y)--	[6:0-3-0,Edge], [12:0-2-12,0-4-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.29	14	>900	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.46	2-14	>574		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.21	2-14	>999	Weight: 187 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS 2x4 SP No.2 *Except* 9-11: 2x6 SP No.1	

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=237(LC 9)  
 Max Uplift 2=-61(LC 12), 11=-35(LC 12)  
 Max Grav 2=1160(LC 19), 11=1086(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1321/171, 3-4=-858/263, 7-8=-949/289, 8-9=-1131/222, 9-11=-1339/249  
 BOT CHORD 2-14=-115/970, 12-14=-115/970  
 WEBS 3-14=0/484, 4-7=-1001/298, 9-12=-144/1304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 13-4-8, Exterior(2) 13-4-8 to 17-6-4, Interior(1) 17-6-4 to 22-2-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.



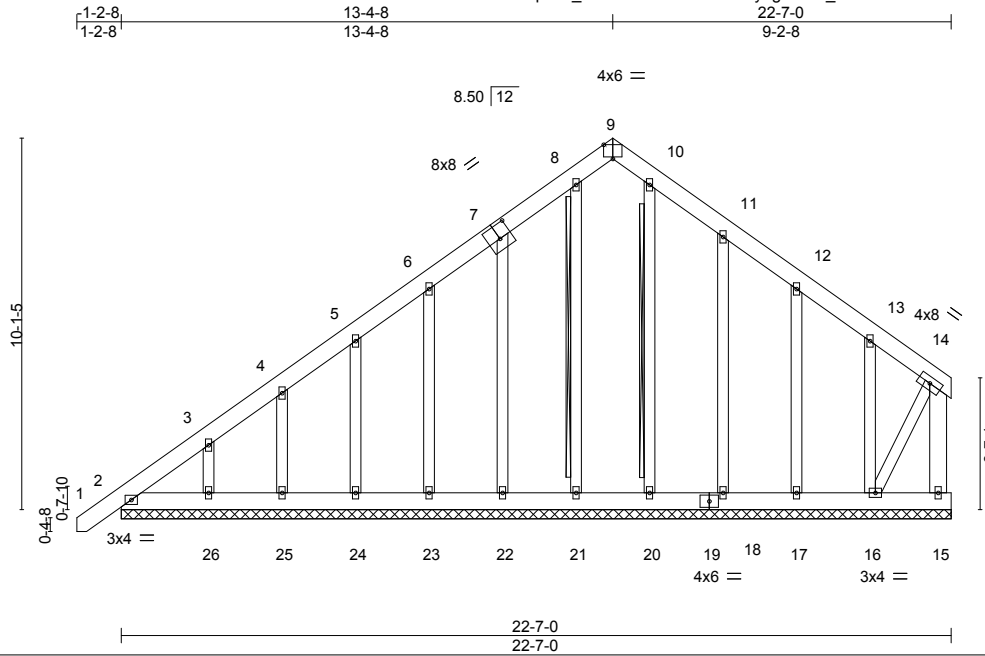
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MITEK Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job J0124-0344	Truss B5-GE	Truss Type GABLE	Qty 1	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett	157003256
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Comtech, Inc. Fayetteville, NC - 28314,

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Plate Offsets (X, Y)--	[7:0-4-0,0-4-8], [9:0-3-0,Edge]
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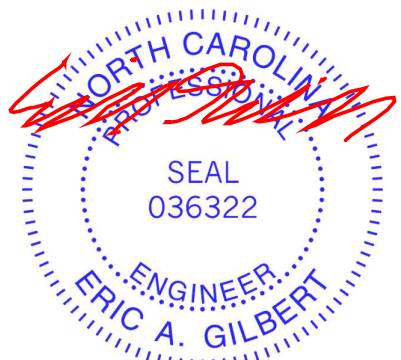
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 15 n/a n/a		
	Code IRC2015/TPI2014			Weight: 216 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except*	WEBS T-Brace: 2x4 SPF No.2 - 8-21, 10-20
14-16: 2x4 SP No.2	Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.
OTHERS 2x4 SP No.2	Brace must cover 90% of web length.

**REACTIONS.** All bearings 22-7-0.  
 (lb) - Max Horz 2=308(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 15, 21, 23, 24, 25, 17 except 22=106(LC 12), 26=-116(LC 12), 18=-109(LC 13), 16=-290(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 15, 21, 22, 23, 24, 25, 26, 20, 18, 17, 16

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-343/221

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 15, 21, 23, 24, 25, 17 except (it=lb) 22=106, 26=116, 18=109, 16=290.
  - 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



March 6, 2023

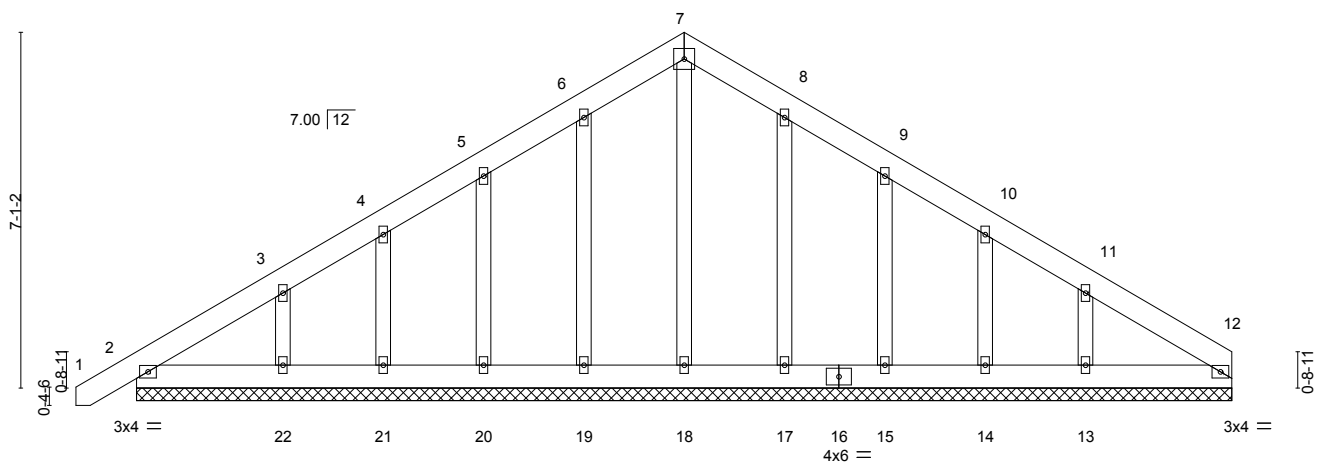
Job	Truss	Truss Type	Qty	Ply	Precision/Lot	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:00 2023 Page 1
J0124-0344	C1-GE	GABLE	1	1	69 Liberty Meadows/Harnett	157003257
Comtech, Inc. Fayetteville, NC - 28314,						Job Reference (optional)

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5x5 =

Scale = 1:45.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.03	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 162 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 21-10-0.  
 (lb) - Max Horz 2=206(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 17, 15, 14 except 22=119(LC 12), 13=127(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 12, 2, 18, 19, 20, 21, 22, 17, 15, 14 except 13=262(LC 20)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 21, 17, 15, 14 except (jt=lb) 22=119, 13=127.



March 6, 2023

Job J0124-0344	Truss C2	Truss Type COMMON	Qty 3	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett	157003258
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:01 2023 Page 1

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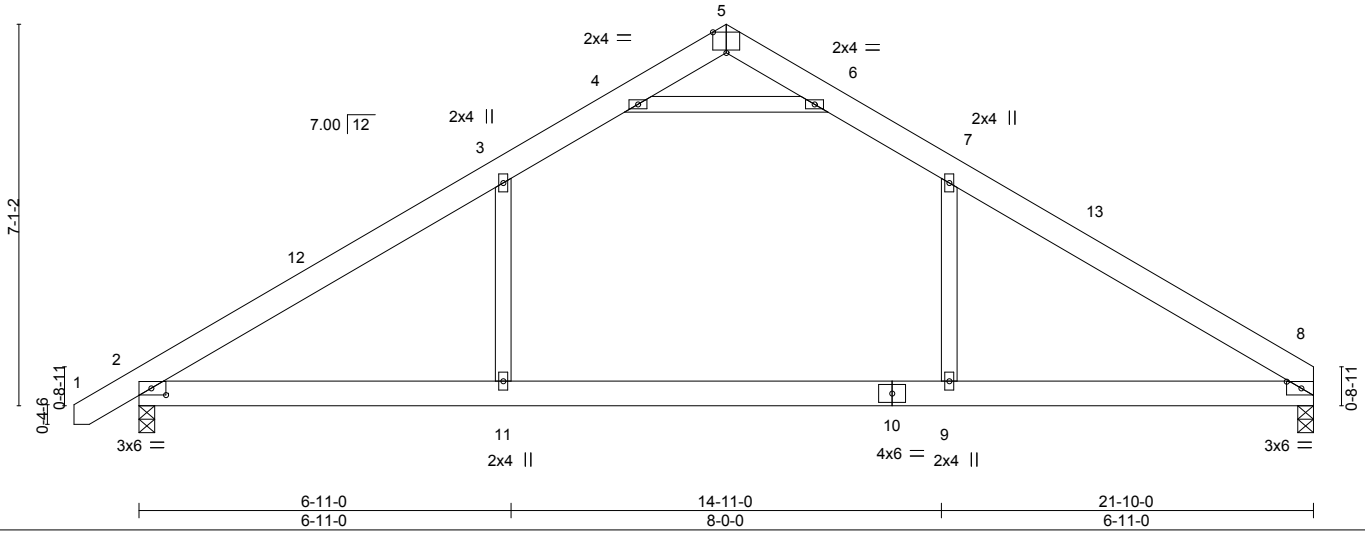


Plate Offsets (X,Y)-- [2:0-3-4,0-1-8], [5:0-3-0,Edge], [8:0-3-4,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.16	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.25	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.02	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.10	8-9	>999		
								Weight: 131 lb	FT = 20%

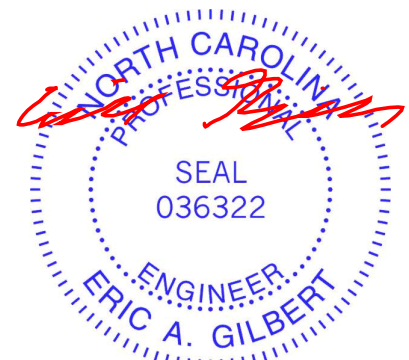
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
Max Horz 2=164(LC 11)  
Max Uplift 8=-48(LC 13), 2=-65(LC 12)  
Max Grav 8=991(LC 20), 2=1062(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1496/226, 3-4=-1096/286, 4-5=-99/546, 5-6=-88/548, 6-7=-1096/295,  
7-8=-1488/229  
BOT CHORD 2-11=-85/1171, 9-11=-85/1171, 8-9=-85/1171  
WEBS 7-9=0/455, 3-11=0/465, 4-6=-1740/441

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-11-0, Exterior(2) 10-11-0 to 15-0-12, Interior(1) 15-0-12 to 21-8-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.



March 6, 2023

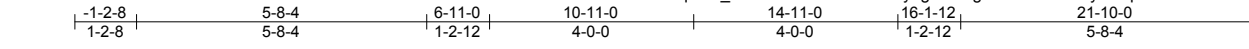
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	 818 Soundside Road Edenton, NC 27932
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Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett	157003259
J0124-0344	C3	COMMON	1	1	Job Reference (optional)		

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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:02 2023 Page 1

ID:qH4S\_SYhXXmAJJV6MTTvyngLu-05gh3bwGQn?bt?y95QpwKeb2k00ld1cG4w4?ILzd9?



4x6 =

Scale = 1:45.1

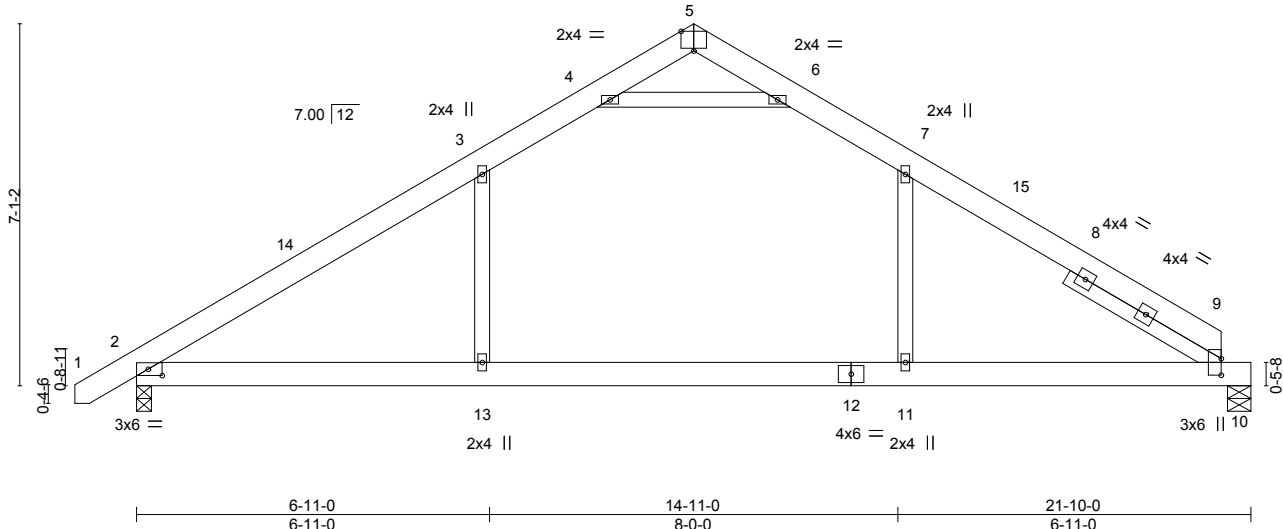


Plate Offsets (X,Y)--	[2:0-3-4,0-1-8], [5:0-3-0,Edge], [9:0-3-14,0-0-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.47	Vert(LL) -0.15 11-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.23 11-13 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 2-13 >999 240	Weight: 135 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Right 2x4 SP No.2 3-5-8	

**REACTIONS.** (size) 2=0-3-8, 10=0-5-8  
 Max Horz 2=164(LC 11)  
 Max Uplift 2=65(LC 12), 10=40(LC 13)  
 Max Grav 2=1058(LC 19), 10=966(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1478/222, 3-4=-1089/286, 4-5=-84/493, 5-6=-77/502, 6-7=-1079/292, 7-9=-1480/239  
 BOT CHORD 2-13=-82/1157, 11-13=-82/1157, 9-11=-82/1157  
 WEBS 7-11=0/492, 3-13=0/449, 4-6=-1664/425

