

RE: 3708825
LOT 24 RP

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

Site Information:

Customer: RON DAVID PLASTERING Project Name: 3708825
Lot/Block: 24 Model: Custom
Address: TBD Subdivision: Rose Pointe
City: Columbia Cty State: FL

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 18 individual, dated 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	T31824031	CJ01	10/12/2023
2	T31824032	CJ03	10/12/2023
3	T31824033	CJ05	10/12/2023
4	T31824034	EJ01	10/12/2023
5	T31824035	EJ02	10/12/2023
6	T31824036	HJ08	10/12/2023
7	T31824037	HJ10	10/12/2023
8	T31824038	T01	10/12/2023
9	T31824039	T01G	10/12/2023
10	T31824040	T02	10/12/2023
11	T31824041	T03	10/12/2023
12	T31824042	T04	10/12/2023
13	T31824043	T05	10/12/2023
14	T31824044	T06	10/12/2023
15	T31824045	T07	10/12/2023
16	T31824046	T08	10/12/2023
17	T31824047	T08G	10/12/2023
18	T31824048	T09	10/12/2023

This item has been electronically signed and sealed by ORegan, Philip using a Digital Signature.

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The truss drawing(s) referenced above have been prepared by

MiTek USA, Inc under my direct supervision

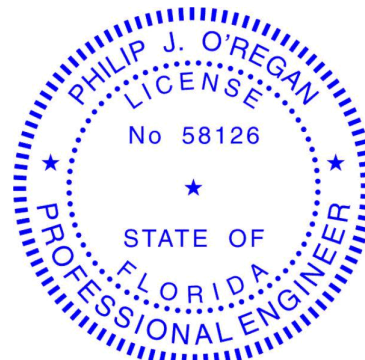
based on the parameters provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip

My license renewal date for the state of Florida is February 28, 2025.

Florida COA: 6634

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12, 2023

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824031
3708825	CJ01	Jack-Open	6	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.630 s Aug 30 2023 MiTek Industries, Inc.
Wed Oct 11 15:56:02 2023
Page 1
ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f



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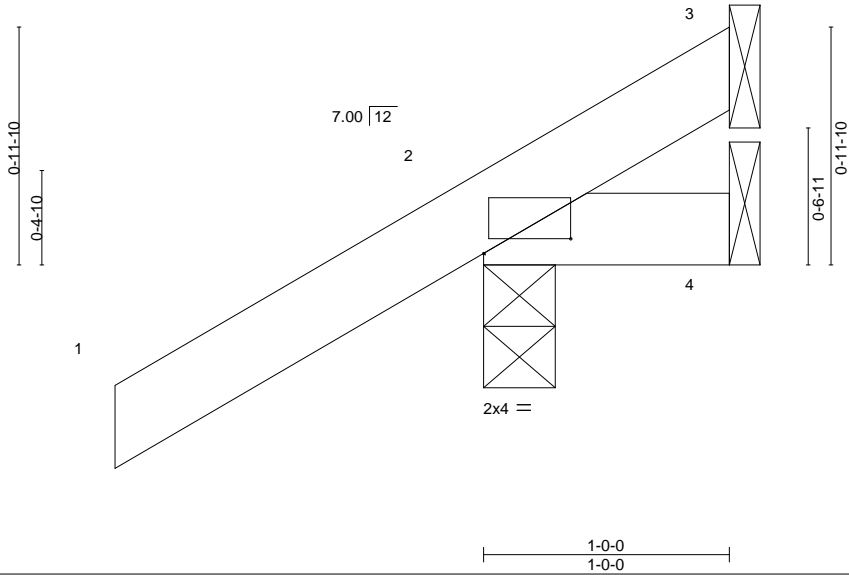


Plate Offsets (X,Y)--		[2:0-4-4,0-0-11]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.16
TCDL 7.0	Lumber DOL	1.25	BC 0.03
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP
DEFL.	in (loc)	I/defl	L/d
Vert(LL)	0.00 7	>999	240
Vert(CT)	0.00 7	>999	180
Horz(CT)	0.00 2	n/a	n/a
PLATES	GRIP		
MT20	244/190		
Weight: 6 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) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=46(LC 12)
Max Uplift 3=6(LC 1), 2=68(LC 12), 4=22(LC 19)
Max Grav 3=7(LC 16), 2=179(LC 1), 4=20(LC 16)

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

- NOTES-**
- 1) Wind: ASCE 7-16; 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 Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 6 lb uplift at joint 3, 68 lb uplift at joint 2 and 22 lb uplift at joint 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. 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
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Date:

October 12,2023

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

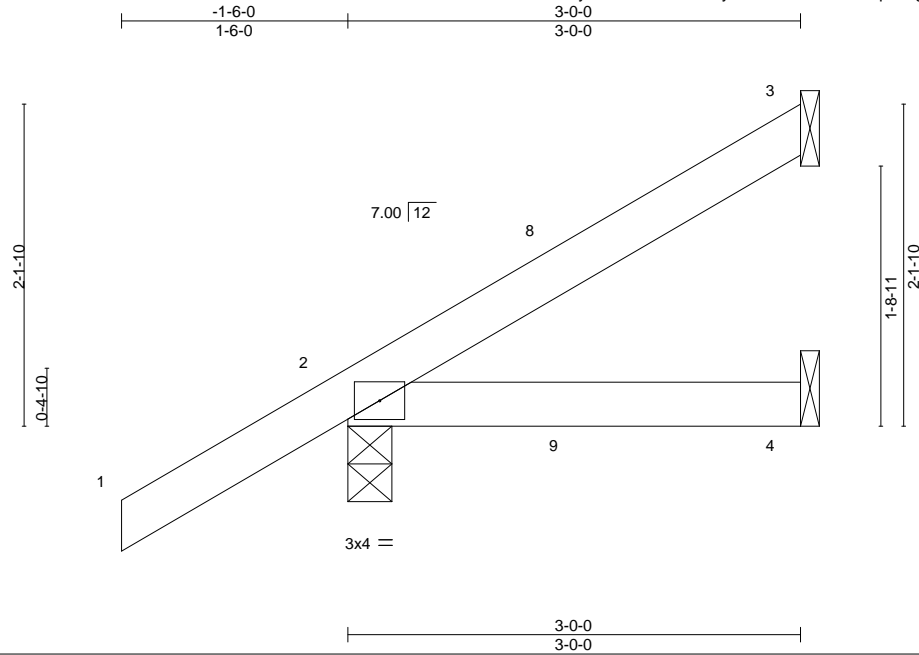
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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	LOT 24 RP	T31824032
3708825	CJ03	Jack-Open	6	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:03 2023 Page 1
ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	0.01	4-7	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.09	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP					Weight: 12 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

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

BRACING-

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.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=85(LC 12)
Max Uplift 3=-39(LC 12), 2=-54(LC 12), 4=-16(LC 9)
Max Grav 3=61(LC 19), 2=210(LC 1), 4=50(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 39 lb uplift at joint 3, 54 lb uplift at joint 2 and 16 lb uplift at joint 4.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

