



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

RE: 4609381 - MIKE TODD - YOUNG GARAGE

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

Site Information:

Customer Info: MIKE TODD CONST. Project Name: Young Garage Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD, TBD
City: Columbia Cty 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 8.8
Wind Code: ASCE 7-22 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 13 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.

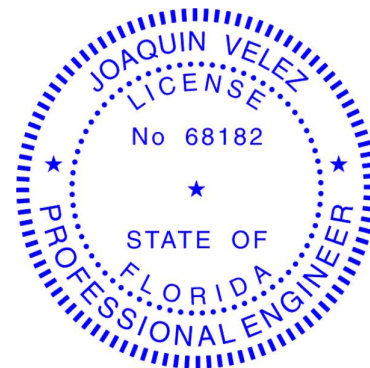
No.	Seal#	Truss Name	Date
1	T37091012	CJ01	4/23/25
2	T37091013	CJ01A	4/23/25
3	T37091014	CJ03	4/23/25
4	T37091015	CJ03A	4/23/25
5	T37091016	CJ05	4/23/25
6	T37091017	CJ05A	4/23/25
7	T37091018	EJ01	4/23/25
8	T37091019	HJ10	4/23/25
9	T37091020	T01	4/23/25
10	T37091021	T01A	4/23/25
11	T37091022	T02	4/23/25
12	T37091023	T03	4/23/25
13	T37091024	T04	4/23/25

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

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

Truss Design Engineer's Name: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2027.

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.



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

April 23,2025

Velez, Joaquin

1 of 1

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	CJ01	Jack-Open	7	1	T37091012
					Job Reference (optional)

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:20:58 2025 Page 1

ID:7WKr8toudn35dxwKwBAfQtytHta-6R237le6oUHhD0PKGp9DhbfBVJEaHQfx7asRsBzOAwJ



Scale = 1:12.3

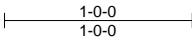
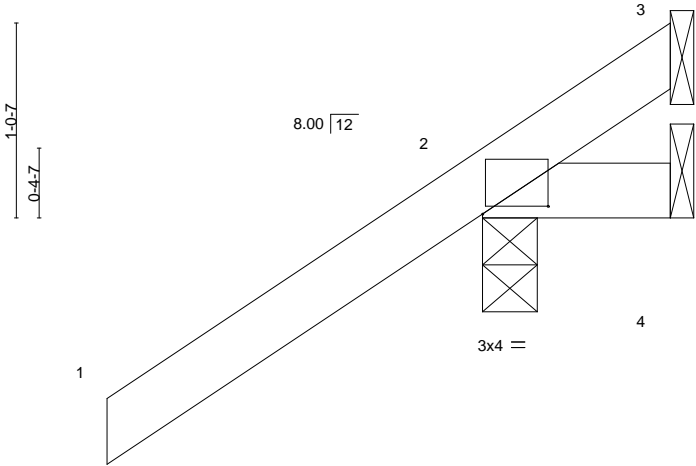


Plate Offsets (X,Y)--		[2:0-4-3,0-0-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP			
TCLL	20.0	Plate Grip DOL 1.25		TC	0.38	Vert(LL)	0.00	7	>999	240	MT20	244/190	
TCDL	10.0	Lumber DOL 1.25		BC	0.11	Vert(CT)	0.00	7	>999	180			
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a			
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=69(LC 12)
Max Uplift 3=-29(LC 1), 2=-129(LC 12), 4=-53(LC 1)
Max Grav 3=18(LC 16), 2=281(LC 1), 4=39(LC 12)

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

NOTES-

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone;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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=129.

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

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

April 23,2025

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

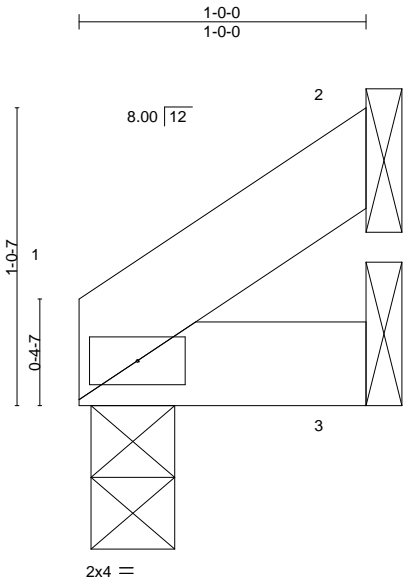
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	CJ01A	Jack-Open	1	1	T37091013
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:20:59 2025 Page 1
ID:7WKr8toudn35dxwKwBAfQtytHta-adbRKeekZoPXrA_XqWgSEoBR5jaJ0tv4LEc?OdzOAwI



