

RE: J1024-5770  
 Weaver Homes / Lot 3 Maple Hill / Harnett

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J1024-5770  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

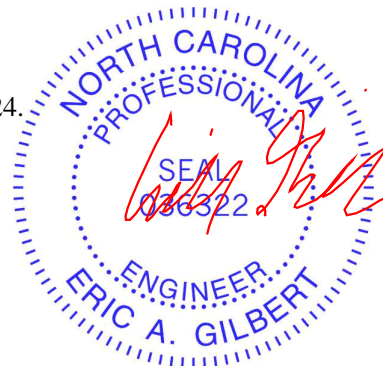
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7-10 Wind Speed: 130 mph  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 9 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I61792494	A1	11/3/2023
2	I61792495	A1GE	11/3/2023
3	I61792496	A2	11/3/2023
4	I61792497	A2GE	11/3/2023
5	I61792498	A3	11/3/2023
6	I61792499	C1GE	11/3/2023
7	I61792500	D1	11/3/2023
8	I61792501	D1GE	11/3/2023
9	I61792502	M1GE	11/3/2023

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.  
 Truss Design Engineer's Name: Gilbert, Eric  
 My license renewal date for the state of North Carolina is December 31, 2024.  
 North Carolina COA: C-0844

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



November 03, 2023

Job J1024-5770	Truss A1	Truss Type ROOF SPECIAL	Qty 3	Ply 1	Weaver Homes / Lot 3 Maple Hill / Harnett	161792494
-------------------	-------------	----------------------------	----------	----------	---	-----------

Comtech, Inc., Fayetteville, NC 28309

8:430 s Jan 6 2022 MiTek Industries, Inc. Fri Nov 3 07:44:24 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-NOKQjyDuMcl5uRrActXC3jmtQ\_DkaeqwhegS?yN84L

0-10-8 5-0-6 8-1-12 15-1-3 18-2-6 22-3-7 29-0-0 35-8-9 42-7-3 42-10-13 49-10-4 56-0-0 56-10-8  
 0-10-8 5-0-6 3-1-6 6-11-7 3-1-3 4-1-1 6-8-9 6-8-9 6-10-10 0-3-10 6-11-7 6-1-12 0-10-8

Scale = 1:102.8

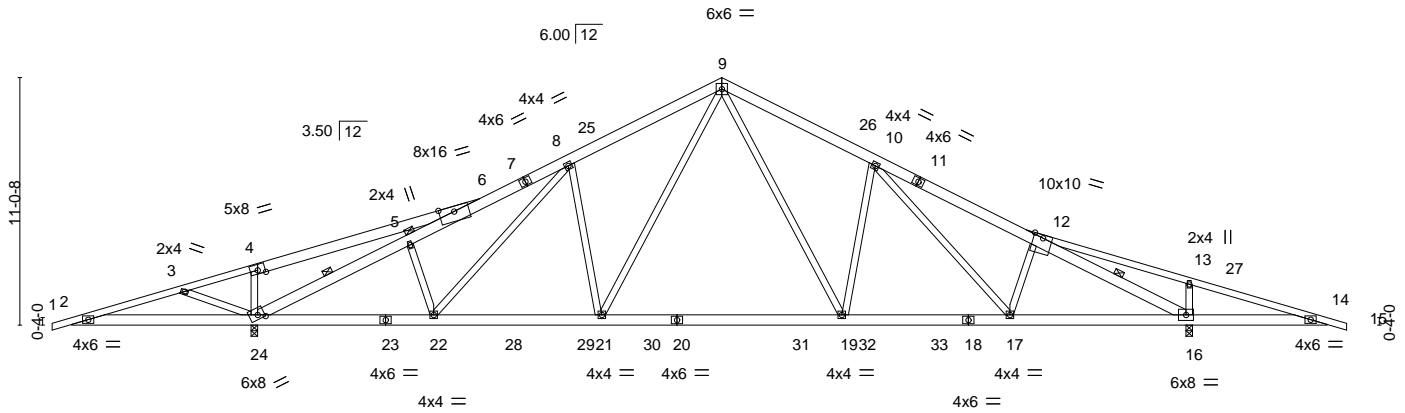


Plate Offsets (X,Y)--	[24:0-3-9,0-2-7]
-----------------------	------------------

<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 0.72	Vert(LL) -0.25 19-21	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT) -0.41 19-21	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT) 0.08 16	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.07 21-22	>999	240	Weight: 401 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1 \*Except\*  
 12-15,1-4: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins.  
 Except:  
 1 Row at midpt 5-24, 12-16  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 6-0-0 oc bracing: 2-24,14-16.  
 JOINTS 1 Brace at Jt(s): 5

