



# ROOF & FLOOR TRUSSES & BEAMS

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

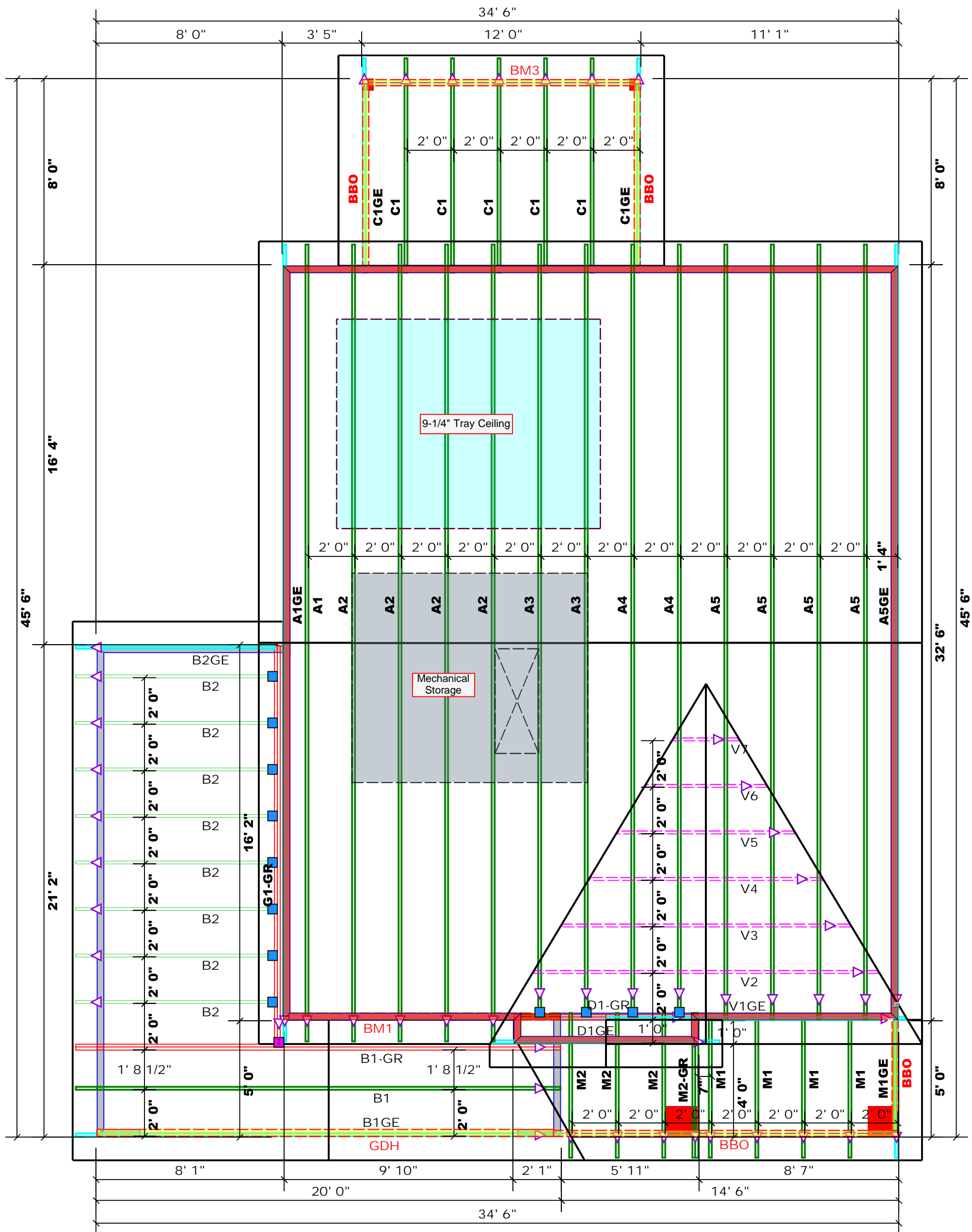
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions 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 David Landry  
David Landry

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES ROE611 & 612)

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER		NUMBER OF JACK STUDS REQUIRED @ EA END OF TRUSS	
END REACTION (IP TO)	REQ. STUDS FOR 12" PLATE	END REACTION (IP TO)	REQ. STUDS FOR 12" PLATE
1700	1	2550	1
3100	2	5100	2
5100	3	7650	3
6800	4	10200	4
8500	5	12750	5
10200	6	15300	6
11900	7		
13500	8		
15300	9		



**Dimension Notes**

- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
- All interior wall dimensions are to face of frame wall unless noted otherwise
- All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

All Walls Shown Are Considered Load Bearing

Roof Area = 1692.08 sq.ft.  
Ridge Line = 52.07 ft.  
Hip Line = 0 ft.  
Horiz. OH = 115.69 ft.  
Raked OH = 175.3 ft.  
Decking = 58 sheets

**Hatch Legend**

[Grey Hatch]	Padded HVAC
[Red Hatch]	2nd Floor Walls
[Light Blue Hatch]	Tray Ceiling
[Yellow Hatch]	Drop Beam

Connector Information				Nail Information		
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
[Blue Square]	HUS26	USP	12	NA	16d/3-1/2"	16d/3-1/2"
[Purple Square]	THDH210-3	USP	1	Varies	16d/3-1/2"	16d/3-1/2"

**Products**

PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM3	12' 0"	2x10 SPF No.2	2	2	FF
GDH	20' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF

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

BUILDER	JOB NAME	PLAN	SEAL DATE	QUOTE #	JOB #
Weaver Development Co. Inc.	Lot 3 McPhail Farm	Hickory II "C" / 2GLF, CP	N/A		
CITY / CO.	Spring Lake / Harnett	ADDRESS	Hayes Road	MODEL	Roof
DATE REV.	04/13/22	DRAWN BY	David Landry	SALES REP.	Lenny Norris
JOB #					JO422-1795

▲ = Indicates Left End of Truss  
(Reference Engineered Truss Drawing)  
Do NOT Erect Truss Backwards

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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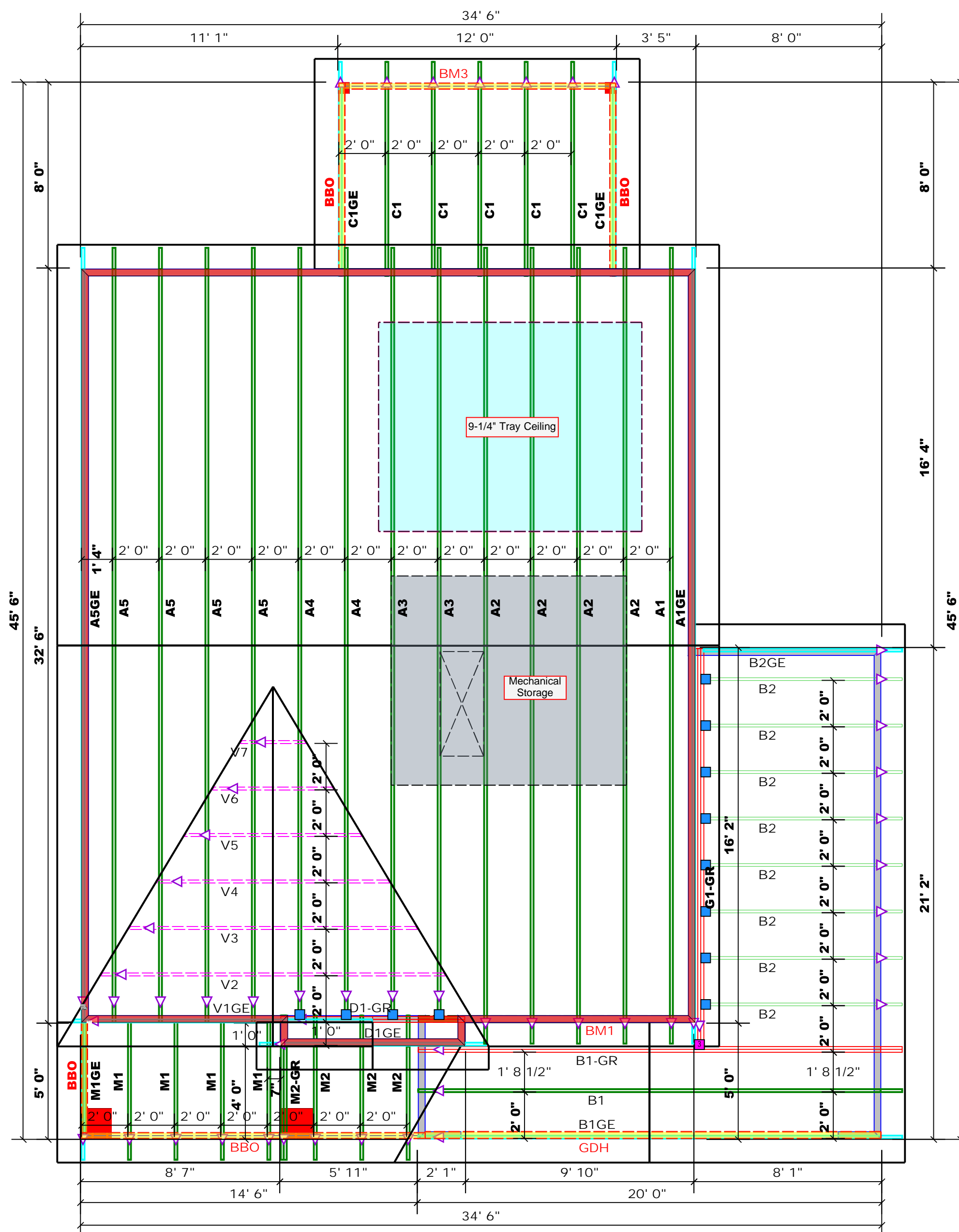
Signature **David Landry**

**David Landry**

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES ROEHLIC 6 (B))

NUMBER OF JACK STUDS REQUIRED BY EACH END OF HEADER/GIRDER		NUMBER OF JACK STUDS REQUIRED BY EACH END OF TRUSS BEAM	
END REACTION (IP #)	REQ. JACKS FOR EACH END OF HEADER/GIRDER	END REACTION (IP #)	REQ. JACKS FOR EACH END OF TRUSS BEAM
1700	1	2550	1
3100	2	5100	2
5100	3	7650	3
6800	4	10200	4
8500	5	12750	5
10200	6	15300	6
11900	7		
13500	8		
15300	9		



**Dimension Notes**

- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
- All interior wall dimensions are to face of frame wall unless noted otherwise
- All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

**All Walls Shown Are Considered Load Bearing**

Roof Area = 1692.08 sq.ft.  
Ridge Line = 52.07 ft.  
Hip Line = 0 ft.  
Horiz. OH = 115.69 ft.  
Raked OH = 175.3 ft.  
Decking = 58 sheets

**Hatch Legend**

- Padded HVAC
- 2nd Floor Walls
- Tray Ceiling
- Drop Beam

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
[Blue Square]	HUS26	USP	12	NA	16d/3-1/2"	16d/3-1/2"
[Pink Square]	THDH210-3	USP	1	Varies	16d/3-1/2"	16d/3-1/2"

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM3	12' 0"	2x10 SPF No.2	2	2	FF
GDH	20' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF

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

BUILDER	JOB NAME	PLAN	SEAL DATE	QUOTE #	JOB #
Weaver Development Co. Inc.	Lot 3 McPhail Farm	Hickory II "C" / 2GLF, CP	N/A		
CITY / CO.	Spring Lake / Harnett	ADDRESS	Hayes Road	MODEL	Roof
DATE REV.	04/13/22	DRAWN BY	David Landry	SALES REP.	Lenny Norris
JO422-1795					

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

▲ = Indicates Left End of Truss  
(Reference Engineered Truss Drawing)  
Do NOT Erect Truss Backwards



RE: J0422-1795  
Lot 3 McPhail Farm

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Weaver Development Co. Inc. Project Name: J0422-1795  
Lot/Block: 3 Model: Hickory II  
Address: Hayes Road Subdivision: McPhail Farm  
City: Spring Lake State: NC

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

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

This package includes 28 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E16492049	A1	12/20/2021	21	E16492069	M2-GR	12/20/2021
2	E16492050	A1GE	12/20/2021	22	E16492070	V1GE	12/20/2021
3	E16492051	A2	12/20/2021	23	E16492071	V2	12/20/2021
4	E16492052	A3	12/20/2021	24	E16492072	V3	12/20/2021
5	E16492053	A4	12/20/2021	25	E16492073	V4	12/20/2021
6	E16492054	A5	12/20/2021	26	E16492074	V5	12/20/2021
7	E16492055	A5GE	12/20/2021	27	E16492075	V6	12/20/2021
8	E16492056	B1	12/20/2021	28	E16492076	V7	12/20/2021
9	E16492057	B1-GR	12/20/2021				
10	E16492058	B1GE	12/20/2021				
11	E16492059	B2	12/20/2021				
12	E16492060	B2GE	12/20/2021				
13	E16492061	C1	12/20/2021				
14	E16492062	C1GE	12/20/2021				
15	E16492063	D1-GR	12/20/2021				
16	E16492064	D1GE	12/20/2021				
17	E16492065	G1-GR	12/20/2021				
18	E16492066	M1	12/20/2021				
19	E16492067	M1GE	12/20/2021				
20	E16492068	M2	12/20/2021				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville. Truss Design Engineer's Name: Strzyzewski, Marvin My license renewal date for the state of North Carolina is December 31, 2022 North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENGCO. Any project specific information included is for TRENGCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENGCO 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.

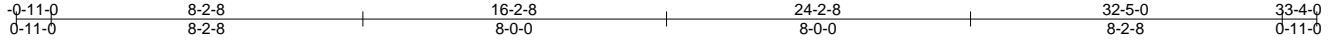


December 20, 2021

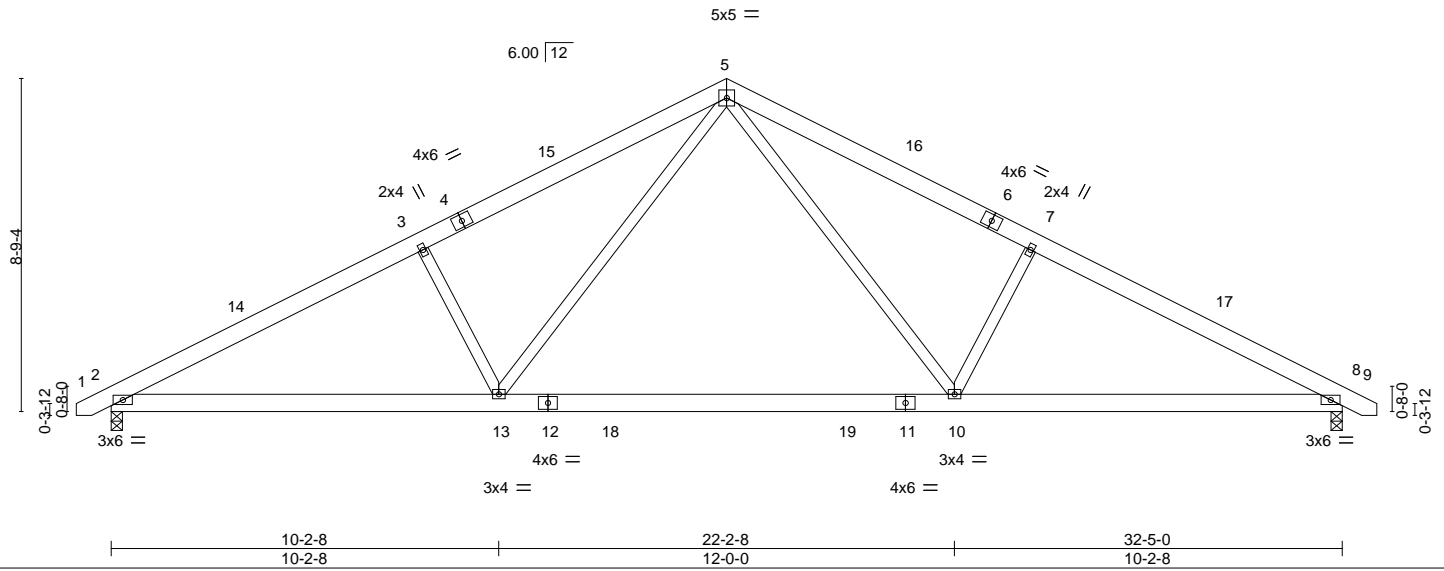
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492049
J0422-1795	A1	COMMON	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:46 2021 Page 1  
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Scale = 1:60.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.34 10-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.47 10-13 >824 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 8 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 2-13 >999 240	Weight: 208 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=110(LC 10)  
 Max Uplift 2=89(LC 12), 8=89(LC 13)  
 Max Grav 2=1337(LC 1), 8=1337(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2307/486, 3-5=-2125/534, 5-7=-2125/534, 7-8=-2307/486  
 BOT CHORD 2-13=-316/2007, 10-13=-106/1303, 8-10=-320/1964  
 WEBS 5-10=-147/921, 7-10=-454/288, 5-13=-147/921, 3-13=-454/288

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 16-2-8, Exterior(2) 16-2-8 to 20-7-5, Interior(1) 20-7-5 to 33-1-10 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 20, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492050
J0422-1795	A1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

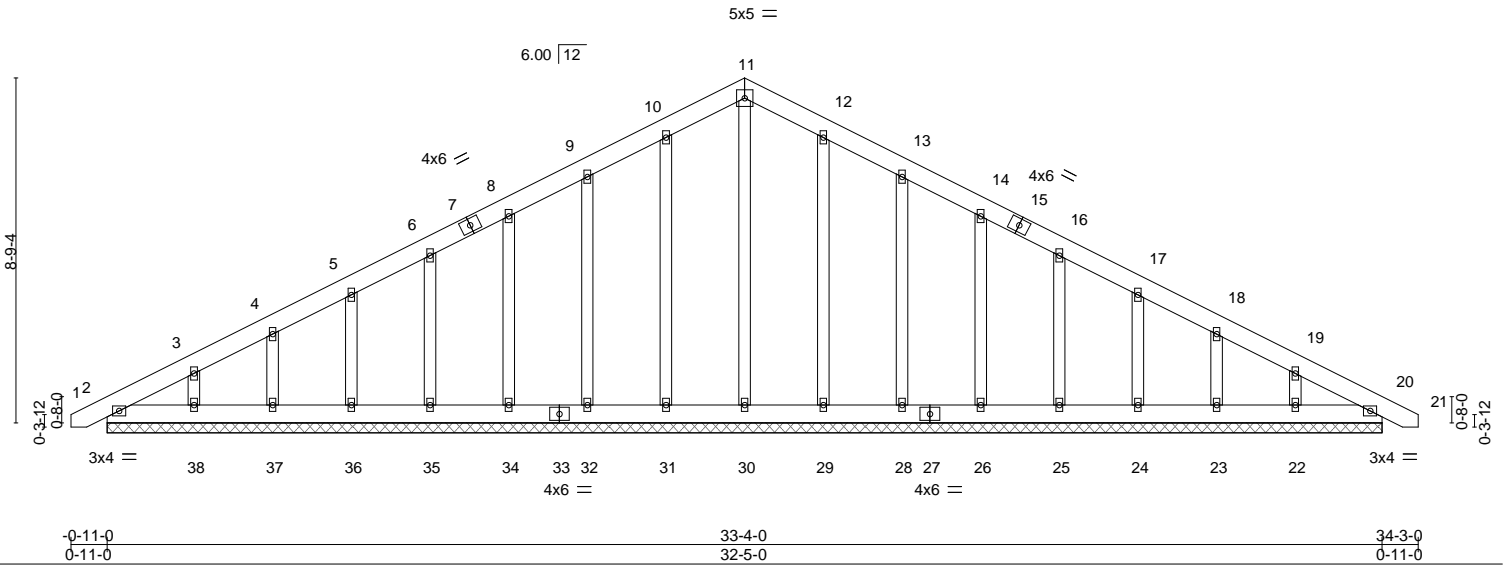
Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:49 2021 Page 1

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0-11-0 17-1-8 33-4-0 34-3-0  
 0-11-0 16-2-8 16-2-8 0-11-0

Scale = 1:58.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
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 20 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) 0.00 20 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 20 n/a n/a		
	Code IRC2015/TPI2014			Weight: 258 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 32-5-0.  
 (lb) - Max Horz 2=171(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22  
 Max Grav All reactions 250 lb or less at joint(s) 2, 30, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22, 20

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

TOP CHORD 10-11=114/284, 11-12=114/284

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 31, 32, 34, 35, 36, 37, 38, 29, 28, 26, 25, 24, 23, 22.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 20, 2021