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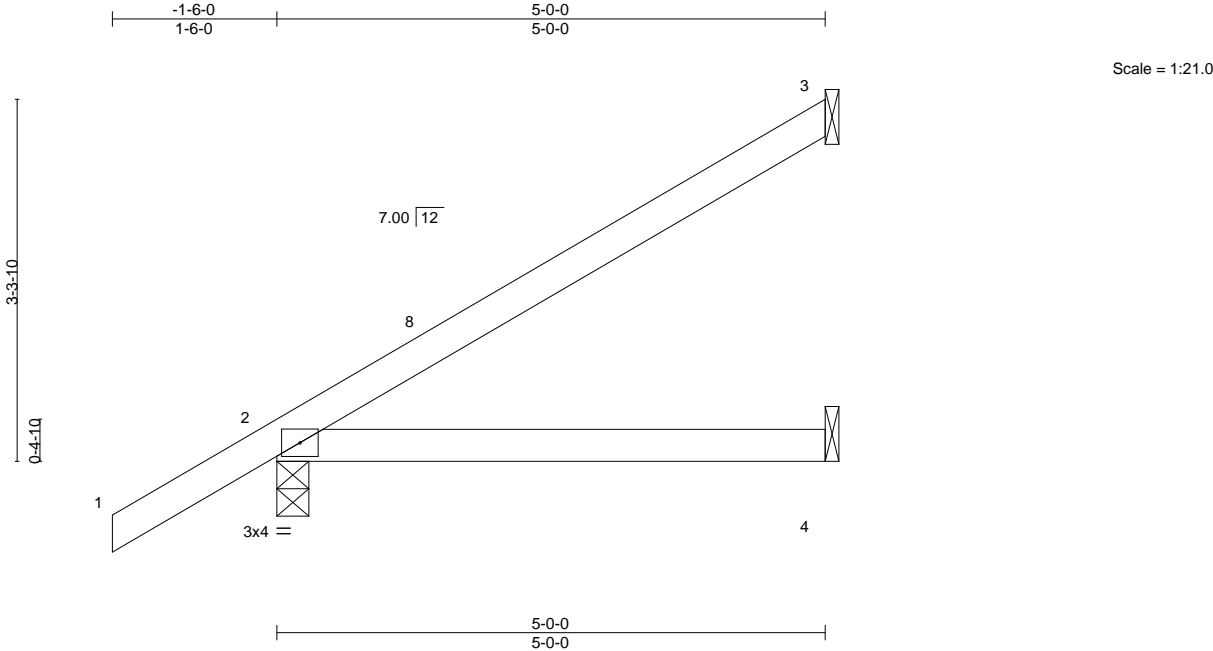
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824033
3708825	CJ05	Jack-Open	4	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.630 s Aug 30 2023 MiTek Industries, Inc.
Wed Oct 11 15:56:04 2023
Page 1
ID:t2TFsk4yhhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



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 0.28	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL 7.0	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	FBC2020/TPI2014	Matrix-MP						Weight: 19 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 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=125(LC 12)
	Max Uplift 3=-73(LC 12), 2=-57(LC 12)
	Max Grav 3=118(LC 19), 2=276(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 7-16; 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 Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; porch 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 3-6-0 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 73 lb uplift at joint 3 and 57 lb uplift at joint 2.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824034
3708825	EJ01	Jack-Partial	11	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:05 2023 Page 1

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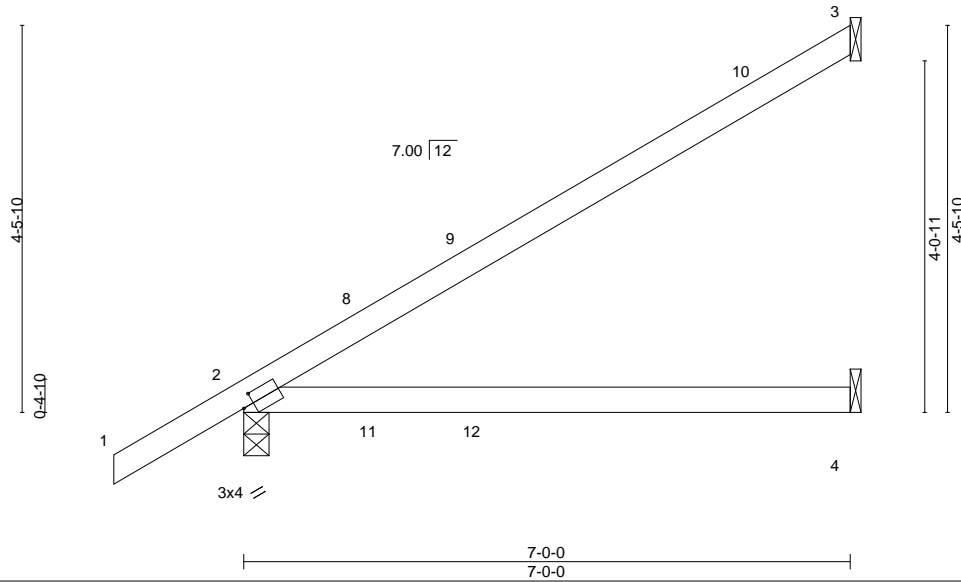


Plate Offsets (X,Y)--		[2:0-1-8,0-1-8]	
LOADING (psf)		SPACING-	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		CSI.	
		TC 0.63	
		BC 0.60	
		WB 0.00	
		Matrix-MS	
		DEFL.	
		in (loc)	I/defl L/d
		Vert(LL) 0.27 4-7 >309	240
		Vert(CT) 0.22 4-7 >373	180
		Horz(CT) -0.01 3 n/a	n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 25 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=159(LC 12)
Max Uplift 3=-94(LC 12), 2=-66(LC 12), 4=-40(LC 9)
Max Grav 3=165(LC 19), 2=346(LC 1), 4=126(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 94 lb uplift at joint 3, 66 lb uplift at joint 2 and 40 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
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Date:

October 12,2023

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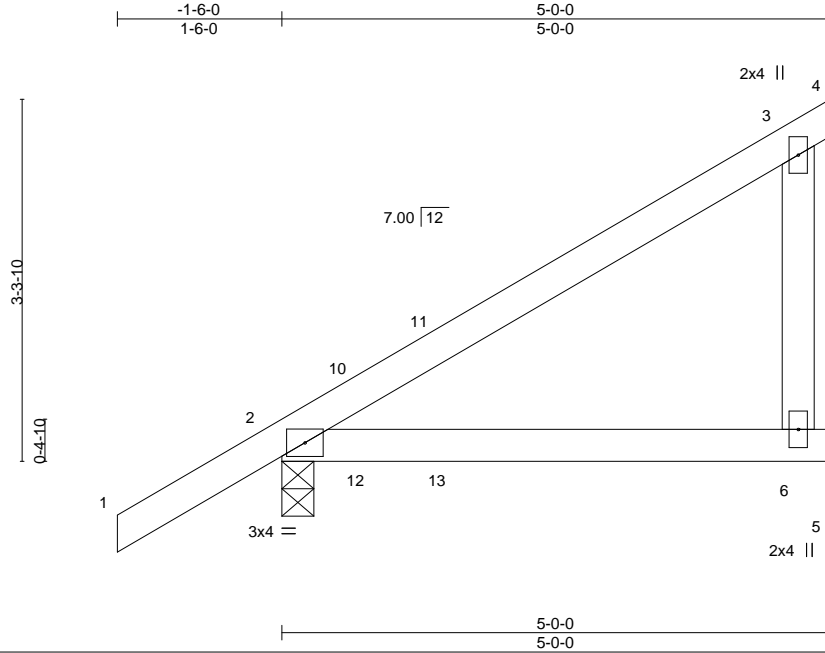
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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824035
3708825	EJ02	Jack-Open	3	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:06 2023 Page 1
ID:t2TFsk4yhhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	0.06	6-9	>964	240	MT20	244/190
TCDL 7.0	1.25	BC 0.27	Vert(CT)	0.05	6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT)	-0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MP						Weight: 23 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 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=125(LC 12)
Max Uplift 2=-54(LC 12), 6=-77(LC 12)
Max Grav 2=268(LC 1), 6=172(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 5-0-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 54 lb uplift at joint 2 and 77 lb uplift at joint 6.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. 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®

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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824036
3708825	HJ08	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:08 2023 Page 1
ID:t2TFsk4yhyv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