**REACTIONS.** (size) 24=0-3-8, 16=0-3-8  
 Max Horz 24=130(LC 12)  
 Max Uplift 24=-307(LC 8), 16=-175(LC 9)  
 Max Grav 24=2402(LC 1), 16=2202(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-901/918, 3-4=-1059/1174, 4-6=-978/1173, 5-24=-3568/1067, 5-6=-3569/1063,  
 6-8=-2545/202, 8-9=-2443/422, 9-10=-2489/443, 10-12=-2766/271, 12-16=-3441/905,  
 12-13=-759/822, 13-14=-845/841  
 BOT CHORD 2-24=-848/917, 22-24=-107/2353, 21-22=-68/2237, 19-21=0/1691, 17-19=-70/2265,  
 16-17=-50/2504, 14-16=-754/870  
 WEBS 3-24=-252/220, 4-24=-505/218, 8-21=-472/234, 9-21=-128/1025, 9-19=-174/1122,  
 10-19=-563/271, 13-16=-455/253, 10-17=-61/301

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 4-9-9, Interior(1) 4-9-9 to 29-0-0, Exterior(2) 29-0-0 to 34-7-3, Interior(1) 34-7-3 to 56-10-8 zone; cantilever 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, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 307 lb uplift at joint 24 and 175 lb uplift at joint 16.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Weaver Homes / Lot 3 Maple Hill / Hamett	161792495
J1024-5770	A1GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:28 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-10-8	18-2-6	29-0-0	42-7-3	42-10-13	56-0-0	56-10-8
0-10-8	18-2-6	10-9-10	13-7-3	0-3-10	13-1-3	0-10-8

Scale = 1:100.1

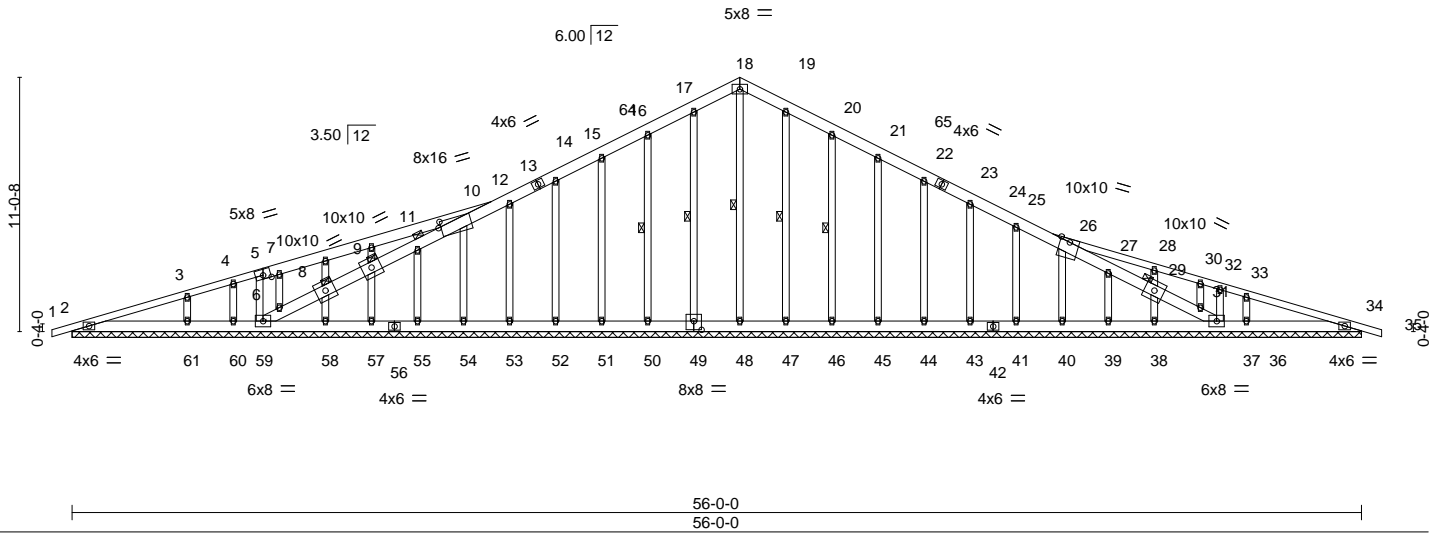


Plate Offsets (X, Y)--	[10:0-1-6-0-3-0], [49:0-4-0-0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL) 0.00 35 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) 0.01 35 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.01 34 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 472 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except* 26-35,1-5: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. Except: 6-0-0 oc bracing: 10-12
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-61,60-61,59-60,37-38.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 18-48, 17-49, 16-50, 19-47, 20-46
OTHERS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 11, 29, 8, 9

