



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

73

RE: 0523-025 - Robinson

**MiTek, Inc.**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Site Information:**

Customer Info: BB Homes 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: FBC2020/TPI2014 Design Program: MiTek 20/20 8.7  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 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	T31541617	A01GE	9/12/23
2	T31541618	A02	9/12/23
3	T31541619	A03	9/12/23
4	T31541620	A04GE	9/12/23
5	T31541621	B01GE	9/12/23
6	T31541622	B02	9/12/23
7	T31541623	B03	9/12/23
8	T31541624	B04GE	9/12/23
9	T31541625	B05	9/12/23
10	T31541626	C01GE	9/12/23
11	T31541627	C02	9/12/23
12	T31541628	C03	9/12/23
13	T31541629	C04	9/12/23
14	T31541630	GIR01	9/12/23
15	T31541631	M01	9/12/23
16	T31541632	M02	9/12/23



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:

September 12, 2023

Lee, Julius

1 of 1

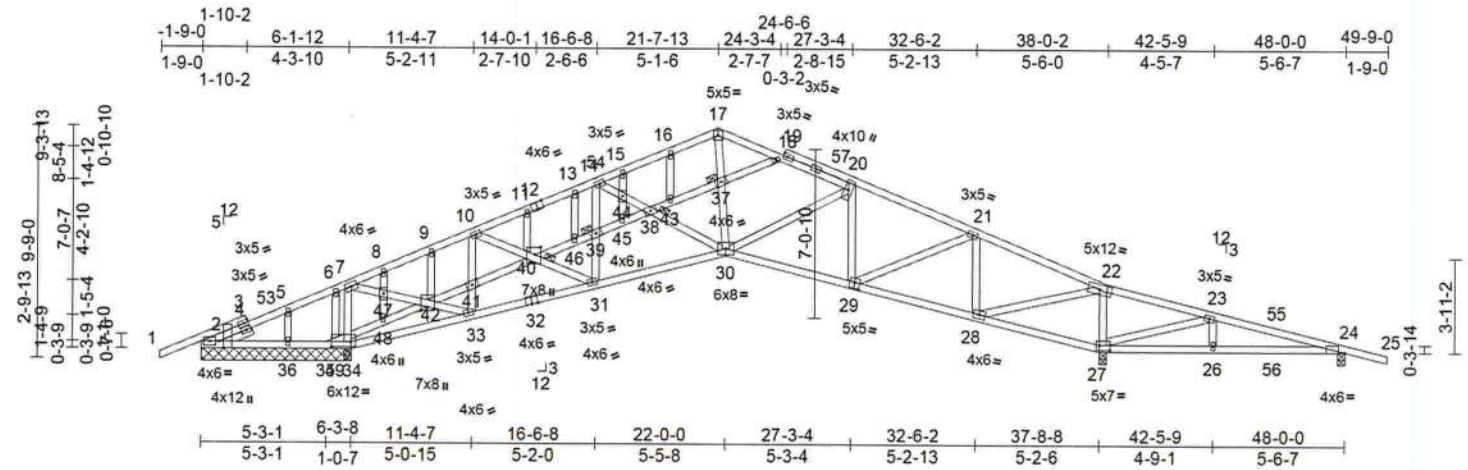


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541617
0523-025	A01GE	Roof Special Structural Gable	1	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8 720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:27  
ID:1V7MqJh7TzyTnxm4f83CHZHT-RfC?PsB70Hq3NSgPqnL8w3uTXtBzGKWrcDol7J4zJC7f

Page: 1



Scale = 1:92.7

Plate Offsets (X, Y): [2:0-3-8,Edge], [12:0-3-0,Edge], [24:0-3-4,Edge], [27:0-5-4,0-2-8], [29:0-2-8,0-3-0], [34:0-9-12,0-2-8], [40:0-3-12,0-2-13], [42:0-1-14,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	0.05	26-52	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.19	29-30	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.10	27	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 308 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  
SLIDER Left 2x4 SP No.2 -- 1-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
JOINTS 1 Brace at Jt(s): 37, 38, 39, 40

#### REACTIONS

(size) 2=6-3-8, 24=0-3-8, 27=0-3-8,  
34=6-3-8, 35=6-3-8, 36=6-3-8  
Max Horiz 2=-156 (LC 10)  
Max Uplift 2=-315 (LC 3), 24=-127 (LC 12),  
27=-99 (LC 12), 35=-23 (LC 12)  
Max Grav 2=-67 (LC 9), 24=273 (LC 22),  
27=1944 (LC 1), 34=1835 (LC 1),  
35=93 (LC 1), 36=260 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-5=-717/1383, 5-6=-44/1392,  
6-7=-25/1311, 7-8=-476/24, 8-9=-537/48,  
9-10=-499/70, 10-11=-1234/60,  
11-13=-1253/89, 13-14=-1201/91,  
14-15=-1288/39, 15-16=-1288/63,  
16-17=-1270/90, 22-23=-264/1153,  
23-24=-7/414, 24-25=0/25, 17-18=-1346/90,  
18-20=-1596/119, 20-21=-1519/88,  
21-22=-856/1  
BOT CHORD 2-36=-1265/105, 35-36=-1258/104,  
34-35=-743/58, 26-27=-363/0, 24-26=-363/0,  
33-34=-477/0, 31-33=-35/942, 30-31=0/1508,  
28-30=0/1430, 27-28=-1295/361

#### WEBS

7-34=-914/48, 17-37=0/812, 30-37=0/790,  
22-27=-1306/173, 23-27=-833/648,  
23-26=-225/218, 20-30=-45/175,  
20-29=-322/90, 21-29=-43/680,  
21-28=-835/163, 22-28=-191/2027,  
14-44=-61/135, 38-44=-78/134,  
30-38=-187/148, 33-41=-773/61,  
10-41=-649/29, 7-47=-27/1798,  
42-47=-26/1770, 33-42=0/1456, 10-40=0/715,  
31-40=0/607, 31-39=-284/33, 14-39=-220/11,  
18-37=-264/92, 38-43=-279/96,  
37-43=-254/85, 39-45=-363/123,  
38-45=-345/119, 40-46=-336/110,  
39-46=-339/112, 40-41=-527/134,  
41-42=-485/114, 34-48=-1038/165,  
42-48=-976/148, 35-49=-532/57,  
34-49=-522/54, 16-43=-83/44, 15-44=-83/39,  
44-45=-48/21, 13-46=-9/22, 11-40=-172/55,  
9-42=-31/37, 8-47=-279/38, 47-48=-121/34,  
6-49=-240/37, 5-36=-100/41

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=48ft; eave=6ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) -1-9-0 to  
3-0-10, Interior (1) 3-0-10 to 21-7-13, Exterior(2R)  
21-7-13 to 26-5-7, Interior (1) 26-5-7 to 49-9-0 zone;  
cantilever left and right exposed ; end vertical left and  
right exposed; porch 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 2x4 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 315 lb uplift at joint 2, 99 lb uplift at joint 27, 127 lb uplift at joint 24 and 23 lb uplift at joint 35.
- 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.



