



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

RE: 0125-021 - Lunsford

MiTek, Inc.  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Site Information:**

Customer Info: SCCI Project Name: . Model: .  
Lot/Block: . Subdivision: .  
Address: ., .  
City: Columbia County State: FL

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

Name: License #:  
Address:  
City: State:

**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: 40.0 psf Floor Load: N/A psf

This package includes 14 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	T35994829	A01	1/8/25
2	T35994830	A02	1/8/25
3	T35994831	A03	1/8/25
4	T35994832	A04	1/8/25
5	T35994833	B01	1/8/25
6	T35994834	B02	1/8/25
7	T35994835	C01	1/8/25
8	T35994836	C02	1/8/25
9	T35994837	D01	1/8/25
10	T35994838	D02	1/8/25
11	T35994839	D03	1/8/25
12	T35994840	D04	1/8/25
13	T35994841	PB01	1/8/25
14	T35994842	PB02	1/8/25

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc.  
under my direct supervision based on the parameters  
provided by Mayo Truss Company, Inc..

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

**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.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

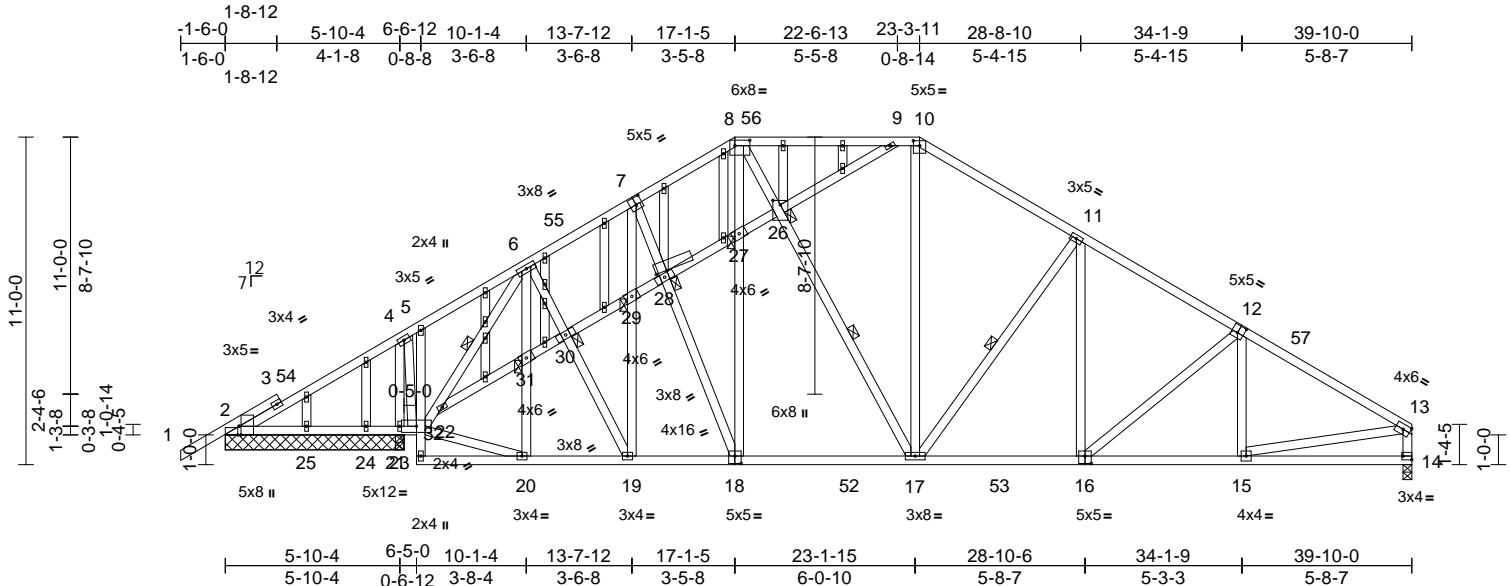
Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994829
0125-021	A01	Piggyback Base Structural Gable	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:38

Page: 1

ID:WLR581vijijBxPL8fW\_mnzxSfo-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:77.4

[2:0-3-8,Edge], [2:0-0-9,Edge], [7:0-2-8,0-3-0], [8:0-6-0,0-2-4], [10:0-2-8,0-2-1], [12:0-2-8,0-3-0], [14:Edge,0-1-8], [16:0-2-8,0-3-0], [18:0-2-8,0-3-0], [26:0-1-12,0-3-0], Plate Offsets (X, Y): [28:0-4-8,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	-0.09	17-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.16	17-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.04	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 361 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 17-26, 11-17, 6-22  
JOINTS 1 Brace at Jt(s): 26, 27, 28, 29, 30, 31

#### REACTIONS

(size) 2=6-0-0, 14=0-3-8, 23=6-0-0, 24=6-0-0, 25=6-0-0  
Max Horiz 2=212 (LC 11)  
Max Uplift 2=-29 (LC 26), 23=-48 (LC 12), 24=-195 (LC 1)  
Max Grav 2=113 (LC 23), 14=1522 (LC 18), 23=2135 (LC 17), 24=29 (LC 12), 25=192 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 13-14=-1421/77, 1-2=0/45, 2-4=-95/487, 4-5=-67/64, 5-6=-50/166, 6-8=-996/135, 8-9=-940/130, 9-10=-1215/181, 10-11=-1459/172, 11-13=-1990/133  
BOT CHORD 2-25=-378/125, 24-25=-378/125, 23-24=-378/125, 22-23=-349/123, 21-22=0/69, 5-22=-5/95, 20-21=0/147, 19-20=0/910, 17-19=0/1146, 15-17=-33/1631, 14-15=-35/175

#### WEBS

18-27=-68/168, 8-27=-64/161, 8-26=-67/225, 17-26=-67/225, 10-17=-11/533, 11-17=-593/92, 13-15=0/1484, 11-16=0/350, 12-16=-203/60, 12-15=-158/69, 4-22=0/894, 4-23=-1400/104, 22-32=-1487/79, 6-32=-1190/34, 7-28=-3/194, 18-28=-3/194, 20-31=-111/43, 6-31=-108/42, 20-22=0/792, 6-30=0/449, 19-30=0/449, 19-29=-304/18, 7-29=-307/18, 9-26=-319/59, 26-27=-331/58, 27-28=-337/57, 28-29=-338/55, 29-30=-344/54, 30-31=-350/52, 31-32=-346/50

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-5-13, Zone1 2-5-13 to 17-1-5, Zone2 17-1-5 to 22-6-13, Zone1 22-6-13 to 23-3-11, Zone2 23-3-11 to 28-8-10, Zone1 28-8-10 to 39-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2, 48 lb uplift at joint 23, 195 lb uplift at joint 24 and 29 lb uplift at joint 2.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 2 X 4 notch at 20000 o.c. is allowed along the stacked top chord. No notches allowed in overhang and 10600 from left end and 10600 from right end or 12" along rake from scarf, whichever is larger. Minimum 1.5x4 tie plates required at 2-0-0 o.c. maximum between the stacking chords. For edge-wise notching, provide at least one tie plate between each notch.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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