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-11-0, Exterior(2) 10-11-0 to 15-0-12, Interior(1) 15-0-12 to 21-3-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



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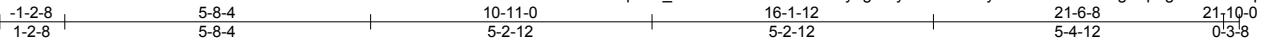
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	<p>ENGINEERING BY</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	C4	COMMON GIRDER	1	3		157003260

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5x8 ||

Scale = 1:42.8

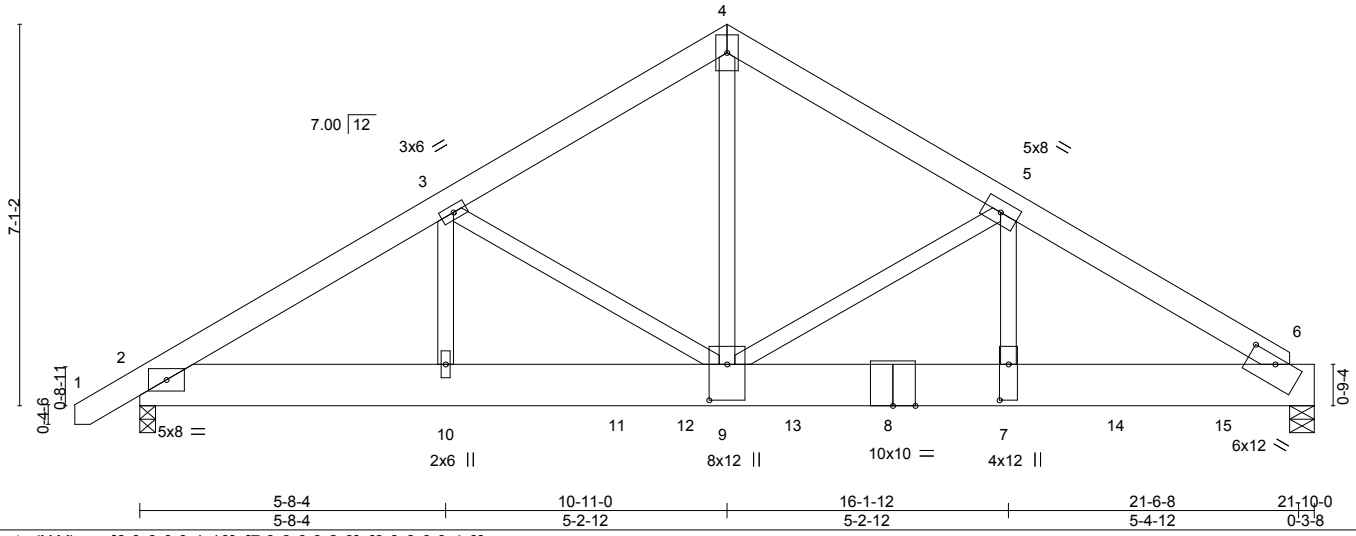


Plate Offsets (X,Y)-- [6:0-6-0,0-1-10], [7:0-8-0,0-2-0], [9:0-8-0,0-4-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.11 7-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Vert(CT) -0.16 7-9 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.04 6 n/a n/a		
	Code IRC2015/TP12014		Wind(LL) 0.02 9-10 >999 240	Weight: 544 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x10 SP No.1 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
6-8: 2x10 SP 2400F 2.0E	
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 6=0-5-8, 2=0-3-8  
 Max Horz 2=163(LC 5)  
 Max Uplift 6=-239(LC 9), 2=-344(LC 8)  
 Max Grav 6=10527(LC 14), 2=5311(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-9607/634, 3-4=-9467/507, 4-5=-9459/508, 5-6=-15071/410  
 BOT CHORD 2-10=-547/8111, 9-10=-547/8111, 7-9=-283/12777, 6-7=-283/12777  
 WEBS 4-9=-418/9283, 5-9=-5469/326, 5-7=-174/6131, 3-9=-947/266, 3-10=-116/791

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 4 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=239, 2=344.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2119 lb down and 477 lb up at 8-10-8, 2277 lb down at 10-1-12, 2320 lb down at 12-1-12, 2320 lb down at 14-1-12, 2320 lb down at 16-1-12, and 2320 lb down at 18-1-12, and 2320 lb down at 20-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-6=-60, 2-6=-20



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Continued on page 2

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

Job J0124-0344	Truss C4	Truss Type COMMON GIRDER	Qty 1	Ply <b>3</b>	Precision/Lot 69 Liberty Meadows/Harnett I57003260
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:04 2023 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 8=-598(F) 7=-598(F) 11=-2119(F) 12=-606(F) 13=-598(F) 14=-598(F) 15=-598(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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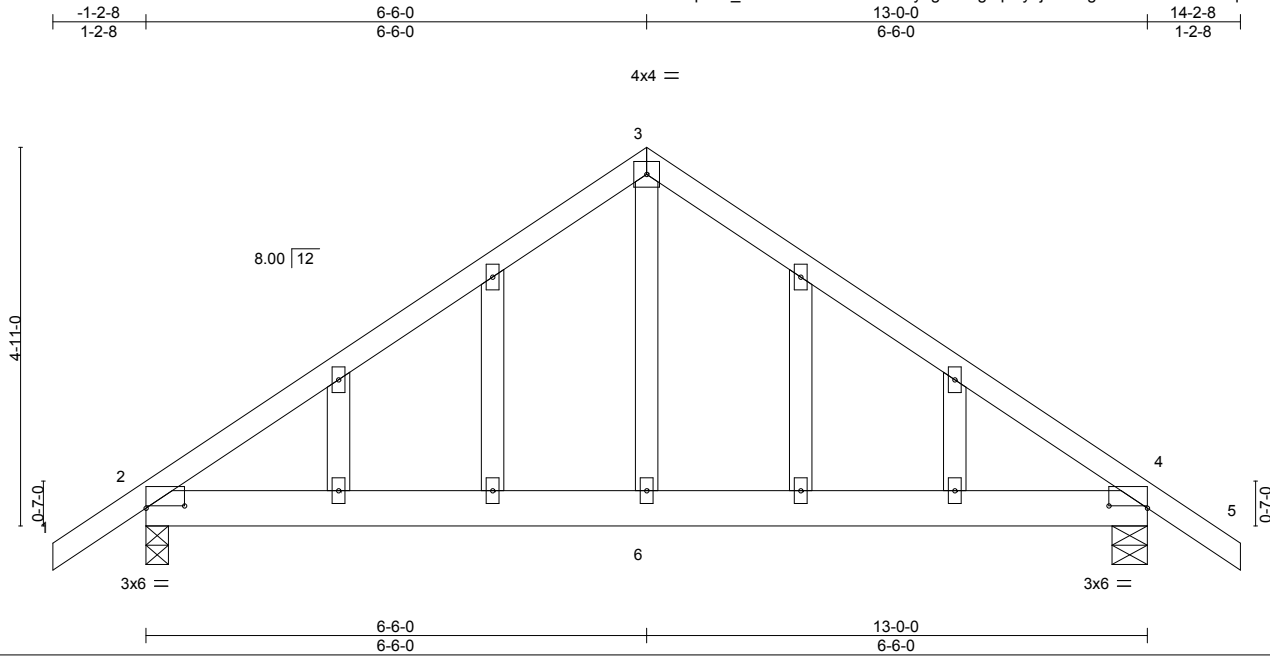
818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	D1-GE	GABLE	1	1		I57003261
						Job Reference (optional)

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:05 2023 Page 1  
 ID:qH4S\_SYhXXrmAJJVJ6MTTyngLu-QgMpicy8jiN9kTgknYMDxGDbND7fqTFimulflGzdg8y



Scale = 1:29.9

Plate Offsets (X,Y)--	[2:0-6-0,0-0-6], [4:0-6-0,0-0-6]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.01 2-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.03 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02 2-6 >999 240	Weight: 78 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 4=0-5-8  
 Max Horz 2=-154(LC 10)  
 Max Uplift 2=-136(LC 12), 4=-138(LC 13)  
 Max Grav 2=586(LC 1), 4=592(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-605/168, 3-4=-606/168  
 BOT CHORD 2-6=-20/416, 4-6=-20/416  
 WEBS 3-6=0/323

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=136, 4=138.



March 6, 2023

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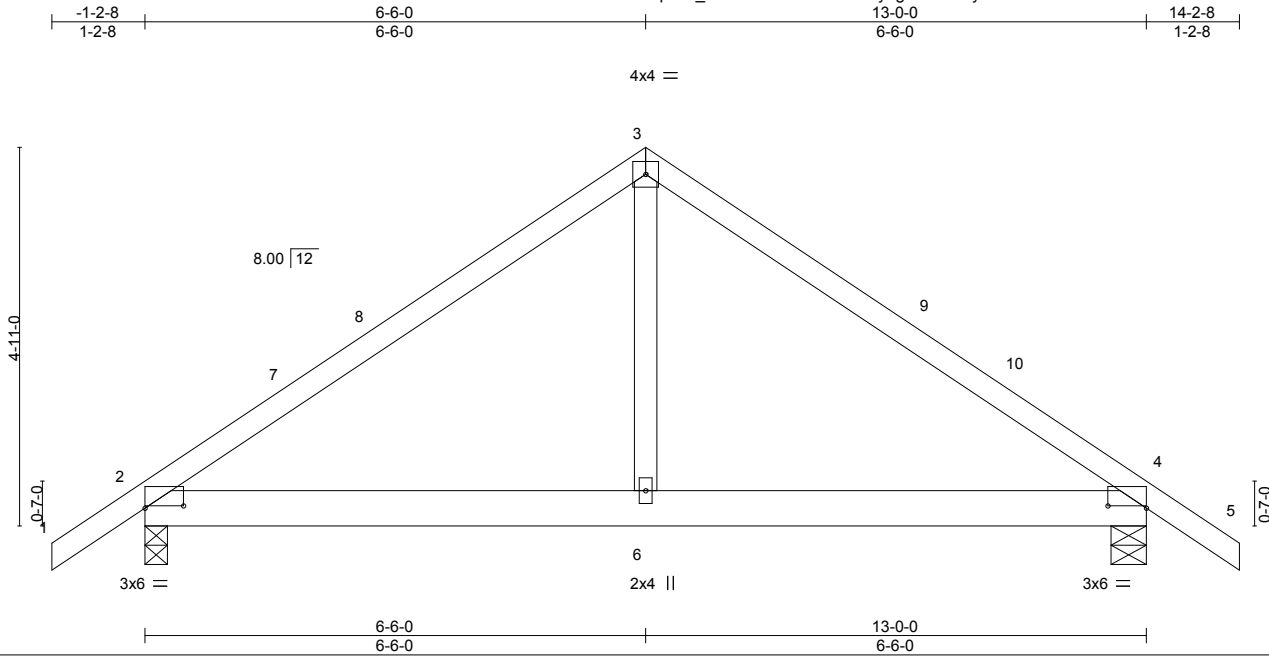
Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett	157003262
J0124-0344	D2	COMMON	3	1			

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13-0-0 14-2-8  
6-6-0 1-2-8



Scale = 1:29.9

Plate Offsets (X,Y)--	[2:0-6-0,0-0-6], [4:0-6-0,0-0-6]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.01 2-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.03 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01 2-6 >999 240	Weight: 65 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 4=0-5-8  
 Max Horz 2=-123(LC 10)  
 Max Uplift 2=-46(LC 12), 4=-46(LC 13)  
 Max Grav 2=586(LC 1), 4=592(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-605/154, 3-4=-606/154  
 BOT CHORD 2-6=0/406, 4-6=0/406  
 WEBS 3-6=0/323

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-6-0, Exterior(2) 6-6-0 to 10-10-13, Interior(1) 10-10-13 to 14-2-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



March 6, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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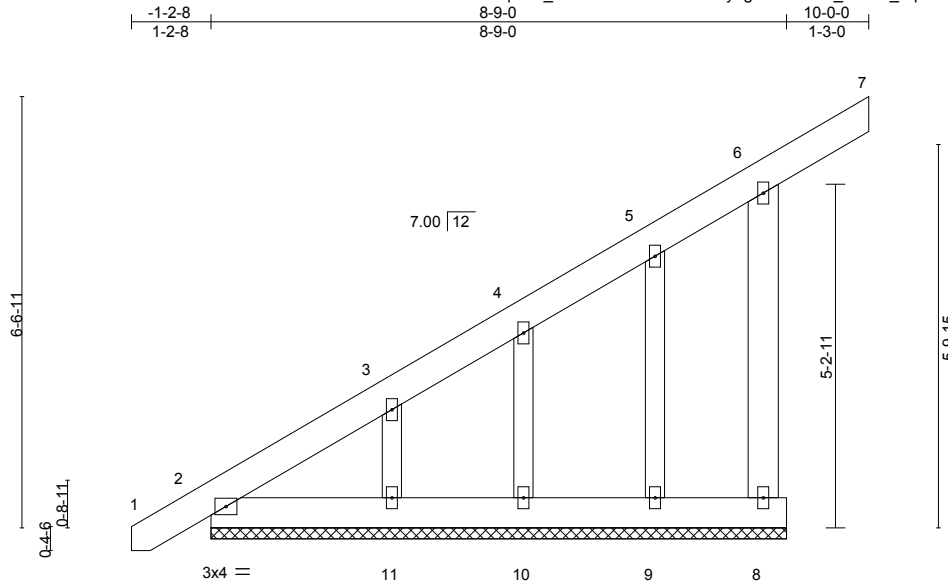
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:07 2023 Page 1
J0124-0344	M1-GE	GABLE	1	1		8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:07 2023 Page 1
					Job Reference (optional)	I57003263

Comtech, Inc. Fayetteville, NC - 28314,

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-M3Ta6L\_OEJdt\_nq7uzP51hI0S1rWIOB?DCnmQZzd9w  
8-9-0 8-9-0 10-0-0 1-3-0



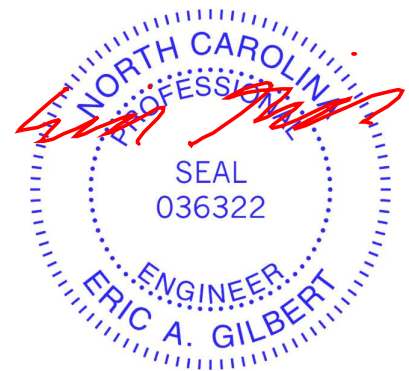
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	0.00	7	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	6	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 74 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 8-9-0.  
 (lb) - Max Horz 2=293(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 8=130(LC 12), 11=121(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 8, 2, 9, 10, 11

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-333/250

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10 except (j=lb) 8=130, 11=121.

