



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

RE: 4224075 - YOUNG RES.

**MiTek, Inc.**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.454.1200

**Site Information:**

Customer Info: CAMERON AND KACI YOUNG Project Name: Young Res. Model: 3449541200  
Lot/Block: N/A Subdivision: N/A  
Address: 787 SE Cypress Court, N/A  
City: Columbia Cty State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

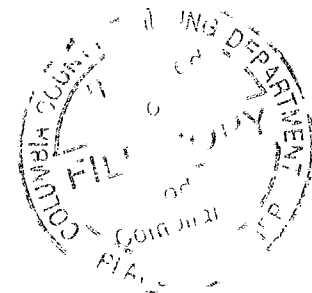
Name: License #:  
Address: State:  
City:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 12 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

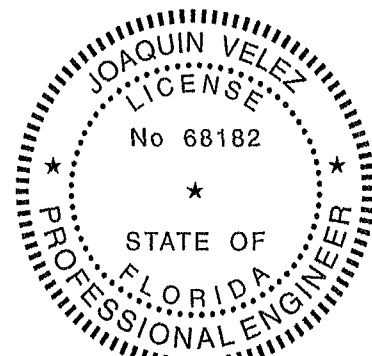
No.	Seal#	Truss Name	Date
1	T35016772	T01	9/16/24
2	T35016773	T01G	9/16/24
3	T35016774	T02	9/16/24
4	T35016775	T03	9/16/24
5	T35016776	T03G	9/16/24
6	T35016777	T04	9/16/24
7	T35016778	T05	9/16/24
8	T35016779	T06	9/16/24
9	T35016780	T07	9/16/24
10	T35016781	T07G	9/16/24
11	T35016782	T08	9/16/24
12	T35016783	T09	9/16/24



This item has been digitally signed and sealed by Velez, Joaquin, PE on the date adjacent to the seal.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: Velez, Joaquin  
My license renewal date for the state of Florida is February 28, 2025.



Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

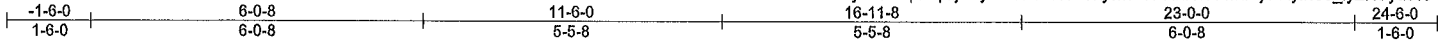
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

September 16,2024

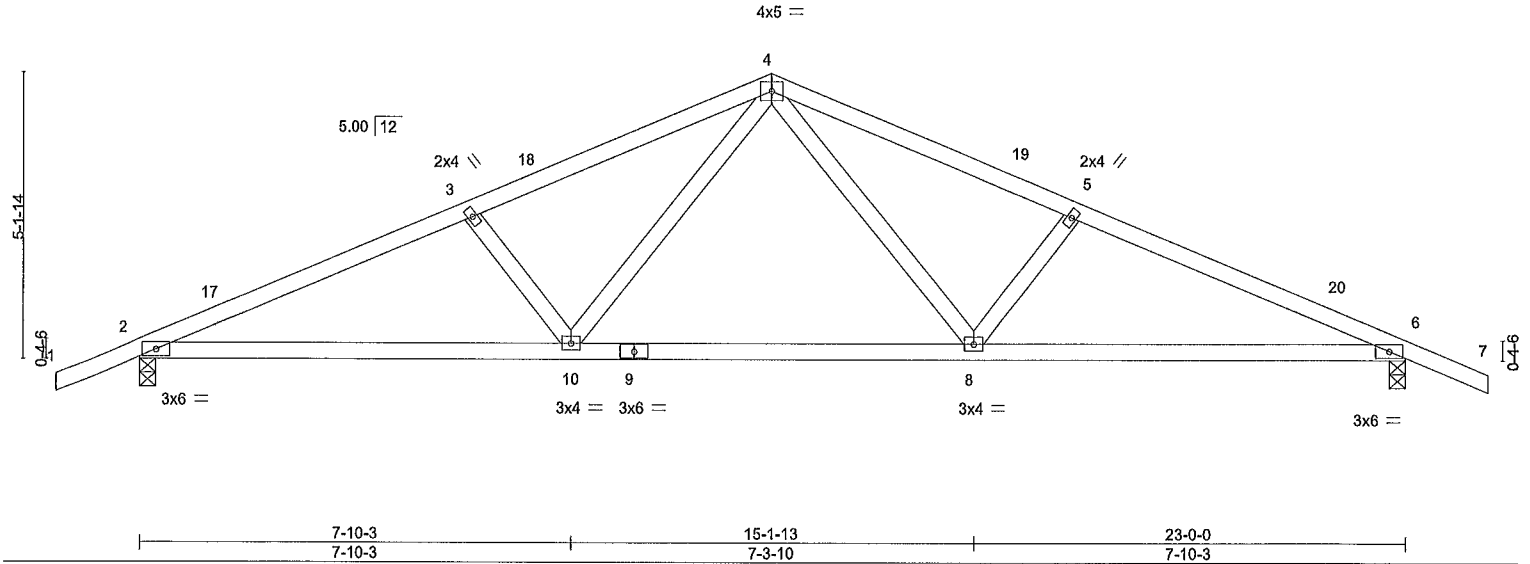
Job 4224075	Truss T01	Truss Type Common	Qty 7	Ply 1	YOUNG RES	T35016772
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MiTek Industries, Inc. Mon Sep 16 11 23 35 2024 Page 1  
ID Ou7uKJJoFY6ispB5pllJCsye3sH-Ts7KUVzywn0YDXLR5iOw2iCj4zuyhSj\_fyZKCYd3vs



Scale = 1.417



<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	1.25	TC 0 35	Vert(LL)	0 13	8-16	>999	MT20	244/190
TCDL 7 0	Lumber DOL	1.25	BC 0 62	Vert(CT)	-0.20	10-13	>999		
BCLL 0 0 *	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0 05	6	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight. 103 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No 2  
WEBS 2x4 SP No 3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-3-10 oc purlins  
BOT CHORD Rigid ceiling directly applied or 6-10-2 oc bracing

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
Max Horz 2=-90(LC 13)  
Max Uplift 2=-408(LC 8), 6=-408(LC 9)  
Max Grav 2=932(LC 1), 6=932(LC 1)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
TOP CHORD 2-3=-1667/829, 3-4=-1488/804, 4-5=-1488/804, 5-6=-1667/829  
BOT CHORD 2-10=-698/1507, 8-10=-417/1003, 6-8=-713/1507  
WEBS 4-8=-321/532, 5-8=-331/214, 4-10=-321/532, 3-10=-331/214

**NOTES-**

- Unbalanced roof live loads have been considered for this design
- Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft, Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 11-6-0, Zone2 11-6-0 to 15-8-15, Zone1 15-8-15 to 24-6-0 zone, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1 60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
- 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 20 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 408 lb uplift at joint 2 and 408 lb uplift at joint 6

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

September 16,2024

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

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

**MiTek®**

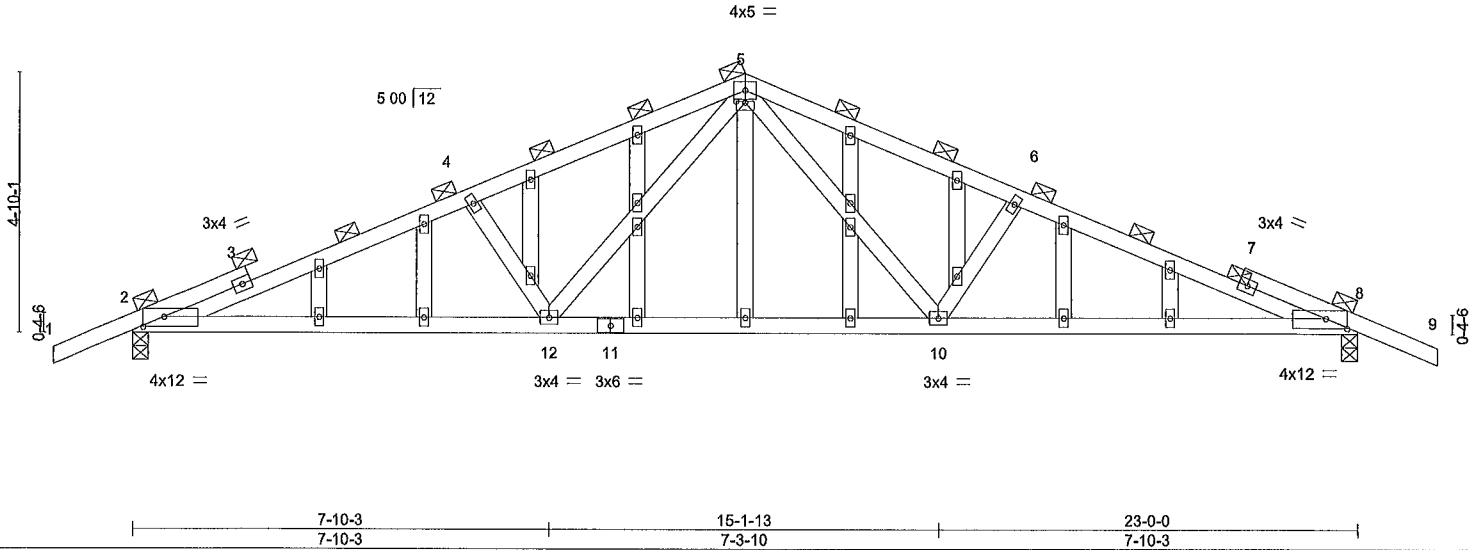
16023 Swingley Ridge Rd  
Chesterfield MO 63017  
314.434 1200 / MiTek-US.com