Scale: 1.5"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.01	Vert(LL)	-0.00 6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.01	Vert(CT)	-0.00 6	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 2	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MP					Weight: 4 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=25(LC 12)
Max Uplift 1=-2(LC 12), 2=-17(LC 12), 3=-5(LC 12)
Max Grav 1=40(LC 1), 2=25(LC 19), 3=18(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone;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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 2, 3.

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

April 23,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091014
4609381	CJ03	Jack-Open	7	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:20:59 2025 Page 1
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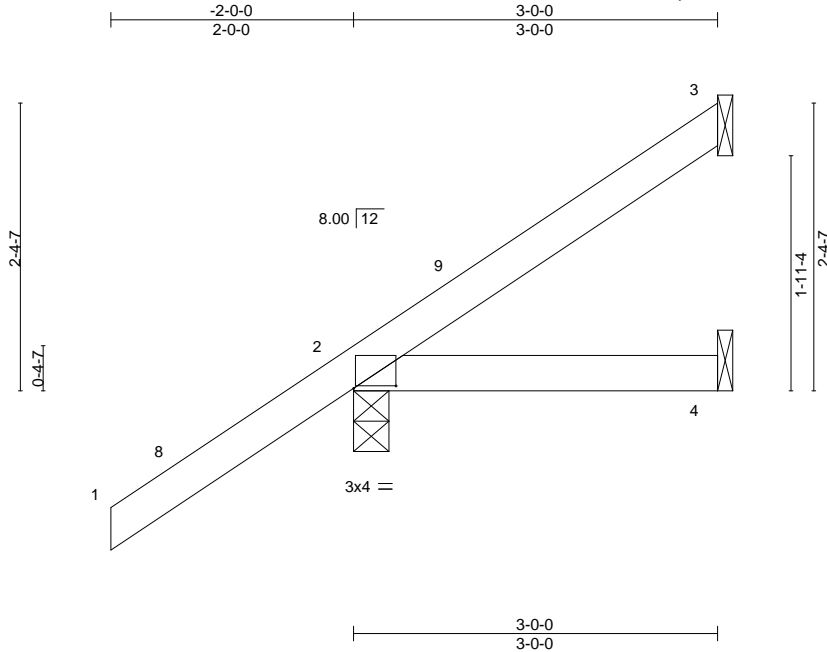


Plate Offsets (X,Y)--		[2:0-4-3,0-0-4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL 1.25		TC 0.38		Vert(LL) -0.01 4-7 >999 240				MT20		244/190	
TCDL	10.0	Lumber DOL 1.25		BC 0.10		Vert(CT) -0.01 4-7 >999 180							
BCLL	0.0 *	Rep Stress Incr YES		WB 0.00		Horz(CT) 0.00 2 n/a n/a							
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MP						Weight: 14 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=120(LC 12)
Max Uplift 3=44(LC 12), 2=84(LC 12)
Max Grav 3=64(LC 19), 2=278(LC 1), 4=48(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 2-11-4 zone;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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.

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Chesterfield, MO 63017
Date:

April 23,2025

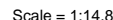
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:20:59 2025 Page 1
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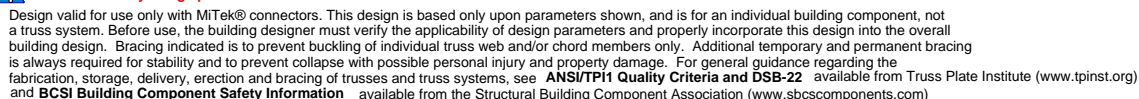
Weight: 10 lb FT = 20%

TOP CHORD	Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCdL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone; 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 2, 3.