-2-1-7
2-1-7

7-0-2
7-0-2

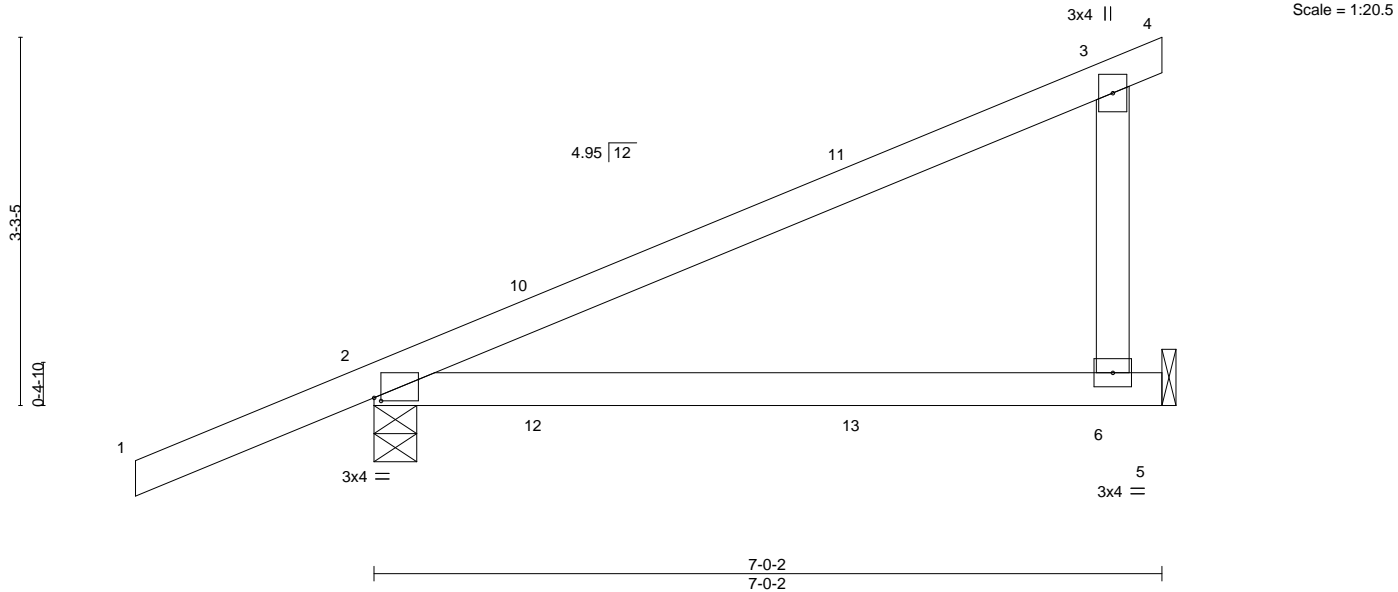


Plate Offsets (X,Y)--		[2:0-0-12,0-0-5]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.61	Vert(LL)	0.08	6-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.39	Vert(CT)	-0.13	6-9	>653	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 29 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
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) 2=0-4-9, 5=Mechanical
Max Horz 2=124(LC 8)
Max Uplift 2=-176(LC 4), 5=-128(LC 8)
Max Grav 2=391(LC 1), 5=246(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; 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 176 lb uplift at joint 2 and 128 lb uplift at joint 5.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 73 lb up at 1-6-1, 59 lb down and 73 lb up at 1-6-1, and 74 lb down and 42 lb up at 4-4-0, and 74 lb down and 42 lb up at 4-4-0 on top chord, and 19 lb down and 50 lb up at 1-6-1, 19 lb down and 50 lb up at 1-6-1, and 18 lb down and 24 lb up at 4-4-0, and 18 lb down and 24 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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: 1-3=-54, 3-4=-54, 5-7=-20
Concentrated Loads (lb)
Vert: 13=-5(F=-3, B=-3)

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

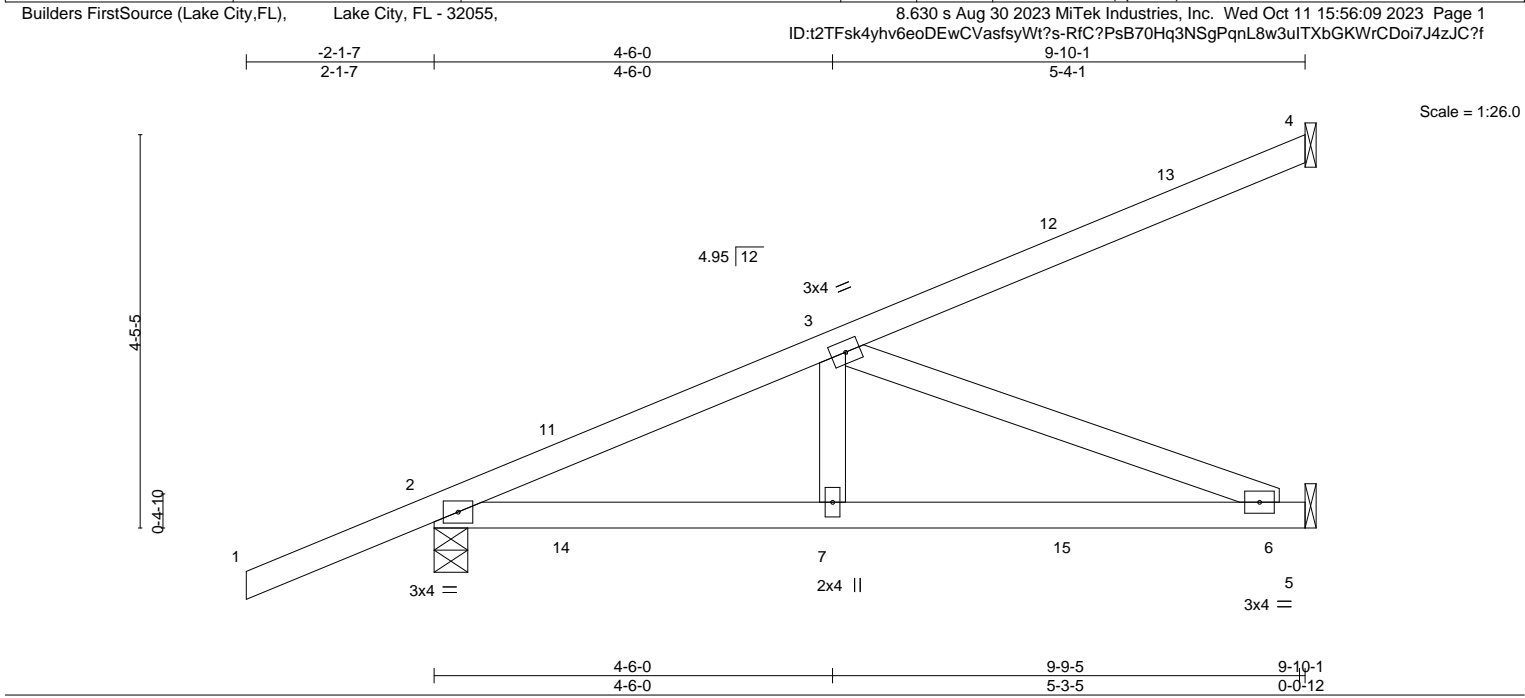
October 12,2023

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	LOT 24 RP	T31824037
3708825	HJ10	Diagonal Hip Girder	2	1	Job Reference (optional)	



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.58	Vert(LL) -0.05	6-7	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.60	Vert(CT) -0.11	6-7	>999	180			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.40	Horz(CT) 0.01	5	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 44 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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-7-14 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical

Max Horz 2=159(LC 8)

Max Uplift 4=-84(LC 8), 2=-261(LC 4), 5=-149(LC 5)

Max Grav 4=149(LC 1), 2=527(LC 1), 5=299(LC 1)

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

TOP CHORD 2-3=-712/313

BOT CHORD 2-7=-362/629, 6-7=-362/629

WEBS 3-7=-62/283, 3-6=-674/387

- NOTES-**
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 84 lb uplift at joint 4, 261 lb uplift at joint 2 and 149 lb uplift at joint 5.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 73 lb up at 1-6-1, 59 lb down and 73 lb up at 1-6-1, 74 lb down and 42 lb up at 4-4-0, 74 lb down and 42 lb up at 4-4-0, and 106 lb down and 84 lb up at 7-1-15, and 106 lb down and 84 lb up at 7-1-15 on top chord, and 42 lb down and 50 lb up at 1-6-1, 42 lb down and 50 lb up at 1-6-1, 19 lb down and 24 lb up at 4-4-0, 19 lb down and 24 lb up at 4-4-0, and 69 lb down at 7-1-15, and 69 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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=-54, 5-8=-20

Concentrated Loads (lb)

Vert: 7=-5(F=-3, B=-3) 12=-73(F=-36, B=-36) 15=-59(F=-29, B=-29)