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

**MiTek®**

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314.434.1200 / MiTek-US.com

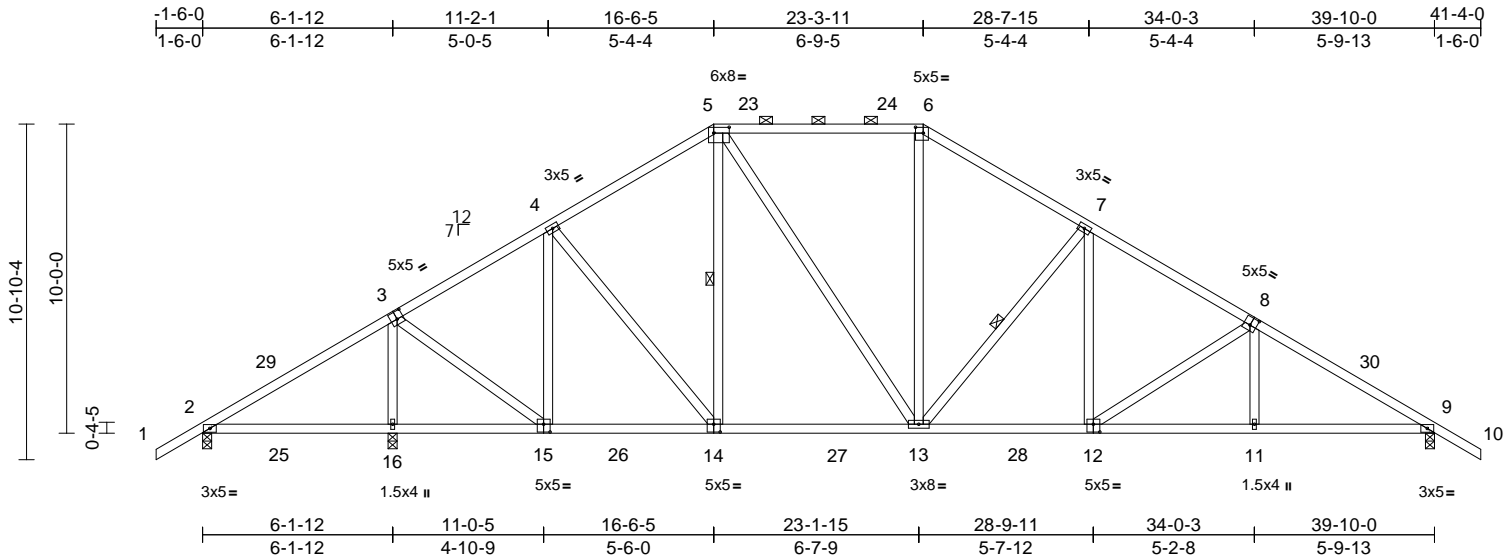
Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994830
0125-021	A02	Piggyback Base	10	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:39

Page: 1

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Scale = 1:74.5

Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-6-0,0-2-4], [6:0-3-0,0-2-4], [8:0-2-8,0-3-0], [12:0-2-8,0-3-0], [14:0-2-8,0-3-0], [15:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.06	16-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.21	13-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 247 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except

2-0-0 oc purlins (4-4-5 max.): 5-6.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 5-14, 7-13

#### REACTIONS

(size) 2=0-3-8, 9=0-3-8, 16=0-3-8

Max Horiz 2=-194 (LC 10)

Max Uplift 2=-110 (LC 12), 9=-39 (LC 12), 16=-26 (LC 12)

Max Grav 2=156 (LC 23), 9=1582 (LC 18), 16=2181 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 5-6=-1294/166, 1-2=0/45, 2-4=-967/668,

4-5=-1276/154, 6-7=-1546/157,

7-9=-2526/119, 9-10=0/45

BOT CHORD 2-16=-523/43, 13-16=-486/1096,

11-13=0/2109, 9-11=0/2114

WEBS 5-14=-187/86, 5-13=-14/456, 6-13=0/419,

7-13=-710/82, 3-16=-1983/67, 3-15=0/1485,

4-14=0/453, 4-15=-722/44, 7-12=0/498,

8-12=-521/47, 8-11=0/225

#### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-5-13, Zone1 2-5-13 to 16-6-5, Zone2 16-6-5 to 22-1-15, Zone1 22-1-15 to 23-3-11, Zone2 23-3-11 to 28-7-15, Zone1 28-7-15 to 41-4-0 zone; cantilever left and right exposed; end vertical left and right 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) Provide adequate drainage to prevent water ponding.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 .
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 2, 26 lb uplift at joint 16 and 39 lb uplift at joint 9.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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

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

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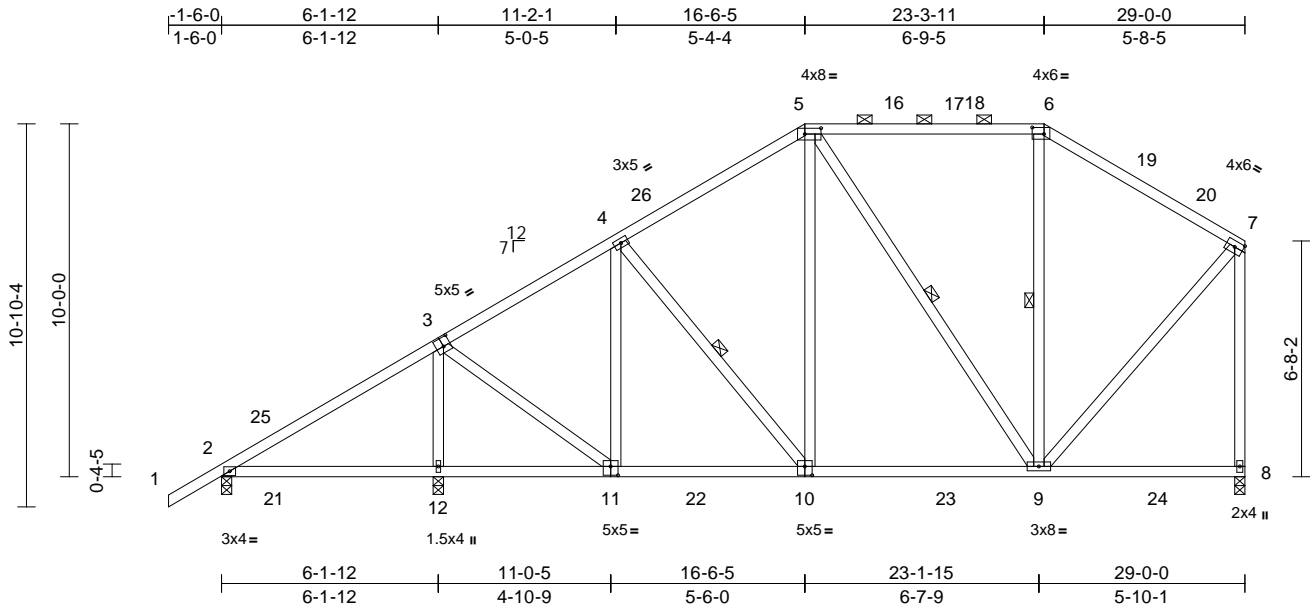
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994831
0125-021	A03	Piggyback Base	5	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:65.3									
Plate Offsets (X, Y): [3:0-2-8,0-3-0], [5:0-5-8,0-2-0], [6:0-4-0,0-2-4], [10:0-2-8,0-3-0], [11:0-2-8,0-3-0]									
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in (loc)	l/defl	L/d
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.57	Vert(LL)	0.06	12-15	>999
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.11	9-10	>999
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS					
						<b>PLATES</b>		<b>GRIP</b>	
						MT20		244/190	
						Weight: 196 lb FT = 20%			