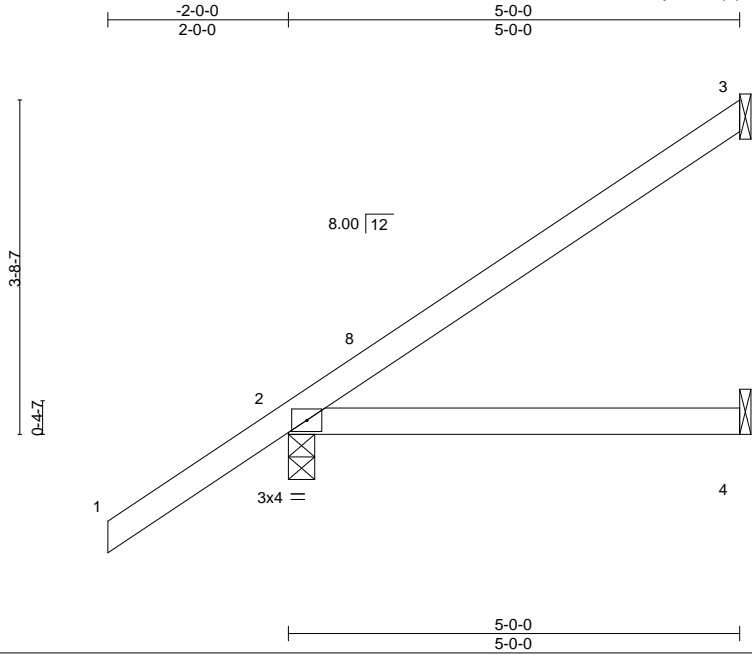
April 23, 2025



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

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091016
4609381	CJ05	Jack-Open	7	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:00 2025 Page 1
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Scale = 1:25.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.24	Vert(CT)	-0.05	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2023/TP12014		Matrix-MP						Weight: 20 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=171(LC 12)
Max Uplift 3=89(LC 12), 2=81(LC 12)
Max Grav 3=130(LC 19), 2=342(LC 1), 4=89(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 4-11-4 zone;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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 2.

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Date:

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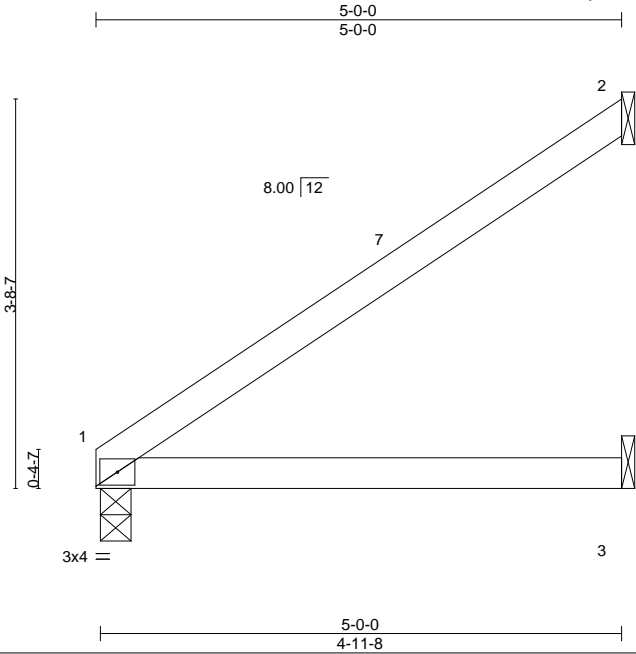
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	CJ05A	Jack-Open	1	1	T37091017
Job Reference (optional)					

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:00 2025 Page 1
ID:7WKR8toudn35dxwKwBAfQtytHta-2q9pXzfMK6YOTKZjOEBhm0kXd7sHIK9DauLYw3zOAwh



Scale = 1:21.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.34	Vert(LL)	0.04 3-6	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.28	Vert(CT)	-0.07 3-6	>897	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00 2	n/a	n/a		
BCDL 10.0	Code FBC2023/TP12014		Matrix-MP					Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=127(LC 12)
Max Uplift 1=-16(LC 12), 2=-96(LC 12), 3=-7(LC 12)
Max Grav 1=198(LC 1), 2=141(LC 19), 3=93(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 4-11-4 zone;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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 2, 3.