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932

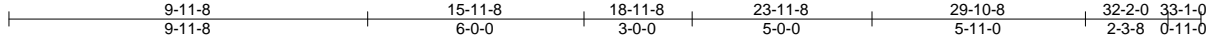


Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492052
J0422-1795	A3	ROOF SPECIAL	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:52 2021 Page 1

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Scale: 3/16"=1'

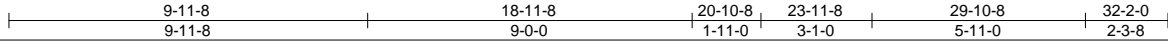
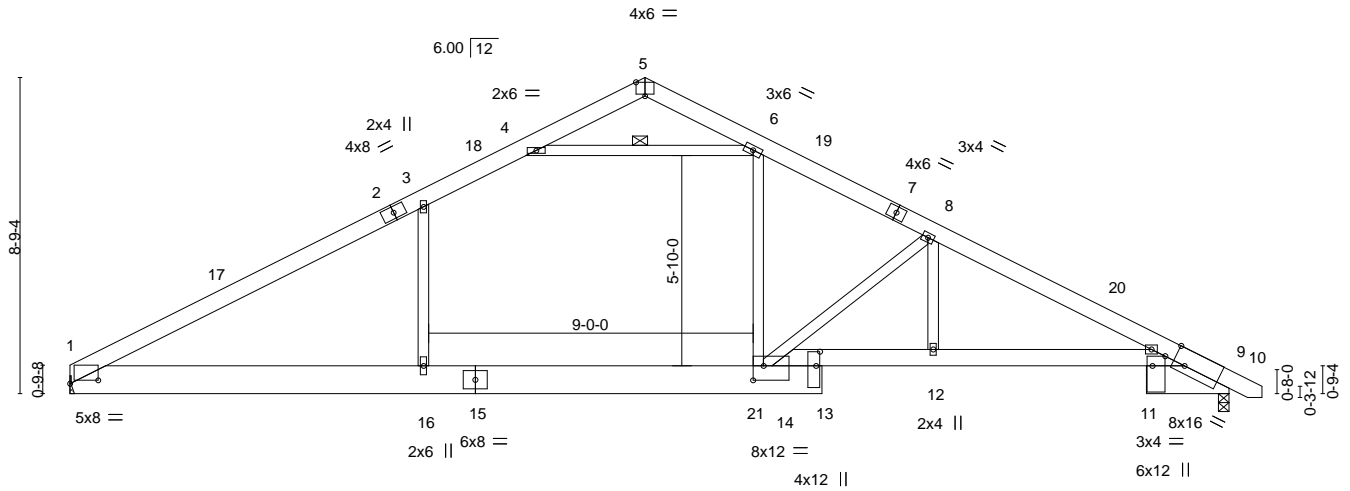


Plate Offsets (X, Y)-- [1:0-9-6,0-1-2], [5:0-3-0,Edge], [9:0-4-0,Edge], [11:0-3-4,Edge], [13:0-4-12,0-1-4], [14:0-3-8,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.76	Vert(LL) -0.21	16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.66	Vert(CT) -0.36	16	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Horz(CT) 0.09	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.16	1-16	>999	240		
							Weight: 243 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP No.1 \*Except\*  
 9-14: 2x6 SP 2400F 2.0E  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-6

**REACTIONS.**

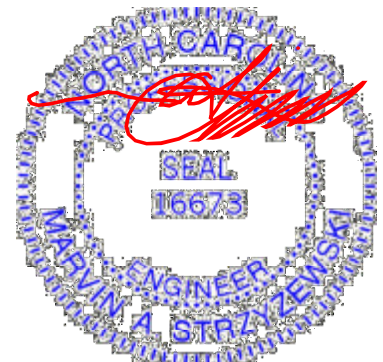
(size) 1=Mechanical, 9=0-3-8  
 Max Horz 1=-111(LC 8)  
 Max Uplift 1=-76(LC 12), 9=-90(LC 13)  
 Max Grav 1=1345(LC 2), 9=1347(LC 2)

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

TOP CHORD 1-3=-2189/401, 3-4=-1853/491, 6-8=-2237/517, 8-9=-2874/549  
 BOT CHORD 1-16=-198/1827, 14-16=-200/1839, 12-14=-375/2511, 9-12=-384/2511  
 WEBS 6-14=-117/966, 3-16=-53/392, 4-6=-1931/474, 8-14=-1081/228, 8-12=0/620

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 15-11-8, Exterior(2) 15-11-8 to 20-4-5, Interior(1) 20-4-5 to 32-10-10 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9.



December 20, 2021

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

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

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



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492053
J0422-1795	A4	COMMON	2	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:53 2021 Page 1  
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Scale = 1:59.4

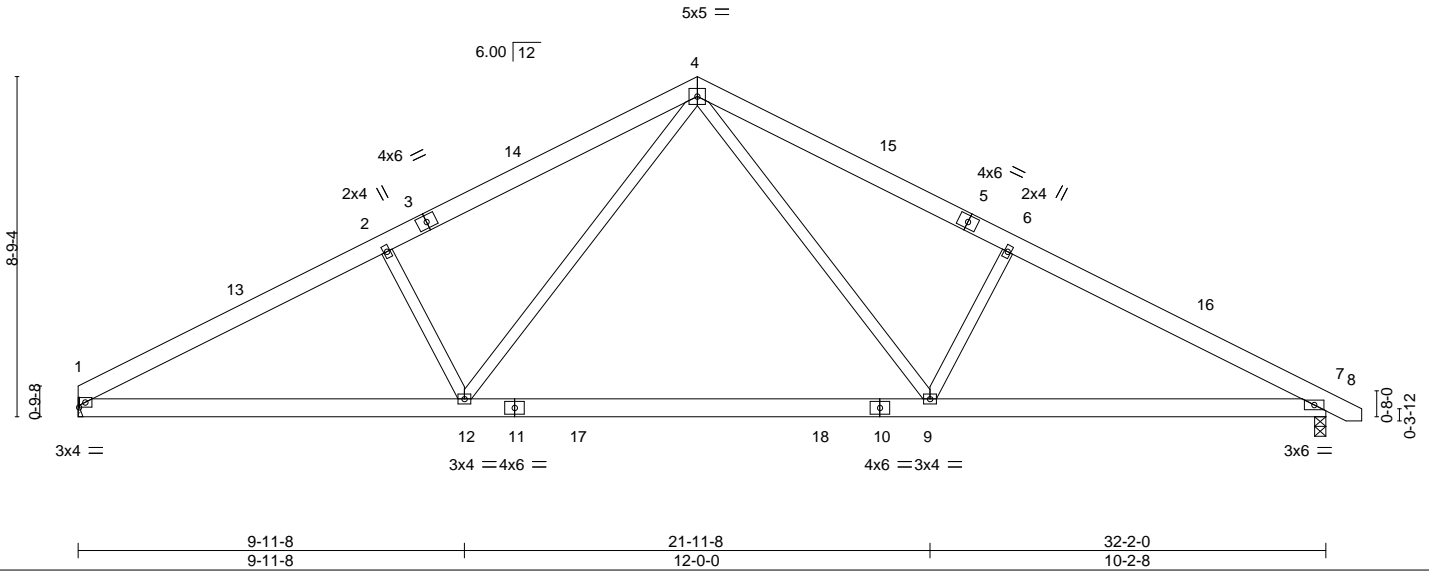


Plate Offsets (X,Y)-- [1:0-1-14,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.34	9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.47	9-12	>822	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	12	>999	240		
							Weight: 204 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=Mechanical, 7=0-3-8  
 Max Horz 1=-111(LC 8)  
 Max Uplift 1=-76(LC 12), 7=-89(LC 13)  
 Max Grav 1=1278(LC 1), 7=1331(LC 1)

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

TOP CHORD 1-2=-2276/496, 2-4=-2096/546, 4-6=-2113/532, 6-7=-2294/484  
 BOT CHORD 1-12=-319/1973, 9-12=-109/1291, 7-9=-324/1953  
 WEBS 4-9=-147/922, 6-9=-454/288, 4-12=-144/897, 2-12=-437/286

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 15-11-8, Exterior(2) 15-11-8 to 20-4-5, Interior(1) 20-4-5 to 32-10-10 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7.



December 20, 2021

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

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



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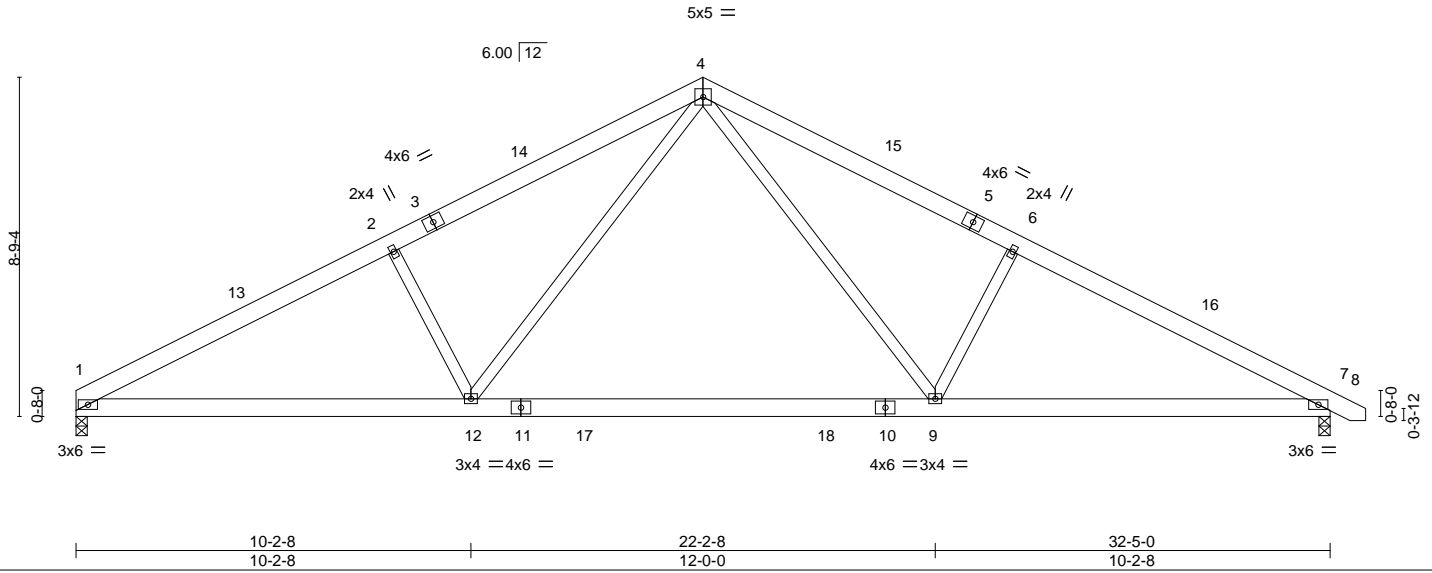
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492054
J0422-1795	A5	COMMON	4	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:54 2021 Page 1  
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Scale = 1:59.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.65	Vert(LL) -0.34 9-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.47 9-12 >822 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.05 7 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 12 >999 240	Weight: 206 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-10-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=111(LC 10)  
 Max Uplift 1=77(LC 12), 7=89(LC 13)  
 Max Grav 1=1284(LC 1), 7=1337(LC 1)

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

TOP CHORD 1-2=-2310/503, 2-4=-2129/551, 4-6=-2126/535, 6-7=-2308/487  
 BOT CHORD 1-12=-327/2012, 9-12=-111/1304, 7-9=-326/1966  
 WEBS 4-9=-147/921, 6-9=-454/288, 4-12=-149/924, 2-12=-458/292

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 16-2-8, Exterior(2) 16-2-8 to 20-7-5, Interior(1) 20-7-5 to 33-1-10 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, 7.



December 20, 2021

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



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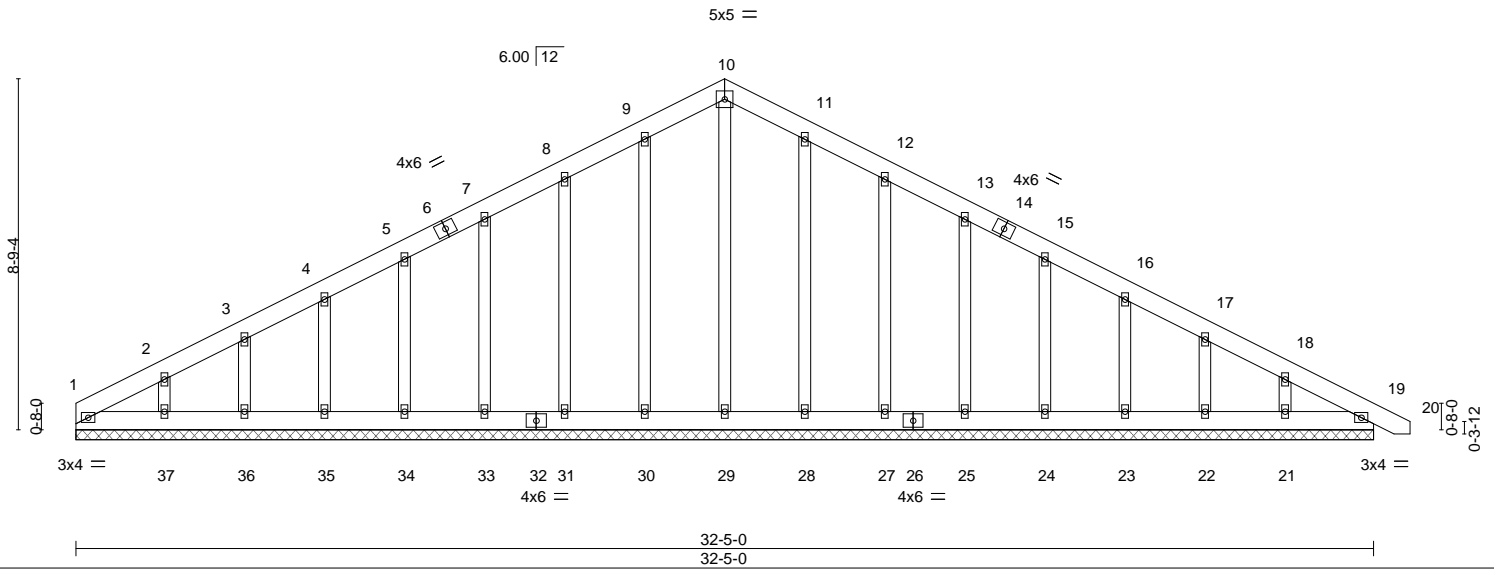
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492055
J0422-1795	A5GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:55 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-r7r7FCldMw0vuByejOb6k\_0I5Q4?RG4lchwyozy74yE

16-2-8 16-2-8 32-5-0 33-4-0 16-2-8 0-11-0

Scale = 1:57.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	0.00 19	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00 19	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00 19	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 256 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 32-5-0.  
 (lb) - Max Horz 1=-175(LC 17)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 30, 31, 33, 34, 35, 36, 28, 27, 25, 24, 23, 22, 21 except 37=-101(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 29, 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21, 19

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

TOP CHORD 9-10=-114/284, 10-11=-114/284

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 30, 31, 33, 34, 35, 36, 28, 27, 25, 24, 23, 22, 21 except (j=lb) 37=101.



December 20, 2021

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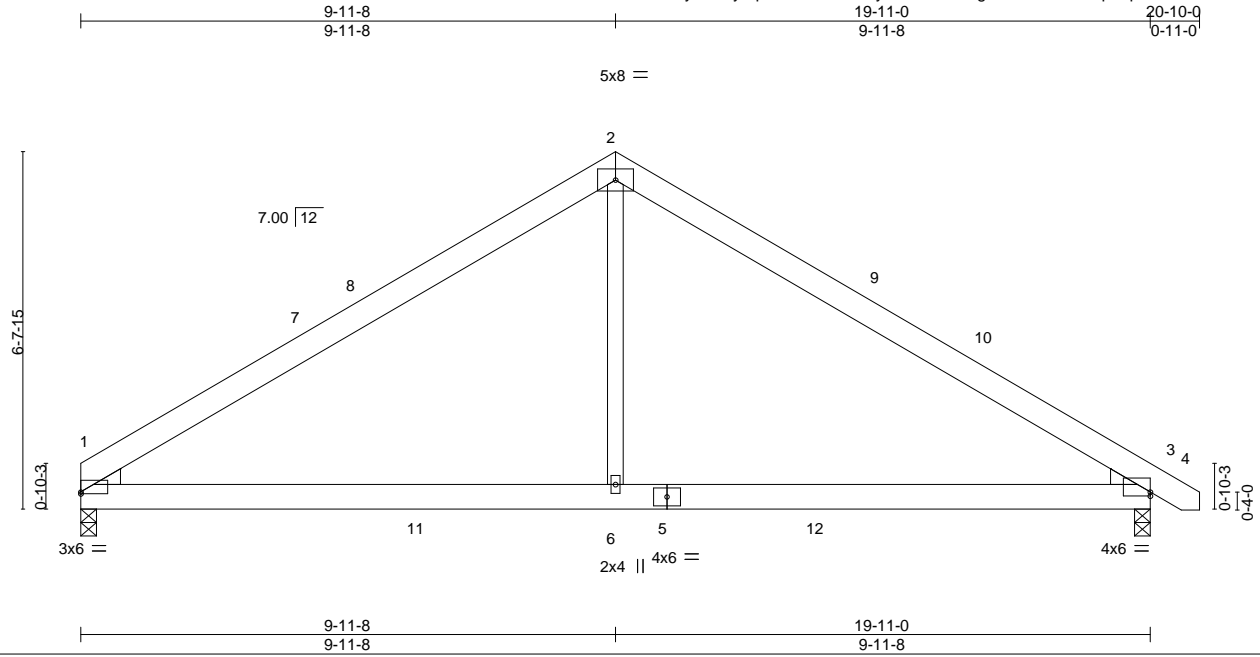


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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492056
J0422-1795	B1	COMMON	1	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:57 2021 Page 1  
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Scale = 1:42.9

Plate Offsets (X,Y)-- [1:0-0-0,0-0-7], [3:0-0-0,0-0-15]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	2-0-0	TC 0.52	Vert(LL) -0.06	3-6	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.44	Vert(CT) -0.13	3-6	>999	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.15	Horz(CT) 0.02	3	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.04	3-6	>999	240			
									Weight: 114 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.3 , Right: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-3-8, 3=0-3-8  
 Max Horz 1=-149(LC 8)  
 Max Uplift 1=-43(LC 12), 3=-56(LC 13)  
 Max Grav 1=900(LC 19), 3=951(LC 20)

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

TOP CHORD 1-2=-1193/217, 2-3=-1221/216  
 BOT CHORD 1-6=-30/956, 3-6=-30/956  
 WEBS 2-6=0/660

**NOTES-**

- Unbalanced roof live loads HAVING been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 9-11-8, Exterior(2) 9-11-8 to 14-4-5, Interior(1) 14-4-5 to 20-8-0 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, 3.