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-9, 6-9, 4-10

**REACTIONS** (size) 2=0-3-8, 8=0-3-8, 12=0-3-8  
Max Horiz 2=261 (LC 11)  
Max Uplift 2=-93 (LC 12), 8=-2 (LC 12), 12=45 (LC 12)  
Max Grav 2=303 (LC 23), 8=1032 (LC 19), 12=1410 (LC 17)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 5-6=-513/154, 6-7=-647/145, 7-8=-920/78, 1-2=0/45, 2-4=-785/196, 4-5=-797/148  
BOT CHORD 2-12=-148/94, 9-12=-150/671, 8-9=-85/99  
WEBS 5-10=0/295, 5-9=-296/36, 6-9=-187/99, 7-9=-48/720, 3-12=-1220/120, 3-11=0/792, 4-10=-32/99, 4-11=-303/76

**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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=29ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 1-6-0 to 1-6-0, Zone1 1-6-0 to 16-6-5, Zone2 16-6-5 to 20-9-4, Zone1 20-9-4 to 23-3-11, Zone2 23-3-11 to 27-6-9, Zone1 27-6-9 to 28-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; 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.
- 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 2, 2 lb uplift at joint 8 and 45 lb uplift at joint 12.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8,2025

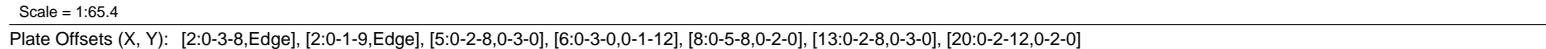
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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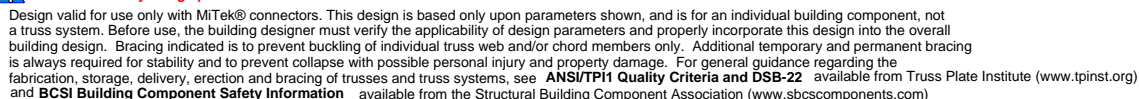
**MiTek®**  
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Chesterfield, MO 63017  
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January 8, 2025



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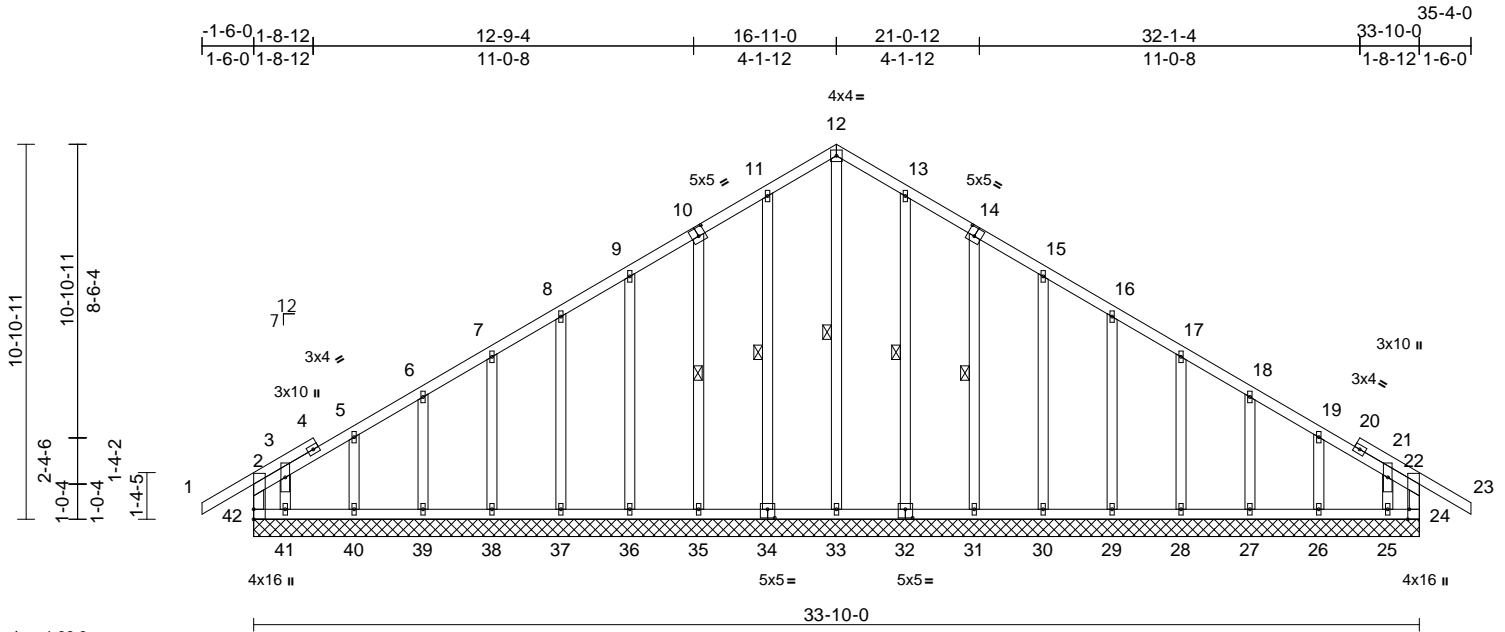
Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994833
0125-021	B01	Common Supported Gable	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Wed Jan 08 11:59:26

Page: 1

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Scale = 1:66.9

Plate Offsets (X, Y): [10:0-2-8,0-3-0], [14:0-2-8,0-3-0], [24:0-3-8,Edge], [32:0-2-8,0-3-0], [34:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	24	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 259 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 12-33, 11-34, 10-35, 13-32, 14-31

#### REACTIONS

All bearings	33-10-0.
(lb) - Max Horiz	42=212 (LC 11)
Max Uplift	All uplift 100 (lb) or less at joint(s) 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40 except 41=116 (LC 11), 42=127 (LC 10)
Max Grav	All reactions 250 (lb) or less at joint (s) 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 except 42=291 (LC 18)