**REACTIONS.** All bearings 56-0-0.  
 (lb) - Max Horz 2=220(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 49, 50, 51, 52, 53, 55, 60, 47, 46, 45, 44, 43, 41, 40, 38 except 54=155(LC 12), 57=136(LC 1), 58=192(LC 8), 61=116(LC 12), 36=131(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 34, 48, 49, 50, 51, 52, 53, 55, 57, 60, 47, 46, 45, 44, 43, 41, 40, 39 except 54=304(LC 1), 58=456(LC 1), 61=350(LC 23), 38=262(LC 24), 36=438(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 14-15=-73/258, 15-16=-93/317, 16-17=-115/380, 17-18=-129/415, 18-19=-129/406, 19-20=-115/371, 20-21=-93/308  
 WEBS 10-54=-269/229, 8-58=-265/177, 6-7=-598/424, 3-61=-269/307, 33-36=-294/338

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-8 to 5-0-0, Exterior(2) 5-0-0 to 29-0-0, Corner(3) 29-0-0 to 34-7-3, Exterior(2) 34-7-3 to 56-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 34, 49, 50, 51, 52, 53, 55, 60, 47, 46, 45, 44, 43, 41, 40, 38 except (jt=lb) 54=155, 57=136, 58=192, 61=116, 36=131.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job J1024-5770	Truss A2	Truss Type ROOF SPECIAL	Qty 5	Ply 1	Weaver Homes / Lot 3 Maple Hill / Hamett 161792496
-------------------	-------------	----------------------------	----------	----------	---

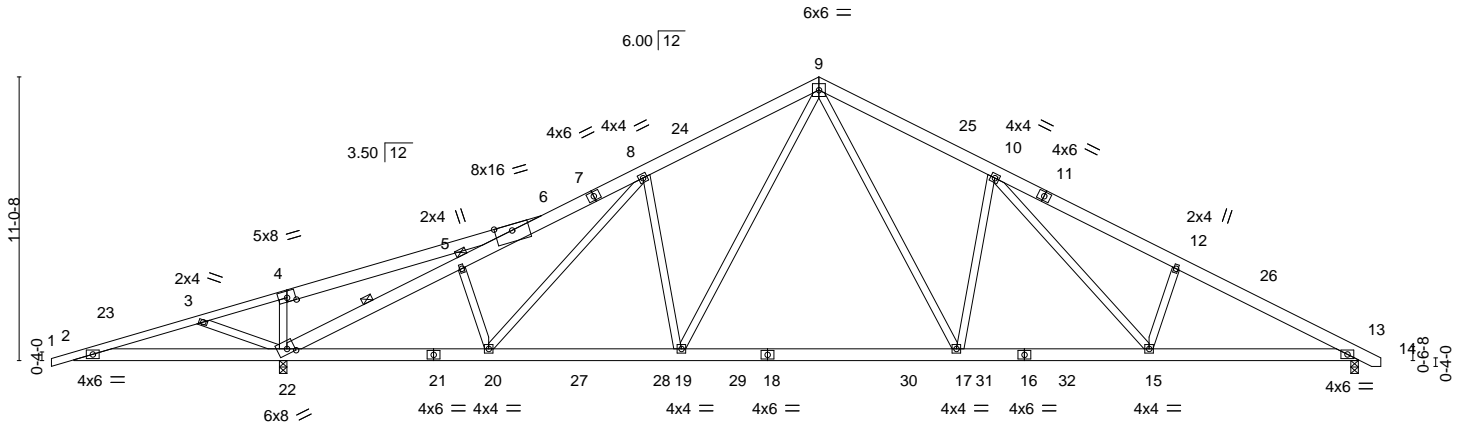
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:30 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-10-8	5-0-6	8-1-12	15-1-3	18-2-6	22-3-7	29-0-0	35-8-9	42-10-13	50-0-0	50-10-8
0-10-8	5-0-6	3-1-6	6-11-7	3-1-3	4-1-1	6-8-9	6-8-9	7-2-4	7-1-3	0-10-8

Scale = 1:89.7



8-1-12	16-1-12	23-6-0	34-6-0	41-10-4	50-0-0
8-1-12	8-0-0	7-4-4	11-0-0	7-4-4	8-1-12