Job 4224075	Truss T01G	Truss Type GABLE	Qty 1	Ply 1	YOUNG RES Job Reference (optional)	T35016773
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Builders FirstSource (Lake City FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc. Mon Sep 16 11 23 36 2024 Page 1  
 ID Ou7uKJJoFY6ispB5plljCsy3sH-x2glhrzah48Prhwef0v9avImNDzU5HTDjH7teyd3vr  
 16-6-15 23-0-0 24-6-0  
 5-0-15 6-5-1 1-6-0

Scale = 1.43 0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20 0	Plate Grip DOL	1.25	TC 0 86	Vert(LL)	0 18 10-37	>999	240	MT20	244/190
TCDL 7 0	Lumber DOL	1.25	BC 0 70	Vert(CT)	-0 26 10-37	>999	180		
BCLL 0 0 *	Rep Stress Incr	YES	WB 0 32	Horz(CT)	0 04 8	n/a	n/a		
BCDL 10 0	Code	FBC2023/TPI2014	Matrix-MS					Weight, 136 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No 2	TOP CHORD 2-0-0 oc purlins (2-5-6 max )
BOT CHORD 2x4 SP No 2	BOT CHORD Rigid ceiling directly applied or 5-5-2 oc bracing
WEBS 2x4 SP No 3	
OTHERS 2x4 SP No 3	

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=-85(LC 13)  
 Max Uplift 2=-408(LC 8), 8=-408(LC 9)  
 Max Grav 2=929(LC 1), 8=929(LC 1)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 2-4=-1770/1194, 4-5=-1621/1162, 5-6=-1621/1162, 6-8=-1770/1194  
 BOT CHORD 2-12=-1033/1637, 10-12=-582/1040, 8-10=-1041/1637  
 WEBS 4-12=-378/290, 5-12=-484/631, 5-10=-484/631, 6-10=-378/290

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design
  - 2) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasc=101mph, TCCL=4.2psf; BCCL=3 0psf; h=20ft, Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 zone, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
  - 3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1
  - 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 5) All plates are 2x4 MT20 unless otherwise indicated
  - 6) Gable studs spaced at 2-0-0 oc
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
  - 8) \* This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 408 lb uplift at joint 2 and 408 lb uplift at joint 8
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16,2024

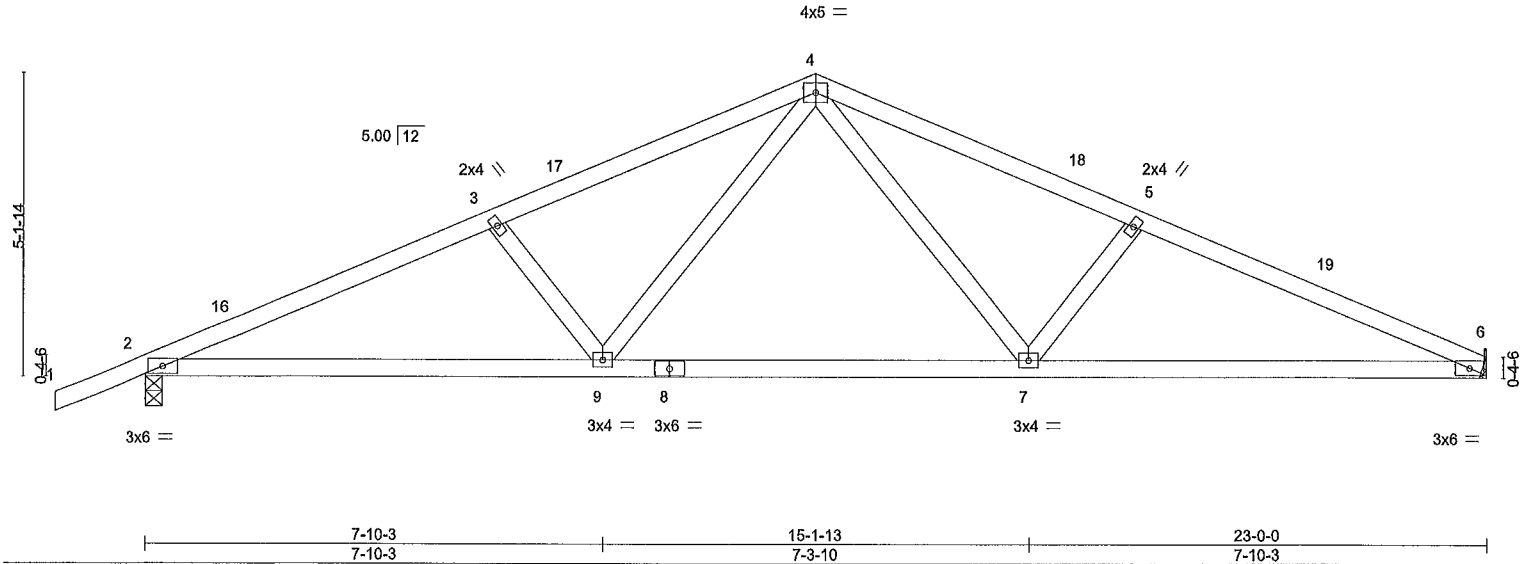
Job 4224075	Truss T02	Truss Type Common	Qty 3	Ply 1	YOUNG RES	T35016774
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055

8 730 s Aug 15 2024 MITek Industries, Inc Mon Sep 16 11 23 36 2024 Page 1  
ID Ou7uKJJoFY6ispB5pIJJCsye3sH-x2ghrzah48Prhwef0v9avluZNE4U7eTDJh7teyd3vr



Scale = 1 39.3



<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 36	in (loc) l/defl L/d	MT20	244/190
TCDL 7 0	Plate Grip DOL 1 25	BC 0 63	Vert(LL) 0 14 7-12 >999 240		
BCLL 0 0 *	Lumber DOL 1 25	WB 0 23	Vert(CT) -0.20 7-12 >999 180		
BCDL 10 0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0 04 6 n/a n/a		
	Code FBC2023/TPI2014			Weight. 100 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-15 oc purlins
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-7-13 oc bracing
WEBS 2x4 SP No 3	

**REACTIONS.** (size) 6=Mechanical, 2=0-3-8  
 Max Horz 2=101(LC 16)  
 Max Uplift 6=-357(LC 9), 2=-408(LC 8)  
 Max Grav 6=848(LC 1), 2=935(LC 1)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 2-3=-1673/842, 3-4=-1494/818, 4-5=-1506/832, 5-6=-1687/854  
 BOT CHORD 2-9=-738/1513, 7-9=-443/1010, 6-7=-734/1528  
 WEBS 4-7=-326/547, 5-7=-340/219, 4-9=-319/531, 3-9=-332/214

- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCdL=4.2psf; BCDL=3 0psf, h=20ft, Cat. II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 11-6-0, Zone2 11-6-0 to 15-8-15, Zone1 15-8-15 to 23-0-0 zone, porch left and right exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
  - 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 20 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 357 lb uplift at joint 6 and 408 lb uplift at joint 2