#### FORCES

(lb) - Max. Comp./Max. Ten.	- All forces 250 (lb) or less except when shown.
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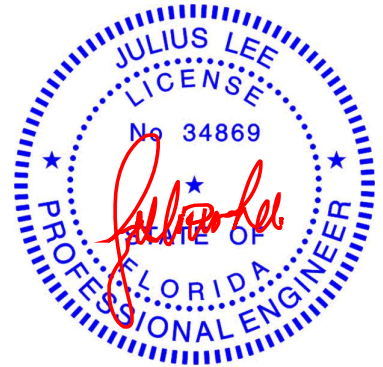
TOP CHORD	11-12=-150/259, 12-13=-150/259
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#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=34ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 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 1.5x4 MT20 unless otherwise indicated.
- 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 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 3-06-00 tall by 2-00-00 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) 24, 34, 35, 36, 37, 38, 39, 40, 32, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 42=126, 41=115.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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

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**MiTek®**

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

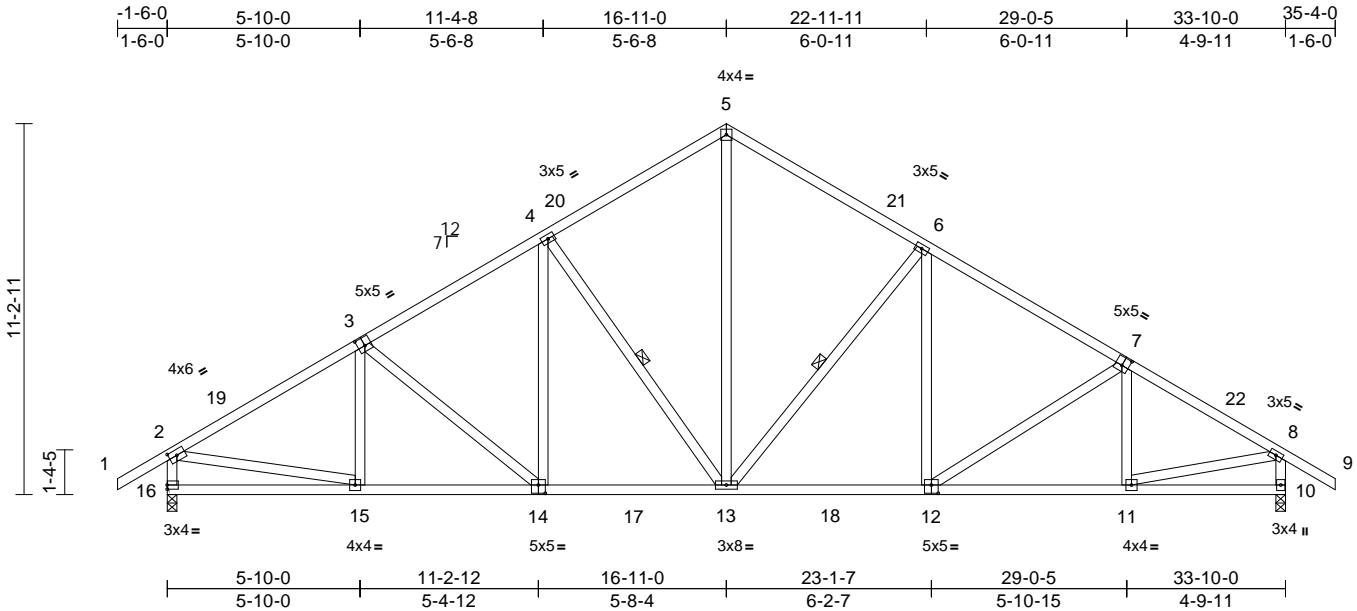
Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994834
0125-021	B02	Common	5	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:40

Page: 1

ID:3FvQ8iCCWtVUJWHI0cVThYzxSjl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:69.7

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [3:0-2-8,0-3-0], [7:0-2-8,0-3-0], [12:0-2-8,0-3-0], [14:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	-0.11	12-13	>999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.20	12-13	>999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.06	10	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS						Weight: 228 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 4-13, 6-13

#### REACTIONS

(size) 10=0-3-8, 16=0-3-8  
Max Horiz 16=223 (LC 11)  
Max Uplift 10=39 (LC 12), 16=39 (LC 12)  
Max Grav 10=1599 (LC 18), 16=1597 (LC 17)

#### FORCES

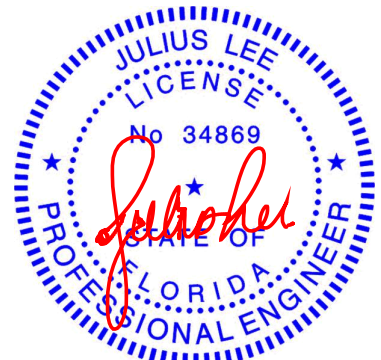
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-16=-1495/120, 8-10=-1518/113, 1-2=0/50, 2-4=-1962/121, 4-5=-1434/165, 5-6=-1445/163, 6-8=-1915/113, 8-9=0/50  
BOT CHORD 15-16=-144/328, 13-15=0/1763, 11-13=0/1588, 10-11=0/98  
WEBS 4-13=-602/91, 5-13=-60/1085, 6-13=-616/93, 2-15=0/1473, 8-11=0/1529, 3-15=-153/67, 3-14=-209/52, 4-14=0/358, 6-12=0/322, 7-12=-128/50, 7-11=-227/66

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 1-6-0 to 1-10-10, Zone1 1-10-10 to 16-11-0, Zone2 16-11-0 to 21-8-7, Zone1 21-8-7 to 35-4-0 zone; cantilever left and right exposed; end vertical 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 16 and 39 lb uplift at joint 10.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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

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**MiTek®**

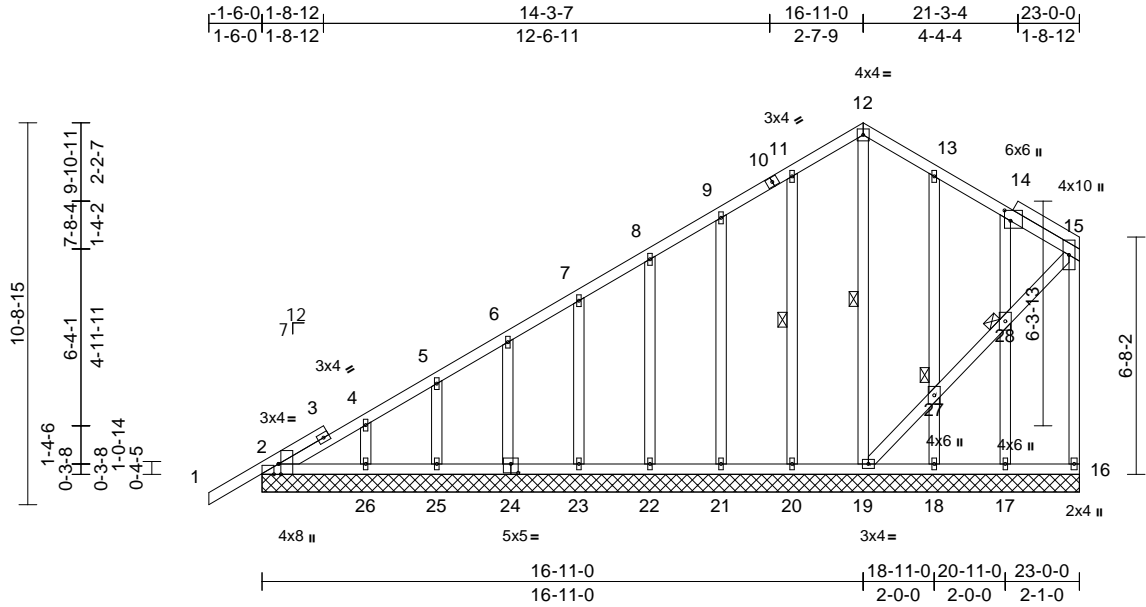
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994835
0125-021	C01	Common Supported Gable	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:40  
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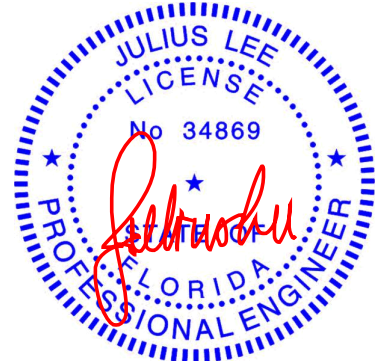
Page: 1



