



# ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

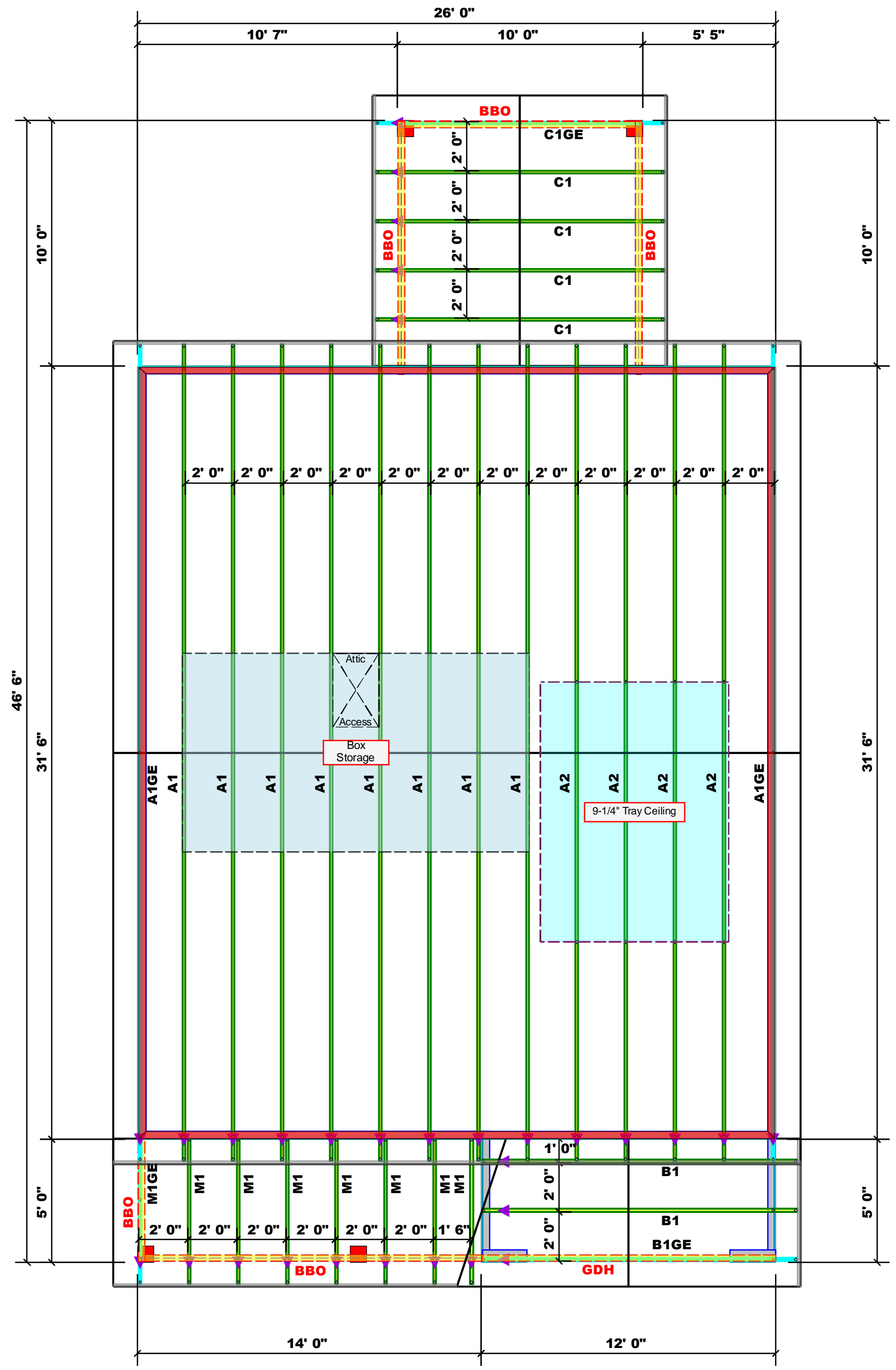
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Jonathan Landry  
**Jonathan Landry**

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TYP. HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.  
 -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

All Walls Shown Are Considered Load Bearing

Roof Area = 1402.88 sq.ft.  
 Ridge Line = 45.04 ft.  
 Hip Line = 0 ft.  
 Horiz. OH = 99.08 ft.  
 Raked OH = 120.39 ft.  
 Decking = 48 sheets

- Dimension Notes**
- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
  - All interior wall dimensions are to face of stud unless noted otherwise
  - All exterior wall to truss dimensions are to face of stud unless noted otherwise

**Hatch Legend**

- Second Floor Walls
- Tray Ceiling
- Box Storage
- Flush Beam
- Drop Beam

**1** Truss Placement Plan  
 Scale: 1/4"=1'

▲ = Denotes Left End of Truss  
 (Reference Engineered Truss Drawing)

BUILDER	WEAVER HOMES	CITY / CO.	LILLINGTON / HARNETT
JOB NAME	Lot 1 Maple Hill	ADDRESS	4238 Barrach Road
PLAN	Magnolia "A" / GRF, CP	MODEL	Roof
SEAL DATE	N/A	DATE REV.	12/06/24
QUOTE #		DRAWN BY	Jonathan Landry
JOB #	J1224-6496	SALES REP.	Lenny Norris

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



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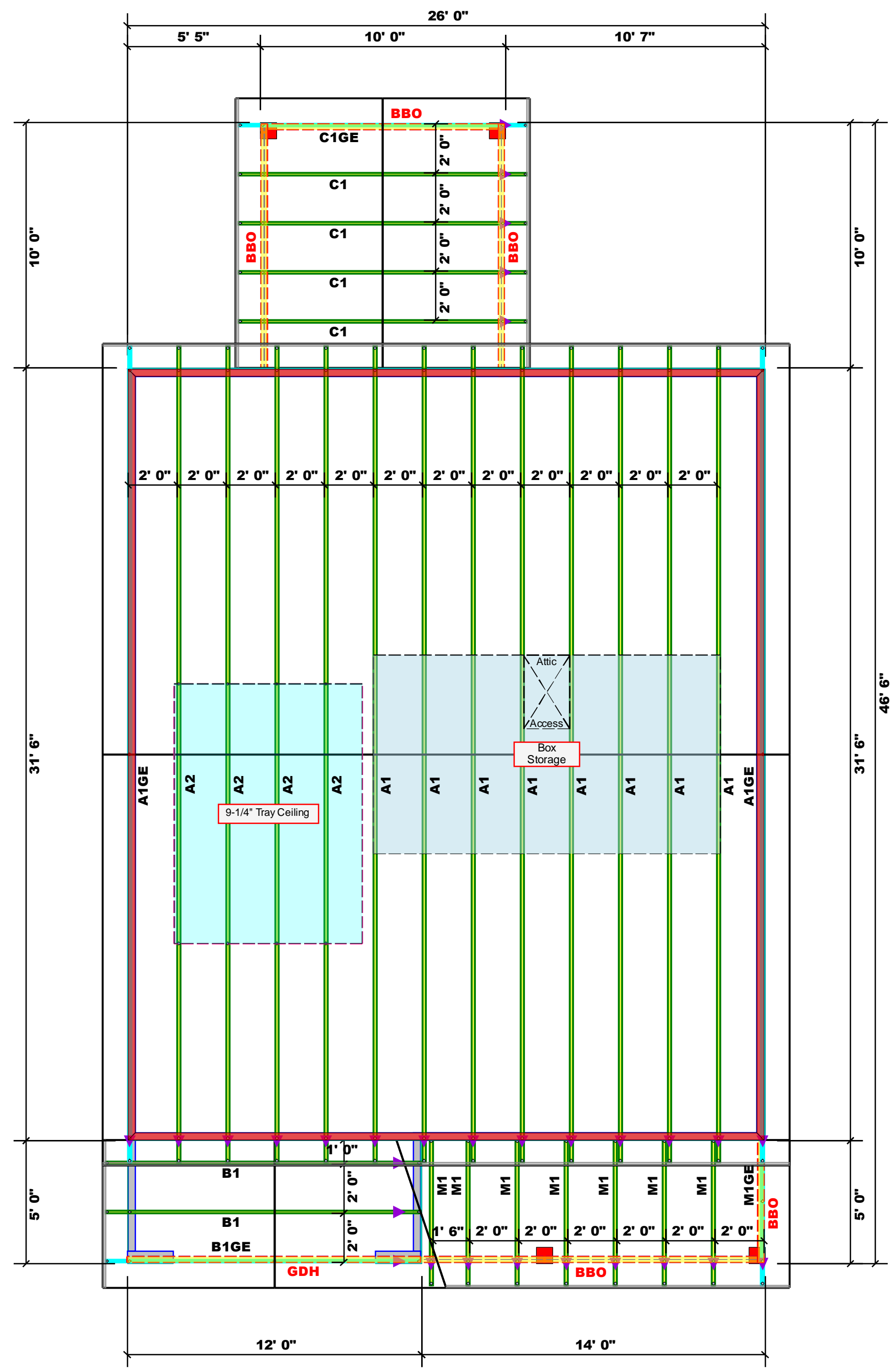
Signature Jonathan Landry  
**Jonathan Landry**

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (2))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (D) TLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) TLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

All Walls Shown Are Considered Load Bearing

Roof Area = 1402.88 sq.ft.  
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Hip Line = 0 ft.  
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  - All interior wall dimensions are to face of stud unless noted otherwise
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**Hatch Legend**

- Second Floor Walls
- Tray Ceiling
- Box Storage
- Flush Beam
- Drop Beam

**1** Truss Placement Plan  
Scale: 1/4"=1'

▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

BUILDER	WEAVER HOMES	CITY / CO.	LILLINGTON / HARNETT
JOB NAME	Lot 1 Maple Hill	ADDRESS	4238 Barrach Road
PLAN	Magnolia "A" / GRF, CP	MODEL	Roof
SEAL DATE	N/A	DATE REV.	12/06/24
QUOTE #		DRAWN BY	Jonathan Landry
JOB #	J1224-6496	SALES REP.	Lenny Norris

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J1224-6496  
Lot 1 Maple Hill

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

Pages or sheets covered by this seal: I70033751 thru I70033759

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

North Carolina COA: C-0844



December 6, 2024

Johnson, Andrew

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Maple Hill	170033751
J1224-6496	A1	FINK	8	1		

Comtech, Inc. Fayetteville, NC - 28314,

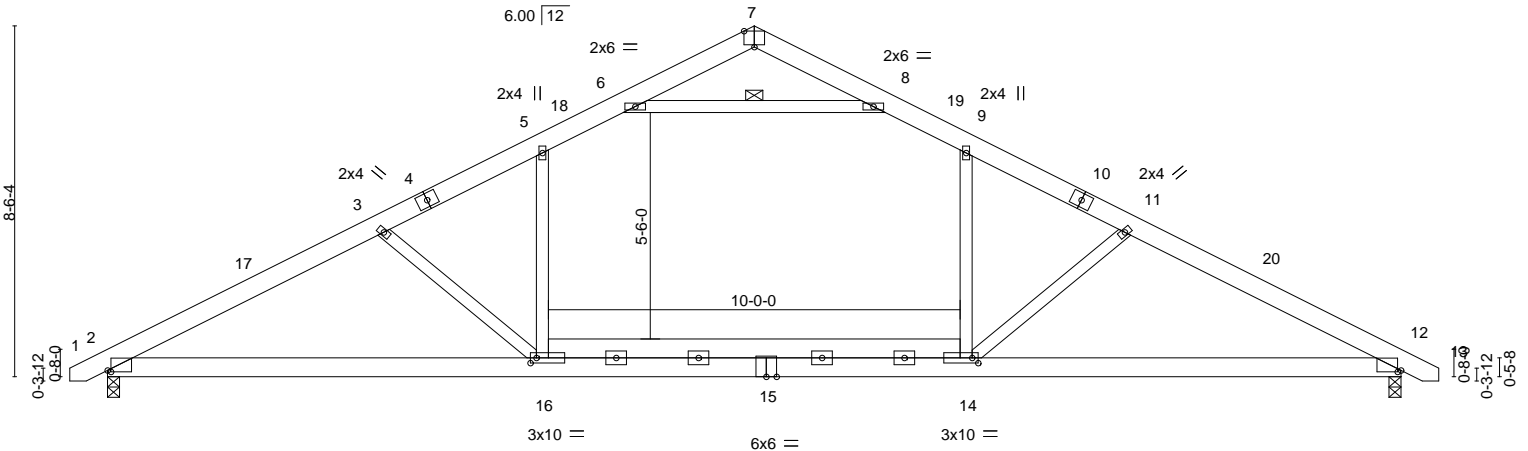
8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:35 2024 Page 1

ID:lwPOH6hK8JepTT6SXqQJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Job Reference (optional)

-0-11-0	6-8-8	10-8-8	15-8-8	20-8-8	24-8-8	31-5-0	32-4-0
0-11-0	6-8-8	4-0-0	5-0-0	5-0-0	4-0-0	6-8-8	0-11-0