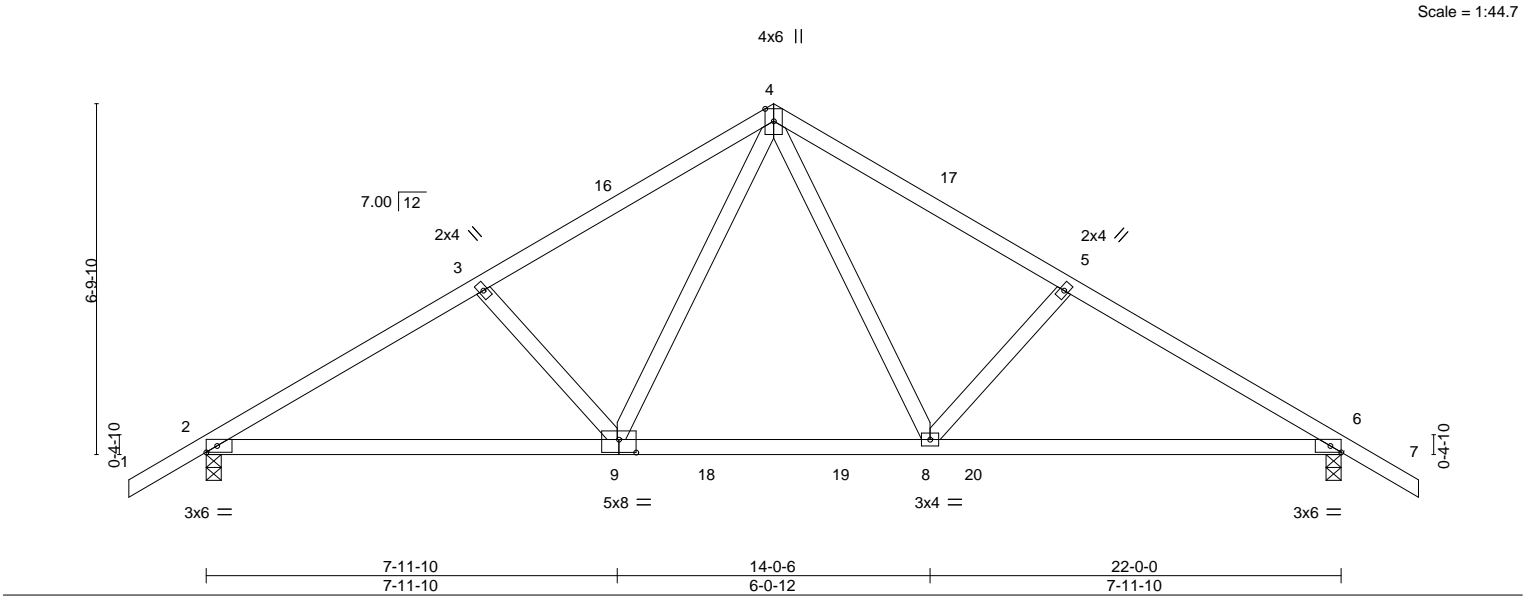
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824038
3708825	T01	Common	10	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:10 2023 Page 1
ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.13	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.22				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.04				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 108 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-2-12 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)	2=0-3-8, 6=0-3-8
Max Horz	2=161(LC 11)
Max Uplift	2=251(LC 12), 6=256(LC 13)
Max Grav	2=1201(LC 19), 6=1217(LC 20)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1787/372, 3-4=-1633/361, 4-5=-1665/370, 5-6=-1817/380
BOT CHORD	2-9=-341/1621, 8-9=-143/1099, 6-8=-240/1527
WEBS	4-8=-191/823, 5-8=-306/191, 4-9=-174/764, 3-9=-306/191

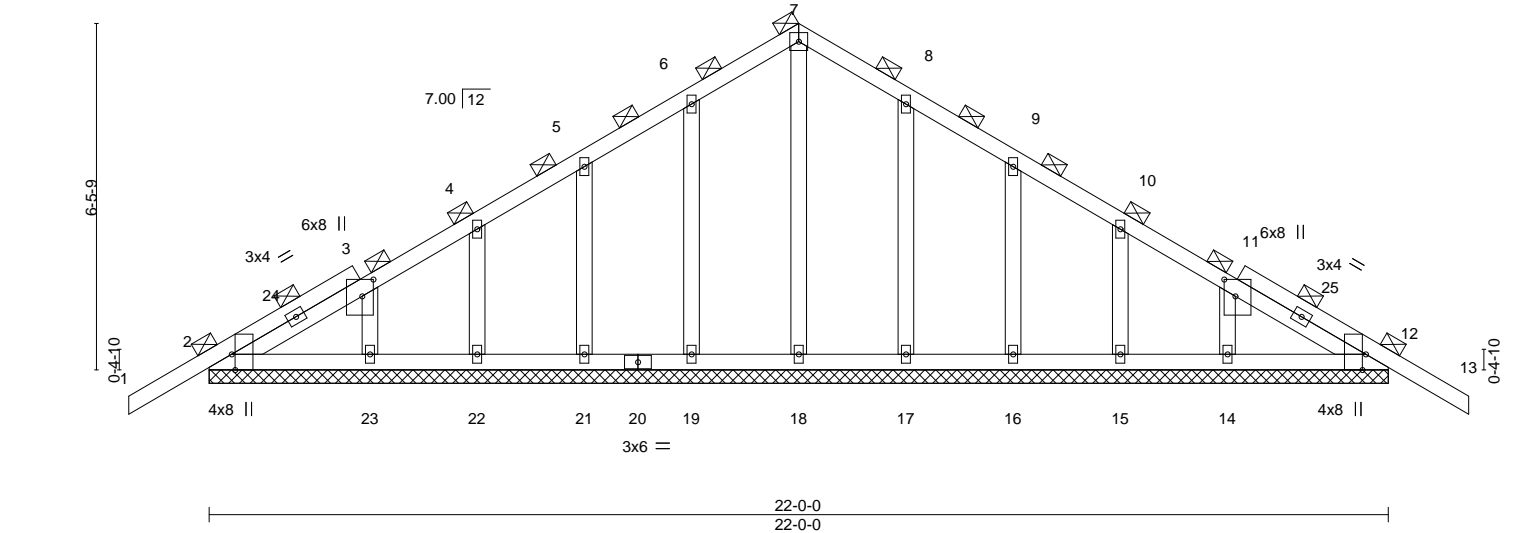
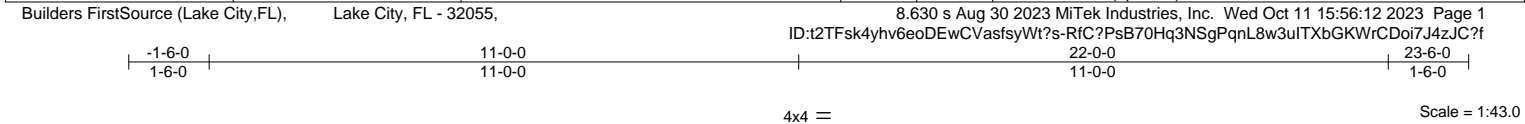
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) - 1-6-0 to 1-6-0, Interior(1) 1-6-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 23-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 2 and 256 lb uplift at joint 6.
 - 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=-54, 4-7=-54, 9-10=-20, 9-20=-80(F=-60), 13-20=-20	

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824039
3708825	T01G	Common Supported Gable	1	1	Job Reference (optional)	



Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824040
3708825	T02	Common	3	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:13 2023 Page 1
ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

-1-6-0
5-4-7
11-0-0
16-7-9
22-0-0

1-6-0
5-4-7
5-7-9
5-7-9
5-4-7

4x6 ||

4

7.00 | 12

2x4 ||

3

15

16

2x4 //

5

6

0-4-10

0-4-10

2

3x6 =

8

17

18

7

5x8 =

3x6 =

7-11-10
7-11-10
14-0-6
6-0-12
22-0-0
7-11-10

Scale = 1:43.8

Plate Offsets (X,Y)-- [6:0-2-8,Edge], [7:0-4-0,0-3-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.39	in (loc)	I/defl	MT20	GRIP
TCDL	7.0	Lumber DOL	1.25	BC	0.88	7-8	>999		244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	7-8	>999		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS		6	n/a		
								Weight: 106 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-3-1 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 9-11-3 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=154(LC 9)
Max Uplift 6=-213(LC 13), 2=-247(LC 12)
Max Grav 6=1104(LC 20), 2=1183(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1753/364, 3-4=-1601/354, 4-5=-1607/359, 5-6=-1762/371
BOT CHORD 2-8=-348/1582, 7-8=-149/1059, 6-7=-260/1487
WEBS 4-7=-182/776, 5-7=-315/196, 4-8=-176/764, 3-8=-306/191