December 20, 2021

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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492057
J0422-1795	B1-GR	COMMON GIRDER	1	2	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:59 2021 Page 1

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Scale = 1:43.5

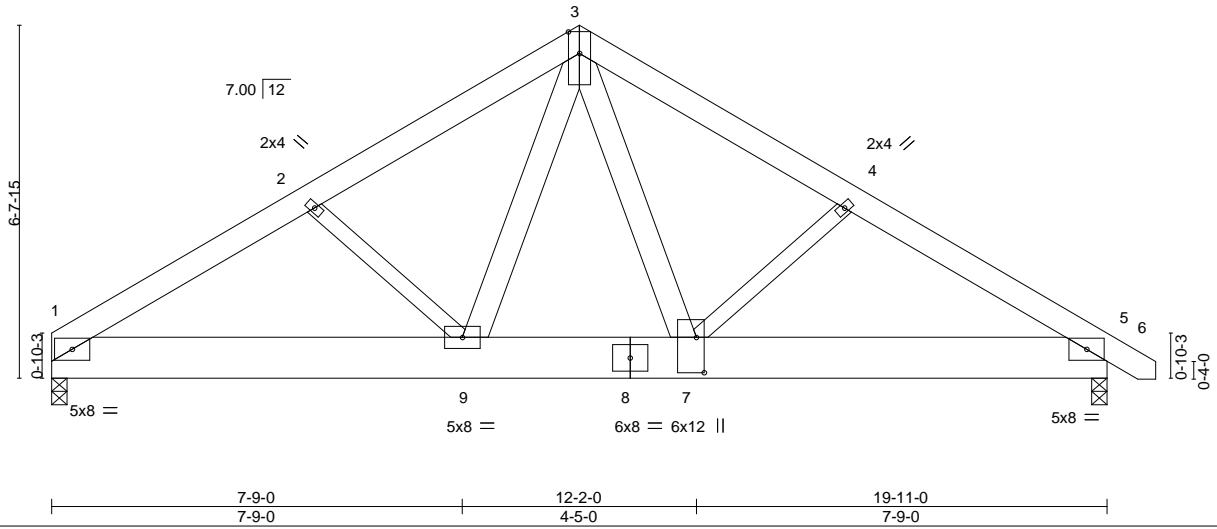


Plate Offsets (X,Y)--	[7:0-8-0,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.07	7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.14	7	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.55	Horz(CT) 0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	7	>999	240		
							Weight: 348 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-11-12 oc purlins.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 4-7,2-9: 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-148(LC 4)  
 Max Uplift 1=-423(LC 8), 5=-642(LC 9)  
 Max Grav 1=4234(LC 2), 5=6219(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-7519/795, 2-3=-7422/798, 3-4=-10665/1144, 4-5=-10716/1136  
 BOT CHORD 1-9=-679/6256, 7-9=-581/6251, 5-7=-887/8935  
 WEBS 3-7=-953/8888, 4-7=-281/487, 3-9=-44/404, 2-9=-284/309

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 4 rows staggered at 0-2-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=423, 5=642.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9034 lb down and 972 lb up at 12-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-6=-60, 1-5=-20  
 Concentrated Loads (lb)  
 Vert: 7=-7520(B)

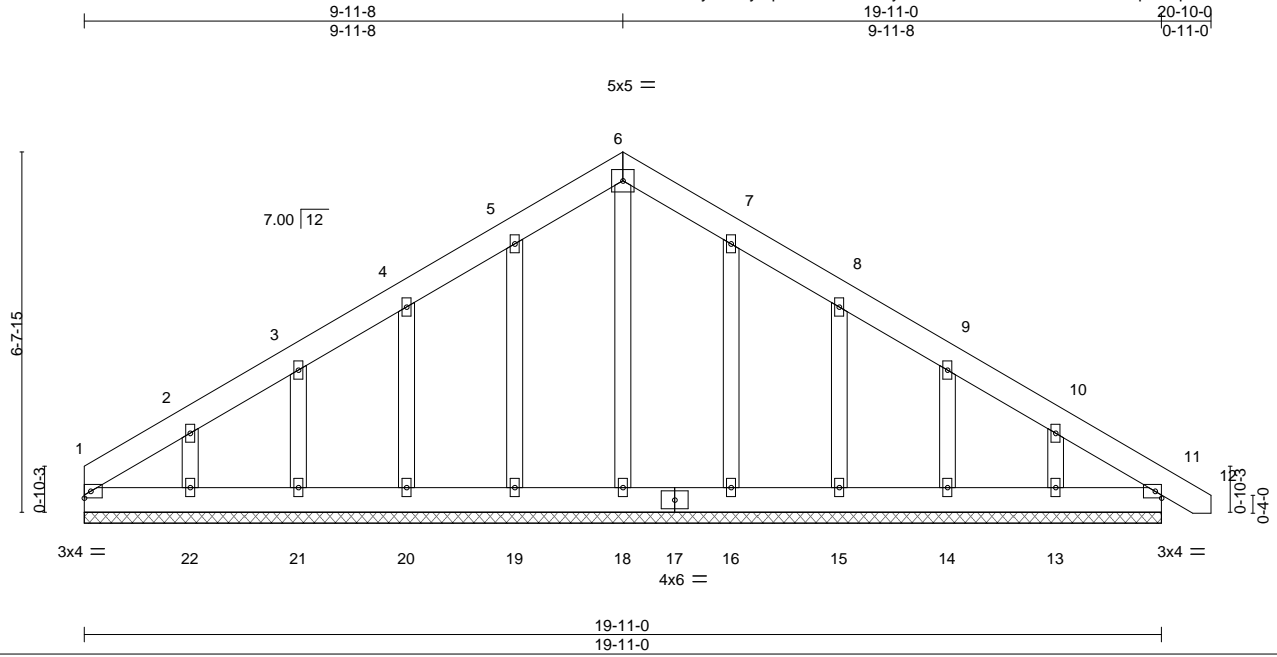


December 20, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492058
J0422-1795	B1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:22:58 2021 Page 1  
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Scale = 1:42.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	0.00	11	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 146 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 19-11-0.  
 (lb) - Max Horz 1=186(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 20, 21, 16, 15, 14, 11 except 22=116(LC 12), 13=103(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 18, 19, 20, 21, 22, 16, 15, 14, 13, 11

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19, 20, 21, 16, 15, 14, 11 except (jt=lb) 22=116, 13=103.



December 20, 2021

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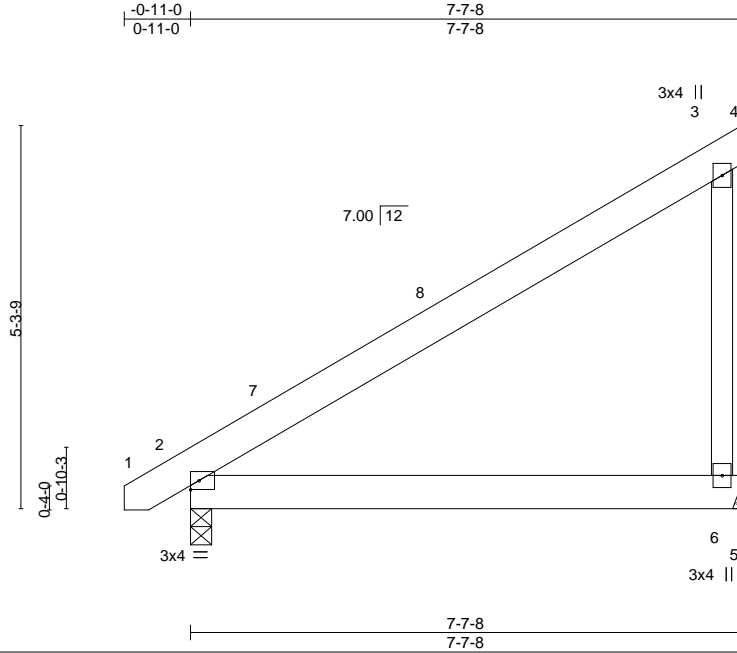


Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492059
J0422-1795	B2	JACK-CLOSED	8	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:00 2021 Page 1

ID:1yUksKymplk2404ufZYCrxyoKUD-C4e0lwpmBTeC\_zrcWxBHR1k4LRkA6ZnUmzdjUAY74y9



Scale: 3/8"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	Vert(LL)	-0.04	2-6	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	-0.07	2-6	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****	Weight: 48 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

(size) 6=Mechanical, 2=0-3-8  
 Max Horz 2=158(LC 12)  
 Max Uplift 6=-82(LC 12)  
 Max Grav 6=318(LC 19), 2=345(LC 1)

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

TOP CHORD 3-6=-288/220

**NOTES-**

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



December 20, 2021

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

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

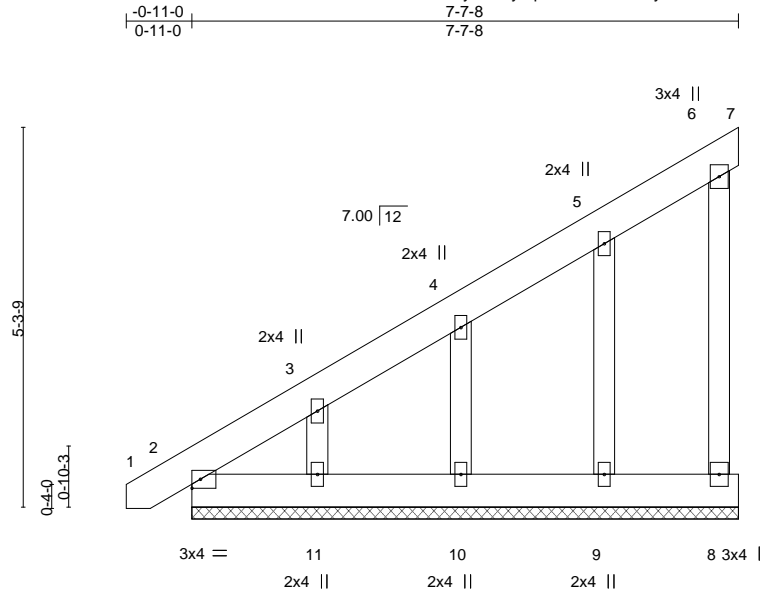


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492060
J0422-1795	B2GE	MONOPITCH SUPPORTED	1	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:00 2021 Page 1  
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 7-7-8  
 7-7-8



Scale: 3/8"=1'

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 57 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

All bearings 7-7-8.  
 (lb) - Max Horz 2=228(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 10 except 11=117(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 8, 2, 9, 10, 11

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

TOP CHORD 2-3=-269/227

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 8, 9, 10 except (jt=lb) 11=117.



December 20,2021

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492061
J0422-1795	C1	Monopitch	5	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:01 2021 Page 1

ID:1yUksKymplk2404ufZYCrxyoKUD-gHCPWFqOymn3c6Qo4fiWzFG70r4tr01e\_dNGody74y8  
8-0-0  
8-0-0



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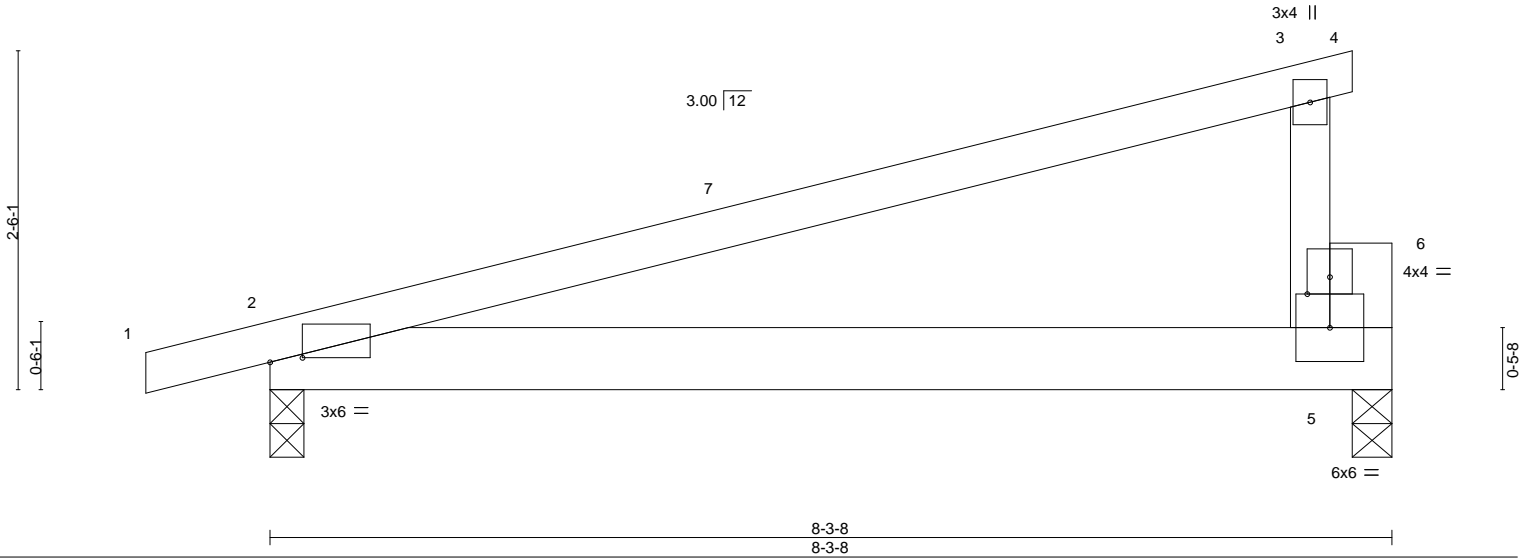


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6], [6:0-2-0,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	Vert(LL) -0.05	2-5	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT) -0.10	2-5	>969	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL) 0.10	2-5	>886	240	Weight: 37 lb	FT = 20%
	Code IRC2015/TPI2014							

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 5=0-3-8  
Max Horz 2=74(LC 8)  
Max Uplift 2=150(LC 8), 5=127(LC 8)  
Max Grav 2=375(LC 1), 5=314(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 8-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 5=127.



December 20,2021

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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492062
J0422-1795	C1GE	GABLE	2	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:02 2021 Page 1

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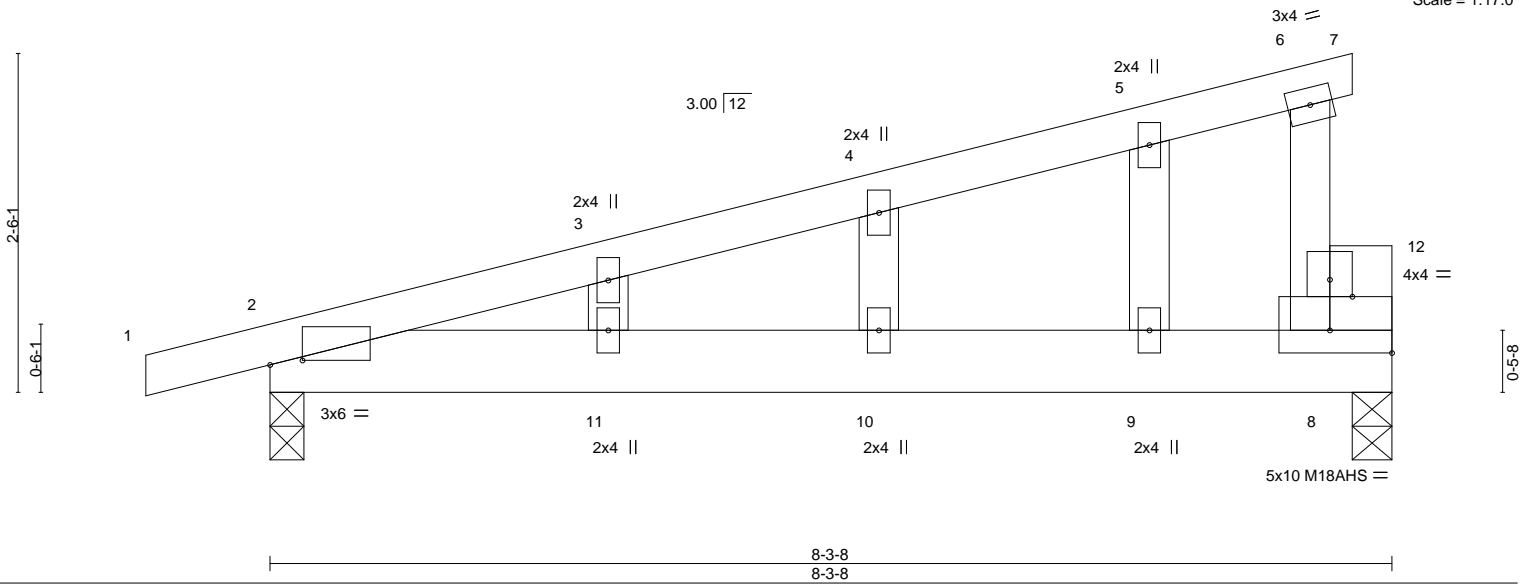


Plate Offsets (X,Y)-- [2:0-2-14,0-0-6], [8:Edge,0-2-0], [12:0-2-0,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	0.09 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.08 10-11	>999	240	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.00 8	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 41 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.2 \*Except\*  
8-12: 2x6 SP No.1

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

**REACTIONS.** (size) 2=0-3-0, 8=0-3-8  
Max Horz 2=105(LC 8)  
Max Uplift 2=-216(LC 8), 8=-188(LC 8)  
Max Grav 2=375(LC 1), 8=314(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 2-11=-284/207, 10-11=-284/207, 9-10=-284/207, 8-9=-284/207

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) All plates are MT20 plates unless otherwise indicated.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 8=188.



December 20, 2021

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

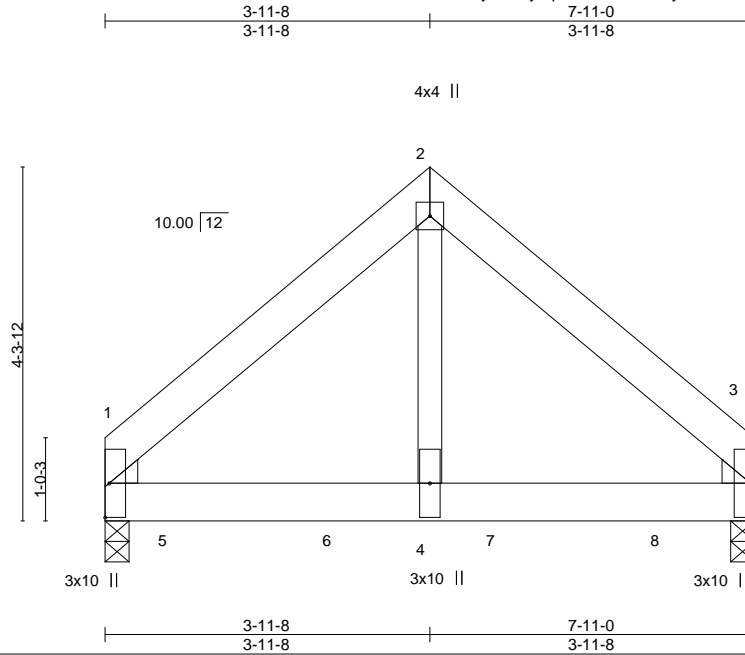


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492063
J0422-1795	D1-GR	Common Girder	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:04 2021 Page 1  
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Scale = 1:28.1

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.02 3-4 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(CT) -0.04 3-4 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-P	Horz(CT) 0.01 3 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.01 3-4 >999 240	Weight: 100 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) 1=0-3-8, 3=0-3-8  
Max Horz 1=91(LC 24)  
Max Uplift 1=191(LC 8), 3=180(LC 9)  
Max Grav 1=2919(LC 1), 3=2779(LC 2)

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

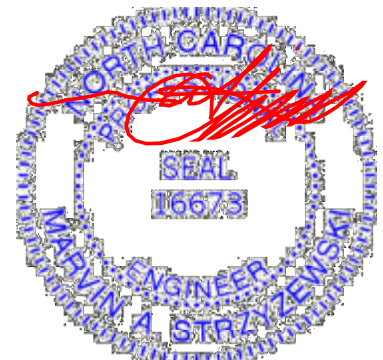
TOP CHORD 1-2=-2418/177, 2-3=-2418/177  
BOT CHORD 1-4=-100/1678, 3-4=-100/1678  
WEBS 2-4=-154/3142

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=191, 3=180.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1261 lb down and 93 lb up at 0-9-12, 1258 lb down and 96 lb up at 2-9-12, and 1325 lb down and 96 lb up at 4-9-12, and 1325 lb down and 96 lb up at 6-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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



December 20, 2021

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492063
J0422-1795	D1-GR	Common Girder	1	<b>2</b>	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:04 2021 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 5--1261(B) 6--1258(B) 7--1258(B) 8--1258(B)

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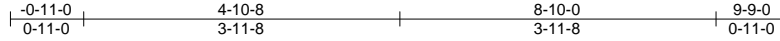