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

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

April 23,2025

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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	EJ01	Jack-Partial	14	1	T37091018
Job Reference (optional)					

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:00 2025 Page 1
ID:7WKr8toudn35dxwKwBAfQtytHta-2q9pXzfMK6YOTKZjOEBhm0kXZ7quiJuDauLYw3zOAwH



Scale: 3/8"=1'

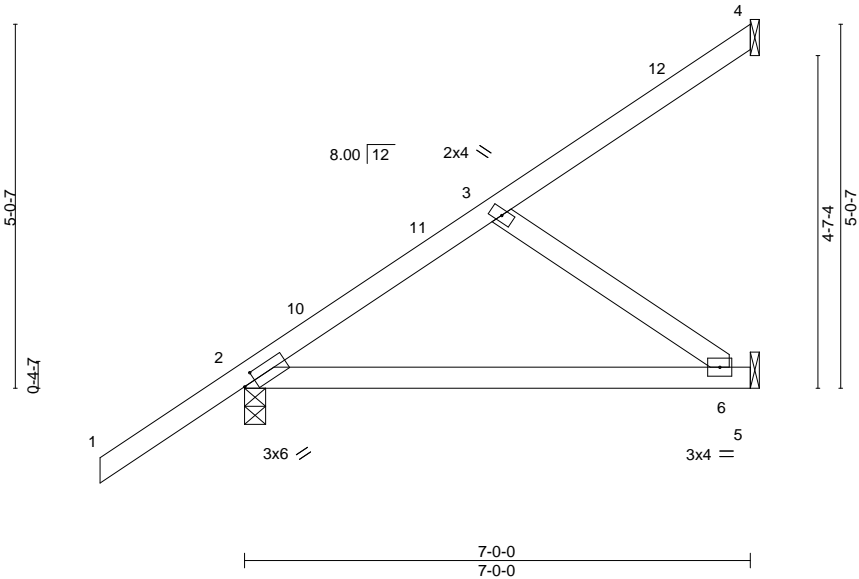


Plate Offsets (X,Y)--		[2:0-2-0,0-1-8]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.35	Vert(LL) -0.08 6-9 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.44	Vert(CT) -0.15 6-9 >542 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-MS		Weight: 32 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=215(LC 12)
Max Uplift 4=-56(LC 12), 2=-87(LC 12), 5=-63(LC 12)
Max Grav 4=89(LC 19), 2=415(LC 1), 5=190(LC 19)

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

NOTES-

- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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

April 23,2025

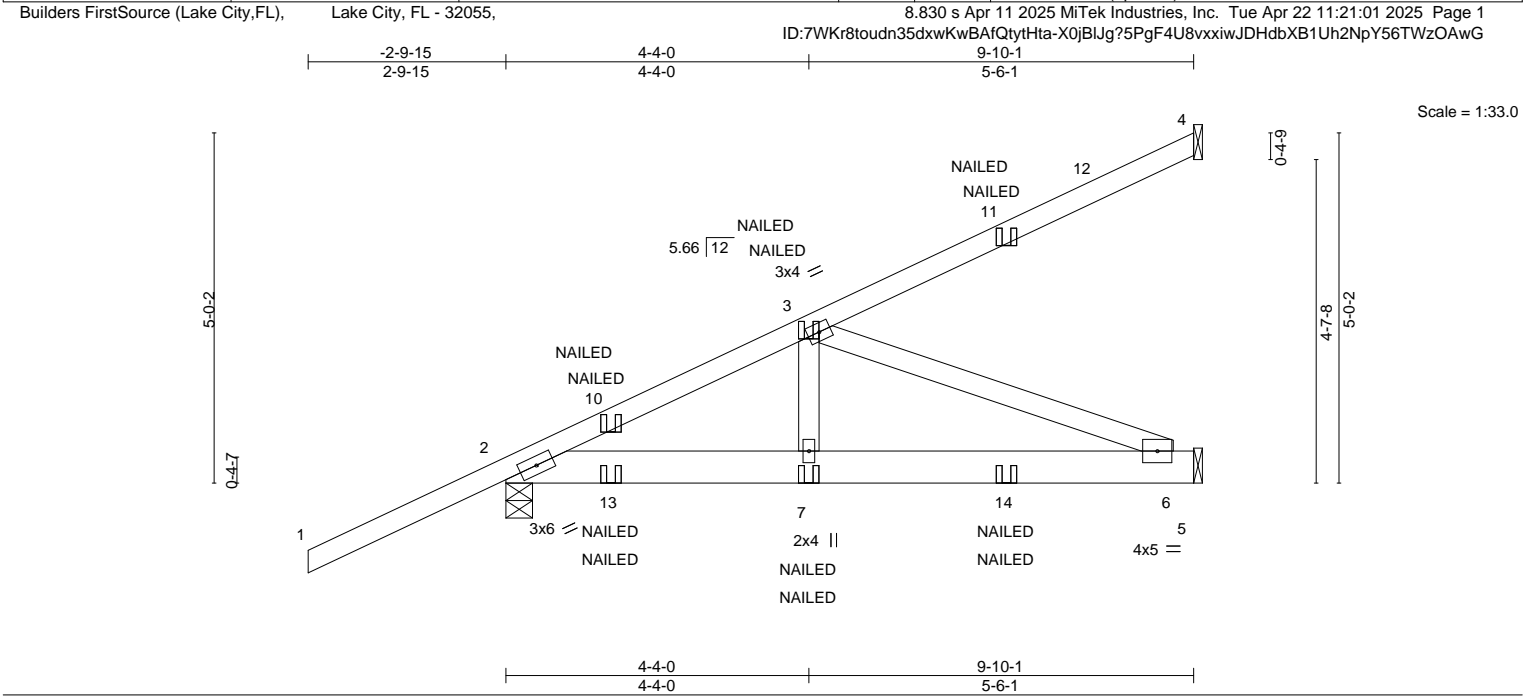
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091019
4609381	HJ10	Diagonal Hip Girder	4	1	Job Reference (optional)	



