

RE: J0623-3078  
 Precision/23 Liberty Meadows/Harnett

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

**Site Information:**

Customer: Project Name: J0623-3078  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

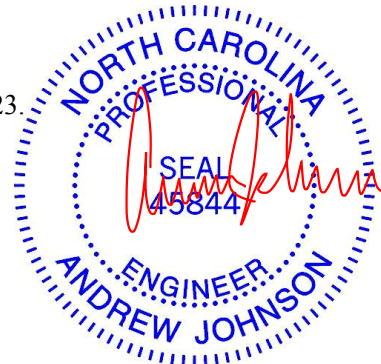
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 36 individual, dated Truss Design Drawings and 5 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I57341282	A1	3/23/2023	21	I57341302	P3	3/23/2023
2	I57341283	A2	3/23/2023	22	I57341303	XA1	3/23/2023
3	I57341284	A3	3/23/2023	23	I57341304	XB1	3/23/2023
4	I57341285	A4	3/23/2023	24	I57341305	XB2	3/23/2023
5	I57341286	A5	3/23/2023	25	I57341306	YA1	3/23/2023
6	I57341287	A6	3/23/2023	26	I57341307	YA2	3/23/2023
7	I57341288	A7	3/23/2023	27	I57341308	YA3	3/23/2023
8	I57341289	A8	3/23/2023	28	I57341309	YB1	3/23/2023
9	I57341290	B1	3/23/2023	29	I57341310	YB2	3/23/2023
10	I57341291	B2	3/23/2023	30	I57341311	YP1	3/23/2023
11	I57341292	B3	3/23/2023	31	I57341312	YP2	3/23/2023
12	I57341293	B4	3/23/2023	32	I57341313	ZA1	3/23/2023
13	I57341294	B5	3/23/2023	33	I57341314	ZB1	3/23/2023
14	I57341295	B6	3/23/2023	34	I57341315	ZB2	3/23/2023
15	I57341296	B7	3/23/2023	35	I57341316	ZP1	3/23/2023
16	I57341297	B8	3/23/2023	36	I57341317	ZP2	3/23/2023
17	I57341298	C1SG	3/23/2023				
18	I57341299	C2	3/23/2023				
19	I57341300	P1	3/23/2023				
20	I57341301	P2	3/23/2023				

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: Johnson, Andrew  
 My license renewal date for the state of North Carolina is December 31, 2023.  
 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.



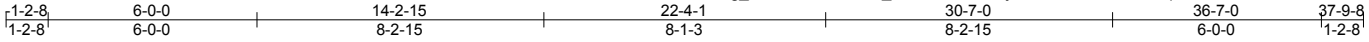
March 23, 2023

Job J0623-3078	Truss A1	Truss Type HIP GIRDER	Qty 1	Ply 2	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341282
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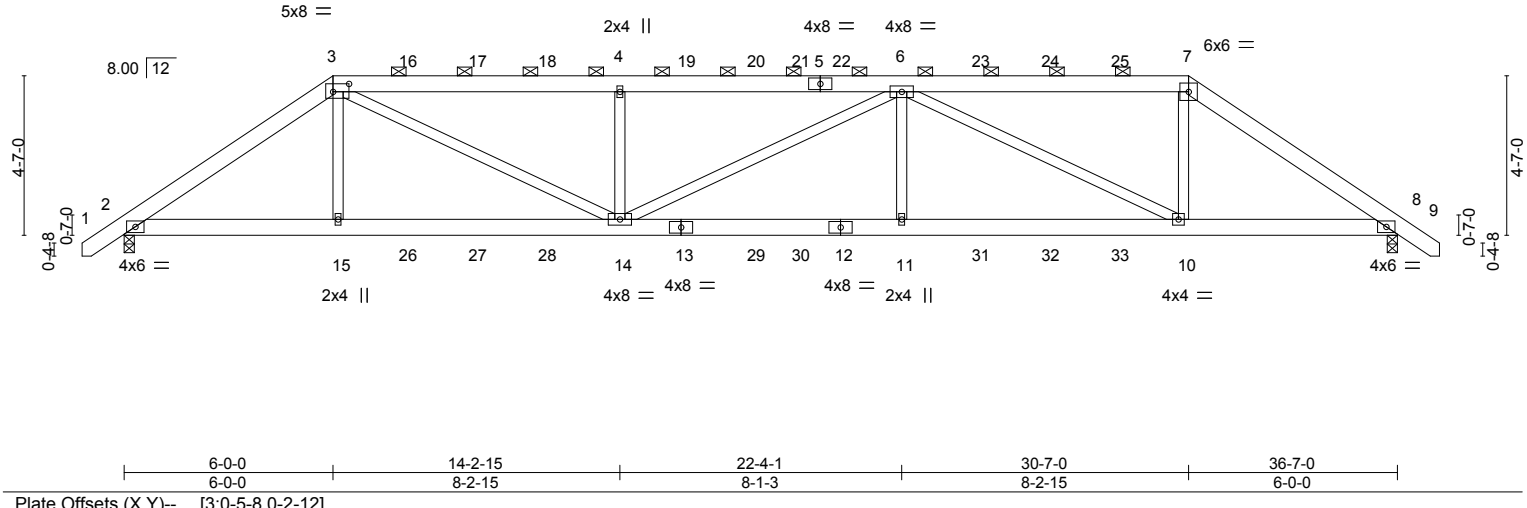
Comtech, Inc. Fayetteville, NC - 28314,

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Scale = 1:66.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.15 11-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Vert(CT) -0.31 11-14 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.08 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.17 11-14 >999 240	Weight: 489 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
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 3-7.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=-114(LC 25)  
 Max Uplift 2=-653(LC 8), 8=-653(LC 9)  
 Max Grav 2=2833(LC 1), 8=2833(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-4582/1150, 3-4=-6352/1681, 4-6=-6351/1681, 6-7=-3751/991, 7-8=-4580/1148  
 BOT CHORD 2-15=-975/3684, 14-15=-974/3704, 11-14=-1652/6353, 10-11=-1652/6353,  
 8-10=-874/3682  
 WEBS 3-15=0/728, 3-14=-865/3006, 4-14=-993/579, 6-11=0/674, 6-10=-2969/860,  
 7-10=-359/1914

- 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; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 653 lb uplift at joint 2 and 653 lb uplift at joint 8.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.




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Continued on page 2

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

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



818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss A1	Truss Type HIP GIRDER	Qty 1	Ply <b>2</b>	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341282
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:32 2023 Page 2  
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**NOTES-**

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 137 lb down and 121 lb up at 6-0-0, 142 lb down and 118 lb up at 8-0-12, 142 lb down and 118 lb up at 10-0-12, 142 lb down and 118 lb up at 12-0-12, 142 lb down and 118 lb up at 14-0-12, 142 lb down and 118 lb up at 16-0-12, 142 lb down and 118 lb up at 18-0-12, 142 lb down and 118 lb up at 18-6-4, 142 lb down and 118 lb up at 20-6-4, 142 lb down and 118 lb up at 22-6-4, 142 lb down and 118 lb up at 24-6-4, 142 lb down and 118 lb up at 26-6-4, and 142 lb down and 118 lb up at 28-6-4, and 137 lb down and 121 lb up at 30-7-0 on top chord, and 351 lb down and 123 lb up at 6-0-0, 76 lb down at 8-0-12, 76 lb down at 10-0-12, 76 lb down at 12-0-12, 76 lb down at 14-0-12, 76 lb down at 16-0-12, 76 lb down at 18-0-12, 76 lb down at 18-6-4, 76 lb down at 20-6-4, 76 lb down at 22-6-4, 76 lb down at 24-6-4, 76 lb down at 26-6-4, and 76 lb down at 28-6-4, and 351 lb down and 123 lb up at 30-6-4 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: 1-3=-60, 3-7=-60, 7-9=-60, 2-8=-20

Concentrated Loads (lb)

Vert: 3=-104(B) 7=-104(B) 13=-38(B) 15=-351(B) 14=-38(B) 4=-104(B) 11=-38(B) 10=-351(B) 6=-104(B) 12=-38(B) 16=-104(B) 17=-104(B) 18=-104(B) 19=-104(B) 20=-104(B) 21=-104(B) 22=-104(B) 23=-104(B) 24=-104(B) 25=-104(B) 26=-38(B) 27=-38(B) 28=-38(B) 29=-38(B) 30=-38(B) 31=-38(B) 32=-38(B) 33=-38(B)

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

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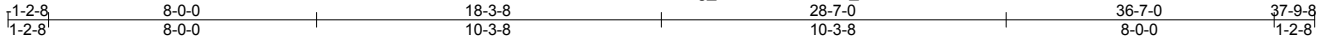
818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss A2	Truss Type HIP	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett	157341283
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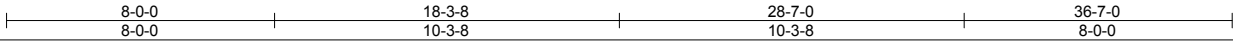
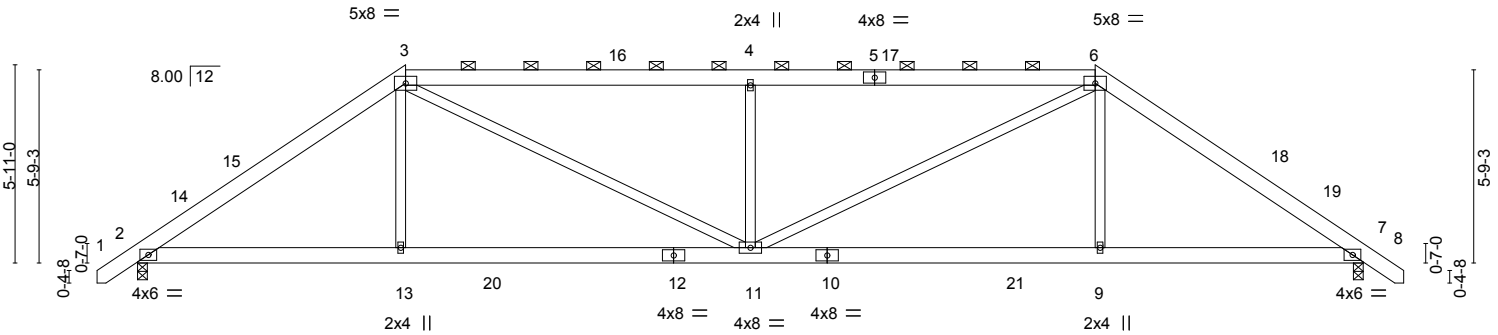
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:33 2023 Page 1

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Scale = 1:68.8



<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 0.50	Vert(LL) -0.10	11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT) -0.22	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.54	Horz(CT) 0.06	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.08	11	>999		
							Weight: 241 lb	FT = 20%

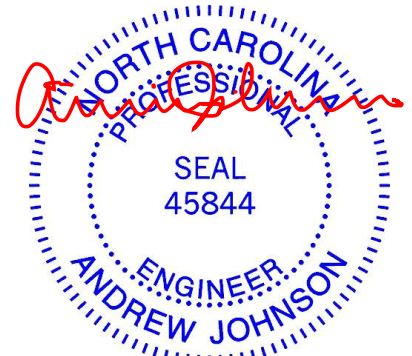
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-11-1 oc purlins, except  
 2-0-0 oc purlins (4-2-15 max.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=-144(LC 10)  
 Max Uplift 2=-55(LC 9), 7=-55(LC 8)  
 Max Grav 2=1525(LC 1), 7=1525(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2234/504, 3-4=-2621/698, 4-6=-2620/697, 6-7=-2235/504  
 BOT CHORD 2-13=-247/1741, 11-13=-250/1735, 9-11=-256/1737, 7-9=-253/1743  
 WEBS 3-13=0/400, 3-11=-226/1090, 4-11=-729/346, 6-11=-226/1088, 6-9=0/400

- 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) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 8-0-0, Exterior(2) 8-0-0 to 14-2-11, Interior(1) 14-2-11 to 28-7-0, Exterior(2) 28-7-0 to 34-9-11, Interior(1) 34-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 55 lb uplift at joint 2 and 55 lb uplift at joint 7.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 23, 2023

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818 Soundside Road  
 Edenton, NC 27932

Job J0623-3078	Truss A3	Truss Type HIP	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett	157341284
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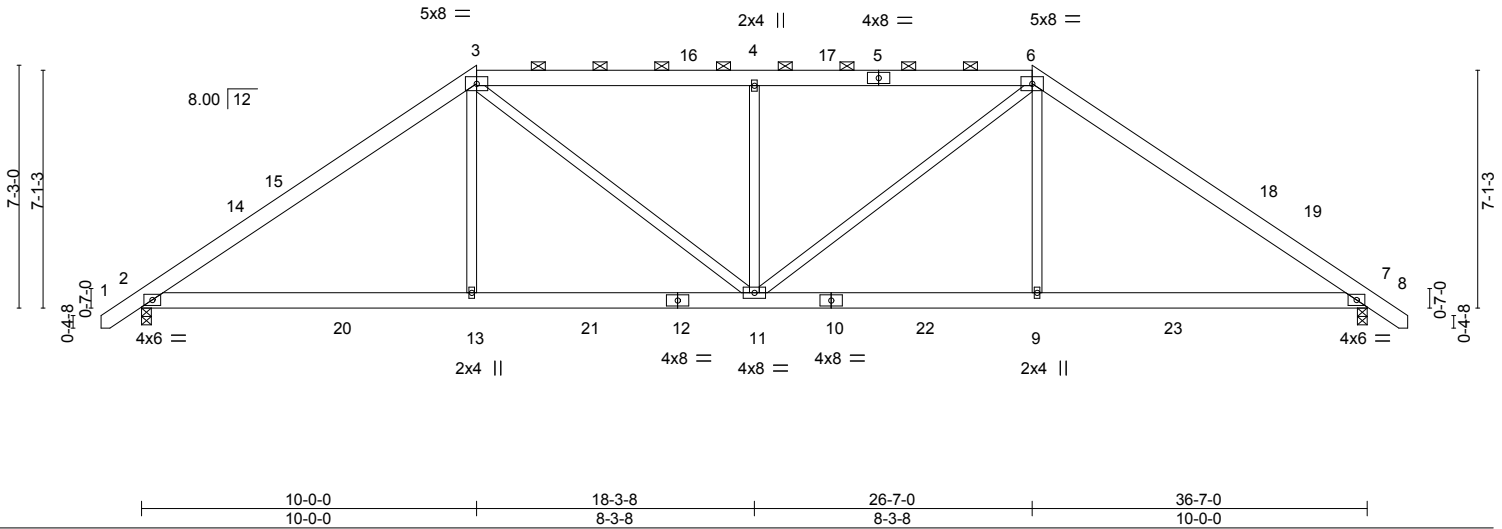
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Scale = 1:68.8



<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 0.61	Vert(LL) -0.10	2-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT) -0.19	2-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT) 0.06	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.06	2-13	>999	Weight: 246 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 4-1-5 oc purlins, except 2-0-0 oc purlins (5-0-0 max.); 3-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=-176(LC 10)  
 Max Uplift 2=-50(LC 12), 7=-50(LC 13)  
 Max Grav 2=1664(LC 2), 7=1664(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2419/486, 3-4=-2262/594, 4-6=-2261/593, 6-7=-2420/487  
 BOT CHORD 2-13=-206/1891, 11-13=-208/1879, 9-11=-216/1880, 7-9=-214/1892  
 WEBS 3-13=0/613, 3-11=-176/655, 4-11=-564/255, 6-11=-176/653, 6-9=0/613

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 10-0-0, Exterior(2) 10-0-0 to 16-2-11, Interior(1) 16-2-11 to 26-7-0, Exterior(2) 26-7-0 to 32-9-11, Interior(1) 32-9-11 to 37-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 50 lb uplift at joint 2 and 50 lb uplift at joint 7.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 23, 2023

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Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341285
J0623-3078	A4	ROOF SPECIAL	1	1	Job Reference (optional)	

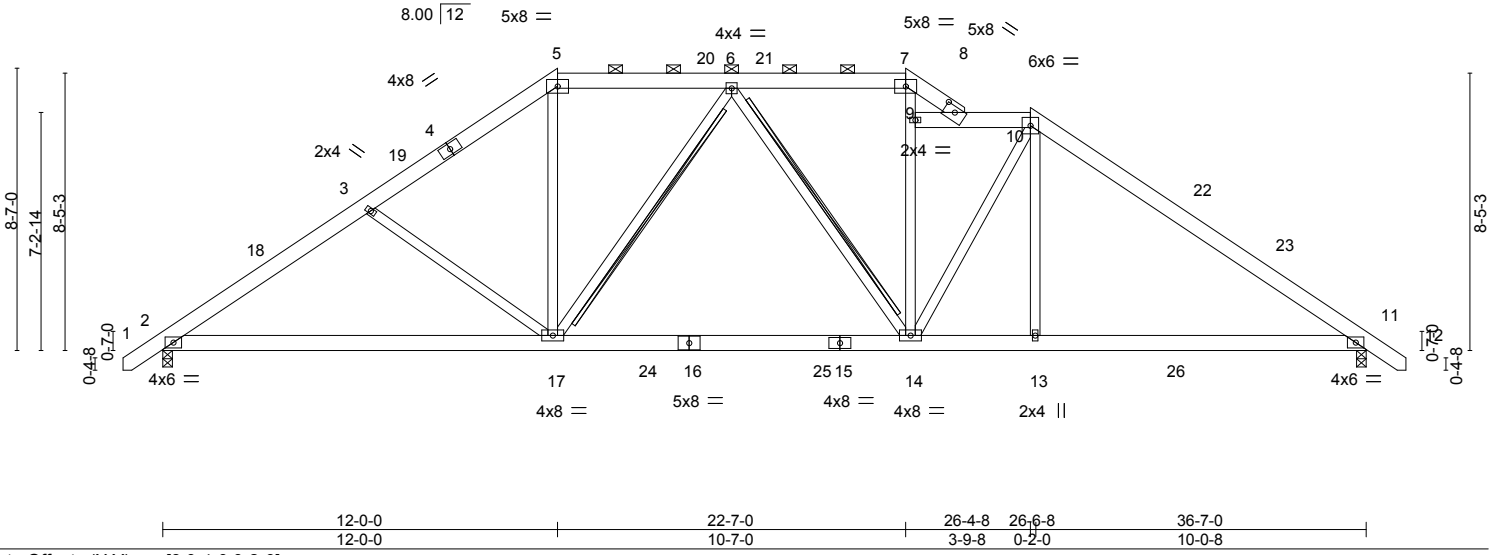
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:36 2023 Page 1

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Scale = 1:70.0



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.22 14-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.34	Vert(CT) -0.34 14-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 11-13 >999 240	Weight: 274 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (4-5-0 max.): 5-7, 9-10.
WEBS 2x4 SP No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
	T-Brace: 2x4 SPF No.2 - 6-17, 6-14
	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.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=210(LC 11)  
 Max Uplift 2=64(LC 12), 11=-79(LC 13)  
 Max Grav 2=1525(LC 1), 11=1591(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2201/526, 3-5=-1970/485, 5-6=-1560/463, 6-7=-1722/497, 7-8=-1999/548, 8-10=-1713/447, 10-11=-2269/479  
 BOT CHORD 2-17=-305/1849, 14-17=-191/1732, 13-14=-213/1765, 11-13=-212/1772  
 WEBS 3-17=-408/238, 5-17=-105/777, 6-17=-389/173, 9-14=-71/371, 7-9=-162/732, 10-13=0/334

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 12-0-0, Exterior(2) 12-0-0 to 16-4-13, Interior(1) 16-4-13 to 22-7-0, Exterior(2) 22-7-0 to 24-4-8, Interior(1) 24-4-8 to 26-4-8, Exterior(2) 26-4-8 to 30-9-5, Interior(1) 30-9-5 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 64 lb uplift at joint 2 and 79 lb uplift at joint 11.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

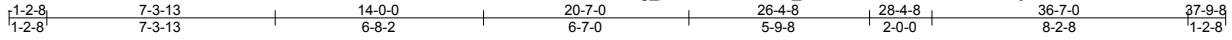


Job J0623-3078	Truss A5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett	157341286
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:38 2023 Page 1

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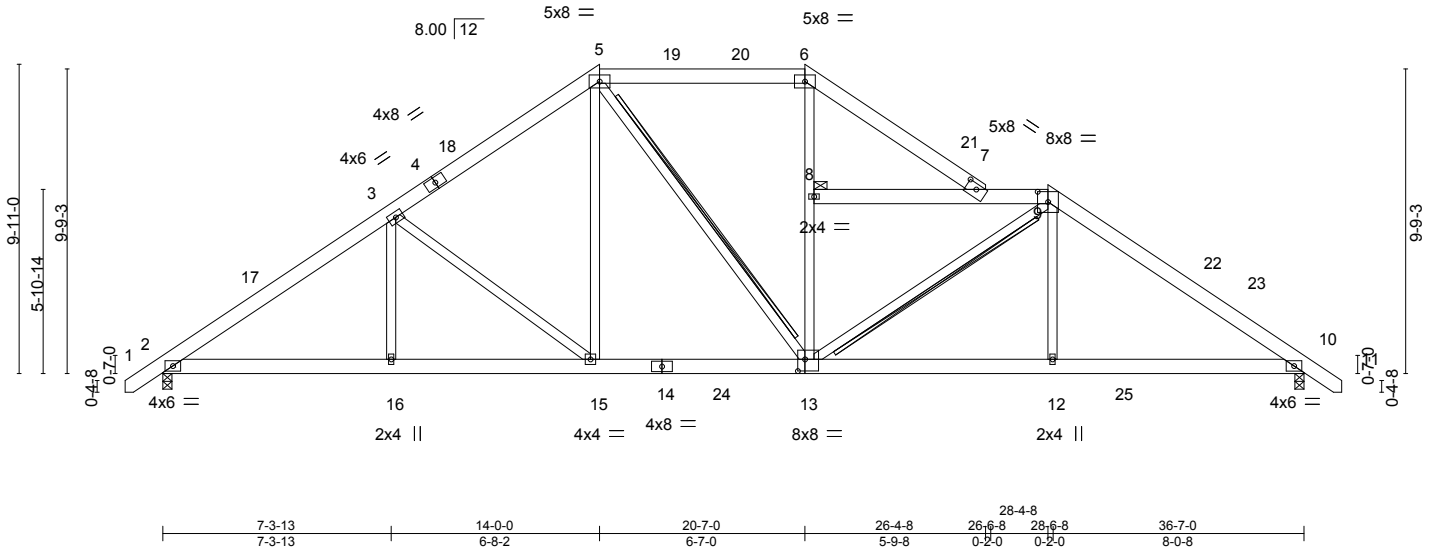


Plate Offsets (X,Y)--	[7:0-4-0,0-2-0], [9:0-4-0,0-3-15], [13:0-2-12,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.14	13-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.25	13-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.06	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09	13	>999		
								Weight: 287 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 5-6, 8-9.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 9-13, 5-13 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): 8

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=241(LC 11)  
 Max Uplift 2=-76(LC 12), 10=-90(LC 13)  
 Max Grav 2=1525(LC 1), 10=1525(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2229/479, 3-5=-1740/503, 5-6=-1410/499, 6-7=-1721/497, 7-9=-1390/334, 9-10=-2246/490  
 BOT CHORD 2-16=-246/1844, 15-16=-246/1844, 13-15=-73/1411, 12-13=-265/1764, 10-12=-263/1769  
 WEBS 3-16=0/295, 3-15=-619/215, 5-15=-59/606, 8-13=0/398, 6-8=-49/557, 9-13=-520/208, 9-12=0/349, 5-13=-113/250

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 20-7-0, Exterior(2) 20-7-0 to 24-11-13, Interior(1) 24-11-13 to 28-4-8, Exterior(2) 28-4-8 to 32-9-5, Interior(1) 32-9-5 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 76 lb uplift at joint 2 and 90 lb uplift at joint 10.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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

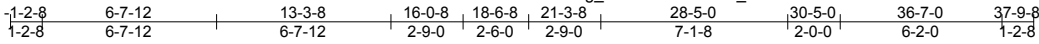
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**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job J0623-3078	Truss A6	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341287
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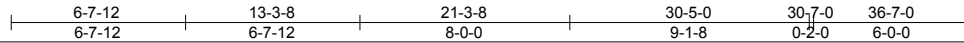
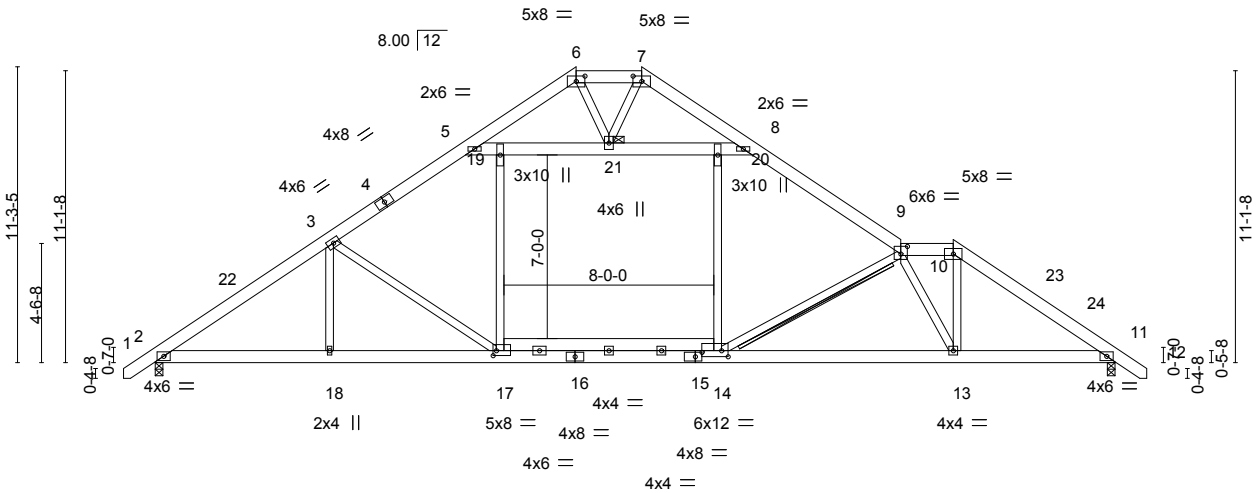


Plate Offsets (X, Y)--	[6:0-4-0,0-2-6], [7:0-4-0,0-2-6], [9:0-3-0,0-3-8], [14:0-3-0,0-2-12], [15:0-3-0,0-2-0], [17:0-1-8,0-2-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.24	13-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.39	13-14	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.06	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.18	13-14	>999		
								Weight: 309 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-9-6 max.): 6-7, 9-10.
WEBS 2x4 SP No.2 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing.
5-8: 2x6 SP No.1	T-Brace: 2x4 SPF No.2 - 9-14
	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): 21

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=272(LC 11)  
 Max Uplift 2=-85(LC 12), 11=-98(LC 13)  
 Max Grav 2=1594(LC 19), 11=1552(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2339/435, 3-5=-1982/477, 5-6=-752/192, 6-7=-673/201, 7-8=-759/195,  
 8-9=-2017/464, 9-10=-1846/441, 10-11=-2342/452  
 BOT CHORD 2-18=-215/2027, 17-18=-215/2027, 14-17=-111/1688, 13-14=-340/2238, 11-13=-251/1836  
 WEBS 3-17=-492/195, 17-19=-21/593, 14-20=-12/707, 9-13=-952/222, 10-13=-112/1045,  
 9-14=-877/285, 5-19=-1122/365, 19-21=-1122/365, 20-21=-1061/355, 8-20=-1061/355,  
 6-21=-56/391, 7-21=-79/302

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 16-0-8, Exterior(2) 16-0-8 to 22-9-14, Interior(1) 22-9-14 to 30-5-0, Exterior(2) 30-5-0 to 34-9-13, Interior(1) 34-9-13 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 85 lb uplift at joint 2 and 98 lb uplift at joint 11.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