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16,2024

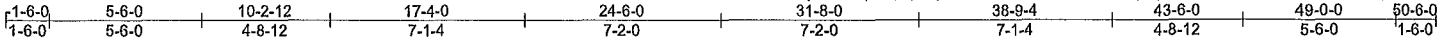
<p><b>WARNING</b> Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev 1/2/2023 BEFORE USE.          Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems see ANSI/TPI-1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)</p>	<p>16023 Swingley Ridge Rd          Chesterfield MO 63017          314.434.1200 / MITek-US.com</p>
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Job 4224075	Truss T03	Truss Type Common	Qty 2	Ply 1	YOUNG RES	T35016775
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc Mon Sep 16 11 23 37 2024 Page 1

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Scale = 1/83.4

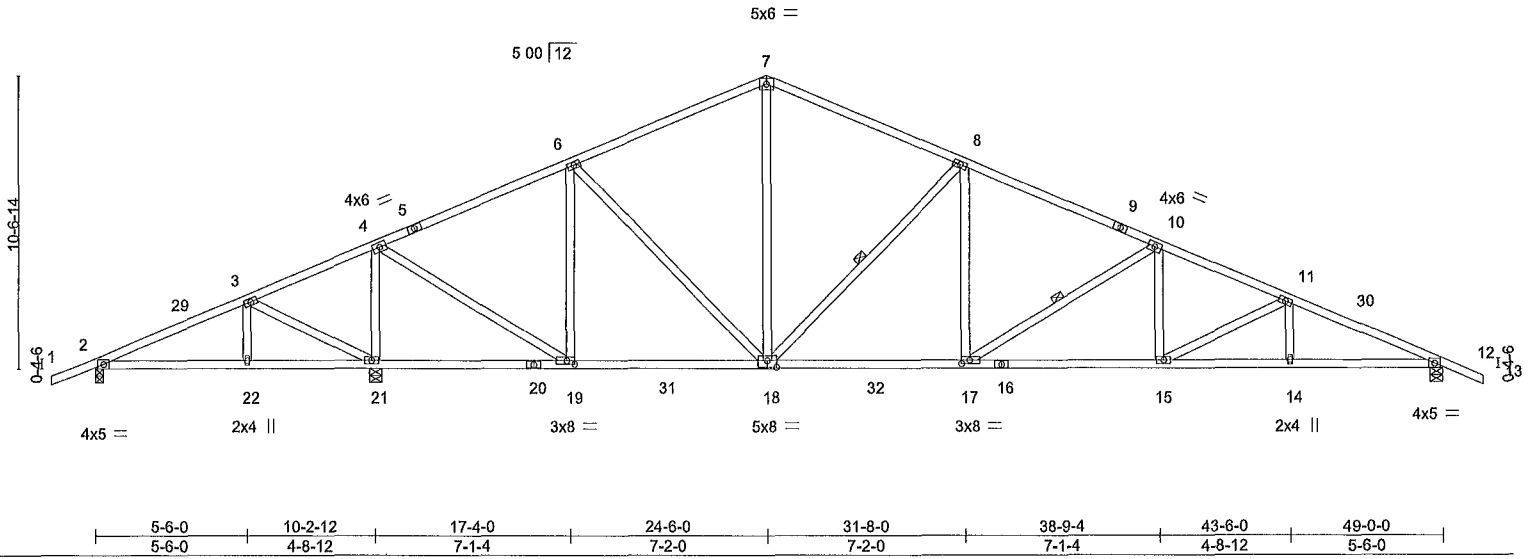


Plate Offsets (X,Y)-- [17 0-3-8,0-1-8], [18 0-4-0,0-3-0], [19 0-3-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20 0	2-0-0	TC 0 56	in (loc) l/d	MT20	244/190
TCDL 7 0	Plate Grip DOL 1 25	BC 0 86	Vert(LL) -0.22 15-17 >999 240		
BCLL 0 0 *	Lumber DOL 1 25	WB 0 86	Vert(CT) -0.40 15-17 >999 180		
BCDL 10 0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0 08 12 n/a n/a		
	Code FBC2023/TPI2014			Weight 279 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-2 oc purlins
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 5-8-2 oc bracing
WEBS 2x4 SP No 3	WEBS 1 Row at midpt 8-18, 10-17

**REACTIONS.** (size) 2=0-3-8, 21=0-5-8, 12=0-5-8  
 Max Horz 2=181(LC 16)  
 Max Uplift 2=-132(LC 8), 21=-578(LC 12), 12=-427(LC 13)  
 Max Grav 2=208(LC 25), 21=2550(LC 2), 12=1520(LC 2)

**FORCES.** (lb) - Max Comp./Max. Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 2-3=-113/643, 3-4=-223/1104, 4-6=-955/290, 6-7=-1319/434, 7-8=-1319/413,  
 8-10=-2090/581, 10-11=-2771/749, 11-12=-3187/838  
 BOT CHORD 2-22=-573/284, 21-22=-573/284, 19-21=-980/351, 18-19=-142/829, 17-18=-288/1878,  
 15-17=-541/2527, 14-15=-697/2902, 12-14=-697/2902  
 WEBS 7-18=-177/679, 8-18=-1037/401, 8-17=-110/693, 10-17=-759/296, 10-15=-41/401,  
 11-15=-425/174, 6-18=-93/521, 6-19=-836/241, 4-19=-370/2118, 4-21=-2111/528,  
 3-21=-522/314

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design
  - 2) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft, Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 3-4-13, Zone1 3-4-13 to 24-6-0, Zone2 24-6-0 to 31-8-0, Zone1 31-8-0 to 50-6-0 zone, porch left exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) All plates are 3x6 MT20 unless otherwise indicated
  - 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 20 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
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 2, 578 lb uplift at joint 21 and 427 lb uplift at joint 12

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16,2024

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

**MiTek®**  
 16023 Swingley Ridge Rd  
 Chesterfield, MO 63017  
 314.434 1200 / MITek-US.com

Job 4224075	Truss T03G	Truss Type Common Supported Gable	Qty 1	Ply 1	YOUNG RES	T35016776
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc. Mon Sep 16 11.23 38 2024 Page 1

ID=Ou7uKJJoFY6ispB5plljCsy3sH-uRoT6W7qCIC074\_40mRxdflKqHOB1Fy3\_mhdADxWyd3vp  
49-0-0 50-8-0  
24-6-0 1-6-0