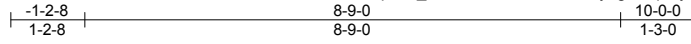


Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	M2	JACK-CLOSED	5	1		157003264
						Job Reference (optional)

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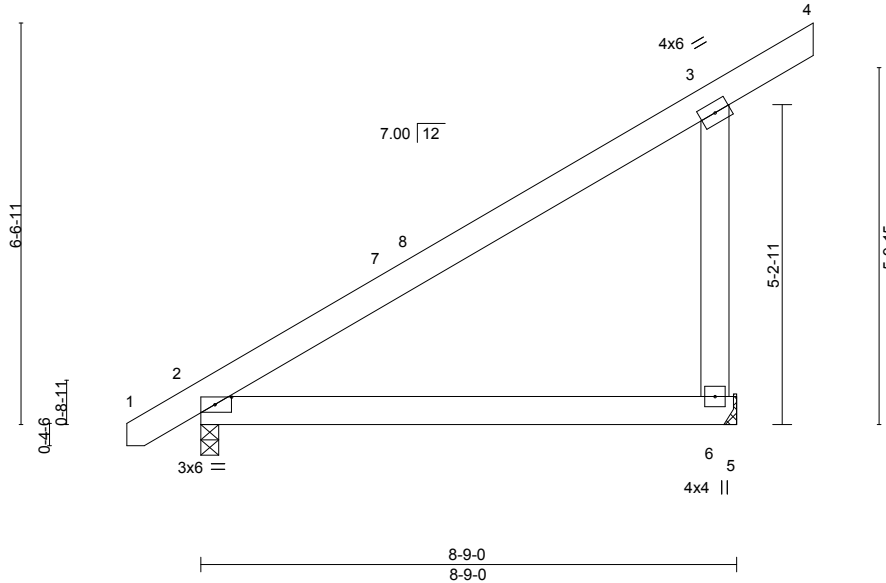


Plate Offsets (X,Y)--	[2:0-3-4,0-1-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.03	2-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.06	2-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.02	2-6	>999	Weight: 62 lb	FT = 20%

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

**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) 6=Mechanical, 2=0-3-8  
Max Horz 2=201(LC 12)  
Max Uplift 6=-122(LC 12)  
Max Grav 6=456(LC 19), 2=399(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-6=-363/312

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 10-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=122.



March 6, 2023

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	M3	Flat	1	2		I57003265

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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:10 2023 Page 1

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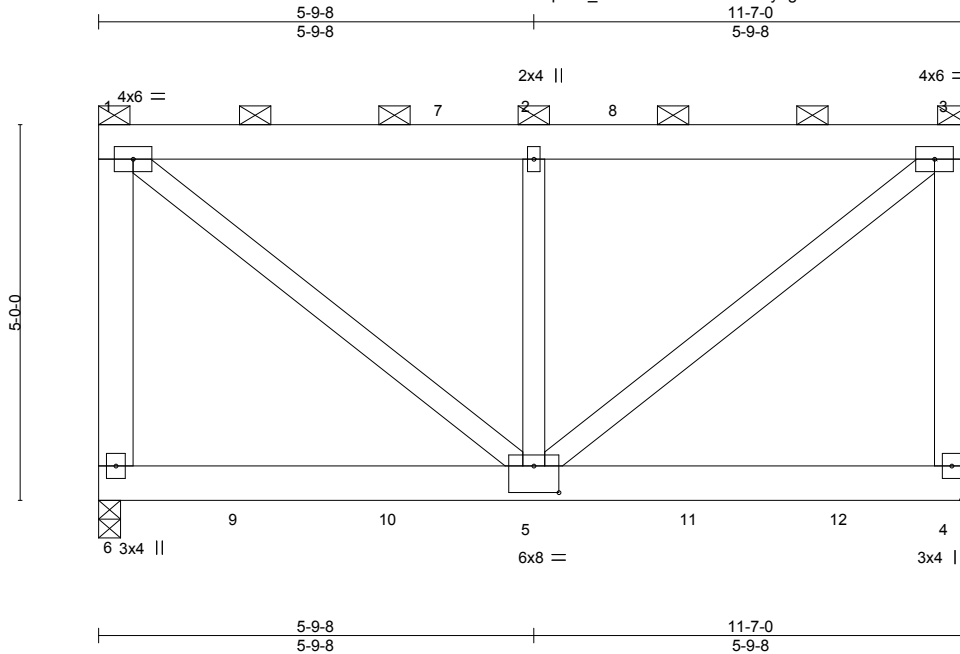


Plate Offsets (X,Y)--	[5:0-4-0,0-4-4]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) -0.03 5-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.40	Vert(CT) -0.06 5-6 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.24	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.03 5-6 >999 240	Weight: 198 lb	FT = 20%

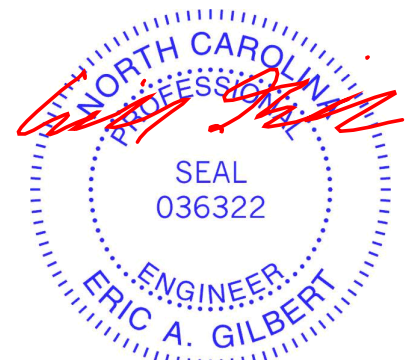
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (6-0-0 max.); 1-3, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-6,3-4: 2x6 SP No.1	

**REACTIONS.** (size) 6=0-3-8, 4=Mechanical  
 Max Uplift 6=-565(LC 8), 4=-457(LC 8)  
 Max Grav 6=2282(LC 1), 4=2139(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-6=-1606/650, 1-2=-1629/554, 2-3=-1629/554, 3-4=-1431/545  
 WEBS 1-5=-679/1988, 2-5=-320/244, 3-5=-679/1988

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 11-4-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) except (jt=lb) 6=565, 4=457.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 175 lb down and 145 lb up at 0-2-12 on top chord, and 418 lb down and 142 lb up at 1-10-12, 418 lb down and 142 lb up at 3-10-12, 418 lb down and 142 lb up at 5-10-12, and 418 lb down and 142 lb up at 7-10-12, and 418 lb down and 142 lb up at 9-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



Continued on page 2

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Job J0124-0344	Truss M3	Truss Type Flat	Qty 1	Ply <b>2</b>	Precision/Lot 69 Liberty Meadows/Harnett I57003265 Job Reference (optional)
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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:10 2023 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-60, 4-6=-134(F=-114)

Concentrated Loads (lb)

Vert: 1=-175 5=-418(B) 9=-418(B) 10=-418(B) 11=-418(B) 12=-418(B)

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 69 Liberty Meadows/Harnett	I57003266
J0124-0344	P1	MONOPICH	7	1		
					Job Reference (optional)	

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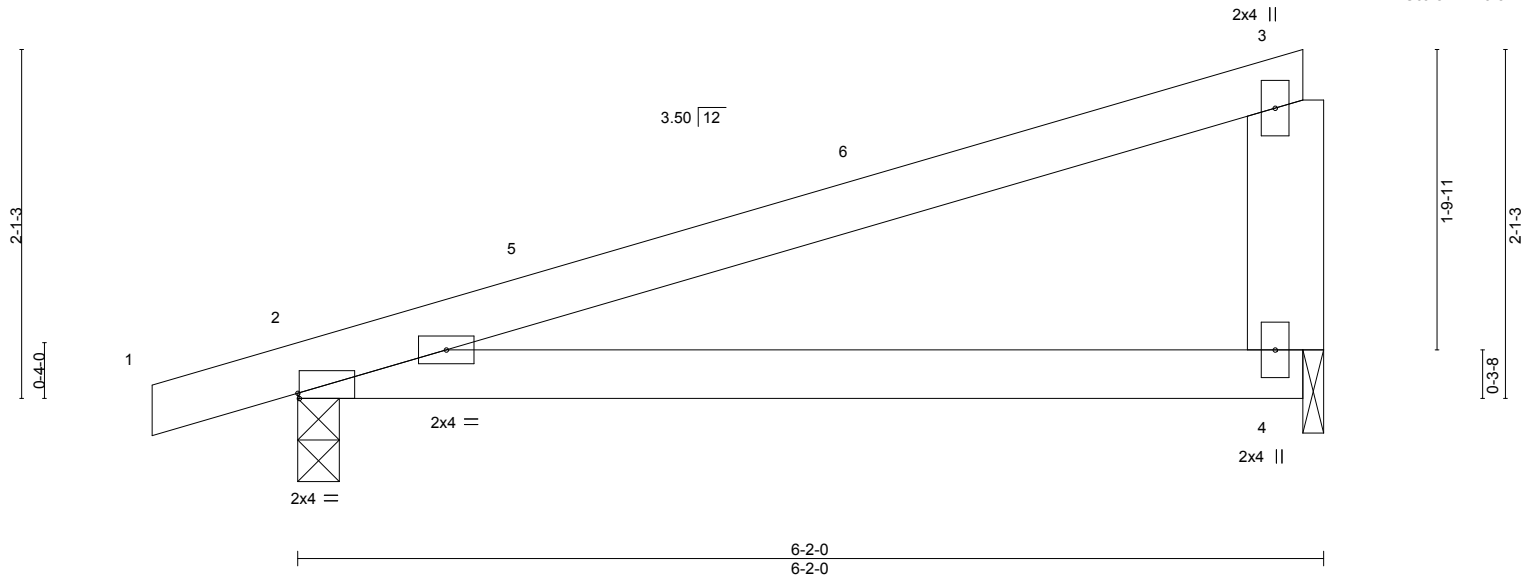
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:11 2023 Page 1

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-0-10-8  
0-10-8

6-2-0  
6-2-0

Scale = 1:13.8



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.47	Vert(LL)	-0.06	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.12	2-4	>582	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.13	2-4	>526	240	Weight: 23 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x6 SP No.1		

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=68(LC 8)  
 Max Uplift 2=-120(LC 8), 4=-95(LC 8)  
 Max Grav 2=298(LC 1), 4=227(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 5-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=120.



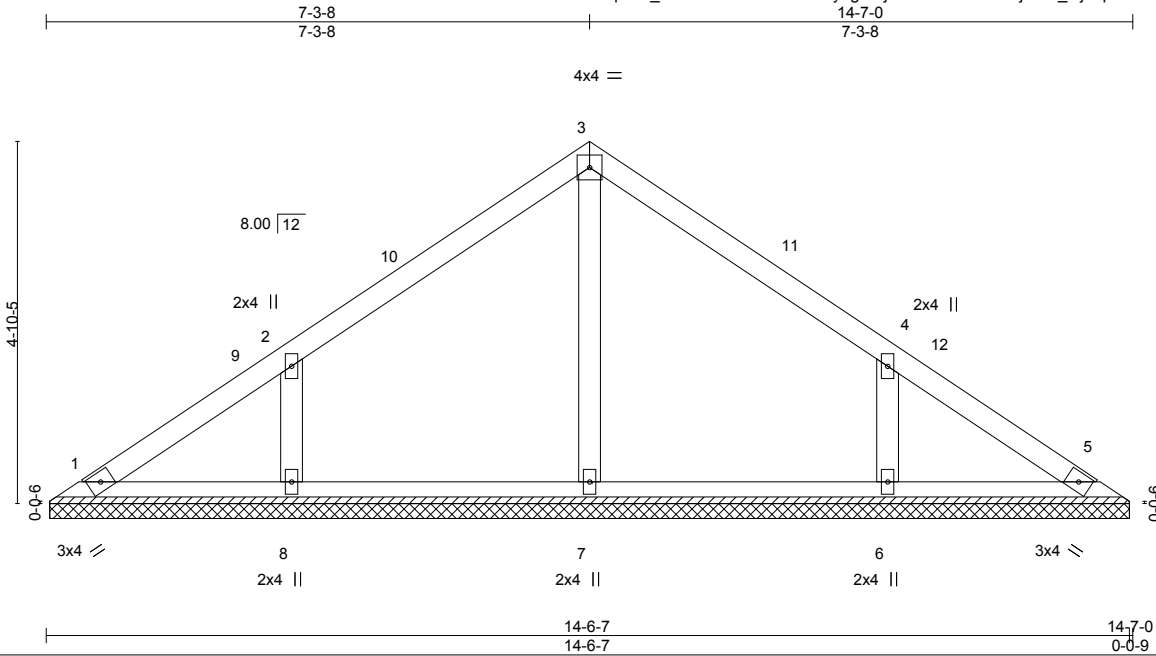
March 6, 2023

Job J0124-0344	Truss VA1	Truss Type VALLEY	Qty 1	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett	I57003267
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8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:12 2023 Page 1

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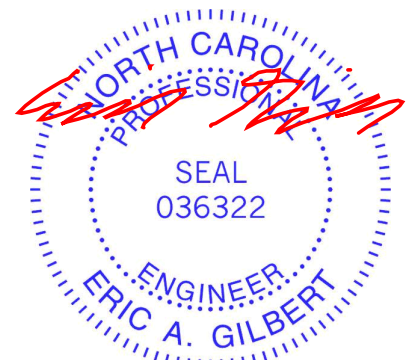
Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 57 lb
							FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 14-5-14.  
 (lb) - Max Horz 1=-109(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=258(LC 1), 8=345(LC 19), 6=345(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-294/201, 4-6=-294/201

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 7-3-8, Exterior(2) 7-3-8 to 11-8-5, Interior(1) 11-8-5 to 14-1-1 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.