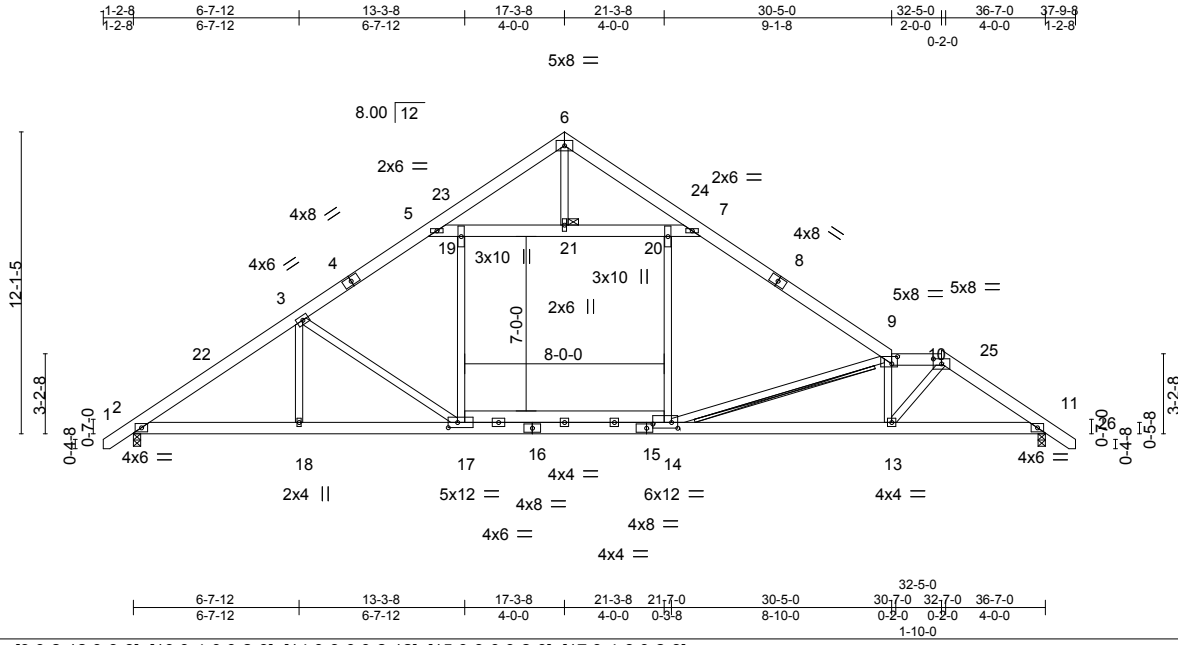


Job J0623-3078	Truss A7	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341288
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:42 2023 Page 1

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Plate Offsets (X,Y)-- [9:0-2-12,0-3-8], [10:0-4-0,0-2-6], [14:0-3-0,0-2-12], [15:0-3-0,0-2-0], [17:0-4-8,0-2-8]

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 0.38	Vert(LL)	-0.30 13-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.47 13-14	>934	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.07 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.22 13-14	>999	240		
								Weight: 306 lb	FT = 20%

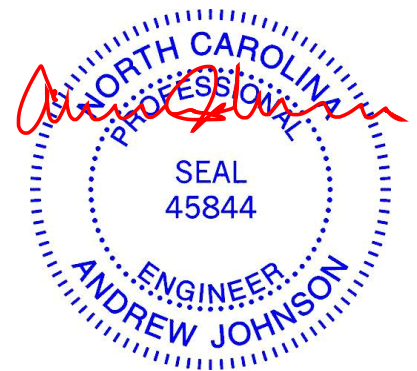
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2 \*Except\*  
5-7: 2x6 SP No.1

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-11-3 oc purlins, except 2-0-0 oc purlins (4-7-10 max.): 9-10.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS T-Brace: 2x4 SPF No.2 - 9-14  
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): 21

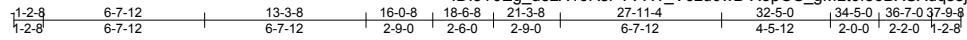
**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
Max Horz 2=-294(LC 10)  
Max Uplift 2=-90(LC 12), 11=-102(LC 13)  
Max Grav 2=1611(LC 19), 11=1564(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2365/404, 3-5=-2055/454, 5-6=-720/137, 6-7=-746/136, 7-9=-2111/430,  
9-10=-2856/559, 10-11=-2381/450  
BOT CHORD 2-18=-184/2063, 17-18=-184/2063, 14-17=-97/1739, 13-14=-390/2769, 11-13=-261/1887  
WEBS 3-17=-495/220, 9-13=-1025/288, 10-13=-246/1539, 9-14=-1289/325, 5-19=-1209/415,  
19-21=-1209/415, 20-21=-1209/415, 7-20=-1209/415, 17-19=-21/588, 14-20=0/686,  
6-21=0/467

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 17-3-8, Exterior(2) 17-3-8 to 21-8-5, Interior(1) 21-8-5 to 32-5-0, Exterior(2) 32-5-0 to 36-9-13, Interior(1) 36-9-13 to 37-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 90 lb uplift at joint 2 and 102 lb uplift at joint 11.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341289
J0623-3078	A8	ROOF SPECIAL GIRDER	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:44 2023 Page 1
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						Job Reference (optional)



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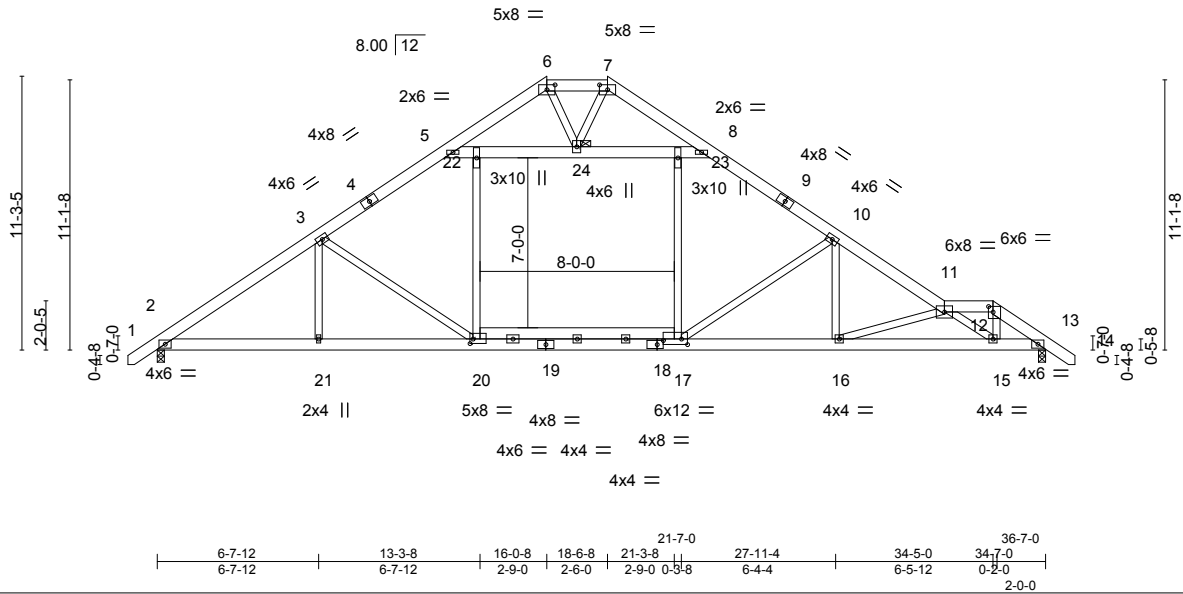


Plate Offsets (X,Y)--	[6:0-4-0,0-2-6], [7:0-4-0,0-2-6], [12:0-2-4,0-2-12], [17:0-3-0,0-2-12], [18:0-3-0,0-2-0], [20:0-1-8,0-2-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.22	16-17	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.36	16-17	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.07	13	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.17	16-17	>999		
								Weight: 315 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-7, 11-12.
WEBS 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
5-8: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 24

REACTIONS.	(size)
Max Horz	2=273(LC 26)
Max Uplift	2=-86(LC 8), 13=-101(LC 9)
Max Grav	2=1595(LC 33), 13=1563(LC 34)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2343/123, 3-5=-1978/151, 5-6=-770/54, 6-7=-692/60, 7-8=-762/57, 8-10=-2021/142, 10-11=-2742/161, 11-12=-1683/79, 12-13=-2245/74
BOT CHORD	2-21=-135/2030, 20-21=-135/2030, 17-20=0/1686, 16-17=-21/2238, 15-16=-133/3325, 13-15=-12/1770
WEBS	3-20=-491/192, 20-22=0/593, 17-23=0/736, 11-15=-2041/152, 12-15=0/1156, 10-17=-920/208, 10-16=0/565, 11-16=-1155/118, 5-22=-1086/173, 22-24=-1086/173, 23-24=-1050/168, 8-23=-1050/168, 7-24=-71/303, 6-24=-60/399

- 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); Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 86 lb uplift at joint 2 and 101 lb uplift at joint 13.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 36 lb up at 34-5-0 on top chord, and 10 lb down at 34-5-0 on bottom 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 + Roof Live (balanced):	Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)	
Vert:	1-6=-60, 6-7=-60, 7-11=-60, 11-12=-60, 12-14=-60, 2-13=-20



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

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

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

818 Soundside Road  
 Edenton, NC 27932

Job J0623-3078	Truss B1	Truss Type HIP GIRDER	Qty 1	Ply 2	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341290
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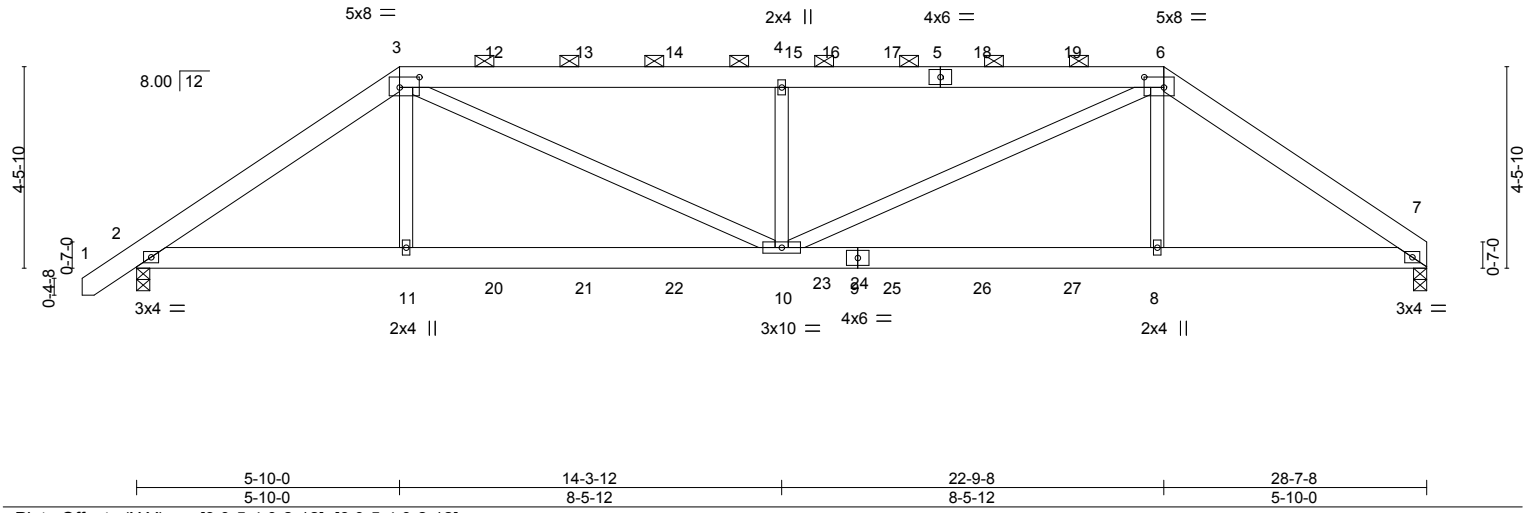
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:46 2023 Page 1

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Scale = 1:51.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.28	Vert(LL) -0.07 10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Vert(CT) -0.13 10-11 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.04 7 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.07 10 >999 240	Weight: 372 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
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 3-6.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8  
 Max Horz 2=106(LC 24)  
 Max Uplift 7=483(LC 9), 2=501(LC 8)  
 Max Grav 7=2100(LC 1), 2=2177(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3447/843, 3-4=-4284/1127, 4-6=-4285/1127, 6-7=-3431/844  
 BOT CHORD 2-11=-732/2755, 10-11=-731/2776, 8-10=-646/2782, 7-8=-647/2761  
 WEBS 3-11=0/714, 3-10=-536/1723, 4-10=-1085/640, 6-10=-536/1720, 6-8=0/716

- 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
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 483 lb uplift at joint 7 and 501 lb uplift at joint 2.
  - 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) 134 lb down and 118 lb up at 5-10-0, 139 lb down and 115 lb up at 7-10-12, 139 lb down and 115 lb up at 9-10-12, 139 lb down and 115 lb up at 11-10-12, 139 lb down and 115 lb up at 13-10-12, 139 lb down and 115 lb up at 14-8-12, 139 lb down and 115 lb up at 16-8-12, 139 lb down and 115 lb up at 18-8-12, and 139 lb down and 115 lb up at 20-8-12, and 134 lb down and 118 lb up at 22-9-8 on top chord, and 329 lb down and 119 lb up at 5-10-0, 73 lb down at 7-10-12, 73 lb down at 9-10-12, 73 lb down at 11-10-12, 73 lb down at 13-10-12, 73 lb down at 14-8-12, 73 lb down at 16-8-12, 73 lb down at 18-8-12, and 73 lb down at 20-8-12, and 329 lb down and 119 lb up at 22-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



March 23, 2023

**LOAD CASE(S)** Standard  
 Continued on page 2

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

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

Job J0623-3078	Truss B1	Truss Type HIP GIRDER	Qty 1	Ply <b>2</b>	Precision/23 Liberty Meadows/Harnett I57341290 Job Reference (optional)
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:47 2023 Page 2  
ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-xNVX40iEeoOE?av67gAXUGL0BD0pn6wo5QObxhzY6dA

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-60, 3-6=-60, 6-7=-60, 2-7=-20

Concentrated Loads (lb)

Vert: 3=-99(F) 6=-99(F) 11=-329(F) 8=-329(F) 12=-99(F) 13=-99(F) 14=-99(F) 15=-99(F) 16=-99(F) 17=-99(F) 18=-99(F) 19=-99(F) 20=-36(F) 21=-36(F) 22=-36(F) 23=-36(F) 24=-36(F) 25=-36(F) 26=-36(F) 27=-36(F)

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

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



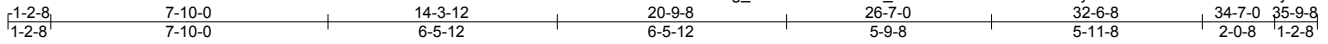
818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss B2	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341291
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:49 2023 Page 1

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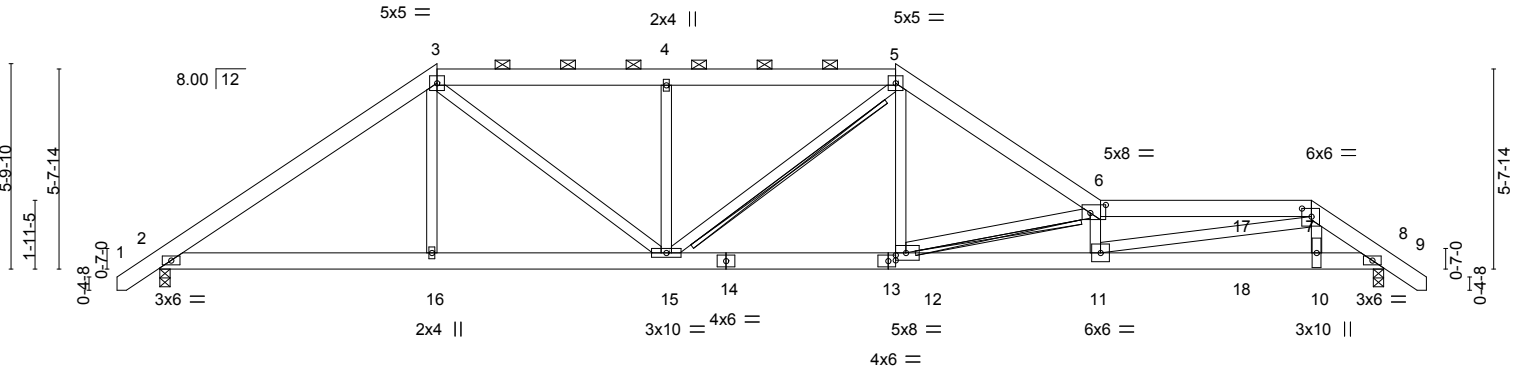


Plate Offsets (X, Y)--	[6:0-5-4,0-2-12], [7:0-3-4,0-2-12], [12:0-3-8,0-2-8], [13:0-2-8,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.51	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.26 11-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.83	Vert(CT) -0.53 11-12 >776 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.07 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.18 11-12 >999 240	Weight: 242 lb	FT = 20%

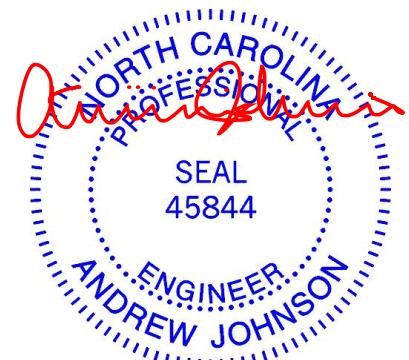
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-5-1 oc purlins, except 2-0-0 oc purlins (3-1-1 max.): 3-5, 6-7.
BOT CHORD 2x6 SP No.1 *Except* 8-13: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 5-15, 6-12 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.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=142(LC 26)  
 Max Uplift 2=-39(LC 8), 8=-93(LC 9)  
 Max Grav 2=1445(LC 1), 8=1445(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2078/53, 3-4=-2225/85, 4-5=-2225/85, 5-6=-2717/82, 6-7=-5290/211, 7-8=-2543/104  
 BOT CHORD 2-16=-78/1610, 15-16=-80/1605, 12-15=0/2203, 11-12=-136/5193, 10-11=-48/1988, 8-10=-42/2029  
 WEBS 3-16=0/325, 3-15=-138/880, 4-15=-451/161, 5-12=0/1051, 6-12=-3058/216, 6-11=-971/107, 7-11=-102/3398, 7-10=0/463

- 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); Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 39 lb uplift at joint 2 and 93 lb uplift at joint 8.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 27 lb up at 30-5-12, and 132 lb down and 62 lb up at 32-6-8 on top chord, and 6 lb down at 30-5-12, and 15 lb down at 32-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 9) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
  - 10) 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



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job J0623-3078	Truss B2	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341291
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:49 2023 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-5=-60, 5-6=-60, 6-7=-60, 7-9=-60, 2-8=-20

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

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



818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss B3	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett	157341292
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:50 2023 Page 1

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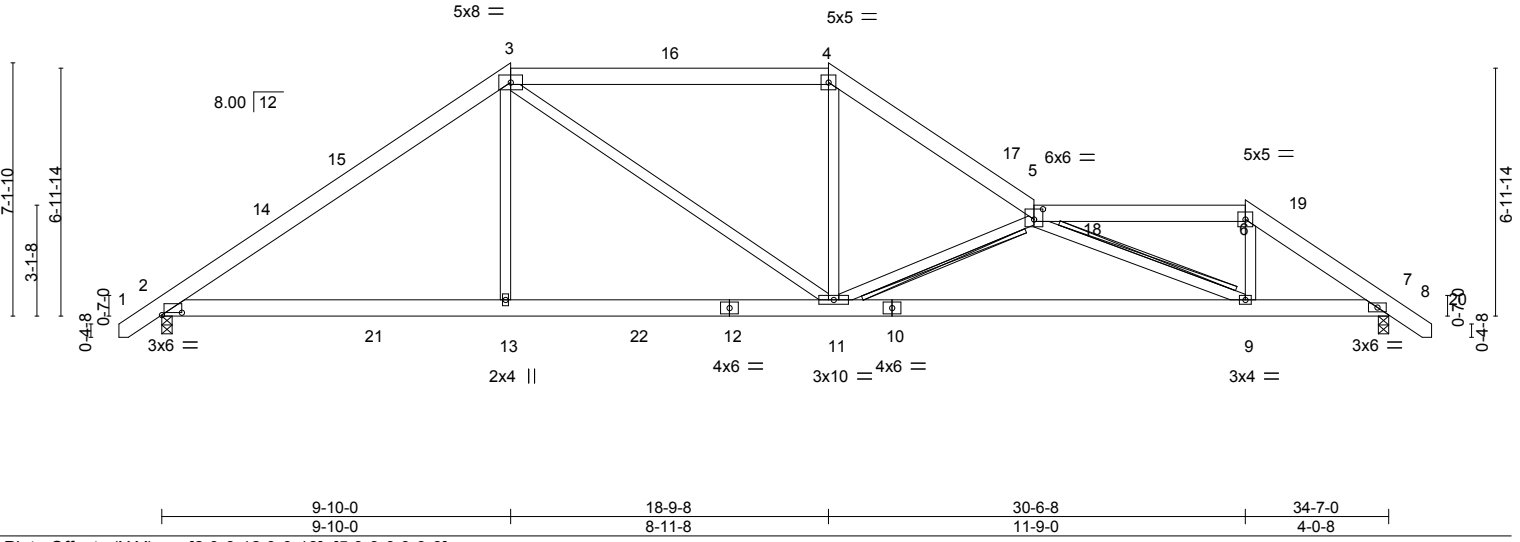


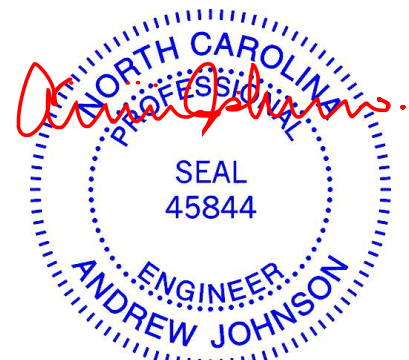
Plate Offsets (X,Y)--	[2:0-6-12,0-0-13], [5:0-3-0,0-3-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.13 9-11 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(CT) -0.32 9-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.50	Horz(CT) 0.07 7 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.08 9-11 >999 240	Weight: 235 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-1-5 max.): 3-4, 5-6.
WEBS 2x4 SP No.2	Rigid ceiling directly applied or 9-1-5 oc bracing.
	T-Brace: 2x4 SPF No.2 - 5-11, 5-9
	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.** (size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=-173(LC 10)  
 Max Uplift 2=-51(LC 12), 7=-96(LC 13)  
 Max Grav 2=1505(LC 2), 7=1445(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2149/449, 3-4=-1823/526, 4-5=-2271/561, 5-6=-1772/419, 6-7=-2282/458  
 BOT CHORD 2-13=-180/1670, 11-13=-182/1658, 9-11=-736/3460, 7-9=-265/1823  
 WEBS 3-13=0/613, 3-11=-100/504, 4-11=-79/842, 5-11=-1798/567, 5-9=-1848/522, 6-9=-86/950

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=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 9-10-0, Exterior(2) 9-10-0 to 14-2-13, Interior(1) 14-2-13 to 18-9-8, Exterior(2) 18-9-8 to 23-2-5, Interior(1) 23-2-5 to 30-6-8, Exterior(2) 30-6-8 to 34-11-5, Interior(1) 34-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 BCCL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 2 and 96 lb uplift at joint 7.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



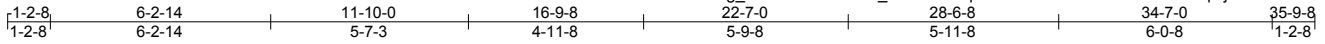
March 23, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341293
J0623-3078	B4	ROOF SPECIAL	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:51 2023 Page 1

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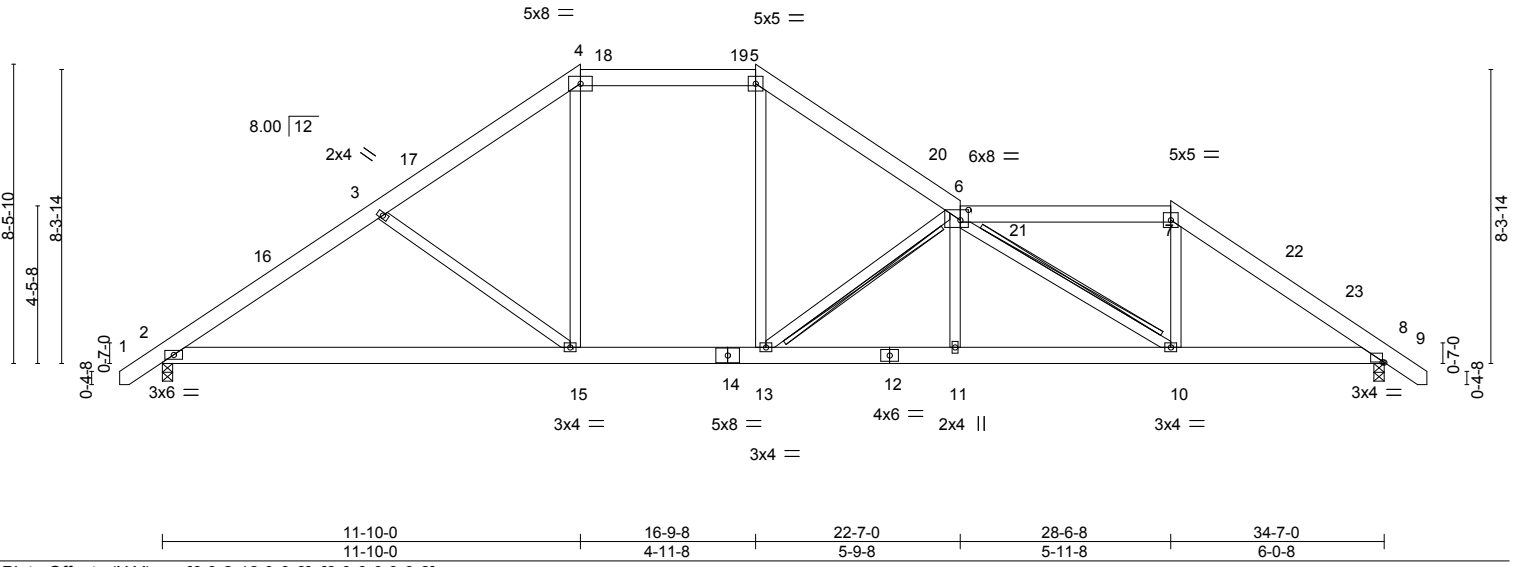


Plate Offsets (X,Y)--	[6:0-2-12,0-3-8], [8:0-0-9,0-0-2]
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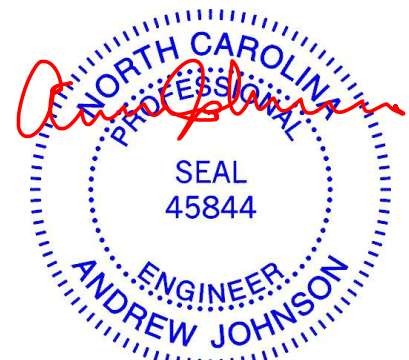
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.24 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.40 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.17 11-13	>999	240	Weight: 244 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-10-12 max.): 4-5, 6-7.
WEBS 2x4 SP No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
	T-Brace: 2x4 SPF No.2 - 6-13, 6-10
	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.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=205(LC 11)  
 Max Uplift 2=64(LC 12), 8=-105(LC 13)  
 Max Grav 2=1445(LC 1), 8=1445(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2081/517, 3-4=-1826/490, 4-5=-1461/471, 5-6=-1871/506, 6-7=-1658/453, 7-8=-2144/481  
 BOT CHORD 2-15=-294/1741, 13-15=-120/1480, 11-13=-476/2661, 10-11=-478/2654, 8-10=-263/1687  
 WEBS 3-15=-366/214, 4-15=-60/610, 5-13=-146/818, 6-13=-1508/446, 6-11=0/290, 6-10=-1216/271, 7-10=-80/807