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.65	Vert(LL)	-0.02 6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.38	Vert(CT)	-0.04 6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.41	Horz(CT)	-0.01 4	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 54 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=215(LC 8)
Max Uplift 4=-108(LC 8), 2=-256(LC 8), 5=-97(LC 8)
Max Grav 4=165(LC 1), 2=541(LC 38), 5=310(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-781/232
BOT CHORD 2-7=-301/622, 6-7=-301/622
WEBS 3-6=-667/323

- NOTES-**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=108, 2=256.
 - 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
Vert: 1-4=-60, 2-5=-20
- Concentrated Loads (lb)
Vert: 7=6(F=3, B=3) 10=73(F=36, B=36) 11=-69(F=-35, B=-35) 13=82(F=41, B=41) 14=-51(F=-26, B=-26)

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

April 23,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091020
4609381	T01	Hip Girder	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:02 2025 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-80(F) 6=-80(F) 12=-235(F) 10=-158(F) 5=-22(F) 9=-235(F) 17=-22(F) 18=-22(F) 19=-22(F) 20=-22(F) 21=-22(F) 22=-22(F) 23=-158(F) 24=-158(F)
25=-158(F) 26=-158(F) 27=-158(F) 28=-158(F)

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

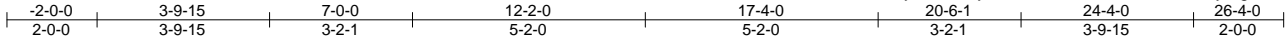
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091021
4609381	T01A	Hip Girder	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:03 2025 Page 1
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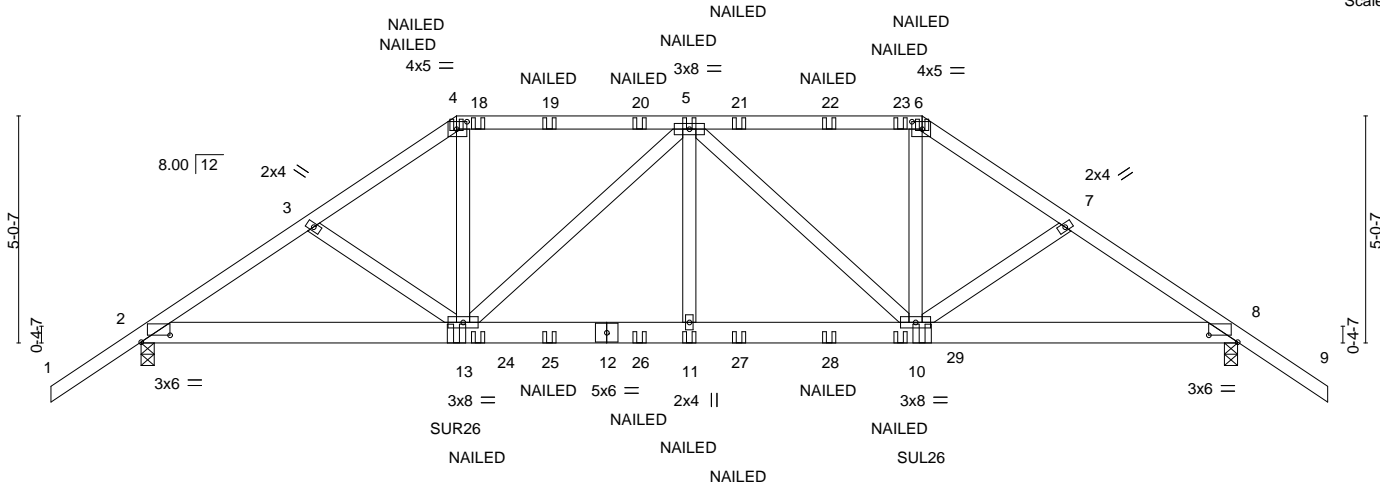