Scale = 1:56.0



	10-8-8	20-8-8	31-5-0
	10-8-8	10-0-0	10-8-8
Plate Offsets (X,Y)--	[2:0-1-0,0-0-7], [7:0-3-0,Edge], [12:0-1-0,0-0-7], [14:0-1-12,0-1-8], [16:0-1-12,0-1-8]		

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 0.54	Vert(LL) -0.24 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.35 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.18 2-16 >999 240	Weight: 223 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-10-6 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 6-8

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
 Max Horz 2=-142(LC 10)  
 Max Uplift 2=-243(LC 12), 12=-243(LC 13)  
 Max Grav 2=1364(LC 2), 12=1364(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2405/866, 3-5=-2109/763, 5-6=-1688/732, 6-7=0/269, 7-8=0/269, 8-9=-1688/732,  
 9-11=-2109/763, 11-12=-2406/866  
 BOT CHORD 2-16=-624/2126, 14-16=-380/1759, 12-14=-617/2079  
 WEBS 3-16=-532/324, 5-16=-97/742, 9-14=-97/742, 11-14=-532/324, 6-8=-2012/704

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 32-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are 4x6 MT20 unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 2 and 243 lb uplift at joint 12.
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6496	Truss A1GE	Truss Type GABLE	Qty 2	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033752
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Comtech, Inc. Fayetteville, NC - 28314,

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-0-11-0	16-7-8	32-4-0	33-3-0
0-11-0	15-8-8	15-8-8	0-11-0

Scale = 1:58.4

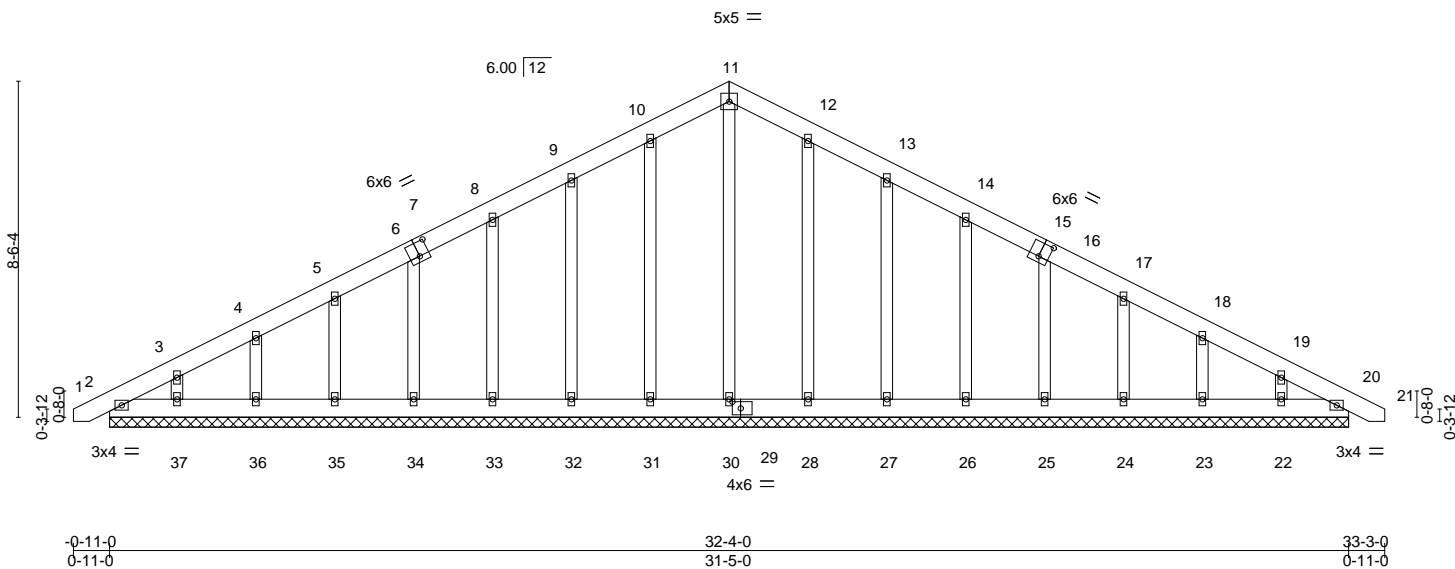


Plate Offsets (X,Y)--	[7:0-3-0,0-4-4], [15:0-3-0,0-4-4], [29:0-2-8,0-2-0]				
<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) 0.00 20 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) 0.00 20 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.01 20 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 248 lb	FT = 20%

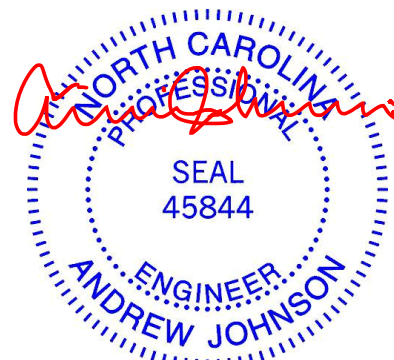
**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
OTHERS 2x4 SP No.2

**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 31-5-0.  
(lb) - Max Horz 2=221(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 31, 28 except 32=-118(LC 12), 33=-108(LC 12), 34=-108(LC 12), 35=-108(LC 12), 36=-109(LC 12), 37=-131(LC 12), 27=-121(LC 13), 26=-108(LC 13), 25=-107(LC 13), 24=-108(LC 13), 23=-109(LC 13), 22=-123(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 30, 31, 32, 33, 34, 35, 36, 37, 28, 27, 26, 25, 24, 23, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-299/97, 9-10=-121/306, 10-11=-142/366, 11-12=-142/366, 12-13=-121/306

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable 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, 20, 31, 28 except (jt=lb) 32=118, 33=108, 34=108, 35=108, 36=109, 37=131, 27=121, 26=108, 25=107, 24=108, 23=109, 22=123.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 6, 2024

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



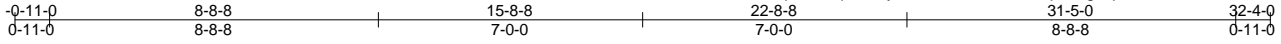
818 Soundside Road  
Edenton, NC 27932

Job J1224-6496	Truss A2	Truss Type ROOF SPECIAL	Qty 4	Ply 1	Lot 1 Maple Hill	170033753
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:37 2024 Page 1

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Scale = 1:61.0

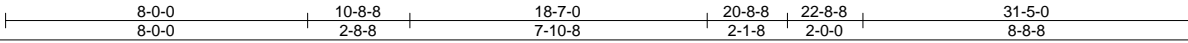
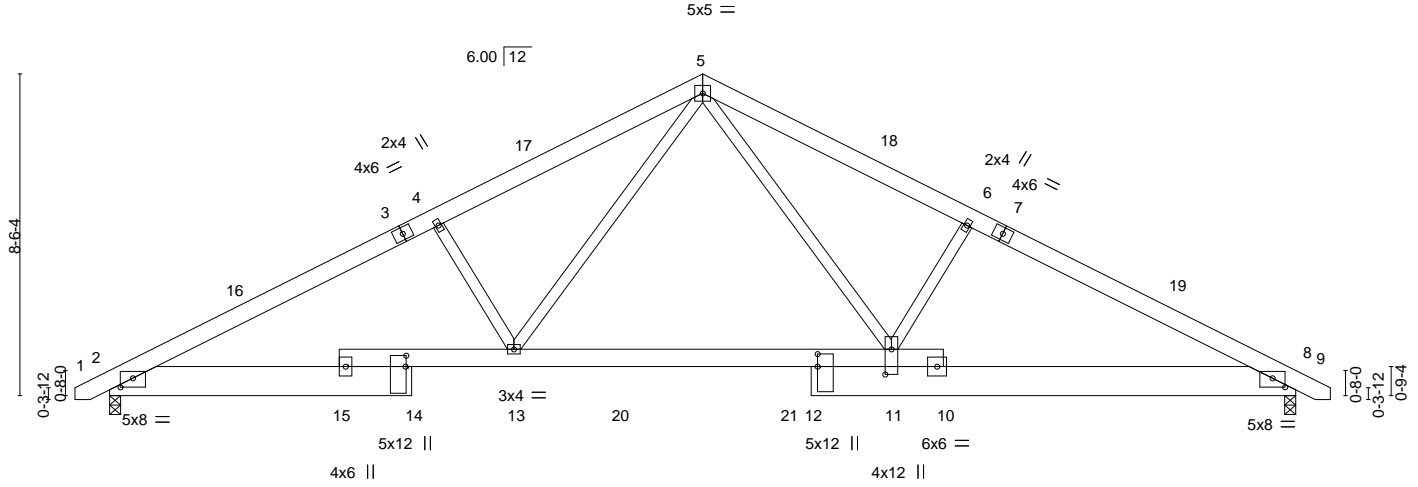


Plate Offsets (X,Y)-- [2:0-4-0,0-2-14], [8:0-4-0,0-2-14], [11:0-8-0,0-2-0], [12:0-4-0,0-0-0], [14:0-3-8,0-0-4]

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 0.24	Vert(LL)	-0.17 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.29 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-S	Wind(LL)	0.09 11-13	>999	240		
								Weight: 243 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins.
BOT CHORD 2x10 SP No.1 *Except* 10-15: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 9-7-8 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=142(LC 11)  
 Max Uplift 2=-243(LC 12), 8=-243(LC 13)  
 Max Grav 2=1297(LC 1), 8=1297(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-2430/922, 4-5=-2182/940, 5-6=-2124/882, 6-8=-2325/855  
 BOT CHORD 2-13=-650/2096, 11-13=-277/1352, 8-11=-608/1980  
 WEBS 4-13=-429/393, 5-13=-356/993, 5-11=-271/919, 6-11=-430/396

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 32-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=243, 8=243.
  - 6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

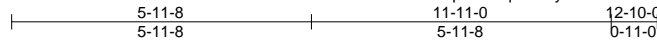


Job J1224-6496	Truss B1	Truss Type COMMON	Qty 2	Ply 1	Lot 1 Maple Hill 170033754
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Comtech, Inc. Fayetteville, NC - 28314,

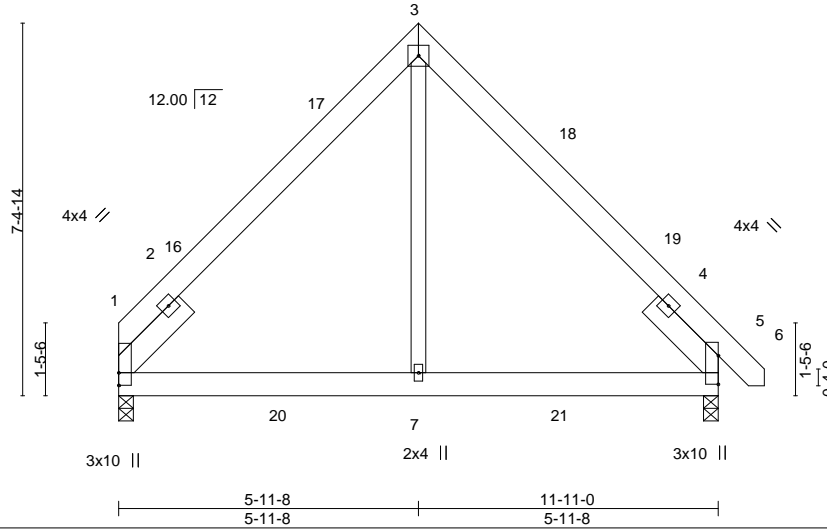
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5x5 =

Scale = 1:45.8



<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 0.17	Vert(LL)	0.02 7-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02 7-10	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.02 5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 90 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 SLIDER Left 2x6 SP No.1 1-11-0, Right 2x6 SP No.1 1-11-0

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

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-206(LC 8)  
 Max Uplift 1=-76(LC 13), 5=-80(LC 12)  
 Max Grav 1=568(LC 20), 5=596(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-570/273, 3-5=-570/272  
 BOT CHORD 1-7=-23/381, 5-7=-23/381  
 WEBS 3-7=-66/387

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 5-11-8, Exterior(2) 5-11-8 to 10-4-5, Interior(1) 10-4-5 to 12-8-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



December 6, 2024

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

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818 Soundside Road  
Edenton, NC 27932

Job J1224-6496	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033755
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:38 2024 Page 1

ID:lwPOH6hK8Jeptt6SXqQOJcym6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5x5 =

Scale = 1:43.7

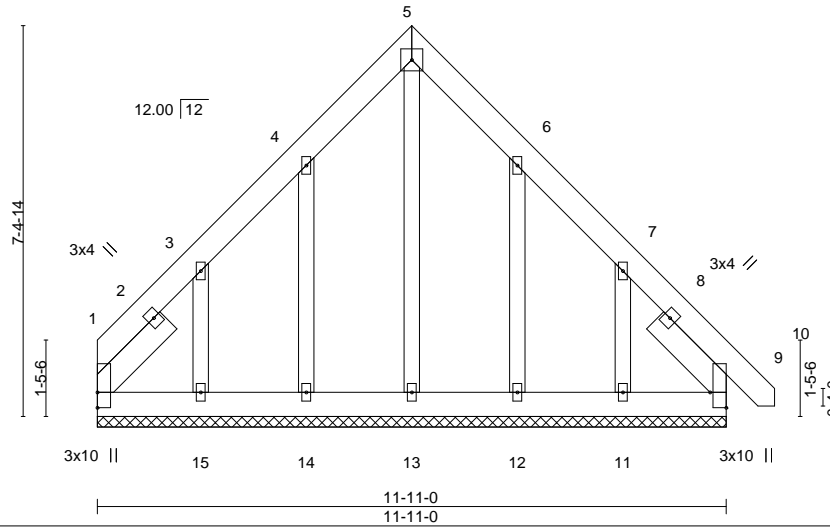


Plate Offsets (X,Y)-- [9:Edge,0-3-11]

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 0.05	Vert(LL)	-0.00	9	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 111 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	
SLIDER Left 2x6 SP No.1 1-11-0, Right 2x6 SP No.1 1-11-0	


**REACTIONS.** All bearings 11-11-0.  
 (lb) - Max Horz 1=276(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=129(LC 10), 14=162(LC 12), 15=361(LC 12), 12=159(LC 13), 11=343(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 12 except 15=274(LC 19), 11=251(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-299/208, 7-9=-256/153  
 WEBS 3-15=-319/352, 7-11=-319/335

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 1=129, 14=162, 15=361, 12=159, 11=343.