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

September 12, 2023

Continued on page 3

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITK 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.tpinstitute.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	Truss	Truss Type	Qty	Ply	Robinson	T31541617
0523-025	A01GE	Roof Special Structural Gable	1	1	Job Reference (optional)	

- 11) 2 X 4 notch at 20000 o.c. is allowed along the stacked top chord. No notches allowed in overhang and 10900 from left end and 10900 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



**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](http://MiTek-US.com)

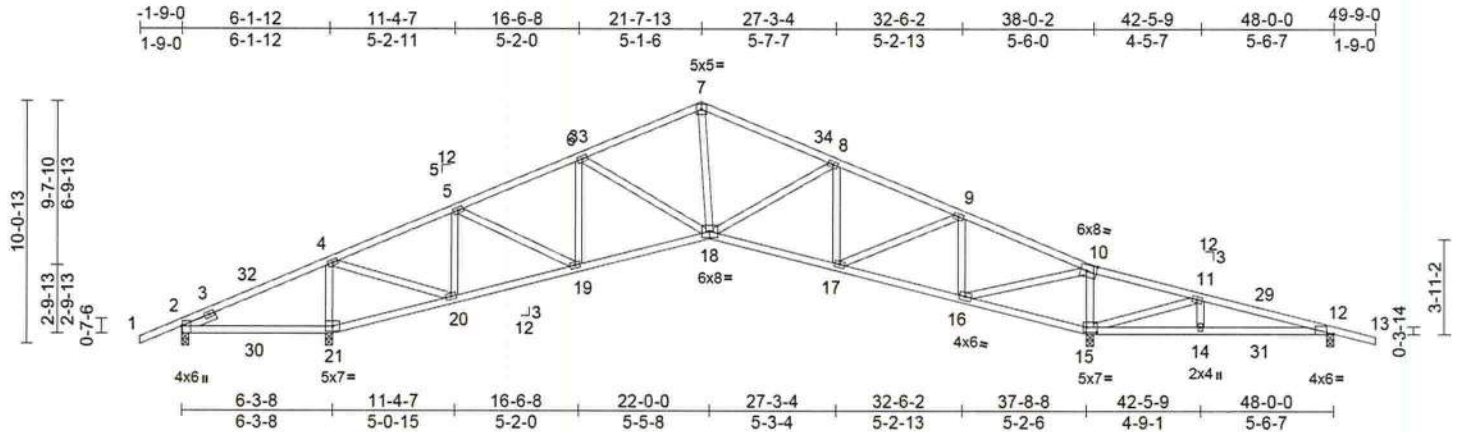


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541618
0523-025	A02	Roof Special	7	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:92.1

Plate Offsets (X, Y): [2:0-3-8,Edge], [10:0-5-0,0-3-0], [12:0-3-4,Edge], [15:0-5-4,0-2-8]

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	0.54	Vert(LL)	0.08	21-24	>890	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.20	17-18	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.11	15	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 253 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 12=0-3-8, 15=0-3-8,  
21=0-3-8  
Max Horiz 2=162 (LC 10)  
Max Uplift 2=144 (LC 12), 12=125 (LC 12),  
15=107 (LC 12)  
Max Grav 2=115 (LC 21), 12=267 (LC 22),  
15=1992 (LC 1), 21=1806 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 10-11=289/1187, 11-12=0/442, 12-13=0/25,  
1-2=0/40, 2-4=66/764, 4-5=978/237,  
5-6=1552/232, 6-7=1512/173,  
7-8=1577/175, 8-9=1584/129, 9-10=889/1  
BOT CHORD 2-21=638/14, 14-15=390/0, 12-14=390/0,  
20-21=735/0, 19-20=87/777,  
18-19=21/1435, 17-18=0/1462, 16-17=0/802,  
15-16=1333/388  
WEBS 4-21=1477/112, 7-18=11/832,  
10-15=1346/192, 11-15=832/648,  
11-14=225/219, 8-18=146/128,  
8-17=321/107, 9-17=73/696,  
9-16=865/180, 10-16=225/2095,  
6-18=187/155, 5-20=763/44, 4-20=0/1590,  
5-19=0/602, 6-19=281/14

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=48ft; eave=6ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) -1-9-0 to  
3-0-10, Interior (1) 3-0-10 to 21-7-13, Exterior(2R)  
21-7-13 to 26-5-7, Interior (1) 26-5-7 to 49-9-0 zone;  
cantilever left and right exposed ; end vertical left and  
right exposed; 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.
- All plates are 3x5 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  
3-06-00 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 144 lb uplift at joint  
2, 107 lb uplift at joint 15 and 125 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.

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:

September 12, 2023

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK 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)

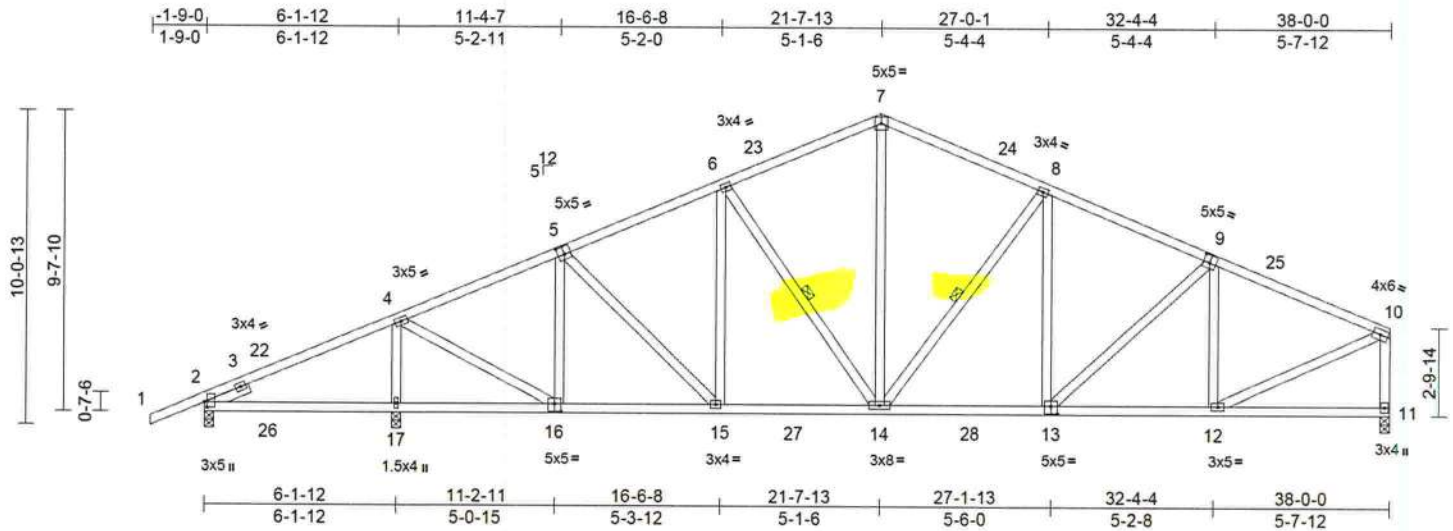
**MiTek®**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job 0523-025	Truss A03	Truss Type Common	Qty 6	Ply 1	Robinson	T31541619
Job Reference (optional)						

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:30  
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Page: 1



Scale = 1:70.9

Plate Offsets (X, Y): [2:0-2-1,0-1-0], [5:0-2-8,0-3-0], [9:0-2-8,0-3-0], [13:0-2-8,0-3-0], [16:0-2-8,0-3-0]

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	0.39	Vert(LL)	0.06	17-20	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.15	13-14	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.04	11	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 241 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 - 1-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-14, 6-14

#### REACTIONS

(size) 2=0-3-8, 11=0-3-8, 17=0-3-8  
Max Horiz 2=196 (LC 11)  
Max Uplift 2=-122 (LC 12), 11=-4 (LC 12), 17=-22 (LC 12)  
Max Grav 2=290 (LC 21), 11=1393 (LC 18), 17=1838 (LC 17)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-4=-139/322, 4-6=-1469/170, 6-7=-1326/185, 7-8=-1318/175, 8-10=-1596/146, 10-11=-1299/91  
BOT CHORD 2-17=-293/89, 15-17=-293/1180, 14-15=-94/1381, 12-14=-82/1418, 11-12=-33/67  
WEBS 7-14=-39/723, 8-14=-449/62, 10-12=-53/1393, 4-17=-1634/41, 8-13=0/186, 9-13=-5/148, 9-12=-431/93, 6-14=-321/78, 5-16=-566/39, 4-16=0/1479, 5-15=0/323, 6-15=-70/84

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) -1-9-0 to 2-0-10, Interior (1) 2-0-10 to 21-7-13, Exterior(2R) 21-7-13 to 25-5-7, Interior (1) 25-5-7 to 37-10-4 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
- 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 2, 4 lb uplift at joint 11 and 22 lb uplift at joint 17.
- 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