Plate Offsets (X,Y)--	[2:0-7-11,0-1-13], [4:0-2-12,0-2-0], [6:0-2-12,0-2-0], [8:0-7-11,0-1-13]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.49	Vert(LL)	0.13 11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.72	Vert(CT)	-0.22 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.74	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 155 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-5-11 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=-149(LC 6)
Max Uplift 2=-819(LC 8), 8=-819(LC 9)
Max Grav 2=2039(LC 1), 8=2039(LC 1)

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

TOP CHORD 2-3=-3189/1320, 3-4=-3027/1289, 4-5=-2511/1124, 5-6=-2511/1123, 6-7=-3027/1288,
7-8=-3189/1319
BOT CHORD 2-13=-1089/2662, 11-13=-1278/3109, 10-11=-1278/3109, 8-10=-988/2609
WEBS 4-13=-488/1316, 5-13=-857/429, 5-11=-243/699, 5-10=-857/428, 6-10=-488/1316

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=819, 8=819.
- Use Simpson Strong-Tie SUR26 (6-10dx1 1/2 Girder, 6-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 7-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
- Use Simpson Strong-Tie SUL26 (6-16d Girder, 6-10dx1 1/2 Truss) or equivalent at 17-4-0 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-60, 4-6=-60, 6-9=-60, 2-8=-20

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

April 23,2025

Continued on page 2

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE	T37091021
4609381	T01A	Hip Girder	1	1	Job Reference (optional)	