- 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) and C-C Exterior(2) -1-0-15 to 3-3-14, Interior(1) 3-3-14 to 11-10-0, Exterior(2) 11-10-0 to 16-2-13, Interior(1) 16-2-13 to 16-9-8, Exterior(2) 16-9-8 to 21-2-5, Interior(1) 21-2-5 to 28-6-8, Exterior(2) 28-6-8 to 32-11-5, Interior(1) 32-11-5 to 35-7-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 64 lb uplift at joint 2 and 105 lb uplift at joint 8.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 8) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



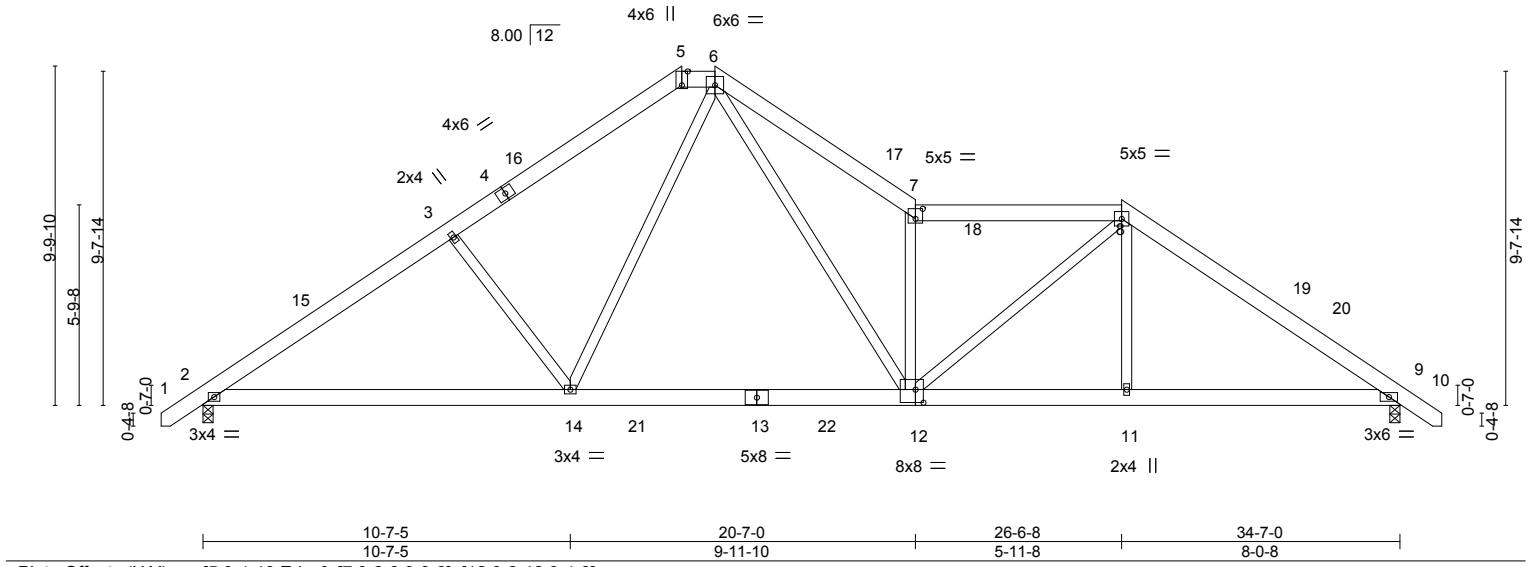


Job J0623-3078	Truss B5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett 157341294
Comtech, Inc. Fayetteville, NC - 28314,					Job Reference (optional)

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1-2-8	7-2-14	13-10-0	14-9-8	20-7-0	26-6-8	34-7-0	35-9-8
1-2-8	7-2-14	6-7-3	0-11-8	5-9-8	5-11-8	8-0-8	1-2-8

Scale = 1:66.6



<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 0.34	Vert(LL)	-0.22 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.36 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.09 12-14	>999	240	Weight: 248 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-5-0 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-3-2 max.): 5-6, 7-8.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 9=0-3-8  
 Max Horz 2=237(LC 11)  
 Max Uplift 2=-75(LC 12), 9=-112(LC 13)  
 Max Grav 2=1461(LC 19), 9=1445(LC 1)

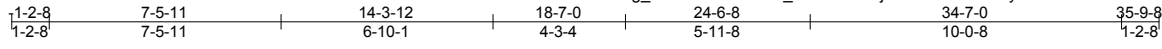
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2074/448, 3-5=-1866/484, 5-6=-1544/480, 6-7=-2712/753, 7-8=-2168/541, 8-9=-2067/449  
 BOT CHORD 2-14=-226/1774, 12-14=-45/1312, 11-12=-208/1594, 9-11=-207/1599  
 WEBS 3-14=-364/250, 6-14=-81/696, 6-12=-463/1767, 7-12=-1787/570, 8-12=-124/879, 8-11=0/301

- 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 13-10-0, Exterior(2) 13-10-0 to 19-2-5, Interior(1) 19-2-5 to 26-6-8, Exterior(2) 26-6-8 to 30-11-5, Interior(1) 30-11-5 to 35-7-15 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 2 and 112 lb uplift at joint 9.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 23, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341295
J0623-3078	B6	ROOF SPECIAL	1	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:54 2023 Page 1
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						Job Reference (optional)



Scale = 1:74.3

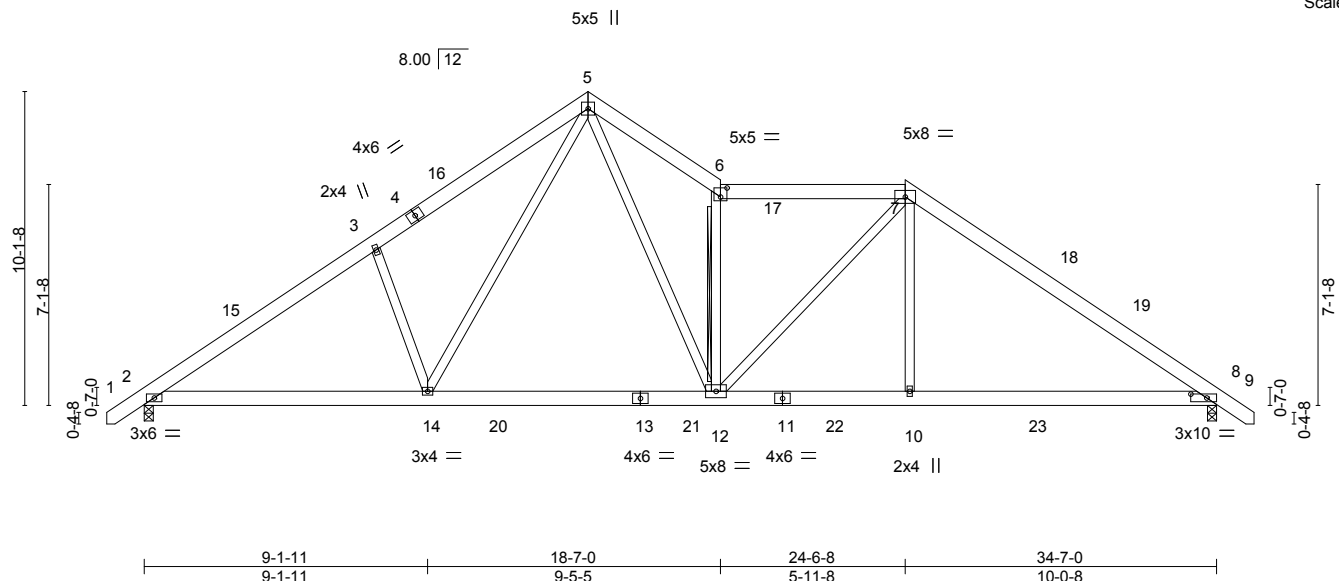


Plate Offsets (X,Y)--	[6:0-2-8,0-3-8], [8:0-6-3,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.48	Vert(LL) -0.18 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.69	Vert(CT) -0.28 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 8-10 >999 240	Weight: 253 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-3-8 oc purlins, except 2-0-0 oc purlins (5-5-7 max.): 6-7.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS T-Brace: 2x4 SPF No.2 - 6-12
	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.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=246(LC 11)  
 Max Uplift 2=-78(LC 12), 8=-113(LC 13)  
 Max Grav 2=1551(LC 19), 8=1599(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2273/436, 3-5=-2172/553, 5-6=-2397/642, 6-7=-2005/485, 7-8=-2243/428  
 BOT CHORD 2-14=-211/1950, 12-14=-30/1420, 10-12=-161/1757, 8-10=-160/1766  
 WEBS 3-14=-477/288, 5-14=-181/837, 5-12=-371/1629, 6-12=-1501/461, 7-12=-56/452, 7-10=0/507

- 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 14-3-12, Exterior(2) 14-3-12 to 18-7-0, Interior(1) 18-7-0 to 24-6-8, Exterior(2) 24-6-8 to 28-11-5, Interior(1) 28-11-5 to 35-7-15 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 113 lb uplift at joint 8.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

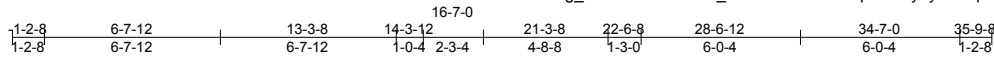


Job J0623-3078	Truss B7	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341296
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Comtech, Inc. Fayetteville, NC - 28314,

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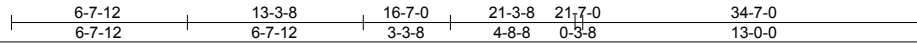
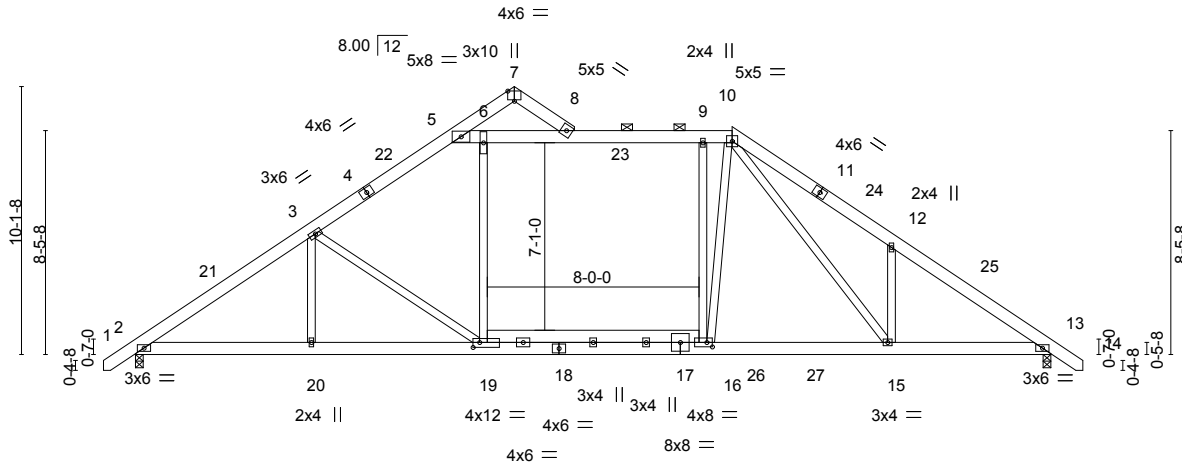


Plate Offsets (X,Y)--	[7:0-3-0,Edge], [16:0-2-8,0-2-0], [19:0-3-0,0-2-4]
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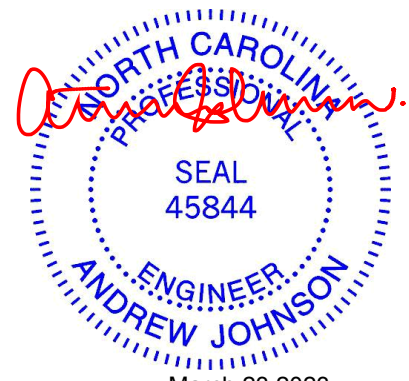
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.29	15-16	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.42	15-16	>981		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.06	13	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.14	15-16	>999		
								Weight: 283 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (5-4-1 max.): 5-10.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 13=0-3-8  
 Max Horz 2=246(LC 11)  
 Max Uplift 2=-78(LC 12), 13=-113(LC 13)  
 Max Grav 2=1561(LC 19), 13=1581(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2239/411, 3-5=-1946/447, 5-6=-1615/445, 6-8=-1615/445, 8-9=-1679/451,  
 9-10=-1683/456, 10-12=-2406/617, 12-13=-2399/437  
 BOT CHORD 2-20=-199/1908, 19-20=-199/1908, 16-19=-101/1743, 15-16=-90/1645, 13-15=-239/1893  
 WEBS 6-19=0/503, 9-16=-313/274, 3-19=-414/204, 12-15=-392/265, 10-15=-249/681,  
 10-16=-235/679

- 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 14-3-12, Exterior(2) 14-3-12 to 16-7-0, Interior(1) 16-7-0 to 22-6-8, Exterior(2) 22-6-8 to 26-11-5, Interior(1) 26-11-5 to 35-7-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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 78 lb uplift at joint 2 and 113 lb uplift at joint 13.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

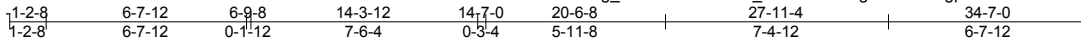


Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341297
J0623-3078	B8	ROOF SPECIAL	1	1	Job Reference (optional)	

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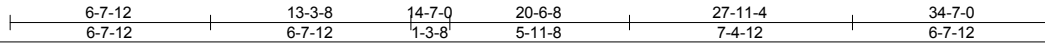
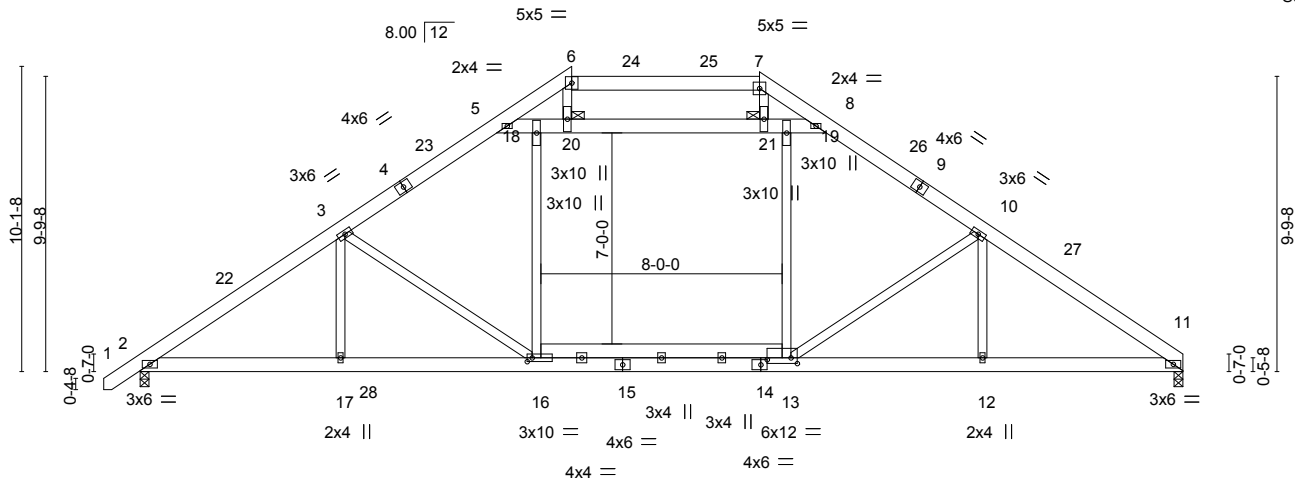


Plate Offsets (X,Y)--	[13:0-2-8,0-2-4], [14:0-2-8,0-2-0], [16:0-2-0,0-1-8]
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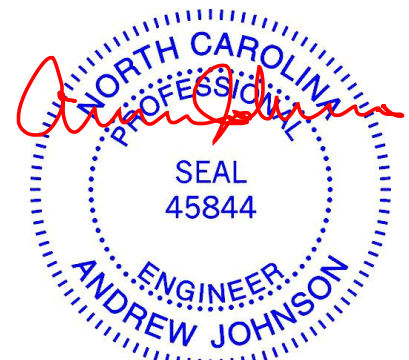
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.72	Vert(LL) -0.24 16-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.70	Vert(CT) -0.28 16-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.12 12-13 >999 240	Weight: 284 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-15 oc purlins, except
BOT CHORD 2x6 SP No.1	2-0-0 oc purlins (6-0-0 max.): 6-7.
WEBS 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
5-8: 2x6 SP No.1	JOINTS 1 Brace at Jt(s): 20, 21

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=234(LC 9)  
 Max Uplift 2=-78(LC 12), 11=-59(LC 13)  
 Max Grav 2=1673(LC 19), 11=1495(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2540/436, 3-5=-1997/454, 5-6=-1189/292, 6-7=-974/272, 7-8=-1265/300, 8-10=-1962/462, 10-11=-2279/447  
 BOT CHORD 2-17=-259/2169, 16-17=-259/2169, 13-16=-119/1620, 12-13=-263/1798, 11-12=-263/1798  
 WEBS 3-17=0/314, 16-18=-14/763, 13-19=-25/607, 3-16=-668/190, 10-12=0/261, 10-13=-547/195, 5-18=-620/210, 18-20=-620/210, 20-21=-652/212, 19-21=-608/213, 8-19=-608/213, 6-20=-16/444, 7-21=-20/528

- 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 14-3-12, Exterior(2) 14-3-12 to 18-8-9, Interior(1) 18-8-9 to 20-6-8, Exterior(2) 20-6-8 to 24-11-5, Interior(1) 24-11-5 to 34-5-4 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 59 lb uplift at joint 11.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 23, 2023

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

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

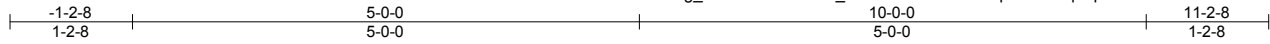
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341298
J0623-3078	C1SG	GABLE	1	1	Job Reference (optional)	

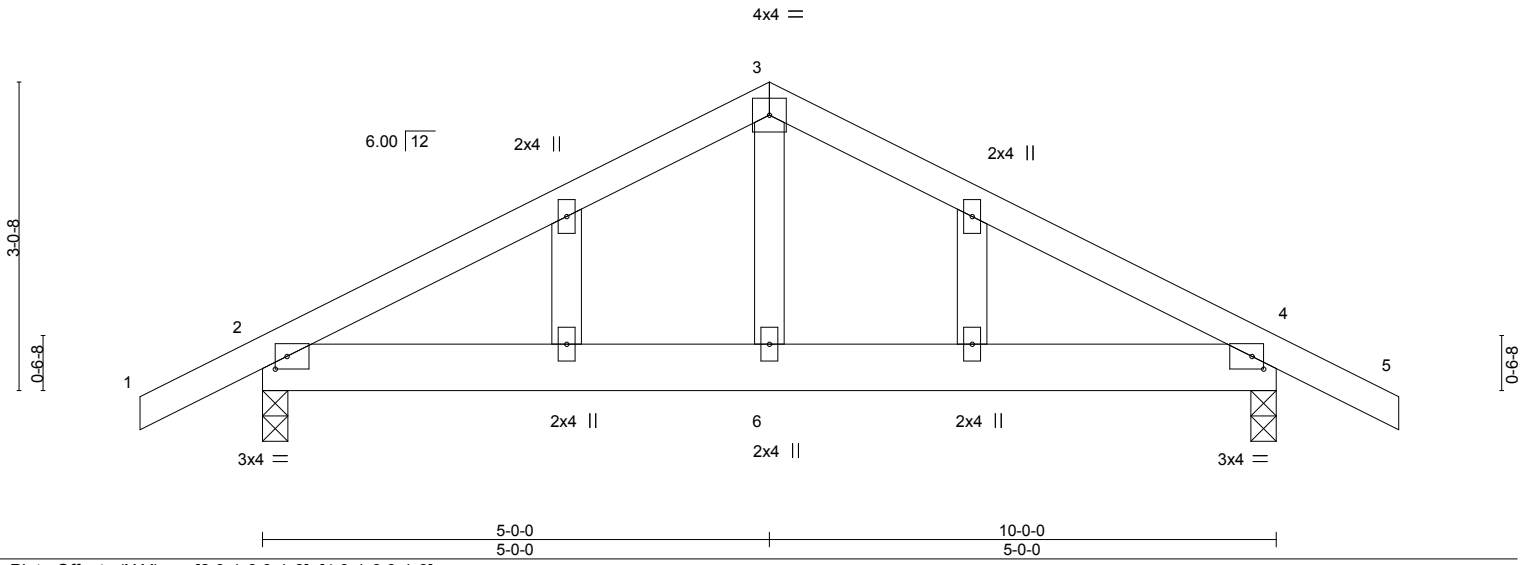
Comtech, Inc. Fayetteville, NC - 28314,

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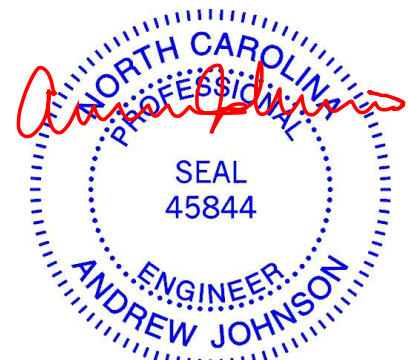
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) 0.02 4-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.01 4-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
	Code IRC2015/TPI2014			Weight: 52 lb	FT = 20%

LUMBER-	BRACING-
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=0-3-0, 4=0-3-0  
 Max Horz 2=63(LC 16)  
 Max Uplift 2=-121(LC 9), 4=-121(LC 8)  
 Max Grav 2=470(LC 1), 4=470(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-515/590, 3-4=-515/590  
 BOT CHORD 2-6=-397/387, 4-6=-397/387  
 WEBS 3-6=-326/240

- 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; porch left and right exposed; 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) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* 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.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 121 lb uplift at joint 4.



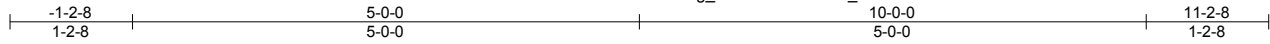
March 23, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341299
J0623-3078	C2	COMMON	4	1		

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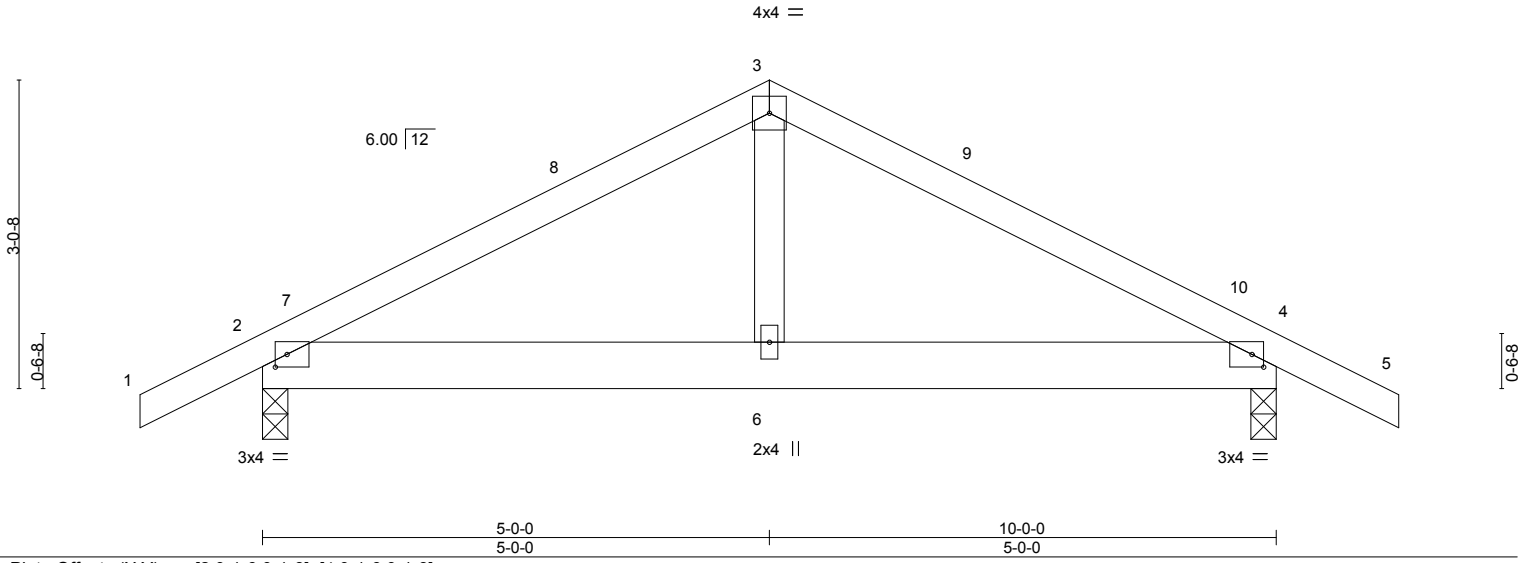


Plate Offsets (X,Y)-- [2:0-1-6,0-1-8], [4:0-1-6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(LL) -0.01 6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.01 4-6 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.02 4-6 >999 240	Weight: 48 lb	FT = 20%

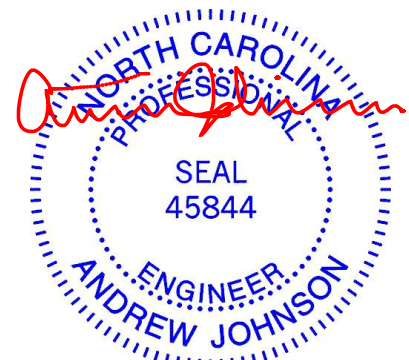
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
 Max Horz 2=40(LC 11)  
 Max Uplift 2=-91(LC 9), 4=-91(LC 8)  
 Max Grav 2=470(LC 1), 4=470(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-515/568, 3-4=-515/568  
 BOT CHORD 2-6=-376/387, 4-6=-376/387  
 WEBS 3-6=-327/240

**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 5-0-0, Exterior(2) 5-0-0 to 9-4-13, Interior(1) 9-4-13 to 11-2-8 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
- 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 91 lb uplift at joint 2 and 91 lb uplift at joint 4.