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=213, 2=247.
 - 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=-54, 4-6=-54, 8-12=-20, 7-8=-80(F=-60), 7-9=-20

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Date:

October 12,2023

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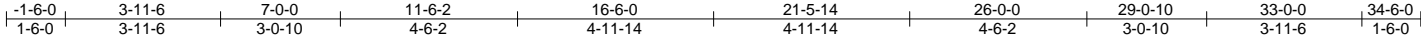
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824041
3708825	T03	Hip Girder	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:15 2023 Page 1
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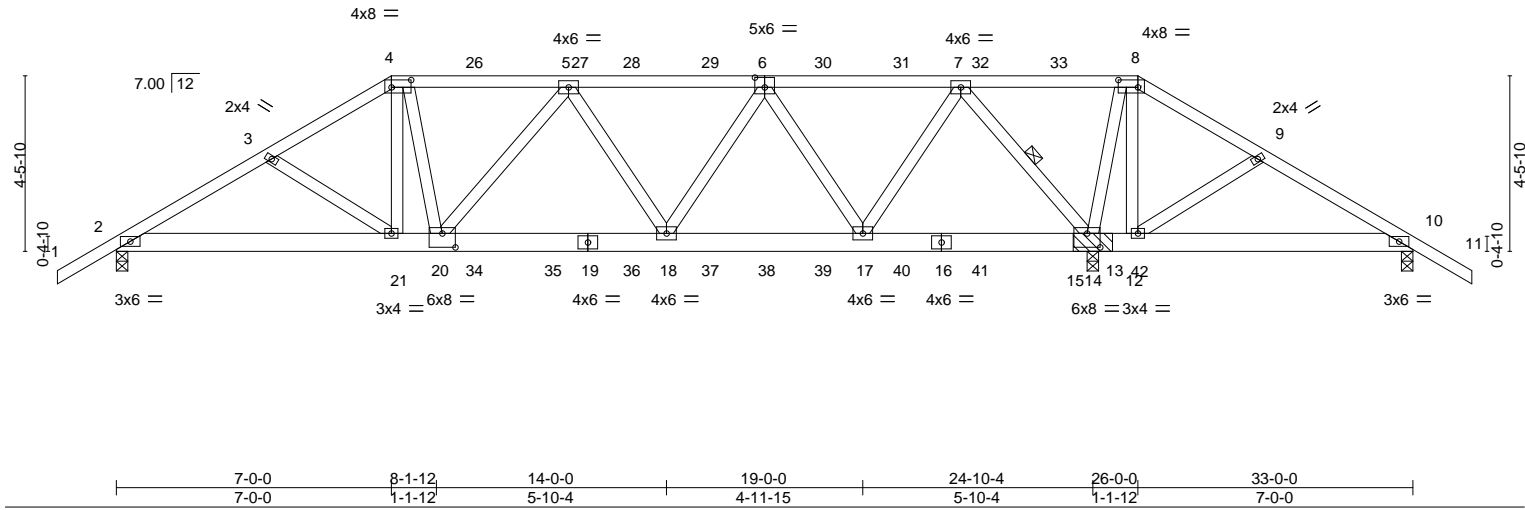


Plate Offsets (X,Y)-- [4:0-6-0,0-2-4], [6:0-3-0,0-3-0], [8:0-6-0,0-2-4], [14:0-4-0,0-4-4], [20:0-4-0,0-4-4]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) I/defl L/d			PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.87	Vert(LL)	0.12 18-20	>999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.18 18-20	>999	180	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.04 14	n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS						
									Weight: 212 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-5 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-14

REACTIONS. (size) 2=0-3-8, 14=(0-3-8 + bearing block) (req. 0-4-10), 10=0-3-8
Max Horz 2=110(LC 6)
Max Uplift 2=685(LC 8), 14=1804(LC 5), 10=546(LC 19)
Max Grav 2=1583(LC 19), 14=3901(LC 1), 10=384(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=2661/1227, 3-4=2510/1191, 4-5=2270/1128, 5-6=2230/1104, 6-7=1064/554,
7-8=706/1553, 8-9=627/1403, 9-10=658/1314
BOT CHORD 2-21=-1055/2272, 20-21=-998/2145, 18-20=-1183/2438, 17-18=-909/1829,
12-14=-1164/613, 10-12=-1115/564
WEBS 4-21=-175/485, 4-20=-313/482, 5-20=-317/229, 5-18=-408/224, 6-18=-357/778,
6-17=-1477/732, 7-17=-826/1761, 7-14=-2652/1293, 8-14=-1396/670, 8-12=-133/313

- NOTES-**
- 1) 2x6 SP No.2 bearing block 12" long at jt. 14 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SP No.2.
 - 2) Unbalanced roof live loads have been considered for this design.
 - 3) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) Provide adequate drainage to prevent water ponding.
 - 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb)
2=685, 14=1804, 10=546.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 101 lb up at 7-0-0, 119 lb down and 98 lb up at 9-0-12, 119 lb down and 98 lb up at 11-0-12, 119 lb down and 98 lb up at 13-0-12, 119 lb down and 98 lb up at 15-0-12, 119 lb down and 91 lb up at 16-6-0, 119 lb down and 98 lb up at 17-11-4, 119 lb down and 98 lb up at 19-11-4, 119 lb down and 98 lb up at 21-11-4, and 119 lb down and 98 lb up at 23-11-4, and 229 lb down and 196 lb up at 26-0-0 on top chord, and 336 lb down and 240 lb up at 7-0-0, 86 lb down and 60 lb up at 9-0-12, 86 lb down and 60 lb up at 11-0-12, 86 lb down and 60 lb up at 13-0-12, 86 lb down and 60 lb up at 15-0-12, 86 lb down and 60 lb up at 16-6-0, 86 lb down and 60 lb up at 17-11-4, 86 lb down and 60 lb up at 19-11-4, 86 lb down and 60 lb up at 21-11-4, and 86 lb down and 60 lb up at 23-11-4, and 336 lb down and 240 lb up at 25-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. 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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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

Continued on page 2

LOAD CASE(S) - Standard

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

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824041
3708825	T03	Hip Girder	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023
MiTek Industries, Inc.
Wed Oct 11 15:56:16 2023
Page 2
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LOAD CASE(S)
Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-54, 4-8=-54, 8-11=-54, 2-10=-20

Concentrated Loads (lb)

Vert: 4=-109(F) 6=-109(F) 8=-182(F) 21=-336(F) 12=-336(F) 26=-109(F) 27=-109(F) 28=-109(F) 29=-109(F) 30=-109(F) 31=-109(F) 32=-109(F) 33=-109(F) 34=-64(F) 35=-64(F) 36=-64(F) 37=-64(F) 38=-64(F) 39=-64(F) 40=-64(F) 41=-64(F) 42=-64(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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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824042
3708825	T04	Hip	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:17 2023 Page 1
ID:t2TFsk4yhhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