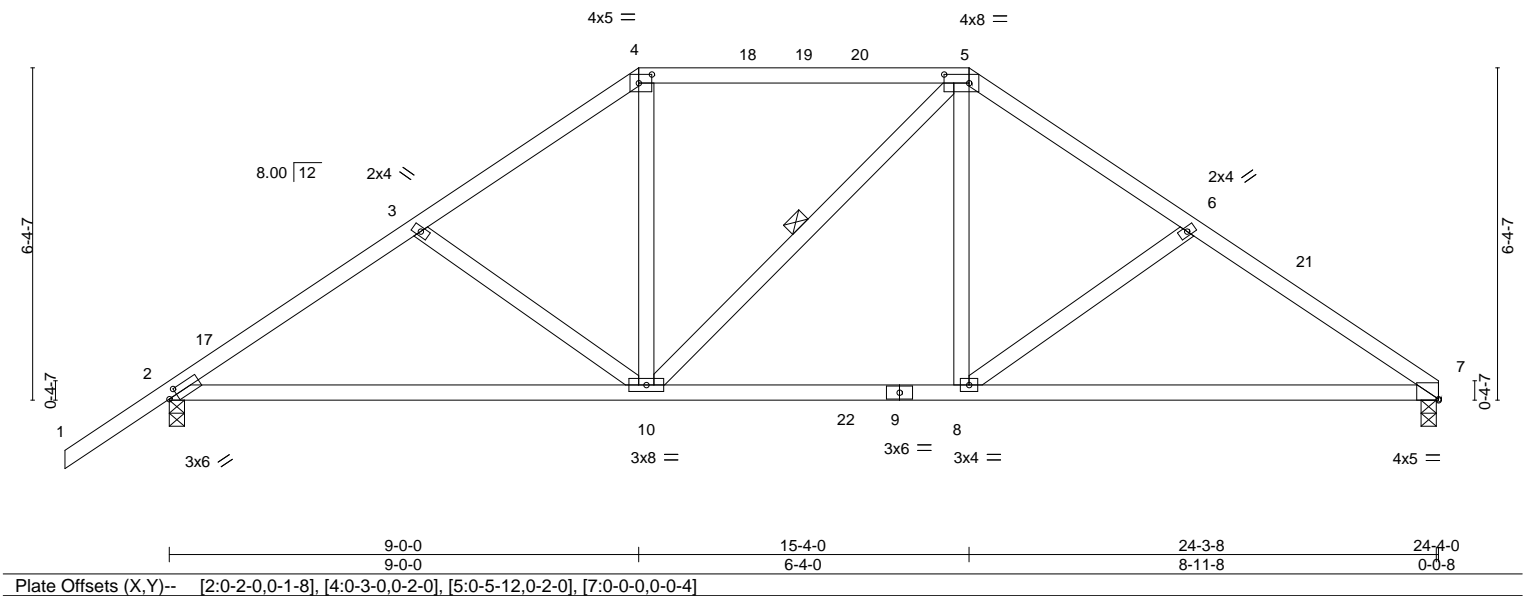
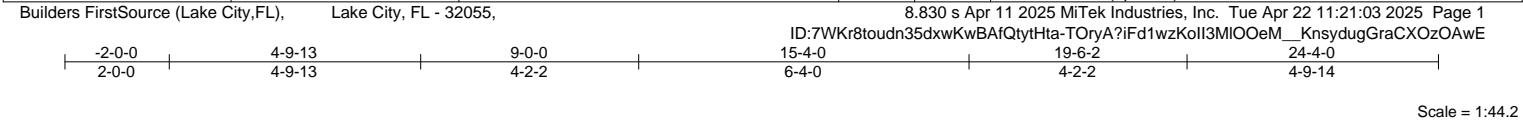
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-80(B) 6=-80(B) 13=-235(B) 11=-158(B) 5=-22(B) 10=-235(B) 18=-22(B) 19=-22(B) 20=-22(B) 21=-22(B) 22=-22(B) 23=-22(B) 24=-158(B) 25=-158(B)
26=-158(B) 27=-158(B) 28=-158(B) 29=-158(B)

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	T02	Hip	2	1	T37091022
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,					8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:03 2025 Page 1
Job Reference (optional)					ID:7Wkr8toudn35dxwKwBAfQtytHta-TOrYA?iFd1wzKoll3MIOeM_KnsydugGraCXOzOAWE



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.59	Vert(LL)	-0.16	8-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.74	Vert(CT)	-0.34	8-13	>862	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.04	7	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS						Weight: 127 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-10

REACTIONS.	(size) 7=0-3-8, 2=0-3-8
Max Horz	2=171(LC 9)
Max Uplift	7=230(LC 13), 2=284(LC 12)
Max Grav	7=1049(LC 2), 2=1152(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1475/341, 3-4=-1283/297, 4-5=-1021/292, 5-6=-1302/307, 6-7=-1501/357
BOT CHORD	2-10=-309/1251, 8-10=-110/1035, 7-8=-228/1238
WEBS	3-10=-319/184, 4-10=-57/444, 5-8=-77/498, 6-8=-342/199

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 9-0-0, Zone2 9-0-0 to 13-2-15, Zone1 13-2-15 to 15-4-0, Zone2 15-4-0 to 19-7-11, Zone1 19-7-11 to 24-4-0 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=230, 2=284.

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MiTek Inc. DBA MiTek USA FL Cert 6634
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Chesterfield, MO 63017
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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

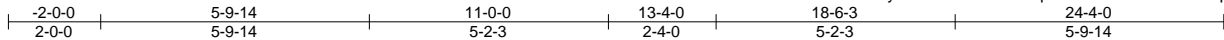
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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®

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

Job	Truss	Truss Type	Qty	Ply	MIKE TODD - YOUNG GARAGE
4609381	T03	Hip	2	1	T37091023
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,					Job Reference (optional)

8.830 s Apr 11 2025 MiTek Industries, Inc. Tue Apr 22 11:21:04 2025 Page 1
ID:7WKr8toudn35dxwKwBAfQtytHta-xbPKNLitNK2qxxtUd4GdxsvDOkCih1vpVVJm3rzOAwD