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

September 12, 2023

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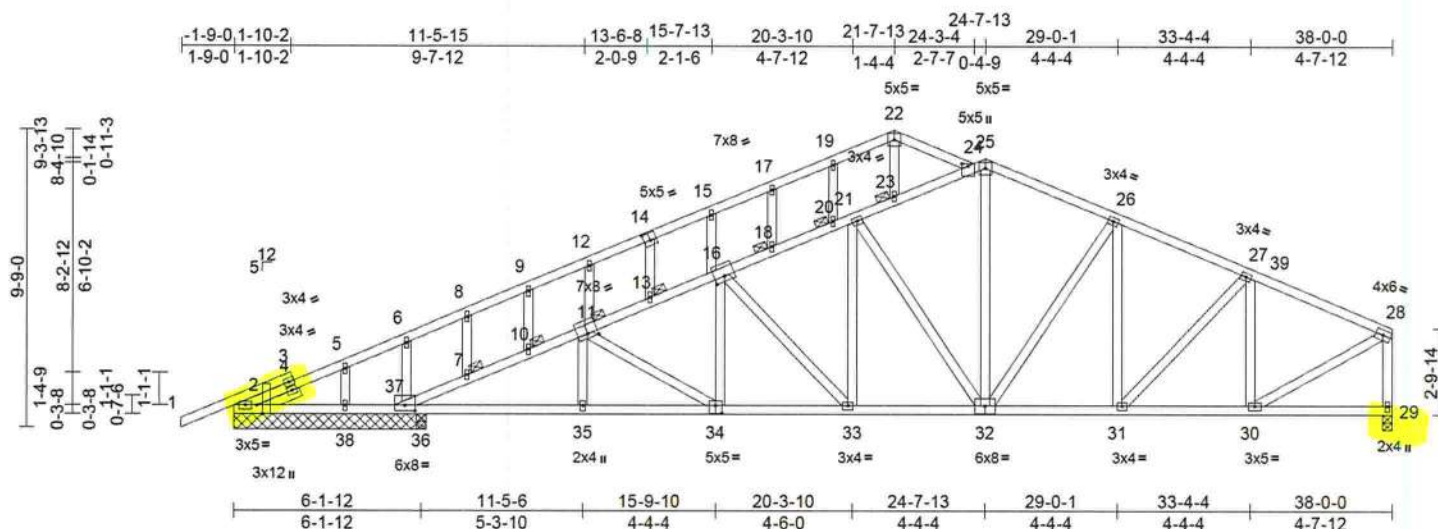


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541620
0523-025	A04GE	Common Structural Gable	1	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:30  
ID: X29S87i4WJhoTHV1pRi\_XziHpl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDol7J4zJC7f

Page: 1



Scale = 1:72.5

Plate Offsets (X, Y): [2:0-3-8,Edge], [11:0-4-0,0-1-12], [14:0-2-8,0-3-0], [16:0-4-0,0-2-0], [24:0-0-15,0-2-8], [34:0-2-8,0-3-0], [37:0-4-0,0-2-4]

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	0.43	Vert(LL)	-0.10	34-35	>999	240	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.76	Vert(CT)	-0.20	33-34	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	29	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
Weight: 287 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  
SLIDER Left 2x4 SP No.2 -- 1-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 23, 20, 18, 13, 10, 7, 11

REACTIONS (size) 2=6-3-8, 29=0-3-8, 36=0-3-8, 37=6-3-8, 38=6-3-8  
Max Horiz 2=193 (LC 11)  
Max Uplift 2=30 (LC 12), 37=134 (LC 12)  
Max Grav 2=619 (LC 1), 29=1319 (LC 1), 36=598 (LC 1), 37=549 (LC 1), 38=101 (LC 3)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/39, 2-5=-671/263, 5-6=-630/0, 6-8=-667/0, 8-9=-674/0, 9-12=-643/0, 12-15=-671/32, 15-17=-652/54, 17-19=-629/69, 19-22=-605/91, 22-29=-1274/52, 7-37=-1785/115, 7-10=-1727/106, 10-13=-1707/99, 13-16=-1442/75, 16-18=-1071/61, 18-20=-1043/54, 20-21=-1025/42, 21-23=-751/50, 23-24=-838/57, 24-25=-1250/95, 25-26=-1464/109, 26-27=-1547/89, 27-28=-1324/63, 22-24=-618/87, 11-35=0/159

BOT CHORD 2-38=0/587, 37-38=0/582, 36-37=-59/2168, 35-36=-59/2168, 33-35=-61/2178, 31-33=-29/1524, 30-31=-47/1179, 29-30=-30/48  
WEBS 22-23=-17/225, 19-20=-62/36, 17-18=-72/17, 15-16=-212/54, 13-14=-57/16, 11-12=-170/58, 9-10=-55/20, 7-8=-136/22, 6-7=-197/68, 5-38=-60/19, 25-32=0/524, 26-32=-234/47, 26-31=-122/32, 27-31=0/288, 27-30=-571/69, 28-30=-19/1329, 21-33=0/502, 16-34=0/289, 21-32=-425/6, 16-33=-583/43, 11-34=-306/29

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-9-0 to 2-0-10, Interior (1) 2-0-10 to 24-7-13, Exterior(2E) 21-7-13 to 24-3-4, Interior (1) 24-7-13 to 37-10-4 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2 and 134 lb uplift at joint 37.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 2 X 4 notch at 20000 o.c. is allowed along the stacked top chord. No notches allowed in overhang and 10900 from left end and 0 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:

September 12, 2023

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

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



Page: 1

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	0.48	Vert(LL)	-0.08	32-33	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.14	32-33	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.01	30	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 299 lb	FT = 20%

TOP CHORD 1-2=0/39, 2-4=-45/136, 4-6=-25/144,  
6-7=-12/180, 7-8=-1104/0, 8-9=-1058/0,  
9-10=-1008/0, 10-12=-784/0, 12-13=-701/18,  
20-21=0/110, 21-22=0/124, 22-24=-14/65,  
24-25=0/25, 13-14=-694/19, 14-15=-726/0,  
15-16=-787/0, 16-17=0/185, 17-18=0/149,  
18-19=0/148, 19-20=0/141

BOT CHORD 2-41=-102/29, 40-41=-99/28, 39-40=-99/28,  
38-39=-99/28, 37-38=-99/28, 35-37=0/960,  
34-35=0/960, 33-34=-126/66, 32-33=-126/66,  
31-32=-126/66, 30-31=-126/66,  
28-30=-97/42, 27-28=-97/42, 26-27=-46/3,  
24-26=-46/13

WEBS 7-39=-1222/0, 7-45=0/1144, 44-45=0/1122,  
37-44=0/1130, 10-37=-18/51, 10-43=-422/0,  
42-43=-436/0, 34-42=-456/0, 13-34=-2/234,  
34-46=0/955, 46-47=0/942, 47-48=0/1017,  
16-48=0/909, 16-30=-1155/0, 30-49=-58/27,  
49-50=-63/23, 50-51=-59/25, 20-51=-63/25,  
20-27=-77/35, 27-52=-126/55, 22-52=-79/40,  
22-26=-276/35, 12-42=-39/53, 35-42=-22/55,  
11-43=0/50, 36-43=0/63, 9-44=0/32,  
8-45=-28/77, 38-45=0/107, 6-40=8/55,  
4-41=-82/12, 14-46=31/49, 33-46=-49/45,  
15-47=-13/67, 32-47=0/133, 31-48=-183/0,  
17-49=0/27, 18-50=-120/50, 29-50=-105/65,  
19-51=-91/20, 28-51=-98/19, 21-52=-96/33

- 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 1.5x4 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 3-06-00 tall by 2-00-00 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 108 lb uplift at joint 2, 7 lb uplift at joint 27, 116 lb uplift at joint 40, 59 lb uplift at joint 29, 7 lb uplift at joint 28, 57 lb uplift at joint 24 and 57 lb uplift at joint 24.
- 10) "NAIL" indicates 3-10d @ .48"x3" or 3-12d @ .048"x3.25" See-nails per NDS Guidelines.