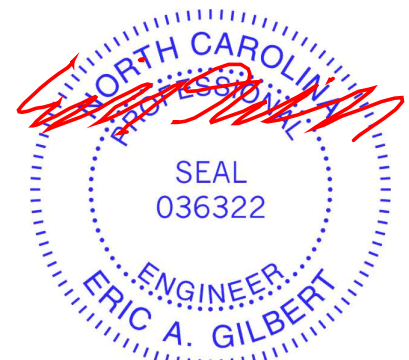
Plate Offsets (X, Y)--	[22:0-3-9,0-2-7]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.25	17-19	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.42	17-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.09	13	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.08	19-20	>999	240		
									Weight: 366 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 4-1-9 oc purlins.
1-4: 2x4 SP No.1	Except:
BOT CHORD 2x6 SP No.1	1 Row at midpt 5-22
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	6-0-0 oc bracing: 2-22.
	JOINTS 1 Brace at Jt(s): 5

<b>REACTIONS.</b>	(size) 13=0-3-8, 22=0-3-8
	Max Horz 22=143(LC 11)
	Max Uplift 13=115(LC 13), 22=307(LC 8)
	Max Grav 13=1732(LC 2), 22=2446(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-899/918, 3-4=-1044/1173, 4-6=-962/1172, 5-22=-3647/1104, 5-6=-3648/1100, 6-8=-2626/285, 8-9=-2527/504, 9-10=-2624/580, 10-12=-3139/637, 12-13=-3234/558
BOT CHORD	2-22=-847/916, 20-22=-105/2415, 19-20=-107/2302, 17-19=-26/1756, 15-17=-172/2376, 13-15=-369/2822
WEBS	4-22=-506/219, 9-19=-127/1025, 9-17=-237/1208, 10-17=-682/333, 10-15=-194/652, 12-15=-364/242, 8-19=-470/234, 3-22=-252/202

- 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) 0-10-8 to 4-1-8, Interior(1) 4-1-8 to 29-0-0, Exterior(2) 29-0-0 to 34-0-0, Interior(1) 34-0-0 to 50-8-6 zone; cantilever left 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, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=115, 22=307.
  - 6) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 3, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

Job	Truss	Truss Type	Qty	Ply	Weaver Homes / Lot 3 Maple Hill / Hamett	161792497
J1024-5770	A2GE	GABLE	1	1	Job Reference (optional)	

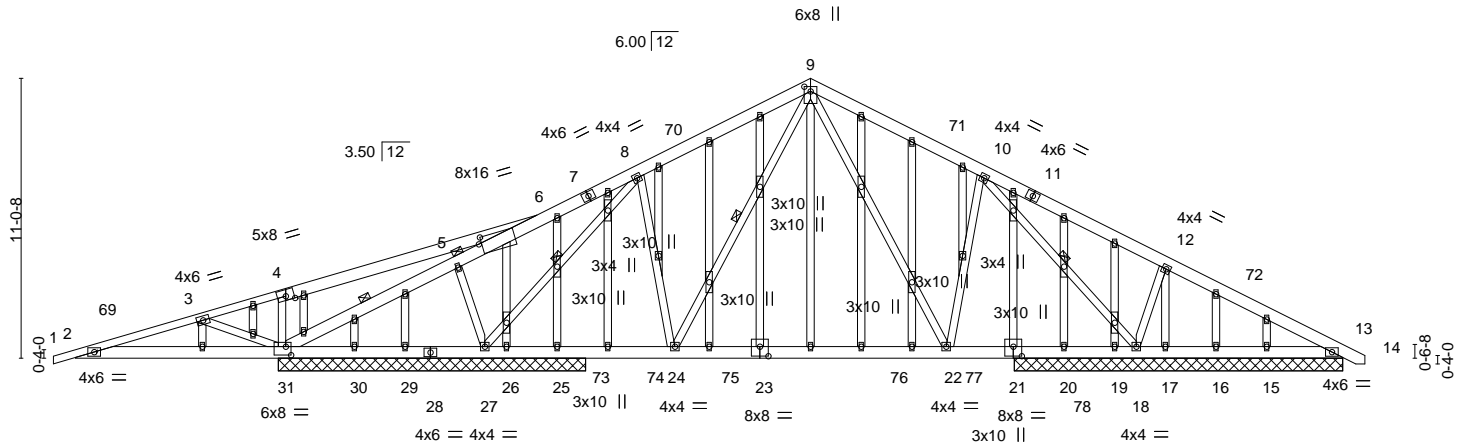
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:34 2023 Page 1