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6496	Truss C1	Truss Type COMMON	Qty 4	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033756
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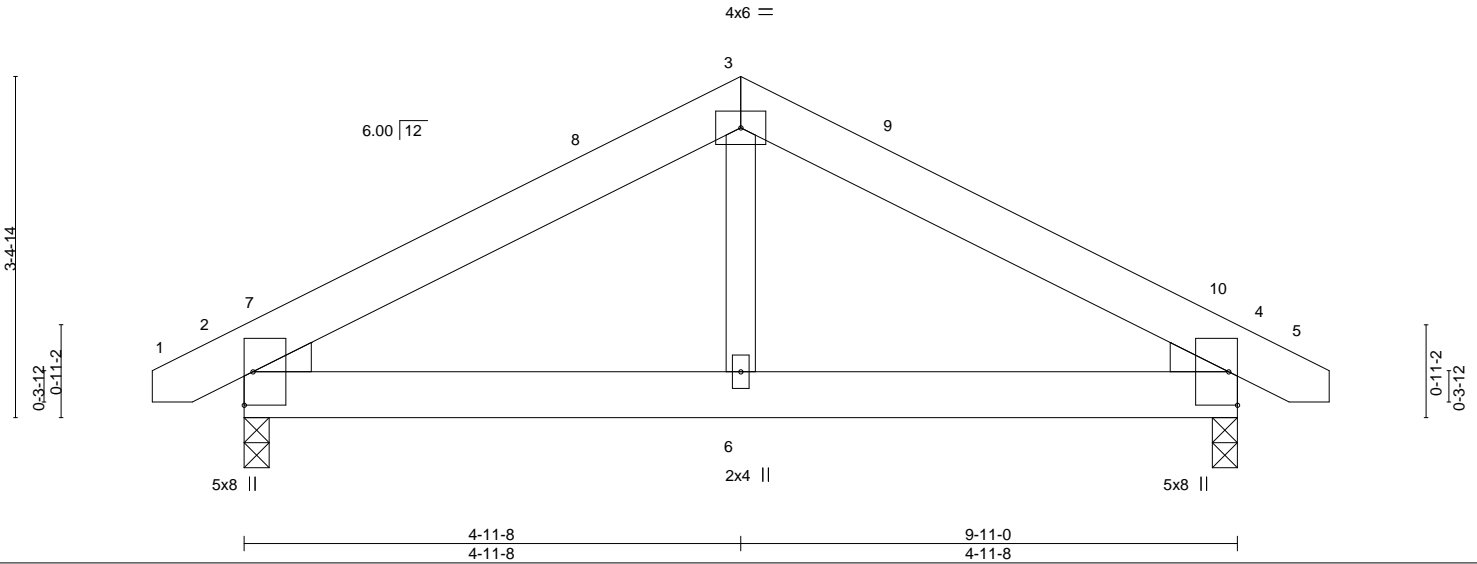
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:38 2024 Page 1

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Scale = 1:23.0



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 0.32	Vert(LL)	0.02 2-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.01 4-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 60 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 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=0-3-0, 4=0-3-0  
 Max Horz 2=-52(LC 8)  
 Max Uplift 2=-158(LC 9), 4=-158(LC 8)  
 Max Grav 2=437(LC 1), 4=437(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-492/756, 3-4=-492/756  
 BOT CHORD 2-6=-534/359, 4-6=-534/359  
 WEBS 3-6=-433/229

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 4-11-8, Exterior(2) 4-11-8 to 9-4-5, Interior(1) 9-4-5 to 10-7-10 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 100 lb uplift at joint(s) except (jt=lb) 2=158, 4=158.



December 6, 2024

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

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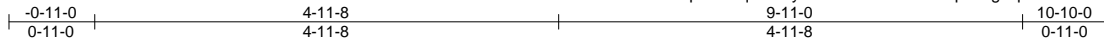
818 Soundside Road  
 Edenton, NC 27932

Job J1224-6496	Truss C1GE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033757
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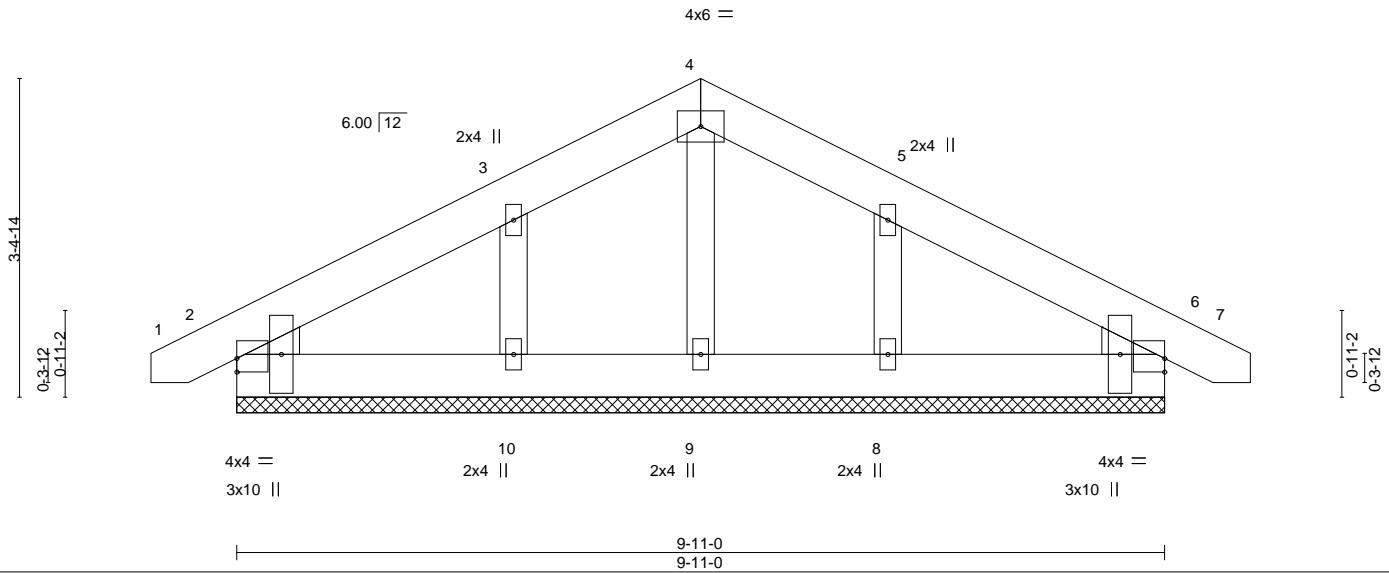
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:39 2024 Page 1

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Scale = 1:24.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.04	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) 0.00 6 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 6 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 64 lb	FT = 20%

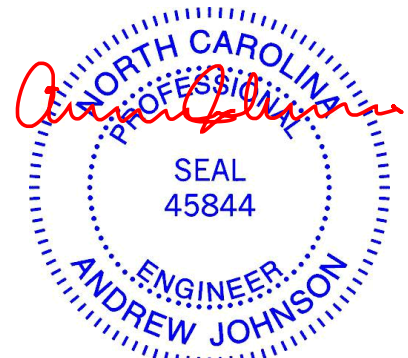
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2 , Right: 2x4 SP No.2

**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 9-11-0.  
 (lb) - Max Horz 2=-76(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-177(LC 12), 8=-172(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-10=-169/255, 5-8=-169/255

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=150mph Vasd=119mph; 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
  - 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.
  - 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, 6 except (jt=lb) 10=177, 8=172.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.



December 6, 2024

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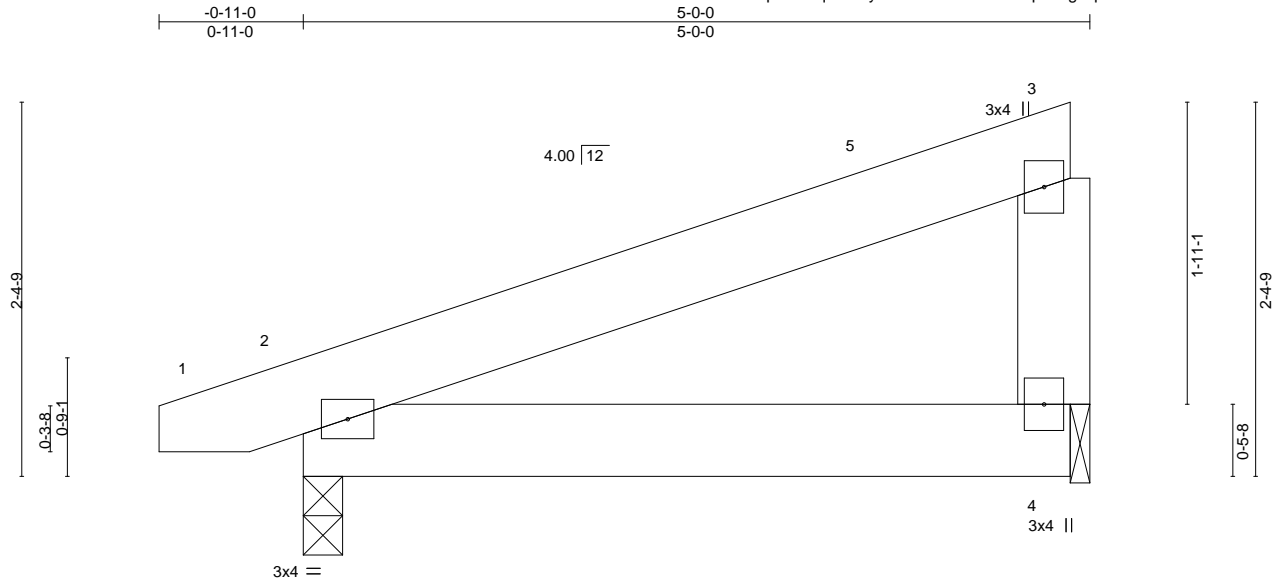
818 Soundside Road  
 Edenton, NC 27932

Job J1224-6496	Truss M1	Truss Type MONOPICH	Qty 7	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033758
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:39 2024 Page 1

ID:lwPOH6hK8Jeptt6SXqQOJcym6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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 0.15	Vert(LL)	0.02 2-4	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01 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					Weight: 29 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-0 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=79(LC 12)  
 Max Uplift 2=140(LC 8), 4=127(LC 8)  
 Max Grav 2=235(LC 1), 4=182(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-9 to 3-9-4, Interior(1) 3-9-4 to 4-9-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=140, 4=127.