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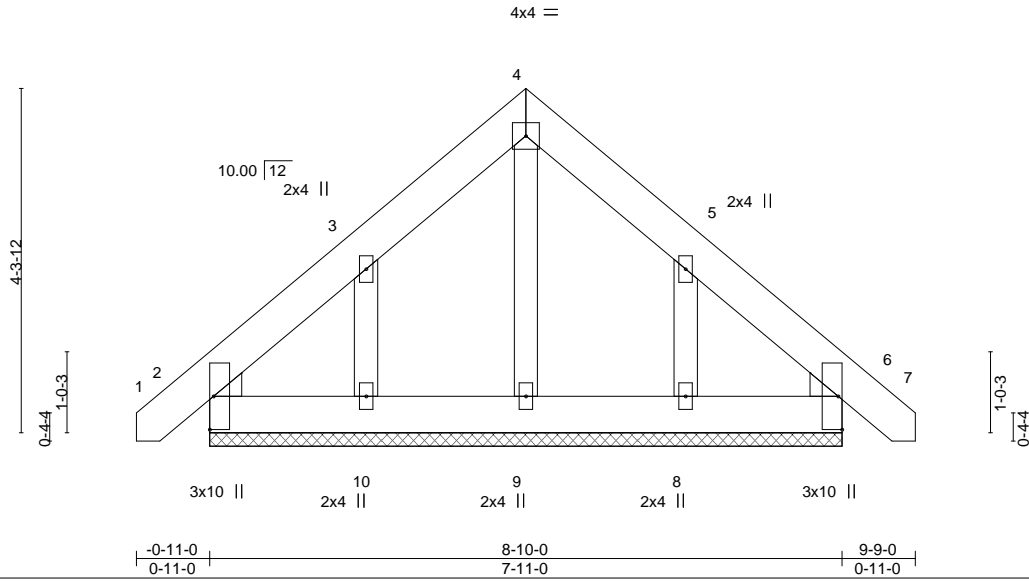
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492064
J0422-1795	D1GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:03 2021 Page 1  
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Scale = 1:28.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.02	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.01	Vert(CT)	0.00	6	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 60 lb	FT = 20%
	Code IRC2015/TPI2014								

**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.

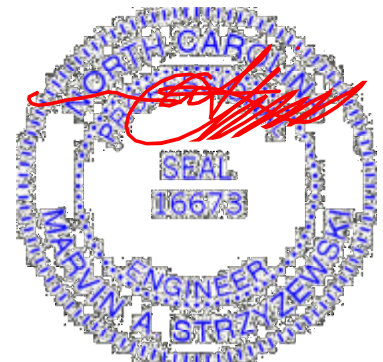
**REACTIONS.**

All bearings 7-11-0.  
 (lb) - Max Horz 2=-118(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-152(LC 12), 8=-148(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.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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=10) 10=152, 8=148.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 20, 2021

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

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



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492065
J0422-1795	G1-GR	FLAT GIRDER	1	3	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:06 2021 Page 1  
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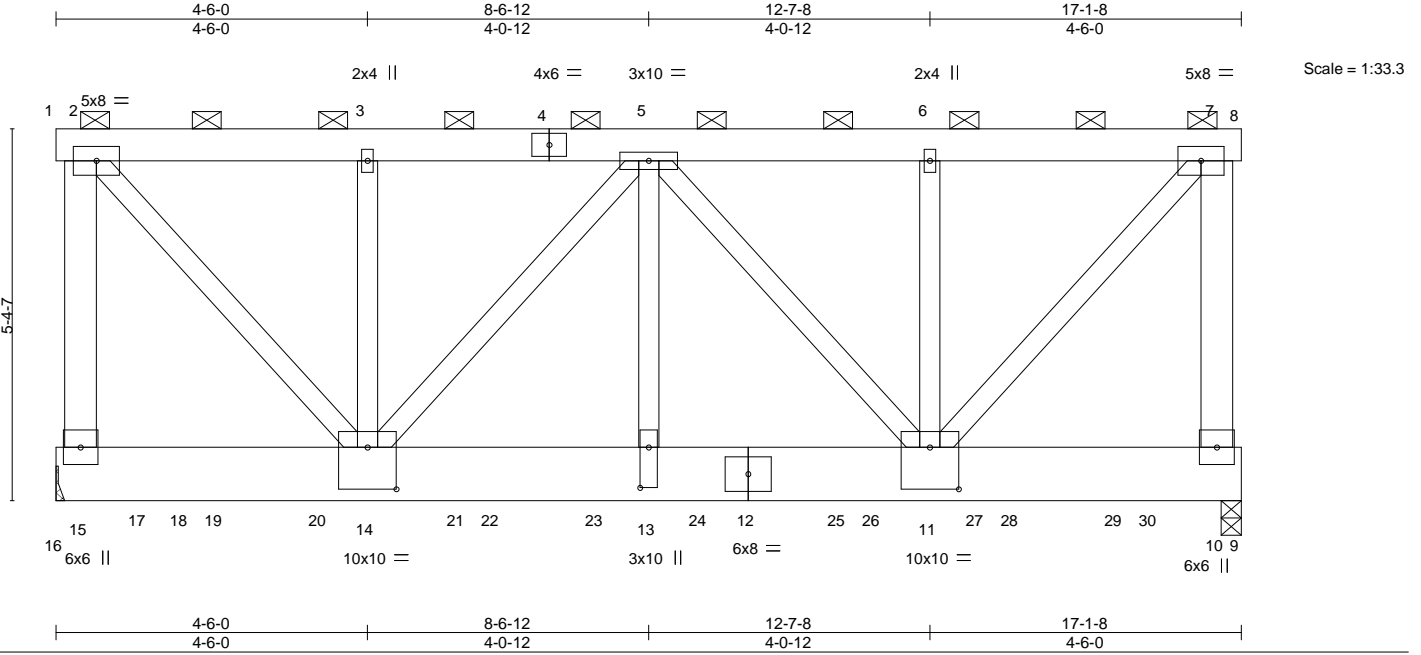


Plate Offsets (X,Y)-- [11:0-5-0,0-7-4], [13:0-7-0,0-1-8], [14:0-5-0,0-7-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.04	13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT) -0.06	13	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.64	Horz(CT) 0.01	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.01	13	>999	240		
							Weight: 535 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 2-15,7-10: 2x6 SP No.1

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-8, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 15=Mechanical, 10=0-3-8  
 Max Uplift 15=-952(LC 4), 10=-496(LC 5)  
 Max Grav 15=9044(LC 2), 10=5622(LC 14)

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

TOP CHORD 2-15=-4967/485, 2-3=-4297/388, 3-5=-4297/388, 5-6=-4012/329, 6-7=-4012/329,  
 7-10=-4613/423  
 BOT CHORD 13-14=-445/5318, 11-13=-445/5318  
 WEBS 2-14=-563/6307, 5-14=-1816/442, 7-11=-484/5953, 5-13=-233/2760, 5-11=-2053/179

**NOTES-**

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x10 - 5 rows staggered at 0-4-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)  
 15=952, 10=496.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5000 lb down and 537 lb up at 1-2-8, 276 lb down and 102 lb up at 1-9-12, 1043 lb down at 2-3-12, 276 lb down and 102 lb up at 3-9-12, 1043 lb down at 4-3-12, 276 lb down and 102 lb up at 5-9-12, 1043 lb down at 6-3-12, 276 lb down and 102 lb up at 7-9-12, 1122 lb down at 8-3-12, 1122 lb down at 9-3-12, 276 lb down and 102 lb up at 9-9-12, 1122 lb down at 11-3-12, 276 lb down and 102 lb up at 11-9-12, 1122 lb down at 13-3-12, 276 lb down and 102 lb up at 13-9-12, and 1122 lb down at 15-3-12, and 276 lb down and 102 lb up at 15-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



December 20, 2021

**LOAD CASE(S)** Standard

Continued on page 2

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492065
J0422-1795	G1-GR	FLAT GIRDER	1	3	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:06 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-7=-60, 7-8=-60, 9-16=-20

Concentrated Loads (lb)

Vert: 12=-276(F) 14=-255(B) 13=-291(B) 17=-5000(B) 18=-276(F) 19=-255(B) 20=-276(F) 21=-276(F) 22=-255(B) 23=-276(F) 24=-291(B) 25=-291(B) 26=-276(F)  
 27=-291(B) 28=-276(F) 29=-291(B) 30=-276(F)

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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492066
J0422-1795	M1	MONOPITCH	4	1		

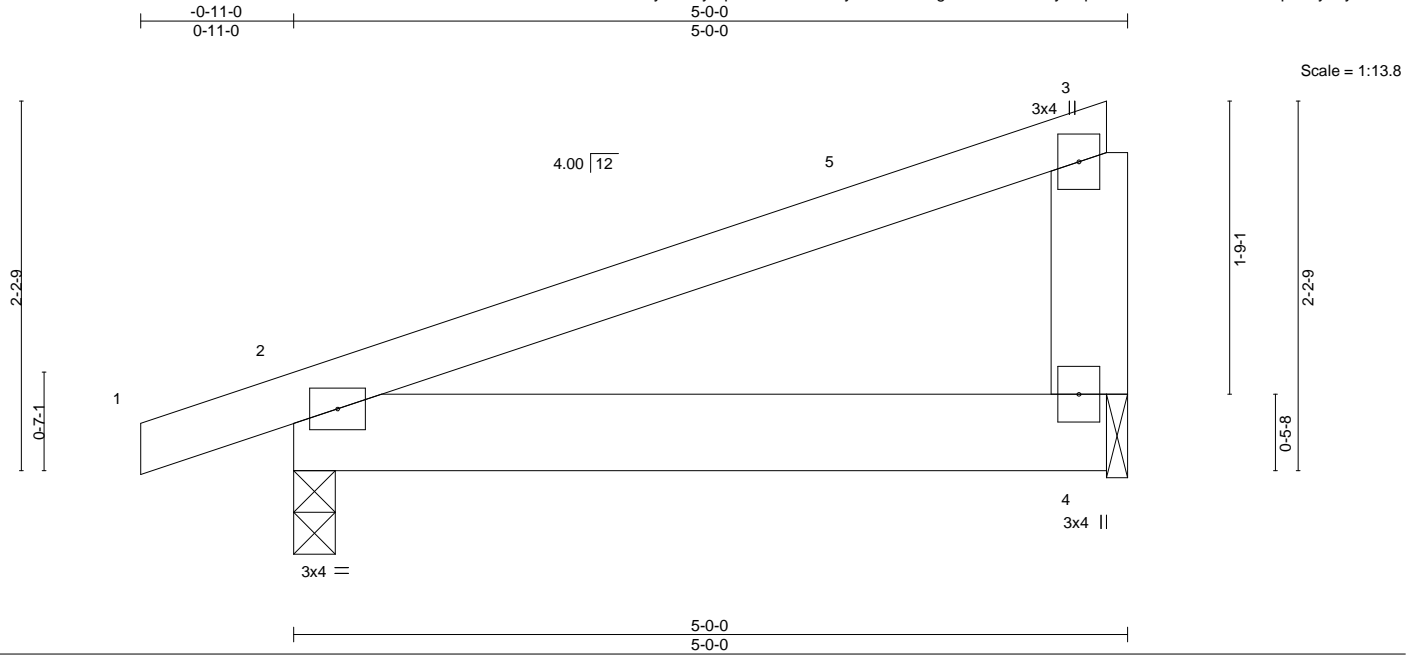
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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:07 2021 Page 1

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Job Reference (optional)



Scale = 1:13.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.01	2-4	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.08	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	Wind(LL) 0.01	2-4	>999	240		Weight: 24 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 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=63(LC 8)  
 Max Uplift 2=102(LC 8), 4=-79(LC 8)  
 Max Grav 2=255(LC 1), 4=179(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 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) 4 except (jt=lb) 2=102.



December 20,2021

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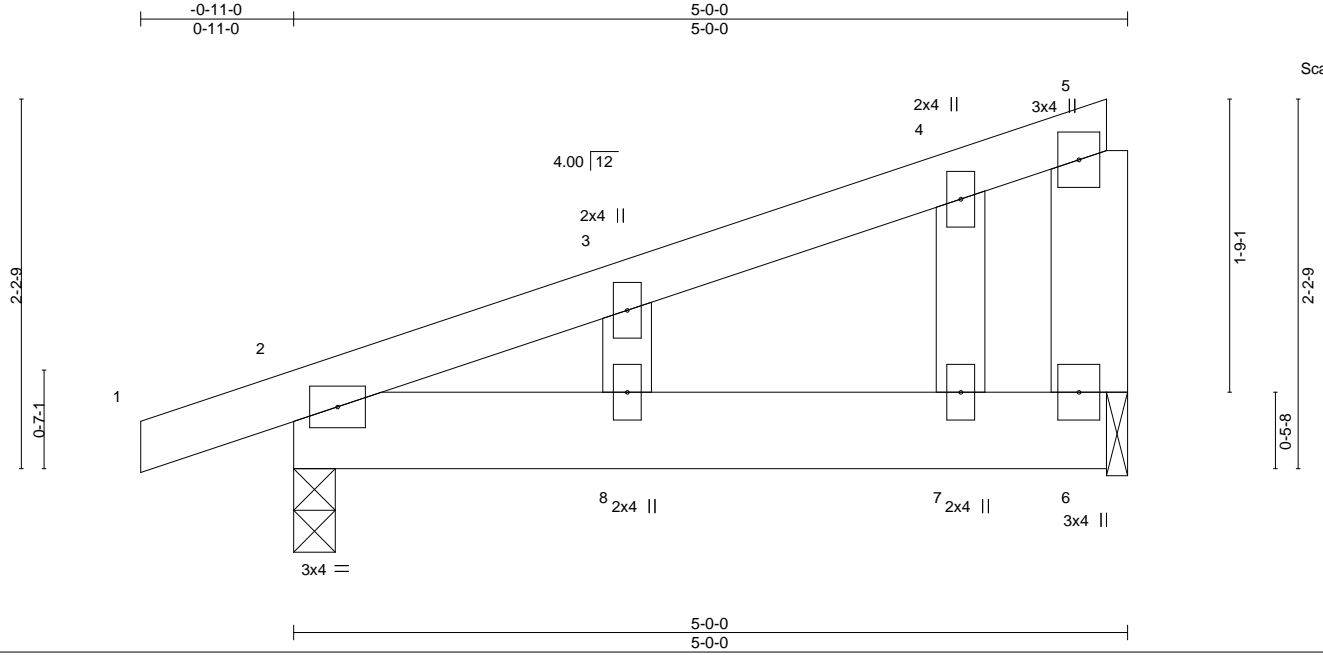


Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492067
J0422-1795	M1GE	GABLE	1	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:07 2021 Page 1

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LOADING (psf)	SPACING-	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	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.01	8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) -0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 27 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 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=90(LC 8)  
 Max Uplift 2=-147(LC 8), 6=-115(LC 8)  
 Max Grav 2=255(LC 1), 6=179(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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=147, 6=115.

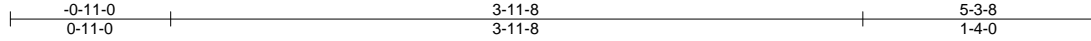


December 20, 2021

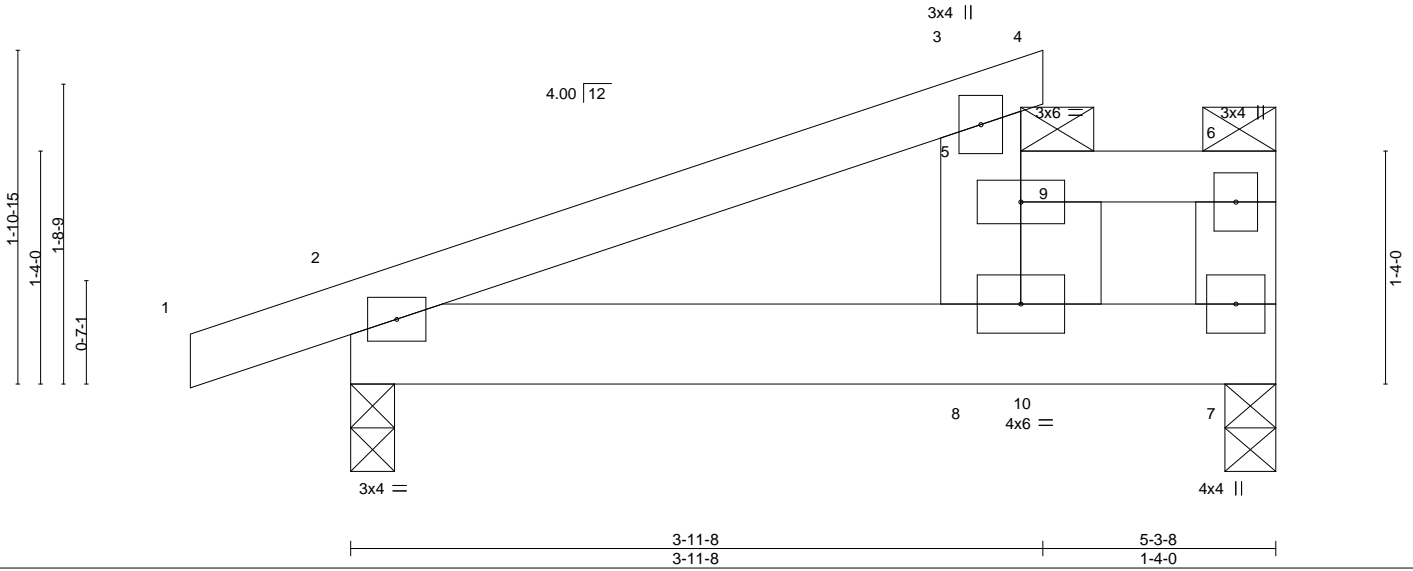
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492068
J0422-1795	M2	Half Hip	3	1	Job Reference (optional)	

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:08 2021 Page 1  
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Scale = 1:13.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.00	8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.01	8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R	Wind(LL) 0.02	8	>999	240	Weight: 28 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-8, 5-6. Except: 10-0-0 oc bracing: 3-5  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 7=0-3-8, 2=0-3-0  
Max Horz 2=69(LC 12)  
Max Uplift 7=173(LC 8), 2=138(LC 8)  
Max Grav 7=561(LC 19), 2=349(LC 1)

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

TOP CHORD 2-3=-425/505, 5-8=-279/265, 5-6=-233/338, 6-7=-292/309  
BOT CHORD 2-8=-546/359, 7-8=-338/233

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-7-4, Interior(1) 3-7-4 to 5-0-12 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=173, 2=138.
- Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-9=-40, 6-9=-80, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=400
- Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-9=-100, 6-9=-130, 2-7=-20



December 20, 2021

Continued on page 2

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492068
J0422-1795	M2	Half Hip	3	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:08 2021 Page 2  
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**LOAD CASE(S)** Standard

- Concentrated Loads (lb)  
Vert: 9=-350
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-40, 2-7=-40  
Concentrated Loads (lb)  
Vert: 9=-300
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=70, 2-3=58, 3-4=153, 5-6=12, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-82, 2-3=-70, 3-4=-165, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=548
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=51, 2-3=58, 3-4=51, 5-6=42, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-63, 2-3=-70, 3-4=-63, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=566
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-1, 2-3=-45, 3-4=17, 5-6=-58, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=-19, 2-3=25, 3-4=-37, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-39, 2-3=-45, 3-4=-39, 5-6=-58, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=19, 2-3=25, 3-4=19, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=36, 2-3=21, 3-4=14, 5-6=-11, 2-8=10, 8-10=33, 7-10=10  
Horz: 1-2=48, 2-3=-33, 3-4=-26, 3-5=7  
Concentrated Loads (lb)  
Vert: 9=154
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=12, 3-4=28, 5-6=1, 2-7=-12  
Horz: 1-2=-18, 2-3=-24, 3-4=-40, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-33, 2-8=2, 8-10=25, 7-10=2  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=34  
Concentrated Loads (lb)  
Vert: 9=-339
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-21, 2-7=-20  
Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=0  
Concentrated Loads (lb)  
Vert: 9=-234
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-11, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492068
J0422-1795	M2	Half Hip	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:08 2021 Page 3  
ID:1yUksKymplk2404ufZYCrxyoKUD-zd72\_fvnlwf3yBS8\_dK9lj3TggSc\_BmfbDZ8mjy74y1

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=1, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27
- Concentrated Loads (lb)  
Vert: 9=43
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-33, 2-7=-20  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12  
Concentrated Loads (lb)  
Vert: 9=-234
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-21, 2-7=-20  
Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-234
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-120, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-200
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-95, 6-9=-125, 2-8=-3, 8-10=13, 7-10=-3  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=26  
Concentrated Loads (lb)  
Vert: 9=-454
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-37, 2-3=-42, 3-4=-37, 5-9=-86, 6-9=-116, 2-7=-20  
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-95, 6-9=-125, 2-7=-20  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9  
Concentrated Loads (lb)  
Vert: 9=-375
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-3=-45, 3-4=-40, 5-9=-86, 6-9=-116, 2-7=-20  
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-6=-40, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-40, 6-9=-80, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-6=-100, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-100, 6-9=-130, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350