March 6, 2023

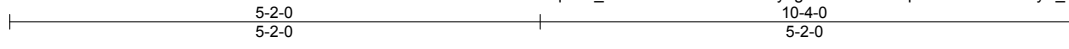


Job J0124-0344	Truss VA2	Truss Type VALLEY	Qty 1	Ply 1	Precision/Lot 69 Liberty Meadows/Harnett 157003268
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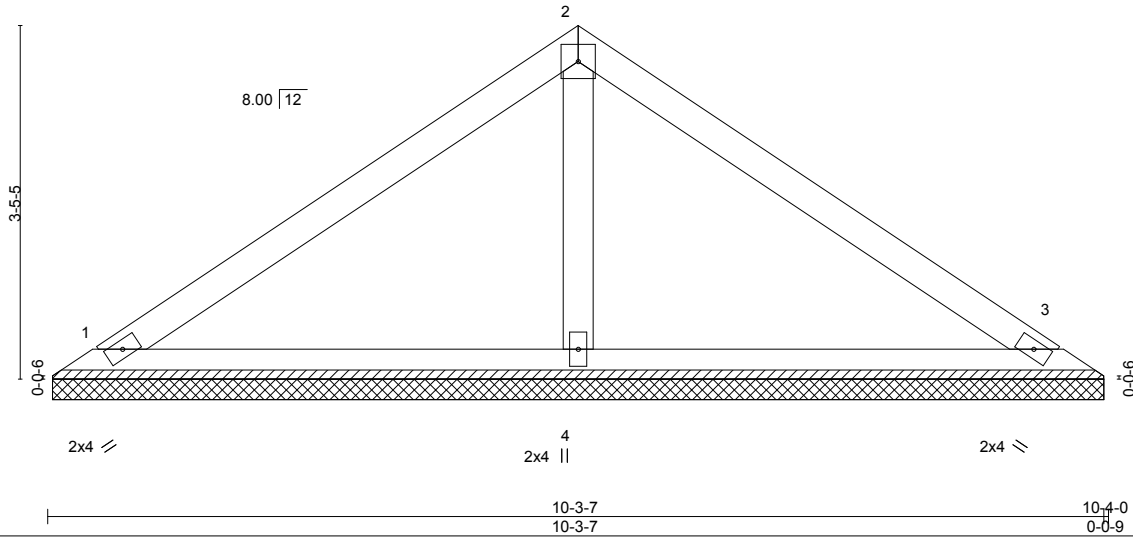
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:13 2023 Page 1

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4x4 =

Scale = 1:22.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 36 lb	FT = 20%
	Code IRC2015/TPI2014							

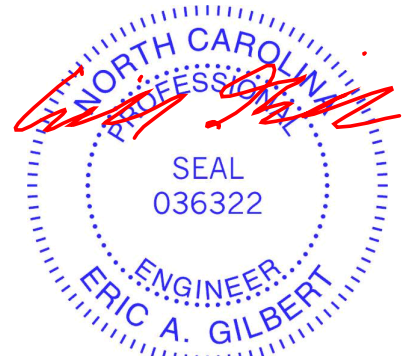
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

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

**REACTIONS.** (size) 1=10-2-14, 3=10-2-14, 4=10-2-14  
 Max Horz 1=-75(LC 8)  
 Max Uplift 1=-23(LC 12), 3=-30(LC 13)  
 Max Grav 1=186(LC 1), 3=186(LC 1), 4=377(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



March 6, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot	69 Liberty Meadows/Harnett
J0124-0344	VA3	VALLEY	1	1		I57003269

Comtech, Inc. Fayetteville, NC - 28314,

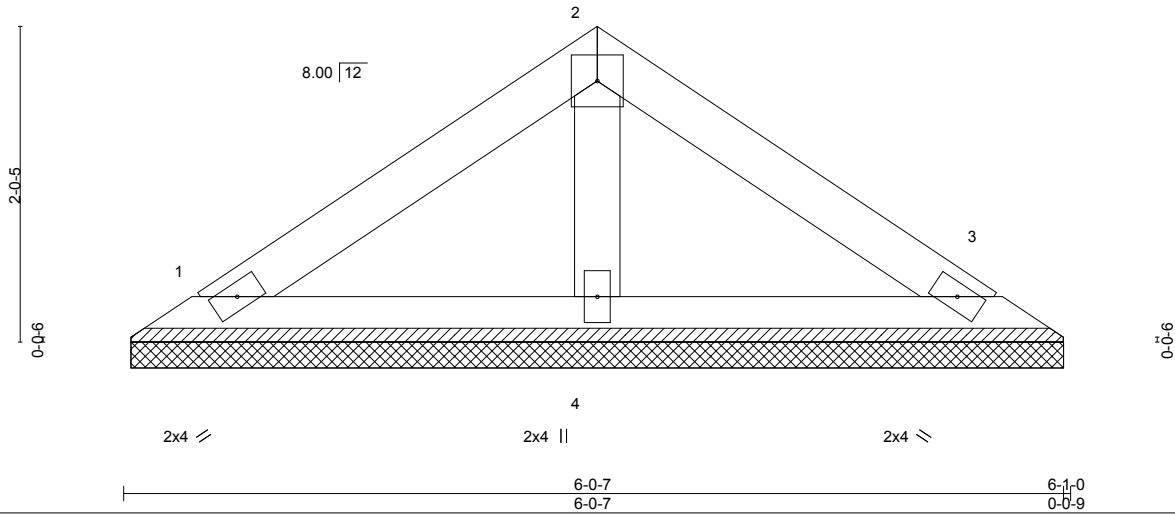
8.430 s Jan 6 2022 MiTek Industries, Inc. Mon Mar 6 10:33:14 2023 Page 1

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-fPODah3nbTVuJrsTox1kpA5BfrEgRZM1qo\_dAfzdg8p



4x4 =

Scale = 1:14.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 20 lb	FT = 20%
	Code IRC2015/TPI2014							

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

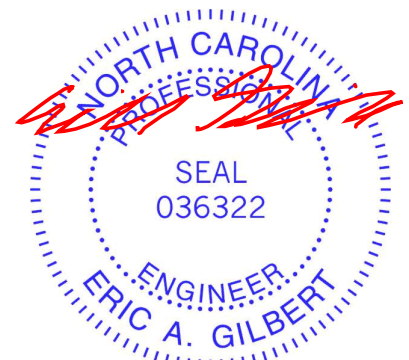
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-11-14, 3=5-11-14, 4=5-11-14  
 Max Horz 1=-41(LC 10)  
 Max Uplift 1=-17(LC 12), 3=-21(LC 13)  
 Max Grav 1=111(LC 1), 3=111(LC 1), 4=186(LC 1)

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

**NOTES-**

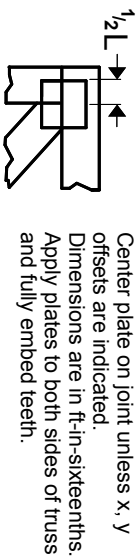
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



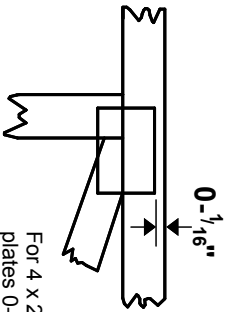
March 6, 2023

# Symbols

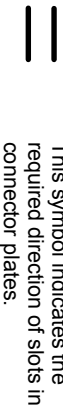
## PLATE LOCATION AND ORIENTATION



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 software or upon request.

## PLATE SIZE

4 X 4

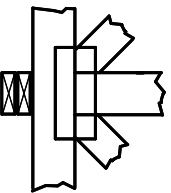
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

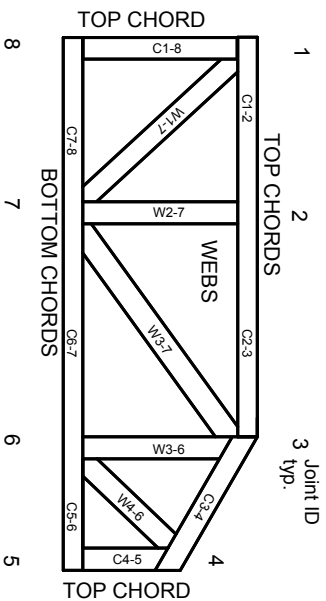


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

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

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

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# 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 1 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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

**Trenco**

818 Soundside Rd  
Edenton, NC 27932

Re: J0124-0345  
Precision/69 Liberty Meadows/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: I63819705 thru I63819719

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



February 26, 2024

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	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819705
J0124-0345	ET1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:48 2024 Page 1

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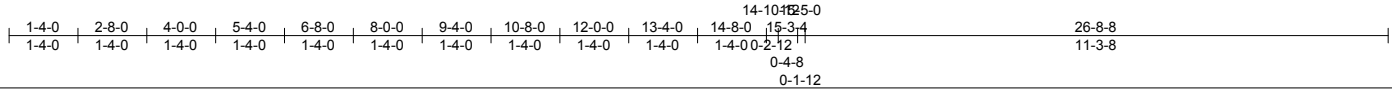


Plate Offsets (X, Y)-- [21:Edge,0-1-8]		CSI.		DEFL.		PLATES		GRIP	
LOADING (psf)	SPACING-	2-0-0	TC	in (loc)	l/defl	L/d	MT20	244/190	
TCLL 40.0	Plate Grip DOL	1.00	0.77	Vert(LL)	-0.14	24	M18AHS	186/179	
TCDL 10.0	Lumber DOL	1.00	0.59	Vert(CT)	-0.20	23-24			
BCLL 0.0	Rep Stress Incr	NO	WB	Horz(CT)	0.05	21			
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
									Weight: 124 lb FT = 20%F, 11%E

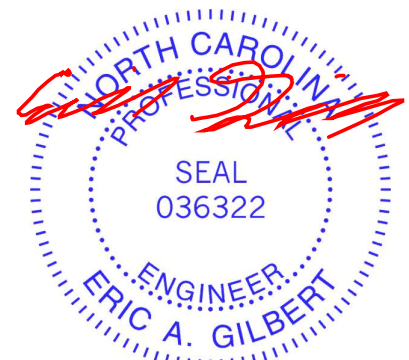
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat) *Except* 12-20: 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat) *Except* 21-29: 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 15-5-0 except (jt=length) 21=Mechanical.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) except 27=-335(LC 4)  
 Max Grav All reactions 250 lb or less at joint(s) 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 28 except  
 26=2437(LC 1), 26=2437(LC 1), 26=2437(LC 1), 21=2049(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 15-16=-3702/0, 16-17=-5519/0, 17-18=-5519/0, 18-19=-3827/0  
 BOT CHORD 25-26=0/2382, 24-25=0/5044, 23-24=0/5188, 22-23=0/5188, 21-22=0/2500  
 WEBS 14-26=-445/0, 15-26=-2985/0, 15-25=0/1719, 16-25=-1747/0, 16-24=0/606,  
 17-24=-499/0, 19-21=-3137/0, 19-22=0/1727, 18-22=-1738/0, 18-24=0/366

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 1.5x3 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Gable studs spaced at 1-4-0 oc.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 335 lb uplift at joint 27.
  - Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
  - 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: 21-39=-10, 1-14=-100, 14-20=-355



February 26, 2024

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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Hamett	163819706
J0124-0345	ET2	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

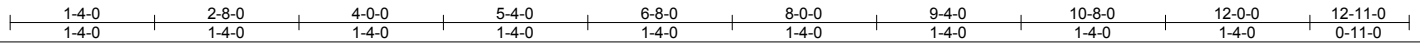
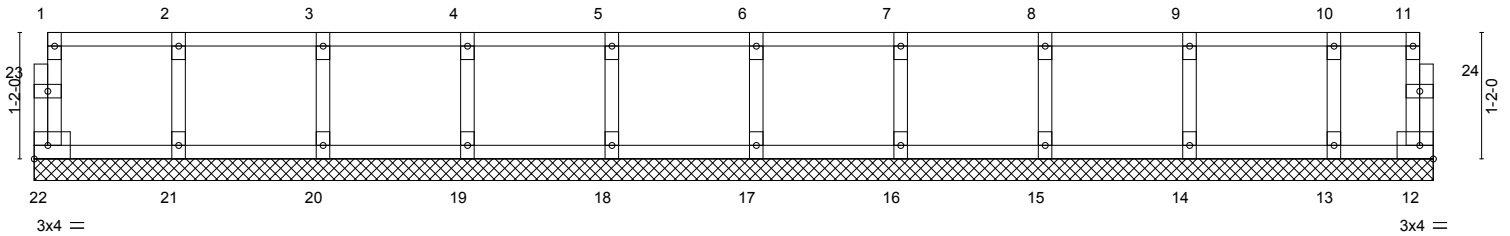
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:50 2024 Page 1

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-1/8

0-1/8

Scale = 1:21.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 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	12	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						Weight: 55 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 12-11-0.

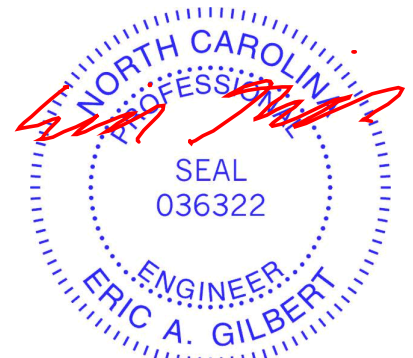
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

**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.



February 26, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819707
J0124-0345	ET3	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

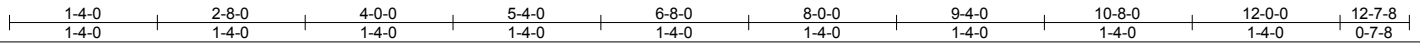
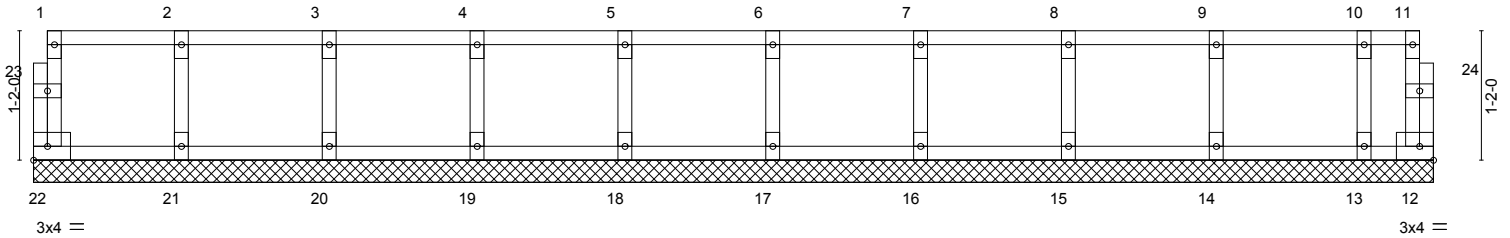
8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:50 2024 Page 1

ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0<sub>1</sub>-8

0<sub>1</sub>-8

Scale = 1:20.8



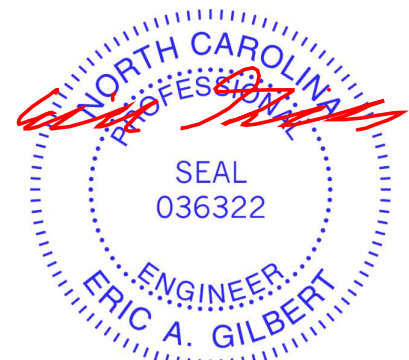
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 54 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)	
OTHERS 2x4 SP No.3(flat)	


**REACTIONS.** All bearings 12-7-8.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

**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.



February 26, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></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 <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	<p>ENGINEERING BY</p>  <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819708
J0124-0345	F1	Floor	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:52 2024 Page 1

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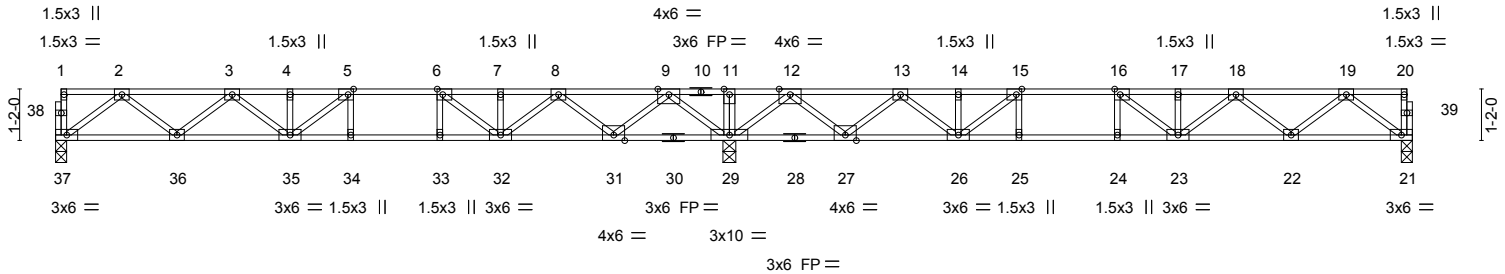


Plate Offsets (X,Y)--	[5:0-1-8,Edge], [6:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.74	Vert(LL)	-0.16	24	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.87	Vert(CT)	-0.22	23-24	>853		
BCLL 0.0	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.04	21	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						

Weight: 156 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: 31-32,29-31,27-29,26-27.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 37=0-3-0, 29=0-3-8, 21=0-3-0  
 Max Grav 37=728(LC 3), 29=1989(LC 1), 21=739(LC 4)

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

TOP CHORD 2-3=-1450/0, 3-4=-2252/0, 4-5=-2252/0, 5-6=-2276/0, 6-7=-1763/236, 7-8=-1763/236, 8-9=-521/736, 9-11=0/2242, 11-12=0/2242, 12-13=-518/703, 13-14=-1787/207, 14-15=-1787/207, 15-16=-2337/0, 16-17=-2305/0, 17-18=-2305/0, 18-19=-1476/0

BOT CHORD 36-37=0/901, 35-36=0/1969, 34-35=0/2276, 33-34=0/2276, 32-33=0/2276, 31-32=-456/1270, 29-31=-1091/0, 27-29=-1110/0, 26-27=-424/1283, 25-26=0/2337, 24-25=0/2337, 23-24=0/2337, 22-23=0/2008, 21-22=0/915

WEBS 2-37=-1128/0, 2-36=0/714, 3-36=-676/0, 3-35=0/362, 9-29=-1522/0, 9-31=0/1113, 8-31=-1065/0, 19-21=-1146/0, 19-22=0/730, 18-22=-693/0, 18-23=0/380, 12-29=-1537/0, 12-27=0/1128, 13-27=-1079/0, 8-32=0/707, 6-32=-977/0, 5-35=-140/390, 13-26=0/717, 15-26=-1020/0, 16-23=-156/376

- 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) 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.





Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819709
J0124-0345	F2	Floor	5	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

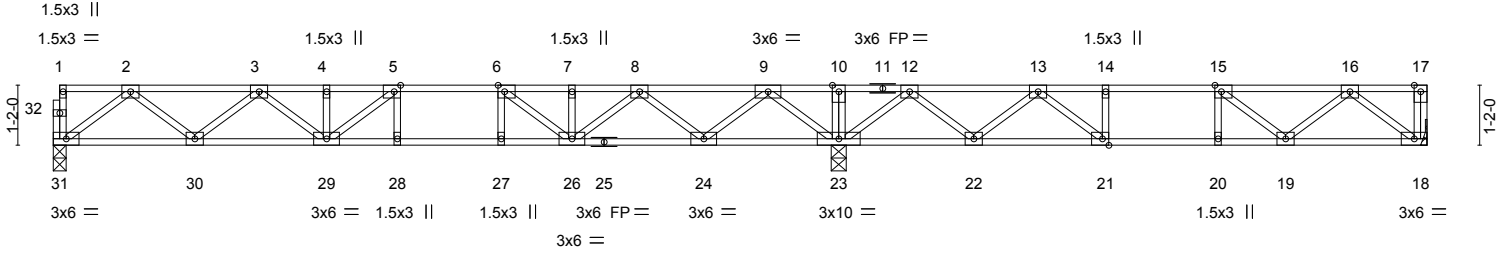


Plate Offsets (X, Y)--	[5:0-1-8,Edge], [6:0-1-8,Edge], [15:0-1-8,Edge], [21:0-1-8,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.60	Vert(LL) -0.15 28 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.83	Vert(CT) -0.20 28 >909 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.50	Horz(CT) 0.03 18 n/a n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S		Weight: 135 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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) 31=0-3-0, 23=0-3-8, 18=Mechanical  
 Max Grav 31=741(LC 3), 23=1724(LC 1), 18=2340(LC 4)

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

TOP CHORD 17-18=-1835/0, 2-3=-1483/0, 3-4=-2315/0, 4-5=-2315/0, 5-6=-2372/0, 6-7=-1892/0, 7-8=-1892/0, 8-9=-677/263, 9-10=0/1758, 10-12=0/1758, 12-13=-482/640, 13-14=-1242/104, 14-15=-1242/104, 15-16=-965/0

BOT CHORD 30-31=0/919, 29-30=0/2017, 28-29=0/2372, 27-28=0/2372, 26-27=0/2372, 24-26=-29/1412, 23-24=-586/0, 22-23=-886/0, 21-22=-389/968, 20-21=-104/1242, 19-20=-104/1242, 18-19=0/652

WEBS 2-31=-1150/0, 2-30=0/735, 3-30=-696/0, 3-29=0/380, 9-23=-1470/0, 9-24=0/1058, 8-24=-1014/0, 12-23=-1169/0, 12-22=0/754, 13-22=-766/0, 16-18=-818/0, 16-19=-46/407, 8-26=0/663, 6-26=-851/0, 5-29=-270/264, 15-19=-354/175, 13-21=0/672, 14-21=-279/0

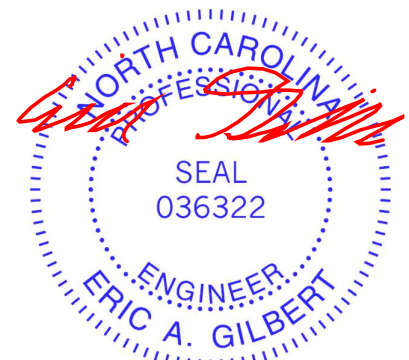
- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, 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.

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)  
 Vert: 18-31=-10, 1-17=-100

Concentrated Loads (lb)  
 Vert: 17=-1800



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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819710
J0124-0345	F3	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Feb 23 08:30:55 2024 Page 1  
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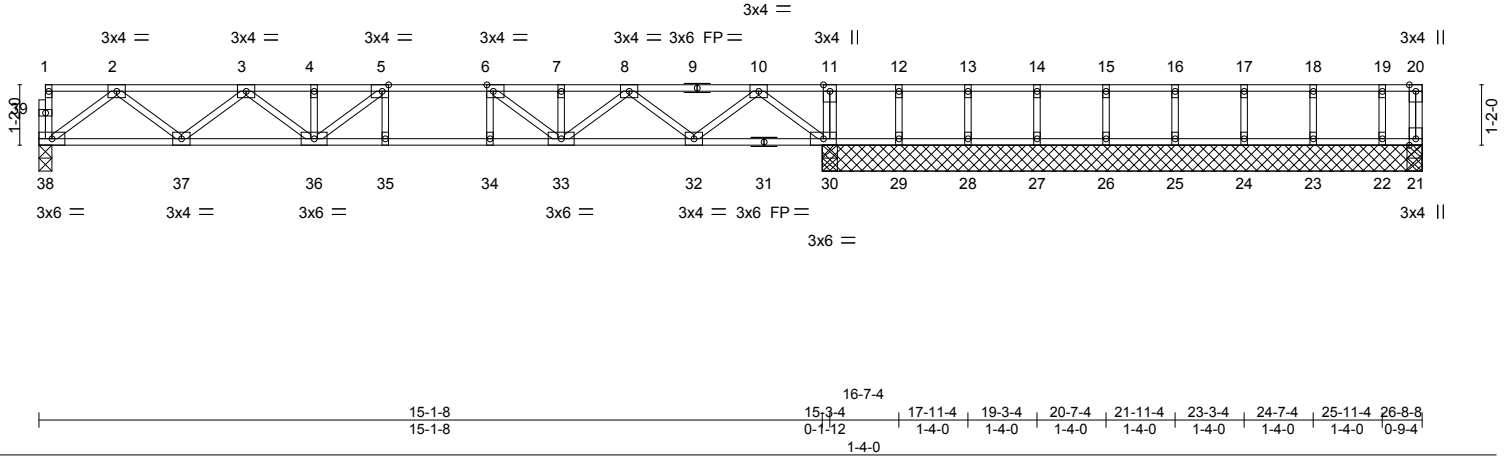


Plate Offsets (X, Y)--	[5:0-1-8,Edge], [6:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.27	Vert(LL) -0.16 34-35 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.56	Vert(CT) -0.22 34-35 >842 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04 21 n/a n/a		
BCDL 5.0	Code IRC2015/TP12014	Matrix-S		Weight: 127 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 11-7-0 except (jt=length) 38=0-3-0, 30=0-3-8, 30=0-3-8.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 29  
 Max Grav All reactions 250 lb or less at joint(s) 21, 21, 29, 28, 27, 26, 25, 24, 23, 22 except 38=821(LC 3), 30=992(LC 1), 30=992(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1684/0, 3-4=-2691/0, 4-5=-2691/0, 5-6=-2945/0, 6-7=-2663/0, 7-8=-2663/0, 8-10=-1613/0  
 BOT CHORD 37-38=0/1023, 36-37=0/2310, 35-36=0/2945, 34-35=0/2945, 33-34=0/2945, 32-33=0/2266, 30-32=0/954  
 WEBS 2-38=-1281/0, 2-37=0/860, 3-37=-815/0, 3-36=0/487, 10-30=-1196/0, 10-32=0/860, 8-32=-852/0, 8-33=0/507, 6-33=-355/0, 5-36=-318/0

- 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) Gable studs spaced at 1-4-0 oc.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29.
  - 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.



February 26, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></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 <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819711
J0124-0345	F4	Floor	3	1	Job Reference (optional)	

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-Rfc?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

1-3-0

1-10-0

0-1-8

Scale = 1:25.5

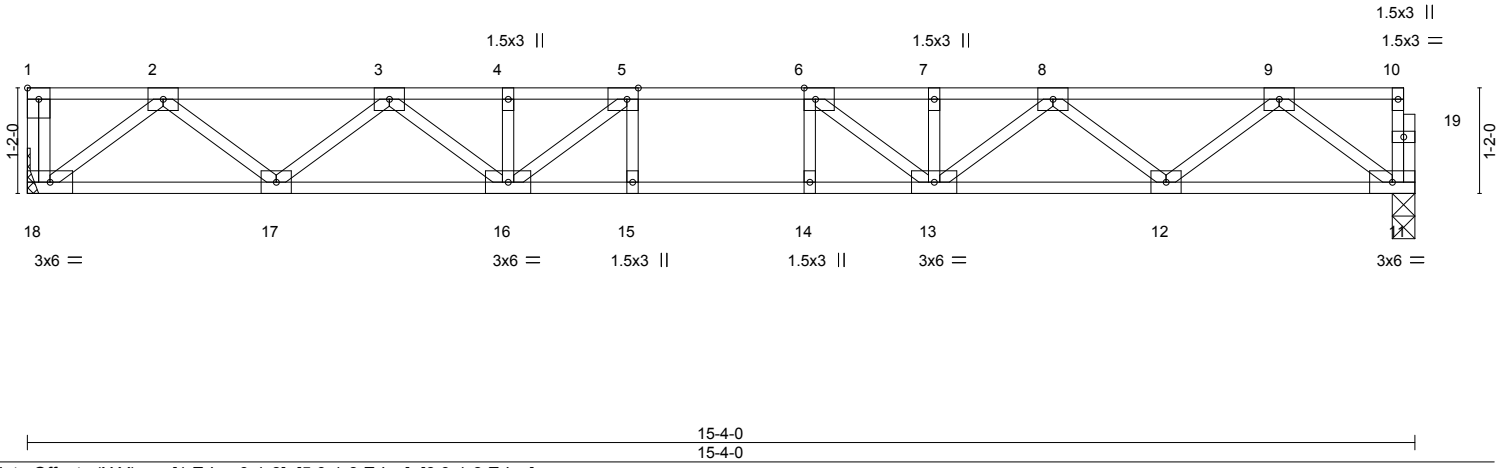


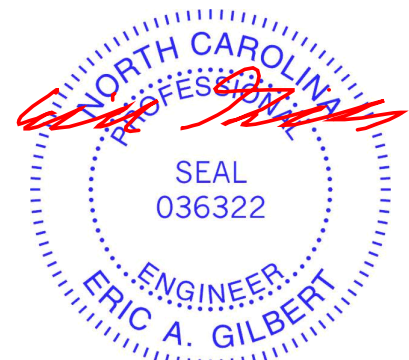
Plate Offsets (X,Y)--	[1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.35	Vert(LL) -0.16 14-15 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.66	Vert(CT) -0.22 14-15 >839 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04 11 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 79 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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) 18=Mechanical, 11=0-3-0  
Max Grav 18=830(LC 1), 11=823(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1691/0, 3-4=-2704/0, 4-5=-2704/0, 5-6=-2966/0, 6-7=-2704/0, 7-8=-2704/0, 8-9=-1691/0  
 BOT CHORD 17-18=0/1028, 16-17=0/2320, 15-16=0/2966, 14-15=0/2966, 13-14=0/2966, 12-13=0/2320, 11-12=0/1027  
 WEBS 2-18=-1289/0, 2-17=0/864, 3-17=-818/0, 3-16=0/490, 5-16=-596/25, 9-11=-1285/0, 9-12=0/865, 8-12=-819/0, 8-13=0/490, 6-13=-596/25

- 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) 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.