December 6, 2024

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

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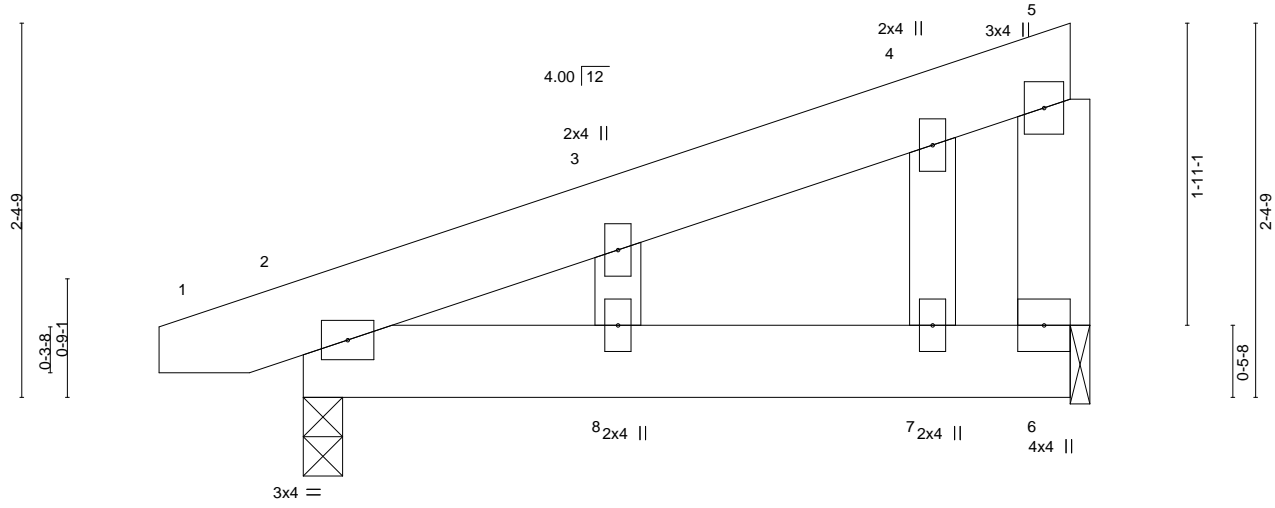


818 Soundside Road  
 Edenton, NC 27932

Job J1224-6496	Truss M1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill	170033759
Comtech, Inc. Fayetteville, NC - 28314,					8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:28:39 2024 Page 1	
					ID:lwPOH6hK8Jeptt6SXqQJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f	
Job Reference (optional)						



Scale = 1:14.6



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 0.09	Vert(LL)	0.01	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 32 lb	FT = 20%

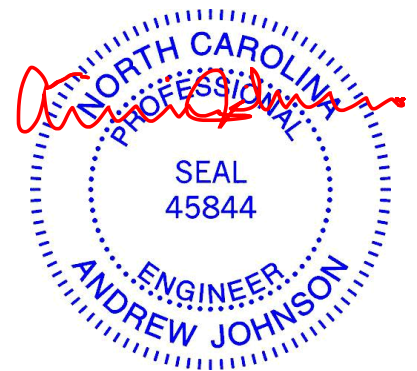
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1	
OTHERS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-0, 6=0-1-8  
 Max Horz 2=113(LC 12)  
 Max Uplift 2=-192(LC 8), 6=-177(LC 8)  
 Max Grav 2=235(LC 1), 6=182(LC 1)

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

**NOTES-**

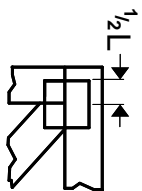
- 1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind 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) Gable studs spaced at 2-0-0 oc.
- 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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=192, 6=177.



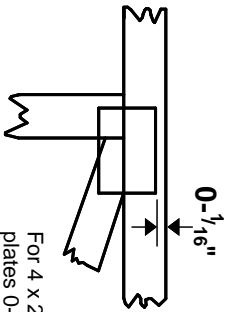
December 6, 2024

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16\"/>



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

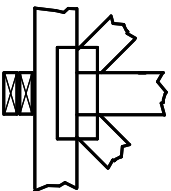
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



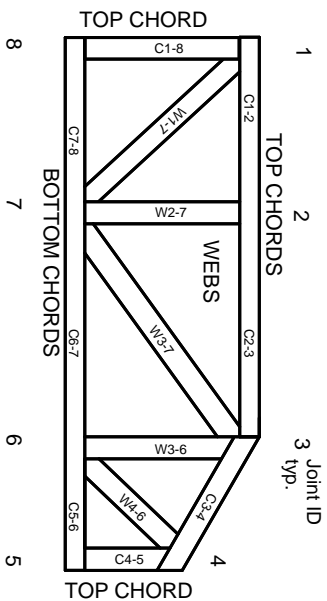
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## 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

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-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.

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**MITek**

ENGINEERING BY  
**TRENGO**  
A MITek Affiliate

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

# General Safety Notes

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

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.



**ROOF & FLOOR TRUSSES & BEAMS**

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

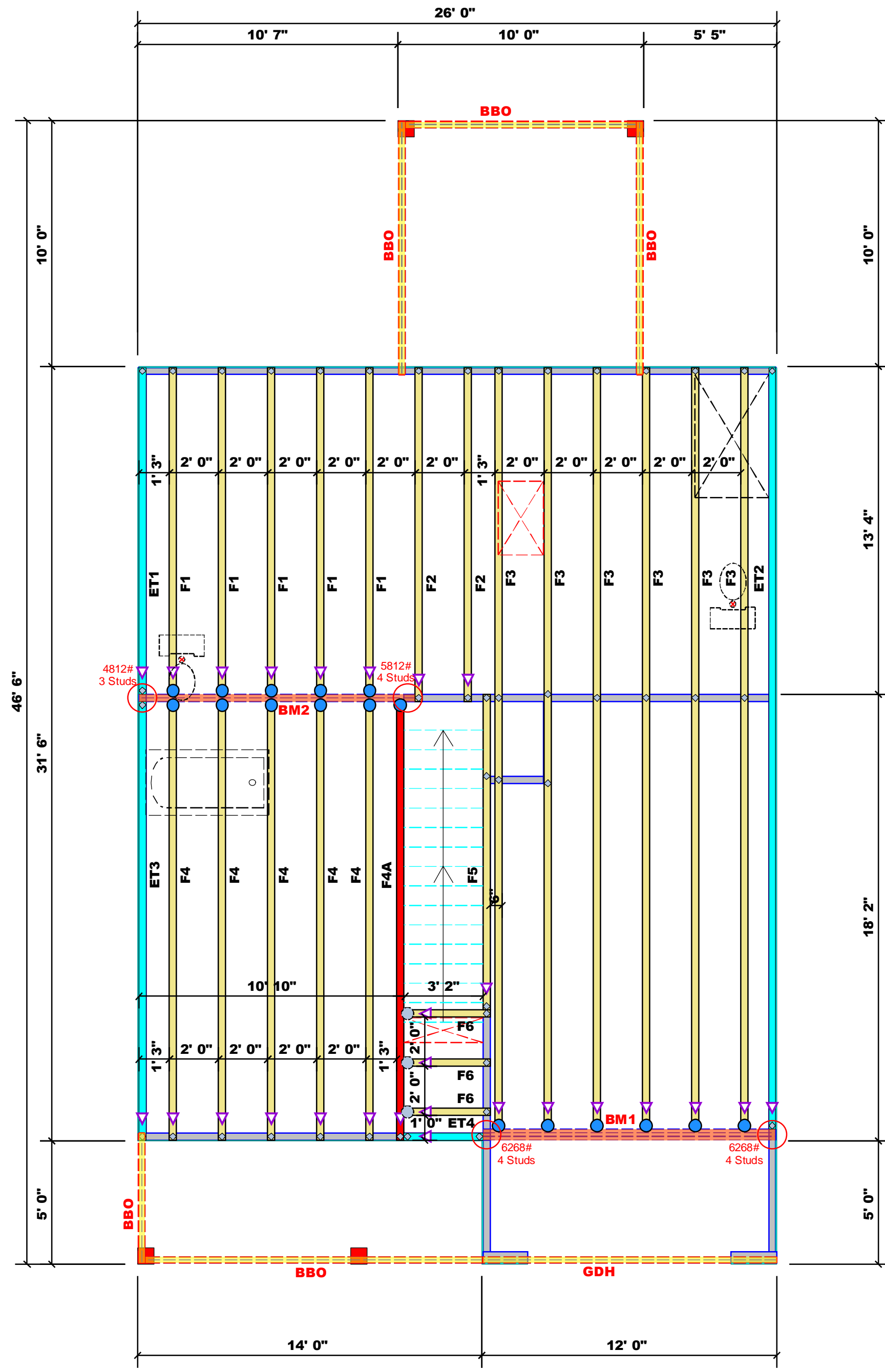
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Jonathan Landry  
**Jonathan Landry**

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES R502.5(1) & (b))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (D) T/Y HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) T/Y HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) T/Y HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.  
-- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

All Walls Shown Are Considered Load Bearing

**Plumbing Drop Notes**

1. Plumbing drop locations shown are NOT exact.
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
3. Adjust spacing as needed not to exceed 24" oc.

**Dimension Notes**

1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
2. All interior wall dimensions are to face of stud unless noted otherwise
3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

**Hatch Legend**

- Second Floor Walls
- Tray Ceiling
- Box Storage
- Flush Beam
- Drop Beam

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	17	NA	16d/3-1/2"	16d/3-1/2"
●	MSH422	USP	3	Varies	10d/3"	10d/3"

**Products**

PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	3	3	FF
BM2	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
GDH	12' 0"	2x12 SPF No.1	2	2	FF

1 Truss Placement Plan  
Scale: 1/4"=1'

▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

BUILDER	WEAVER HOMES	CITY / CO.	LILLINGTON / HARNETT
JOB NAME	Lot 1 Maple Hill	ADDRESS	4238 Barroch Road
PLAN	Magnolia "A" / GRF, CP	MODEL	Floor
SEAL DATE	N/A	DATE REV.	12/06/24
QUOTE #		DRAWN BY	Jonathan Landry
JOB #	J1224-6497	SALES REP.	Lenny Norris

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



# ROOF & FLOOR TRUSSES & BEAMS

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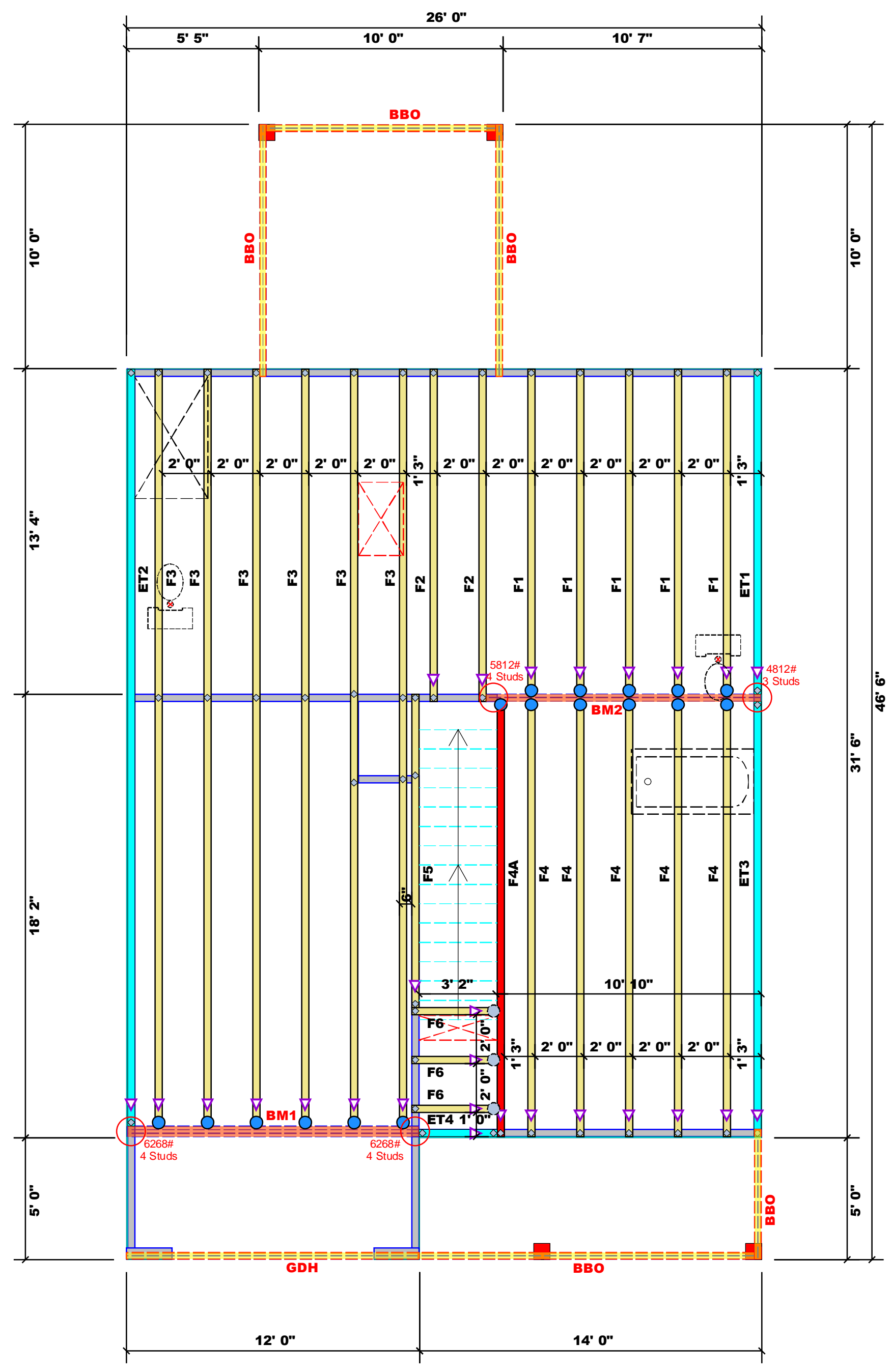
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Signature Jonathan Landry  
**Jonathan Landry**