Scale = 1/88.6

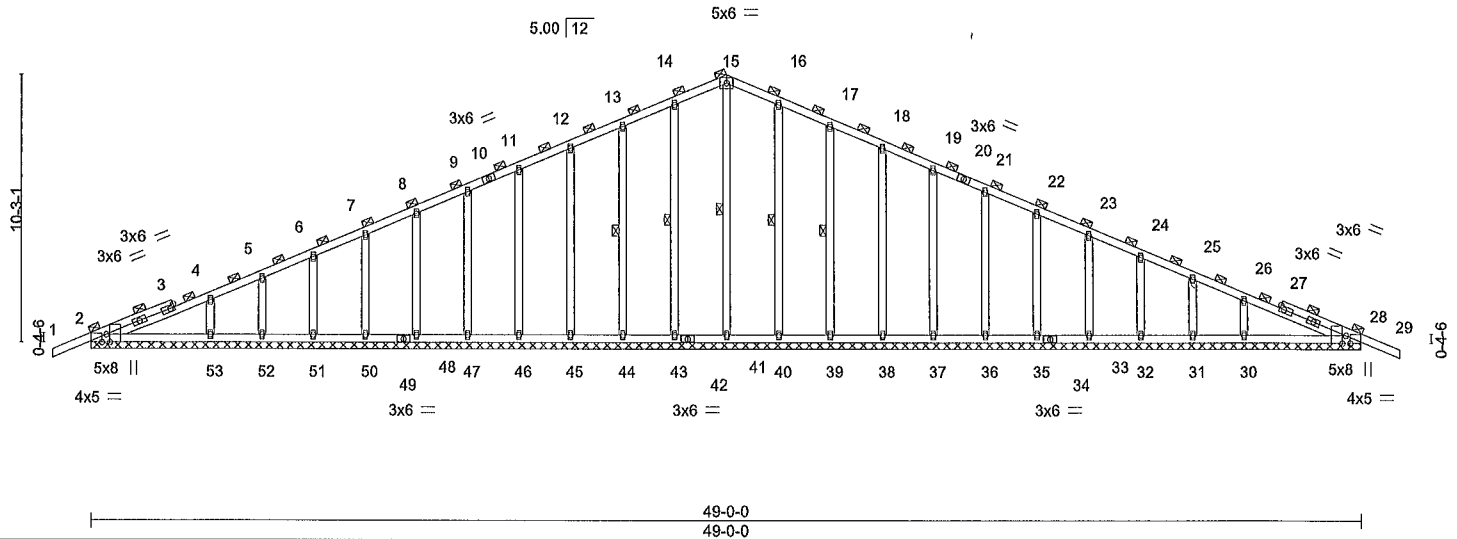


Plate Offsets (X,Y)-- [2 0-3-8,Edge], [2 0-2-1,Edge], [28 0-3-8,Edge], [28 0-2-1,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20 0	Plate Grip DOL 1.25	TC 0 15	Vert(LL) -0 00	29	n/r	120	MT20	244/190
TCDL 7 0	Lumber DOL 1.25	BC 0 13	Vert(CT) 0 00	29	n/r	120		
BCLL 0 0 *	Rep Stress Incr YES	WB 0 12	Horz(CT) 0 01	28	n/a	n/a		
BCDL 10 0	Code FBC2023/TPI2014	Matrix-S					Weight 331 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No 2	TOP CHORD 2-0-0 oc purlins (6-0-0 max )
BOT CHORD 2x4 SP No 2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing
OTHERS 2x4 SP No 3	WEBS 1 Row at midpt 15-41, 14-43, 13-44, 16-40, 17-39


**REACTIONS.** All bearings 49-0-0  
 (lb) - Max Horz 2=175(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 40, 39, 38, 37, 36, 35, 33, 32, 31, 30, 28  
 Max Grav All reactions 250 lb or less at joint(s) 2, 41, 43, 44, 45, 46, 47, 48, 50, 51, 52, 40, 39, 38, 37, 36, 35, 33, 32, 31, 28 except 53=288(LC 25), 30=288(LC 26)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 13-14=-104/276, 14-15=-118/311, 15-16=-118/311, 16-17=-104/276

- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TC DL=4 2psf; BCDL=3 0psf; h=20ft; Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 zone, porch left exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
  - Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 20 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, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 40, 39, 38, 37, 36, 35, 33, 32, 31, 30, 28
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd  
 Chesterfield, MO 63017  
 Date:  
 September 16,2024

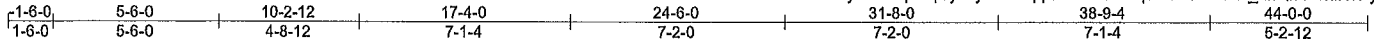
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev 1/2/2023 BEFORE USE.</b>          Design valid for use only with MITek® connectors. This design is based upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)</p>	 <p>16023 Swingley Ridge Rd          Chesterfield, MO 63017          314.434 1200 / MITek-US.com</p>
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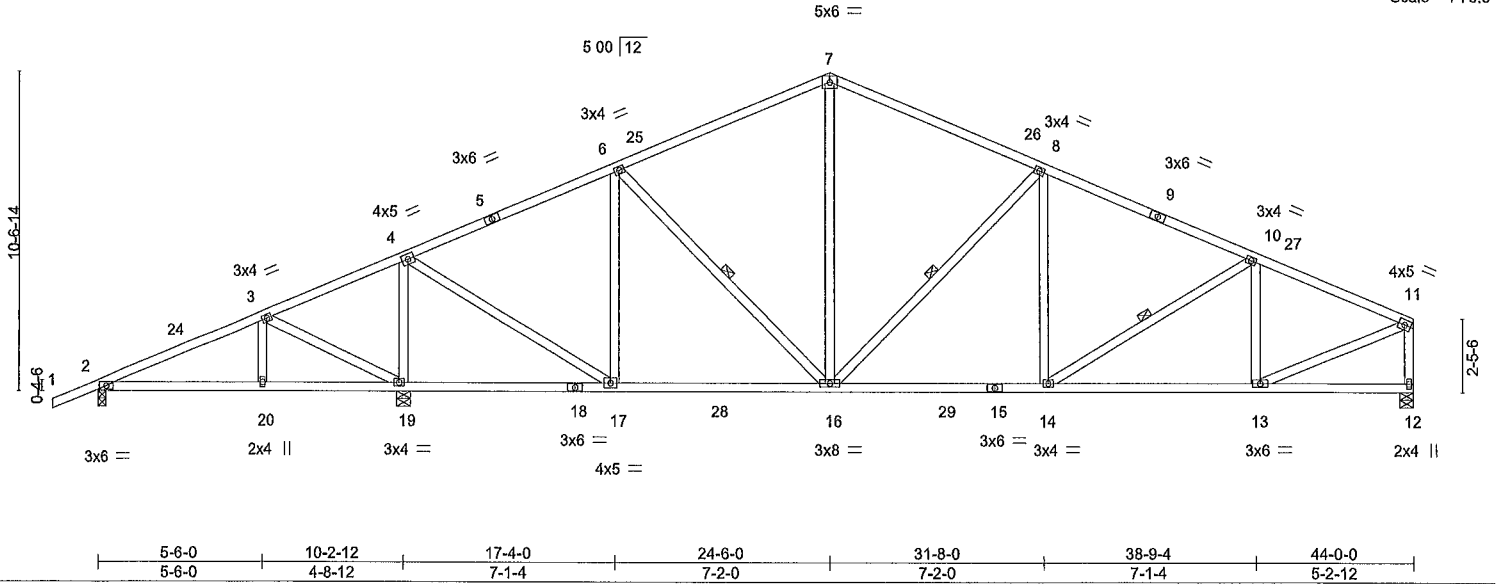
Job 4224075	Truss T05	Truss Type Common	Qty 3	Ply 1	YOUNG RES	T35016778
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc Mon Sep 16 11 23.40 2024 Page 1  
ID Ou7uKJJoFY6ispB5plljCsy63shH-qqwDXC04kJeJIEPurz5llvXc\_akQrX38xfK0Pyd3vn



Scale = 1/76.6



<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 25	TC 0 55	Vert(LL)	-0 12 14-16	>999	240	MT20	244/190
TCDL 7 0	Lumber DOL	1 25	BC 0 64	Vert(CT)	-0.20 14-16	>999	180		
BCLL 0 0 *	Rep Stress Incr	YES	WB 0 63	Horz(CT)	0 04 12	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight. 261 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-3-9 oc purlins, except end verticals
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-16, 8-16, 10-14


**REACTIONS.** (size) 2=0-3-8, 19=0-5-8, 12=0-5-8  
 Max Horz 2=238(LC 12)  
 Max Uplift 2=-147(LC 8), 19=-530(LC 12), 12=-328(LC 13)  
 Max Grav 2=319(LC 25), 19=2066(LC 2), 12=1306(LC 2)

**FORCES.** (lb) - Max Comp./Max. Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 3-4=-180/529, 4-6=-1024/275, 6-7=-1173/376, 7-8=-1173/355, 8-10=-1608/435, 10-11=-1506/387, 11-12=-1232/338  
 BOT CHORD 17-19=-449/171, 16-17=-192/894, 14-16=-255/1433, 13-14=-315/1358  
 WEBS 3-19=-507/303, 4-19=-1633/480, 4-17=-304/1571, 6-17=-578/207, 6-16=-37/254, 7-16=-133/566, 8-16=-618/282, 8-14=0/307, 10-13=-394/173, 11-13=-331/1444

- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat II, Exp B, Encl, GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-10-13, Zone1 2-10-13 to 24-6-0, Zone2 24-6-0 to 30-8-11, Zone1 30-8-11 to 43-10-4 zone, porch left exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1 60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
  - 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 20 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) except (jt=lb) 2=147, 19=530, 12=328

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16, 2024

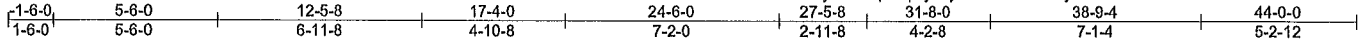
<p><b>WARNING</b> Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIJ-7473 rev 1/2/2023 BEFORE USE.</p> <p>Design valid for use only with MITek® connectors. This design is based only upon parameters shown and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems see ANSI/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)</p>	 <p>16023 Swingley Ridge Rd          Chesterfield, MO 63017          314.434.1200 / MITek-US.com</p>
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Job 4224075	Truss T06	Truss Type Roof Special	Qty 6	Ply 1	YOUNG RES	T35016779
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Builders FirstSource (Lake City,FL), Lake City FL - 32055,