February 26, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></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 <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819712
J0124-0345	F5	Floor	3	1	Job Reference (optional)	

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0-1-8



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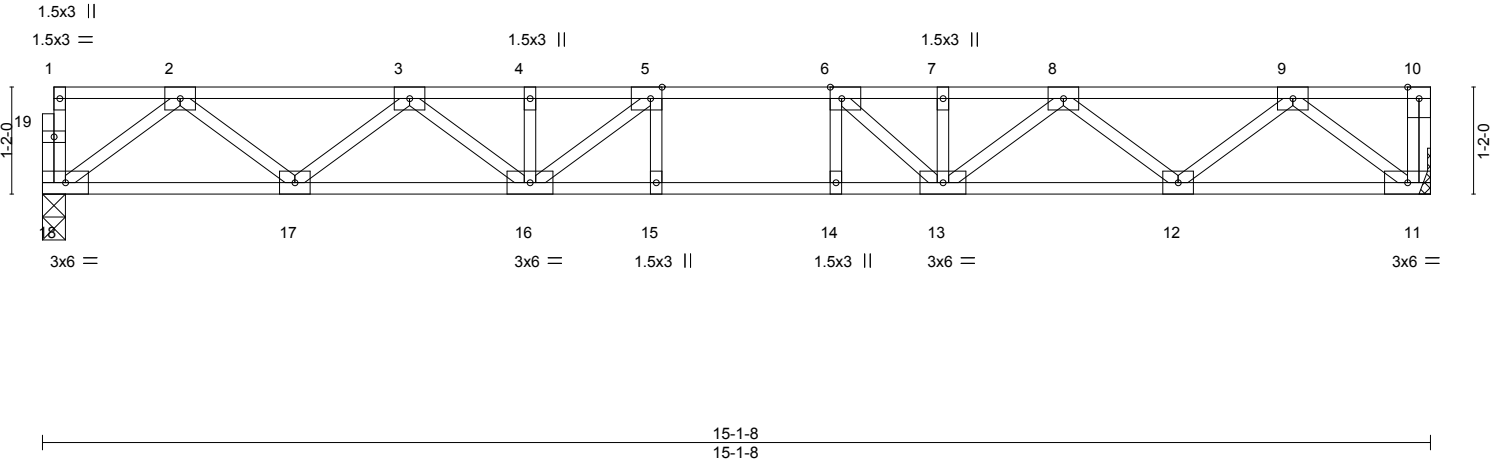


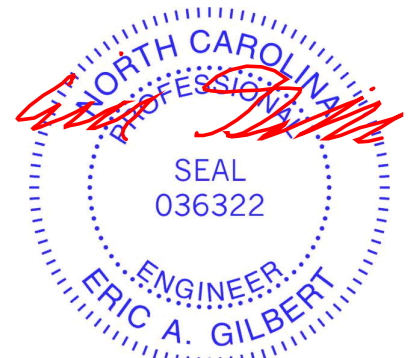
Plate Offsets (X,Y)--	[5:0-1-8,Edge], [6:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.36	Vert(LL) -0.15 15 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.66	Vert(CT) -0.21 14-15 >867 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.40	Horz(CT) 0.04 11 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 78 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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) 18=0-3-0, 11=Mechanical  
Max Grav 18=812(LC 1), 11=818(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1662/0, 3-4=-2649/0, 4-5=-2649/0, 5-6=-2884/0, 6-7=-2641/0, 7-8=-2641/0, 8-9=-1663/0  
BOT CHORD 17-18=0/1012, 16-17=0/2278, 15-16=0/2884, 14-15=0/2884, 13-14=0/2884, 12-13=0/2278, 11-12=0/1012  
WEBS 2-18=-1267/0, 2-17=0/846, 3-17=-802/0, 3-16=0/475, 5-16=-562/38, 9-11=-1270/0, 9-12=0/847, 8-12=-800/0, 8-13=0/464, 6-13=-587/29

- 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) 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.



February 26, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
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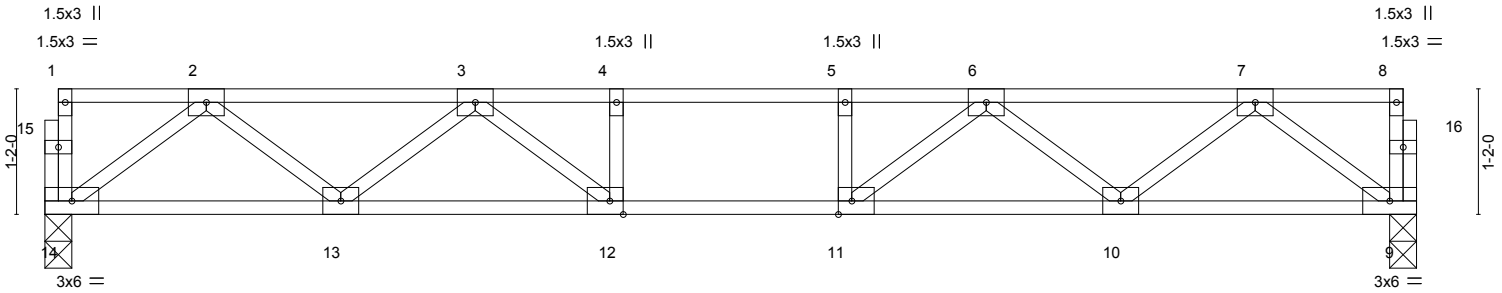
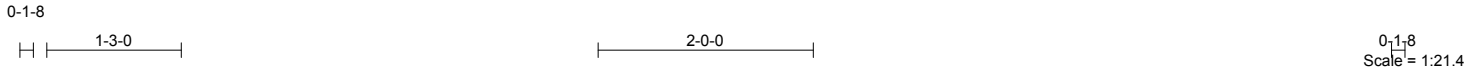
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Hamett	163819713
J0124-0345	F6	Floor	9	1	Job Reference (optional)	

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



12-9-0  
12-9-0

Plate Offsets (X, Y)-- [11:0-1-8,Edge], [12:0-1-8,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 0.35	Vert(LL)	-0.09	12-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.44	Vert(CT)	-0.12	12-13	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.03	9	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 64 lb	FT = 20%F, 11%E

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 14=0-3-0, 9=0-3-0  
Max Grav 14=681(LC 1), 9=681(LC 1)

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

TOP CHORD 2-3=-1333/0, 3-4=-2022/0, 4-5=-2022/0, 5-6=-2022/0, 6-7=-1333/0  
BOT CHORD 13-14=0/841, 12-13=0/1790, 11-12=0/2022, 10-11=0/1790, 9-10=0/841  
WEBS 2-14=-1053/0, 2-13=0/640, 3-13=-595/0, 3-12=0/499, 7-9=-1053/0, 7-10=0/640, 6-10=-595/0, 6-11=0/499

**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) 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.



February 26, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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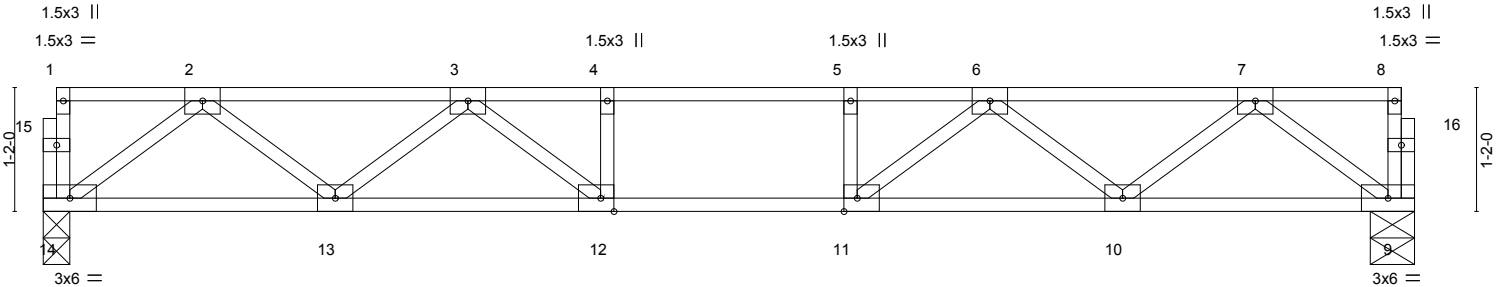
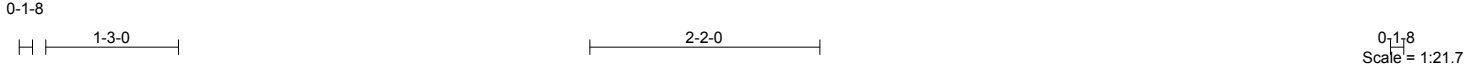
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Hamett	163819714
J0124-0345	F6A	Floor	3	1	Job Reference (optional)	

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



12-11-0  
12-11-0

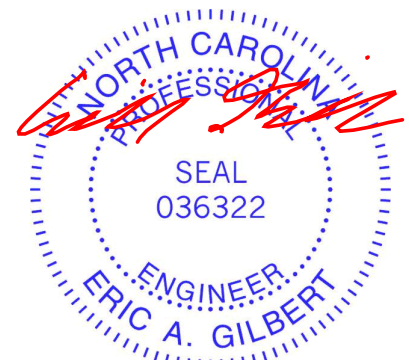
Plate Offsets (X, Y)--	[11:0-1-8,Edge], [12:0-1-8,Edge]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.39	Vert(LL)	-0.10 12-13	>999	480
TCDL 10.0	Lumber DOL	1.00	BC 0.47	Vert(CT)	-0.13 12-13	>999	360
BCLL 0.0	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.03 9	n/a	n/a
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 64 lb
							FT = 20%F, 11%E

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

**REACTIONS.** (size) 14=0-3-0, 9=0-5-0  
Max Grav 14=690(LC 1), 9=690(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1356/0, 3-4=-2072/0, 4-5=-2072/0, 5-6=-2072/0, 6-7=-1356/0  
BOT CHORD 13-14=0/854, 12-13=0/1823, 11-12=0/2072, 10-11=0/1823, 9-10=0/854  
WEBS 2-14=-1069/0, 2-13=0/654, 3-13=-609/0, 3-12=0/526, 4-12=-251/0, 5-11=-251/0, 7-9=-1069/0, 7-10=0/654, 6-10=-609/0, 6-11=0/526

- 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) 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.



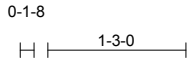
February 26, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></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 <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819715
J0124-0345	F7	FLOOR	8	1	Job Reference (optional)	

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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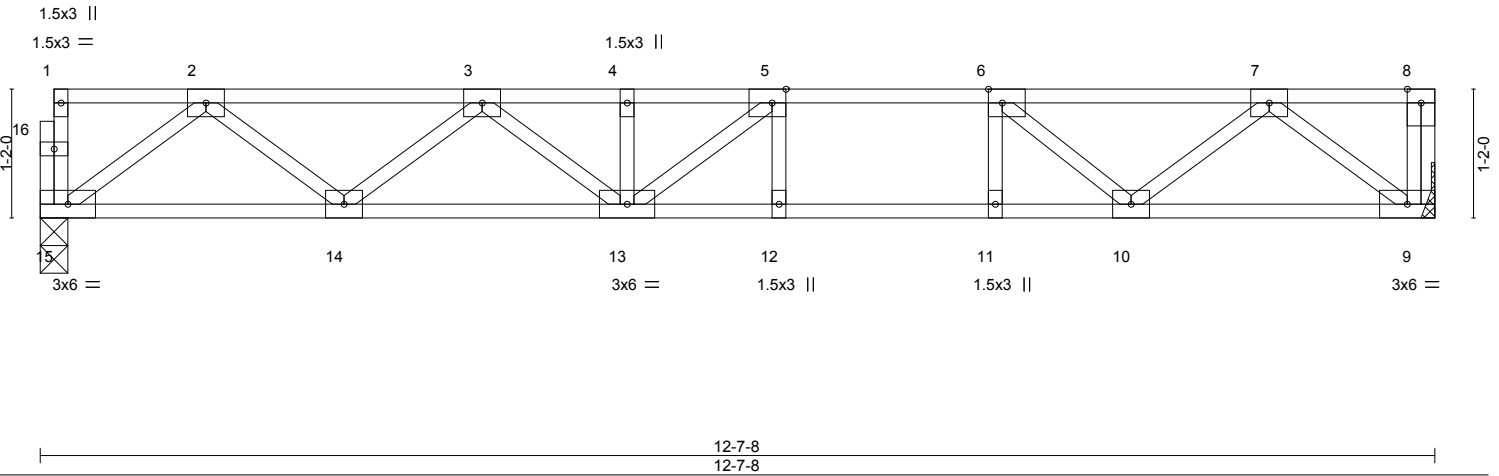


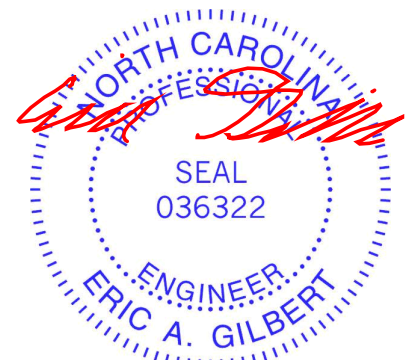
Plate Offsets (X, Y)--	[5:0-1-8,Edge], [6:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.48	Vert(LL) -0.14 12-13 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.78	Vert(CT) -0.18 12-13 >821 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.02 9 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 65 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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) 15=0-3-0, 9=Mechanical  
Max Grav 15=674(LC 1), 9=681(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1313/0, 3-4=-1995/0, 4-5=-1995/0, 5-6=-1895/0, 6-7=-1327/0  
BOT CHORD 14-15=0/831, 13-14=0/1770, 12-13=0/1895, 11-12=0/1895, 10-11=0/1895, 9-10=0/807  
WEBS 2-15=-1040/0, 2-14=0/628, 3-14=-594/0, 3-13=0/288, 5-13=-224/289, 7-9=-1012/0, 7-10=0/677, 6-10=-745/0

- 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) 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.