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NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (D) BY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) BY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (D) BY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.  
 ○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

All Walls Shown Are Considered Load Bearing

**Plumbing Drop Notes**

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2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
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3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

**Hatch Legend**

- Second Floor Walls
- Tray Ceiling
- Box Storage
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- Drop Beam

Connector Information				Nail Information		
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	17	NA	16d/3-1/2"	16d/3-1/2"
●	MSH422	USP	3	Varies	10d/3"	10d/3"

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	3	3	FF
BM2	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
GDH	12' 0"	2x12 SPF No.1	2	2	FF

1 Truss Placement Plan  
Scale: 1/4"=1'

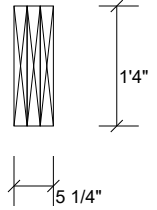
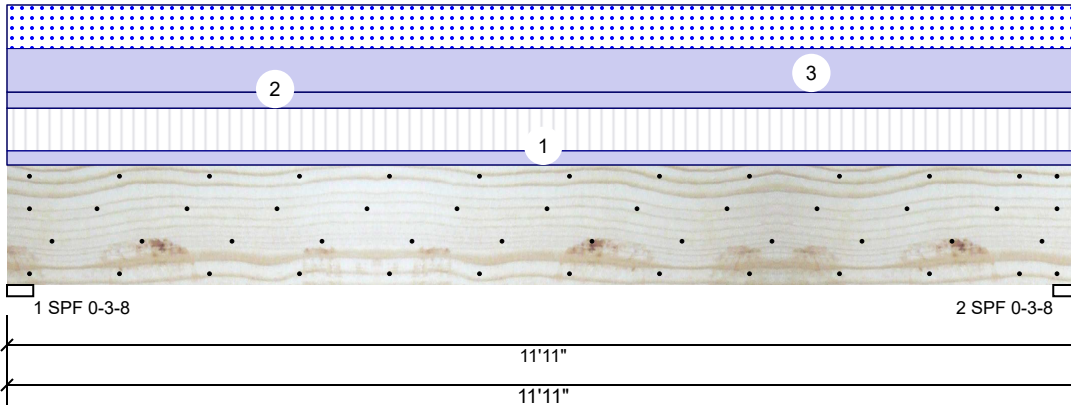
▲ = Denotes Left End of Truss  
(Reference Engineered Truss Drawing)

BUILDER	WEAVER HOMES	CITY / CO.	LILLINGTON / HARNETT
JOB NAME	Lot 1 Maple Hill	ADDRESS	4238 Barrach Road
PLAN	Magnolia "A" / GRF, CP	MODEL	Floor
SEAL DATE	N/A	DATE REV.	12/06/24
QUOTE #		DRAWN BY	Jonathan Landry
JOB #	J1224-6497	SALES REP.	Lenny Norris

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

**BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	3
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:	Yes
Deck:	Not Checked
Ceiling:	Gypsum 1/2"

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1895	3394	1936	0	0
2	Vertical	1895	3394	1936	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	80%	3394 / 2873	6268	L	D+0.75(L+S)
2 - SPF	3.500"	Vert	80%	3394 / 2873	6268	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17327 ft-lb	5'11 1/2"	62010 ft-lb	0.279 (28%)	D+0.75(L+S)	L
Unbraced	17327 ft-lb	5'11 1/2"	17347 ft-lb	0.999 (100%)	D+0.75(L+S)	L
Shear	4437 lb	1'7 1/2"	17920 lb	0.248 (25%)	D+L	L
LL Defl inch	0.063 (L/2171)	5'11 1/2"	0.287 (L/480)	0.221 (22%)	0.75(L+S)	L
TL Defl inch	0.138 (L/995)	5'11 1/2"	0.383 (L/360)	0.362 (36%)	D+0.75(L+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 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6". Nail from both sides.
- Refer to last page of calculations for fasteners required for specified loads.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at a maximum of 10'7 13/16" o.c.
- 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			Far Face	106 PLF	318 PLF	0 PLF	0 PLF	0 PLF	F3
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Top	325 PLF	0 PLF	325 PLF	0 PLF	0 PLF	A2
	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**

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

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

**Manufacturer Info**

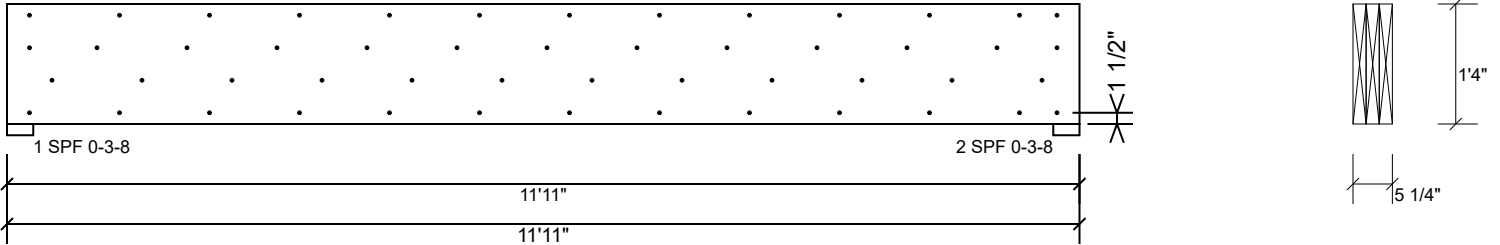
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
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 1001 S Reilly Road  
 Fayetteville  
 Cumberland  
 28314



**BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6".

Capacity	86.3 %
Load	282.7 PLF
Yield Limit per Foot	327.4 PLF
Yield Limit per Fastener	81.9 lb.
C <sub>m</sub>	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

**Notes**

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

**Lumber**

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

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 6/28/2026

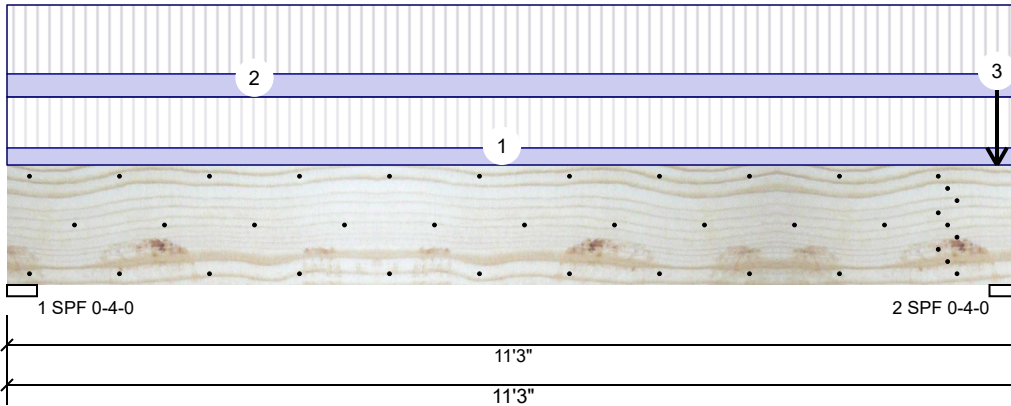
**Manufacturer Info**

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

Comtech, Inc.  
 1001 S Reilly Road  
 Fayetteville  
 Cumberland  
 28314

**BM2 Kerto-S LVL 1.750" X 16.000" 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	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3555	1257	0	0	0
2	Vertical	4305	1507	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	Vert	81%	1257 / 3555	4812	L	D+L
2 - SPF	4.000"	Vert	98%	1507 / 4305	5812	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12309 ft-lb	5'7 1/2"	34565 ft-lb	0.356 (36%)	D+L	L
Unbraced	12309 ft-lb	5'7 1/2"	12310 ft-lb	1.000 (100%)	D+L	L
Shear	4527 lb	1'8"	11947 lb	0.379 (38%)	D+L	L
LL Defl inch	0.098 (L/1320)	5'7 1/2"	0.268 (L/480)	0.364 (36%)	L	L
TL Defl inch	0.132 (L/975)	5'7 1/2"	0.358 (L/360)	0.369 (37%)	D+L	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.
- Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- Girders are designed to be supported on the bottom edge only.
- Top must be laterally braced at a maximum of 9'9 3/16" o.c.
- 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			Far Face	90 PLF	269 PLF	0 PLF	0 PLF	0 PLF	F1
2	Uniform			Near Face	121 PLF	363 PLF	0 PLF	0 PLF	0 PLF	F4
3	Point	11-0-0		Near Face	250 lb	750 lb	0 lb	0 lb	0 lb	F4A
	Self Weight				12 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**

- 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 6/28/2026

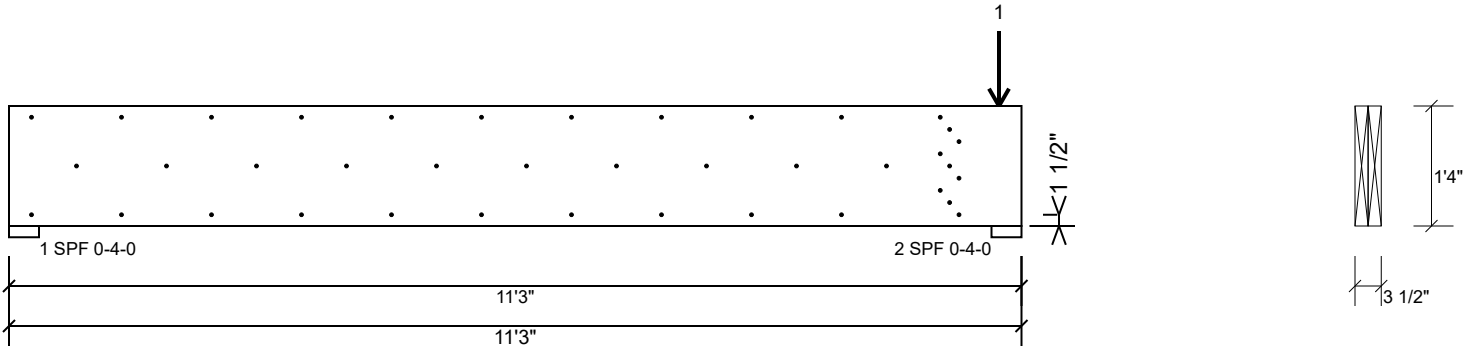
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**BM2 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

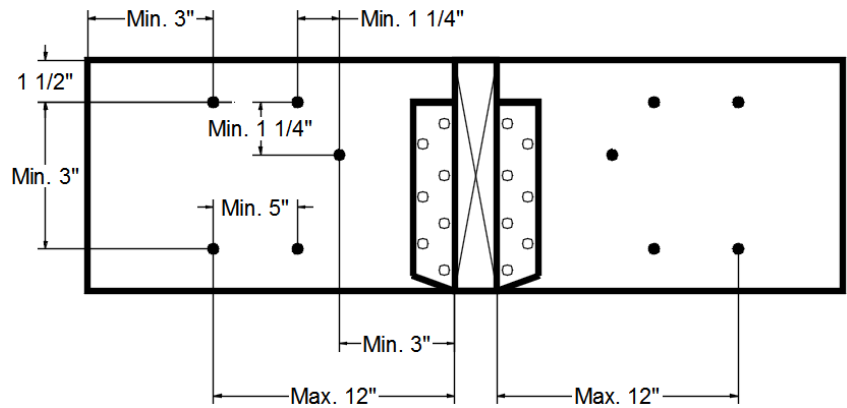
Capacity	98.6 %
Load	242.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
C <sub>m</sub>	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

**Concentrated Load**

Fasten at concentrated side load at 11-0-0 with a minimum of (9) – 10d Box nails (.128x3") in the pattern shown.