ID:ZmTdV4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f

0-10-8	5-0-6	8-1-12	15-1-3	18-2-6	22-3-7	29-0-0	35-8-9	42-10-13	50-0-0	50-10-8
0-10-8	5-0-6	3-1-6	6-11-7	3-1-3	4-1-1	6-8-9	6-8-9	7-2-4	7-1-3	0-10-8

Scale = 1:90.9



8-0-0	8-1-12	16-1-12	23-6-0	34-6-0	41-10-4	50-0-0
8-0-0	0-1-12	8-0-0	7-4-4	11-0-0	7-4-4	8-1-12

Plate Offsets (X, Y)-- [6:0-1-6,0-3-0], [9:0-2-4,0-3-0], [21:0-4-0,0-4-8], [23:0-4-0,0-4-8], [31:0-2-8,0-4-0]

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 0.66	Vert(LL)	-0.19 22-24	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.28 22-24	>859	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.02 13	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.03 22-24	>999	240	Weight: 509 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1 *Except* 1-4: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. Except: 1 Row at midpt 5-31
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-31,30-31,29-30,27-29.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 9-24, 10-18, 8-27
OTHERS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): 5

**REACTIONS.** All bearings 12-11-8 except (jt=length) 31=12-1-8, 27=12-1-8, 25=12-1-8, 26=12-1-8, 29=12-1-8, 30=12-1-8.  
 (lb) - Max Horz 31=220(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 13, 25, 26, 30, 20, 19, 15 except  
 31=-416(LC 8), 18=-436(LC 13), 27=-360(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 25, 26, 29, 30, 20, 19, 17, 16, 15  
 except 13=255(LC 24), 31=1256(LC 1), 18=1281(LC 2), 27=1234(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-425/940, 3-4=-540/1220, 4-6=-457/1227, 5-31=-965/385, 5-6=-984/398,  
 6-8=-104/400, 8-9=-928/351, 9-10=-996/346  
 BOT CHORD 2-31=-867/464, 30-31=-253/260, 29-30=-253/260, 27-29=-253/260, 26-27=-64/793,  
 25-26=-64/793, 24-25=-64/793, 22-24=0/728, 20-22=0/805, 19-20=0/805, 18-19=0/805  
 WEBS 4-31=-477/312, 9-24=-116/262, 9-22=-141/382, 10-22=-59/290, 10-18=-1208/176,  
 12-18=-413/315, 8-24=0/368, 8-27=-1423/292, 3-31=-283/165

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 4-1-8, Interior(1) 4-1-8 to 29-0-0, Exterior(2) 29-0-0 to 34-0-0, Interior(1) 34-0-0 to 50-8-6 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 25, 26, 30, 20, 19, 15 except (jt=lb) 31=416, 18=436, 27=360.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)

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

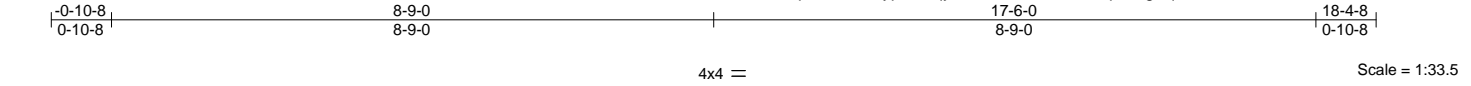


Job J1024-5770	Truss C1GE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Weaver Homes / Lot 3 Maple Hill / Hamett Job Reference (optional)	161792499
-------------------	---------------	------------------------------------	----------	----------	--	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:37 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.5

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 0.07	Vert(LL)	0.00	10	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	10	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 99 lb	FT = 20%

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

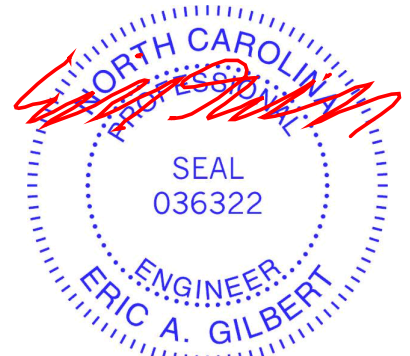
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 17-6-0.  
(lb) - Max Horz 2=97(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 17, 18, 19, 14, 13, 12, 10  
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 17, 18, 19, 14, 13, 12, 10

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 8-9-0, Corner(3) 8-9-0 to 13-1-13, Exterior(2) 13-1-13 to 18-4-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 17, 18, 19, 14, 13, 12, 10.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