8 730 s Aug 15 2024 MiTek Industries, Inc Mon Sep 16 11 23.41 2024 Page 1

ID Ou7uKJjoFY6ispB5pIjCsy03sH-I0UbKY1jVdmhxSobRZVKHzSi8Oxr9JMCNaPuYryd3vm



Scale = 1 77.3

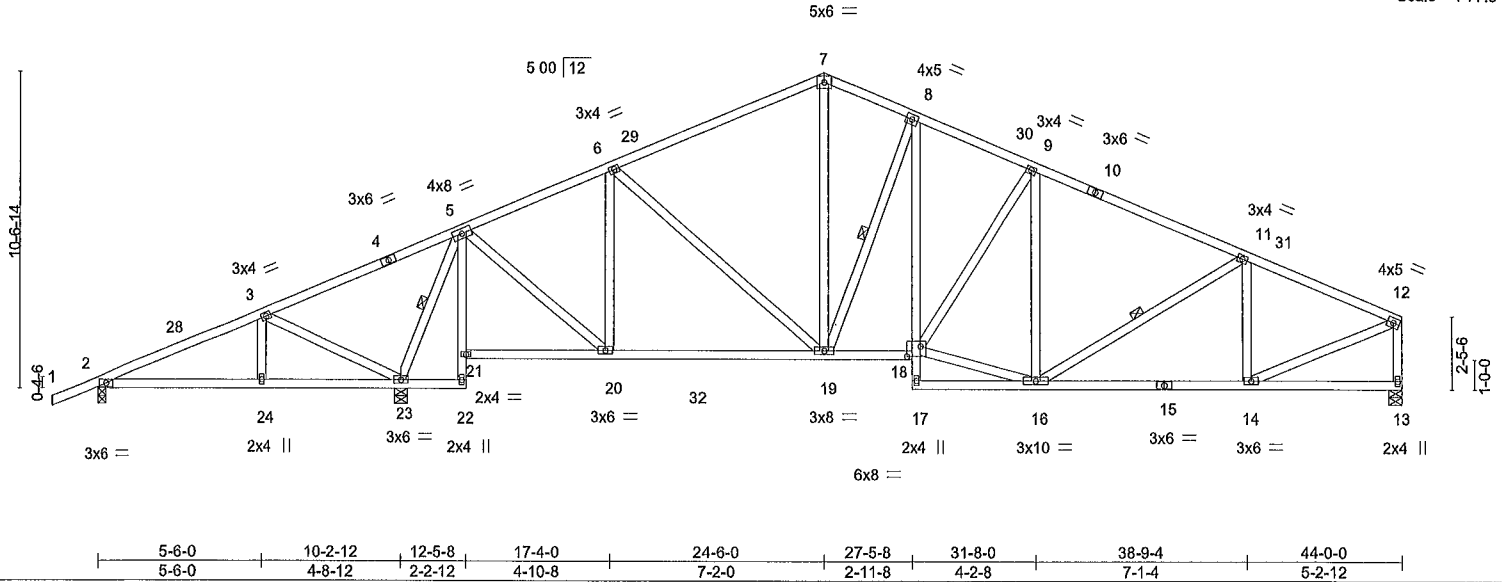


Plate Offsets (X,Y)--	[18 0-5-12,0-4-0]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1 25	TC 0 57	Vert(LL) -0 11 19-20 >999 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0 59	Vert(CT) -0.20 14-16 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0 52	Horz(CT) 0 05 13 n/a n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-MS		Weight. 290 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No 2	TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins, except end verticals
BOT CHORD 2x4 SP No 2 *Except* 5-22,8-17 2x4 SP No 3	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing
WEBS 2x4 SP No 3	WEBS 1 Row at midpt 5-23, 8-19, 11-16

**REACTIONS.** (size) 2=0-3-8, 23=0-5-8, 13=0-5-8  
 Max Horz 2=238(LC 12)  
 Max Uplift 2=-145(LC 8), 23=-579(LC 12), 13=-332(LC 13)  
 Max Grav 2=231(LC 25), 23=2169(LC 2), 13=1243(LC 2)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 2-3=-149/325, 3-5=-297/859, 5-6=-977/305, 6-7=-1176/392, 7-8=-1120/389,  
 8-9=-1400/448, 9-11=-1482/439, 11-12=-1433/395, 12-13=-1173/342  
 BOT CHORD 2-24=-258/62, 23-24=-258/62, 19-20=-168/867, 18-19=-171/1250, 8-18=-197/574,  
 14-16=-325/1292  
 WEBS 3-23=-614/334, 5-23=-1866/518, 5-20=-227/1200, 6-20=-562/186, 6-19=-23/271,  
 7-19=-195/609, 8-19=-637/272, 16-18=-255/1301, 11-14=-378/179, 12-14=-343/1377

- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft; Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-10-13, Zone1 2-10-13 to 24-6-0, Zone2 24-6-0 to 30-8-11, Zone1 30-8-11 to 43-10-4 zone, porch left exposed,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 20 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) except (J=Ib) 2=145, 23=579, 13=332

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MiTek Inc DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16,2024

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

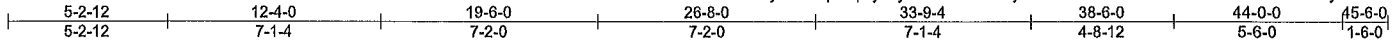
**MiTek®**  
 16023 Swingley Ridge Rd  
 Chesterfield, MO 63017  
 314.434.1200 / MiTek-US.com

Job 4224075	Truss T07	Truss Type Common	Qty 7	Ply 1	YOUNG RES	T35016780
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc Mon Sep 16 11 23.41 2024 Page 1

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Scale = 1/16" = 1' 5"

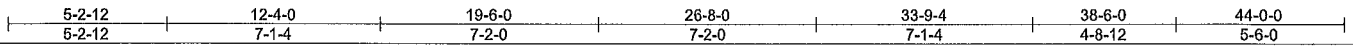
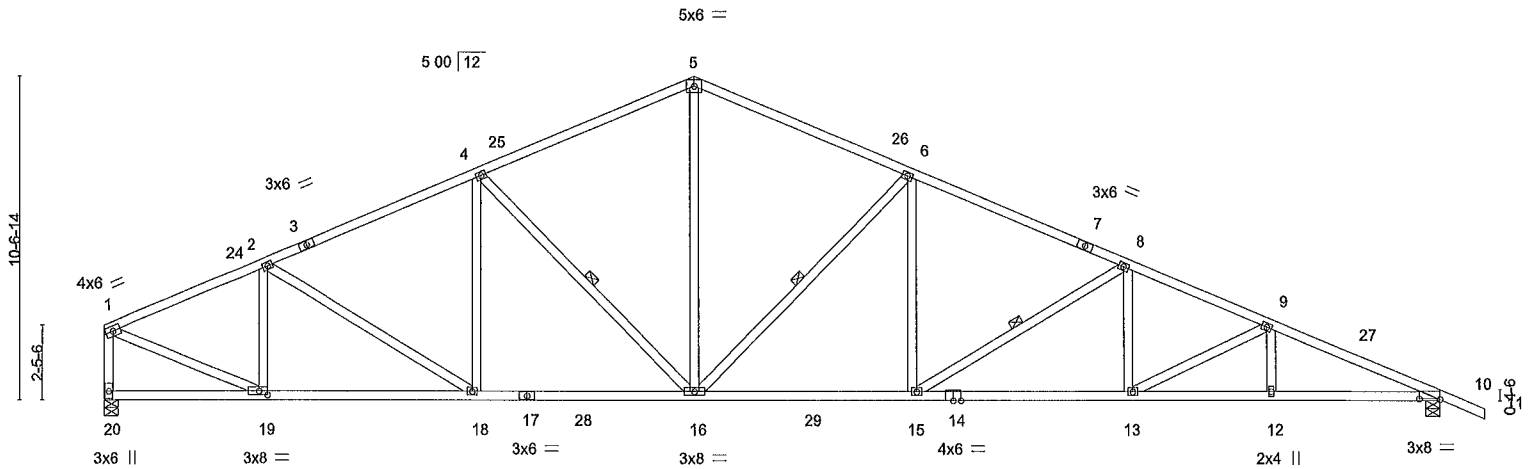