Scale = 1:64.8									
Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-1-9,Edge], [14:0-3-8,0-2-0], [24:0-2-8,0-3-0]									
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	<b>PLATES</b>
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.23	Vert(LL)	n/a	-	<b>GRIP</b>
TCDL	10.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	n/a	-	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	16	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS					
Weight: 188 lb FT = 20%									

<b>LUMBER</b>		<b>BOT CHORD</b>	2-26=-126/173, 25-26=-126/173, 23-25=-128/174, 22-23=-128/174, 21-22=-128/174, 20-21=-128/174, 19-20=-128/174, 18-19=-89/119, 17-18=-89/119, 16-17=-89/119	11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 2, 7 lb uplift at joint 16, 9 lb uplift at joint 20, 19 lb uplift at joint 21, 15 lb uplift at joint 22, 17 lb uplift at joint 23, 14 lb uplift at joint 24, 24 lb uplift at joint 25, 3 lb uplift at joint 18, 15 lb uplift at joint 17 and 6 lb uplift at joint 2.
TOP CHORD	2x4 SP No.2			
BOT CHORD	2x4 SP No.2			
WEBS	2x4 SP No.2			
OTHERS	2x4 SP No.2			
<b>BRACING</b>		<b>WEBS</b>	12-19=-130/40, 11-20=-126/58, 9-21=-119/64, 8-22=-120/60, 7-23=-120/60, 6-24=-119/59, 5-25=-116/65, 4-26=-140/39, 13-27=-128/60, 14-28=-137/92, 19-27=-79/84, 27-28=-75/79, 15-28=-73/78, 18-27=-128/60, 17-28=-136/92	12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
TOP CHORD	Structural wood sheathing directly applied, except end verticals.			
BOT CHORD	Rigid ceiling directly applied.			
WEBS	1 Row at midpt 12-19, 11-20			
JOINTS	1 Brace at Jt(s): 27, 28			

<b>REACTIONS</b>	(size)	2=23-0-0, 16=23-0-0, 17=23-0-0, 18=23-0-0, 19=23-0-0, 20=23-0-0, 21=23-0-0, 22=23-0-0, 23=23-0-0, 24=23-0-0, 25=23-0-0, 26=23-0-0	<b>NOTES</b>	
Max Horiz	2=257 (LC 11)		1) Unbalanced roof live loads have been considered for this design.	
Max Uplift	2=-6 (LC 12), 16=-7 (LC 9), 17=-15 (LC 12), 18=-3 (LC 12), 20=-9 (LC 12), 21=-19 (LC 12), 22=-15 (LC 12), 23=-17 (LC 12), 24=-14 (LC 12), 25=-24 (LC 12)		2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	
Max Grav	2=221 (LC 1), 16=86 (LC 17), 17=167 (LC 1), 18=168 (LC 24), 19=141 (LC 1), 20=166 (LC 23), 21=159 (LC 1), 22=161 (LC 1), 23=158 (LC 23), 24=161 (LC 1), 25=153 (LC 23), 26=194 (LC 1)		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.	
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension		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.	
TOP CHORD	1-2=0/45, 2-4=-238/187, 4-5=-210/159, 5-6=-166/137, 6-7=-125/115, 7-8=-105/91, 8-9=-94/102, 9-11=-108/146, 11-12=-129/184, 12-13=-129/183, 13-14=-104/143, 14-15=-104/133, 15-16=-72/67		5) All plates are 1.5x4 MT20 unless otherwise indicated.	
			6) Gable requires continuous bottom chord bearing.	
			7) Gable studs spaced at 2-0-0 oc.	
			8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
			9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.	
			10) All bearings are assumed to be SP No.2.	



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8,2025

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

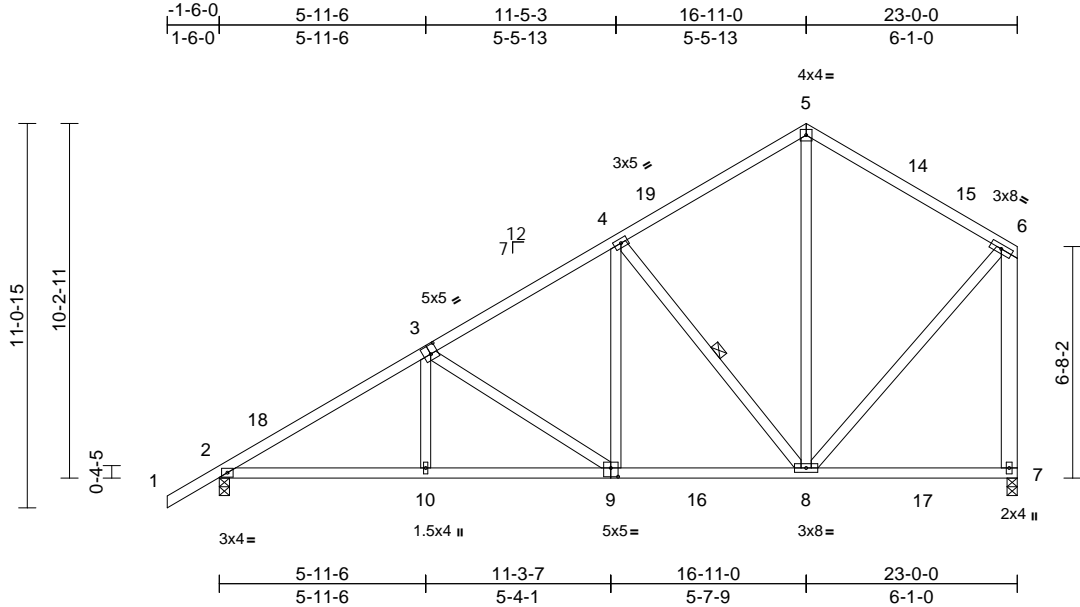


Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994836
0125-021	C02	Common	5	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:40  
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Page: 1