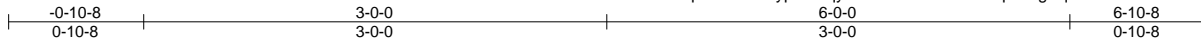
818 Soundside Road  
Edenton, NC 27932

Job J1024-5770	Truss D1	Truss Type COMMON	Qty 1	Ply 1	Weaver Homes / Lot 3 Maple Hill / Hamett 161792500
-------------------	-------------	----------------------	----------	----------	---

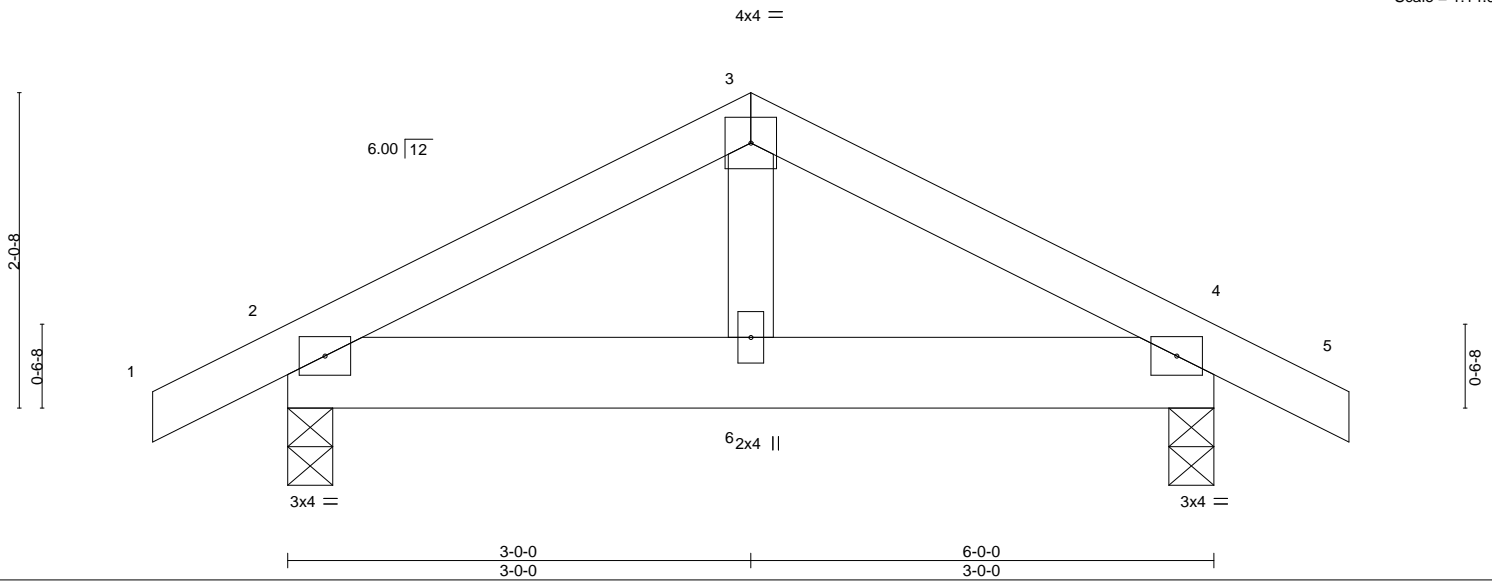
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:38 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:14.9



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 0.10	Vert(LL)	-0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.00	6	>999		
								Weight: 29 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.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=25(LC 11)  
 Max Uplift 2=-28(LC 12), 4=-28(LC 13)  
 Max Grav 2=290(LC 1), 4=290(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-254/105, 3-4=-254/105

- 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) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



November 3, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
 Edenton, NC 27932



Job J1024-5770	Truss D1GE	Truss Type GABLE	Qty 1	Ply 1	Weaver Homes / Lot 3 Maple Hill / Hamett Job Reference (optional)	161792501
-------------------	---------------	---------------------	----------	----------	--	-----------