Plate Offsets (X,Y)-- [10 0-8-0,0-0-4], [19 0-3-8,0-1-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20 0	Plate Grip DOL	1 25	TC 0 62	Vert(LL)	-0.31 15-16	>999	240	MT20	244/190
TCDL 7 0	Lumber DOL	1 25	BC 0 94	Vert(CT)	-0.55 13-15	>964	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0 78	Horz(CT)	0 16 10	n/a	n/a		
BCDL 10 0	Code FBC2023/TPJ2014		Matrix-MS					Weight: 261 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No 1 \*Except\*  
10-14 2x4 SP No 2  
WEBS 2x4 SP No 3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-7-9 oc purlins, except end verticals  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing  
WEBS 1 Row at midpt 4-16, 6-16, 8-15

**REACTIONS.**

(size) 20=0-5-8, 10=0-5-8  
Max Horz 20=-238(LC 13)  
Max Uplift 20=-399(LC 12), 10=-476(LC 13)  
Max Grav 20=1788(LC 2), 10=1844(LC 2)

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

TOP CHORD 1-2=-2119/477, 2-4=-2481/563, 4-5=-2157/561, 5-6=-2157/540, 6-8=-2925/708, 8-9=-3601/874, 9-10=-3996/961, 1-20=-1712/408  
BOT CHORD 18-19=-476/1923, 16-18=-451/2239, 15-16=-404/2649, 13-15=-657/3294, 12-13=-810/3647, 10-12=-810/3647  
WEBS 2-19=-616/209, 2-18=-77/369, 4-16=-509/260, 5-16=-275/1322, 6-16=-1034/400, 6-15=-109/690, 8-15=-755/296, 8-13=-40/395, 9-13=-405/170, 1-19=-421/2056

**NOTES-**

- Unbalanced roof live loads have been considered for this design
- Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf, BCDL=3 0psf, h=20ft, Cat II, Exp B, Encl, GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 0-1-12 to 4-6-9, Zone1 4-6-9 to 19-6-0, Zone2 19-6-0 to 25-8-11, Zone1 25-8-11 to 45-6-0 zone,C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
- All plates are 3x4 MT20 unless otherwise indicated
- 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 20 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) except (jt=lb) 20=399, 10=476

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
MITek Inc DBA MITek USA FL Cert 6634  
16023 Swingley Ridge Rd,  
Chesterfield, MO 63017

Date:  
September 16, 2024

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

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**MiTek®**

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Job	Truss	Truss Type	Qty	Ply	YOUNG RES	T35016781
4224075	T07G	GABLE	1	1		

Builders FirstSource (Lake City,FL), Lake City, FL - 32055

8 730 s Aug 15 2024 MITek Industries, Inc. Mon Sep 16 11 23.42 2024 Page 1  
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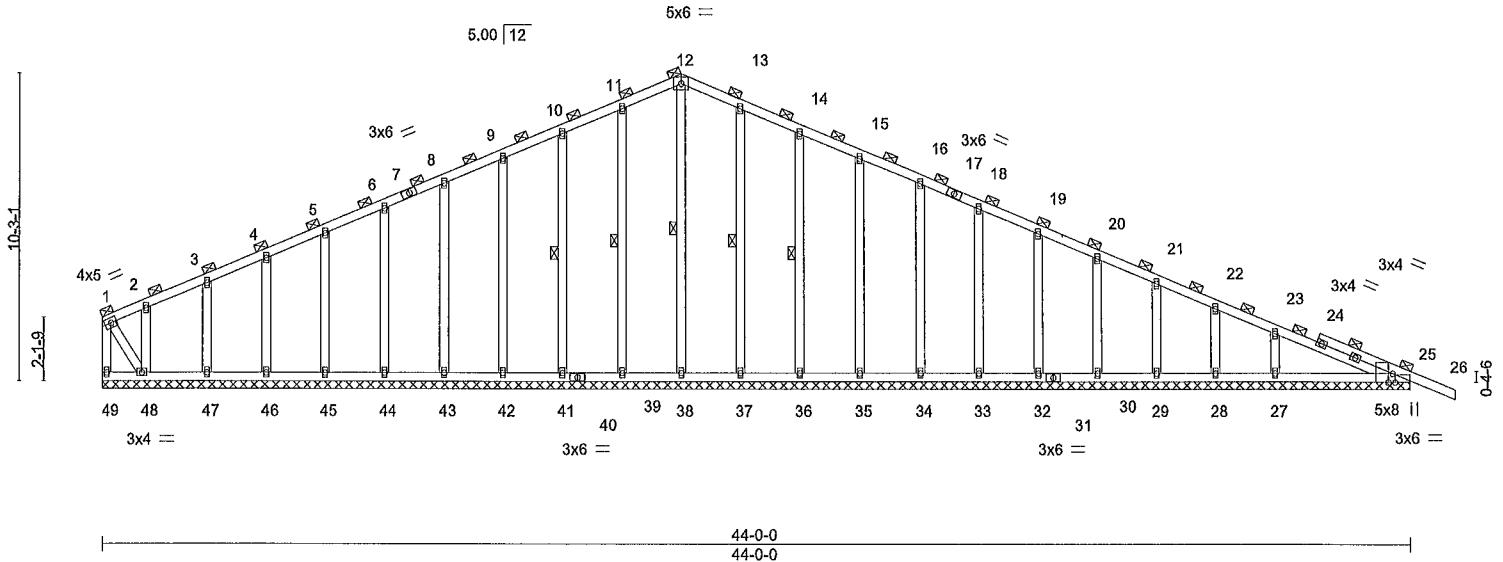


Plate Offsets (X,Y)-- [25 0-3-8,Edge], [25 0-1-1,Edge]

<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	1.25	TC 0 15	Vert(LL)	-0 00	26	n/r	120	MT20	244/190
TCDL 7 0	Lumber DOL	1.25	BC 0 13	Vert(CT)	0 00	26	n/r	120		
BCLL 0 0 *	Rep Stress Incr	YES	WB 0 12	Horz(CT)	0 01	25	n/a	n/a		
BCDL 10 0	Code FBC2023/TP12014		Matrix-S						Weight: 313 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No 3  
OTHERS 2x4 SP No 3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max ), except end verticals  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing  
WEBS 1 Row at midpt 12-38, 11-39, 10-41, 13-37, 14-36

**REACTIONS.** All bearings 44-0-0  
(lb) - Max Horz 49=-226(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 39, 41, 42, 43, 44, 45, 46, 47, 37, 36, 35, 34, 33, 32, 30, 29, 28, 27, 25 except 49=-120(LC 17), 48=-238(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 49, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 35, 34, 33, 32, 30, 29, 28, 25 except 27=288(LC 1)

**FORCES.** (lb) - Max Comp./Max. Ten - All forces 250 (lb) or less except when shown  
TOP CHORD 10-11=-104/271, 11-12=-118/307, 12-13=-118/307, 13-14=-104/271

- NOTES-**
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft, Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone and C-C Zone3 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
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 20.0psf 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) 39, 41, 42, 43, 44, 45, 46, 47, 37, 36, 35, 34, 33, 32, 30, 29, 28, 27, 25 except (jt=lb) 49=120, 48=238
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Chesterfield, MO 63017