March 23, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</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 J0623-3078	Truss P1	Truss Type ROOF SPECIAL	Qty 7	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341300
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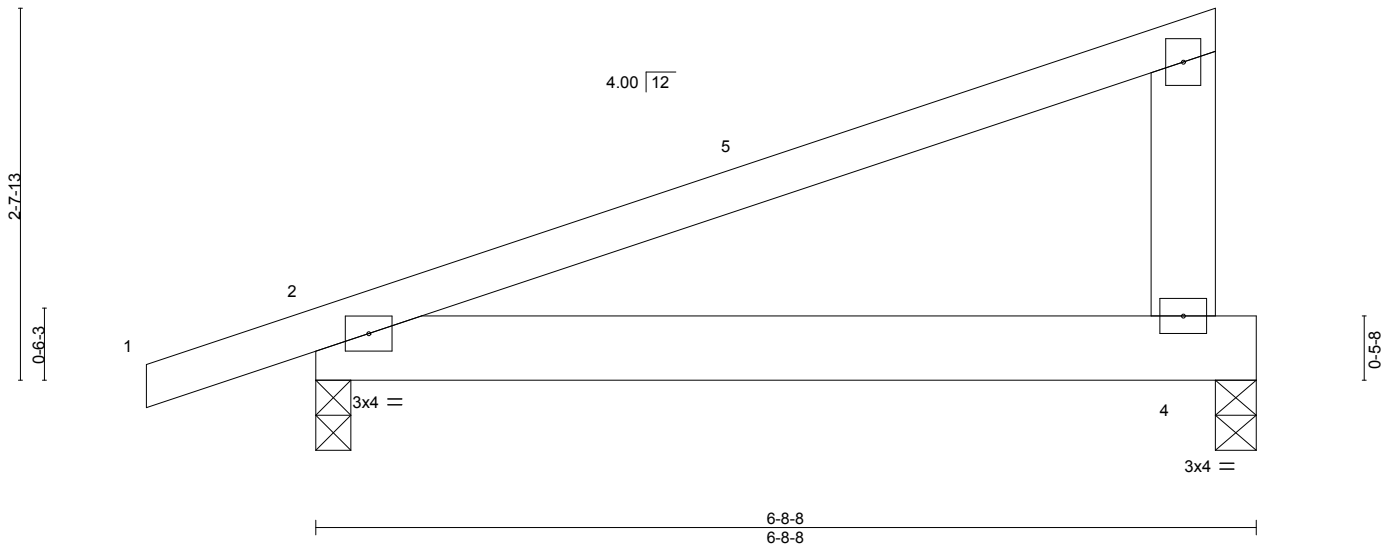
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:01 2023 Page 1

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6-5-0 6-5-0



3x4 || 3 Scale = 1:16.4



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 0.57	Vert(LL)	-0.02 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.04 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.04 2-4	>999	240	Weight: 32 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 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) 4=0-3-8, 2=0-3-0  
Max Horz 2=85(LC 8)  
Max Uplift 4=294(LC 8), 2=134(LC 8)  
Max Grav 4=734(LC 1), 2=331(LC 1)

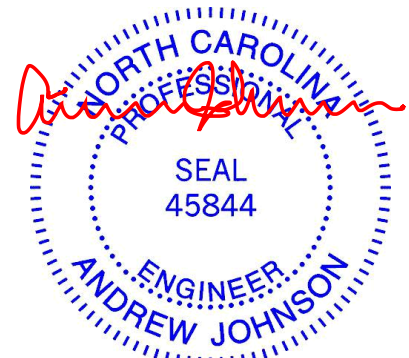
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 6-2-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 294 lb uplift at joint 4 and 134 lb uplift at joint 2.
- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 500 lb down and 669 lb up at 6-2-4 on bottom 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 2-4=-20  
Concentrated Loads (lb)  
Vert: 4=500(F)



March 23, 2023

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



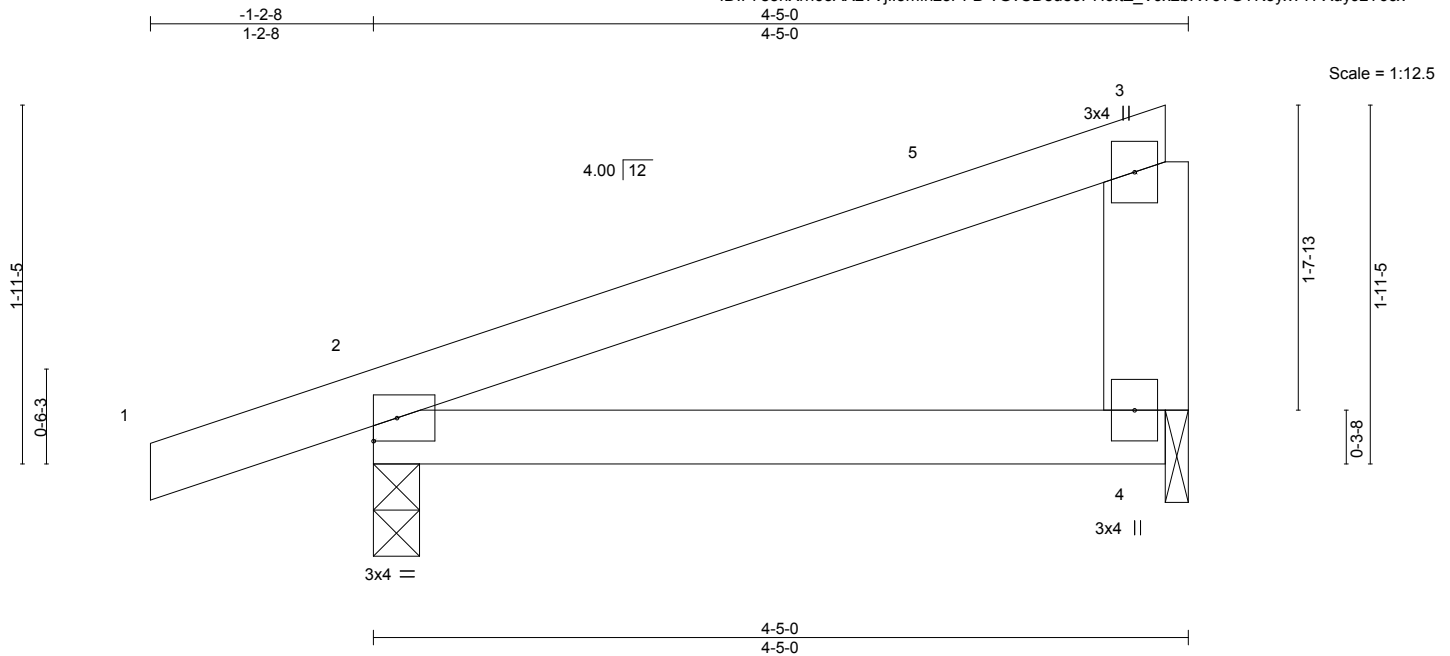
818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss P2	Truss Type MONOPICH	Qty 10	Ply 1	Precision/23 Liberty Meadows/Harnett	I57341301
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ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-?GvCD8ue6PH6ItZ\_VJx2bRTcTGyKoyx?YFXuyJzY6cx



Scale = 1:12.5

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 0.18	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03 2-4	>999	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)	0.03 2-4	>999	240	Weight: 18 lb	FT = 20%

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

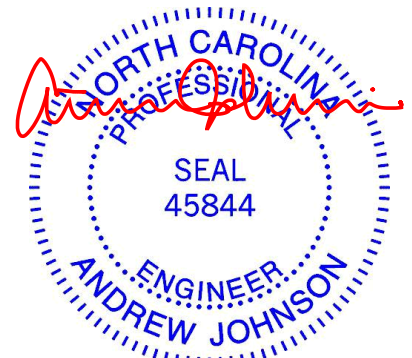
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-5-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8  
 Max Horz 2=62(LC 8)  
 Max Uplift 2=-109(LC 8), 4=-65(LC 8)  
 Max Grav 2=256(LC 1), 4=149(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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-2-4 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 109 lb uplift at joint 2 and 65 lb uplift at joint 4.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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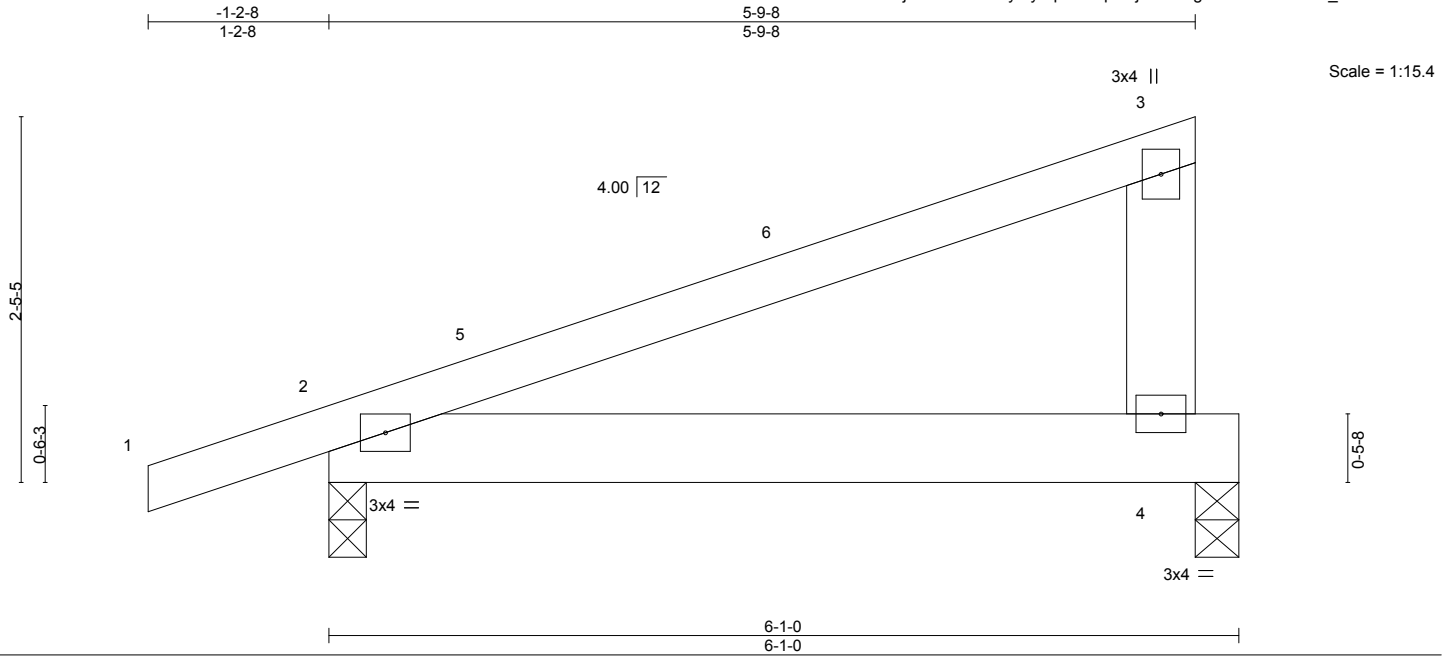


Job J0623-3078	Truss P3	Truss Type MONOPICH	Qty 3	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341302
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:04 2023 Page 1

ID:F7e3nXrh6oAXz?Vjil5mfhz3PFB-yf1yeqvve0XpXBjNdkzWgsYvs4FIGrQIOZ0\_0BzY6cv  
5-9-8 5-9-8



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 0.38	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02 2-4	>999	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)	0.03 2-4	>999	240	Weight: 29 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-3-8, 2=0-3-0  
Max Horz 2=78(LC 8)  
Max Uplift 4=90(LC 8), 2=127(LC 8)  
Max Grav 4=208(LC 1), 2=307(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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-6-12 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 4 and 127 lb uplift at joint 2.



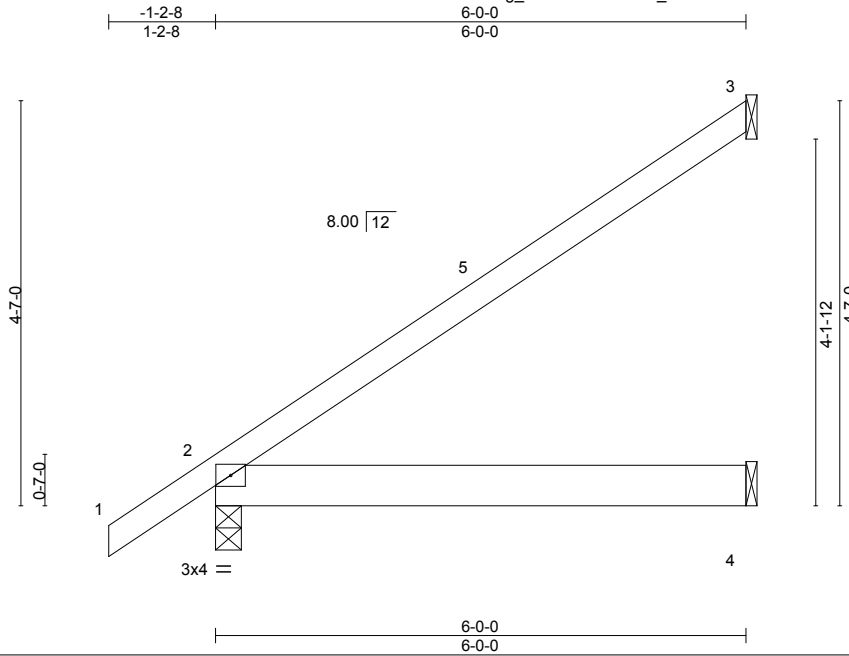
March 23, 2023

Job J0623-3078	Truss XA1	Truss Type JACK-OPEN	Qty 14	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341303
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:05 2023 Page 1

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Scale = 1:26.1

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 0.51	Vert(LL)	-0.02 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.03 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240		
								Weight: 27 lb	FT = 20%

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

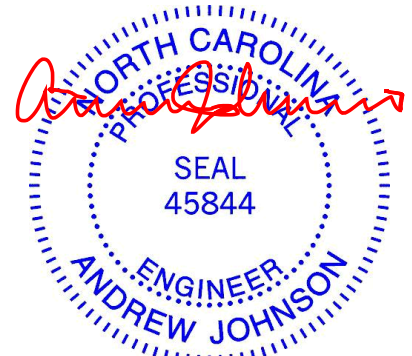
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=151(LC 12)  
Max Uplift 3=105(LC 12)  
Max Grav 3=184(LC 19), 2=322(LC 1), 4=116(LC 3)

**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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 5-11-4 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 105 lb uplift at joint 3.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



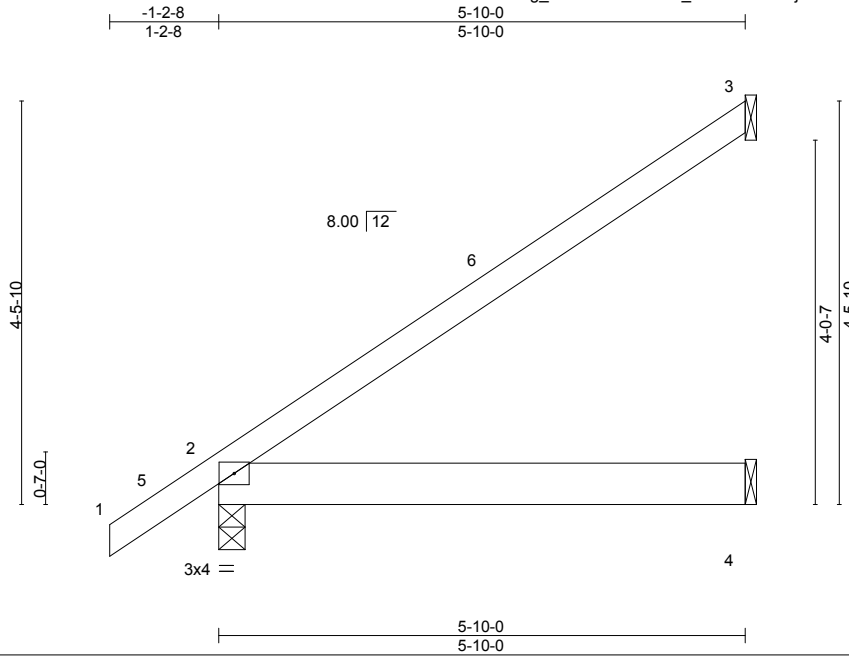
818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss XB1	Truss Type JACK-OPEN	Qty 10	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341304
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:06 2023 Page 1

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Scale = 1:25.5

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 0.49	Vert(LL)	-0.01 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.03 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240		
								Weight: 27 lb	FT = 20%

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

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=147(LC 12)  
Max Uplift 3=-102(LC 12)  
Max Grav 3=178(LC 19), 2=316(LC 1), 4=113(LC 3)

**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; TC DL=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 5-9-4 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 102 lb uplift at joint 3.



March 23, 2023

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

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Job J0623-3078	Truss XB2	Truss Type JACK-OPEN	Qty 2	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341305
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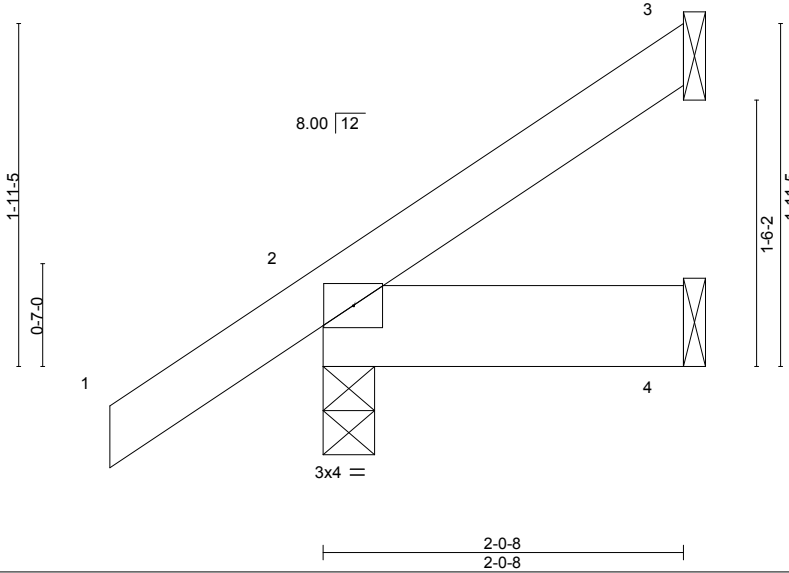
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:07 2023 Page 1

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Scale = 1:13.1



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 0.09	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	2	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****		
								Weight: 11 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=65(LC 12)  
Max Uplift 3=-29(LC 12), 2=-16(LC 12)  
Max Grav 3=34(LC 19), 2=185(LC 1), 4=37(LC 3)

**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) 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 29 lb uplift at joint 3 and 16 lb uplift at joint 2.



March 23, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss YA1	Truss Type JACK-OPEN	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341306
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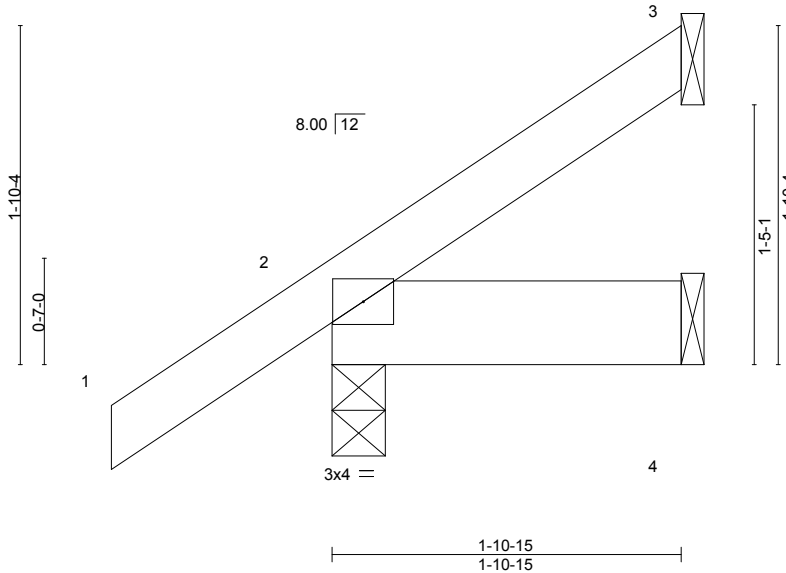
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:08 2023 Page 1

ID:3YJEG\_u8zX16RsP?VvW\_V6zd0wB-qQGTUCyPiF2F0o08sa2SqqjeedrCfQtwB\_C9zzY6cr



Scale = 1:12.6



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 0.08	Vert(LL)	-0.00	2 >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	2 >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2 ****	240		
								Weight: 10 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=63(LC 12)  
Max Uplift 3=-29(LC 12), 2=-15(LC 12)  
Max Grav 3=40(LC 19), 2=174(LC 1), 4=37(LC 3)

**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) 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 29 lb uplift at joint 3 and 15 lb uplift at joint 2.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss YA2	Truss Type JACK-OPEN	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341307
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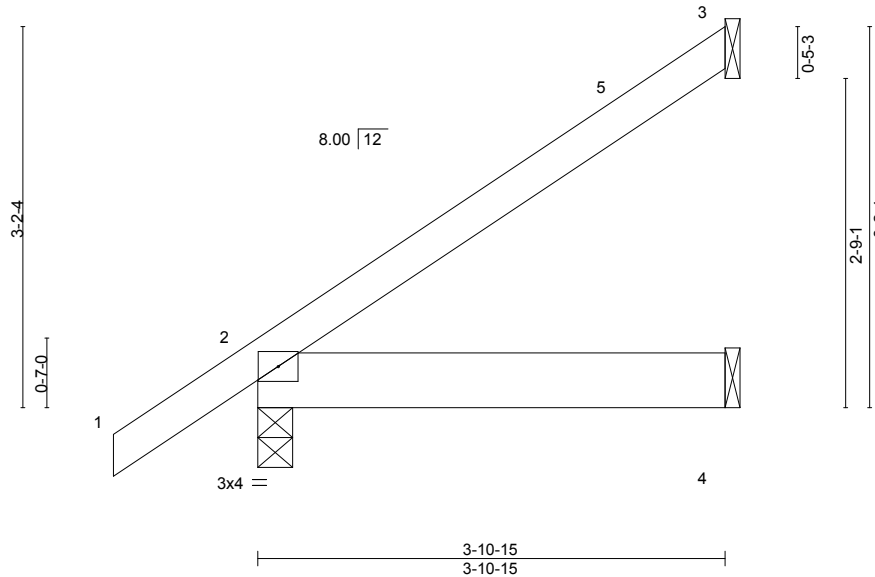
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:09 2023 Page 1

ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-IcqrhYz1TYA6eybLPiZhNvGnG5zUx6g19rjhhPzY6cq



Scale = 1:19.3



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 0.21	Vert(LL)	-0.00 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.01 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240		
								Weight: 19 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=106(LC 12)  
Max Uplift 3=-66(LC 12), 2=-6(LC 12)  
Max Grav 3=110(LC 19), 2=244(LC 1), 4=74(LC 3)

**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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-10-3 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 66 lb uplift at joint 3 and 6 lb uplift at joint 2.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss YA3	Truss Type Half Hip Girder	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341308
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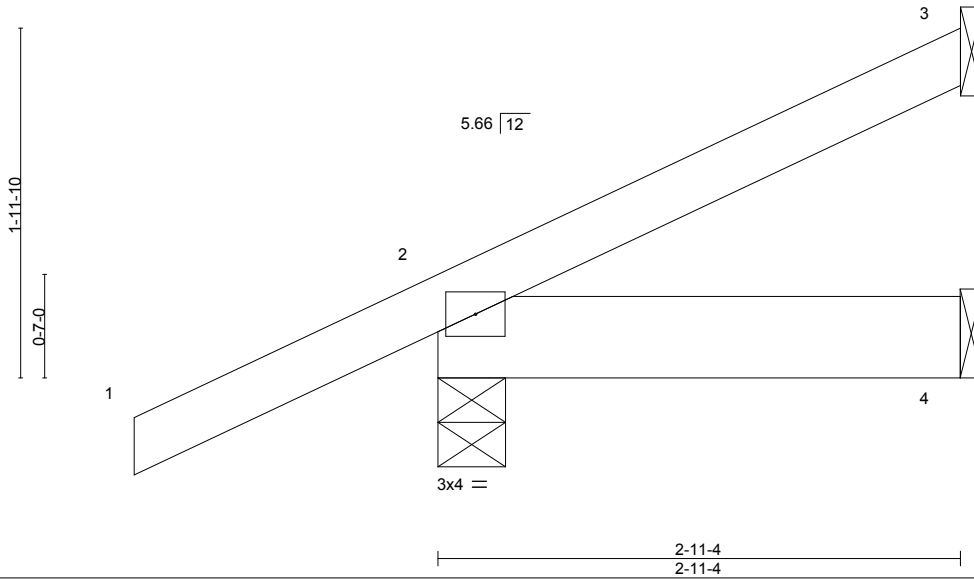
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:10 2023 Page 1

ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-moODvt\_gDszG6AXz74ww7ozUUJ6gZvAOVTJErzY6cp



Scale = 1:13.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.18	Vert(LL)	-0.00	2	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****		
	Code IRC2015/TPI2014						Weight: 15 lb	FT = 20%

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

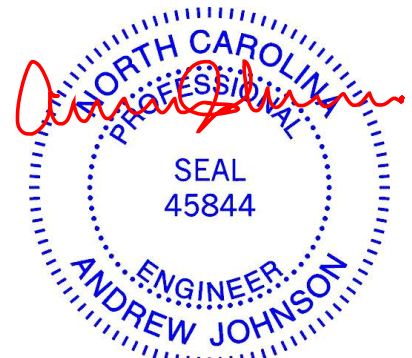
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-9, 4=Mechanical  
Max Horz 2=66(LC 12)  
Max Uplift 3=-31(LC 12), 2=-34(LC 12)  
Max Grav 3=40(LC 1), 2=262(LC 1), 4=54(LC 3)

**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) 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 31 lb uplift at joint 3 and 34 lb uplift at joint 2.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



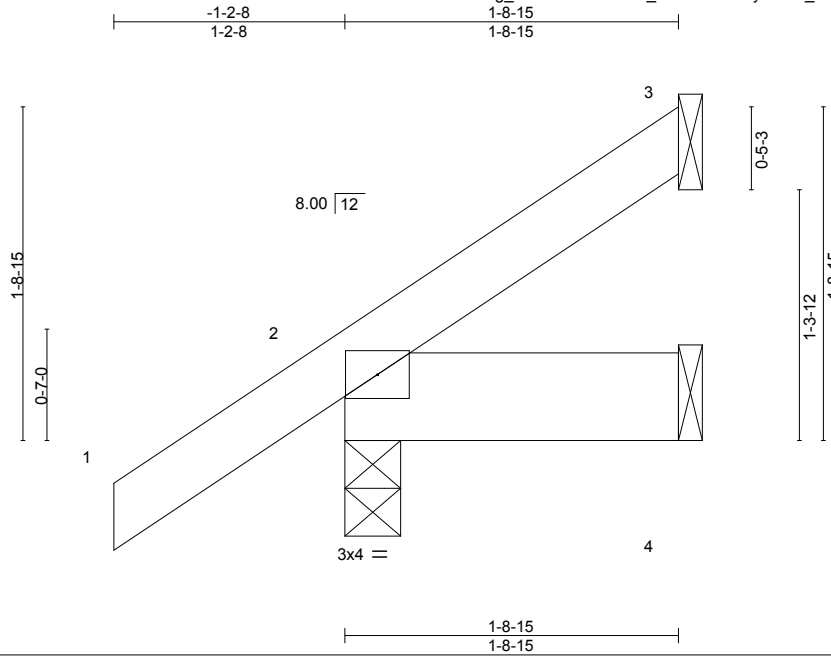
818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss YB1	Truss Type JACK-OPEN	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341309
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:11 2023 Page 1

ID:3YJEG\_u8zX16RsP?VvW\_V6zd0wB-E?yc6D?l\_AQqtGjXicASKL9tufaP09Kd9CsmHzY6co



Scale: 1"=1'

<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 0.08	Vert(LL)	-0.00	2 >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	2 >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3 n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2 ****	240		
								Weight: 10 lb	FT = 20%

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

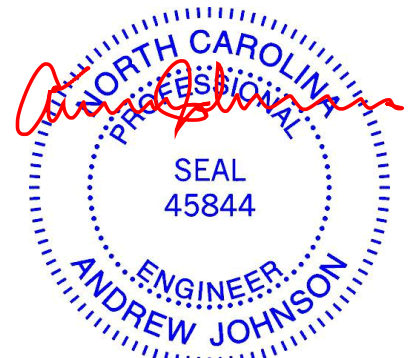
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-8-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=60(LC 12)  
Max Uplift 3=-25(LC 12), 2=-17(LC 12)  
Max Grav 3=32(LC 19), 2=169(LC 1), 4=34(LC 3)

**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) 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 25 lb uplift at joint 3 and 17 lb uplift at joint 2.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

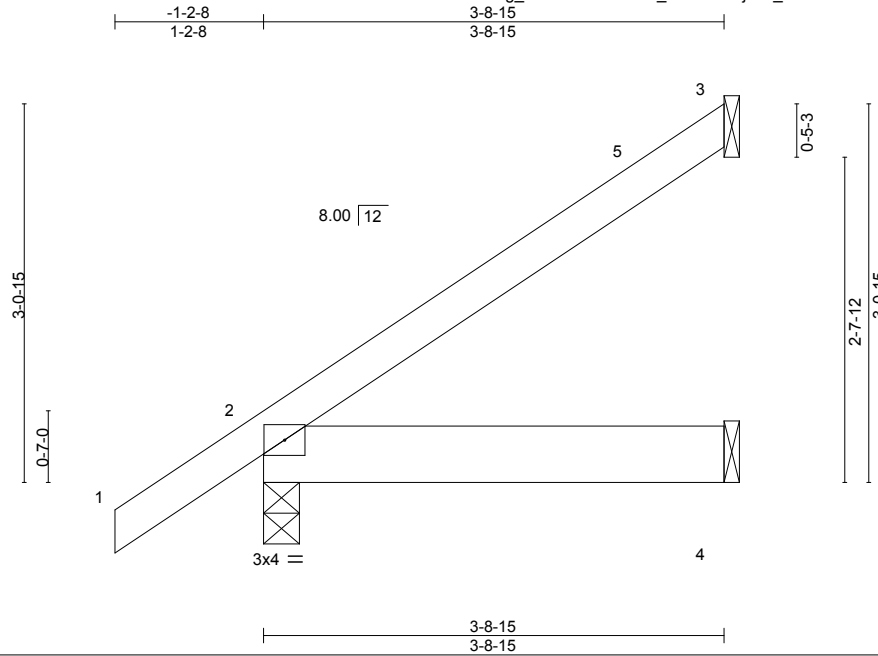


Job J0623-3078	Truss YB2	Truss Type JACK-OPEN	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett 157341310
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:12 2023 Page 1

ID:3YJEq\_u8zX16RsP?VvW\_V6zd0wB-jBW\_KZ?wTYhVPKv5Q7P?Yulnl?G8TPTroyQlkzY6cn



Scale = 1:18.7

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 0.19	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240		
									Weight: 18 lb	FT = 20%

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

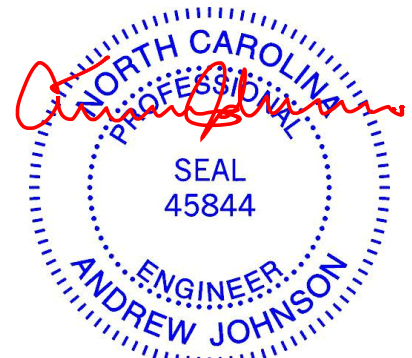
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=102(LC 12)  
Max Uplift 3=-63(LC 12), 2=-7(LC 12)  
Max Grav 3=104(LC 19), 2=238(LC 1), 4=71(LC 3)

**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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-8-3 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 63 lb uplift at joint 3 and 7 lb uplift at joint 2.