Comtech, Inc. Fayetteville, NC - 28314,

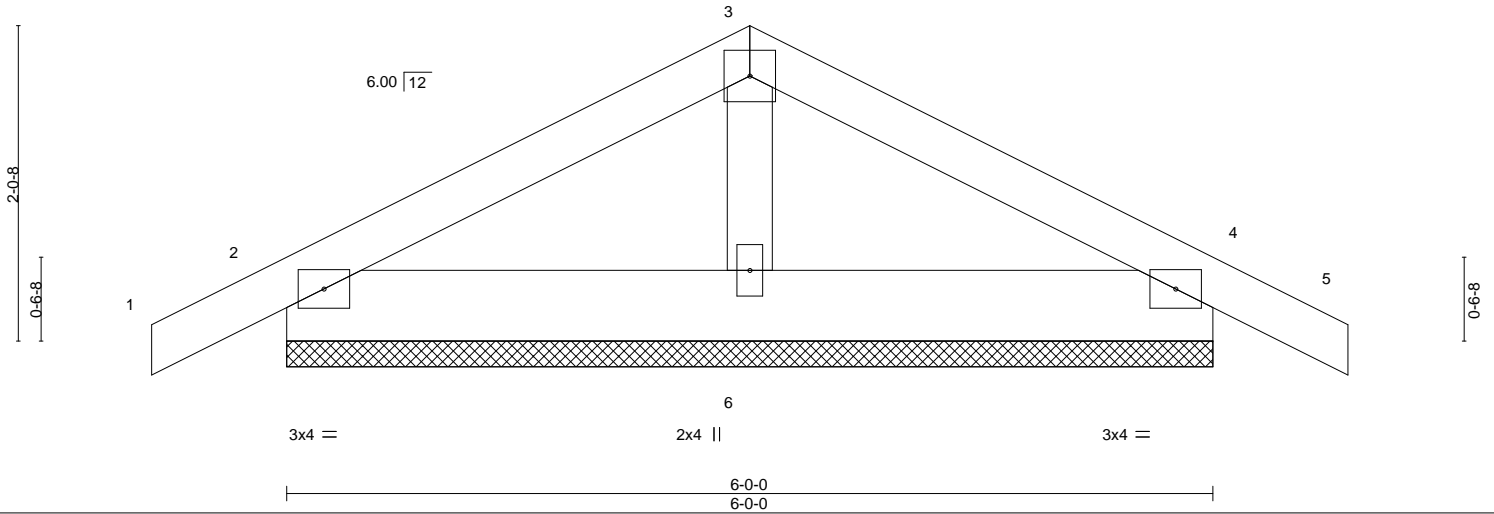
8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:39 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:14.9

4x4 =



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 0.16	Vert(LL)	0.00	5	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.01	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 29 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=6-0-0, 4=6-0-0, 6=6-0-0  
 Max Horz 2=39(LC 12)  
 Max Uplift 2=-70(LC 12), 4=-76(LC 13), 6=-9(LC 12)  
 Max Grav 2=184(LC 1), 4=184(LC 1), 6=217(LC 1)

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

**NOTES-**

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



November 3, 2023

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



818 Soundside Road  
 Edenton, NC 27932

Job J1024-5770	Truss M1GE	Truss Type GABLE	Qty 1	Ply 1	Weaver Homes / Lot 3 Maple Hill / Hamett Job Reference (optional)	161792502
-------------------	---------------	---------------------	----------	----------	--	-----------

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Thu Nov 2 09:32:40 2023 Page 1

ID:ZmTDv4qbsKr3TViUypMWiqyNUuO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f  
13-4-13  
13-4-13