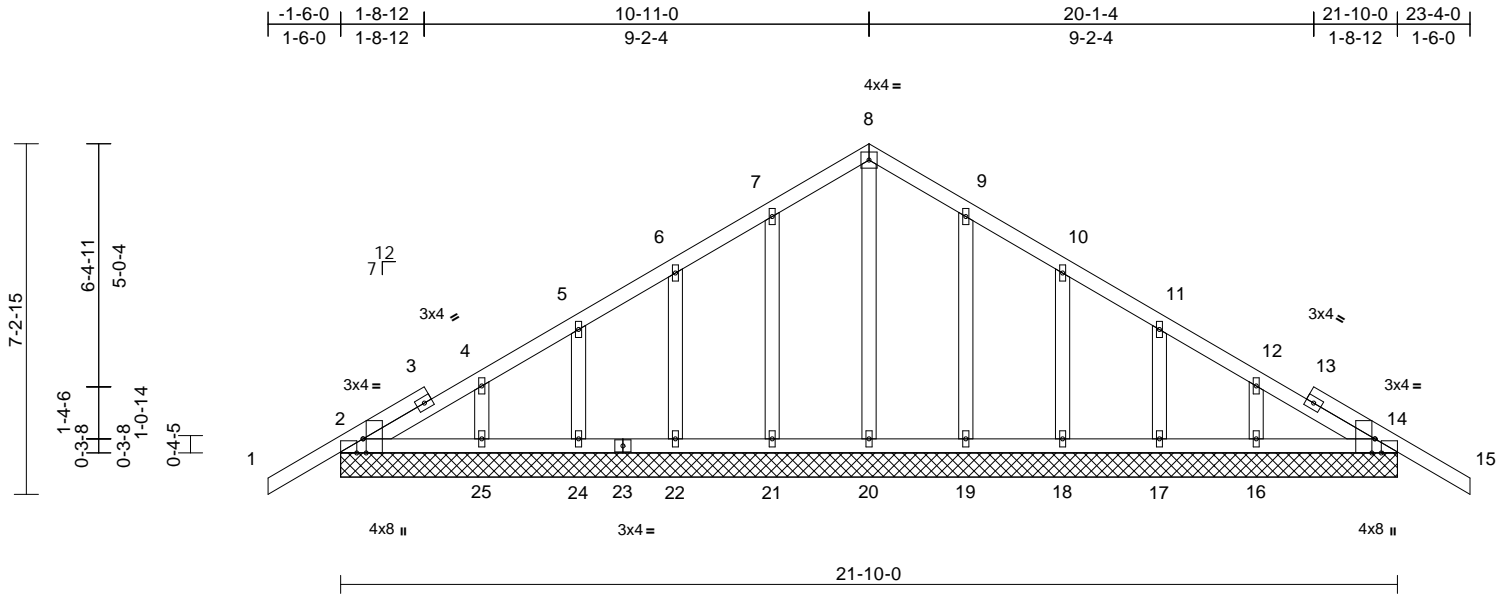


Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994837
0125-021	D01	Common Supported Gable	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:41  
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Page: 1



Scale = 1:47.6

Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-1-9,Edge], [14:0-3-8,Edge], [14:0-1-9,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	29	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							
										Weight: 123 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.

#### REACTIONS

(size)	2=21-10-0, 14=21-10-0, 16=21-10-0, 17=21-10-0, 18=21-10-0, 19=21-10-0, 20=21-10-0, 21=21-10-0, 22=21-10-0, 24=21-10-0, 25=21-10-0
Max Horiz	2=-119 (LC 10)
Max Uplift	2=-40 (LC 12), 14=-40 (LC 12), 17=-23 (LC 12), 18=-16 (LC 12), 19=-13 (LC 12), 21=-13 (LC 12), 22=-16 (LC 12), 24=-23 (LC 12)
Max Grav	2=221 (LC 1), 14=221 (LC 1), 16=194 (LC 1), 17=152 (LC 24), 18=161 (LC 1), 19=166 (LC 24), 20=144 (LC 17), 21=166 (LC 23), 22=161 (LC 1), 24=152 (LC 23), 25=194 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/45, 2-4=-75/89, 4-5=-83/73, 5-6=-72/62, 6-7=-64/103, 7-8=-85/145, 8-9=-85/145, 9-10=-61/103, 10-11=-41/58, 11-12=-47/29, 12-14=-54/48, 14-15=0/45
BOT CHORD	2-25=-45/100, 24-25=-45/100, 22-24=-45/100, 21-22=-45/100, 20-21=-45/100, 19-20=-45/100, 18-19=-45/100, 17-18=-45/100, 16-17=-45/100, 14-16=-45/100

#### WEBS

8-20=-104/12, 7-21=-127/60, 6-22=-120/66,  
5-24=-116/67, 4-25=-140/58, 9-19=-127/60,  
10-18=-120/65, 11-17=-116/67,  
12-16=-140/58

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 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 1.5x4 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2, 40 lb uplift at joint 14, 13 lb uplift at joint 21, 16 lb uplift at joint 22, 23 lb uplift at joint 24, 13 lb uplift at joint 19, 16 lb uplift at joint 18, 23 lb uplift at joint 17, 40 lb uplift at joint 2 and 40 lb uplift at joint 14.

12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

#### LOAD CASE(S)

Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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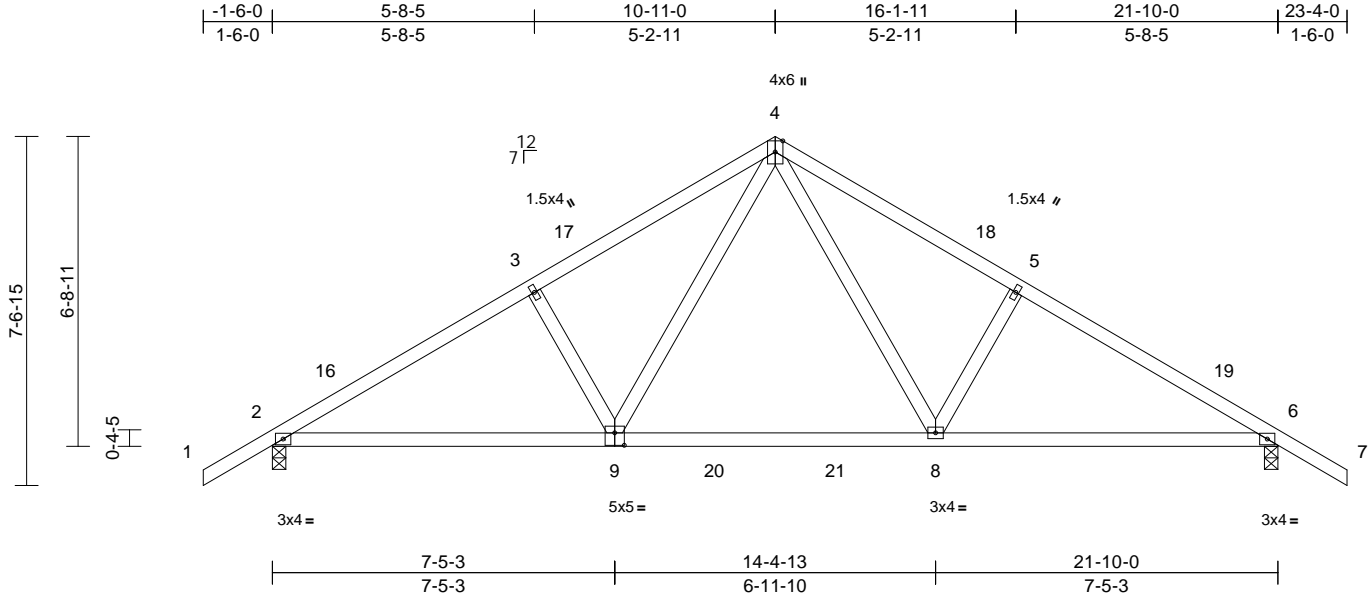
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994838
0125-021	D02	Common	5	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:41  
ID:glNrvYOJBlzRhkLKJvrmgCQzxShl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCDoi7J4zJC?f