Capacity	67.9 %
Load	500.0lb.
Total Yield Limit	736.5 lb.
C <sub>g</sub>	0.9998
C <sub>m</sub>	1
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

**Min/Max fastener distances for Concentrated Side Loads**



**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
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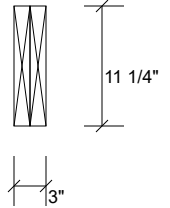
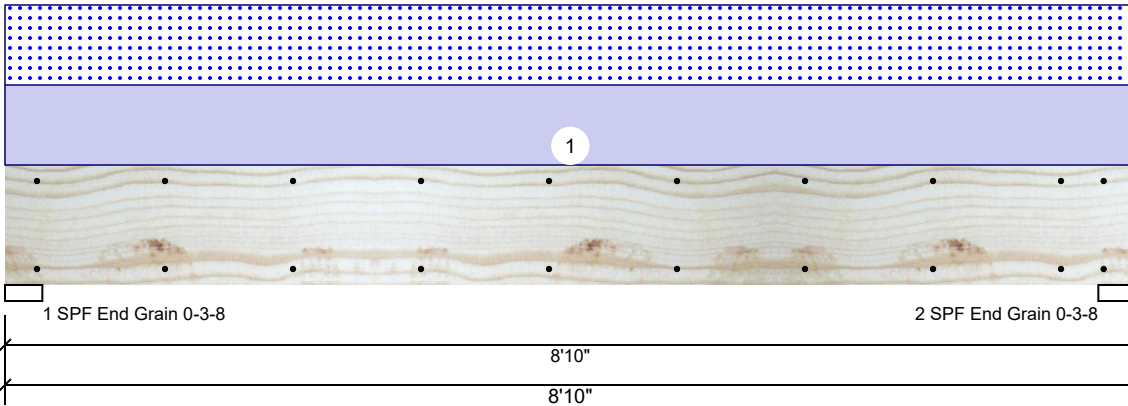
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**GDH S-P-F #1 2.000" X 12.000" 2-Ply - PASSED**

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
Ceiling:	Gypsum 1/2"

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	530	530	0	0
2	Vertical	0	530	530	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	24%	530 / 530	1060	L	D+S
2 - SPF End Grain	3.500"	Vert	24%	530 / 530	1060	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2104 ft-lb	4'5"	5306 ft-lb	0.397 (40%)	D+S	L
Unbraced	2104 ft-lb	4'5"	3969 ft-lb	0.530 (53%)	D+S	L
Shear	765 lb	1'2 3/4"	3493 lb	0.219 (22%)	D+S	L
LL Defl inch	0.027 (L/3770)	4'5 1/16"	0.209 (L/480)	0.127 (13%)	S	L
TL Defl inch	0.053 (L/1885)	4'5 1/16"	0.279 (L/360)	0.191 (19%)	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 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	120 PLF	0 PLF	0 PLF	B1GE

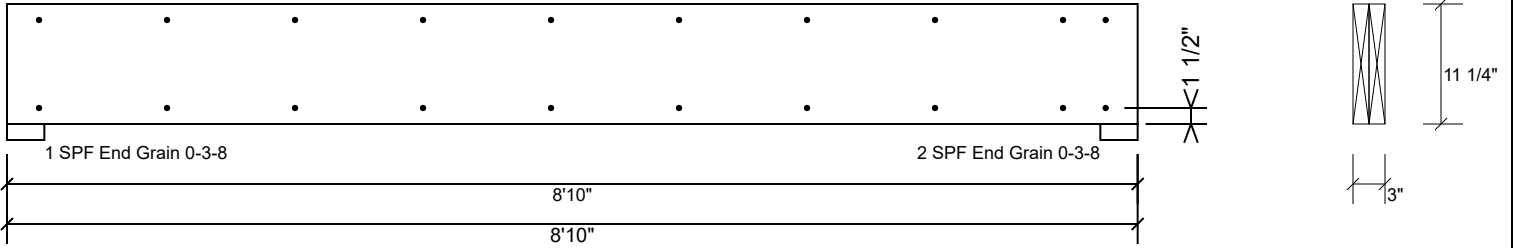
**Manufacturer Info**

Comtech, Inc.  
 1001 S Reilly Road  
 Fayetteville  
 Cumberland  
 28314

This design is valid until 6/28/2026

**GDH S-P-F #1 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	157.4 PLF
Yield Limit per Fastener	78.7 lb.
C <sub>m</sub>	1
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 Fayetteville Cumberland 28314
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This design is valid until 6/28/2026

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: J1224-6497  
Lot 1 Maple Hill

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

Pages or sheets covered by this seal: I70033970 thru I70033980

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

North Carolina COA: C-0844



December 6, 2024

Gilbert, Eric

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

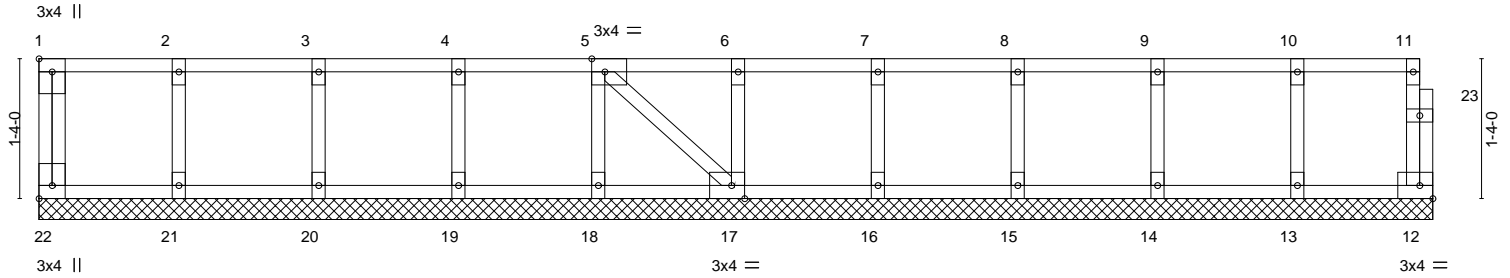
Job J1224-6497	Truss ET1	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033970
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:25 2024 Page 1  
ID:lwPOH6hK8Jeptt6SXqQJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8

Scale = 1:22.0



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-3-8
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-8

Plate Offsets (X, Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [17:0-1-8,Edge], [22:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 62 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 13-3-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 21, 20, 19, 18, 17, 16, 15, 14, 13

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

- NOTES-**
- 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.
  - CAUTION, Do not erect truss backwards.



December 6, 2024

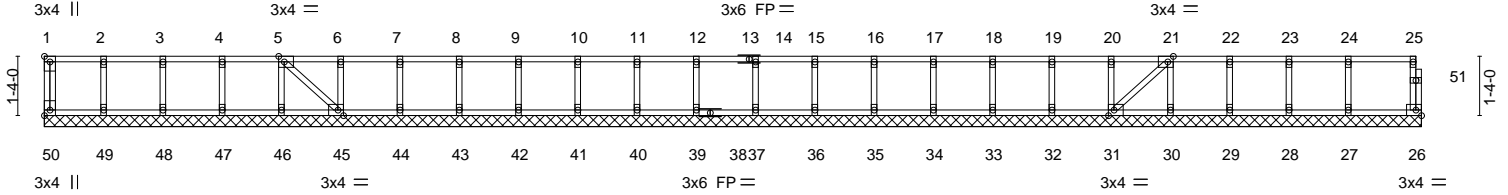
Job J1224-6497	Truss ET2	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033971
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:26 2024 Page 1  
ID:lwPOH6hK8Jeptt6SXqQJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-1/8

Scale = 1:51.8



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-4-0	22-8-0	24-0-0	25-4-0	26-8-0	28-0-0	29-4-0	30-11-12
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-7-12

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [21:0-1-8,Edge], [31:0-1-8,Edge], [45:0-1-8,Edge], [50:Edge,0-1-8]

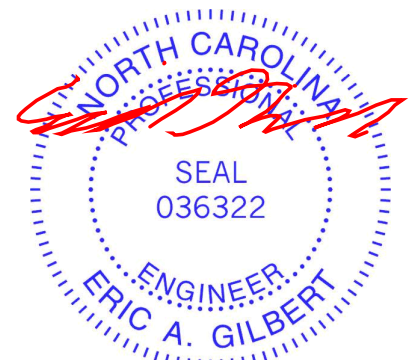
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	31	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 138 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)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 30-11-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 50, 26, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

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

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



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria and DSB-22</b> available from Truss Plate Institute (<a href="http://www.tpinst.org">www.tpinst.org</a>) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (<a href="http://www.sbcacomponents.com">www.sbcacomponents.com</a>)</p>	<p>ENGINEERING BY <b>TRENCO</b> A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6497	Truss ET3	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033972
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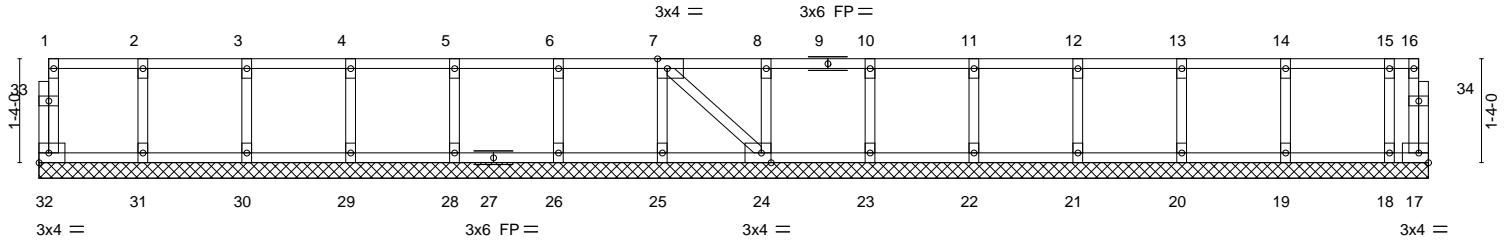
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:26 2024 Page 1  
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0-1/8

0-1/8

Scale = 1:29.6



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	17-10-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-6-0

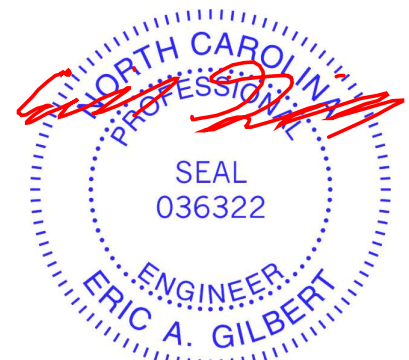
Plate Offsets (X,Y)--	[7:0-1-8,Edge], [24:0-1-8,Edge]												
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>			
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190			
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999					
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	24	n/a	n/a					
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S										
									Weight: 82 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)	
OTHERS 2x4 SP No.3(flat)	


**REACTIONS.** All bearings 17-10-0.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 17  
 Max Grav All reactions 250 lb or less at joint(s) 32, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20, 19, 18

**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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17.
  - 7) 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.



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6497	Truss ET4	Truss Type GABLE	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033973
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:27 2024 Page 1  
ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

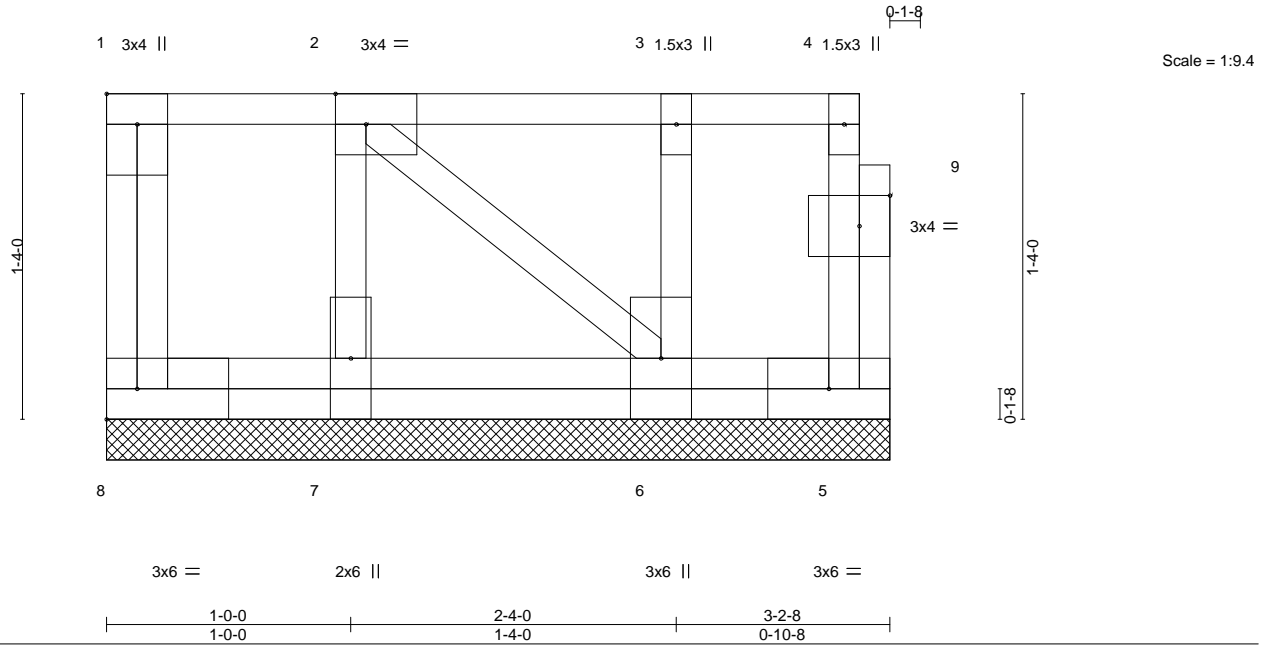


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [9:0-1-8,0-1-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.05	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.00	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr NO	WB 0.05	Horz(CT) 0.00 5 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P		Weight: 25 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 3-2-8 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)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 3-2-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 8, 5, 7, 6

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

- NOTES-**
- 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.
  - CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