Date:  
September 16,2024

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

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

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Chesterfield MO 63017  
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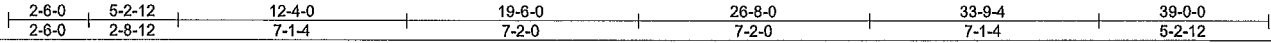
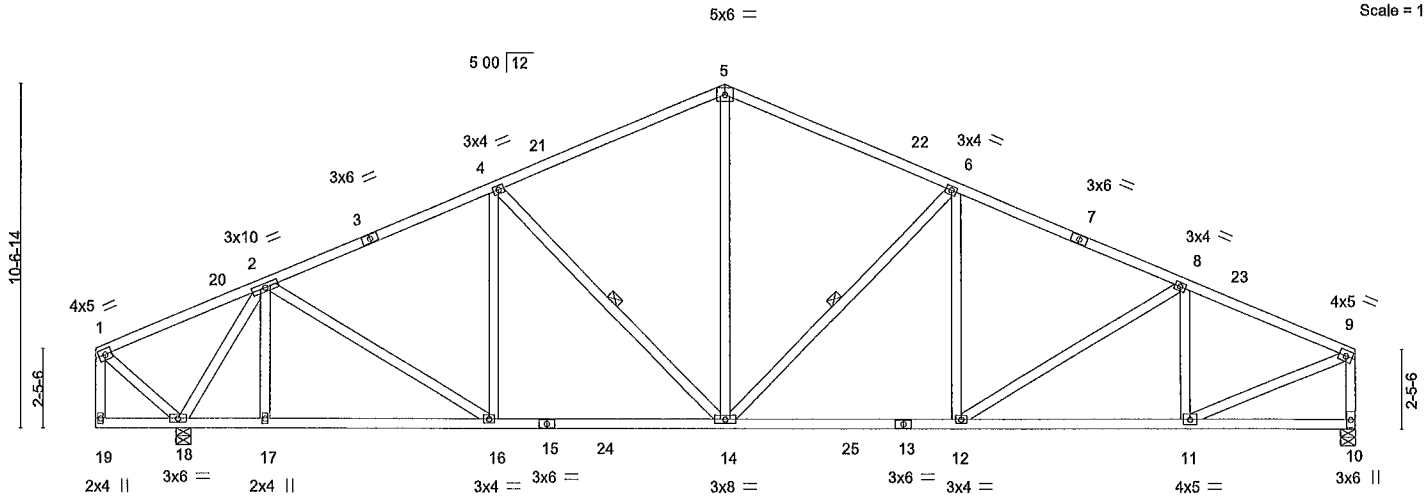
Job 4224075	Truss T08	Truss Type Common	Qty 5	Ply 1	YOUNG RES	T35016782
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055

8 730 s Aug 15 2024 MITek Industries, Inc. Mon Sep 16 11.23.43 2024 Page 1  
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Scale = 1/171



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (oc)	l/def	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20 0	Plate Grip DOL	1.25	TC 0.55	Vert(LL)	-0.14	12-14	>999	240	244/190
TCDL 7 0	Lumber DOL	1.25	BC 0.70	Vert(CT)	-0.24	12-14	>999	180	
BCLL 0 0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.07	10	n/a	n/a	
BCDL 10 0	Code	FBC2023/TPI2014	Matrix-MS						
								Weight: 247 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No 2	TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals
BOT CHORD 2x4 SP No 2	BOT CHORD Rigid ceiling directly applied or 7-3-4 oc bracing
WEBS 2x4 SP No 3	WEBS 1 Row at midpt 4-14, 6-14

**REACTIONS.** (size) 18=0-5-8, 10=0-5-8  
 Max Horz 18=-135(LC 13)  
 Max Uplift 18=-643(LC 8), 10=-544(LC 8)  
 Max Grav 18=1689(LC 2), 10=1471(LC 2)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
 TOP CHORD 2-4=-1676/733, 4-5=-1509/724, 5-6=-1509/732, 6-8=-1907/842, 8-9=-1716/745, 9-10=-1396/627  
 BOT CHORD 17-18=-326/831, 16-17=-326/831, 14-16=-572/1495, 12-14=-654/1709, 11-12=-639/1551  
 WEBS 2-18=-1778/751, 2-16=-288/777, 4-14=-310/207, 5-14=-392/824, 6-14=-579/283, 6-12=-93/271, 8-11=-469/184, 9-11=-671/1654

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design
  - 2) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4 2psf, BCDL=3 0psf, h=20ft, Cat II, Exp B, Encl, GCpi=0.18, MWFRS (envelope) gable end zone and C-C Zone3 0-1-12 to 4-0-9, Zone1 4-0-9 to 19-6-0, Zone2 19-6-0 to 25-0-3, Zone1 25-0-3 to 38-10-4 zone, cantilever left exposed, porch left exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
  - 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 20 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) except (jt=lb) 18=643, 10=544

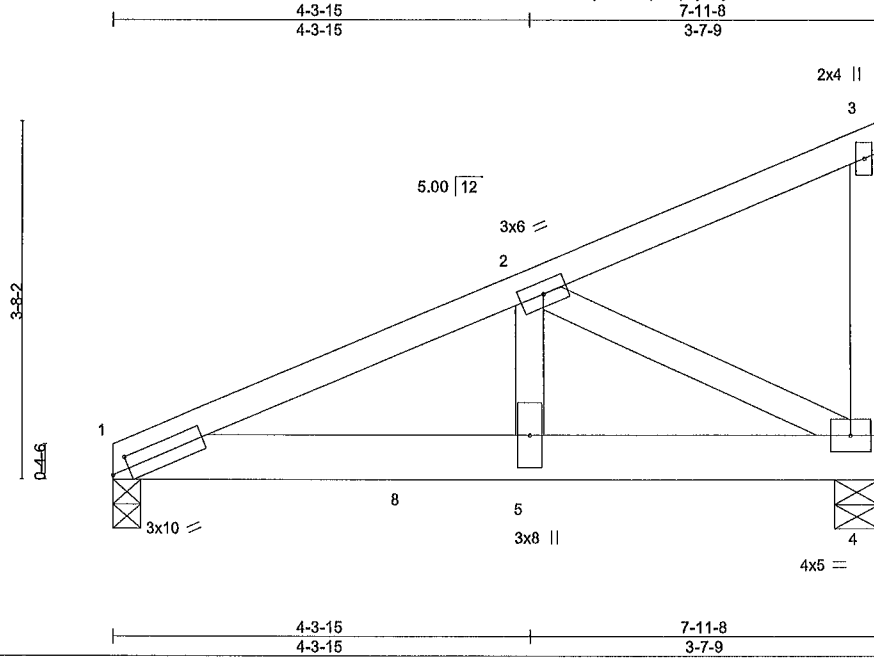
This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182  
 MITek Inc. DBA MITek USA FL Cert 6634  
 16023 Swingley Ridge Rd.  
 Chesterfield, MO 63017  
 Date:  
 September 16, 2024

Job 4224075	Truss T09	Truss Type Monopitch Gilder	Qty 1	Ply 1	YOUNG RES	T35016783
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8 730 s Aug 15 2024 MITek Industries, Inc Mon Sep 16 11 23.43 2024 Page 1  
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Scale 1/2"=1'

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20 0	2-0-0	TC 0.57	Vert(LL) 0 07	5-7	>999	240	MT20	244/190
TCDL 7 0	Plate Grip DOL 1.25	BC 0.97	Vert(CT) -0 11	5-7	>871	180		
BCLL 0 0 *	Lumber DOL 1.25	WB 0.51	Horz(CT) 0 01	4	n/a	n/a		
BCDL 10 0	Rep Stress Incr NO	Matrix-MS					Weight 43 lb	FT = 20%
	Code FBC2023/TPI2014							

**LUMBER-**  
TOP CHORD 2x4 SP No 2  
BOT CHORD 2x6 SP No 2  
WEBS 2x4 SP No 3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins, except end verticals  
BOT CHORD Rigid ceiling directly applied or 8-5-9 oc bracing

**REACTIONS.** (size) 1=0-3-8, 4=0-5-8  
Max Horz 1=126(LC 8)  
Max Uplift 1=-616(LC 4), 4=-322(LC 4)  
Max Grav 1=1516(LC 1), 4=719(LC 1)

**FORCES.** (lb) - Max Comp./Max Ten - All forces 250 (lb) or less except when shown  
TOP CHORD 1-2=-1576/615  
BOT CHORD 1-5=-637/1457, 4-5=-637/1457  
WEBS 2-5=-452/1037, 2-4=-1636/715

**NOTES-**

- 1) Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf; BCDL=3 0psf; h=20ft, Cat II, Exp B, Encl , GCpi=0 18, MWFRS (envelope) gable end zone, porch left and right exposed, Lumber DOL=1 60 plate grip DOL=1 60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
- 4) \* This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=616, 4=322
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 828 lb down and 377 lb up at 1-0-12, and 828 lb down and 377 lb up at 3-0-12 on bottom chord The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced) Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert. 1-3=-54, 1-4=-20  
Concentrated Loads (lb)  
Vert 7=-828(B) 8=-828(B)

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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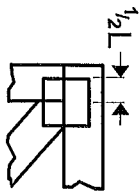
Design valid for use only with MITek® connectors. This design is based only upon parameters shown and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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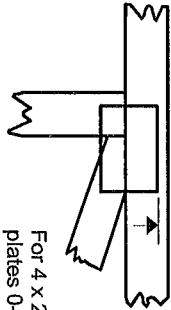
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# Symbols

## PLATE LOCATION AND ORIENTATION



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



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

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

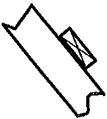
\* Plate location details available in MITtek software or upon request.