Page: 1



Scale = 1:50  
Plate Offsets (X, Y): [9:0-2-8,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.09	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.58	Vert(CT)	-0.15	8-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 107 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS

(size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=-125 (LC 10)  
Max Uplift 2=-36 (LC 12), 6=-36 (LC 12)  
Max Grav 2=1054 (LC 17), 6=1054 (LC 18)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

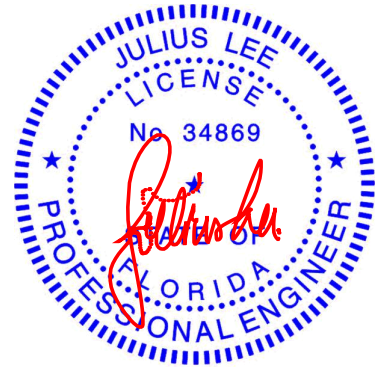
TOP CHORD 1-2=0/45, 2-3=-1468/74, 3-4=-1360/109,  
4-5=-1360/109, 5-6=-1468/74, 6-7=0/45  
BOT CHORD 2-8=0/1319, 6-8=0/1230  
WEBS 4-8=-17/640, 5-8=-317/114, 4-9=-17/640,  
3-9=-317/114

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Zone3 1-6-0 to 1-6-0,  
Zone1 1-6-0 to 10-11-0, Zone2 10-11-0 to 15-1-15,  
Zone1 15-1-15 to 23-4-0 zone; cantilever left and right  
exposed; end vertical 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  
3-06-00 tall by 2-00-00 wide will fit between the bottom  
chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 36 lb uplift at joint  
2 and 36 lb uplift at joint 6.
- This truss design requires that a minimum of 7/16"  
structural wood sheathing be applied directly to the top  
chord and 1/2" gypsum sheetrock be applied directly to  
the bottom chord.

LOAD CASE(S) Standard



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8, 2025

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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.sbcsccomponents.com)

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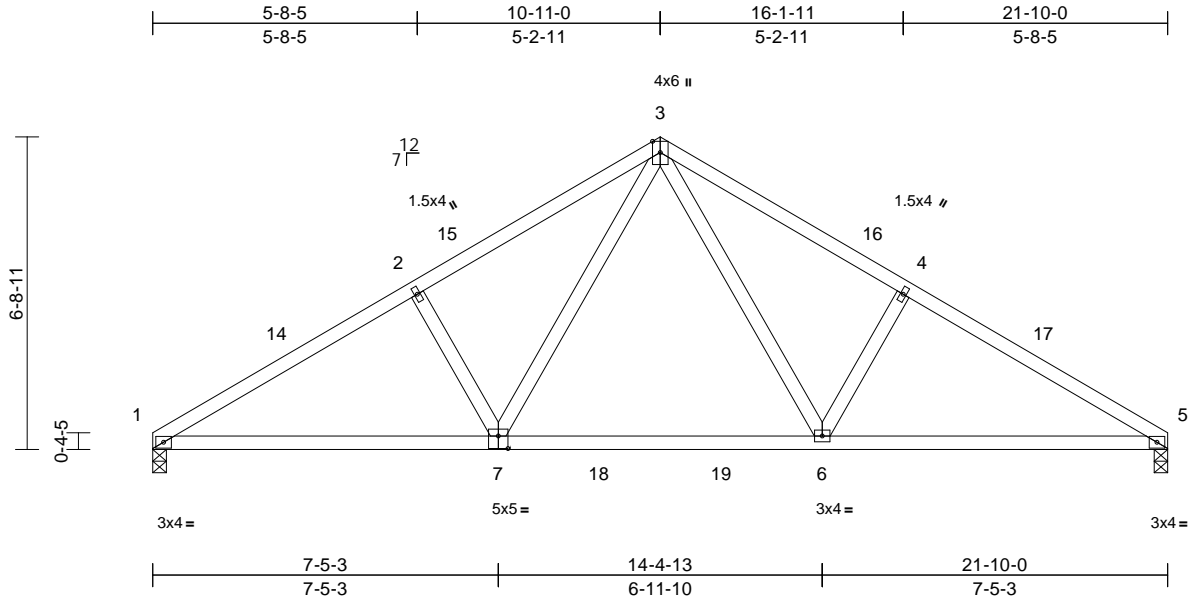
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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994839
0125-021	D03	Common	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Wed Jan 08 09:47:41  
ID:4t3\_YaRBUdL?YB4v?1KNq3zxShi-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:49.6												
Plate Offsets (X, Y): [7:0-2-8,0-3-4]												
<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 (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.09	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.17	6-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 102 lb	FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS** (size) 1=0-3-8, 5=0-3-8  
Max Horiz 1=110 (LC 11)  
Max Grav 1=973 (LC 17), 5=973 (LC 18)

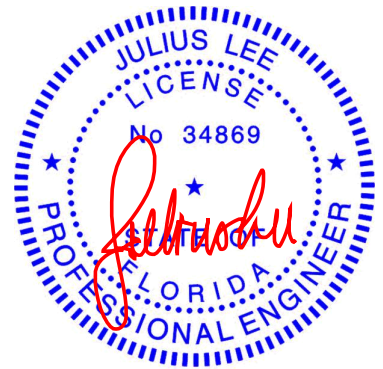
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1486/94, 2-3=-1378/129,  
3-4=-1379/129, 4-5=-1486/94  
BOT CHORD 1-6=-23/1330, 5-6=-24/1248  
WEBS 3-6=-20/654, 4-6=-327/117, 3-7=-20/654,  
2-7=-327/117

- 6) All bearings are assumed to be SP No.2 .  
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 10-11-0, Zone2 10-11-0 to 15-1-15, Zone1 15-1-15 to 21-10-0 zone; cantilever left and right exposed ; end vertical 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 8,2025