- 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: 4=79 2=72



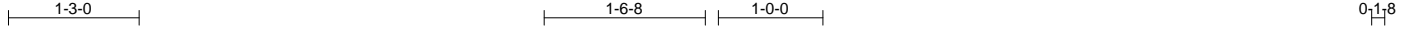
December 6, 2024

Job J1224-6497	Truss F1	Truss Type Floor	Qty 5	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033974
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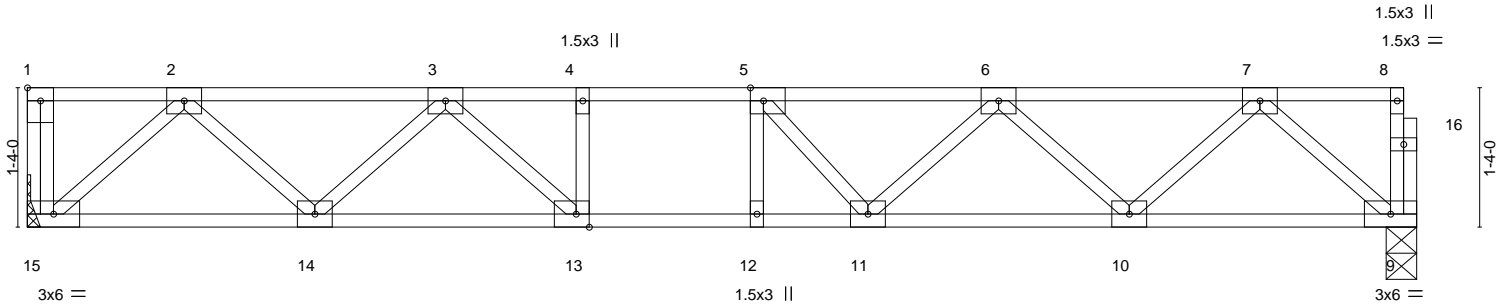
Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:27 2024 Page 1

ID:lwPOH6hK8Jeptt6SXqQOJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



Scale = 1:22.0



13-3-8  
13-3-8

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [13:0-1-8,Edge]

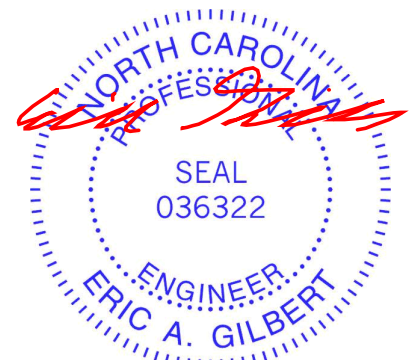
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.34	Vert(LL)	-0.09 11-12	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.60	Vert(CT)	-0.12 11-12	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.03 9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 71 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 15=Mechanical, 9=0-3-8  
Max Grav 15=717(LC 1), 9=711(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1210/0, 3-4=-1904/0, 4-5=-1904/0, 5-6=-1819/0, 6-7=-1220/0  
BOT CHORD 14-15=0/759, 13-14=0/1646, 12-13=0/1904, 11-12=0/1904, 10-11=0/1659, 9-10=0/754  
WEBS 2-15=-1010/0, 2-14=0/628, 3-14=-606/0, 3-13=0/505, 7-9=-1001/0, 7-10=0/648, 6-10=-611/0, 6-11=0/305, 5-11=-304/60

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



December 6, 2024

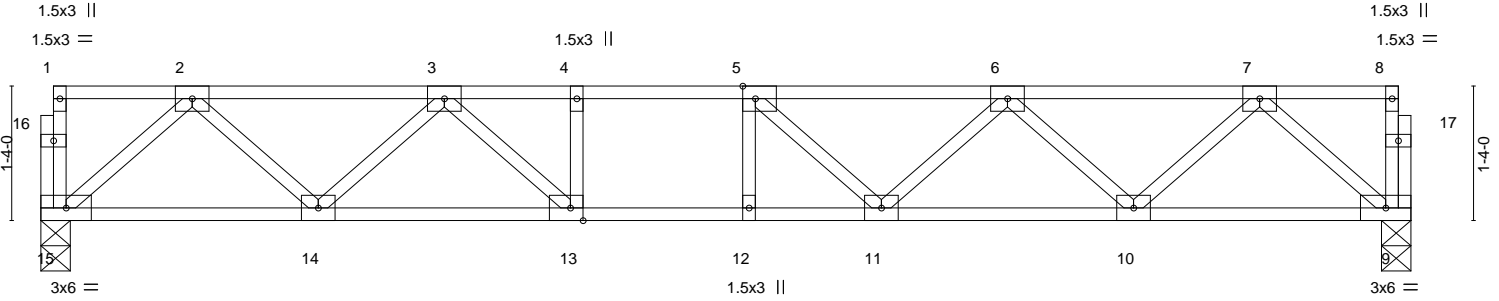
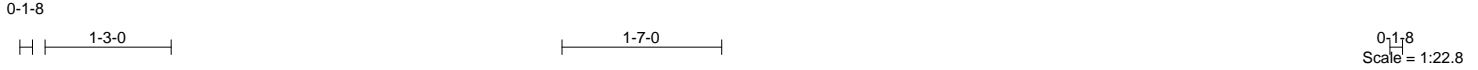
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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)

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

Job J1224-6497	Truss F2	Truss Type Floor	Qty 2	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033975
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:28 2024 Page 1  
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13-7-0  
13-7-0

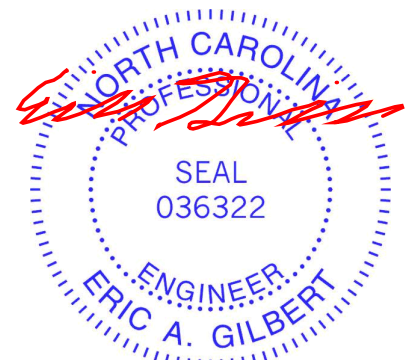
Plate Offsets (X,Y)-- [5:0-1-8,Edge], [13:0-1-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0
TCLL 40.0	Plate Grip DOL 1.00
TCDL 10.0	Lumber DOL 1.00
BCLL 0.0	Rep Stress Incr YES
BCDL 5.0	Code IRC2015/TPI2014
<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d
TC 0.39	Vert(LL) -0.10 11-12 >999 480
BC 0.65	Vert(CT) -0.14 11-12 >999 360
WB 0.32	Horz(CT) 0.03 9 n/a n/a
Matrix-S	
<b>PLATES</b>	<b>GRIP</b>
MT20	244/190
Weight: 71 lb FT = 20%F, 11%E	

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


**REACTIONS.** (size) 15=0-3-8, 9=0-3-8  
Max Grav 15=727(LC 1), 9=727(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1242/0, 3-4=-1987/0, 4-5=-1987/0, 5-6=-1882/0, 6-7=-1257/0  
BOT CHORD 14-15=0/776, 13-14=0/1698, 12-13=0/1987, 11-12=0/1987, 10-11=0/1718, 9-10=0/770  
WEBS 2-15=-1031/0, 2-14=0/649, 3-14=-634/0, 3-13=0/547, 7-9=-1022/0, 7-10=0/677, 6-10=-642/0, 6-11=0/302, 5-11=-320/48

- 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.



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (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>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6497	Truss F3	Truss Type Floor	Qty 6	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033976
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:28 2024 Page 1  
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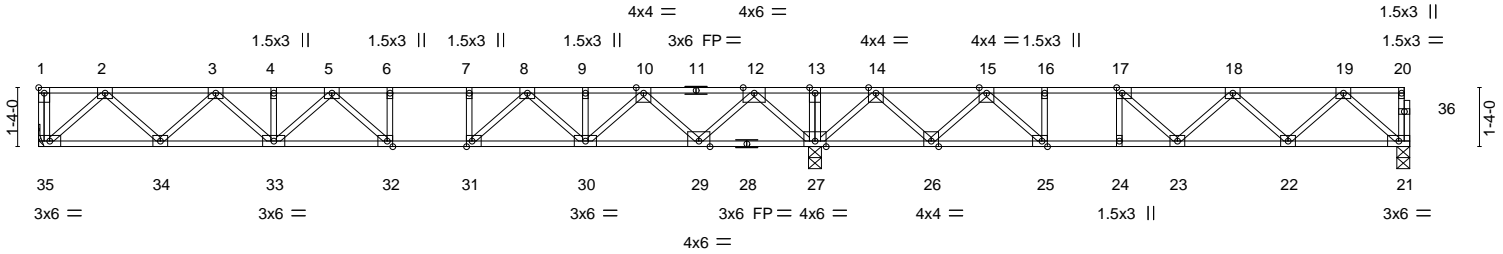


Plate Offsets (X, Y)--	[1:Edge,0-1-8], [17:0-1-8,Edge], [25:0-1-8,Edge], [31:0-1-8,Edge], [32:0-1-8,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.70	Vert(LL) -0.18 32-33 >999 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.81	Vert(CT) -0.25 32-33 >824 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.56	Horz(CT) 0.04 21 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 163 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) 35=Mechanical, 27=0-3-8, 21=0-3-8  
Max Grav 35=847(LC 3), 27=2005(LC 1), 21=643(LC 4)

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

**TOP CHORD** 2-3=-1496/0, 3-4=-2418/0, 4-5=-2418/0, 5-6=-2629/0, 6-7=-2629/0, 7-8=-2629/0, 8-9=-1766/0, 9-10=-1766/0, 10-12=-385/291, 12-13=0/1961, 13-14=0/1961, 14-15=-502/949, 15-16=-1487/329, 16-17=-1487/329, 17-18=-1525/102, 18-19=-1076/0

**BOT CHORD** 34-35=0/906, 33-34=0/2063, 32-33=0/2634, 31-32=0/2629, 30-31=0/2229, 29-30=-53/1172, 27-29=-790/0, 26-27=-1220/0, 25-26=-664/1055, 24-25=-329/1487, 23-24=-329/1487, 22-23=0/1460, 21-22=0/672

**WEBS** 2-35=-1206/0, 2-34=0/821, 3-34=-789/0, 3-33=0/483, 5-33=-293/0, 5-32=-299/249, 12-27=-1559/0, 12-29=0/1172, 10-29=-1132/0, 10-30=0/846, 8-30=-672/0, 8-31=0/772, 7-31=-372/0, 14-27=-1269/0, 14-26=0/871, 15-26=-926/0, 15-25=0/901, 16-25=-369/0, 19-21=-892/0, 19-22=0/562, 18-22=-533/29, 17-23=0/404, 17-24=-284/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



December 6, 2024

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPH Quality Criteria and DSB-22</b> available from Truss Plate Institute (www.tpinst.org) and <b>BCSI Building Component Safety Information</b> available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job J1224-6497	Truss F4	Truss Type Floor	Qty 5	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033977
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8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:29 2024 Page 1  
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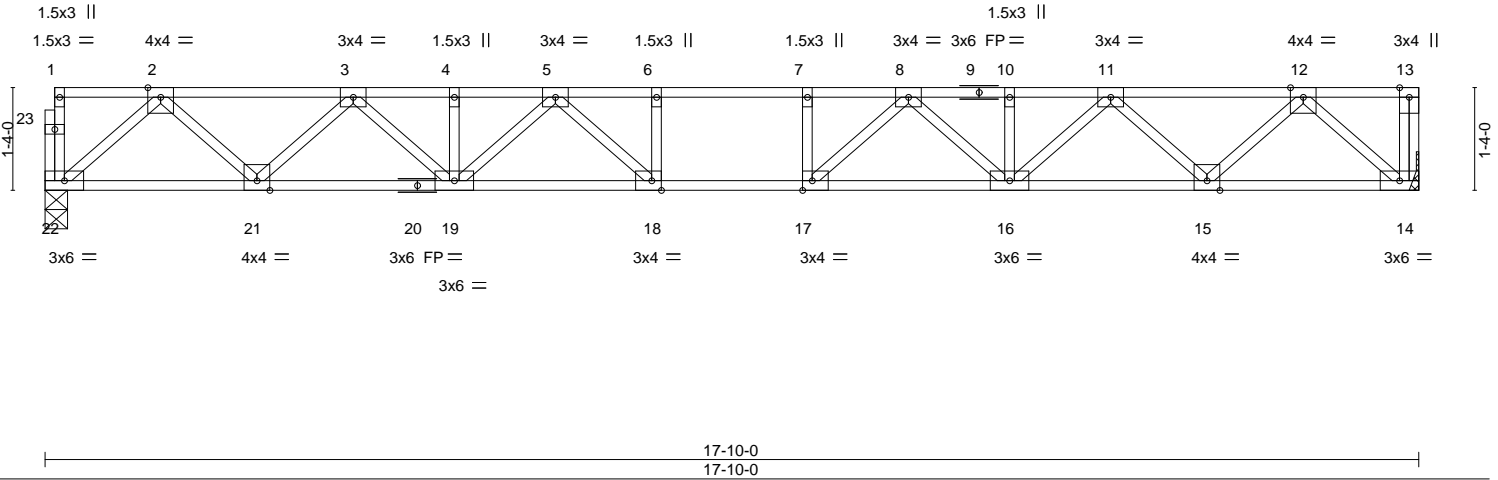
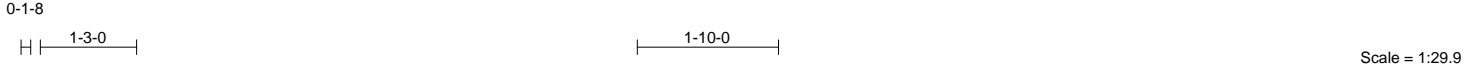


Plate Offsets (X,Y)--	[17:0-1-8,Edge], [18:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.49	Vert(LL) -0.21 17-18 >996 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.72	Vert(CT) -0.29 17-18 >725 360		
BCLL 0.0	Rep Stress Incr YES	WB 0.47	Horz(CT) 0.06 14 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 95 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) 22=0-3-8, 14=Mechanical  
Max Grav 22=961(LC 1), 14=967(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1757/0, 3-4=-2926/0, 4-5=-2926/0, 5-6=-3487/0, 6-7=-3487/0, 7-8=-3487/0, 8-10=-2926/0, 10-11=-2926/0, 11-12=-1757/0  
 BOT CHORD 21-22=0/1042, 19-21=0/2442, 18-19=0/3275, 17-18=0/3487, 16-17=0/3275, 15-16=0/2442, 14-15=0/1043  
 WEBS 2-22=-1385/0, 2-21=0/994, 3-21=-953/0, 3-19=0/657, 12-14=-1388/0, 12-15=0/994, 11-15=-953/0, 11-16=0/658, 8-16=-474/0, 8-17=-71/583, 5-19=-474/0, 5-18=-71/583, 6-18=-290/0, 7-17=-290/0

- 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.