Continued on page 3

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314.434.1200 / MITek-US.com

Job	Truss	Truss Type	Qty	Ply	Robinson	T31541621
0523-025	B01GE	Roof Special Girder	1	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:31  
ID:eBpE1NqvTBc0qbnfpi9q3MziHqt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

11) 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 (lb/ft)  
Vert: 2-53=-20, 1-13=-60, 20-25=-60, 13-20=-60  
Concentrated Loads (lb)  
Vert: 56=-110 (B), 57=-110 (B), 58=-110 (B), 59=-110 (B), 60=-110 (B), 61=-110 (B), 62=-110 (B), 63=-110 (B), 64=-110 (B)

**⚠ 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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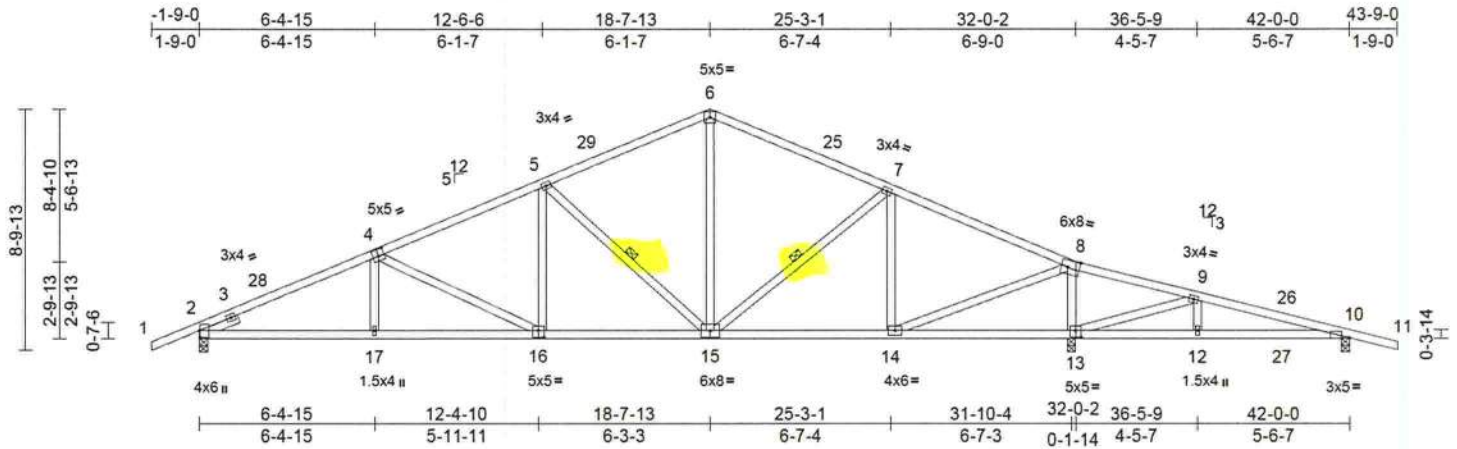


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541622
0523-025	B02	Roof Special	6	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:32  
ID: kITbK3LG0JihcXucv3v01zll\_X-RIC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDor7J4zJC7f

Page: 1



Scale = 1:80.7

Plate Offsets (X, Y): [2:0-3-1,0-0-4], [4:0-2-8,0-3-0], [8:0-5-4,0-3-0], [10:0-3-4,Edge], [13:0-2-8,0-3-0], [16:0-2-8,0-3-0]

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	0.57	Vert(LL)	-0.12	16-17	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	-0.25	16-17	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.06	13	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 224 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-15, 7-15

#### REACTIONS

(size) 2=0-3-8, 10=0-3-8, 13=0-3-8  
Max Horiz 2=135 (LC 10)  
Max Uplift 2=40 (LC 12), 10=120 (LC 12),  
13=98 (LC 12)  
Max Grav 2=1321 (LC 1), 10=340 (LC 22),  
13=1952 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 6-7=-1272/187, 7-8=-1172/83, 8-9=-257/826,  
9-10=-132/329, 10-11=0/25, 1-2=0/40,  
2-5=-2300/189, 5-6=-1264/183  
BOT CHORD 2-17=-90/2057, 14-17=-92/2055,  
12-14=-769/313, 10-12=-280/111  
WEBS 8-13=-1604/265, 9-13=-752/622,  
6-15=-3/568, 5-15=-761/126, 4-17=0/206,  
4-16=-460/76, 5-16=0/409, 9-12=-223/187,  
8-14=-259/1906, 7-14=-536/183,  
7-15=-54/217

#### NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) -1-9-0 to  
2-5-6, Interior (1) 2-5-6 to 18-7-13, Exterior(2R) 18-7-13  
to 22-10-4, Interior (1) 22-10-4 to 43-9-0 zone; cantilever  
left and right exposed; end vertical left and right  
exposed; porch 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.
- 6) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 40 lb uplift at joint  
2, 98 lb uplift at joint 13 and 120 lb uplift at joint 10.
- 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



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

September 12, 2023



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Page: 1

Plate Offsets (X, Y): [2:0-1-15:0-4-1], [5:0-2-8:0-3-0], [10:0-5-8:0-3-0], [12:0-3-4:Edge], [15:0-5-4:0-2-12], [16:0-3-8:0-3-0], [19:0-2-4:0-3-0]

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	0.67	Vert(LL)	-0.31	19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.90	Vert(CT)	-0.62	18-19	>615	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.36	15	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 219 lb	FT = 20%

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCDEL=6.0psf; BCDEL=6.0psf; h=15ft;  
B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) -1-9-0 to  
2-5-6, Interior (1) 2-5-6 to 18-7-13, Exterior(2R) 18-7-13  
to 22-10-4, Interior (1) 22-10-4 to 43-9-0 zone; cantilever  
left and right exposed ; end vertical left and right  
exposed; porch 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.
- 6) Bearing at joint(s) 2 considers parallel to grain value  
using ANSI/TP1 1 angle to grain formula. Building  
designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 84 lb uplift at joint  
15, 201 lb uplift at joint 12 and 43 lb uplift at joint 2.
- 8) 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:

September 12, 2023



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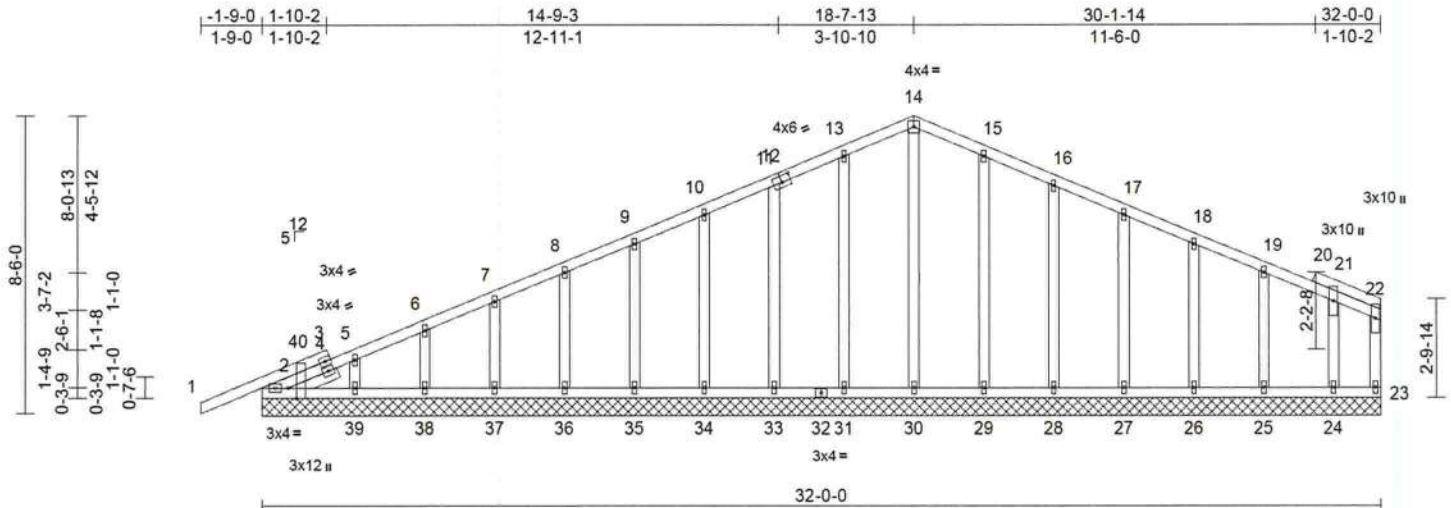