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

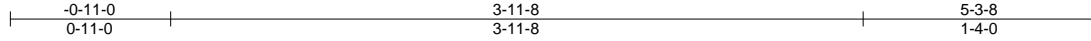


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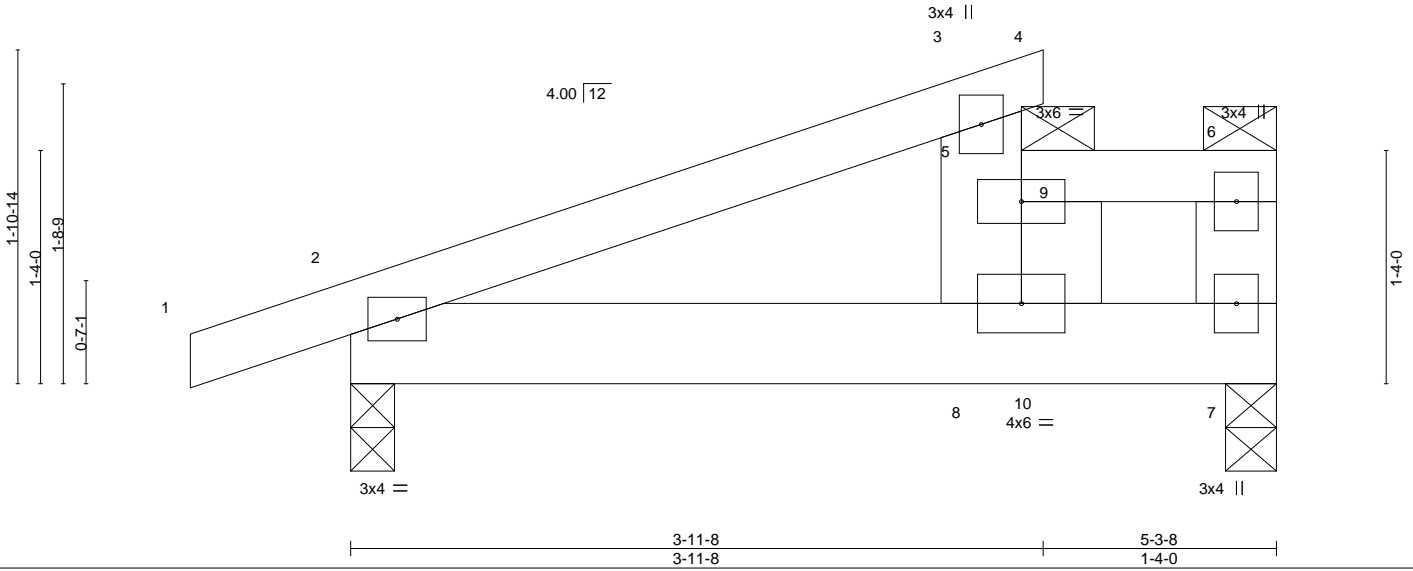
Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492069
J0422-1795	M2-GR	HALF HIP	1	2	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:09 2021 Page 1  
ID:1yUksKymplk2404ufZYCrxyoKUD-RphQB?wP3EnwaL1KYKrOlwbgK4pMje0pqtJhI9y74y0



Scale = 1:13.2



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.12	Vert(LL) -0.00	8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.01	8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R	Wind(LL) 0.01	8	>999	240	Weight: 55 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-8, 5-6. Except:
BOT CHORD 2x6 SP No.1	10-0-0 oc bracing: 3-5
WEBS 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-3-8, 2=0-3-0  
 Max Horz 2=69(LC 12)  
 Max Uplift 7=-24(LC 8), 2=-112(LC 8)  
 Max Grav 7=710(LC 19), 2=375(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-484/446, 5-8=-334/210, 5-6=-280/291, 6-7=-390/210  
 BOT CHORD 2-8=-491/415, 7-8=-291/280

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-7-4, Interior(1) 3-7-4 to 5-0-12 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=112.
  - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 5-9=-160, 6-9=-200, 2-7=-20





Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492069
J0422-1795	M2-GR	HALF HIP	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:09 2021 Page 2  
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**LOAD CASE(S)** Standard

- Concentrated Loads (lb)  
Vert: 9=-400
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-9=-220, 6-9=-250, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-160, 2-7=-40  
Concentrated Loads (lb)  
Vert: 9=-300
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=70, 2-3=58, 3-4=153, 5-6=-108, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-82, 2-3=-70, 3-4=-165, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=548
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=51, 2-3=58, 3-4=51, 5-6=-78, 2-8=52, 8-10=115, 7-10=52  
Horz: 1-2=-63, 2-3=-70, 3-4=-63, 3-5=-55  
Concentrated Loads (lb)  
Vert: 9=566
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-1, 2-3=-45, 3-4=17, 5-6=-178, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=-19, 2-3=25, 3-4=-37, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-39, 2-3=-45, 3-4=-39, 5-6=-178, 2-8=-9, 8-10=2, 7-10=-9  
Horz: 1-2=19, 2-3=25, 3-4=19, 3-5=51  
Concentrated Loads (lb)  
Vert: 9=-420
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=36, 2-3=21, 3-4=14, 5-6=-131, 2-8=10, 8-10=33, 7-10=10  
Horz: 1-2=-48, 2-3=-33, 3-4=-26, 3-5=7  
Concentrated Loads (lb)  
Vert: 9=154
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=12, 3-4=28, 5-6=-119, 2-7=-12  
Horz: 1-2=-18, 2-3=-24, 3-4=-40, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-153, 2-8=2, 8-10=25, 7-10=2  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=34  
Concentrated Loads (lb)  
Vert: 9=-339
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-2, 2-3=-9, 3-4=-2, 5-6=-141, 2-7=-20  
Horz: 1-2=-18, 2-3=-11, 3-4=-18, 3-5=0  
Concentrated Loads (lb)  
Vert: 9=-234
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39  
Concentrated Loads (lb)  
Vert: 9=43
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492069
J0422-1795	M2-GR	HALF HIP	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:09 2021 Page 3  
ID:1yUksKymplk2404ufZYCrxyoKUD-RphQB?wP3EnwaL1KYKrOlwbgK4pMje0pqtJhI9y74y0

**LOAD CASE(S)** Standard

- Uniform Loads (plf)  
Vert: 1-2=14, 2-3=21, 3-4=14, 5-6=-131, 2-7=-12  
Horz: 1-2=-26, 2-3=-33, 3-4=-26, 3-5=-39
- Concentrated Loads (lb)  
Vert: 9=43
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=2, 2-3=9, 3-4=2, 5-6=-119, 2-7=-12  
Horz: 1-2=-14, 2-3=-21, 3-4=-14, 3-5=-27  
Concentrated Loads (lb)  
Vert: 9=43
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-3=-1, 3-4=6, 5-6=-153, 2-7=-20  
Horz: 1-2=-26, 2-3=-19, 3-4=-26, 3-5=-12  
Concentrated Loads (lb)  
Vert: 9=-234
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-6, 2-3=-13, 3-4=-6, 5-6=-141, 2-7=-20  
Horz: 1-2=-14, 2-3=-7, 3-4=-14, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-234
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-6=-240, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-200
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-215, 6-9=-245, 2-8=-3, 8-10=13, 7-10=-3  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=26  
Concentrated Loads (lb)  
Vert: 9=-454
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-37, 2-3=-42, 3-4=-37, 5-9=-206, 6-9=-236, 2-7=-20  
Horz: 1-2=-13, 2-3=-8, 3-4=-13, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-3=-36, 3-4=-31, 5-9=-215, 6-9=-245, 2-7=-20  
Horz: 1-2=-19, 2-3=-14, 3-4=-19, 3-5=-9  
Concentrated Loads (lb)  
Vert: 9=-375
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-3=-45, 3-4=-40, 5-9=-206, 6-9=-236, 2-7=-20  
Horz: 1-2=-10, 2-3=-5, 3-4=-10, 3-5=-0  
Concentrated Loads (lb)  
Vert: 9=-375
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-4=-60, 5-6=-160, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-160, 6-9=-200, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-400
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-50, 3-4=-50, 5-6=-220, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-20, 3-4=-20, 5-9=-220, 6-9=-250, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-350

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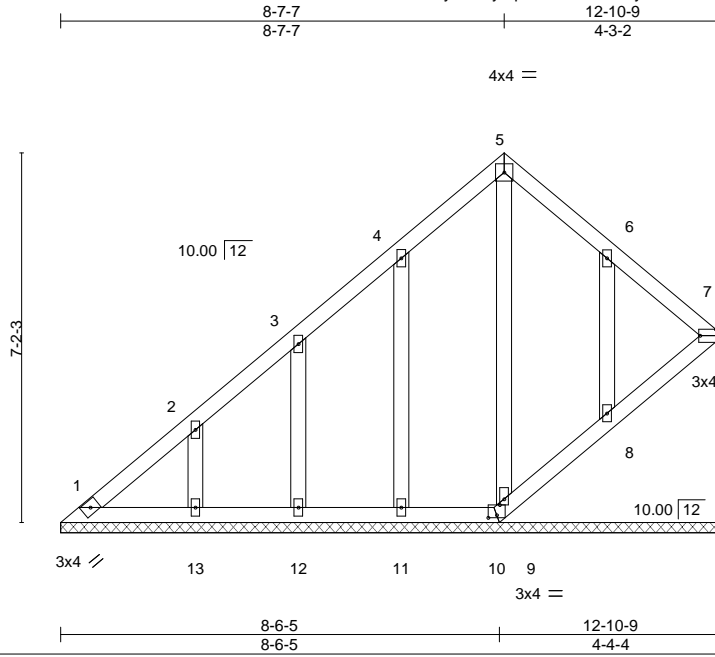


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492070
J0422-1795	V1GE	ROOF SPECIAL STRUCTU	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:10 2021 Page 1  
ID:1yUksKymplk2404ufZYCrxyoKUD-v0FoPKx1qXvnBvcX62Mdr88s\_TBHS42y3X2Eqby74y?



Scale = 1:44.8

Plate Offsets (X,Y)-- [7:0-3-11,Edge], [9:0-1-6,0-1-0], [10:0-2-0,0-0-10]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 75 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

All bearings 12-10-9.  
(lb) - Max Horz 1=231(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10 except 11=-112(LC 12), 12=-107(LC 12), 13=-133(LC 12), 8=-126(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 9, 11, 12, 13, 8

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

TOP CHORD 1-2=-295/189

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 7, 9, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 10 except (jt=lb) 11=112, 12=107, 13=133, 8=126.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 9, 8.



December 20, 2021

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

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

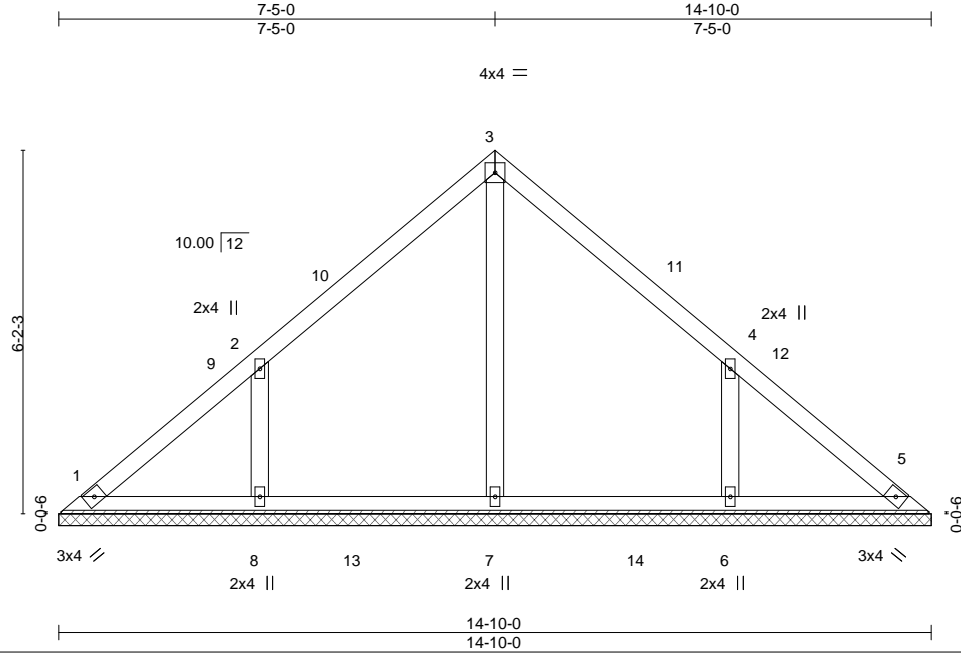


818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492071
J0422-1795	V2	VALLEY	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:11 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-NCpAcgxr1epfBjfltsNLh?XtVeBX56lBooM2y74y\_



Scale = 1:39.2

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 64 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

**REACTIONS.** All bearings 14-10-0.  
 (lb) - Max Horz 1=140(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=135(LC 12), 6=135(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=400(LC 19), 8=393(LC 19), 6=393(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-338/247, 4-6=-338/247

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 7-5-0, Exterior(2) 7-5-0 to 11-9-13, Interior(1) 11-9-13 to 14-5-3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=135, 6=135.



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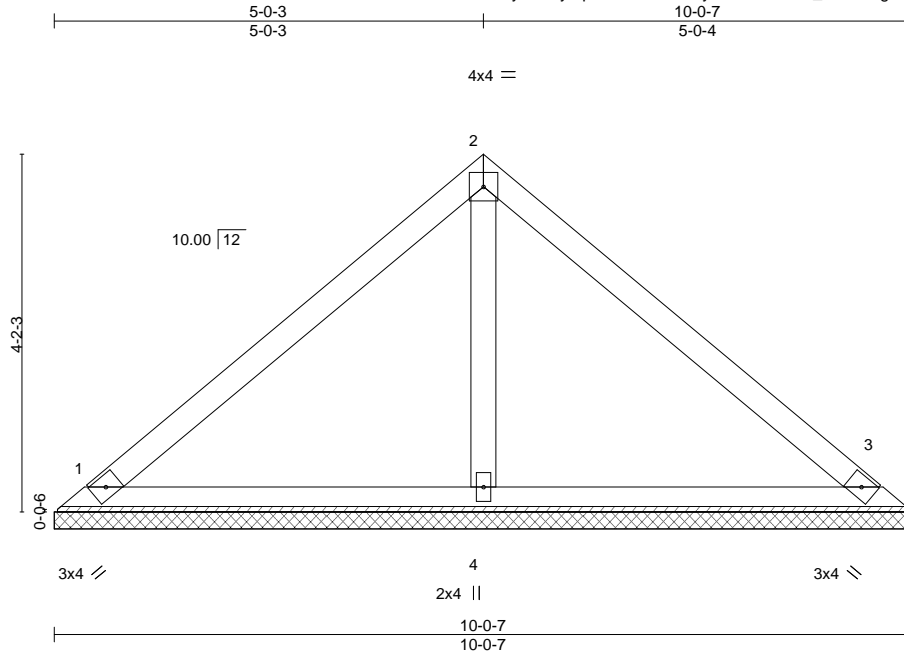




Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492073
J0422-1795	V4	VALLEY	1	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:14 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-onVJFI\_YumPDg6vLuRZ?\_JVR5XFouPY\_90SyNy74xx



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 38 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

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

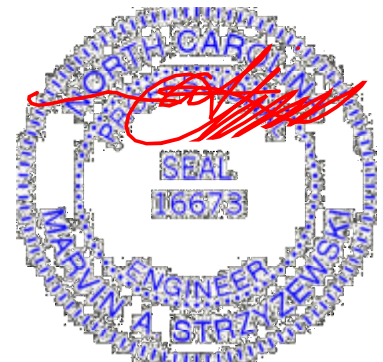
**REACTIONS.**

(size) 1=10-0-7, 3=10-0-7, 4=10-0-7  
 Max Horz 1=-92(LC 8)  
 Max Uplift 1=-22(LC 13), 3=-30(LC 13)  
 Max Grav 1=197(LC 1), 3=197(LC 1), 4=344(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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) 1, 3.



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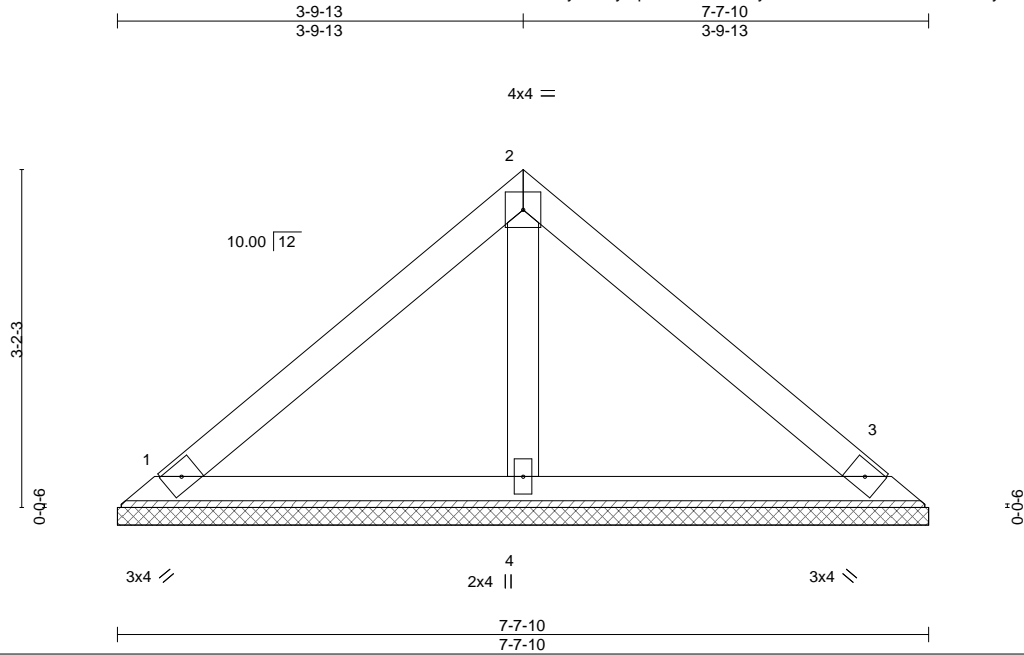


818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492074
J0422-1795	V5	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:15 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-Gz2hS2?Af4X4IGUUubyoYBrh1Utb7L7hDpm?Upy74xw



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.17	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a	Weight: 28 lb	FT = 20%
	Code IRC2015/TPI2014				

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

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

**REACTIONS.**

(size) 1=7-7-10, 3=7-7-10, 4=7-7-10  
 Max Horz 1=68(LC 9)  
 Max Uplift 1=-24(LC 13), 3=-30(LC 13)  
 Max Grav 1=158(LC 1), 3=158(LC 1), 4=230(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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) 1, 3.



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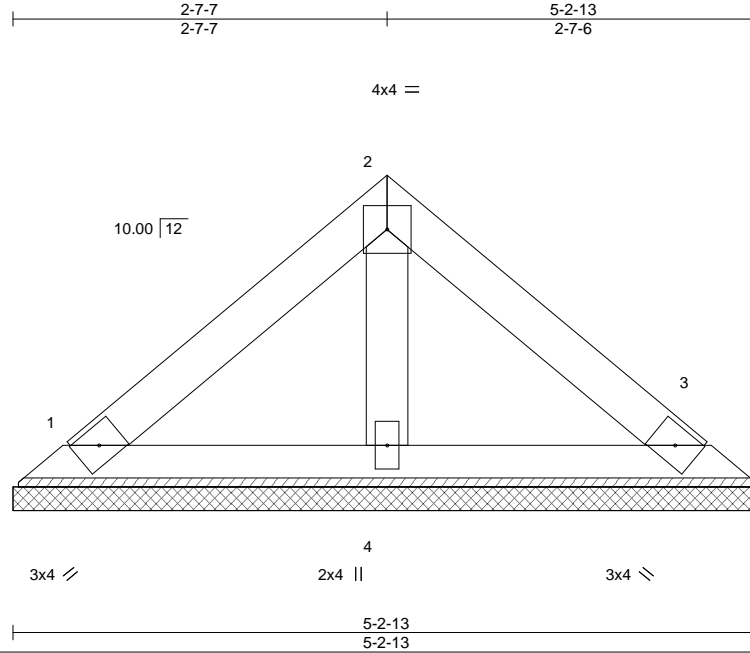


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Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492075
J0422-1795	V6	VALLEY	1	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:15 2021 Page 1  
 ID:1yUksKymplk2404ufZYCrxyoKUD-Gz2hS2?Af4X4IGUUubyoYBridUuN7LKhDpm?Uppy74xw



Scale: 3/4"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P						Weight: 19 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=5-2-13, 3=5-2-13, 4=5-2-13  
 Max Horz 1=-44(LC 8)  
 Max Uplift 1=-15(LC 13), 3=-19(LC 13)  
 Max Grav 1=102(LC 1), 3=102(LC 1), 4=149(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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) 1, 3.