December 6, 2024

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Job J1224-6497	Truss F4A	Truss Type Floor	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033978
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Comtech, Inc. Fayetteville, NC - 28314,

8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:29 2024 Page 1  
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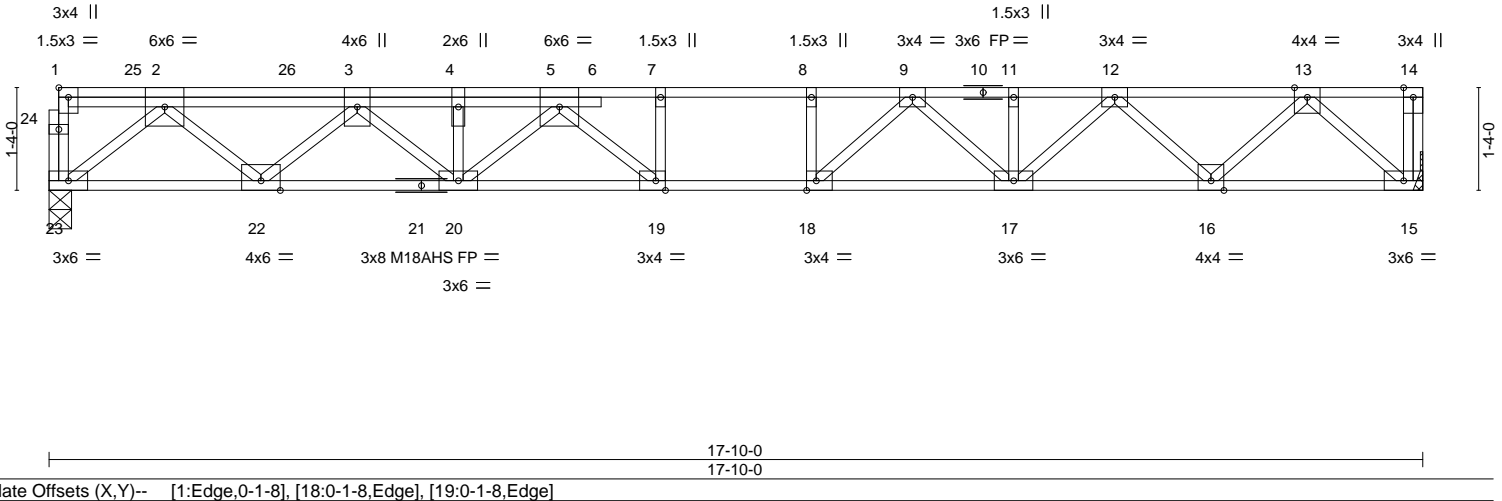
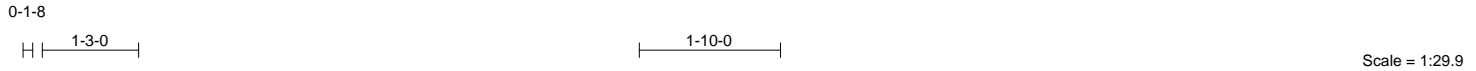


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [18:0-1-8,Edge], [19:0-1-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.83	Vert(LL) -0.22 19 >947 480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.95	Vert(CT) -0.31 19 >677 360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr NO	WB 0.54	Horz(CT) 0.07 15 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 104 lb	FT = 20%F, 11%E

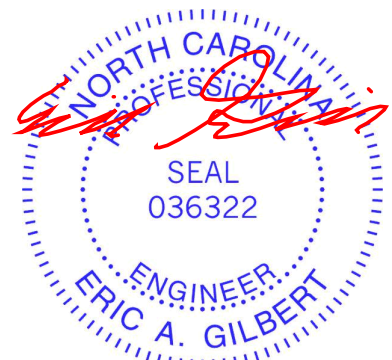
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 23=0-3-8, 15=Mechanical  
Max Grav 23=1158(LC 1), 15=1008(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-2158/0, 3-4=-3538/0, 4-5=-3538/0, 5-7=-3783/0, 7-8=-3783/0, 8-9=-3783/0, 9-11=-3102/0, 11-12=-3102/0, 12-13=-1847/0  
**BOT CHORD** 22-23=0/1315, 20-22=0/2972, 19-20=0/3746, 18-19=0/3783, 17-18=0/3496, 16-17=0/2573, 15-16=0/1090  
**WEBS** 2-23=-1708/0, 2-22=0/1143, 3-22=-1104/0, 3-20=0/752, 4-20=-279/0, 13-15=-1451/0, 13-16=0/1053, 12-16=-1010/0, 12-17=0/718, 9-17=-535/0, 9-18=0/685, 5-20=-277/0, 5-19=-320/291, 8-18=-341/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 159 lb down at 1-1-12, and 159 lb down at 3-1-12, and 159 lb down at 5-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 15-23=-10, 1-14=-100  
 Concentrated Loads (lb)  
 Vert: 4=-79(F) 25=-81(F) 26=-79(F)



December 6, 2024

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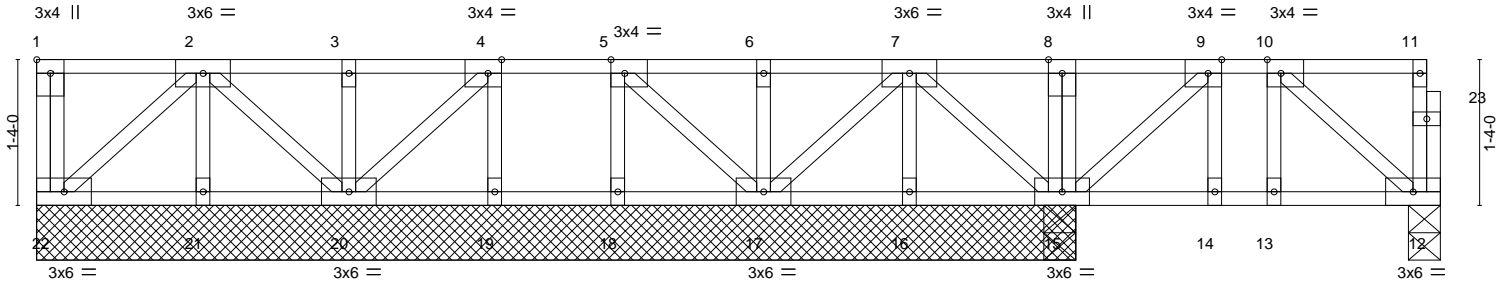
Job J1224-6497	Truss F5	Truss Type Floor	Qty 1	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033979
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8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:30 2024 Page 1  
ID:lwPOH6hK8Jeptt6SXqQJcyzm6C-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:21.1



	9-4-8	9-6-0	12-10-0
	9-4-8	0-1-8	3-4-0
Plate Offsets (X, Y)--	[1:Edge,0-1-8], [4:0-1-8,Edge], [5:0-1-8,Edge], [9:0-1-8,Edge], [10:0-1-8,Edge]		

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL)	-0.00	13	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.05	Vert(CT)	-0.00	13	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 80 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17,15-16.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 9-6-0 except (jt=length) 12=0-3-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 16, 17, 18, 21, 20, 19 except 15=301(LC 9), 15=290(LC 1)

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

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 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.



December 6, 2024

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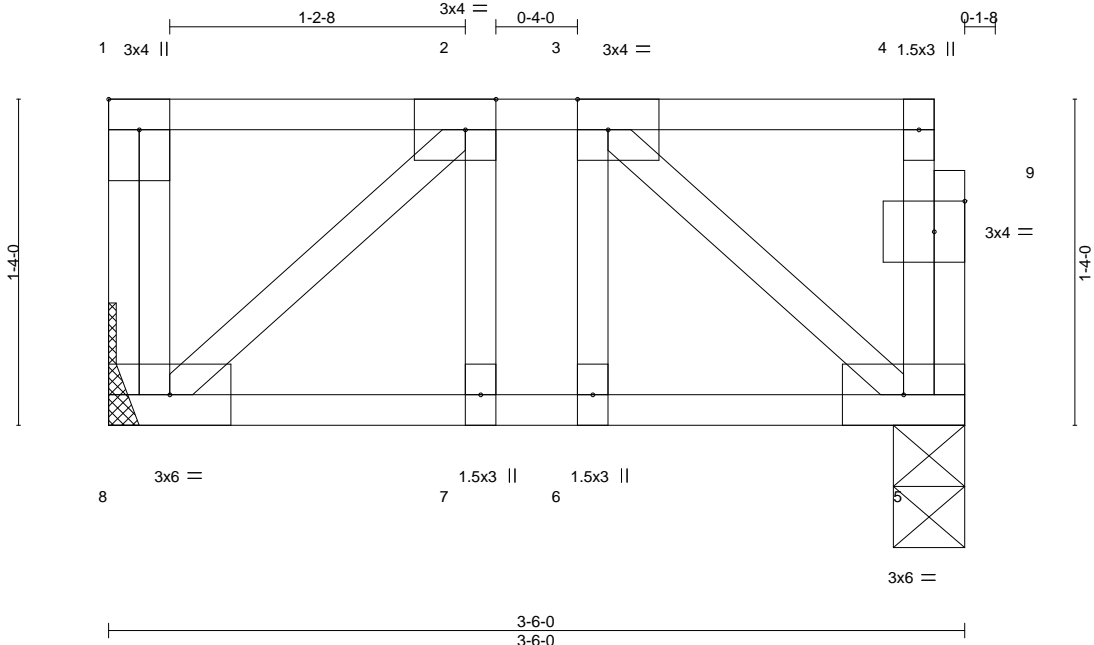


Job J1224-6497	Truss F6	Truss Type Floor	Qty 3	Ply 1	Lot 1 Maple Hill Job Reference (optional)	170033980
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8.630 s Sep 26 2024 MiTek Industries, Inc. Fri Dec 6 08:33:30 2024 Page 1

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Scale = 1:9.4

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL) -0.00	7	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.05	Vert(CT) -0.00	7	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT) 0.00	5	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 24 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 8=Mechanical, 5=0-3-8  
Max Grav 8=179(LC 1), 5=173(LC 1)

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

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



December 6, 2024

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

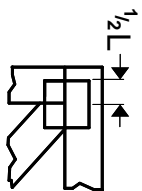
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))

ENGINEERING BY  
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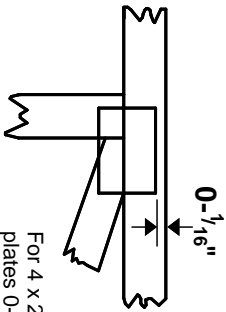
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16\"/>



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

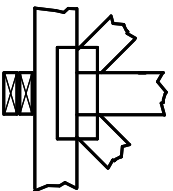
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



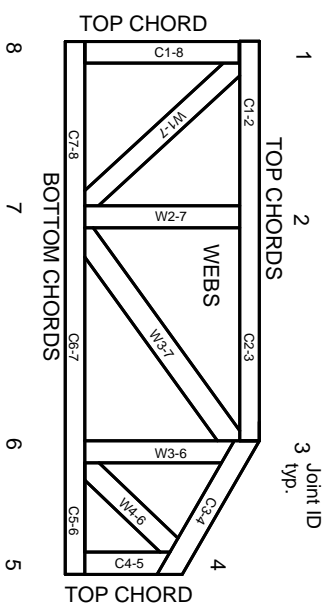
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## 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

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-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.

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.