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541624
0523-025	B04GE	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:33  
ID:HyUr2MSiCiyeb190yg\_7ziHrU-RC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDol7J4zJC?f

Page: 1



Scale = 1:63.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	23	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 211 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  
SLIDER Left 2x4 SP No.2 -- 1-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=32-0-0, 23=32-0-0, 24=32-0-0, 25=32-0-0, 26=32-0-0, 27=32-0-0, 28=32-0-0, 29=32-0-0, 30=32-0-0, 31=32-0-0, 33=32-0-0, 34=32-0-0, 35=32-0-0, 36=32-0-0, 37=32-0-0, 38=32-0-0, 39=32-0-0

Max Horiz 2=163 (LC 11)

Max Uplift 2=-89 (LC 12), 24=-22 (LC 12), 25=-7 (LC 12), 26=-9 (LC 12), 27=-8 (LC 12), 28=-11 (LC 12), 29=-3 (LC 12), 31=-3 (LC 12), 33=-11 (LC 12), 34=-8 (LC 12), 35=-8 (LC 12), 36=-9 (LC 12), 37=-6 (LC 12), 38=-16 (LC 12)

Max Grav 2=311 (LC 1), 23=33 (LC 17), 24=148 (LC 18), 25=161 (LC 1), 26=160 (LC 22), 27=160 (LC 22), 28=159 (LC 1), 29=167 (LC 22), 30=160 (LC 17), 31=167 (LC 21), 33=159 (LC 1), 34=160 (LC 21), 35=160 (LC 1), 36=161 (LC 21), 37=157 (LC 1), 38=173 (LC 21), 39=100 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-5=-139/106, 5-6=-131/109, 6-7=-124/101, 7-8=-116/95, 8-9=-109/110, 9-10=-101/142, 10-11=-93/173, 11-13=-100/206, 13-14=-110/235, 14-15=-110/235, 15-16=-100/206, 16-17=-88/173, 17-18=-78/142, 18-19=-67/110, 19-21=-49/78, 21-22=-43/54, 22-23=-29/26  
BOT CHORD 2-39=-40/56, 38-39=-38/55, 37-38=-38/55, 36-37=-38/55, 35-36=-38/55, 34-35=-38/55, 33-34=-38/55, 31-33=-38/55, 30-31=-38/55, 29-30=-38/55, 28-29=-38/55, 27-28=-38/55, 26-27=-38/55, 25-26=-38/55, 24-25=-38/55, 23-24=-38/55  
WEBS 14-30=-122/13, 13-31=-127/53, 11-33=-119/62, 10-34=-120/58, 9-35=-120/58, 8-36=-121/59, 7-37=-117/57, 6-38=-131/69, 5-39=-62/24, 15-29=-127/53, 16-28=-119/62, 17-27=-120/58, 18-26=-120/58, 19-25=-119/74, 21-24=-112/104

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=32ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-9-0 to 1-5-6, Exterior(2N) 1-5-6 to 18-7-13, Corner(3R) 18-7-13 to 21-10-4, Exterior(2N) 21-10-4 to 31-10-4 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 2, 3 lb uplift at joint 31, 11 lb uplift at joint 33, 8 lb uplift at joint 34, 8 lb uplift at joint 35, 9 lb uplift at joint 36, 6 lb uplift at joint 37, 16 lb uplift at joint 38, 3 lb uplift at joint 29, 11 lb uplift at joint 28, 8 lb uplift at joint 27, 9 lb uplift at joint 26, 7 lb uplift at joint 25, 12 lb uplift at joint 24.



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

September 12, 2023

Continued on page 3

**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 on 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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Job	Truss	Truss Type	Qty	Ply	Robinson	T31541624
0523-025	B04GE	Common Supported Gable	1	1	Job Reference (optional)	

- 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.
- LOAD CASE(S)** Standard



**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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Page: 1

Plate Offsets (X, Y): [2:Edge.0-1-9], [4:0-2-8.0-3-0], [12:0-2-8.0-3-0]

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)	-0.12	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.75	Vert(CT)	-0.26	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 182 lb	FT = 20%

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;  
B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Enclosed;  
MWFRS (directional) and C-C Exterior(2E) 1-9-0 to 1-5-6, Interior (1) 1-5-6 to 18-7-13, Exterior(2R) 18-7-13 to 21-10-4, Interior (1) 21-10-4 to 31-10-4 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

- 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 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



September 12, 2023



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

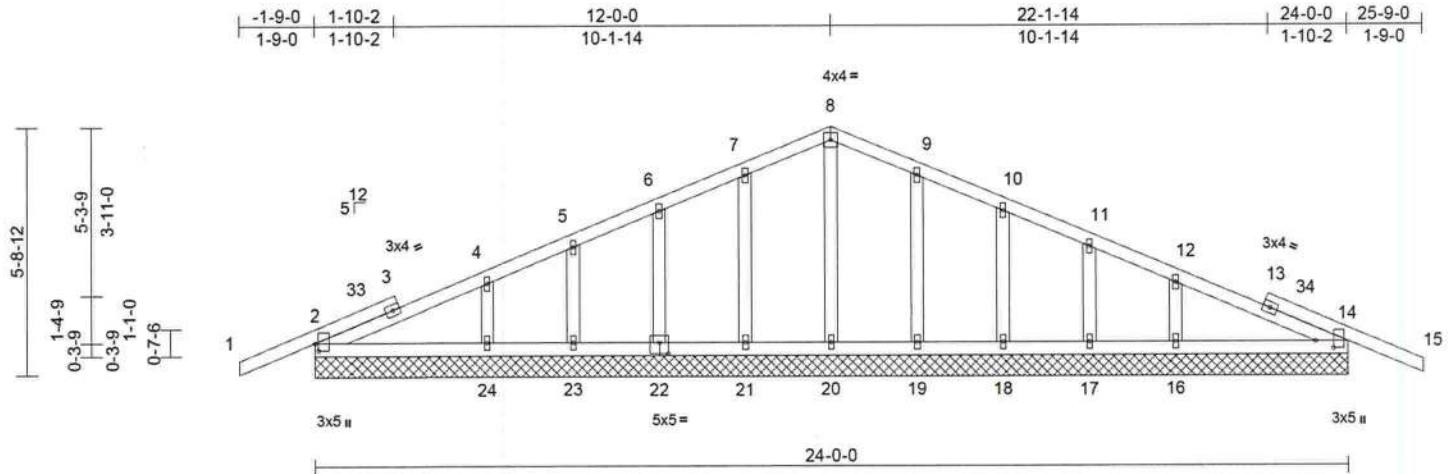
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Robinson	T31541626
0523-025	C01GE	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:34  
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Page: 1



Scale = 1:51.4

Plate Offsets (X, Y): [2:0-2-0,0-1-0], [14:0-2-0,0-5-0], [22:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	14	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
Weight: 125 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 or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 2=24-0-0, 14=24-0-0, 16=24-0-0, 17=24-0-0, 18=24-0-0, 19=24-0-0, 20=24-0-0, 21=24-0-0, 22=24-0-0, 23=24-0-0, 24=24-0-0, 25=24-0-0, 29=24-0-0  
Max Horiz 2=-77 (LC 10), 25=-77 (LC 10)  
Max Uplift 2=45 (LC 12), 14=45 (LC 12), 17=-13 (LC 12), 18=-7 (LC 12), 19=-9 (LC 12), 21=-9 (LC 12), 22=-7 (LC 12), 23=-13 (LC 12), 25=45 (LC 12), 29=45 (LC 12)  
Max Grav 2=270 (LC 21), 14=270 (LC 22), 16=271 (LC 1), 17=118 (LC 22), 18=169 (LC 1), 19=167 (LC 22), 20=149 (LC 1), 21=167 (LC 21), 22=169 (LC 1), 23=118 (LC 21), 24=271 (LC 1), 25=270 (LC 21), 29=270 (LC 22)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-4=-72/68, 4-5=-57/36, 5-6=-44/60, 6-7=-52/92, 7-8=-64/124, 8-9=-64/124, 9-10=-52/92, 10-11=-39/60, 11-12=-36/30, 12-14=-51/45, 14-15=0/40  
2-24=-10/88, 23-24=-10/88, 21-23=-10/88, 20-21=-10/88, 19-20=-10/88, 18-19=-10/88, 17-18=-10/88, 16-17=-10/88, 14-16=-10/88