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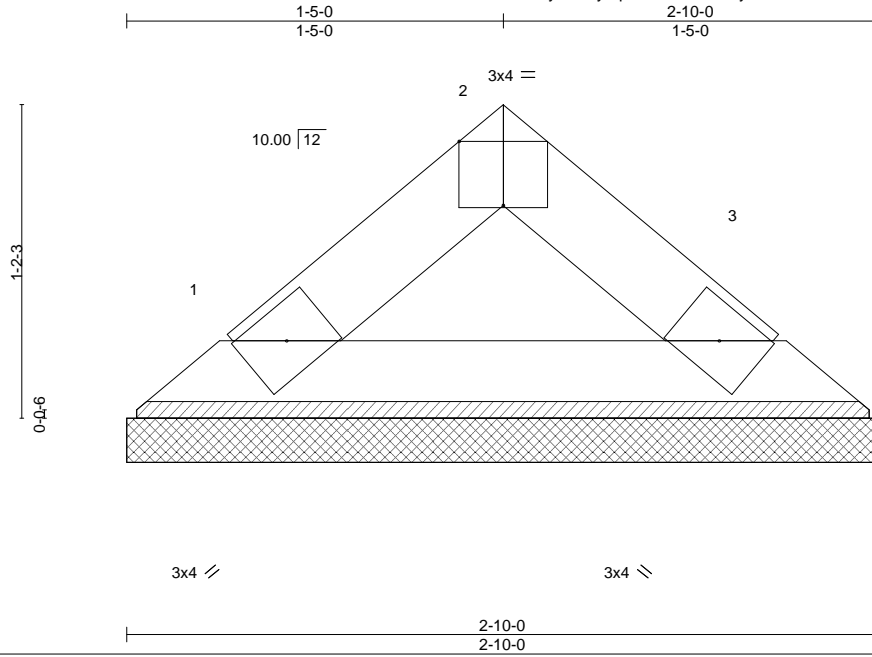


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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492076
J0422-1795	V7	VALLEY	1	1		

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:16 2021 Page 1  
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Scale = 1:8.7

Plate Offsets (X,Y)--		[2:0-2-0,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 20.0	Plate Grip DOL	1.15	TC 0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999			
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a			
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 8 lb	FT = 20%	

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1

**BRACING-**

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

**REACTIONS.**

(size) 1=2-10-0, 3=2-10-0  
 Max Horz 1=-20(LC 8)  
 Max Uplift 1=-4(LC 12), 3=-4(LC 13)  
 Max Grav 1=81(LC 1), 3=81(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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) 1, 3.



December 20,2021

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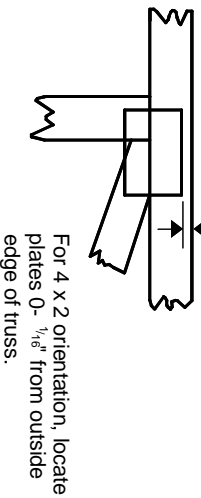
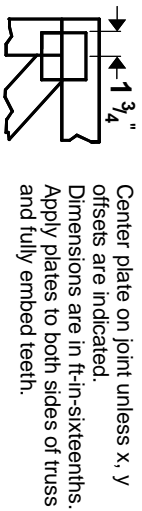
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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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

\* Plate location details available in **MITek 2020 software** or upon request.

## PLATE SIZE

4 X 4

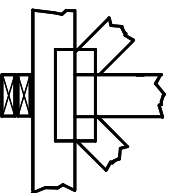
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



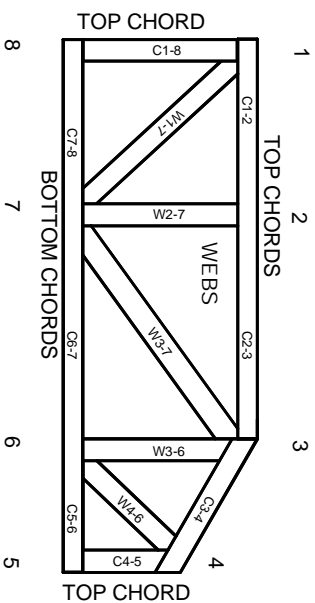
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: MI1-7473 rev. 5/19/2020



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.





**ROOF & FLOOR TRUSSES & BEAMS**

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

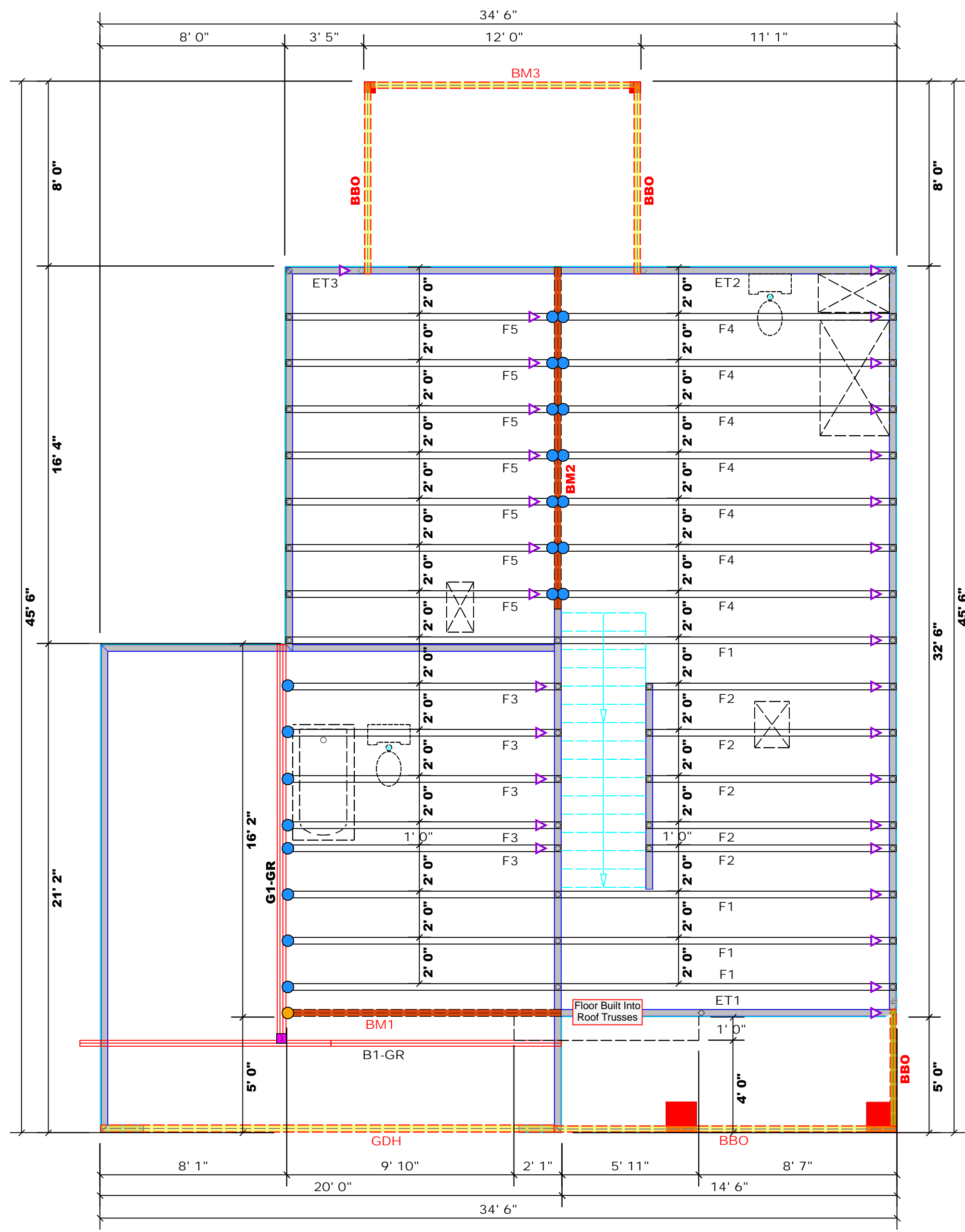
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions 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 David Landry  
 David Landry

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES ROE11C & 12C)  
 NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (IP #)	REQ. STUDS FOR 12' HEADERS	END REACTION (IP #)	REQ. STUDS FOR 12' HEADERS
1700	1	2550	1
3100	2	5100	2
5100	3	7650	3
6800	4	10200	4
8500	5	12750	5
10200	6	15300	6
11900	7		
13500	8		
15300	9		



**Dimension Notes**

- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
- All interior wall dimensions are to face of frame wall unless noted otherwise
- All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

**All Walls Shown Are Considered Load Bearing**

**Plumbing Drop Notes**

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

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	22	NA	16d/3-1/2"	16d/3-1/2"
●	THDH412	USP	1	NA	16d /3-1/2"	16d /3-1/2"

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM3	12' 0"	2x10 SPF No.2	2	2	FF
GDH	20' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF

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

BUILDER	WEAVER DEVELOPMENT CO. INC.	CITY / CO.	SPRING LAKE / HARNETT
JOB NAME	Lot 3 McPhail Farm	ADDRESS	Hayes Road
PLAN	Hickory II "C" / 2GLF, CP	MODEL	Floor
SEAL DATE	N/A	DATE REV.	04/13/22
QUOTE #		DRAWN BY	David Landry
JOB #	JO422-1796	SALES REP.	Lenny Norris

▲ = Indicates Left End of Truss  
 (Reference Engineered Truss Drawing)  
 Do NOT Erect Truss Backwards

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

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#.

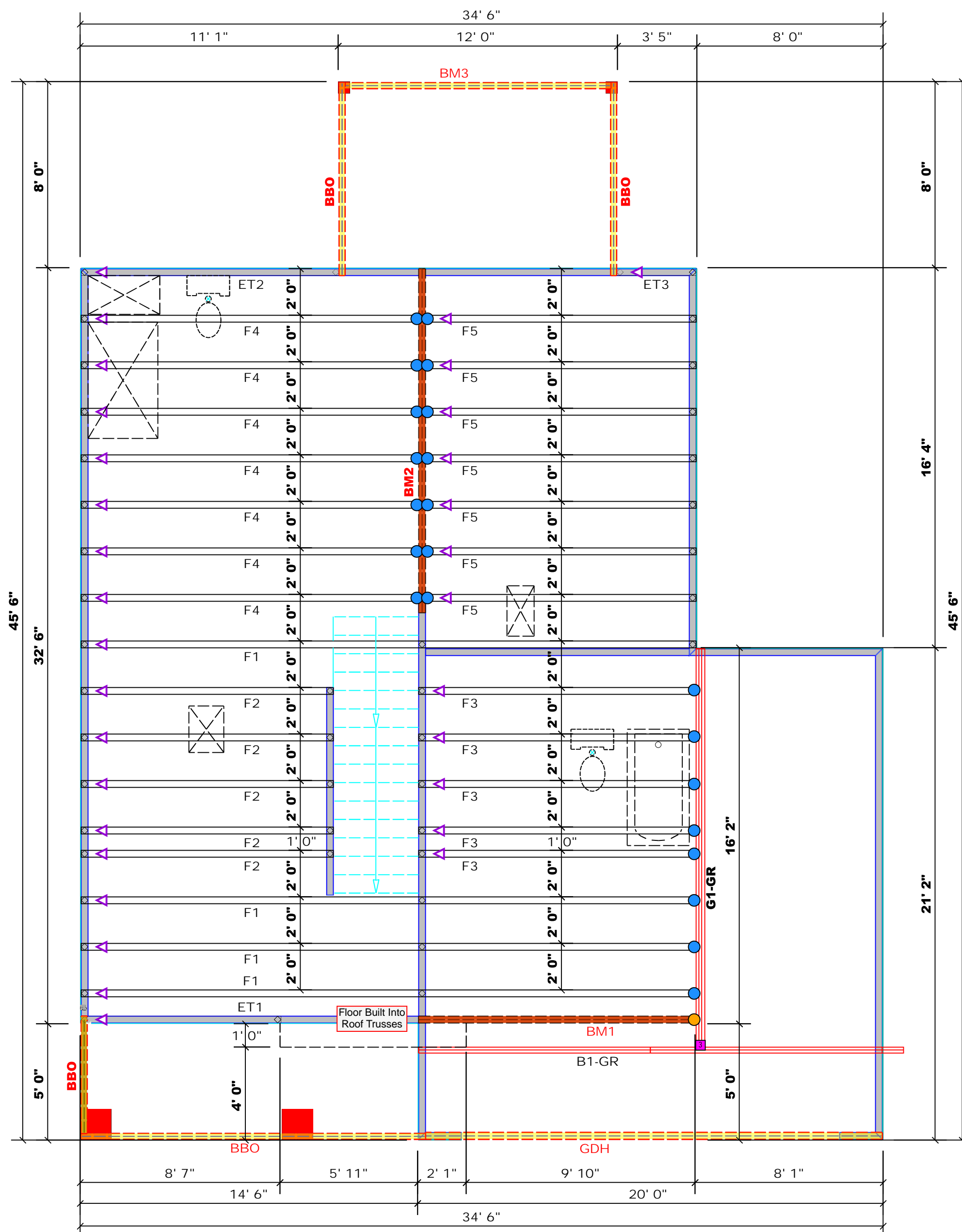
Signature David Landry

David Landry

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES ROE11C & 11D)

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADERS/GIRDERS		NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADERS/GIRDERS	
END REACTION (IP #)	REQ. STUDS FOR 12' BY 12' BEAMS	END REACTION (IP #)	REQ. STUDS FOR 12' BY 12' BEAMS
1700	1	2550	1
3100	2	5100	2
5100	3	7650	3
6800	4	10200	4
8500	5	12750	5
10200	6	15300	6
11900	7		
13500	8		
15300	9		



**Dimension Notes**

- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
- All interior wall dimensions are to face of frame wall unless noted otherwise
- All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

**All Walls Shown Are Considered Load Bearing**

**Plumbing Drop Notes**

- Plumbing drop locations shown are NOT exact.
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Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	22	NA	16d/3-1/2"	16d/3-1/2"
●	THDH412	USP	1	NA	16d /3-1/2"	16d /3-1/2"

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	12' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM3	12' 0"	2x10 SPF No.2	2	2	FF
GDH	20' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF

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

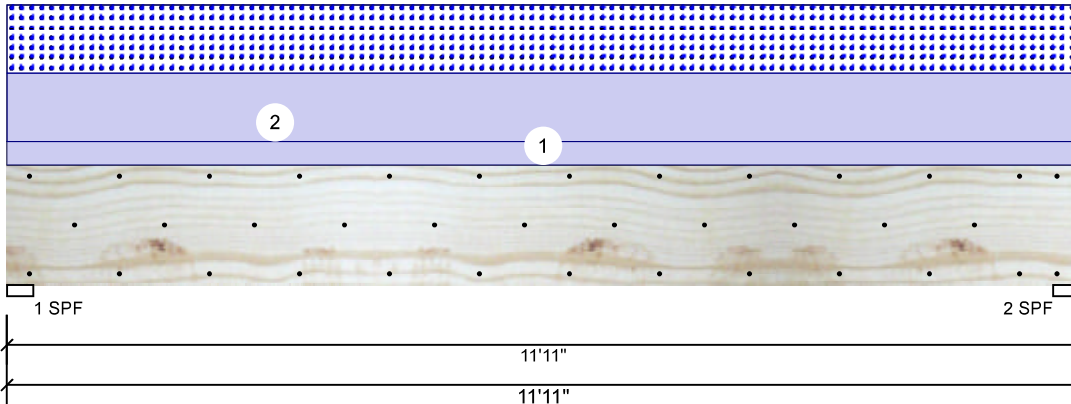
BUILDER	WEAVER DEVELOPMENT CO. INC.	CITY / CO.	SPRING LAKE / HARNETT
JOB NAME	LOT 3 MCPHAIL FARM	ADDRESS	HAYES ROAD
PLAN	HICKORY II "C" / 2GLF, CP	MODEL	FLOOR
SEAL DATE	N/A	DATE REV.	04/13/22
QUOTE #		DRAWN BY	DAVID LANDRY
JOB #	JO422-1796	SALES REP.	LENNY NORRIS

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

▲ = Indicates Left End of Truss  
( Reference Engineered Truss Drawing )  
Do NOT Erect Truss Backwards

**BM1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal
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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind	Const
1	0	2869	2079	0	0
2	0	2869	2079	0	0

**Bearings**

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	95%	2869 / 2079	4948	L	D+S
2 - SPF	3.500"	95%	2869 / 2079	4948	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13679 ft-lb	5'11 1/2"	39750 ft-lb	0.344 (34%)	D+S	L
Unbraced	13679 ft-lb	5'11 1/2"	13695 ft-lb	0.999 (100%)	D+S	L
Shear	3659 lb	1'6 5/8"	13739 lb	0.266 (27%)	D+S	L
LL Defl inch	0.069 (L/2000)	5'11 1/2"	0.287 (L/480)	0.240 (24%)	S	L
TL Defl inch	0.164 (L/840)	5'11 1/2"	0.383 (L/360)	0.430 (43%)	D+S	L

**Design Notes**

- 1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 8'8 1/4" o.c.
- 6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	349 PLF	0 PLF	349 PLF	0 PLF	0 PLF	A2
	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**

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 4/24/2023

**Manufacturer Info**

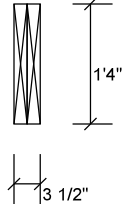
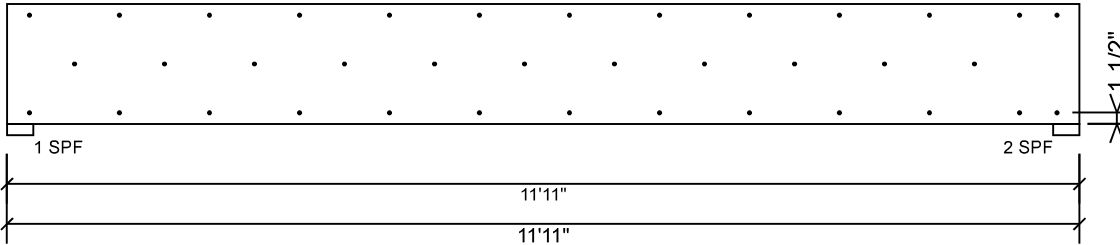
Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)  
 ICC-ES: ESR-3633

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



**BM1 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.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

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

**Lumber**

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

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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 4/24/2023

**Manufacturer Info**

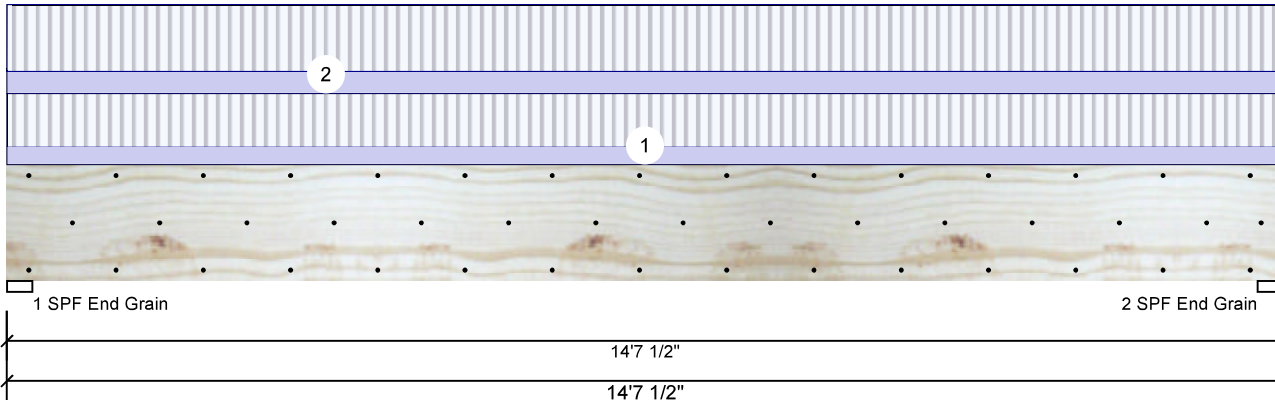
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 ICC-ES: ESR-3633

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



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

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal
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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind	Const
1	3868	1385	0	0	0
2	3868	1385	0	0	0