March 23, 2023

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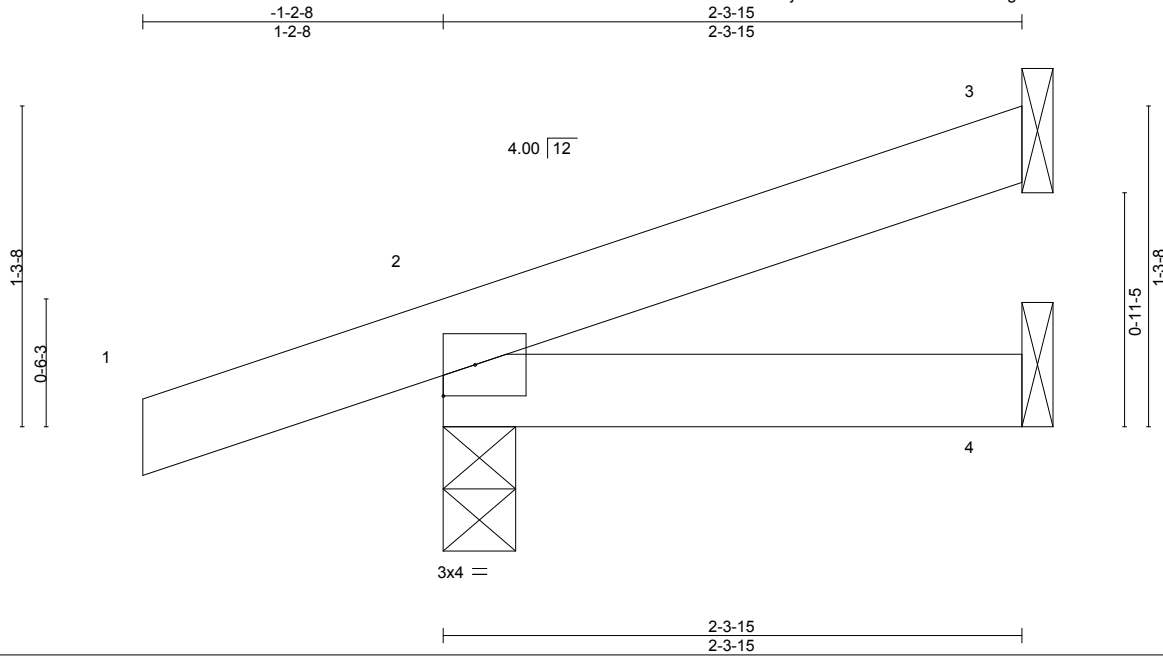


818 Soundside Road  
Edenton, NC 27932

Job J0623-3078	Truss YP1	Truss Type JACK-OPEN	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341311
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:13 2023 Page 1  
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Scale = 1:9.3

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 0.09	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240		
									Weight: 9 lb	FT = 20%

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

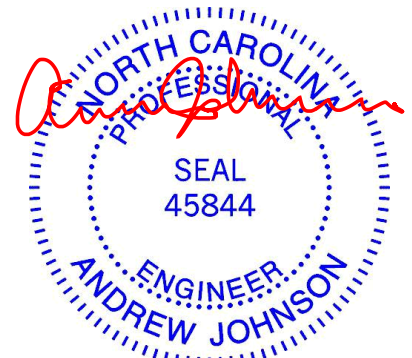
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-3-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=41(LC 8)  
Max Uplift 3=-23(LC 12), 2=-67(LC 8)  
Max Grav 3=38(LC 1), 2=192(LC 1), 4=42(LC 3)

**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) 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 23 lb uplift at joint 3 and 67 lb uplift at joint 2.



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

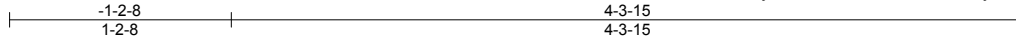
Job J0623-3078	Truss YP2	Truss Type JACK-OPEN	Qty 2	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341312
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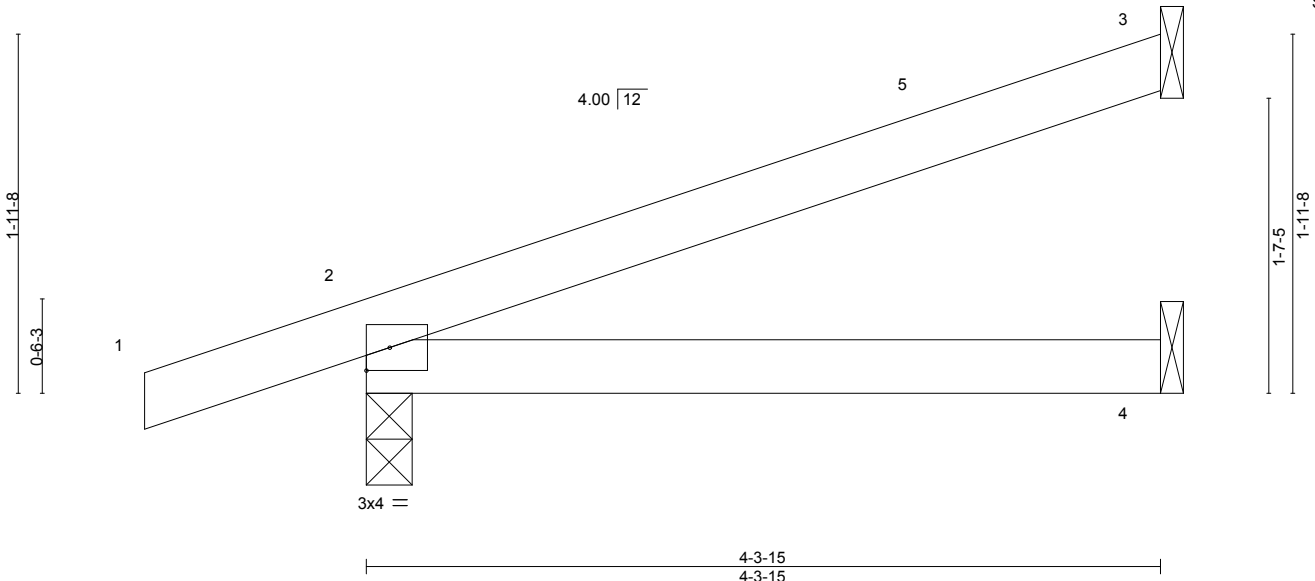
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:14 2023 Page 1

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4-3-15  
4-3-15



Scale = 1:12.6



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 0.19	Vert(LL)	-0.02 2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03 2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 2	****	240	Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-0, 4=Mechanical  
Max Horz 2=62(LC 8)  
Max Uplift 3=-50(LC 12), 2=-63(LC 8)  
Max Grav 3=111(LC 1), 2=259(LC 1), 4=83(LC 3)

**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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-3-3 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 50 lb uplift at joint 3 and 63 lb uplift at joint 2.



March 23, 2023

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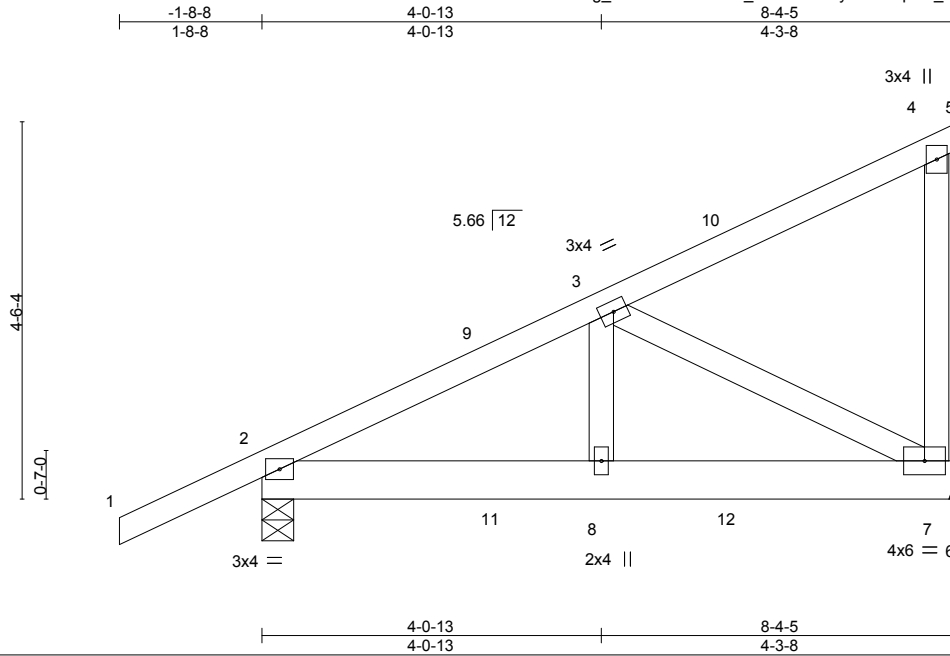


Job J0623-3078	Truss ZA1	Truss Type DIAGONAL HIP GIRDER	Qty 2	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341313
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:16 2023 Page 1

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Scale = 1:27.6

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 0.21	Vert(LL)	-0.00 7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01 7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.15	Horz(CT)	0.00 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00 8	>999	240		
								Weight: 51 lb	FT = 20%

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

**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) 7=Mechanical, 2=0-4-9  
 Max Horz 2=150(LC 8)  
 Max Uplift 7=-110(LC 8), 2=-50(LC 8)  
 Max Grav 7=353(LC 29), 2=456(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-523/31  
 BOT CHORD 2-8=-118/381, 7-8=-118/381  
 WEBS 3-7=-430/133

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 110 lb uplift at joint 2.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 33 lb up at 2-9-8, 75 lb down and 33 lb up at 2-9-8, and 107 lb down and 84 lb up at 5-7-7, and 107 lb down and 84 lb up at 5-7-7 on top chord, and 2 lb down at 2-9-8, 2 lb down at 2-9-8, and 20 lb down at 5-7-7, and 20 lb down at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-20, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 10=-23(F=-11, B=-11) 12=-17(F=-9, B=-9)



March 23, 2023

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

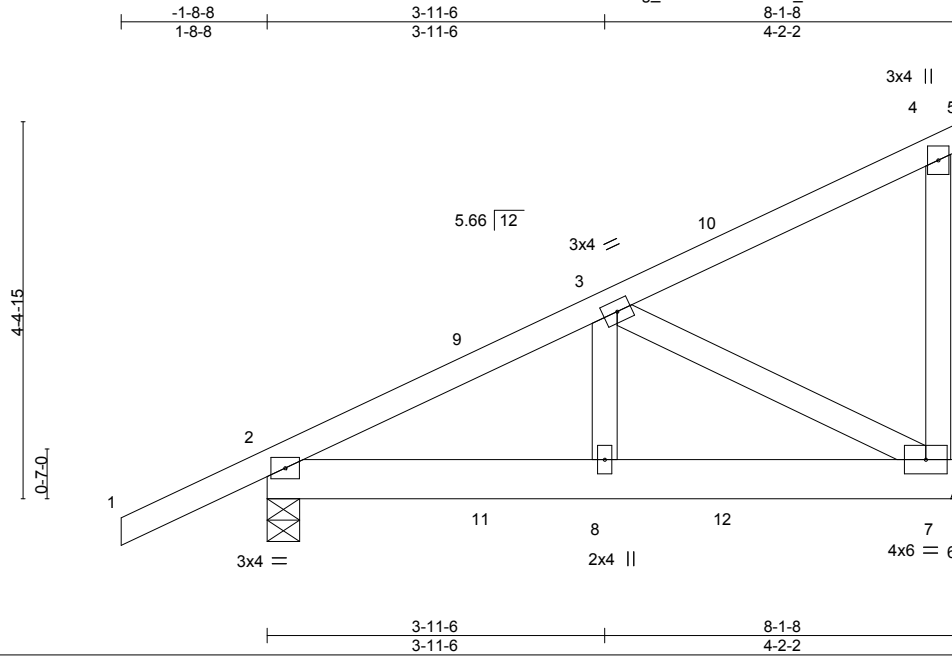


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341314
J0623-3078	ZB1	DIAGONAL HIP GIRDER	2	1	Job Reference (optional)	

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:17 2023 Page 1  
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Scale = 1:27.0

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 0.21	Vert(LL)	-0.00	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	8	>999	240		
									Weight: 49 lb	FT = 20%

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

**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) 7=Mechanical, 2=0-4-9  
 Max Horz 2=146(LC 8)  
 Max Uplift 7=-104(LC 8), 2=-48(LC 8)  
 Max Grav 7=336(LC 29), 2=443(LC 1)

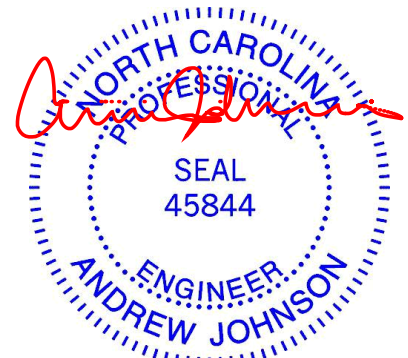
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-502/26  
 BOT CHORD 2-8=-112/361, 7-8=-112/361  
 WEBS 3-7=-408/127

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 104 lb uplift at joint 7 and 48 lb uplift at joint 2.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 28 lb up at 2-6-11, 74 lb down and 28 lb up at 2-6-11, and 104 lb down and 79 lb up at 5-4-10, and 104 lb down and 79 lb up at 5-4-10 on top chord, and 0 lb down at 2-6-11, 0 lb down at 2-6-11, and 18 lb down at 5-4-10, and 18 lb down at 5-4-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-20, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 10=-11(F=-6, B=-6) 12=-14(F=-7, B=-7)



March 23, 2023

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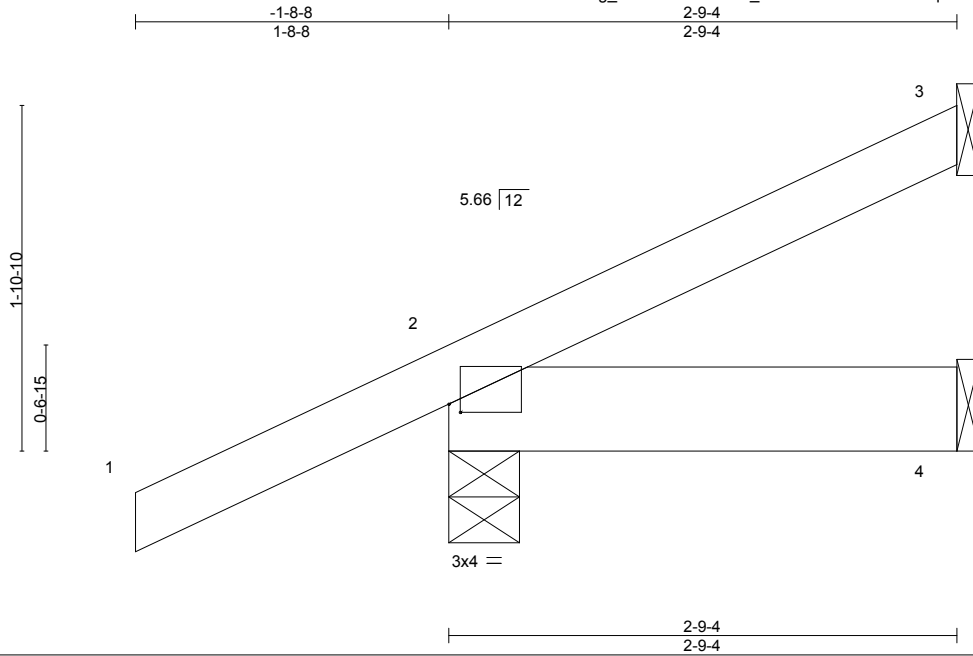


818 Soundside Road  
 Edenton, NC 27932

Job J0623-3078	Truss ZB2	Truss Type JACK-OPEN	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341315
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:18 2023 Page 1  
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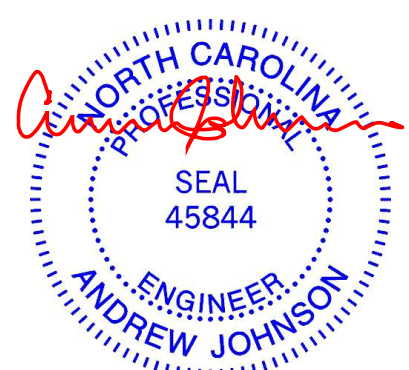
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.30	Vert(LL)	-0.00	2	>999	360	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	2-4	>999	240	Weight: 14 lb FT = 20%		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a			
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240			

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Structural wood sheathing directly applied or 2-9-4 oc purlins.
BOT CHORD	2x6 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-10, 4=Mechanical  
 Max Horz 2=64(LC 12)  
 Max Uplift 3=28(LC 12), 2=35(LC 12)  
 Max Grav 3=32(LC 1), 2=258(LC 1), 4=50(LC 3)

**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 Corner(3) 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 28 lb uplift at joint 3 and 35 lb uplift at joint 2.



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Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341316
J0623-3078	ZP1	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

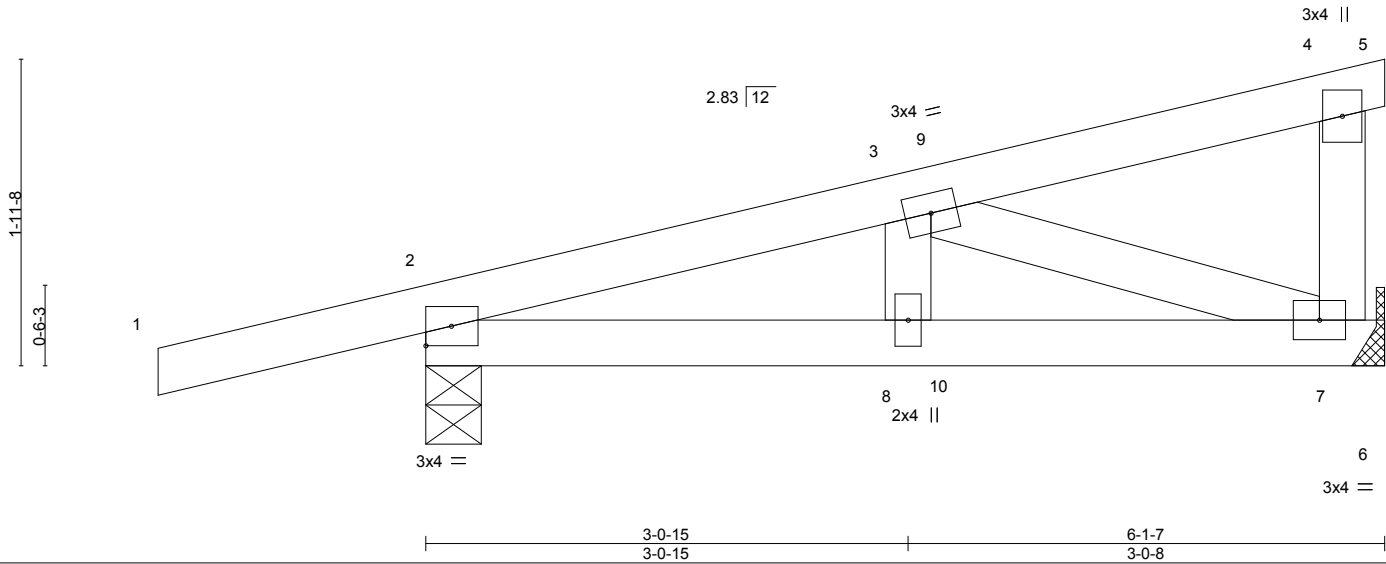
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:04:19 2023 Page 1

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Scale = 1:14.7



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 0.21	Vert(LL)	-0.00	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.01	8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.06	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	8	>999	Weight: 28 lb	FT = 20%

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

**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) 7=Mechanical, 2=0-4-4  
 Max Horz 2=63(LC 19)  
 Max Uplift 7=-28(LC 8), 2=-96(LC 4)  
 Max Grav 7=219(LC 1), 2=359(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-360/8  
 BOT CHORD 2-8=-40/308, 7-8=-40/308  
 WEBS 3-7=-325/42

- NOTES-**
- 1) 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
  - 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 28 lb uplift at joint 7 and 96 lb uplift at joint 2.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 20 lb up at 3-4-9, and 18 lb down and 20 lb up at 3-4-9 on top chord, and 4 lb down at 3-4-9, and 4 lb down at 3-4-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-20, 2-6=-20



March 23, 2023

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Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341317
J0623-3078	ZP2	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

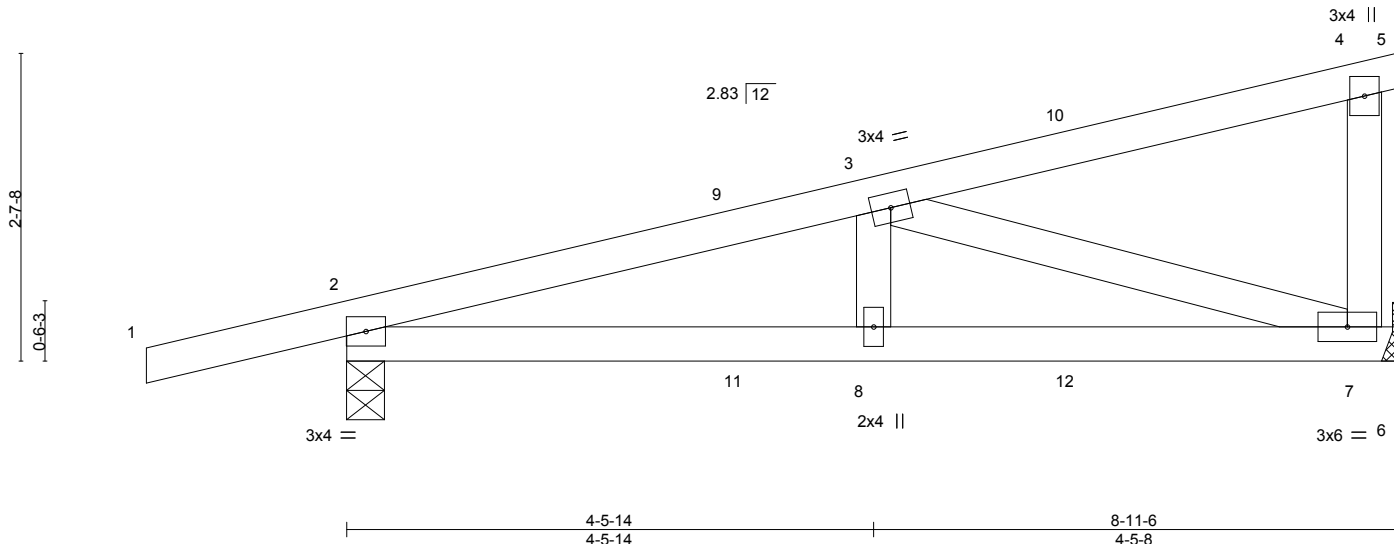
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Scale = 1:19.6



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 0.33	Vert(LL)	0.03 2-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.04 7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 40 lb	FT = 20%

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

**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) 7=Mechanical, 2=0-3-14  
 Max Horz 2=84(LC 4)  
 Max Uplift 7=-153(LC 4), 2=-204(LC 4)  
 Max Grav 7=396(LC 1), 2=488(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-777/243  
 BOT CHORD 2-8=-279/710, 7-8=-279/710  
 WEBS 3-7=-742/292

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); porch left and right exposed; 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 153 lb uplift at joint 7 and 204 lb uplift at joint 2.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 20 lb up at 3-4-9, 18 lb down and 20 lb up at 3-4-9, and 46 lb down and 62 lb up at 6-2-8, and 46 lb down and 62 lb up at 6-2-8 on top chord, and 4 lb down at 3-4-9, 4 lb down at 3-4-9, and 26 lb down at 6-2-8, and 26 lb down at 6-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-60, 4-5=-20, 2-6=-20  
 Concentrated Loads (lb)  
 Vert: 10=-53(F=-26, B=-26) 12=-26(F=-13, B=-13)



March 23, 2023

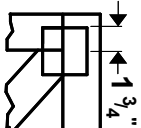
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before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



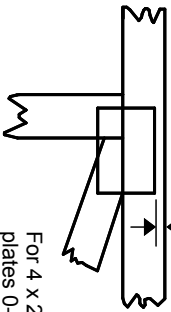


# Symbols

## 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-<sup>1</sup>/<sub>16</sub>" from outside edge of truss.



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

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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



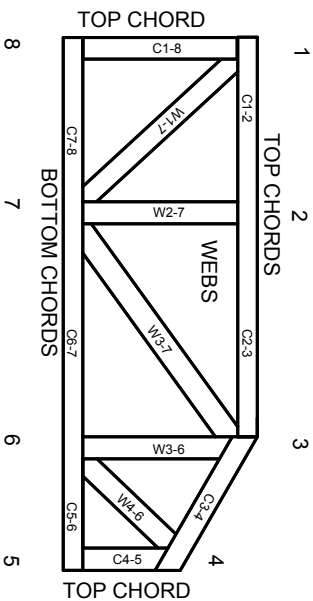
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative 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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

# Reaction Summary of Order



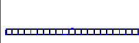


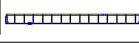





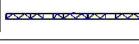


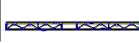


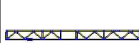











**ROOF & FLOOR TRUSSES & BEAMS**  
 Reilly Road Industrial Park P.O. Box 40408  
 Fayetteville, N.C. 28309 (910) 864-TRUS

REQ. QUOTE DATE	/ /	ORDER #	J0623-3079
ORDER DATE	06/14/23	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007216
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY	Shaun Garderner	INVOICE #	
COUNTY	Harnett	TERMS	
SUPERINTENDANT	Shaun Garderner	SALES REP	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	SALES AREA	Neil Baggett

SOLD TO	<b>Precision Custom Homes</b> 206 Shoreline Drive Raeford, NC 28376 (910) 988-8172	<b>JOB NAME:</b> 23 Liberty Meadows <b>MODEL:</b> Floor <b>TAG:</b> Hayek <b>DELIVERY INSTRUCTIONS:</b> 52 miles round trip	<b>LOT #</b> 23 <b>SUBDIV:</b> Liberty Meadows <b>JOB CATEGORY:</b>
	SHIPP TO	<b>Precision Custom Homes and</b> 100 Sears Dr. Cameron, NC	<b>SPECIAL INSTRUCTIONS:</b> Like 27 Liberty Meadows

BUILDING DEPARTMENT Floor Order	OVERHANG INFO	HEEL HEIGHT	00-04-05	REQ. LAYOUTS	REQ. ENGINEERING	QUOTE	/ /
	END CUT	RETURN				LAYOUT	NB 06/14/23
	PLUMB		GABLE STUDS	24 IN. OC	JOBSITE 1	JOBSITE 1	CUTTING NB 06/14/23

<b>FLOOR TRUSSES</b>	LOADING INFORMATION	TCLL-TCDL-BCLL-BCDL	STRESS INCR.	FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)
		40.0,10.0,0.0,5.0	1.00	

FLOOR PROFILE	QTY PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE		INT BEARING		REACTIONS				
					LEFT	RIGHT	SIZE	LOCATION					
	1	01-04-00 ET1	28-06-08	28-06-08					Joint 25 6.3 lbs.	Joint 26 101.5 lbs.	Joint 27 153.1 lbs.	Joint 28 145.0 lbs.	Joint 29 147.1 lbs.
	1	01-04-00 ET2	19-05-08	19-05-08					Joint 18 24.0 lbs.	Joint 19 111.3 lbs.	Joint 20 153.0 lbs.	Joint 21 145.1 lbs.	Joint 22 147.1 lbs.
	4	01-04-00 F01	34-06-00	34-06-00					Joint 25 841.4 lbs. 147.4 lbs.	Joint 33 2183.6 lbs. 1363.9 lbs.	Joint 41 839.4 lbs. 173.1 lbs.		
	3	01-04-00 F02	28-06-08	28-06-08					Joint 20 550.9 lbs. 33.9 lbs.	Joint 25 1787.4 lbs. 945.5 lbs.	Joint 33 869.8 lbs. 226.5 lbs.		
	9	01-04-00 F03	22-03-00	22-03-00					Joint 16 1203.1 lbs. 572.6 lbs.	Joint 27 1203.1 lbs. 628.3 lbs.			
	6	01-04-00 F04	19-05-08	19-05-08					Joint 14 1050.2 lbs. 498.6 lbs.	Joint 23 1050.2 lbs. 557.3 lbs.			
	2	01-04-00 F05	17-03-00	17-03-00					Joint 13 928.8 lbs. 449.7 lbs.	Joint 21 928.8 lbs. 507.0 lbs.			
	2	01-04-00 F06	13-04-08	13-04-08					Joint 10 721.9 lbs. 499.1 lbs.	Joint 16 715.6 lbs. 281.6 lbs.			
	4	01-04-00 F07	13-08-00	13-08-00					Joint 10 731.7 lbs. 495.6 lbs.	Joint 16 731.7 lbs. 293.6 lbs.			