-1-6-0
1-6-0

4-8-8
4-8-8

9-0-0
4-3-8

16-6-0
7-6-0

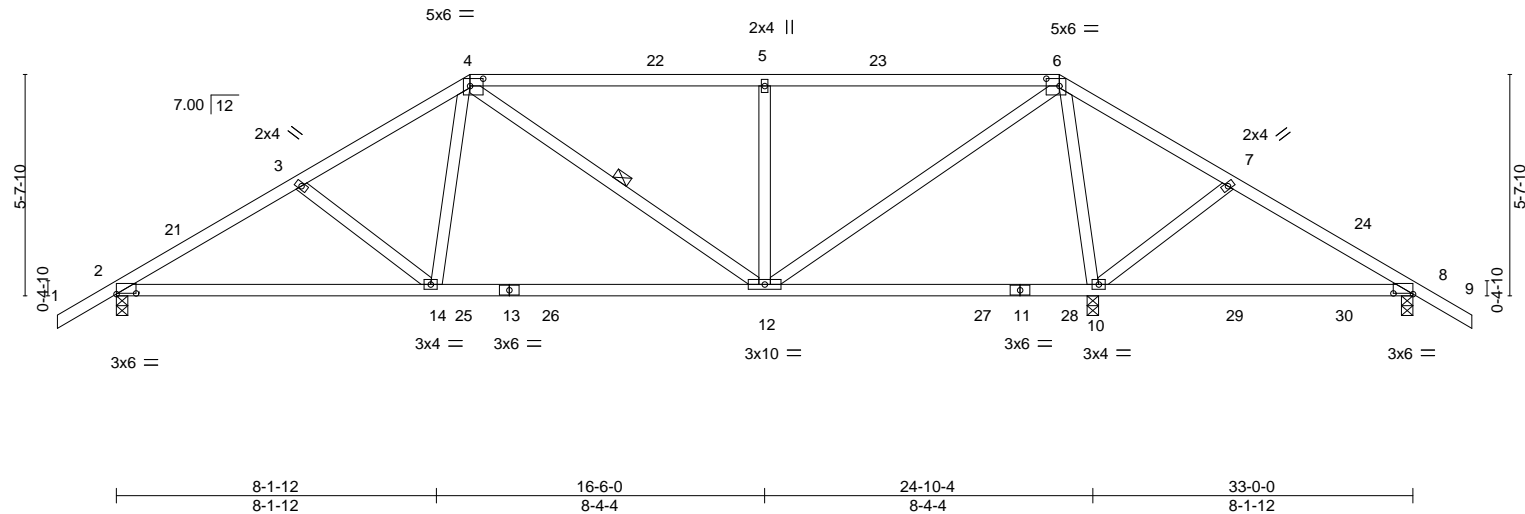
24-0-0
7-6-0

28-3-8
4-3-8

33-0-0
4-8-8

34-6-0
1-6-0

Scale = 1:58.6



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	0.16	10-20	>618	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	0.14	10-20	>719	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.03	10	n/a	n/a			
BCDL	10.0	Code	FBC2020/TP12014	Matrix-MS							Weight: 170 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-7-7 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 4-12

REACTIONS. (size) 2=0-3-8, 10=0-3-8, 8=0-3-8
Max Horz 2=-135(LC 10)
Max Uplift 2=-237(LC 12), 10=-271(LC 13), 8=-91(LC 13)
Max Grav 2=998(LC 25), 10=1663(LC 2), 8=200(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1446/337, 3-4=-1286/299, 4-5=-904/223, 5-6=-904/223, 6-7=-75/459, 7-8=-102/329
BOT CHORD 2-14=-299/1234, 12-14=-218/991, 8-10=-254/88
WEBS 3-14=-277/152, 4-14=-45/501, 5-12=-470/229, 6-12=-280/1291, 6-10=-1202/258, 7-10=-276/180

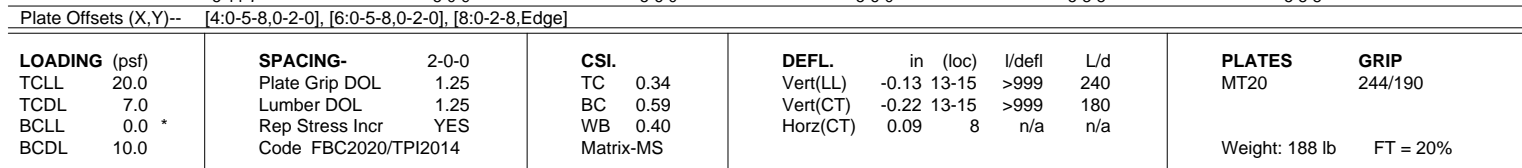
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-9-10, Interior(1) 1-9-10 to 9-0-0, Exterior(2R) 9-0-0 to 13-8-0, Interior(1) 13-8-0 to 24-0-0, Exterior(2R) 24-0-0 to 28-5-0, Interior(1) 28-5-0 to 34-6-0 zone; porch 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.
 - 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, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=237, 10=271.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:18 2023 Page 1
ID:t2TFsk4yhhv6e0DEwCVasfsyWt?z=RIC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f
-1-6-0 5-11-7 11-0-0 16-6-0 22-0-0 27-3-8 33-0-0 34-6-0
1-6-0 5-11-7 5-0-9 5-6-0 5-6-0 5-3-8 5-8-8 1-6-0
Scale = 1:58.6



REACTIONS. (size) 2=0-3-8, 8=0-3-8
 Max Horz 2=-161(LC 10)
 Max Uplift 2=-292(LC 12), 8=-292(LC 13)
 Max Grav 2=1402(LC 2), 8=1402(LC 2)

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

TOP CHORD	2-3=-2243/424, 3-4=-1836/378, 4-5=-1739/353, 5-6=-1739/353, 6-7=-1840/376, 7-8=-2256/428
BOT CHORD	2-16=-378/1889, 15-16=-378/1889, 13-15=-225/1540, 11-13=-137/1542, 10-11=-276/1902, 8-10=-276/1902
WEBS	3-15=-518/188, 4-15=-73/501, 4-13=-160/387, 5-13=-339/169, 6-13=-161/386, 6-11=-67/494, 7-11=-523/190

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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-9-10, Interior(1) 1-9-10 to 11-0-0, Exterior(2R) 11-0-0 to 15-8-0, Interior(1) 15-8-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-8-0, Interior(1) 26-8-0 to 34-6-0 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) 2=292, 8=292.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12, 2023



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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824044
3708825	T06	Hip	1	1	Job Reference (optional)	

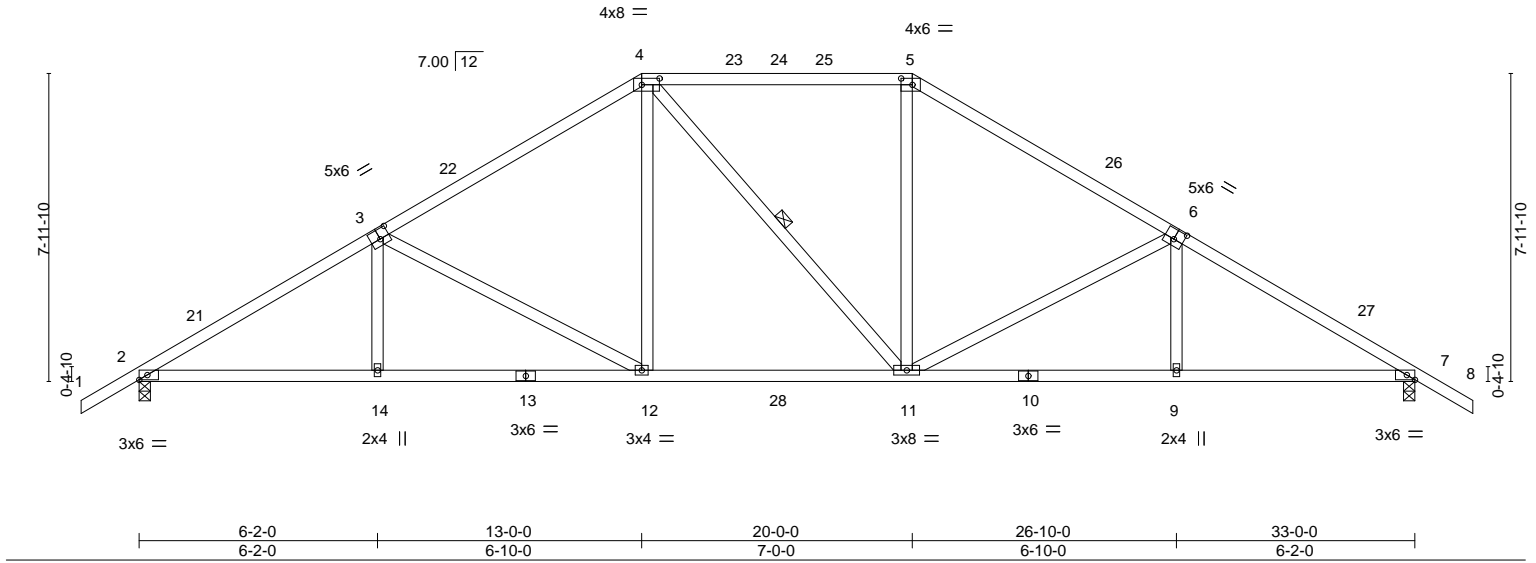
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:20 2023 Page 1