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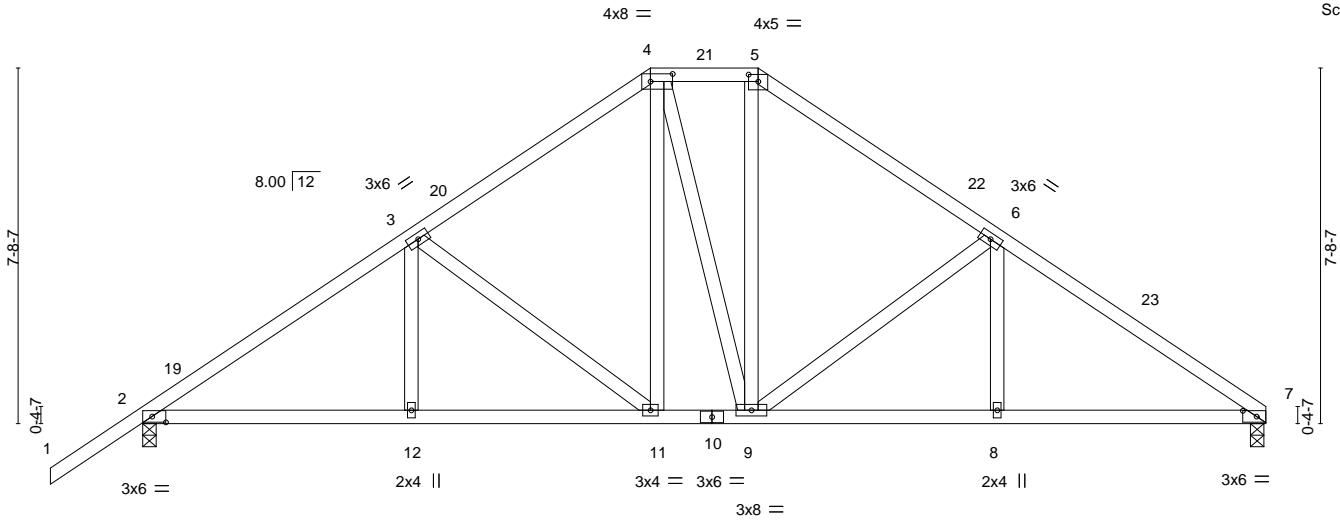


Plate Offsets (X,Y)--	[2:0-3-9,0-1-8], [4:0-5-12,0-2-0], [5:0-2-8,0-1-13], [7:0-3-9,0-1-8]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.36	Vert(LL)	0.05 8-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.45	Vert(CT)	-0.09 11-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.04 7	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 145 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-3 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=204(LC 9)
Max Uplift 7=224(LC 13), 2=277(LC 12)
Max Grav 7=968(LC 1), 2=1098(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1440/310, 3-4=-1047/281, 4-5=-795/279, 5-6=-1050/278, 6-7=-1462/328
BOT CHORD 2-12=-294/1129, 11-12=-294/1129, 9-11=-116/793, 8-9=-190/1153, 7-8=-190/1153
WEBS 3-11=-459/225, 4-11=-109/335, 5-9=-108/334, 6-9=-486/244

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 11-0-0, Zone3 11-0-0 to 13-4-0, Zone2 13-4-0 to 17-6-15, Zone1 17-6-15 to 24-4-0 zone;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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=224, 2=277.

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

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

April 23,2025

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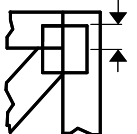
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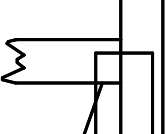
Symbols

PLATE LOCATION AND ORIENTATION

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



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



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


* Plate location details available in MiTEK software or upon request.

PLATE SIZE

4 X 4

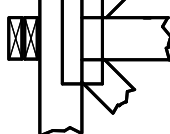
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:
ANSI/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

Dimensions shown in ft-in-sixteenths
(Drawings not to scale)

Joint ID
3 typ.

TOP CHORD

1 2 TOP CHORDS

WEBS

3 4

TOP CHORD

6 7 8

BOTTOM CHORDS

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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 1/12/2023



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 BCSL.
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 warps at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.