**Bearings**

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	49%	1385 / 3868	5254	L	D+L
2 - SPF End Grain	3.500"	49%	1385 / 3868	5254	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18077 ft-lb	7'3 3/4"	34565 ft-lb	0.523 (52%)	D+L	L
Unbraced	18077 ft-lb	7'3 3/4"	18150 ft-lb	0.996 (100%)	D+L	L
Shear	5080 lb	13' 7/8"	11947 lb	0.425 (43%)	D+L	L
LL Defl inch	0.229 (L/743)	7'3 13/16"	0.355 (L/480)	0.650 (65%)	L	L
TL Defl inch	0.311 (L/547)	7'3 13/16"	0.473 (L/360)	0.660 (66%)	D+L	L

**Design Notes**

- 1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be laterally braced at a maximum of 6'4 1/2" o.c.
- 5 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	79 PLF	235 PLF	0 PLF	0 PLF	0 PLF	F5
2	Uniform			Far Face	98 PLF	294 PLF	0 PLF	0 PLF	0 PLF	F4
	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**

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 4/24/2023

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
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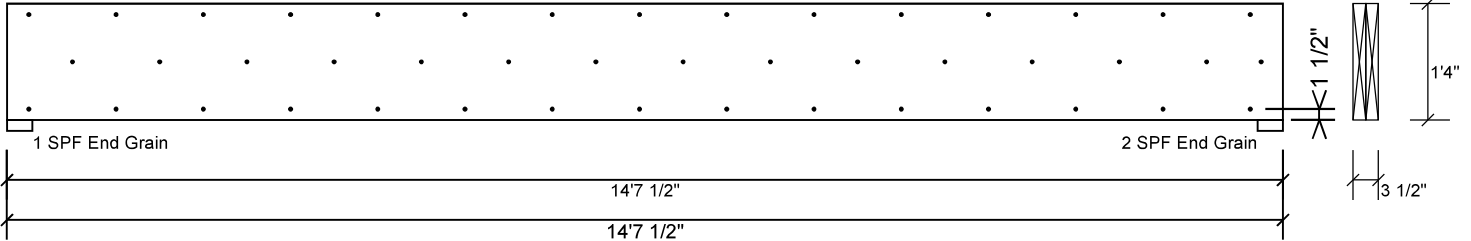


Client: Weaver Development  
 Project: Hickory II  
 Address: Hayes Road  
 Spring Lake, NC 28390

Date: 4/13/2022  
 Input by: David Landry  
 Job Name: Lot 3 McPhail Farm  
 Project #: J0422-1796

**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.. Maximum end distance not to exceed 6"

Capacity	79.8 %
Load	196.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	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 4/24/2023

**Manufacturer Info**

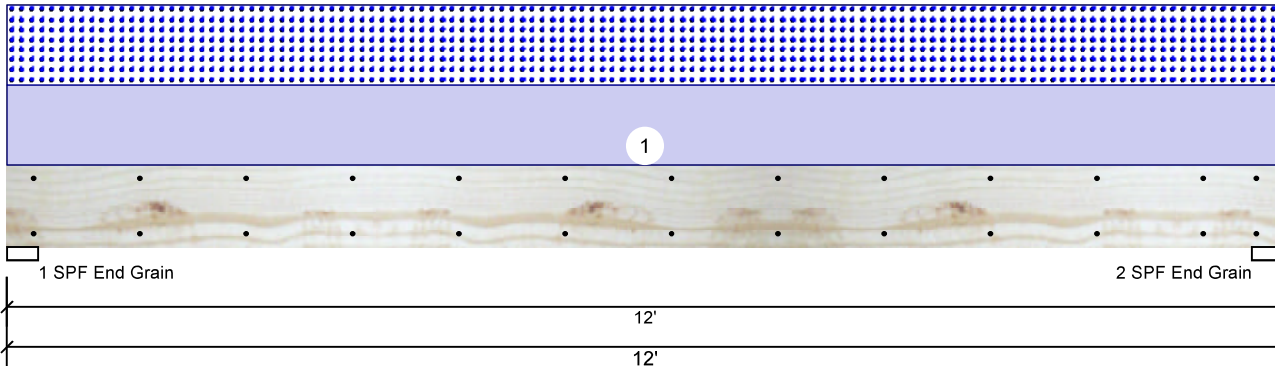
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 ICC-ES: ESR-3633

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



**BM3 S-P-F #2 2.000" X 10.000" 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	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

**Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	Wind	Const
1	0	564	564	0	0
2	0	564	564	0	0

**Bearings**

Bearing	Length	Cap. React	D/L Ib	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	25%	564 / 564	1128	L	D+S
2 - SPF End Grain	3.500"	25%	564 / 564	1128	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3130 ft-lb	6'	3946 ft-lb	0.793 (79%)	D+S	L
Unbraced	3130 ft-lb	6'	3132 ft-lb	1.000 (100%)	D+S	L
Shear	940 lb	11'	2872 lb	0.327 (33%)	D+S	L
LL Defl inch	0.135 (L/1022)	6'	0.289 (L/480)	0.470 (47%)	S	L
TL Defl inch	0.271 (L/511)	6'	0.385 (L/360)	0.700 (70%)	D+S	L

**Design Notes**

- 1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 8'8 5/8" o.c.
- 6 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	94 PLF	0 PLF	94 PLF	0 PLF	0 PLF	C1

**Manufacturer Info**

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



This design is valid until 4/24/2023

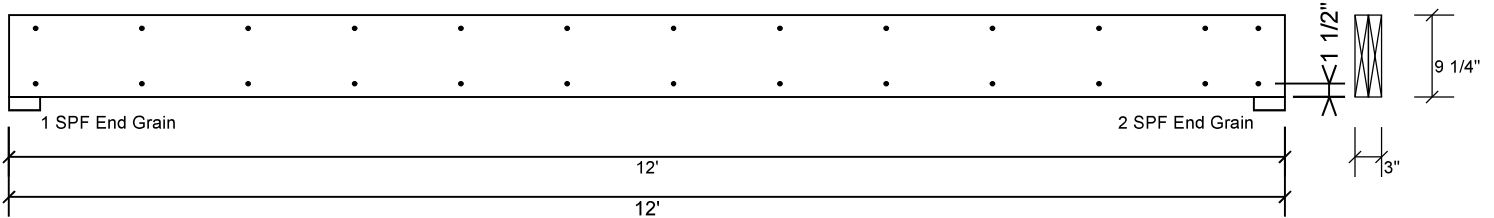


Client: Weaver Development  
 Project: Hickory II  
 Address: Hayes Road  
 Spring Lake, NC 28390

Date: 4/13/2022  
 Input by: David Landry  
 Job Name: Lot 3 McPhail Farm  
 Project #: J0422-1796

**BM3 S-P-F #2 2.000" X 10.000" 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.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Manufacturer Info**

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



This design is valid until 4/24/2023

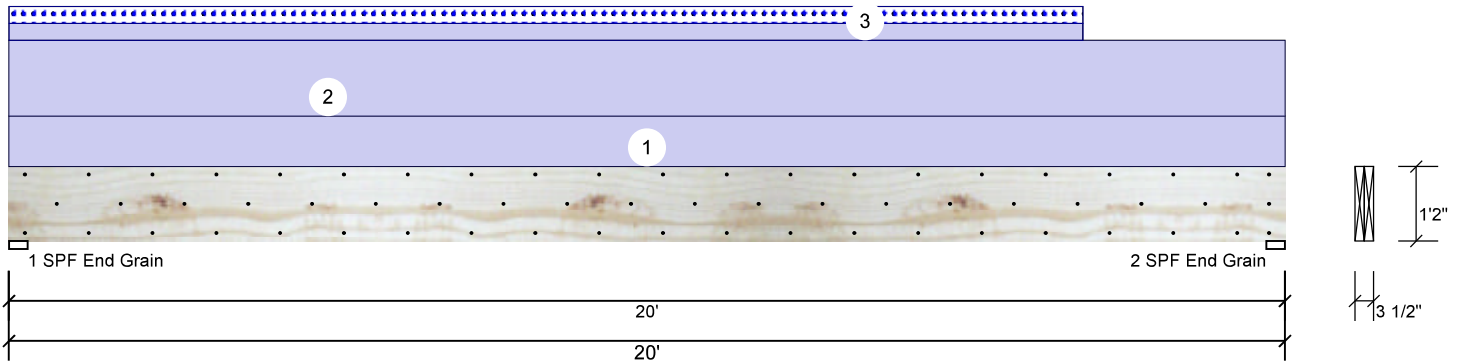


Client: Weaver Development  
 Project: Hickory II  
 Address: Hayes Road  
 Spring Lake, NC 28390

Date: 4/13/2022  
 Input by: David Landry  
 Job Name: Lot 3 McPhail Farm  
 Project #: J0422-1796

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

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal
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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind	Const
1	0	1804	196	0	0
2	0	1750	141	0	0

**Bearings**

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	19%	1804 / 196	2000	L	D+S
2 - SPF End Grain	3.500"	18%	1750 / 141	1891	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8592 ft-lb	9'11 11/16"	24299 ft-lb	0.354 (35%)	D	Uniform
Unbraced	9503 ft-lb	9'11 1/2"	9506 ft-lb	1.000 (100%)	D+S	L
Shear	1552 lb	1'4 3/4"	9408 lb	0.165 (16%)	D	Uniform
LL Defl inch	0.041 (L/5726)	9'11 11/16"	0.489 (L/480)	0.080 (8%)	S	L
TL Defl inch	0.430 (L/546)	9'11 7/8"	0.651 (L/360)	0.660 (66%)	D+S	L

**Design Notes**

- 1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 2 Refer to last page of calculations for fasteners required for specified loads.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 11'9" o.c.
- 6 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	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	90 PLF	0 PLF	0 PLF	0 PLF	0 PLF	B1GE
3	Tie-In	0-0-0 to 16-10-0	1-0-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	Roof Load
	Self Weight				11 PLF					

**Notes**

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

**Lumber**

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

**Handling & Installation**

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
 www.metsawood.com/us  
 ICC-ES: ESR-3633

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS



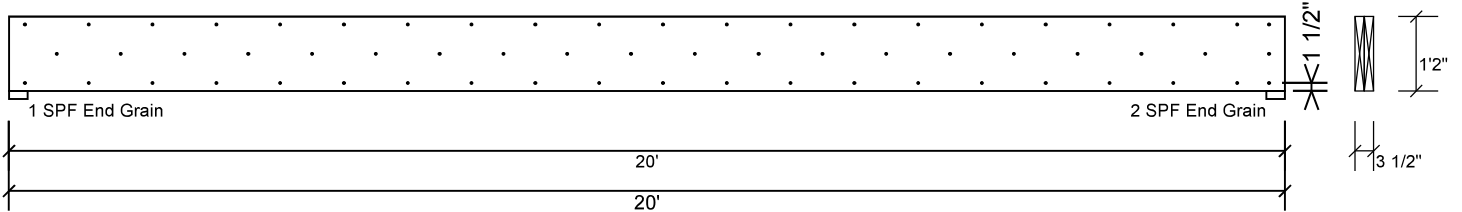


Client: Weaver Development  
 Project: Hickory II  
 Address: Hayes Road  
 Spring Lake, NC 28390

Date: 4/13/2022  
 Input by: David Landry  
 Job Name: Lot 3 McPhail Farm  
 Project #: J0422-1796

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

Level: Level



**Multi-Ply Analysis**

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

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

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

**Lumber**

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

chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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 4/24/2023

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
 www.metsawood.com/us  
 ICC-ES: ESR-3633

Comtech, Inc.  
 Lot 35 Briarwood Bluff  
 Broadway, NC  
 USA  
 28314  
 910-864-TRUS







RE: J0422-1796  
Lot 3 McPhail Farm

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Weaver Development Co. Inc. Project Name: J0422-1796  
Lot/Block: 3 Model: Hickory II  
Address: Hayes Road Subdivision: McPhail Farm  
City: Spring Lake State: NC

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4  
Wind Code: N/A Wind Speed: N/A mph  
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 8 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E16492077	ET1	12/20/2021
2	E16492078	ET2	12/20/2021
3	E16492079	ET3	12/20/2021
4	E16492080	F1	12/20/2021
5	E16492081	F2	12/20/2021
6	E16492082	F3	12/20/2021
7	E16492083	F4	12/20/2021
8	E16492084	F5	12/20/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville. Truss Design Engineer's Name: Strzyzewski, Marvin My license renewal date for the state of North Carolina is December 31, 2022. North Carolina COA: C-0844

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



December 20, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492077
J0422-1796	ET1	GABLE	1	1		

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:32 2021 Page 1  
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0-1-8

0-1-8

Scale: 3/4"=1'

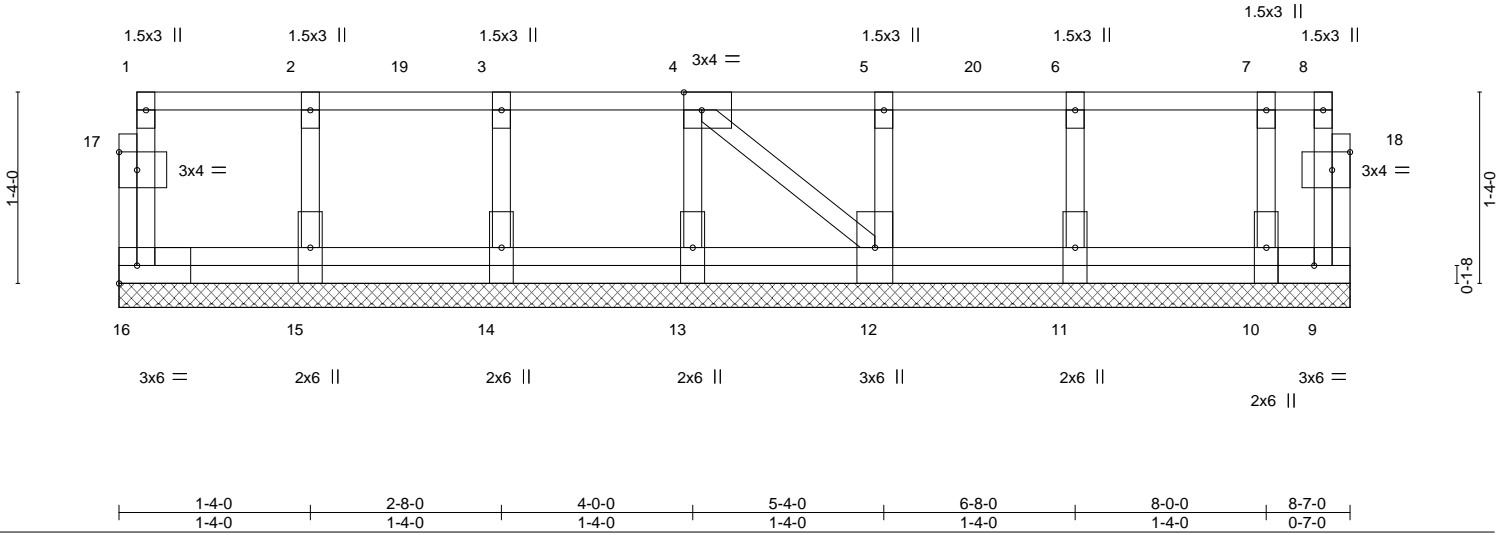


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [17:0-1-8,0-1-8], [18:0-1-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.10	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 YES	WB 0.04	Horz(CT) 0.00	9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					Weight: 54 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** All bearings 8-7-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 16, 9, 15, 14, 13, 12, 11, 10

**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.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 9-16=-10, 1-8=-100  
Concentrated Loads (lb)  
Vert: 4=-71 7=-77 19=-71 20=-71



December 20, 2021

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

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

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

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492078
J0422-1796	ET2	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:33 2021 Page 1  
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0,1-8

0,1-8

Scale = 1:18.0

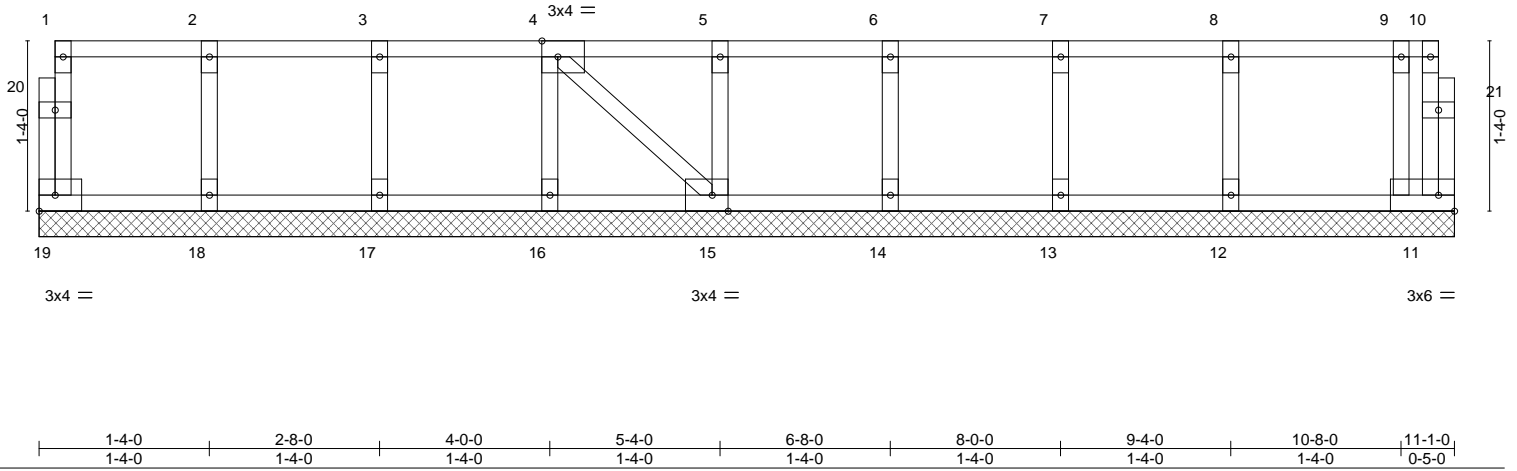


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [15:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.00	WB 0.03	Horz(CT)	0.00	11	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 54 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** All bearings 11-1-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 19, 11, 18, 17, 16, 15, 14, 13, 12

**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.



December 20,2021

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

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

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

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



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492079
J0422-1796	ET3	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:33 2021 Page 1  
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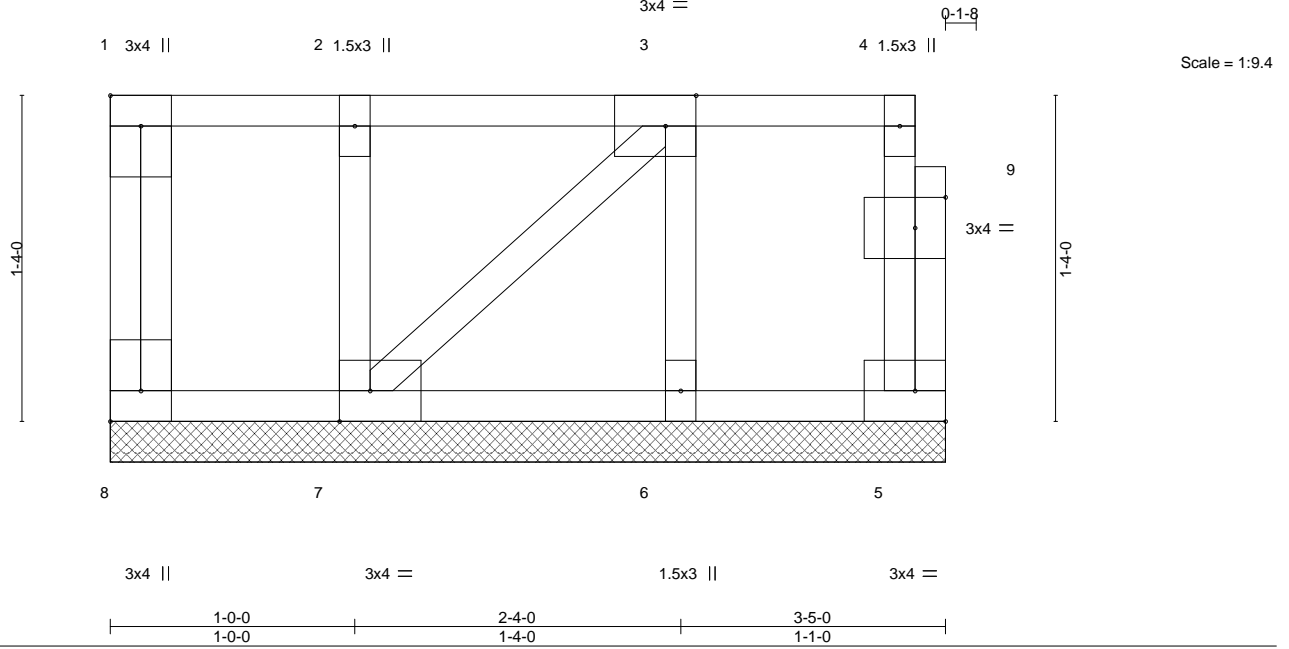