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-1-6-0	6-2-0	13-0-0	20-0-0	26-10-0	33-0-0	34-6-0	1-6-0
1-6-0	6-2-0	6-10-0	7-0-0	6-10-0	6-2-0		

Scale = 1:59.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.70	Vert(LL)	-0.15 11-12 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.24 11-12 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.09 7 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 179 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 3-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-4-3 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=187(LC 10)
Max Uplift 2=288(LC 12), 7=288(LC 13)
Max Grav 2=1406(LC 19), 7=1400(LC 20)

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

TOP CHORD 2-3=2242/421, 3-4=1710/342, 4-5=1406/346, 5-6=1699/342, 6-7=2232/421
BOT CHORD 2-14=395/1977, 12-14=395/1977, 11-12=185/1416, 9-11=269/1882, 7-9=269/1882
WEBS 3-14=0/268, 3-12=652/238, 4-12=69/587, 5-11=64/553, 6-11=653/239, 6-9=0/267

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-9-10, Interior(1) 1-9-10 to 13-0-0, Exterior(2R) 13-0-0 to 17-8-0, Interior(1) 17-8-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-8-0, Interior(1) 24-8-0 to 34-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=288, 7=288.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824045
3708825	T07	Hip	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:21 2023 Page 1

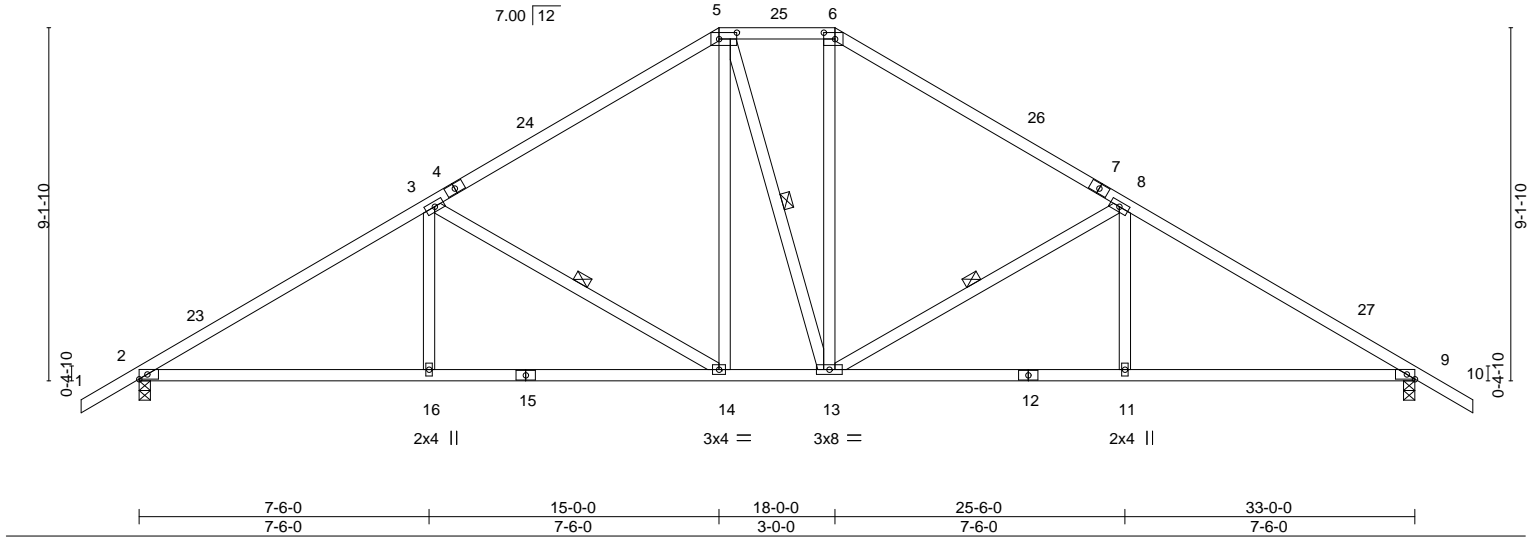
ID:t2TFsk4yhhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

-1-6-0	7-6-0	15-0-0	18-0-0	25-6-0	33-0-0	34-6-0	1-6-0
1-6-0	7-6-0	7-6-0	3-0-0	7-6-0	7-6-0	34-6-0	1-6-0

4x8 =

4x6 =

Scale = 1:59.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	-0.11 14-16 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.69	Vert(CT)	-0.25 14-16 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.08 9 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 187 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 3-8-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-4-10 oc bracing.
WEBS 1 Row at midpt 3-14, 5-13, 8-13

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
Max Horz 2=-213(LC 10)
Max Uplift 2=-284(LC 12), 9=-284(LC 13)
Max Grav 2=1302(LC 1), 9=1302(LC 1)

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

TOP CHORD 2-3=-2017/400, 3-5=-1430/315, 5-6=-1142/325, 6-8=-1431/315, 8-9=-2016/400
BOT CHORD 2-16=-378/1671, 14-16=-378/1671, 13-14=-142/1141, 11-13=-235/1670, 9-11=-235/1670
WEBS 3-16=0/329, 3-14=-648/275, 5-14=-104/421, 6-13=-106/423, 8-13=-646/276, 8-11=0/327

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-9-10, Interior(1) 1-9-10 to 15-0-0, Exterior(2E) 15-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-8-0, Interior(1) 22-8-0 to 34-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=284, 9=284.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

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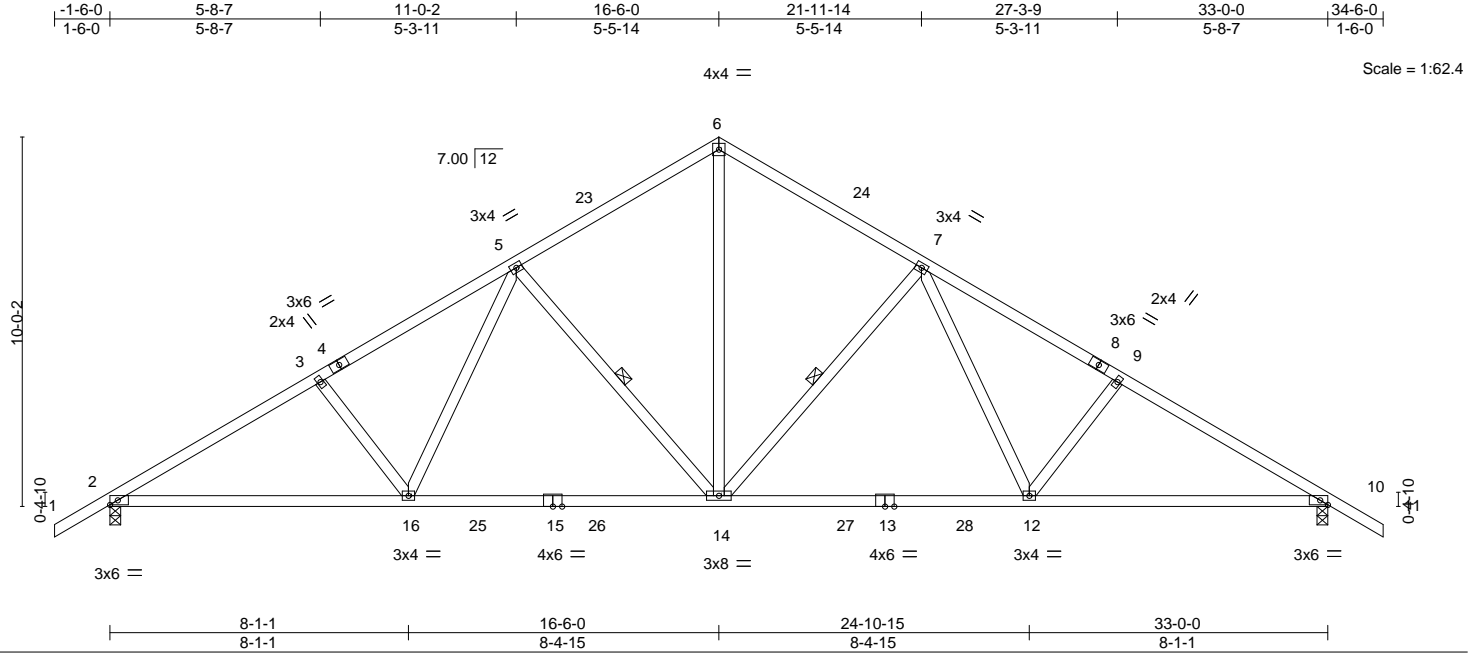
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824046
3708825	T08	Common	13	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:22 2023 Page 1

ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.21 14-16 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.35 14-16 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.09 10 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 182 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 3-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-1-8 oc bracing.
WEBS 1 Row at midpt 7-14, 5-14

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=231(LC 11)
Max Uplift 2=280(LC 12), 10=280(LC 13)
Max Grav 2=1489(LC 19), 10=1489(LC 20)

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

TOP CHORD 2-3=-2313/408, 3-5=-2179/412, 5-6=-1482/338, 6-7=-1482/338, 7-9=-2179/412, 9-10=-2313/408
BOT CHORD 2-16=-415/2120, 14-16=-269/1708, 12-14=-167/1594, 10-12=-259/1947
WEBS 6-14=-221/1185, 7-14=-640/255, 7-12=-103/603, 9-12=-277/174, 5-14=-639/255, 5-16=-103/603, 3-16=-277/174

NOTES-

- Unbalanced roof live loads HAVING been considered for this design.
- Wind: ASCE 7-16; 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 Exterior(2E) -1-6-0 to 1-9-10, Interior(1) 1-9-10 to 16-6-0, Exterior(2R) 16-6-0 to 19-9-10, Interior(1) 19-9-10 to 34-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=280, 10=280.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 12,2023

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Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824047
3708825	T08G	GABLE	1	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:24 2023 Page 2
ID:t2TFsk4y hv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-6=-54, 6-12=-54, 2-37=-20
- Concentrated Loads (lb)
- Vert: 42=-152(B) 43=-152(B) 44=-369(B)

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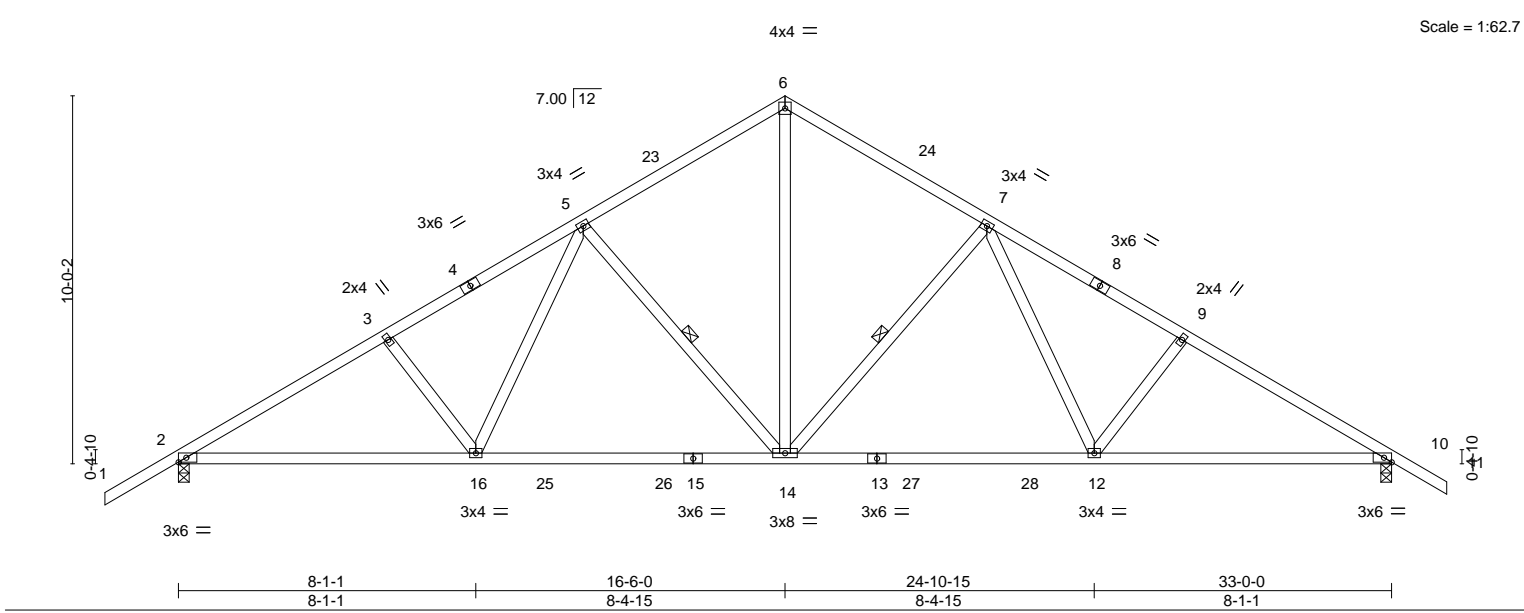
Job	Truss	Truss Type	Qty	Ply	LOT 24 RP	T31824048
3708825	T09	Common	3	1	Job Reference (optional)	

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Oct 11 15:56:26 2023 Page 1
ID:t2TFsk4yhv6eoDEwCVasfsyWt?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

-2-0-0
5-8-7
11-0-2
16-6-0
21-11-14
27-3-9
33-0-0
34-6-0
1-6-0

2-0-0
5-8-7
5-3-11
5-5-14
5-5-14
5-3-11
5-8-7
1-6-0



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	-0.21	14-16	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.35	14-16	>999	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.09	10	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 183 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-7-10 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 9-2-14 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 7-14, 5-14

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=236(LC 11)
Max Uplift 2=-291(LC 12), 10=-280(LC 13)
Max Grav 2=1515(LC 19), 10=1488(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2313/401, 3-5=-2168/405, 5-6=-1481/336, 6-7=-1480/337, 7-9=-2178/412, 9-10=-2311/408
BOT CHORD 2-16=-407/2107, 14-16=-266/1703, 12-14=-166/1592, 10-12=-258/1945
WEBS 6-14=-220/1184, 7-14=-639/255, 7-12=-103/603, 9-12=-277/174, 5-14=-635/252, 5-16=-97/593, 3-16=-271/170

- NOTES-**
- Unbalanced roof live loads HAVING been considered for this design.
 - Wind: ASCE 7-16; 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 Exterior(2E) -2-0-0 to 1-3-10, Interior(1) 1-3-10 to 16-6-0, Exterior(2R) 16-6-0 to 19-9-10, Interior(1) 19-9-10 to 34-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=291, 10=280.

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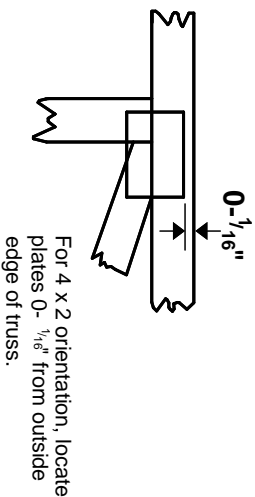
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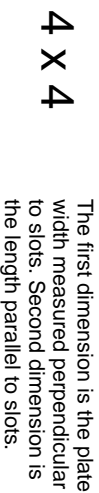
Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE



LATERAL BRACING LOCATION



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

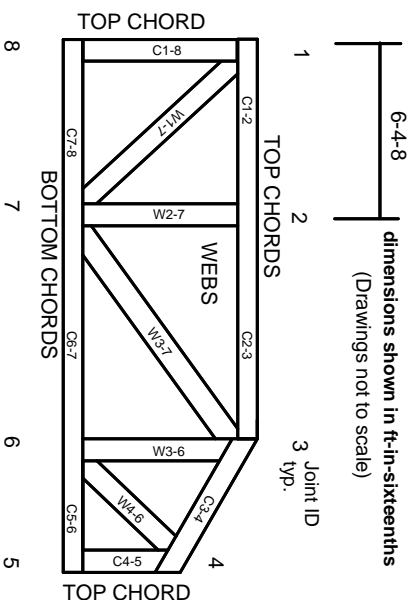
BEARING



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

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

Numbering System



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

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

Product Code Approvals

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

Design General Notes

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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