# Reaction Summary of Order



REQ. QUOTE DATE	/ /	ORDER #	J0623-3079
ORDER DATE	06/14/23	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007216
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY	Shaun Garderner	INVOICE #	
COUNTY	Harnett	TERMS	
SUPERINTENDANT	Shaun Garderner	SALES REP	Neil Baggett
JOBSITE PHONE #	(910) 988-8172	SALES AREA	Neil Baggett

SOLD TO	<b>Precision Custom Homes</b> 206 Shoreline Drive Raeford, NC 28376 (910) 988-8172	<b>JOB NAME:</b> 23 Liberty Meadows <b>MODEL:</b> Floor <b>TAG:</b> Hayek <b>DELIVERY INSTRUCTIONS:</b> 52 miles round trip	<b>LOT #</b> 23 <b>SUBDIV:</b> Liberty Meadows <b>JOB CATEGORY:</b>
	SHIPP TO	<b>Precision Custom Homes and</b> 100 Sears Dr. Cameron, NC	<b>SPECIAL INSTRUCTIONS:</b> Like 27 Liberty Meadows

BUILDING DEPARTMENT Floor Order	OVERHANG INFO	HEEL HEIGHT	00-04-05	REQ. LAYOUTS	REQ. ENGINEERING	QUOTE	/ /
	END CUT	RETURN				LAYOUT	NB 06/14/23
	PLUMB		GABLE STUDS	24 IN. OC	JOBSITE 1	JOBSITE 1	CUTTING NB 06/14/23

<b>FLOOR TRUSSES</b>	LOADING INFORMATION	TCLL-TCDL-BCLL-BCDL	STRESS INCR.	FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)
		40.0,10.0,0.0,5.0	1.00	

FLOOR PROFILE	QTY PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE		INT BEARING		REACTIONS
					LEFT	RIGHT	SIZE	LOCATION	
	1	01-04-00 F08	10-01-00	10-01-00					Joint 7      Joint 12 534.6 lbs.      534.6 lbs. 295.7 lbs.      287.6 lbs.
	1	01-04-00 FG1	34-06-00	34-06-00					Joint 27      Joint 35      Joint 43 764.7 lbs.      2937.8 lbs.      952.8 lbs. 80.3 lbs.      2167.7 lbs.      294.9 lbs.
	1	01-04-00 FG2	05-03-08	05-03-08					Joint 5      Joint 8 892.9 lbs.      899.1 lbs. 831.5 lbs.      820.8 lbs.

<b>ITEMS</b>						
QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES	
4	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	07-00-00		DB2 & HDR2	
4	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	06-00-00		HDR1 & HDR3	
2	LVL Beams (Sized)	LVL, 1-3/4" x 11-7/8" (S)	22-00-00		GDH	
3	LVL Beams (Sized)	LVL, 1-3/4" x 24" (S)	24-00-00		24" LVL is <<ONLY>> sold in 20, 24, 28 or 48 foot lengths!!! (sm) FB1	
3	Hangers, USP	MSH422			SIMPSON (THA422)	

RE: J0623-3079  
Precision/23 Liberty Meadows/Harnett

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

**Site Information:**

Customer: Project Name: J0623-3079  
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: N/A Wind Speed: N/A mph  
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I57341318	ET1	3/23/2023
2	I57341319	ET2	3/23/2023
3	I57341320	F01	3/23/2023
4	I57341321	F02	3/23/2023
5	I57341322	F03	3/23/2023
6	I57341323	F04	3/23/2023
7	I57341324	F05	3/23/2023
8	I57341325	F06	3/23/2023
9	I57341326	F07	3/23/2023
10	I57341327	F08	3/23/2023
11	I57341328	FG1	3/23/2023
12	I57341329	FG2	3/23/2023

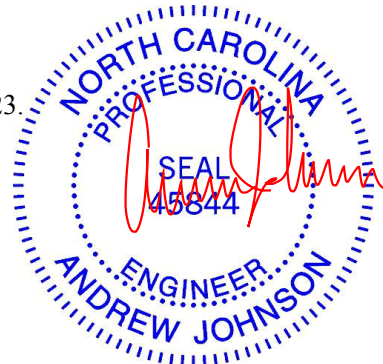
The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Johnson, Andrew

My license renewal date for the state of North Carolina is December 31, 2023.

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 23, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341318
J0623-3079	ET1	GABLE	1	1	Job Reference (optional)	

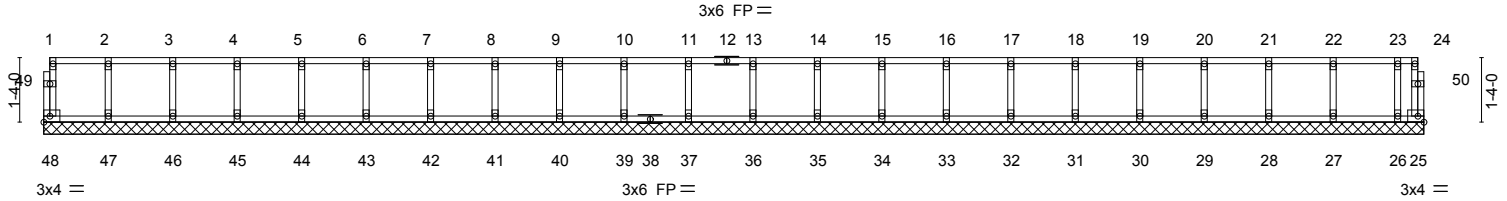
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:30 2023 Page 1  
 ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-00?RVmR8golTm?p\_b503OB8AUMfviTXHBGmBqAzY6dR

0-1-8

0-1-8

Scale: 1/4"=1'



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	25	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 124 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 28-6-8.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 48, 25, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

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

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



March 23, 2023

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341319
J0623-3079	ET2	GABLE	1	1	Job Reference (optional)	

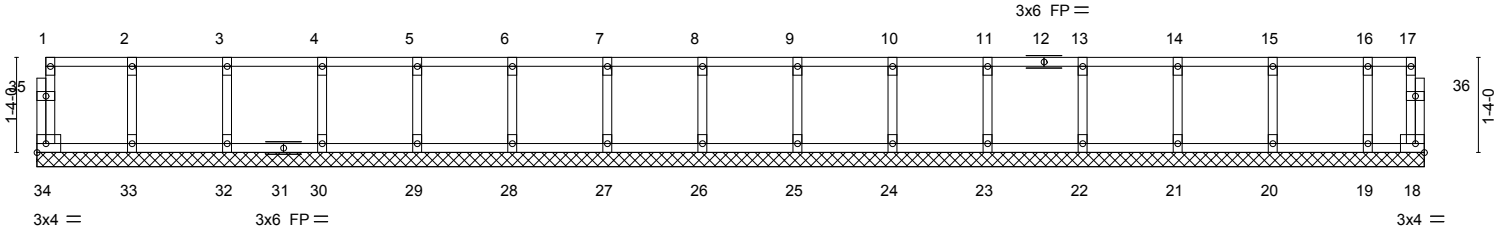
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:31 2023 Page 1  
 ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-UCZpj6SmR5tKO9OA9pYlwOhLDm?A1wnRQwWIMczY6dQ

0-1/8

0-1/8

Scale: 3/8"=1'



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	18	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R					Weight: 86 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 19-5-8.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

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



Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341320
J0623-3079	F01	Floor	4	1		
Comtech, Inc. Fayetteville, NC - 28314,						8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:33 2023 Page 1
ID:3YJEG_u8zX16RsP?VvW_V6zd0wB-RbhZ8oT0zj72dTYZGEam0pmRZaUQVizktE?rRUZY6dO						

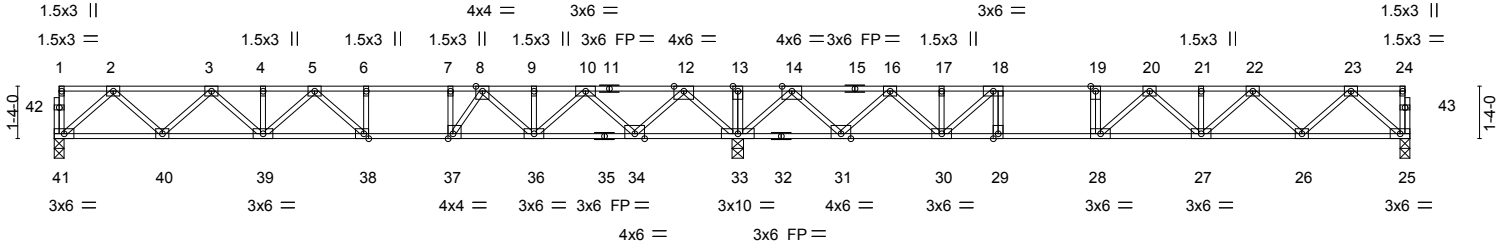


Plate Offsets (X,Y)--	[37:0-1-8,Edge], [38:0-1-8,Edge]		
		17-4-12	34-6-0
		17-4-12	17-1-4

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL 1.00	TC 0.97	Vert(LL) -0.22	27-28	>919	480	MT20	244/190	
TCDL 10.0	Lumber DOL 1.00	BC 0.86	Vert(CT) -0.30	27-28	>679	360			
BCLL 0.0	Rep Stress Incr YES	WB 0.56	Horz(CT) 0.06	25	n/a	n/a			
BCDL 5.0	Code IRC2015/TP12014	Matrix-S							
								Weight: 184 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat) *Except* 15-24: 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.1(flat) *Except* 25-32: 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 34-36,33-34,31-33,30-31.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 41=0-3-0, 25=0-3-0, 33=0-3-8  
Max Grav 41=839(LC 3), 25=841(LC 4), 33=2184(LC 1)

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

TOP CHORD 2-3=-1491/0, 3-4=-2414/0, 4-5=-2414/0, 5-6=-2597/0, 6-7=-2597/0, 7-8=-2597/0,  
8-9=-1806/70, 9-10=-1806/70, 10-12=-462/549, 12-13=0/2124, 13-14=0/2124,  
14-16=-668/787, 16-17=-1903/301, 17-18=-1903/301, 18-19=-2577/0, 19-20=-2577/0,  
20-21=-2426/0, 21-22=-2426/0, 22-23=-1494/0

BOT CHORD 40-41=0/903, 39-40=0/2059, 38-39=0/2624, 37-38=0/2597, 36-37=0/2266,  
34-36=-293/1230, 33-34=-992/0, 31-33=-1132/0, 30-31=-513/1405, 29-30=0/2577,  
28-29=0/2577, 27-28=0/2632, 26-27=0/2068, 25-26=0/904

WEBS 2-41=-1200/0, 2-40=0/819, 3-40=-790/0, 3-39=0/482, 12-33=-1566/0, 12-34=0/1182,  
10-34=-1133/0, 10-36=0/850, 5-39=-286/16, 5-38=-363/174, 8-36=-701/0, 8-37=0/905,  
7-37=-566/0, 23-25=-1201/0, 23-26=0/821, 22-26=-798/0, 22-27=0/488, 14-33=-1538/0,  
14-31=0/1170, 16-31=-1116/0, 16-30=0/752, 18-30=-1224/0, 20-27=-280/60,  
20-28=-447/82, 18-29=0/292

- 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.



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

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

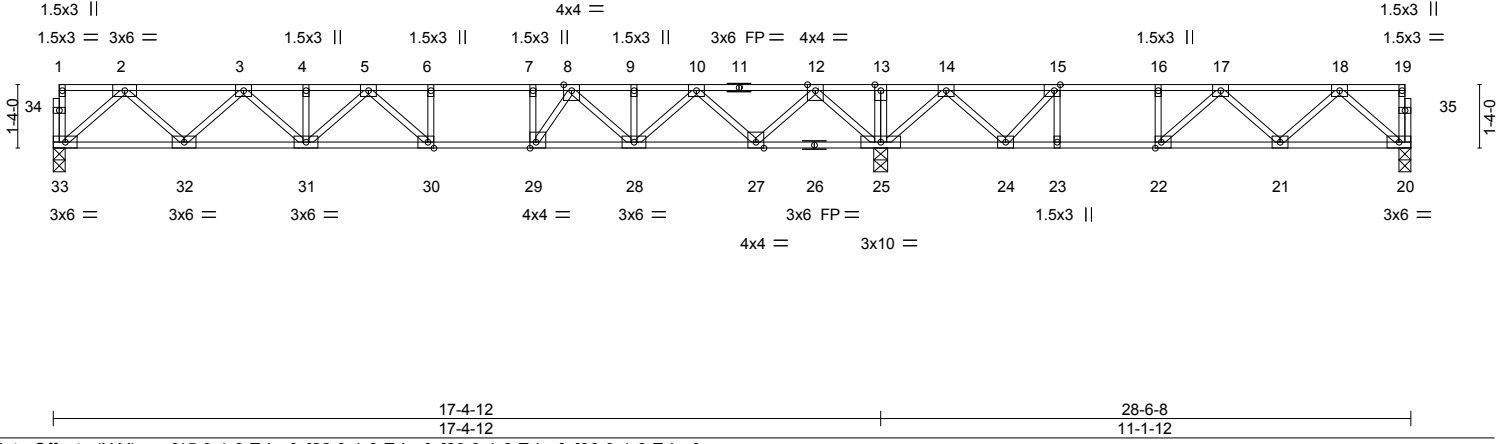
**ENGINEERING BY**  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341321
J0623-3079	F02	Floor	3	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:34 2023 Page 1  
ID:3YJEG\_u8zX16RsP?VvW\_V6zd0wB-vnFxL8Uek0FvFd7lqx5?Y1Jfq\_rXE9lt6ukPzzzY6dN



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 0.80	Vert(LL)	-0.20 30-31	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.80	Vert(CT)	-0.28 30-31	>737	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.53	Horz(CT)	0.05 20	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 149 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) 33=0-3-0, 20=0-3-0, 25=0-3-8  
Max Grav 33=870(LC 10), 20=551(LC 4), 25=1787(LC 1)

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

TOP CHORD 2-3=-1558/0, 3-4=-2542/0, 4-5=-2542/0, 5-6=-2818/0, 6-7=-2818/0, 7-8=-2818/0, 8-9=-2111/0, 9-10=-2111/0, 10-12=-826/0, 12-13=0/1418, 13-14=0/1418, 14-15=-650/619, 15-16=-1081/304, 16-17=-1081/304, 17-18=-883/0

BOT CHORD 32-33=0/938, 31-32=0/2155, 30-31=0/2787, 29-30=0/2818, 28-29=0/2533, 27-28=0/1567, 25-27=-305/58, 24-25=-893/218, 23-24=-304/1081, 22-23=-304/1081, 21-22=-76/1124, 20-21=0/581

WEBS 2-33=-1246/0, 2-32=0/863, 3-32=-831/0, 3-31=0/526, 5-31=-333/0, 5-30=-218/326, 7-29=-478/0, 12-25=-1482/0, 12-27=0/1109, 10-27=-1068/0, 10-28=0/779, 8-28=-620/0, 18-20=-770/0, 18-21=-19/421, 17-21=-334/119, 17-22=-362/0, 15-23=0/294, 14-25=-959/0, 14-24=0/763, 8-29=0/756, 15-24=-884/0

- 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) 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 J0623-3079	Truss F03	Truss Type FLOOR	Qty 9	Ply 1	Precision/23 Liberty Meadows/Harnett I57341322
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:35 2023 Page 1  
ID:3YJEg\_u8zX16RsP?VvW\_V6zd0wB-N\_pKUZVGVK0mtrixOfcE5E5yNDQzbX0LYUyWNzY6dM

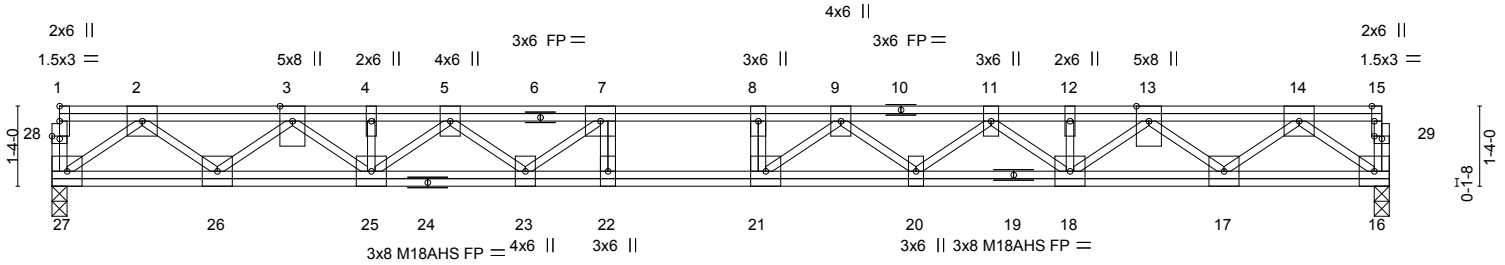
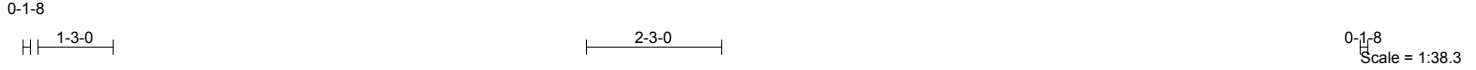


Plate Offsets (X,Y)-- [15:0-3-0,Edge], [28:0-1-8,0-0-8], [29:0-1-8,0-0-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.29	Vert(LL) -0.32 21 >820 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.63	Vert(CT) -0.44 21 >596 360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr YES	WB 0.62	Horz(CT) 0.05 16 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 177 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) 27=0-3-0, 16=0-3-0  
Max Grav 27=1203(LC 1), 16=1203(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2456/0, 3-4=-4314/0, 4-5=-4314/0, 5-7=-5453/0, 7-8=-5953/0, 8-9=-5953/0, 9-11=-5456/0, 11-12=-4309/0, 12-13=-4309/0, 13-14=-2456/0  
BOT CHORD 26-27=0/1471, 25-26=0/3495, 23-25=0/5013, 22-23=0/5953, 21-22=0/5953, 20-21=0/5834, 18-20=0/5027, 17-18=0/3494, 16-17=0/1472  
WEBS 2-27=-1819/0, 2-26=0/1306, 3-26=-1375/0, 3-25=0/1063, 5-25=-906/0, 5-23=0/717, 7-23=-941/0, 14-16=-1819/0, 14-17=0/1306, 13-17=-1373/0, 13-18=0/1057, 11-18=-930/0, 11-20=0/568, 9-20=-536/0, 9-21=-298/676, 8-21=-288/42

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 6x6 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 23, 2023

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



818 Soundside Road  
Edenton, NC 27932

Job J0623-3079	Truss F04	Truss Type Floor	Qty 6	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341323
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:36 2023 Page 1  
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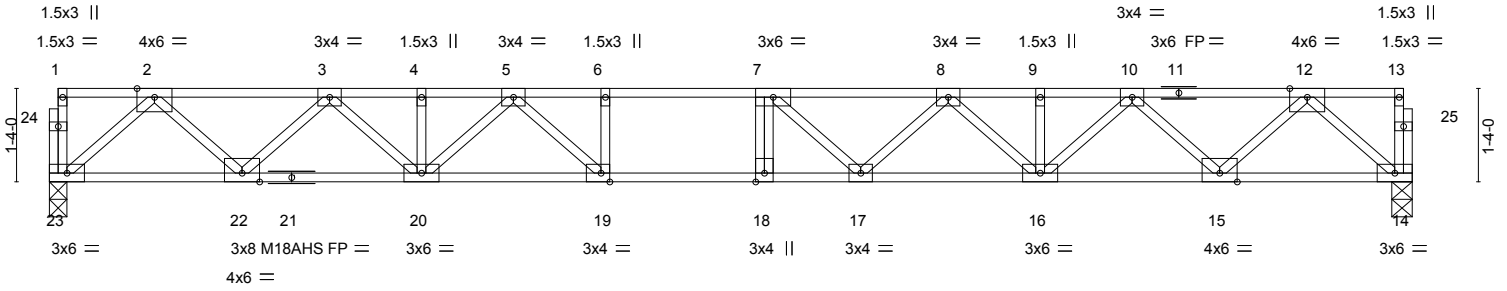
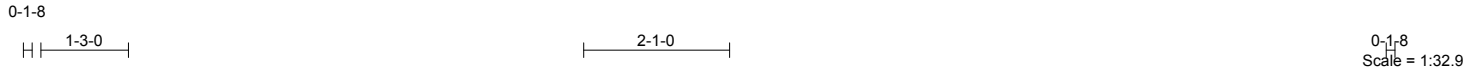


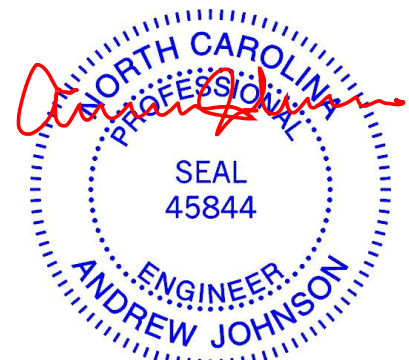
Plate Offsets (X,Y)-- [19:0-1-8,Edge]		19-5-8		19-5-8					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.48	Vert(LL) -0.27	18	>842	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.69	Vert(CT) -0.37	18	>615	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	YES	WB 0.54	Horz(CT) 0.06	14	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 103 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 23=0-3-0, 14=0-3-8  
Max Grav 23=1050(LC 1), 14=1050(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1952/0, 3-4=-3301/0, 4-5=-3301/0, 5-6=-4143/0, 6-7=-4143/0, 7-8=-3998/0, 8-9=-3296/0, 9-10=-3296/0, 10-12=-1951/0  
BOT CHORD 22-23=0/1144, 20-22=0/2724, 19-20=0/3756, 18-19=0/4143, 17-18=0/4143, 16-17=0/3795, 15-16=0/2729, 14-15=0/1143  
WEBS 2-23=-1521/0, 2-22=0/1123, 3-22=-1073/0, 3-20=0/785, 5-20=-617/0, 5-19=0/809, 6-19=-366/0, 12-14=-1519/0, 12-15=0/1124, 10-15=-1081/0, 10-16=0/771, 8-16=-679/0, 8-17=0/446, 7-17=-530/153

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



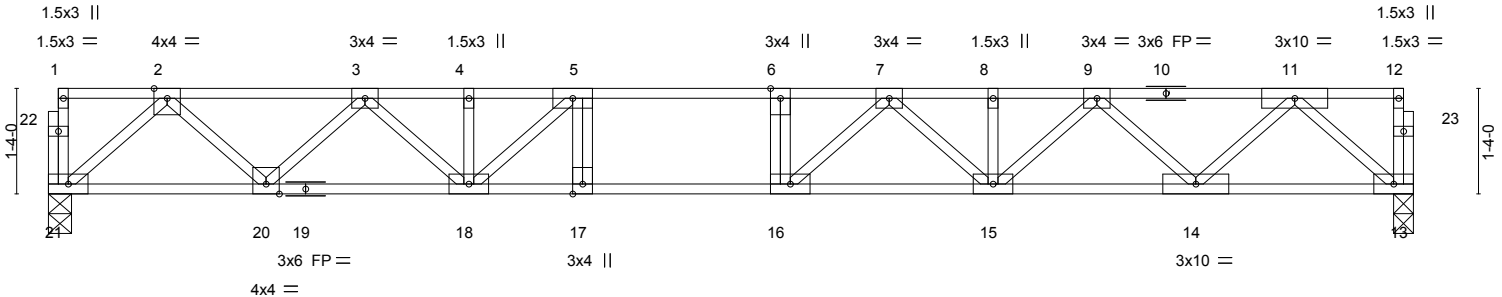
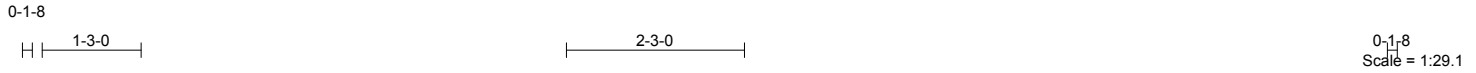
March 23, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job J0623-3079	Truss F05	Truss Type FLOOR	Qty 2	Ply 1	Precision/23 Liberty Meadows/Harnett I57341324
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:37 2023 Page 1  
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17-3-0  
17-3-0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.47	Vert(LL)	-0.23 15-16	>887	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.89	Vert(CT)	-0.31 15-16	>663	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.05 13	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 94 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** (size) 21=0-3-8, 13=0-3-0  
Max Grav 21=929(LC 1), 13=929(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1690/0, 3-4=-2767/0, 4-5=-2767/0, 5-6=-3229/0, 6-7=-3229/0, 7-8=-2794/0, 8-9=-2794/0, 9-11=-1685/0  
BOT CHORD 20-21=0/1006, 18-20=0/2339, 17-18=0/3229, 16-17=0/3229, 15-16=0/3101, 14-15=0/2342, 13-14=0/1005  
WEBS 11-13=-1335/0, 11-14=0/947, 9-14=-913/0, 9-15=0/615, 7-15=-417/0, 7-16=-130/522, 6-16=-269/6, 2-21=-1336/0, 2-20=0/951, 3-20=-903/0, 3-18=0/582, 5-18=-858/0