February 26, 2024

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Job J0124-0345	Truss F8	Truss Type Floor	Qty 1	Ply 1	Precision/69 Liberty Meadows/Harnett 163819716
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Comtech, Inc. Fayetteville, NC - 28314,

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ID:qH4S\_SYhXXrmAJJVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Job Reference (optional)

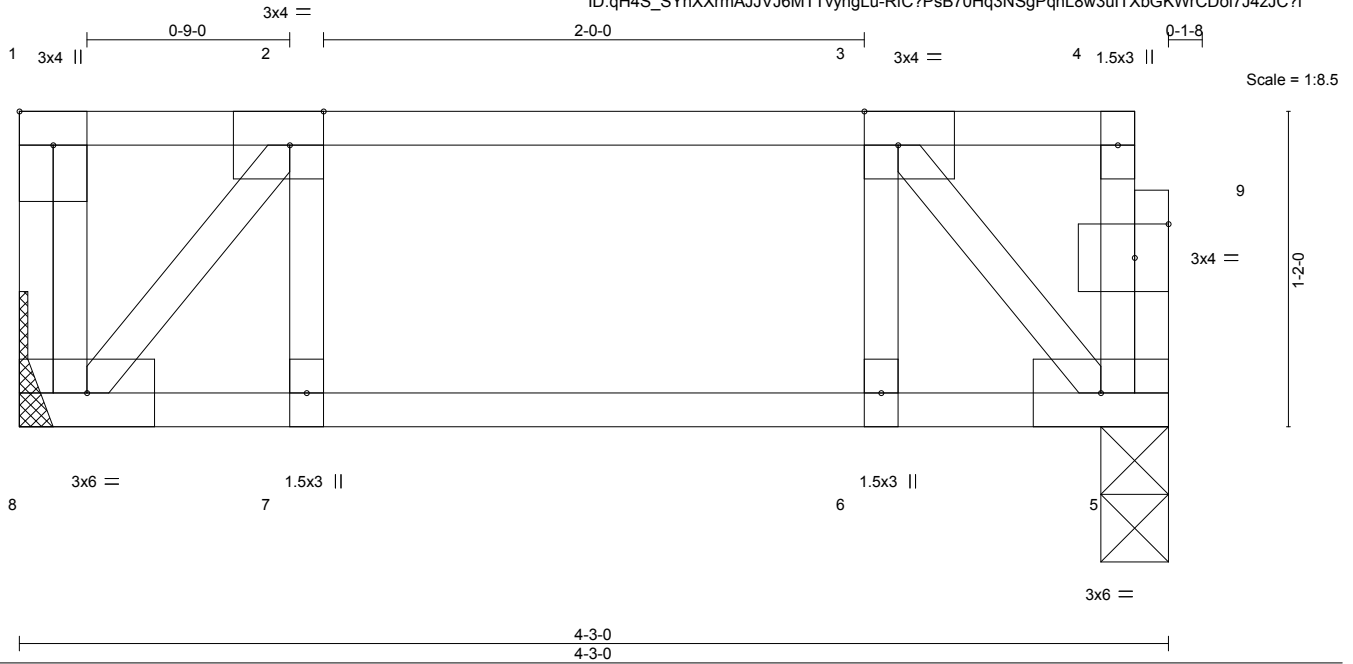


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]

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 0.13	Vert(LL)	-0.00	6	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.06	Vert(CT)	-0.00	6	>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: 24 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 4-3-0 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) 8=Mechanical, 5=0-3-0  
Max Grav 8=220(LC 1), 5=214(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-273/0, 3-5=-272/0

- 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.



February 26, 2024

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Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819717
J0124-0345	FG-1	GABLE	1	1	Job Reference (optional)	

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ID:qH4S\_SYhXXrmAJVVJ6MTTvyngLu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:25.3

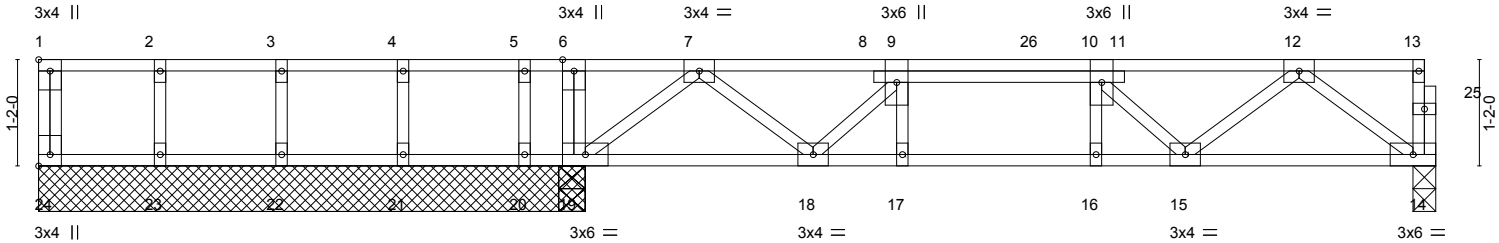


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [24:Edge,0-1-8]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.27	Vert(LL)	-0.03	16	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.36	Vert(CT)	-0.05	16	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.01	14	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 78 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
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)	
OTHERS 2x4 SP No.3(flat)	

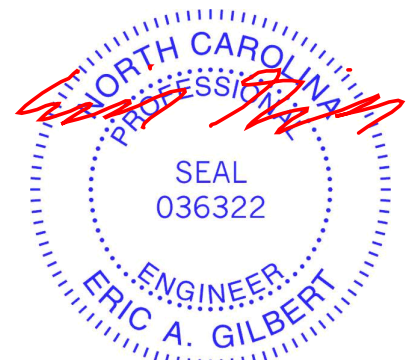
**REACTIONS.** All bearings 6-0-0 except (jt=length) 14=0-3-0.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 20  
 Max Grav All reactions 250 lb or less at joint(s) 24, 23, 22, 21, 20 except 14=592(LC 4), 19=710(LC 1), 19=710(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 7-9=-1083/0, 9-10=-1453/0, 10-12=-1134/0  
 BOT CHORD 18-19=0/641, 17-18=0/1453, 16-17=0/1453, 15-16=0/1453, 14-15=0/705  
 WEBS 7-19=-805/0, 7-18=0/569, 12-14=-880/0, 12-15=0/559, 9-18=-530/0, 10-15=-451/0

- 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) Gable studs spaced at 1-4-0 oc.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20.
  - 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.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 246 lb down at 10-11-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) 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: 14-24=-10, 1-13=-100  
 Concentrated Loads (lb)  
 Vert: 26=-166(F)



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**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/69 Liberty Meadows/Harnett	163819718
J0124-0345	FG-2	FLOOR GIRDER	1	1	Job Reference (optional)	

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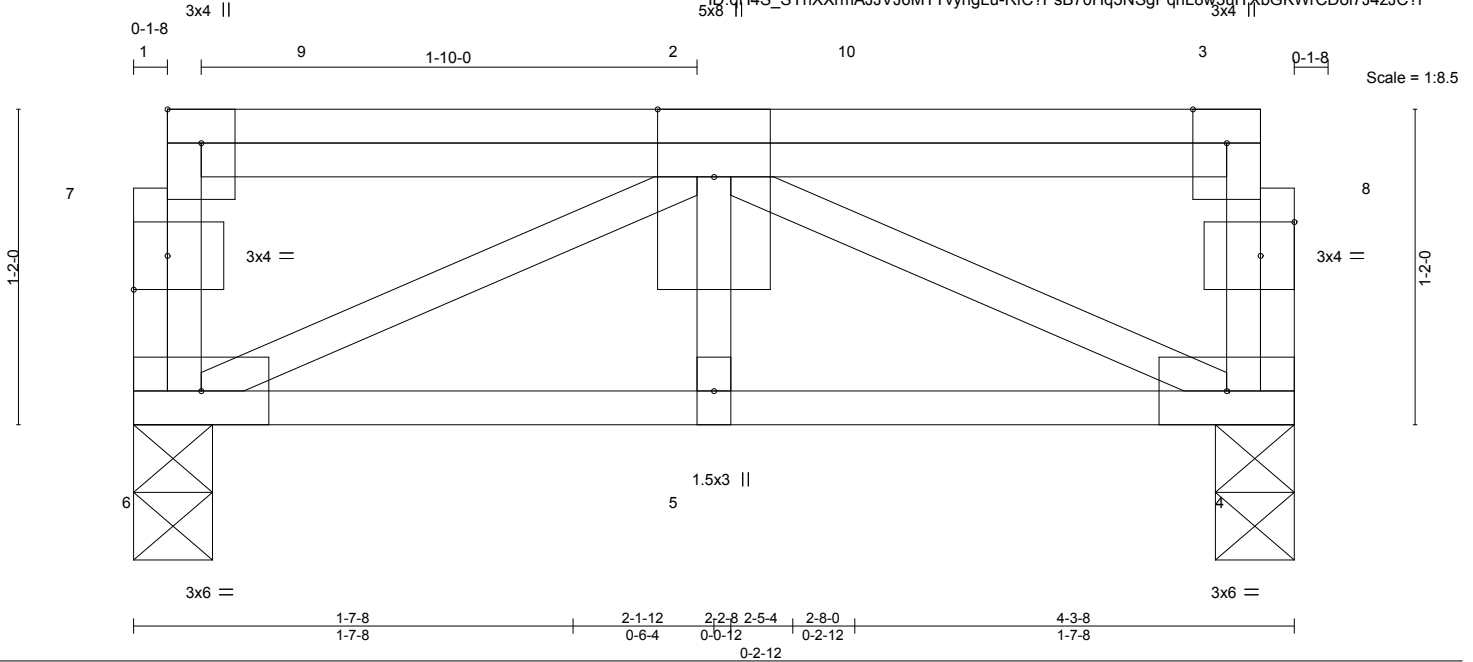


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [7:0-1-8,0-1-8], [8:0-1-8,0-1-8]

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 0.39	Vert(LL)	-0.01	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.24	Vert(CT)	-0.02	5	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.27	Horz(CT)	0.01	4	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-P						
								Weight: 30 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 4-3-8 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=0-3-8, 4=0-3-8  
Max Grav 6=922(LC 1), 4=692(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-6=-429/0  
BOT CHORD 5-6=0/1018, 4-5=0/1018  
WEBS 2-4=-1118/0, 2-6=-1103/0

**NOTES-**  
1) Plates checked for a plus or minus 1 degree rotation about its center.  
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.  
3) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 601 lb down at 0-9-4, and 581 lb down at 2-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.  
4) 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: 4-6=-10, 1-3=-100  
Concentrated Loads (lb)  
Vert: 9=-601(B) 10=-581(B)



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Job J0124-0345	Truss FG-3	Truss Type FLOOR GIRDER	Qty 1	Ply 1	Precision/69 Liberty Meadows/Harnett Job Reference (optional)	163819719
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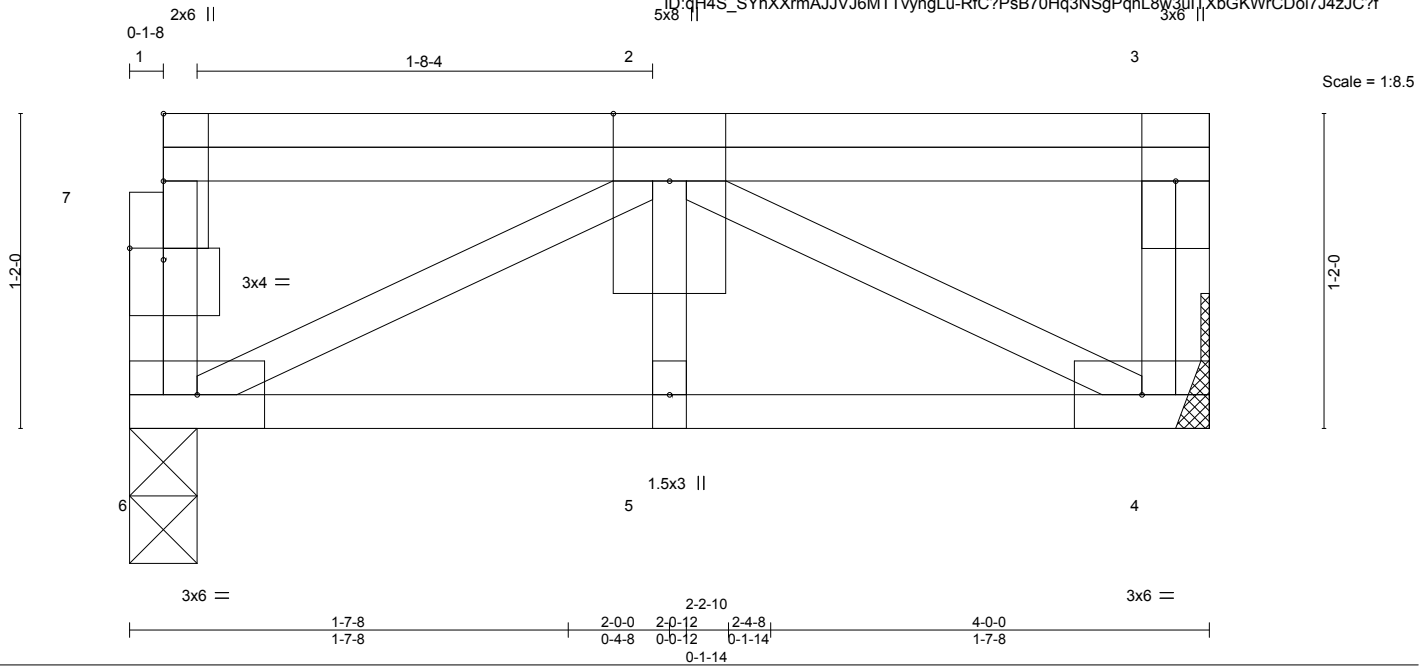


Plate Offsets (X,Y)-- [7:0-1-8,0-0-8]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.05	Vert(LL)	-0.00	5	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.09	Vert(CT)	-0.00	5	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.00	4	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-P						
								Weight: 29 lb	FT = 20%F, 11%E

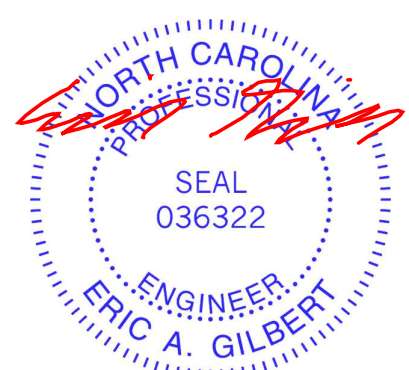
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 6=0-3-0, 4=Mechanical  
Max Grav 6=260(LC 1), 4=266(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 5-6=0/338, 4-5=0/338  
WEBS 2-4=-381/0, 2-6=-376/0

- NOTES-**
- 1) Plates checked for a plus or minus 1 degree rotation about its center.
  - 2) Refer to girder(s) for truss to truss connections.
  - 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.
  - 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 120 lb down at 2-1-12 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).