#### WEBS

8-20=-108/0, 7-21=-128/58, 6-22=-125/61, 5-23=-93/53, 4-24=-196/83, 9-19=-128/58, 10-18=-125/61, 11-17=-93/53, 12-16=-196/83

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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 Corner(3E) -1-9-0 to 1-3-0, Exterior(2N) 1-3-0 to 12-0-0, Corner(3R) 12-0-0 to 15-0-0, Exterior(2N) 15-0-0 to 25-9-0 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2, 45 lb uplift at joint 14, 9 lb uplift at joint 21, 7 lb uplift at joint 22, 13 lb uplift at joint 23, 9 lb uplift at joint 19, 7 lb uplift at joint 18, 13 lb uplift at joint 17, 45 lb uplift at joint 2 and 45 lb uplift at joint 14.

11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 14, 29.

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:

September 12, 2023

#### WARNING - Verify design parameters and READ NOTES on THIS AND INCLUDED MITTEK 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.tpinet.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

**MiTek®**

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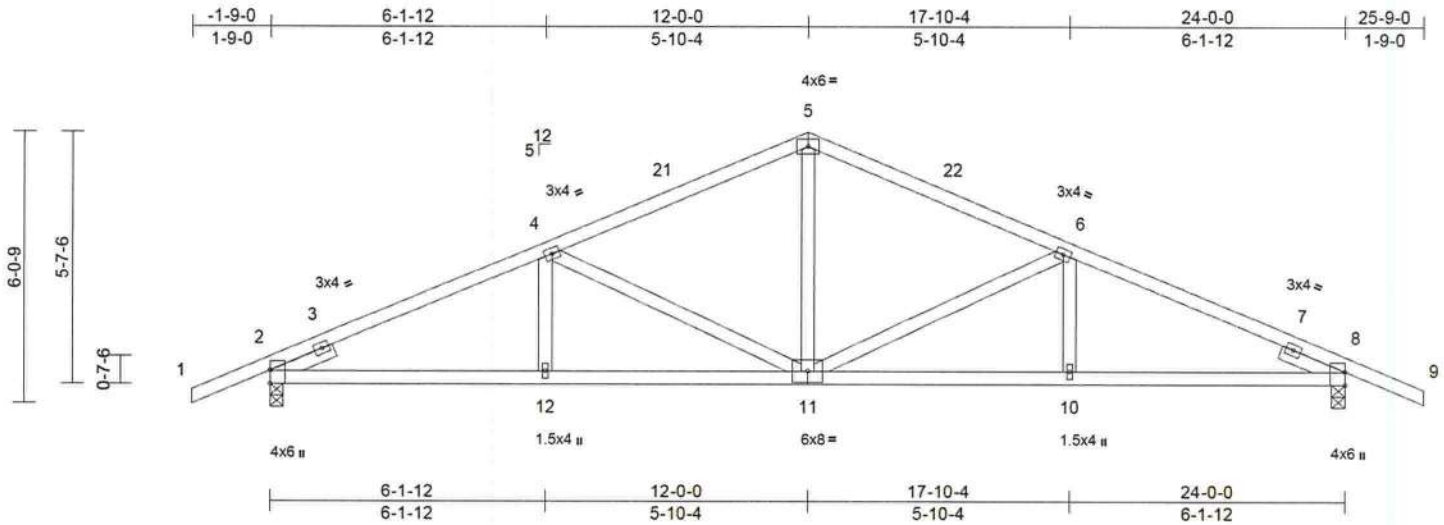


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541627
0523-025	C02	Common	6	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:34  
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Page: 1



Scale = 1/49.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.37	Vert(LL)	-0.08	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.17	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS								
											Weight: 118 lb	FT = 20%

#### LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

#### BRACING

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

#### REACTIONS

(size)	2=0-3-8, 8=0-3-8
Max Horiz	2=81 (LC 11)
Max Uplift	2=-155 (LC 12), 8=-155 (LC 12)
Max Grav	2=1065 (LC 1), 8=1065 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/40, 2-4=-1728/330, 4-5=-1267/293, 5-6=-1267/293, 6-8=-1728/330, 8-9=0/40
BOT CHORD	2-12=-212/1547, 10-12=-224/1547, 8-10=-224/1539
WEBS	4-12=0/207, 4-11=-522/149, 5-11=-53/572, 6-11=-523/149, 6-10=0/207

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Partially Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-9-0 to 1-3-0, Interior (1) 1-3-0 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior (1) 15-0-0 to 25-9-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 155 lb uplift at joint 2 and 155 lb uplift at joint 8.
- 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:

September 12, 2023

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK 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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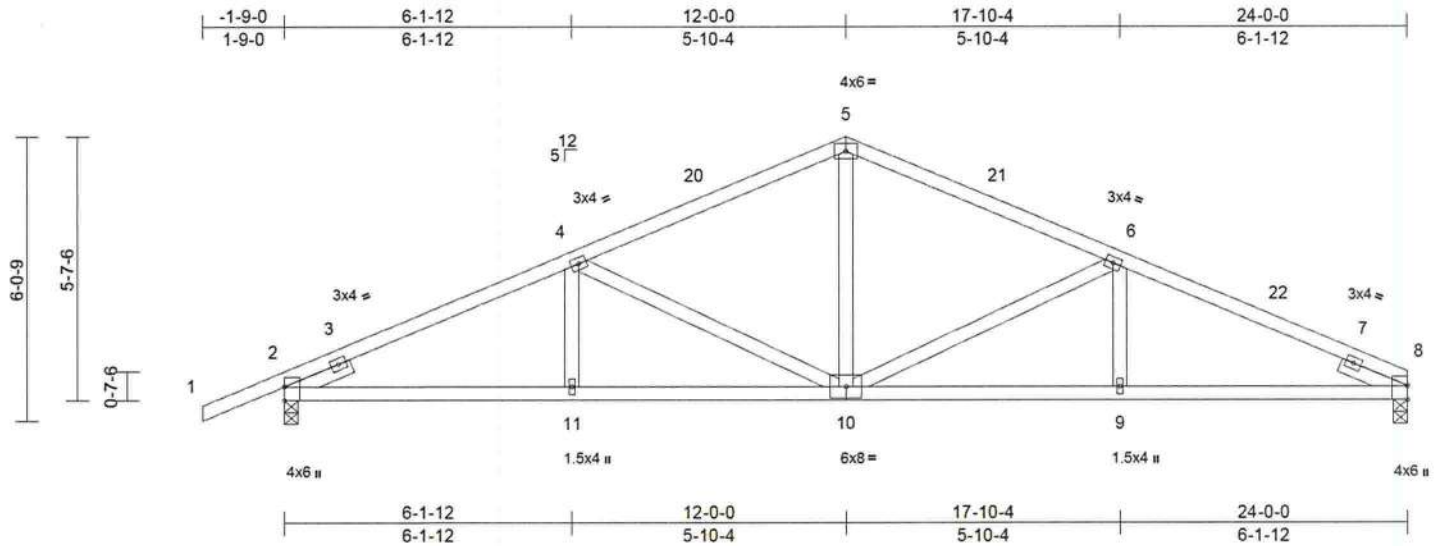
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Robinson	T31541628
0523-025	C03	Common	2	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:35  
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Page: 1



Scale = 1:47.2

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

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	0.38	Vert(LL)	-0.08	10-11	>999	240	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.17	10-11	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05	8	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
Weight: 116 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

#### BRACING

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

#### REACTIONS

(size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=80 (LC 11)  
Max Uplift 2=-157 (LC 12), 8=-111 (LC 12)  
Max Grav 2=1069 (LC 1), 8=956 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/40, 2-4=-1737/337, 4-5=-1276/294, 5-6=-1277/300, 6-8=-1759/344  
BOT CHORD 2-11=-254/1548, 9-11=-254/1571, 8-9=-252/1571  
WEBS 4-11=0/207, 5-10=-60/575, 4-10=-523/149, 6-9=0/210, 6-10=-546/154

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Partially Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-9-0 to 1-3-0, Interior (1) 1-3-0 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior (1) 15-0-0 to 24-0-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 8 and 157 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.