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [7:0-1-8,Edge], [8:Edge,0-1-8], [9:0-1-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.05	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	5	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					Weight: 22 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 3-5-0 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 3-5-0.  
 (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-**
- 1) Plates checked for a plus or minus 1 degree rotation about its center.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 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 20,2021

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492080
J0422-1796	F1	Floor	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:34 2021 Page 1  
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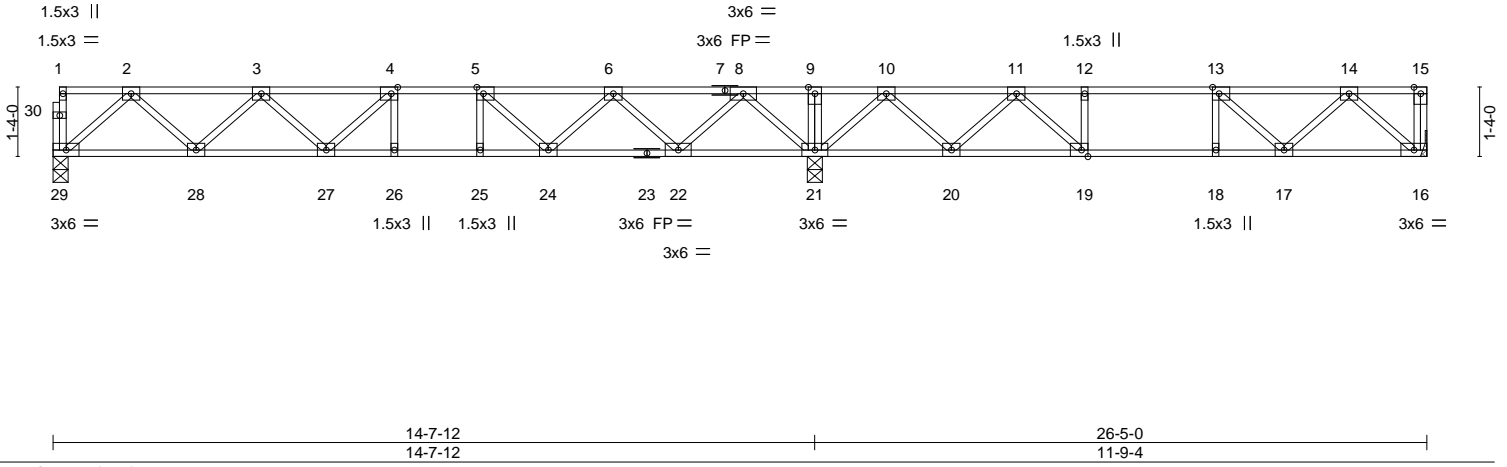


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge], [13:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.55	Vert(LL) -0.10	26-27	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.76	Vert(CT) -0.13	26-27	>999	360		
BCLL 0.0	Rep Stress Incr NO	WB 0.44	Horz(CT) 0.03	16	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 136 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 29=0-3-8, 16=Mechanical, 21=0-3-8  
Max Grav 29=727(LC 10), 16=1063(LC 4), 21=1671(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 15-16=-537/0, 2-3=-1257/0, 3-4=-1883/0, 4-5=-2002/0, 5-6=-1658/0, 6-8=-756/225, 8-9=0/1401, 9-10=0/1401, 10-11=-468/367, 11-12=-1158/0, 12-13=-1158/0, 13-14=-884/0  
**BOT CHORD** 28-29=0/771, 27-28=0/1717, 26-27=0/2002, 25-26=0/2002, 24-25=0/2002, 22-24=-34/1340, 21-22=-444/147, 20-21=-637/19, 19-20=-175/900, 18-19=0/1158, 17-18=0/1158, 16-17=0/586  
**WEBS** 2-29=-1023/0, 2-28=0/677, 3-28=-640/0, 8-21=-1289/0, 14-16=-780/0, 14-17=0/415, 13-17=-372/90, 10-21=-1064/0, 8-22=0/923, 6-22=-882/0, 6-24=0/527, 5-24=-633/0, 10-20=0/687, 11-20=-690/0, 11-19=0/582, 12-19=-278/0

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

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 16-29=-10, 1-15=-100  
 Concentrated Loads (lb)  
 Vert: 15=-500



December 20, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492081
J0422-1796	F2	Floor	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:35 2021 Page 1  
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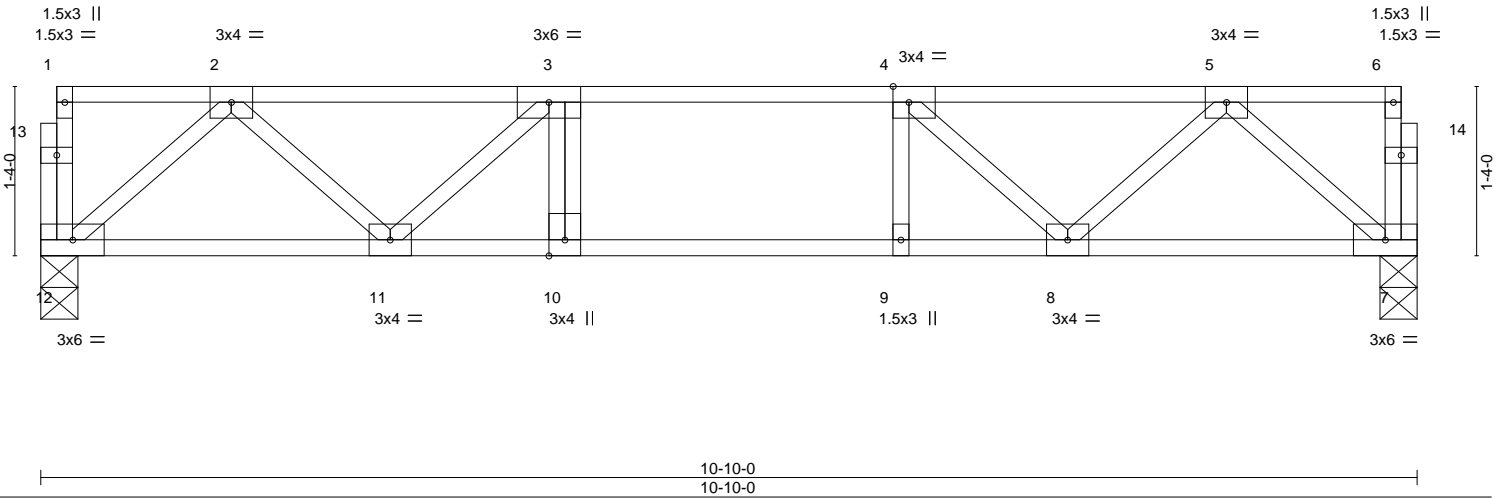
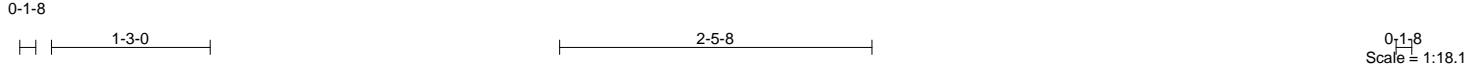


Plate Offsets (X,Y)-- [4:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.36	Vert(LL) -0.07	10	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.46	Vert(CT) -0.09	10	>999	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.01	7	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 57 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** (size) 12=0-3-8, 7=0-3-8  
 Max Grav 12=576(LC 1), 7=576(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-923/0, 3-4=-1242/0, 4-5=-925/0  
 BOT CHORD 11-12=0/606, 10-11=0/1242, 9-10=0/1242, 8-9=0/1242, 7-8=0/603  
 WEBS 2-12=-805/0, 2-11=0/441, 3-11=-469/0, 5-7=-800/0, 5-8=0/449, 4-8=-475/0

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



December 20, 2021

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

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

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

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



818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492082
J0422-1796	F3	Floor	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:36 2021 Page 1  
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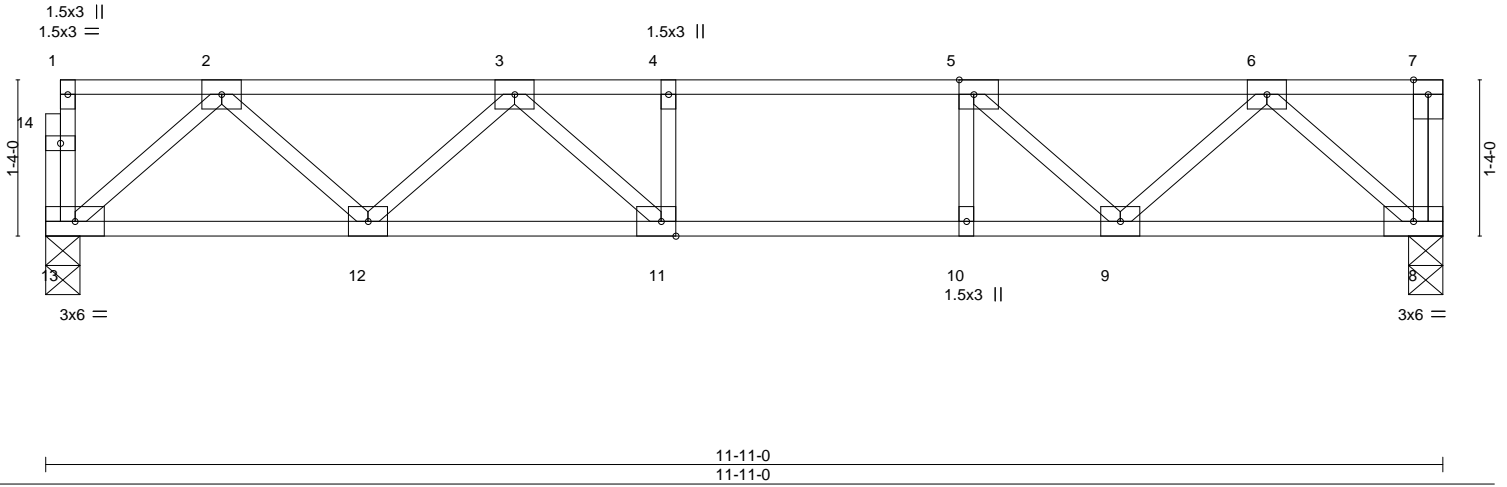
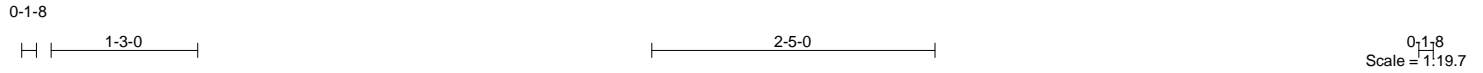


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.60	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.70	Vert(LL) -0.13 11-12 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.27	Vert(CT) -0.16 11-12 >894 360		
BCDL 5.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014			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)	

**REACTIONS.** (size) 13=0-3-8, 8=0-3-8  
Max Grav 13=635(LC 1), 8=1142(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 7-8=-548/0, 2-3=-1060/0, 3-4=-1495/0, 4-5=-1495/0, 5-6=-1059/0  
BOT CHORD 12-13=0/676, 11-12=0/1395, 10-11=0/1495, 9-10=0/1495, 8-9=0/659  
WEBS 2-13=-898/0, 2-12=0/534, 3-12=-466/0, 3-11=-19/356, 6-8=-877/0, 6-9=0/557, 5-9=-616/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Plates checked for a plus or minus 1 degree rotation about its center.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-10, 1-7=-100  
Concentrated Loads (lb)  
Vert: 7=-500



December 20,2021

Job	Truss	Truss Type	Qty	Ply	Lot 3 McPhail Farm	E16492083
J0422-1796	F4	Floor	7	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:36 2021 Page 1  
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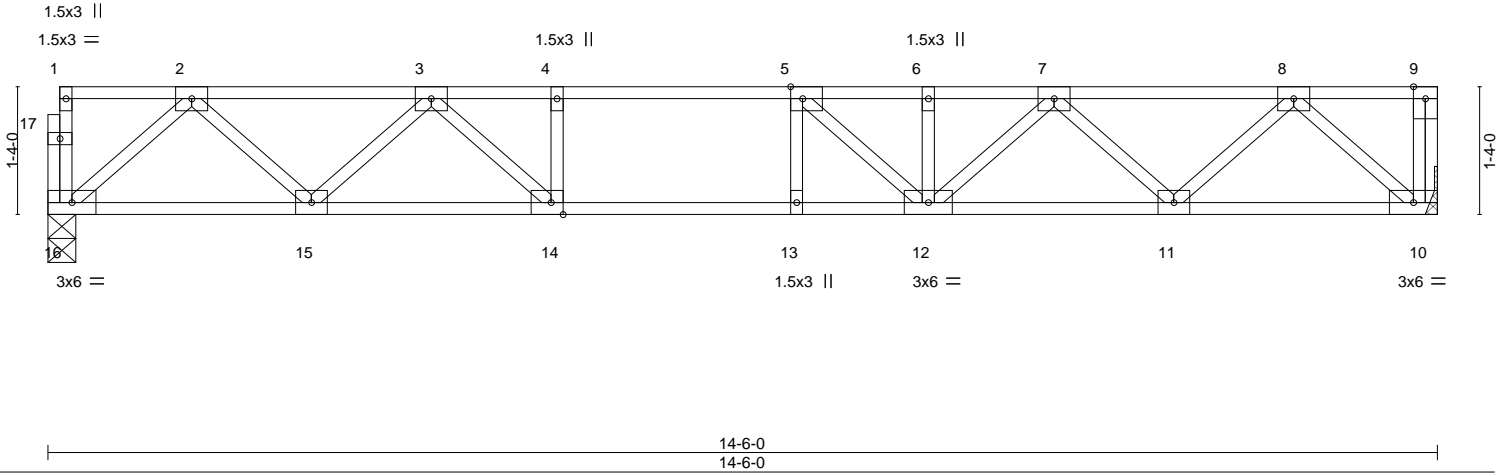
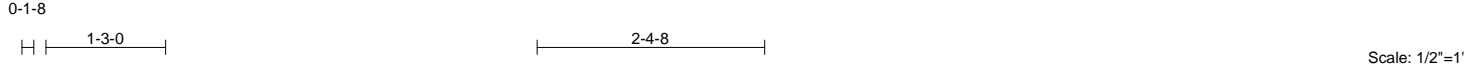


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [14:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.62	Vert(LL) -0.17	12-13	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.78	Vert(CT) -0.22	12-13	>790	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.35	Horz(CT) 0.03	10	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 76 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)	

**REACTIONS.** (size) 16=0-3-8, 10=Mechanical  
Max Grav 16=778(LC 1), 10=784(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1348/0, 3-4=-2244/0, 4-5=-2244/0, 5-6=-2152/0, 6-7=-2152/0, 7-8=-1359/0  
BOT CHORD 15-16=0/834, 14-15=0/1856, 13-14=0/2244, 12-13=0/2244, 11-12=0/1857, 10-11=0/835  
WEBS 2-16=-1109/0, 2-15=0/714, 3-15=-707/0, 3-14=0/697, 4-14=-339/0, 8-10=-1111/0, 8-11=0/729, 7-11=-693/0, 7-12=0/401, 5-12=-438/123

- 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 20,2021

Job J0422-1796	Truss F5	Truss Type Floor	Qty 7	Ply 1	Lot 3 McPhail Farm Job Reference (optional)	E16492084
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 20 11:23:37 2021 Page 1  
ID:1yUksKymplk2404ufZYCrxyoKUD-KrZW65j\_TThNczAnFkOrrqmNBMHHF2xGE5AGXy74xa

1-3-0

2-1-8

0-1-8

Scale = 1:19.3

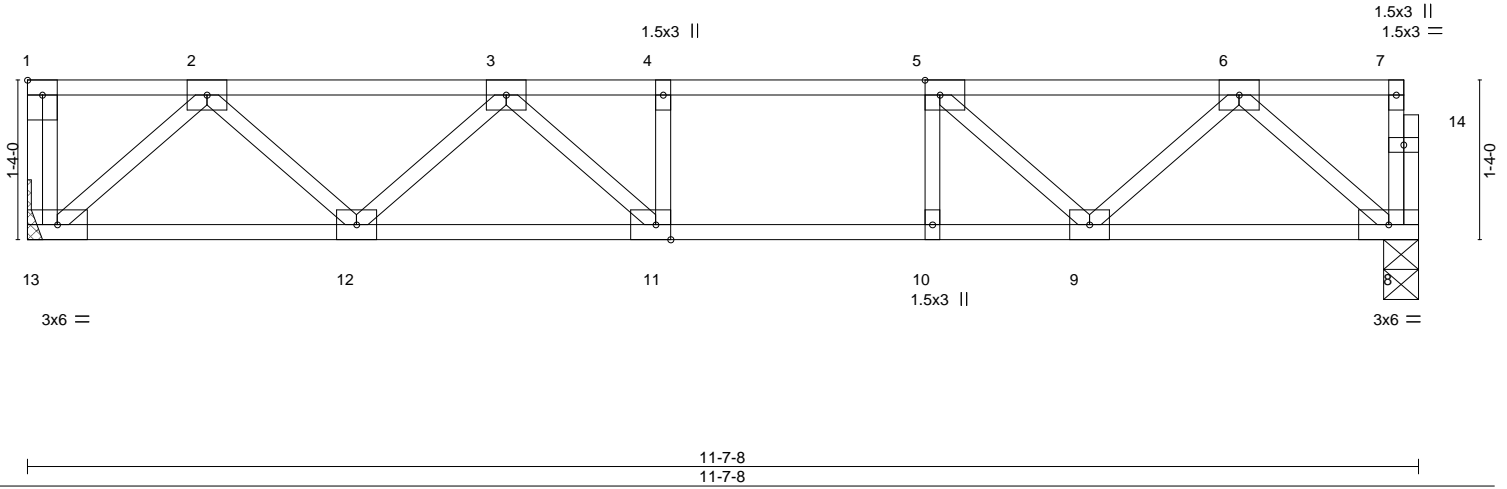


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.44	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.56	Vert(LL) -0.10 11-12 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.25	Vert(CT) -0.13 11-12 >999 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 61 lb	FT = 20%F, 11%E

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

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

**REACTIONS.** (size) 13=Mechanical, 8=0-3-8  
Max Grav 13=626(LC 1), 8=619(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1025/0, 3-4=-1427/0, 4-5=-1427/0, 5-6=-1022/0  
BOT CHORD 12-13=0/658, 11-12=0/1345, 10-11=0/1427, 9-10=0/1427, 8-9=0/644  
WEBS 2-13=-876/0, 2-12=0/510, 3-12=-446/0, 3-11=-41/323, 6-8=-854/0, 6-9=0/526, 5-9=-570/0

- 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 20,2021

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

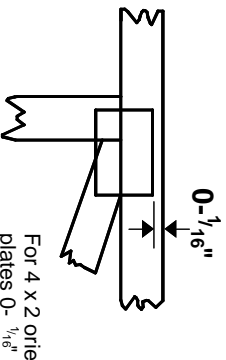
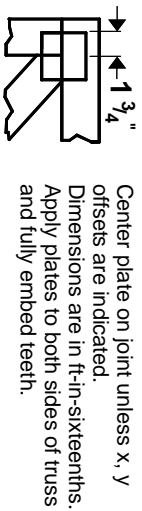
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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# Symbols

## PLATE LOCATION AND ORIENTATION



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

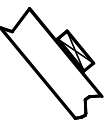
\* Plate location details available in **MITek 2020 software** or upon request.

## PLATE SIZE

**4 X 4**

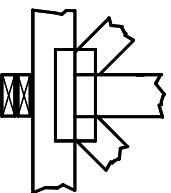
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



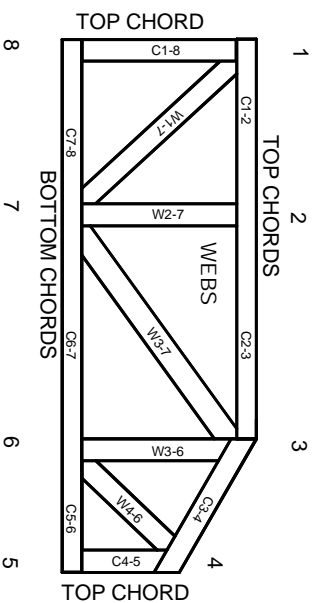
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.