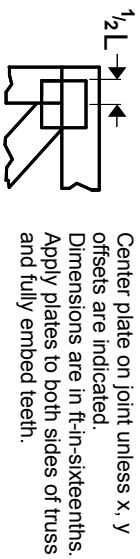
**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 4-6=-10, 1-3=-100  
Concentrated Loads (lb)  
Vert: 2=-120(F)



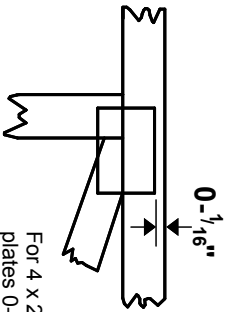
February 26, 2024

# 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 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

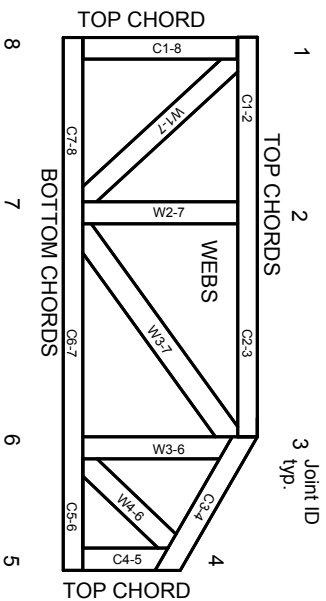


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

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

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

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**MITek**

ENGINEERING BY  
**TRINGCO**  
A MITek Affiliate

MITek Engineering Reference Sheet: MI-7473 rev. 1/2/2023

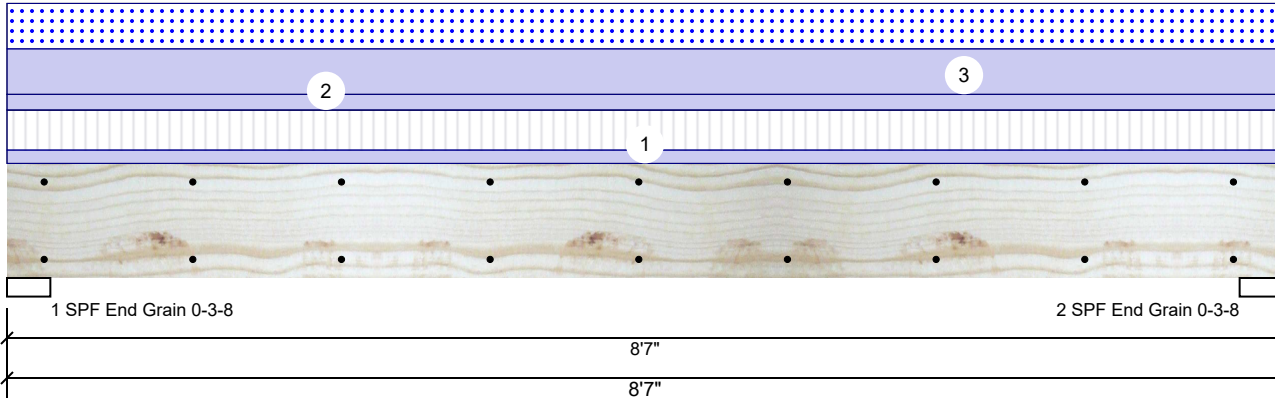
# General Safety Notes

## 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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1318	2477	1494	0	0
2	Vertical	1318	2477	1494	0	0

**Bearings**

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	45%	2477 / 2108	4585	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	45%	2477 / 2108	4585	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8817 ft-lb	4'3 1/2"	14423 ft-lb	0.611 (61%)	D+0.75(L+S)	L
Unbraced	8817 ft-lb	4'3 1/2"	14423 ft-lb	0.611 (61%)	D+0.75(L+S)	L
Shear	3456 lb	7'6 1/4"	7943 lb	0.435 (44%)	D+0.75(L+S)	L
LL Defl inch	0.119 (L/821)	4'3 9/16"	0.203 (L/480)	0.585 (58%)	0.75(L+S)	L
TL Defl inch	0.258 (L/377)	4'3 9/16"	0.271 (L/360)	0.954 (95%)	D+0.75(L+S)	L

**Design Notes**

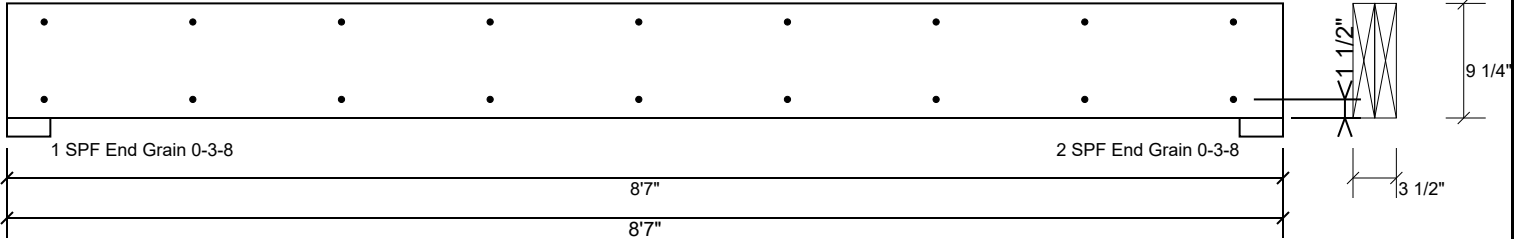
- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must be laterally braced at bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	102 PLF	307 PLF	0 PLF	0 PLF	0 PLF	F3
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Top	348 PLF	0 PLF	348 PLF	0 PLF	0 PLF	B2
	Self Weight				7 PLF					

<p><b>Notes</b></p> <p>Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.</p> <p><b>Lumber</b></p> <ol style="list-style-type: none"> <li>1. Dry service conditions, unless noted otherwise</li> <li>2. LVL not to be treated with fire retardant or corrosive chemicals</li> </ol>	<p><b>Handling &amp; Installation</b></p> <ol style="list-style-type: none"> <li>1. LVL beams must not be cut or drilled</li> <li>2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals</li> <li>3. Damaged Beams must not be used</li> <li>4. Design assumes top edge is laterally restrained</li> <li>5. Provide lateral support at bearing points to avoid lateral displacement and rotation</li> </ol>	<p>6. For flat roofs provide proper drainage to prevent ponding</p>	<p><b>Manufacturer Info</b></p> <p>Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us</p>
			<p>This design is valid until 6/28/2026</p>

**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C <sub>m</sub>	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

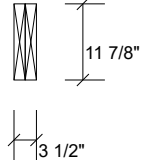
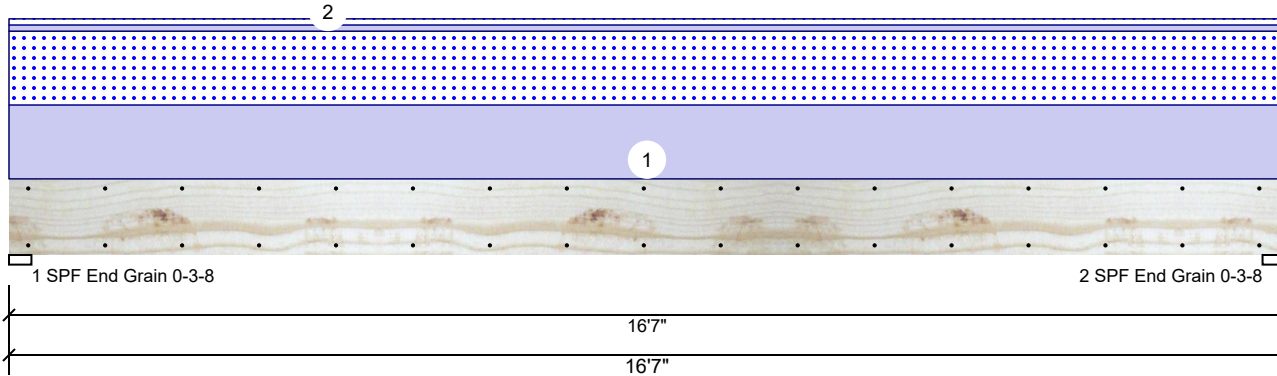
This design is valid until 6/28/2026

**Manufacturer Info**

Metsä Wood  
301 Merritt 7 Building, 2nd Floor  
Norwalk, CT 06851  
(800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1154	1078	0	0
2	Vertical	0	1154	1078	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	22%	1154 / 1078	2232	L	D+S
2 - SPF End Grain	3.500"	Vert	22%	1154 / 1078	2232	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8751 ft-lb	8'3 1/2"	22897 ft-lb	0.382 (38%)	D+S	L
Unbraced	8751 ft-lb	8'3 1/2"	8756 ft-lb	0.999 (100%)	D+S	L
Shear	1897 lb	15'3 5/8"	10197 lb	0.186 (19%)	D+S	L
LL Defl inch	0.214 (L/904)	8'3 9/16"	0.538 (L/360)	0.398 (40%)	S	L
TL Defl inch	0.444 (L/436)	8'3 9/16"	0.806 (L/240)	0.550 (55%)	D+S	L

**Design Notes**

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 10'10 3/8" o.c.
- Bottom must be laterally braced at end bearings.
- Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	120 PLF	0 PLF	0 PLF	C1-GE
2	Tie-In	0-0-0 to 16-7-0	0-6-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	RAKE OH
	Self Weight				9 PLF					

**Notes**

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

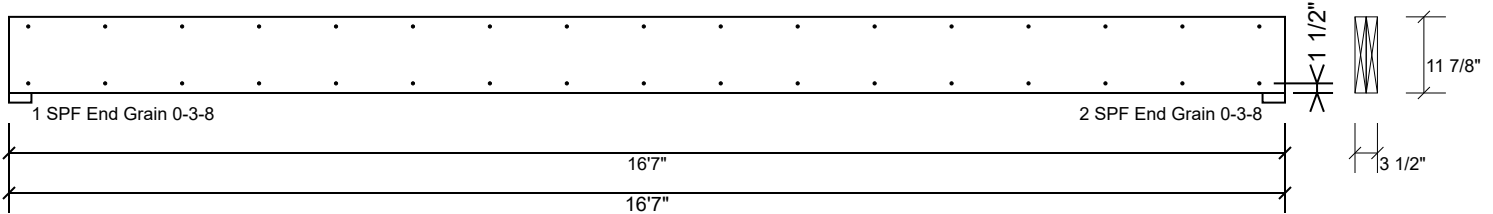
This design is valid until 6/28/2026

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www.metsawood.com/us

**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
C <sub>m</sub>	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

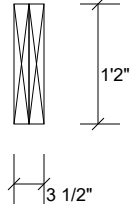
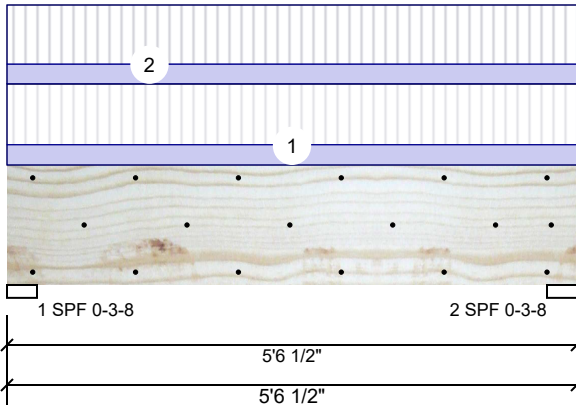
**Manufacturer Info**

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www.metsawood.com/us



**BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1721	604	0	0	0
2	Vertical	1721	604	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	45%	604 / 1721	2324	L	D+L
2 - SPF	3.500"	Vert	45%	604 / 1721	2324	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2710 ft-lb	2'9 1/4"	26999 ft-lb	0.100 (10%)	D+L	L
Unbraced	2710 ft-lb	2'9 1/4"	18950 ft-lb	0.143 (14%)	D+L	L
Shear	2080 lb	1'5 1/2"	10453 lb	0.199 (20%)	D+L	L
LL Defl inch	0.011 (L/5785)	2'9 1/4"	0.127 (L/480)	0.083 (8%)	L	L
TL Defl inch	0.014 (L/4282)	2'9 1/4"	0.169 (L/360)	0.084 (8%)	D+L	L

**Design Notes**

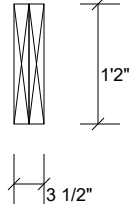
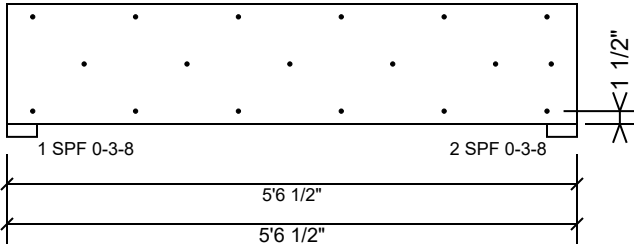
- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	F4
2	Uniform			Far Face	102 PLF	306 PLF	0 PLF	0 PLF	0 PLF	F5
	Self Weight				11 PLF					

<p><b>Notes</b></p> <p>Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.</p> <p><b>Lumber</b></p> <ol style="list-style-type: none"> <li>1. Dry service conditions, unless noted otherwise</li> <li>2. LVL not to be treated with fire retardant or corrosive chemicals</li> </ol>	<p><b>Handling &amp; Installation</b></p> <ol style="list-style-type: none"> <li>1. LVL beams must not be cut or drilled</li> <li>2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals</li> <li>3. Damaged Beams must not be used</li> <li>4. Design assumes top edge is laterally restrained</li> <li>5. Provide lateral support at bearing points to avoid lateral displacement and rotation</li> </ol>	<p>6. For flat roofs provide proper drainage to prevent ponding</p>	<p><b>Manufacturer Info</b></p> <p>Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us</p>
			<p>This design is valid until 6/28/2026</p>

**BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	85.5 %
Load	210.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C <sub>m</sub>	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

**Manufacturer Info**

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