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:

September 12, 2023



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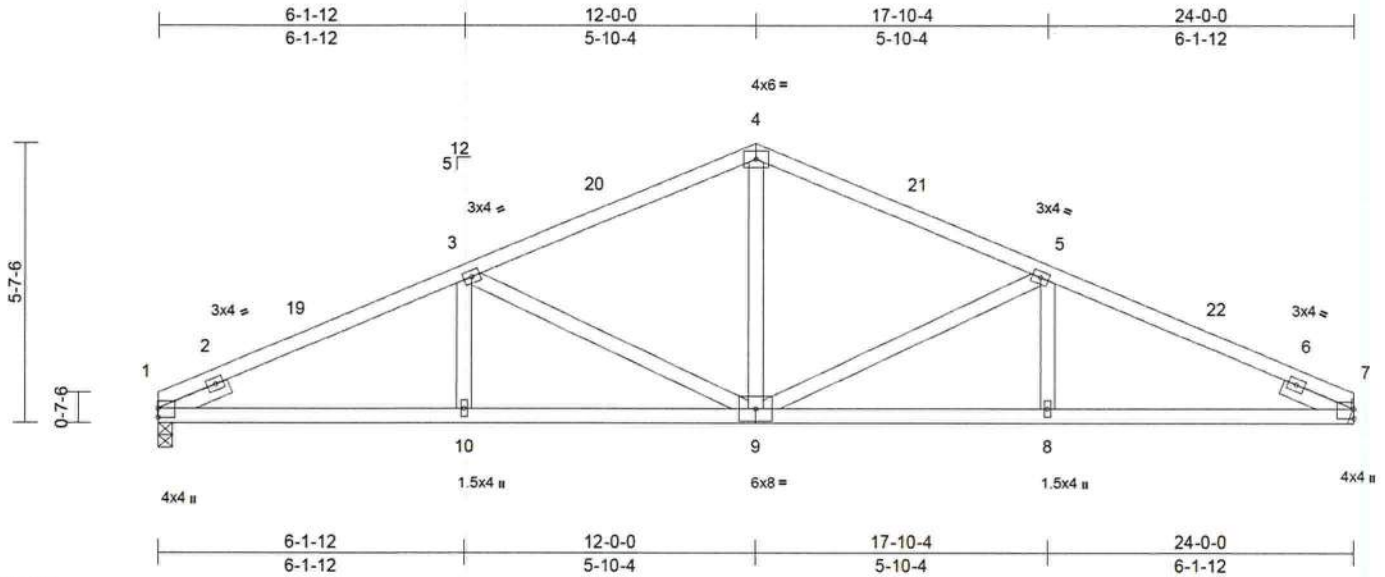


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541629
0523-025	C04	Common	4	1	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:35  
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Page: 1



Scale = 1:44.4

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

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	0.29	Vert(LL)	-0.07	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.16	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							Weight: 113 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 SP No.2 -- 1-6-0

#### BRACING

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

#### REACTIONS

(size) 1=0-3-8, 7= Mechanical  
Max Horiz 1=-71 (LC 10)  
Max Uplift 1=-112 (LC 12), 7=-112 (LC 12)  
Max Grav 1=960 (LC 1), 7=960 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-3=-1768/346, 3-4=-1285/302,  
4-5=-1285/302, 5-7=-1768/346  
BOT CHORD 1-10=-260/1579, 8-10=-260/1579,  
7-8=-254/1579  
WEBS 3-10=0/210, 4-9=-62/582, 3-9=-547/154,  
5-8=0/210, 5-9=-547/154

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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; Partially Enclosed; MWFRS (directional) and C-C Exterior(2E)  
0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-0-0, Exterior(2R)  
12-0-0 to 15-0-0, Interior (1) 15-0-0 to 24-0-0 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 1 and 112 lb uplift at joint 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



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

September 12,2023

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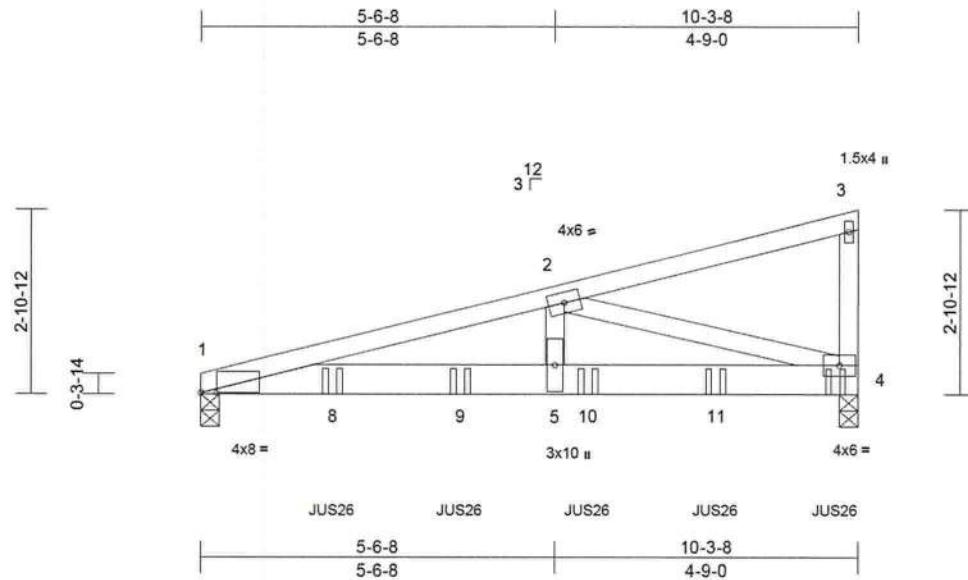
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Job	Truss	Truss Type	Qty	Ply	Robinson	T31541630
0523-025	GIR01	Monopitch Girder	1	2	Job Reference (optional)	

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

Run: 8.97 S 8.72 Sep 6 2023 Print: 8.720 S Sep 6 2023 MiTek Industries, Inc. Tue Sep 12 09:13:35  
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Page: 1



Scale = 1:34.6

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

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	0.49	Vert(LL)	-0.09	5-7	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.17	5-7	>713	180	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.02	4	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
Weight: 102 lb FT = 20%											

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size) 1=0-3-8, 4=0-3-8  
Max Horiz 1=72 (LC 18)  
Max Uplift 1=-297 (LC 8), 4=-412 (LC 8)  
Max Grav 1=2308 (LC 1), 4=3196 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-5805/760, 2-3=-156/41, 3-4=-115/40  
BOT CHORD 1-5=-718/5629, 4-5=-718/5629  
WEBS 2-5=-281/2645, 2-4=-5750/769

#### NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; 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; Partially Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 297 lb uplift at joint 1 and 412 lb uplift at joint 4.
- Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 9-11-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (lb/ft)  
Vert: 1-3=-60, 1-4=-20  
Concentrated Loads (lb)  
Vert: 4=-948 (B), 8=-936 (B), 9=-940 (B), 10=-940 (B), 11=-940 (B)