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



March 23, 2023

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341325
J0623-3079	F06	Floor	2	1	Job Reference (optional)	

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:38 2023 Page 1  
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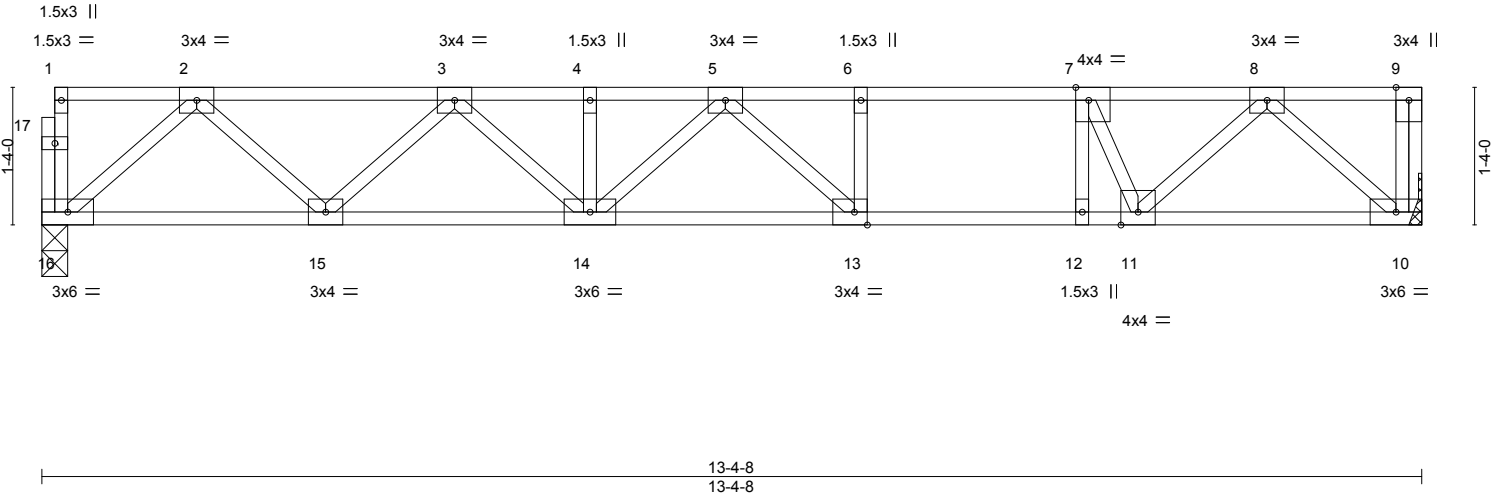


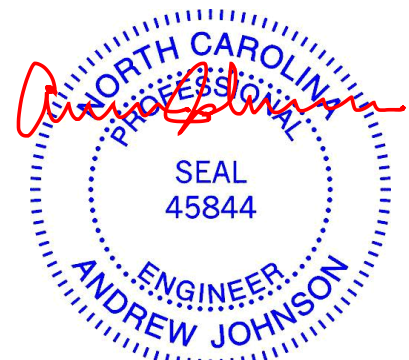
Plate Offsets (X,Y)--	[7:0-1-8,Edge], [13:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.74	Vert(LL) -0.19 13-14 >820 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.75	Vert(CT) -0.26 13-14 >603 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.02 10 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 72 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 16=0-3-0, 10=Mechanical  
 Max Grav 16=716(LC 1), 10=722(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1220/0, 3-4=-1896/0, 4-5=-1896/0, 5-6=-1704/0, 6-7=-1704/0, 7-8=-1302/0  
 BOT CHORD 15-16=0/760, 14-15=0/1670, 13-14=0/1949, 12-13=0/1704, 11-12=0/1704, 10-11=0/716  
 WEBS 2-16=-1010/0, 2-15=0/639, 3-15=-626/0, 3-14=0/308, 5-13=-412/72, 7-12=0/568, 8-10=-953/0, 8-11=0/815, 7-11=-1014/0

- 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.



March 23, 2023

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Job J0623-3079	Truss F07	Truss Type Floor	Qty 4	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341326
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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:39 2023 Page 1  
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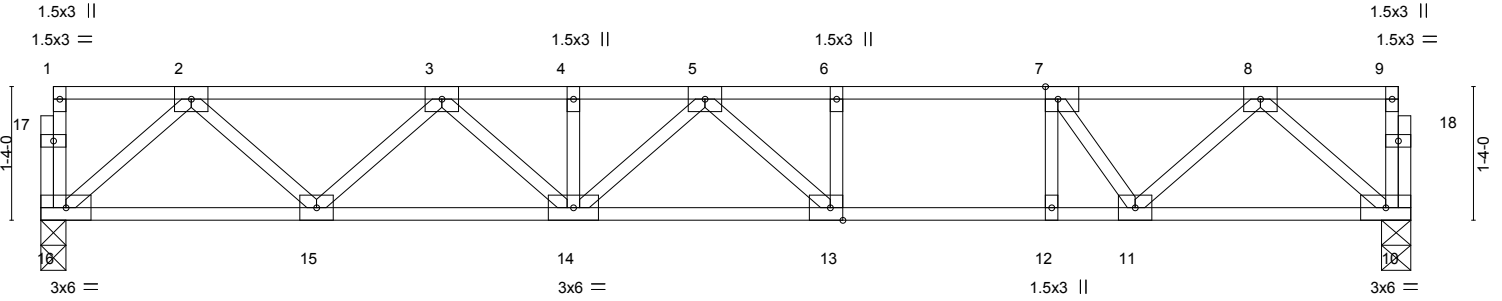


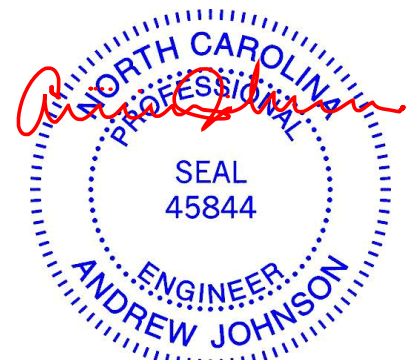
Plate Offsets (X, Y)--	[7:0-1-8,Edge], [13:0-1-8,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00		TC 0.71	Vert(LL) -0.20	13-14	>823	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00		BC 0.71	Vert(CT) -0.26	13-14	>608	360		
BCLL 0.0	Rep Stress Incr YES		WB 0.38	Horz(CT) 0.02	10	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 73 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 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 16=0-3-0, 10=0-3-8  
Max Grav 16=732(LC 1), 10=732(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1255/0, 3-4=-1964/0, 4-5=-1964/0, 5-6=-1816/0, 6-7=-1816/0, 7-8=-1303/0  
BOT CHORD 15-16=0/779, 14-15=0/1721, 13-14=0/2036, 12-13=0/1816, 11-12=0/1816, 10-11=0/736  
WEBS 2-16=-1034/0, 2-15=0/662, 3-15=-648/0, 3-14=0/330, 5-13=-393/101, 7-12=0/417, 8-10=-975/0, 8-11=0/789, 7-11=-918/0

- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



March 23, 2023

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Job J0623-3079	Truss F08	Truss Type Floor	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	157341327
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:40 2023 Page 1  
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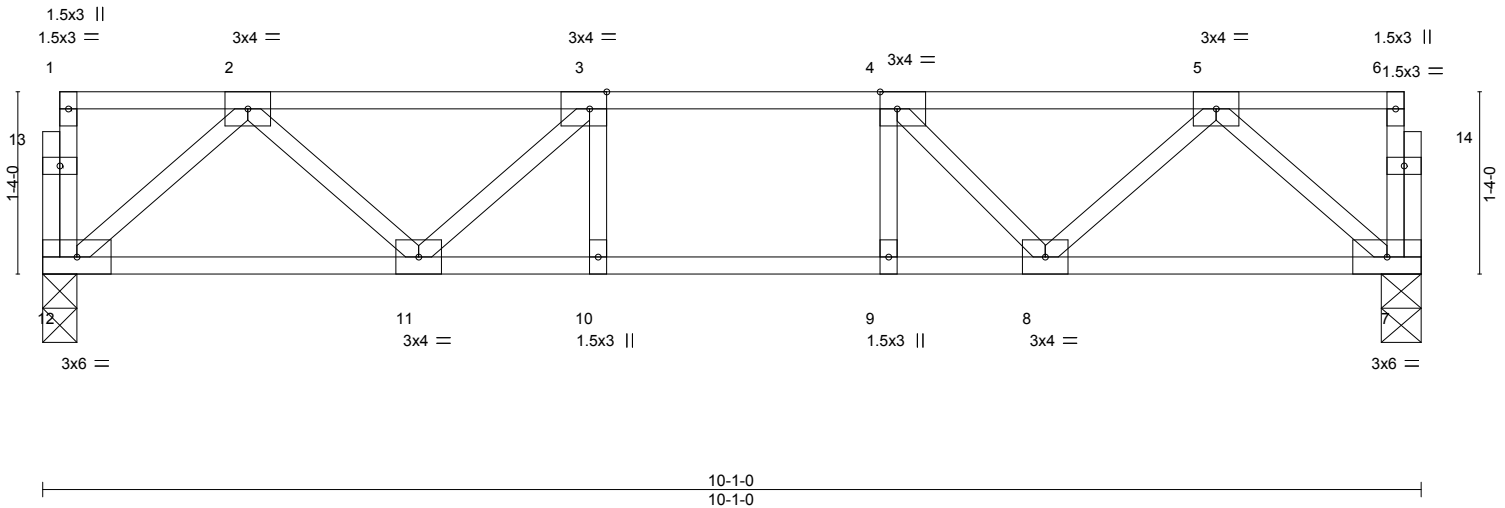
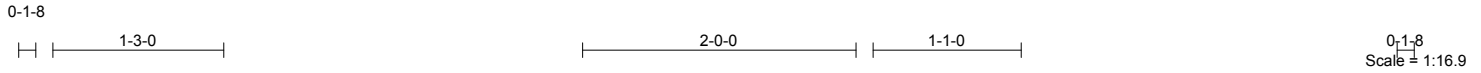


Plate Offsets (X,Y)--	[3:0-1-8,Edge], [4:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.26	Vert(LL) -0.05 10-11 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.40	Vert(CT) -0.06 10 >999 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.19	Horz(CT) 0.01 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 53 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) 12=0-3-0, 7=0-3-8  
Max Grav 12=535(LC 1), 7=535(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-833/0, 3-4=-1083/0, 4-5=-838/0  
BOT CHORD 11-12=0/561, 10-11=0/1083, 9-10=0/1083, 8-9=0/1083, 7-8=0/553  
WEBS 2-12=-745/0, 2-11=0/377, 3-11=-379/0, 5-7=-734/0, 5-8=0/396, 4-8=-397/0

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



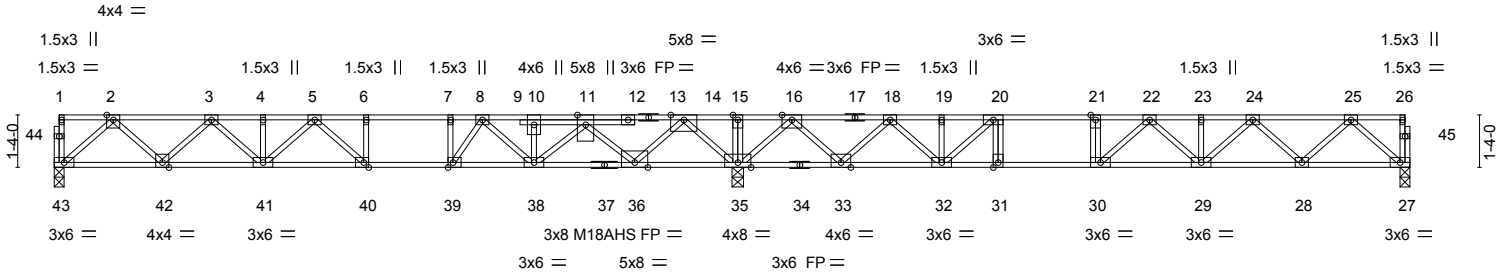
March 23, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> 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, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 818 Soundside Road Edenton, NC 27932
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Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	157341328
J0623-3079	FG1	Floor	1	1		

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	17-4-12	34-6-0
	17-4-12	17-1-4
Plate Offsets (X,Y)--	[39:0-1-8,Edge], [40:0-1-8,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 0.95	Vert(LL)	-0.23	29-30	>878	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.85	Vert(CT)	-0.31	29-30	>648	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.06	27	n/a		
BCDL 5.0	Code IRC2015/TP12014		Matrix-S						
								Weight: 187 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1(flat) *Except* 17-26: 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* 27-34: 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat) *Except* 14-36: 2x4 SP No.2(flat)	

**REACTIONS.** (size) 43=0-3-0, 27=0-3-0, 35=0-3-8  
 Max Grav 43=953(LC 3), 27=765(LC 4), 35=2938(LC 1)

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

TOP CHORD 2-3=-1739/0, 3-4=-2892/0, 4-5=-2892/0, 5-6=-3424/0, 6-7=-3424/0, 7-8=-3424/0, 8-10=-3016/0, 10-11=-3016/0, 11-14=-1021/0, 14-15=0/3063, 15-16=0/3063, 16-18=0/1580, 18-19=-1140/968, 19-20=-1140/968, 20-21=-2003/416, 21-22=-2003/416, 22-23=-2104/0, 23-24=-2104/0, 24-25=-1326/0

BOT CHORD 42-43=0/1033, 41-42=0/2417, 40-41=0/3231, 39-40=0/3424, 38-39=0/3244, 36-38=0/2605, 35-36=-1179/0, 33-35=-2004/0, 32-33=-1239/576, 31-32=-416/2003, 30-31=-416/2003, 29-30=-86/2221, 28-29=0/1826, 27-28=0/816

WEBS 2-43=-1373/0, 2-42=0/982, 3-42=-943/0, 3-41=0/646, 14-35=-2577/0, 14-36=0/2181, 11-36=-2209/0, 11-38=0/620, 5-41=-460/0, 5-40=-39/469, 8-38=-404/0, 8-39=0/599, 7-39=-391/0, 25-27=-1084/0, 25-28=0/710, 24-28=-695/0, 24-29=-73/378, 16-35=-1628/0, 16-33=0/1269, 18-33=-1212/0, 18-32=0/831, 19-32=0/283, 20-32=-1442/0, 22-30=-637/0, 20-31=0/355

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x4 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 879 lb down at 13-6-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00



Continued on page 2

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

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

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

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/23 Liberty Meadows/Harnett	I57341328
J0623-3079	FG1	Floor	1	1	Job Reference (optional)	

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8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Mar 23 08:03:42 2023 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 27-43=-10, 1-26=-100

Concentrated Loads (lb)

Vert: 11=-799(B)

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

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



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Job J0623-3079	Truss FG2	Truss Type FLOOR GIRDER	Qty 1	Ply 1	Precision/23 Liberty Meadows/Harnett Job Reference (optional)	I57341329
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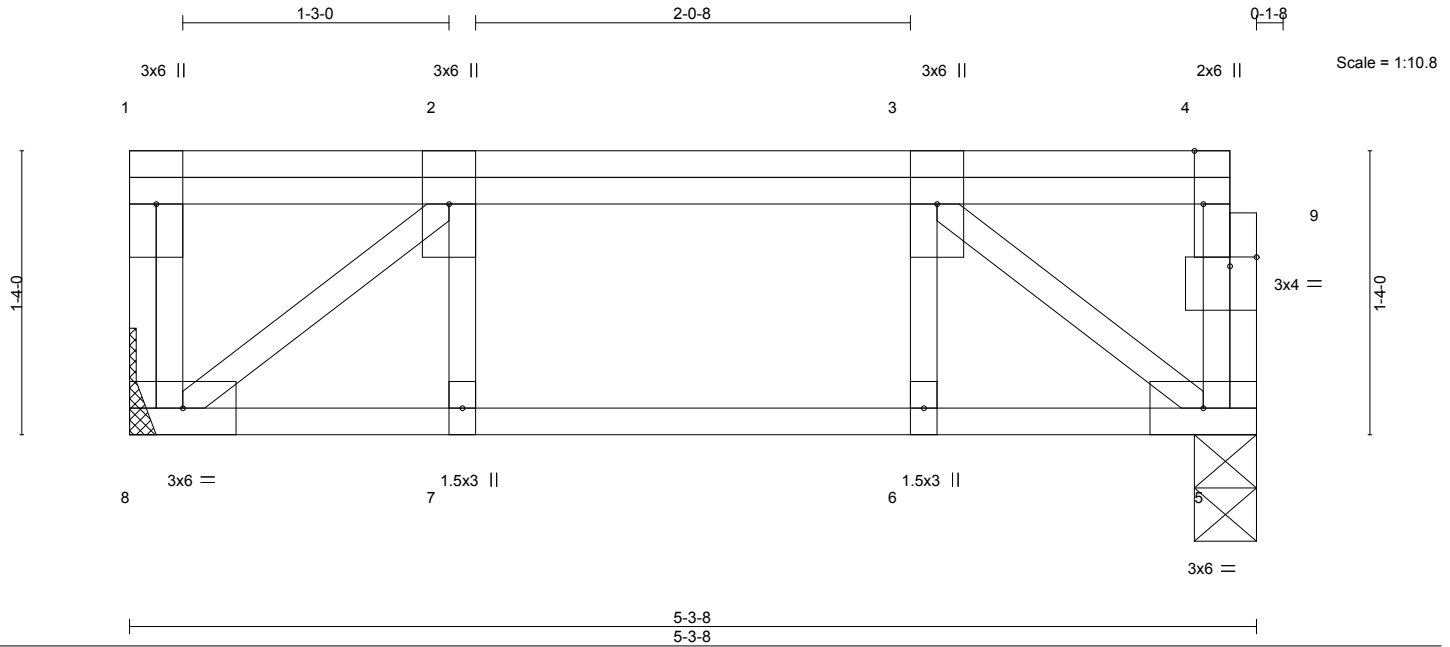


Plate Offsets (X,Y)--	[4:0-3-0,Edge], [9:0-1-8,0-0-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.24	Vert(LL) -0.01 6-7 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.31	Vert(CT) -0.02 6-7 >999 360		
BCDL 5.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.01 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 36 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-8 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) 8=Mechanical, 5=0-3-8  
Max Grav 8=899(LC 1), 5=893(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1036/0  
BOT CHORD 7-8=0/1036, 6-7=0/1036, 5-6=0/1036  
WEBS 2-8=-1325/0, 3-5=-1321/0

- 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.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 650 lb down at 1-10-4, and 667 lb down at 3-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

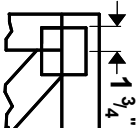
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 5-8=10, 1-4=-100  
Concentrated Loads (lb)  
Vert: 2=-622(B) 3=-622(B)



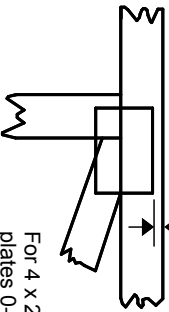
March 23, 2023

# 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 20/20 software** or upon request.

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



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

## BEARING



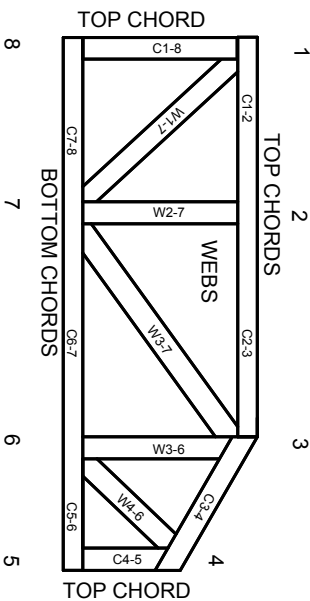
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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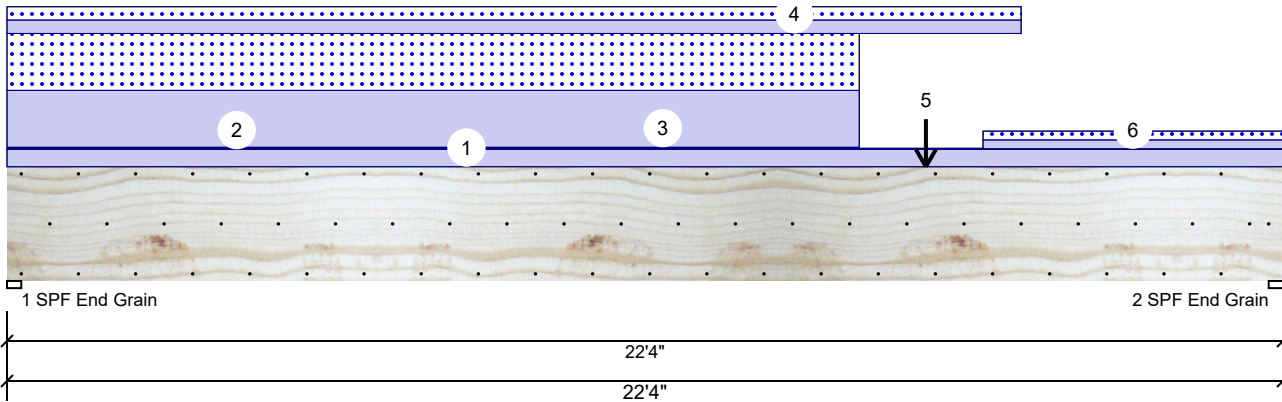
# General Safety Notes

## 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 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.

**FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
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	112	7018	5324	0	0
2	Vertical	112	5588	3893	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	93%	7018 / 5324	12342	L	D+S
2 - SPF End Grain	3.000"	Vert	72%	5588 / 3893	9480	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	65847 ft-lb	11' 1/4"	131295 ft-lb	0.502 (50%)	D+S	L
Unbraced	65847 ft-lb	11' 1/4"	66073 ft-lb	0.997 (100%)	D+S	L
Shear	9886 lb	2'3"	30912 lb	0.320 (32%)	D+S	L
LL Defl inch	0.228 (L/1158)	11'1"	0.549 (L/480)	0.414 (41%)	S	L
TL Defl inch	0.530 (L/498)	11'1 1/4"	0.733 (L/360)	0.723 (72%)	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 3 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 3'11 15/16" 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	0 PLF	0 PLF	0 PLF	WALL
2	Tie-In Far	0-0-0 to 22-4-0	0-3-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In Near	0-0-0 to 22-4-0	0-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
3	Part. Uniform	0-0-0 to 14-11-0		Top	392 PLF	0 PLF	392 PLF	0 PLF	0 PLF	A TRUSSES

Continued on page 2...

**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**

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

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 11/3/2024

**Manufacturer Info**

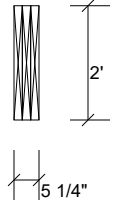
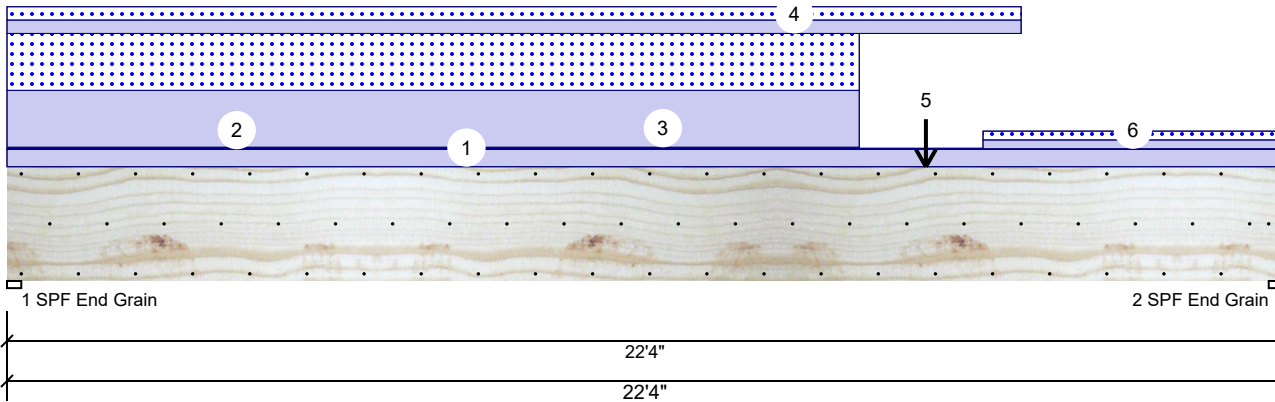
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**FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED**

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Part. Uniform	0-0-0 to 17-9-0		Near Face	92 PLF	0 PLF	92 PLF	0 PLF	0 PLF	P TRUSSES
5	Point	16-1-0		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
6	Part. Uniform	17-1-0 to 22-4-0		Top	61 PLF	0 PLF	61 PLF	0 PLF	0 PLF	Y TRUSSES
	Self Weight				28 PLF					

**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 11/3/2024

**Manufacturer Info**

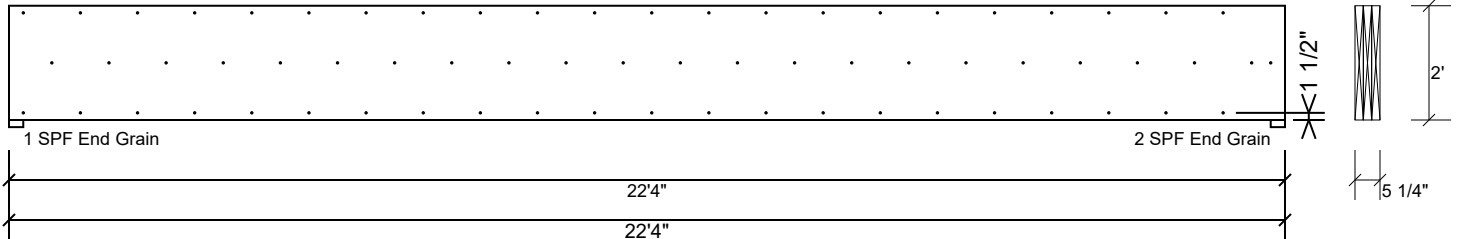
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**FB1 Kerto-S LVL 1.750" X 24.000" 3-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