## PLATE SIZE

4 X 4

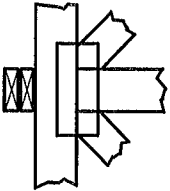
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



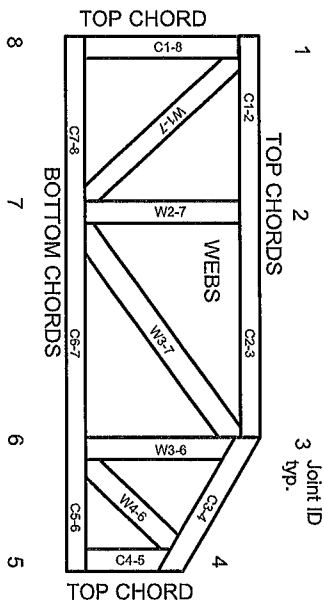
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

### Industry Standards:

- ANSI/ITP1: National Design Specification for Metal Plate Connected Wood Truss Construction
- DSB-22: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.
- BCSI:

# Numbering System

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



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

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

## Product Code Approvals

ICC-ES Reports

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

## Design General Notes

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

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

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# 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 T or 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 purtins 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. Rewriting 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.

# MITtek®

MITtek Engineering Reference Sheet: MIL-7473 rev. 1/22/2023

THE ABOVE HEAD OF THE  
END OF THE TRUSS ON  
THE TRUSS PLACEMENT  
PLAN (LAYOUT)  
SHOULD BE WITH THE  
LEFT SIDE OF THE  
INDIVIDUAL TRUSS  
MEMBERS AS AN  
ORIENTATION GUIDE  
WHEN SETTING THE  
BRUSSES ON THE  
STRUCTURE

General Notes:  
Per ANSI/TPI 1-2009 all "Truss to Wall" connections shall be made in accordance with the Building Designer not the Truss Manufacturer's specifications for all hanger connections unless noted otherwise.  
All hangers are to be Simpson or equivalent U.N.O. per manufacturer's instructions.  
Trusses are not designed to support brick U.N.O. Dimensions are Feet-Inches-Nineteenths.

Notes:  
No load changes will be accepted by Builders unless drawings are approved in writing first.  
859-887-1841

ACO lumber is sensitive to rain splats. Any ACO that comes in contact with rain splats (i.e. soaked on site) must have an approved barrier applied first.

Refer to BCSI B1 Summary Sheet-Guide for handling, leveling and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

It is the responsibility of the Contractor to ensure that proper orientation of the truss placement plans as to all connections and bracing is maintained. If a reversed or flipped layout is required, it will be supplied at no extra cost by Builders FirstSource.

It is the responsibility of the Contractor to make sure placement of trusses are adjusted for plumbing drops. Trusses do not interfere with other trades with these types of items.

All trusses designed for floor systems must be designed as a NOT truss and loads on the floor truss below. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer but rather by the Builders FirstSource staff. It is not intended to be used for engineering purposes. It requires a seal. Complete truss engineering and analysis can be found on the truss design drawings which may be obtained from the truss design engineer.

Gable end trusses require symmetrical bottom chord bearing. Refer to local code for wall framing requirements.

Although all attempts have been made to do so, truss design is a complex engineering discipline. Please refer to the truss design drawings for all truss placement plans for proper orientation and placement.



Lake City  
PHONE: 386-755-6894  
FAX: 386-755-7973

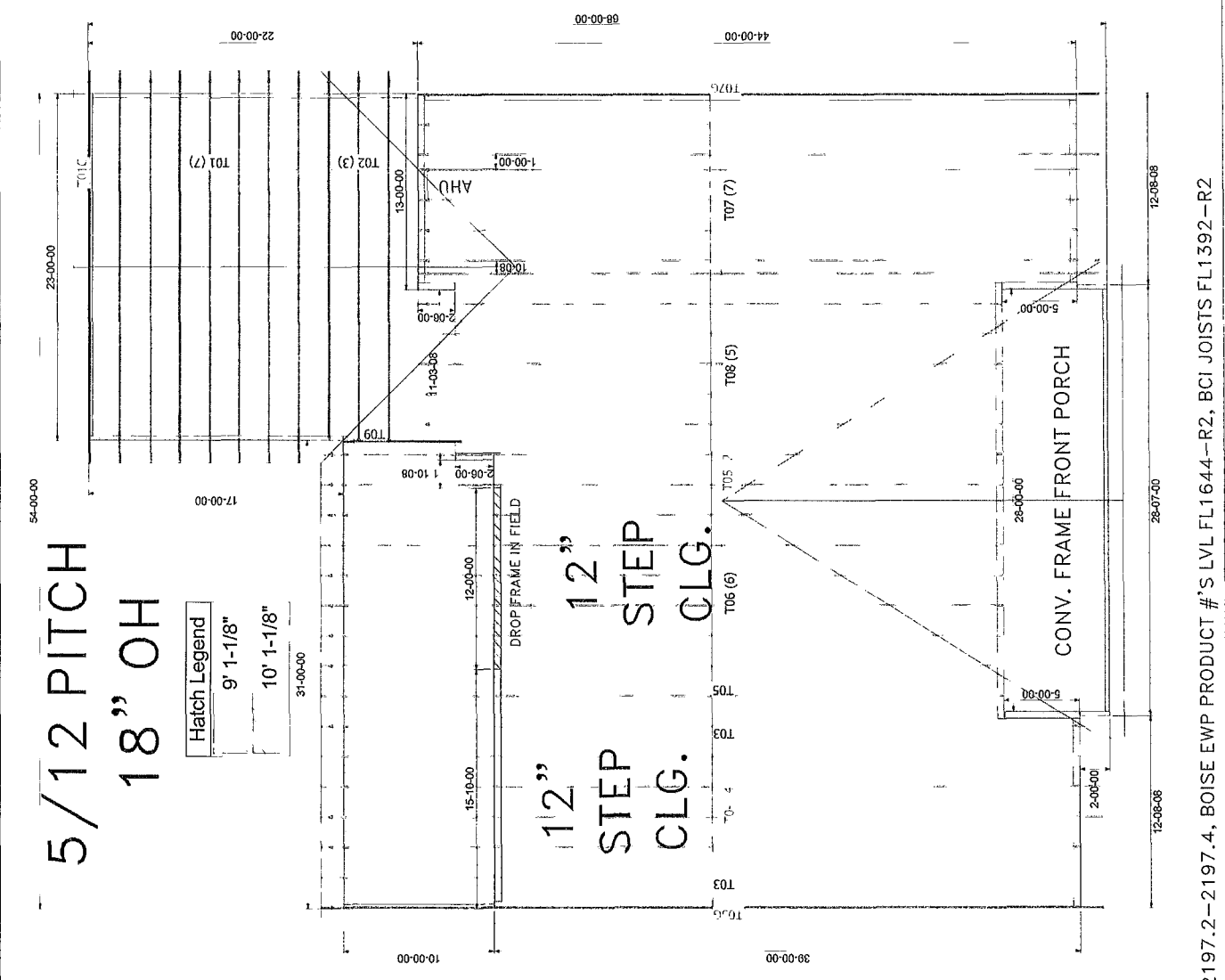
Jacksonville  
PHONE: 904-772-6100  
FAX: 904-772-1973

Tallahassee  
PHONE: 850-576-5177

Builder:  
CAMERON & KACI YOUNG  
Local Address:

Model:  
Young Res. - Columbia City

Custom  
Drawn By: KLH  
12-17-24  
Floor 1 Job#: N/A  
Floor 2 Job#: N/A  
Original Ref #: 422407  
Revised #: 422407



MITEK PLATE APPROVAL #'S 2197.2-2197.4, BOISE EWP PRODUCT #'S LVL FL1644-R2, BCI JOISTS FL1592-R2