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MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
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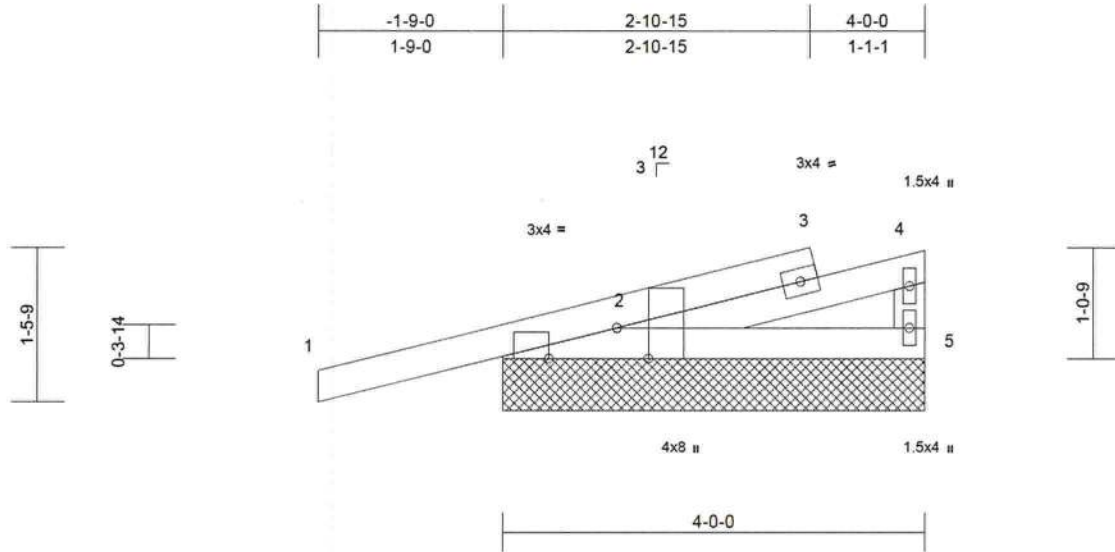


Job	Truss	Truss Type	Qty	Ply	Robinson	T31541631
0523-025	M01	Jack-Open Supported Gable	2	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:20.9

Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-7-12,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	0.63	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
										Weight: 18 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.

#### REACTIONS

(size) 2=4-0-0, 5=4-0-0  
Max Horiz 2=25 (LC 11)  
Max Uplift 2=-109 (LC 12)  
Max Grav 2=370 (LC 1), 5=53 (LC 3)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 4-5=-59/7, 1-2=0/33, 2-4=-29/24  
BOT CHORD 2-5=-12/15

#### NOTES

- 1) Wind: ASCE 7-16; 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 Corner(3E) -1-9-0 to  
1-1-4, Exterior(2N) 1-1-4 to 3-10-4 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
- 2) Truss designed for wind loads in the plane of the truss  
only. For studs exposed to wind (normal to the face),  
see Standard Industry Gable End Details as applicable,  
or consult qualified building designer as per ANSI/TPI 1.
- 3) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom  
chord live load nonconcurrent with any other live loads.

- 7) \* This truss has been designed for a live load of 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.
- 8) Provide mechanical connection (by others) of truss to  
bearing plate capable of withstanding 109 lb uplift at joint  
2.
- 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.

LOAD CASE(S) Standard



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MiTek Inc. DBA MiTek USA FL Cert 6634  
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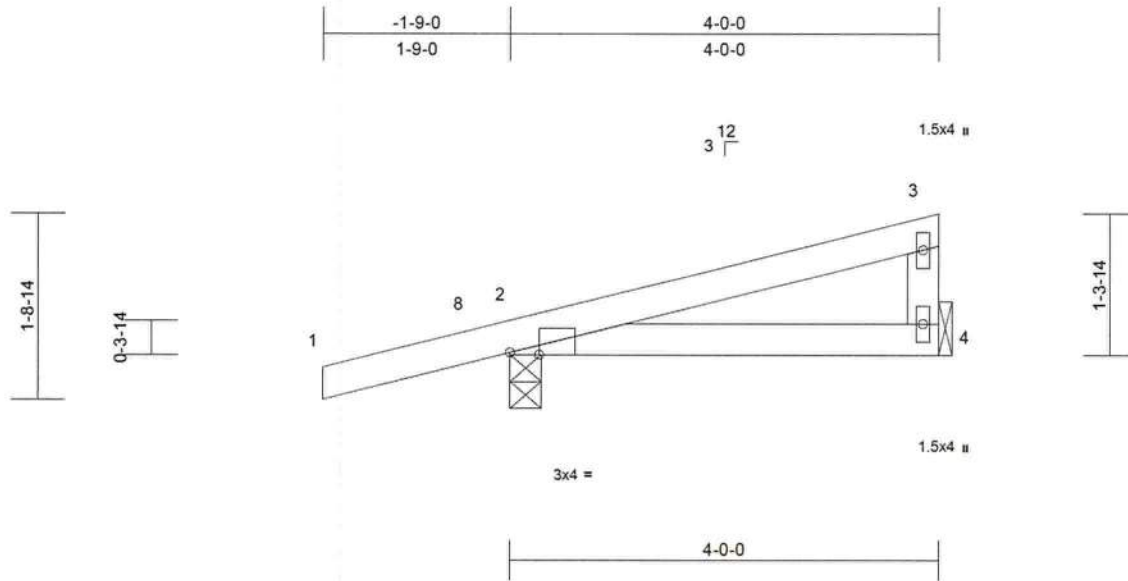
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Job	Truss	Truss Type	Qty	Ply	Robinson	T31541632
0523-025	M02	Jack-Closed	9	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:20.6

Plate Offsets (X, Y): [2:0-3-4,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	0.18	Vert(LL)	0.01	4-7	>999	240	MT20
TCDL	10.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	-0.02	4-7	>999	180	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-AS							
										Weight: 16 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.

#### REACTIONS

(size) 2=0-3-8, 4= Mechanical  
Max Horiz 2=33 (LC 11)  
Max Uplift 2=-53 (LC 12)  
Max Grav 2=283 (LC 1), 4=130 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-76/29, 3-4=-87/79  
BOT CHORD 2-4=-32/90

#### NOTES

- 1) Wind: ASCE 7-16; 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 Exterior(2E) -1-9-0 to 1-1-0, Interior (1) 1-1-0 to 3-10-4 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
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 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



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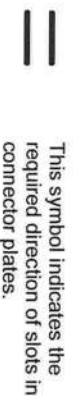
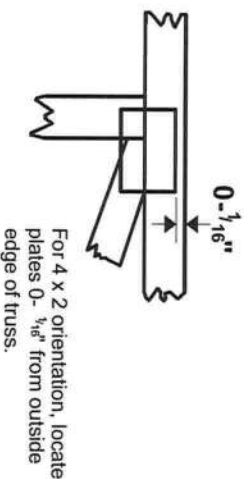
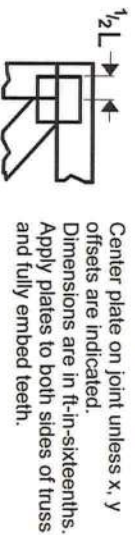
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## Symbols

### PLATE LOCATION AND ORIENTATION



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

### PLATE SIZE

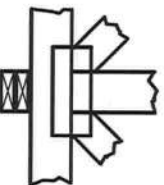
4 X 4

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

### LATERAL BRACING LOCATION



### BEARING



### Industry Standards:

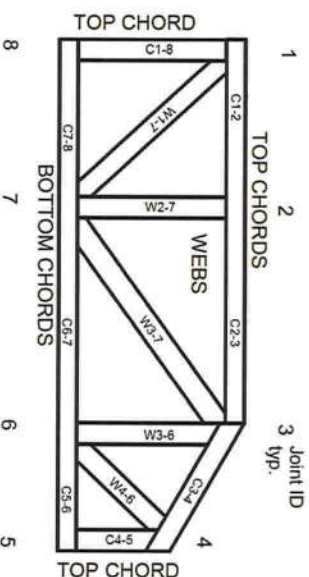
ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-22: Design Standard for Bracing.

BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

## Numbering System

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



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

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

## Product Code Approvals

ICC-ES Reports:

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

## Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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**MiTek®**

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

## General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 1 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.