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

Capacity	43.4 %
Load	122.7 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

**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 11/3/2024

**Manufacturer Info**

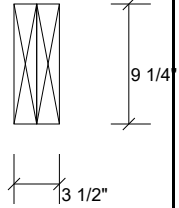
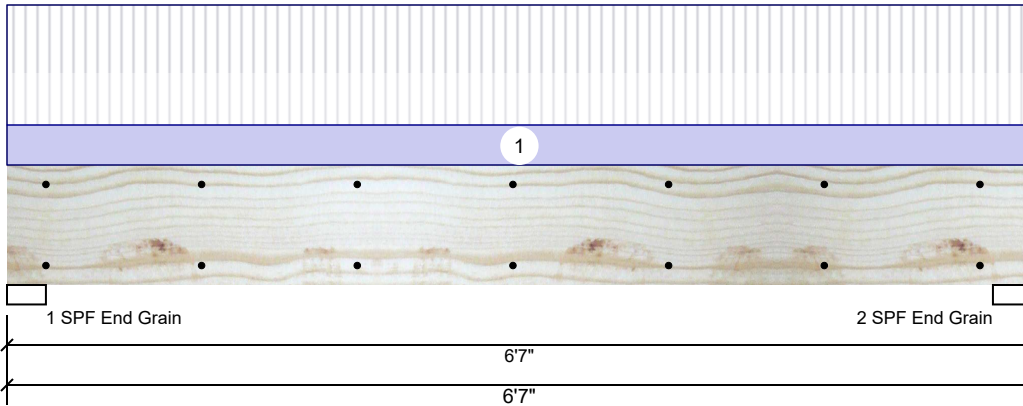
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**DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	2696	922	0	0	0
2	Vertical	2696	922	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L
2 - SPF End Grain	3.000"	Vert	41%	922 / 2696	3618	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5296 ft-lb	3'3 1/2"	12542 ft-lb	0.422 (42%)	D+L	L
Unbraced	5296 ft-lb	3'3 1/2"	9872 ft-lb	0.536 (54%)	D+L	L
Shear	2502 lb	1' 1/4"	6907 lb	0.362 (36%)	D+L	L
LL Defl inch	0.073 (L/1016)	3'3 1/2"	0.155 (L/480)	0.473 (47%)	L	L
TL Defl inch	0.098 (L/757)	3'3 1/2"	0.207 (L/360)	0.476 (48%)	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 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 laterally braced at end bearings.
- 7 Bottom must be laterally braced at end 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	273 PLF	819 PLF	0 PLF	0 PLF	0 PLF	F01
	Self Weight				7 PLF					

**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 11/3/2024

**Manufacturer Info**

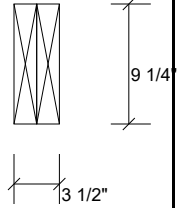
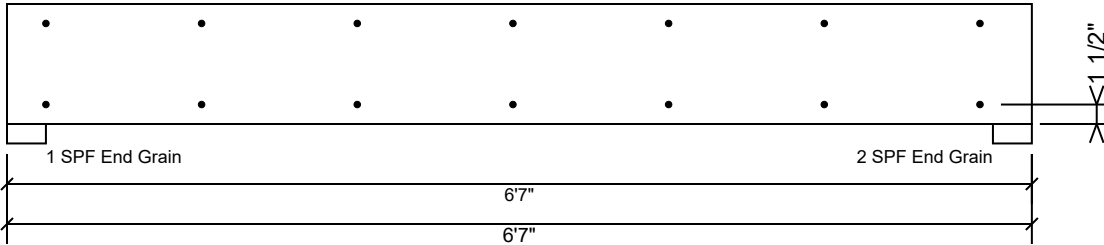
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**DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

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.
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 11/3/2024

**Manufacturer Info**

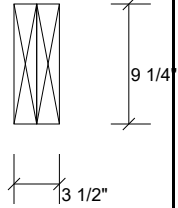
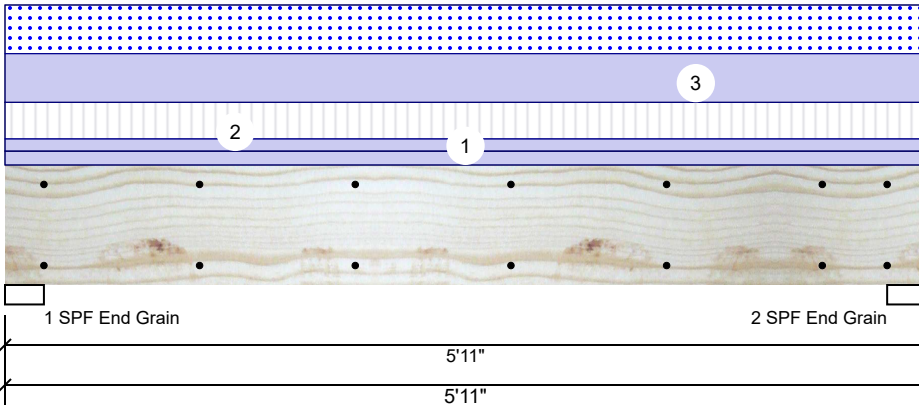
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**HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	932	1926	1240	0	0
2	Vertical	932	1926	1240	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	40%	1926 / 1629	3555	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4613 ft-lb	2'11 1/2"	14423 ft-lb	0.320 (32%)	D+0.75(L+S)	L
Unbraced	4613 ft-lb	2'11 1/2"	11027 ft-lb	0.418 (42%)	D+0.75(L+S)	L
Shear	2334 lb	4'10 3/4"	7943 lb	0.294 (29%)	D+0.75(L+S)	L
LL Defl inch	0.033 (L/2026)	2'11 1/2"	0.139 (L/480)	0.237 (24%)	0.75(L+S)	L
TL Defl inch	0.072 (L/928)	2'11 1/2"	0.185 (L/360)	0.388 (39%)	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 laterally braced at end bearings.
- 7 Bottom must be laterally braced at end 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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	105 PLF	315 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 PLF					

**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

**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 11/3/2024

**Manufacturer Info**

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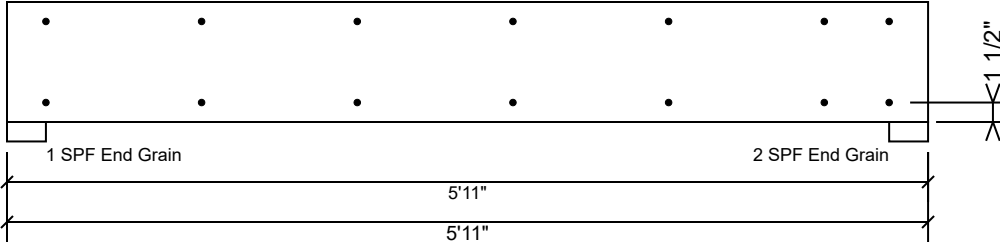
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**HDR1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

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.
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 11/3/2024

**Manufacturer Info**

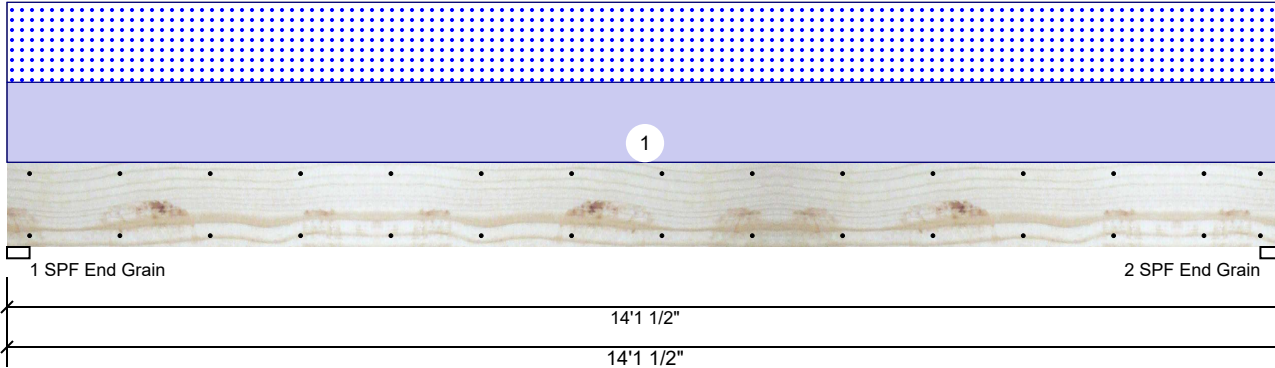
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**DB3 SP #2 2.000" X 12.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	586	586	0	0
2	Vertical	0	586	586	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	23%	586 / 586	1172	L	D+S
2 - SPF End Grain	3.000"	Vert	23%	586 / 586	1172	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3923 ft-lb	7' 3/4"	4548 ft-lb	0.863 (86%)	D+S	L
Unbraced	3923 ft-lb	7' 3/4"	3925 ft-lb	1.000 (100%)	D+S	L
Shear	975 lb	1'2 1/4"	4528 lb	0.215 (22%)	D+S	L
LL Defl inch	0.134 (L/1232)	7' 13/16"	0.344 (L/480)	0.390 (39%)	S	L
TL Defl inch	0.268 (L/616)	7' 13/16"	0.458 (L/360)	0.585 (58%)	D+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 laterally braced at a maximum of 7'2 3/8" o.c.
- 7 Bottom must be laterally braced at end 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	83 PLF	0 PLF	83 PLF	0 PLF	0 PLF	P TRUSSES

**Manufacturer Info**

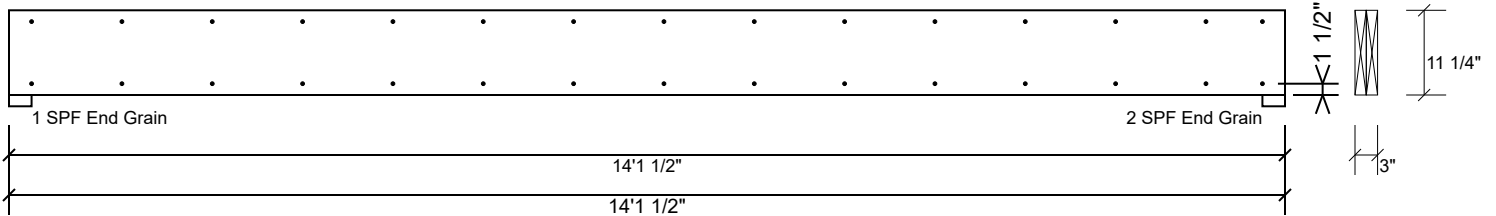
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This design is valid until 11/3/2024

**DB3 SP #2 2.000" X 12.000" 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	202.6 PLF
Yield Limit per Fastener	101.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

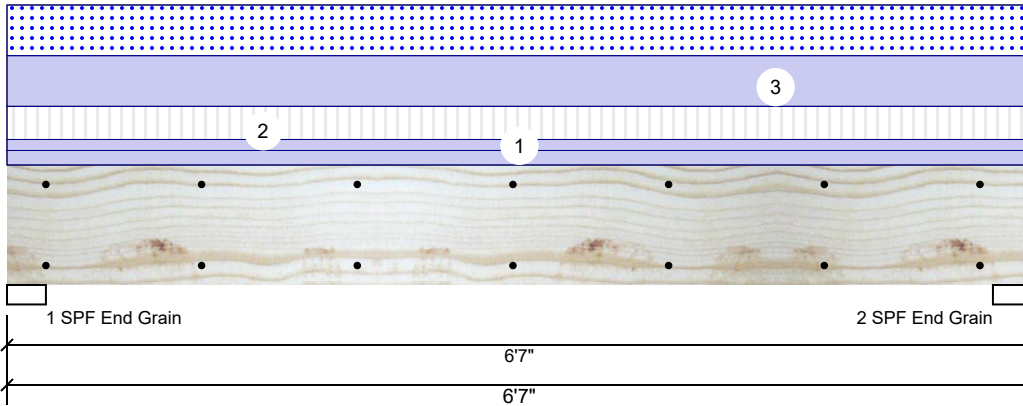
<b>Manufacturer Info</b>	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
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This design is valid until 11/3/2024

**HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	902	2097	1379	0	0
2	Vertical	902	2097	1379	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	Vert	43%	2097 / 1711	3808	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5574 ft-lb	3' 3/2"	14423 ft-lb	0.386 (39%)	D+0.75(L+S)	L
Unbraced	5574 ft-lb	3' 3/2"	10370 ft-lb	0.538 (54%)	D+0.75(L+S)	L
Shear	2633 lb	1' 1/4"	7943 lb	0.331 (33%)	D+0.75(L+S)	L
LL Defl inch	0.047 (L/1601)	3' 3/2"	0.155 (L/480)	0.300 (30%)	0.75(L+S)	L
TL Defl inch	0.104 (L/719)	3' 3/2"	0.207 (L/360)	0.501 (50%)	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 laterally braced at end bearings.
- 7 Bottom must be laterally braced at end 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	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	91 PLF	274 PLF	0 PLF	0 PLF	0 PLF	FLOOR TRUSSES
3	Uniform			Top	419 PLF	0 PLF	419 PLF	0 PLF	0 PLF	ROOF TRUSSES
	Self Weight				7 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**

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 11/3/2024

**Manufacturer Info**

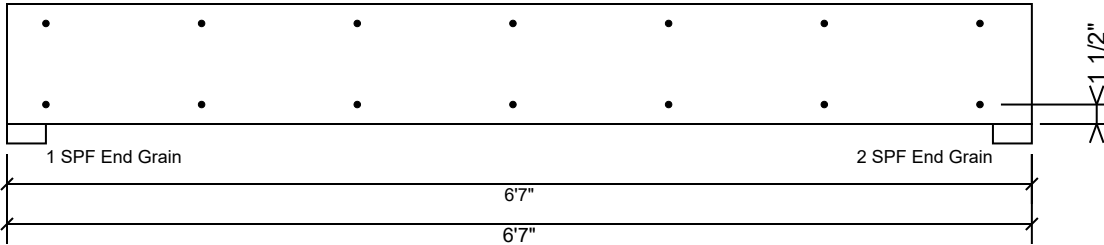
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**HDR2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

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.
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 11/3/2024

**Manufacturer Info**

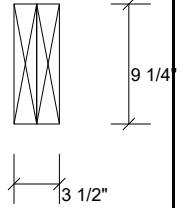
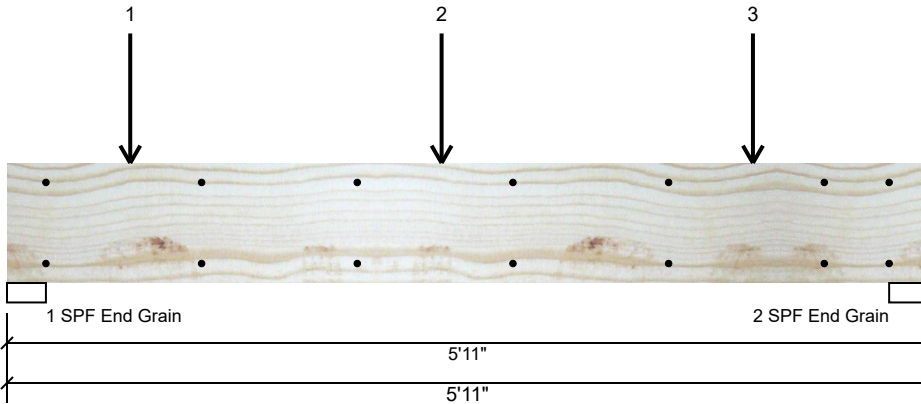
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**HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	0	1472	1451	0	0
2	Vertical	0	871	850	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	33%	1472 / 1451	2923	L	D+S
2 - SPF End Grain	3.000"	Vert	20%	871 / 850	1721	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4533 ft-lb	2'9 1/2"	14423 ft-lb	0.314 (31%)	D+S	L
Unbraced	4533 ft-lb	2'9 1/2"	11027 ft-lb	0.411 (41%)	D+S	L
Shear	2468 lb	1' 1/4"	7943 lb	0.311 (31%)	D+S	L
LL Defl inch	0.031 (L/2162)	2'9 1/2"	0.139 (L/480)	0.222 (22%)	S	L
TL Defl inch	0.062 (L/1074)	2'9 1/2"	0.185 (L/360)	0.335 (34%)	D+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 laterally braced at end bearings.
- 7 Bottom must be laterally braced at end 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	Point	0-9-8		Top	763 lb	0 lb	763 lb	0 lb	0 lb	A2
	Bearing Length	0-3-8								
2	Point	2-9-8		Top	1416 lb	0 lb	1416 lb	0 lb	0 lb	A1
	Bearing Length	0-3-8								
3	Point	4-9-8		Top	122 lb	0 lb	122 lb	0 lb	0 lb	YA2

Continued on page 2...

**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 11/3/2024

**Manufacturer Info**

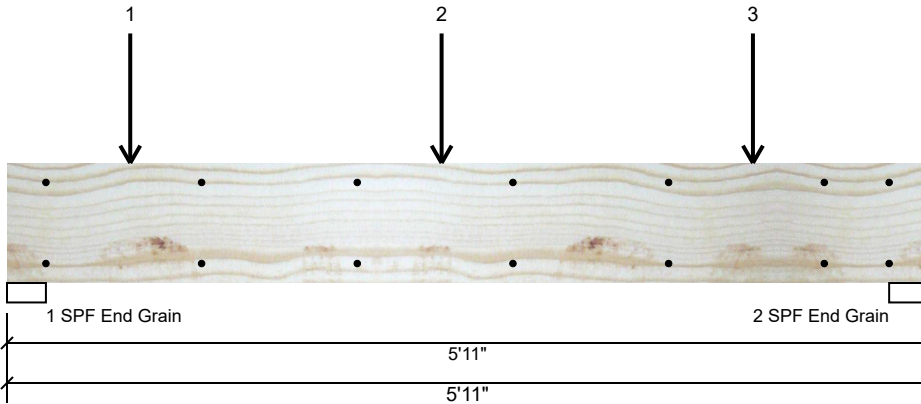
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**HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	Bearing Length	0-3-8								
	Self Weight				7 PLF					

**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

**Handling & Installation**

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6. For flat roofs provide proper drainage to prevent ponding

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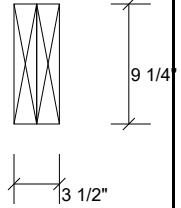
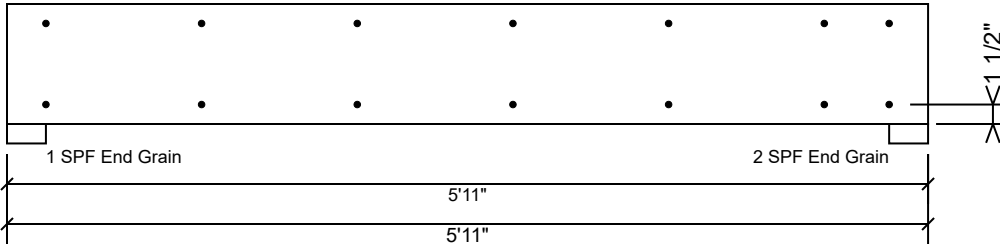
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**HDR3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

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.
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 11/3/2024

**Manufacturer Info**

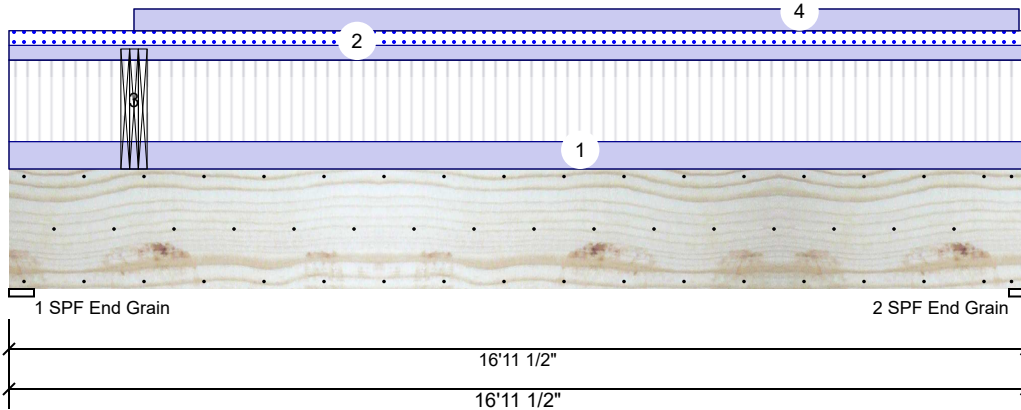
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**GDH-SL Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED** Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	3952	7922	4172	0	0
2	Vertical	3808	3687	1095	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.000"	Vert	95%	7922 / 6093	14015	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	73%	3687 / 3808	7494	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	32691 ft-lb	7'9 13/16"	73185 ft-lb	0.447 (45%)	D+L	L
Unbraced	33771 ft-lb	7'4 7/16"	33908 ft-lb	0.996 (100%)	D+0.75(L+S)	L
Shear	11010 lb	2'5"	20608 lb	0.534 (53%)	D+0.75(L+S)	L
LL Defl inch	0.121 (L/1624)	8'3"	0.410 (L/480)	0.295 (30%)	0.75(L+S)	L
TL Defl inch	0.254 (L/775)	8'1 11/16"	0.547 (L/360)	0.464 (46%)	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 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 loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 5'3" o.c.
- 7 Bottom must be laterally braced at end 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	151 PLF	451 PLF	0 PLF	0 PLF	0 PLF	F03
2	Uniform			Top	81 PLF	0 PLF	81 PLF	0 PLF	0 PLF	YA2
3	Point	2-1-0		Top	5588 lb	112 lb	3893 lb	0 lb	0 lb	DB1 Brg 2
	Bearing Length	0-5-4								

Continued on page 2...

**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 11/3/2024

**Manufacturer Info**

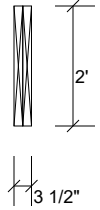
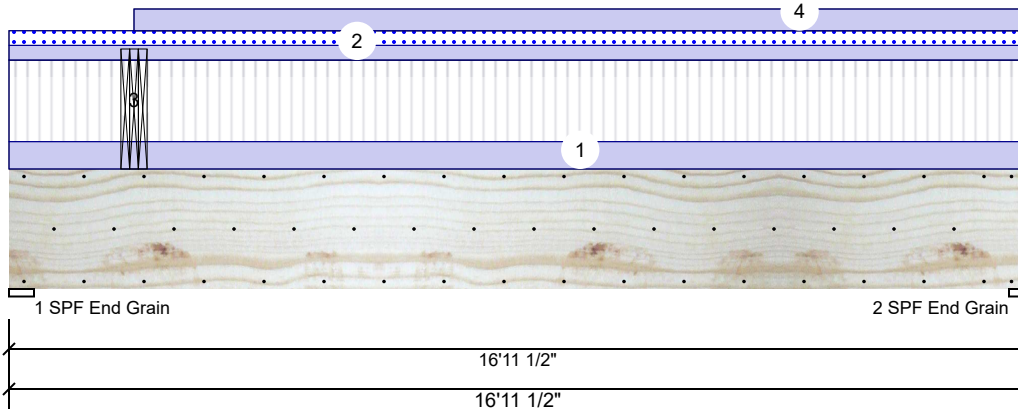
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**GDH-SL Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED**

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
4	Part. Uniform	2-1-0 to 16-10-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
	Self Weight				19 PLF					

**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

**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
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6. For flat roofs provide proper drainage to prevent ponding

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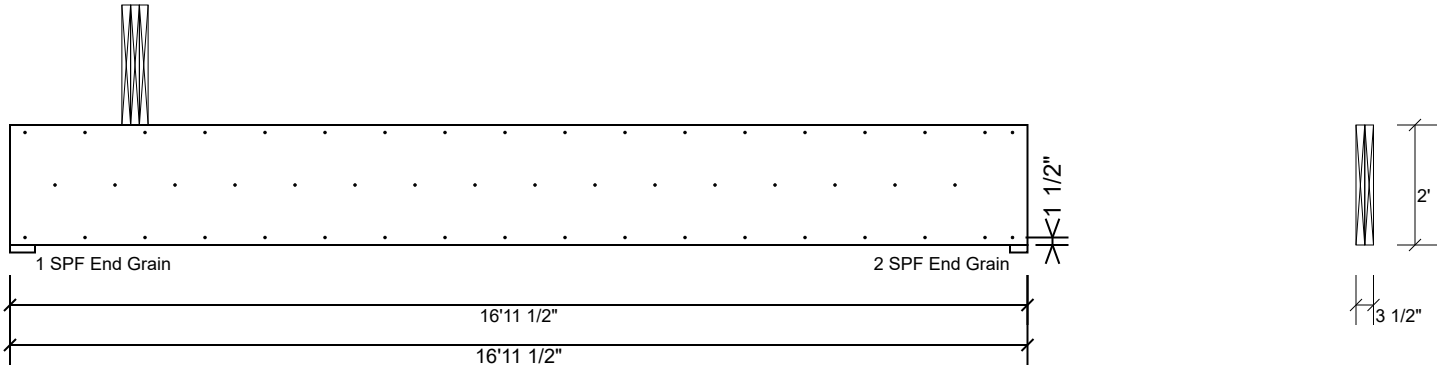
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This design is valid until 11/3/2024

**GDH-SL Kerto-S LVL 1.750" X 24.000" 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	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
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
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6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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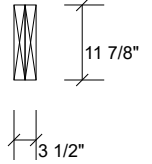
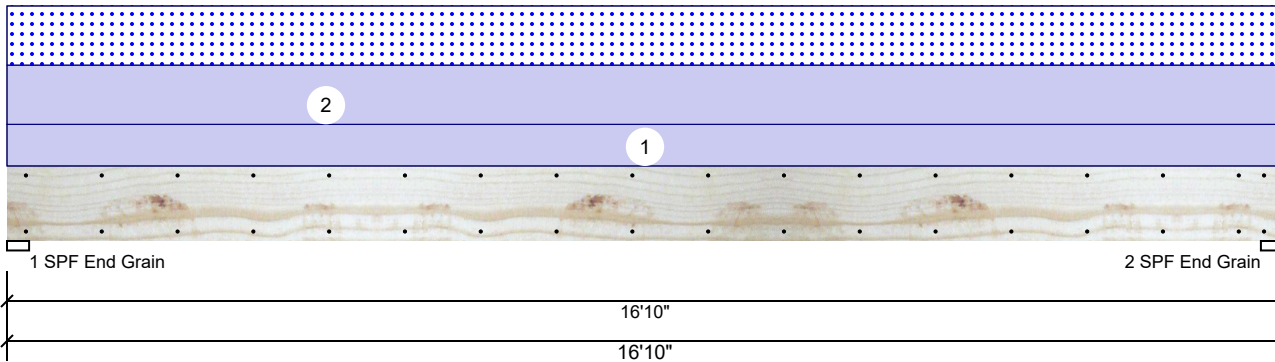
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**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
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	0	995	539	0	0
2	Vertical	0	995	539	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S
2 - SPF End Grain	3.500"	Vert	15%	995 / 539	1534	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6108 ft-lb	8'5"	22897 ft-lb	0.267 (27%)	D+S	L
Unbraced	6108 ft-lb	8'5"	6109 ft-lb	1.000 (100%)	D+S	L
Shear	1309 lb	1'3 3/8"	10197 lb	0.128 (13%)	D+S	L
LL Defl inch	0.112 (L/1755)	8'5 1/16"	0.409 (L/480)	0.273 (27%)	S	L
TL Defl inch	0.319 (L/617)	8'5 1/16"	0.546 (L/360)	0.584 (58%)	D+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 laterally braced at a maximum of 16'3 3/4" o.c.
- 7 Bottom must be laterally braced at end 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	45 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	64 PLF	0 PLF	64 PLF	0 PLF	0 PLF	P2
	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**

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

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 11/3/2024

**Manufacturer Info**

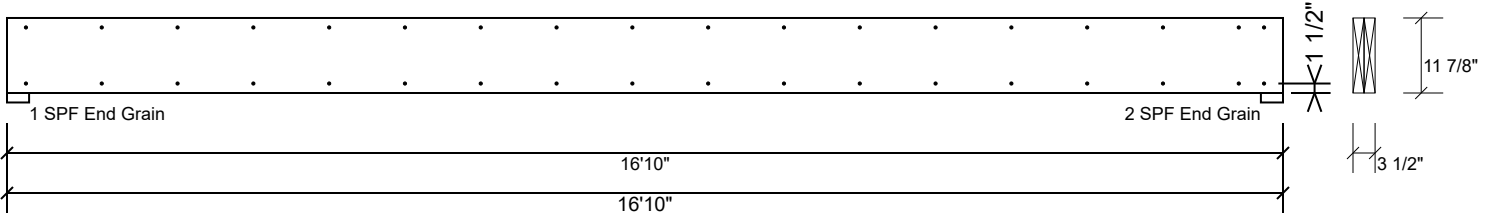
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**GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED**

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.
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
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chemicals

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