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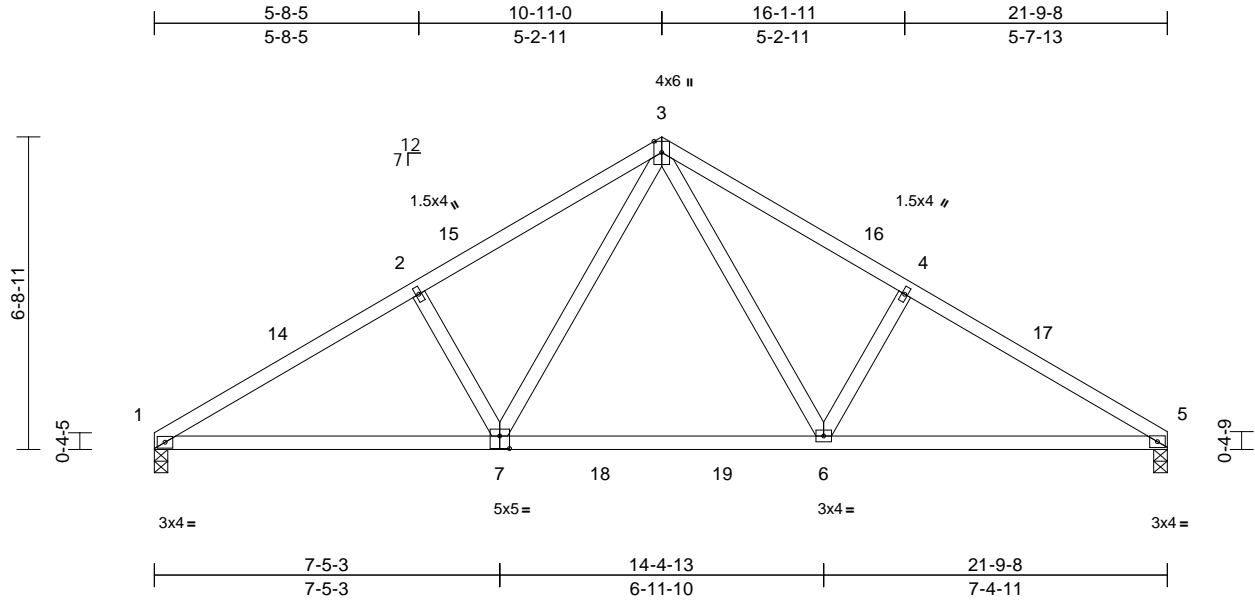


Job	Truss	Truss Type	Qty	Ply	Lunsford	T35994840
0125-021	D04	Common	5	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

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ID:VFkOt243mp8L1UCH9NI20SzxSgs-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrdOif7J4zJC?f

Page: 1



Scale = 1:49.6											
Plate Offsets (X, Y): [7:0-2-8,0-3-4]											
<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>
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.09	6-7	>999	240	<b>GRIP</b>
TCDL	10.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.17	7-10	>999	180	MT20
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.03	5	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 102 lb FT = 20%

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS** (size) 1=0-3-8, 5=0-3-8  
Max Horiz 1=-110 (LC 10)  
Max Grav 1=971 (LC 17), 5=971 (LC 18)

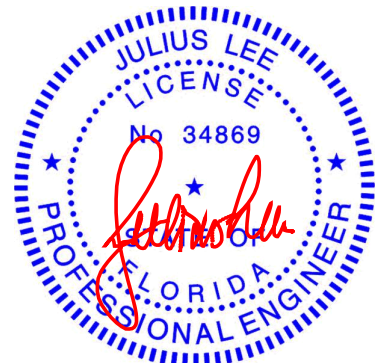
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1483/94, 2-3=-1375/129,  
3-4=-1369/129, 4-5=-1477/94  
BOT CHORD 1-6=-23/1327, 5-6=-28/1237  
WEBS 3-6=-20/644, 4-6=-323/117, 3-7=-20/655,  
2-7=-327/117

- 6) All bearings are assumed to be SP No.2 .  
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

#### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 10-11-0, Zone2 10-11-0 to 15-1-15, Zone1 15-1-15 to 21-9-8 zone; cantilever left and right exposed ; end vertical left and right 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

January 8,2025

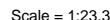
#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.2
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
<b>REACTIONS</b>	
(size)	1=5-1-7, 2=5-1-7, 4=5-1-7, 5=5-1-7, 6=5-1-7
Max Horiz	1=-25 (LC 10)
Max Uplift	1=-34 (LC 17), 2=-2 (LC 12), 4=-10 (LC 12), 5=-22 (LC 24)
Max Grav	1=7 (LC 9), 2=201 (LC 1), 4=189 (LC 1), 5=4 (LC 12), 6=88 (LC 3)
<b>FORCES</b>	
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=24/53, 2-3=-105/76, 3-4=-106/76, 4-5=-11/33
BOT CHORD	2-6=0/69, 4-6=0/69

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 10 lb uplift at joint 4, 34 lb uplift at joint 1, 22 lb uplift at joint 5, 2 lb uplift at joint 2 and 10 lb uplift at joint 4.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

## 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=6.0psf; BCDL=6.0psf; h=15ft;  
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;  
 MWFRS (directional) and C-C Zone3 zone; cantilever  
 left and right exposed ; end vertical 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) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0-0 oc.



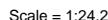
January 8, 2025



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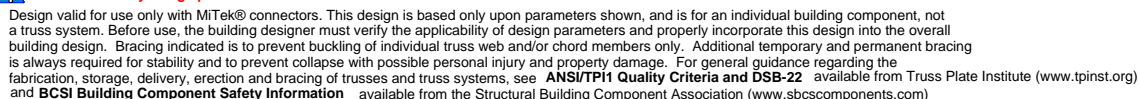


- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2, 22 lb uplift at joint 4, 22 lb uplift at joint 2 and 22 lb uplift at joint 4.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

- Julius Lee PE No. 34869  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

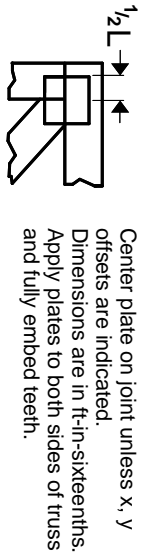
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# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

## PLATE SIZE

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

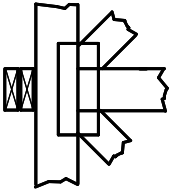
4 X 4

## LATERAL BRACING LOCATION



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

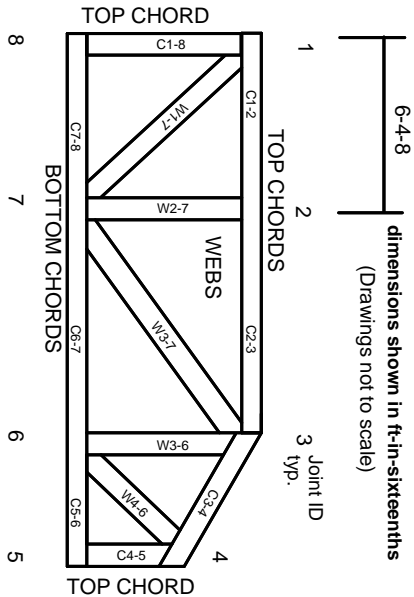
## BEARING



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

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

# Numbering System



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

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

## Product Code Approvals

ICC-ES Reports:  
ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.  
Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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