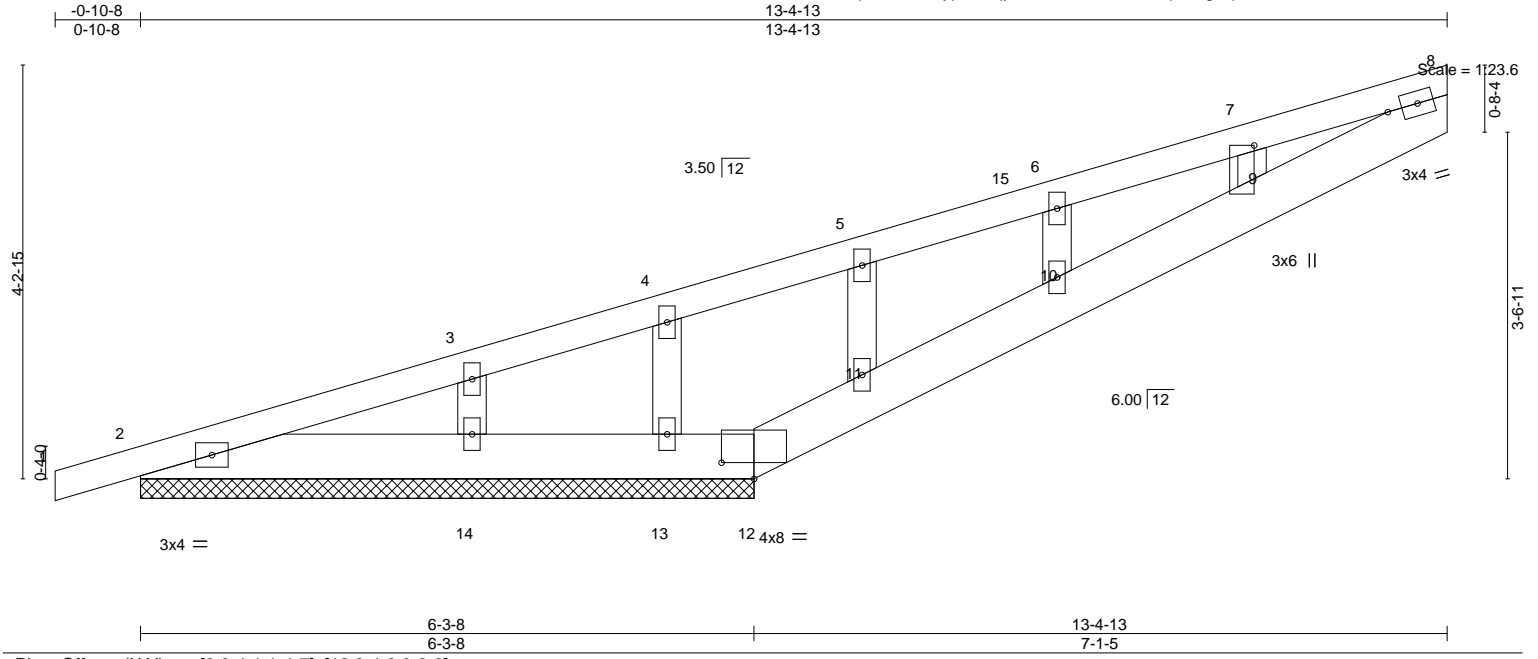


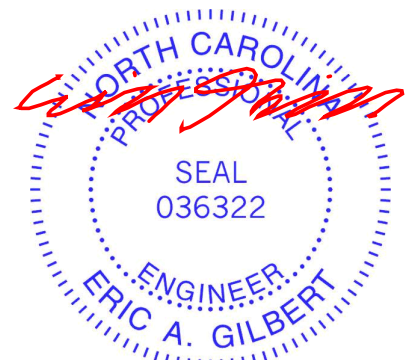
Plate Offsets (X, Y)--	[9:0-4-1,1-4-7], [12:0-4-0,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.38	Vert(CT) 0.00 1 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) -0.00 12 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 62 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 9-0-2 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS 2x4 SP No.2	

**REACTIONS.** All bearings 6-3-8.  
 (lb) - Max Horz 2=187(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14 except 12=500(LC 12), 13=624(LC 1)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 13 except 12=1522(LC 1), 14=280(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-490/861, 3-4=-462/859, 4-5=-441/861, 5-6=-406/832, 6-7=-383/849, 7-8=-349/827  
 BOT CHORD 2-14=-805/333, 13-14=-805/333, 12-13=-805/333, 11-12=-1093/443, 10-11=-976/407,  
 9-10=-936/392, 8-9=-836/345

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-4-13, Interior(1) 3-4-13 to 13-4-13 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) All plates are 2x4 MT20 unless otherwise indicated.
  - 4) Gable 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 100 lb uplift at joint(s) 2, 14 except (jt=lb) 12=500, 13=624.
  - 8) Non Standard bearing condition. Review required.

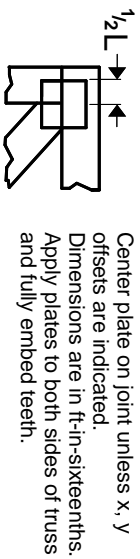


November 3, 2023

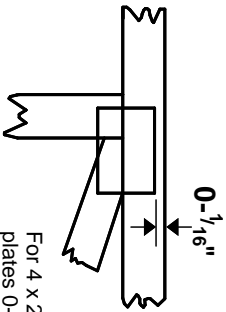
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
--	---

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ \" from outside edge of truss.



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

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

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING

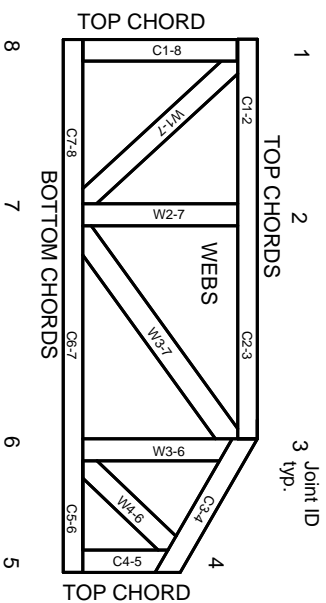


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

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

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

© 2023 MITek® All Rights Reserved

# 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.

**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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