



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

RE: 4573903 - KURTIS-BETH

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

**Site Information:**

Customer Info: KG CONSTRUCTION Project Name: Kurtis-Beth Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: TBD SW Otter Lane, N/A  
City: Columbia Cty State: FL

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

Name: License #:  
Address:  
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 33 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.

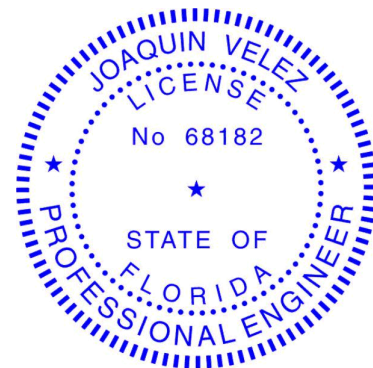
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T37160307	CJ01	4/29/25	15	T37160321	T07	4/29/25
2	T37160308	CJ03	4/29/25	16	T37160322	T08	4/29/25
3	T37160309	CJ05	4/29/25	17	T37160323	T09	4/29/25
4	T37160310	EJ01	4/29/25	18	T37160324	T10	4/29/25
5	T37160311	EJ02	4/29/25	19	T37160325	T11	4/29/25
6	T37160312	EJ03	4/29/25	20	T37160326	T12	4/29/25
7	T37160313	HJ10	4/29/25	21	T37160327	T13	4/29/25
8	T37160314	HJ10A	4/29/25	22	T37160328	T14	4/29/25
9	T37160315	T01	4/29/25	23	T37160329	T15	4/29/25
10	T37160316	T02	4/29/25	24	T37160330	T16	4/29/25
11	T37160317	T03	4/29/25	25	T37160331	T17	4/29/25
12	T37160318	T04	4/29/25	26	T37160332	T18	4/29/25
13	T37160319	T05	4/29/25	27	T37160333	V01	4/29/25
14	T37160320	T06	4/29/25	28	T37160334	V02	4/29/25

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 29, 2025

Velez, Joaquin

1 of 2



RE: 4573903 - KURTIS-BETH

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

**Site Information:**

Customer Info: KG CONSTRUCTION   Project Name: Kurtis-Beth   Model: Custom  
Lot/Block: N/A   Subdivision: N/A  
Address: TBD SW Otter Lane, N/A  
City: Columbia Cty   State: FL

No.	Seal#	Truss Name	Date
29	T37160335	V03	4/29/25
30	T37160336	V04	4/29/25
31	T37160337	V05	4/29/25
32	T37160338	V06	4/29/25
33	T37160339	V07	4/29/25



Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160308
4573903	CJ03	Jack-Open	12	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:17 2025 Page 1  
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-cERfw?rQ5I9Neg?GNYgtpK7llkEF6L5vPfmGO4zM7bK

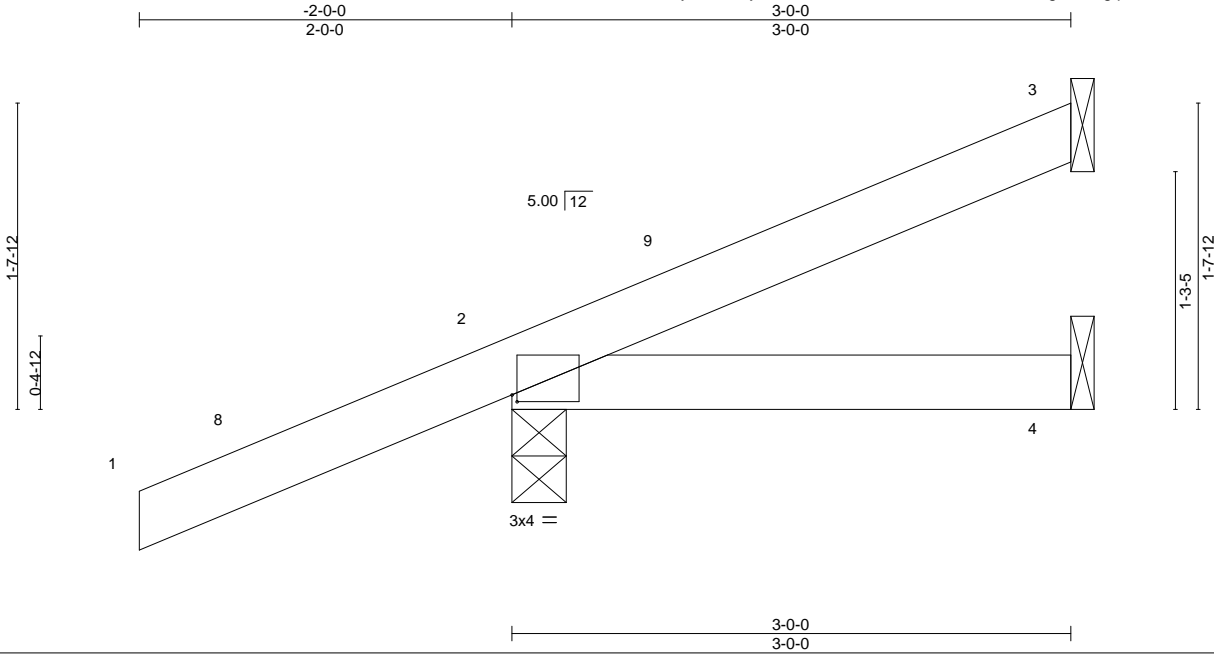


Plate Offsets (X,Y)--		[2:0-0-5,0-0-7]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.29	Vert(LL)	-0.00	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC 0.06	Vert(CT)	-0.00	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MP						Weight: 13 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=75(LC 12)  
Max Uplift 3=34(LC 12), 2=129(LC 8), 4=16(LC 9)  
Max Grav 3=57(LC 1), 2=278(LC 1), 4=47(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; 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 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.

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

April 29,2025

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

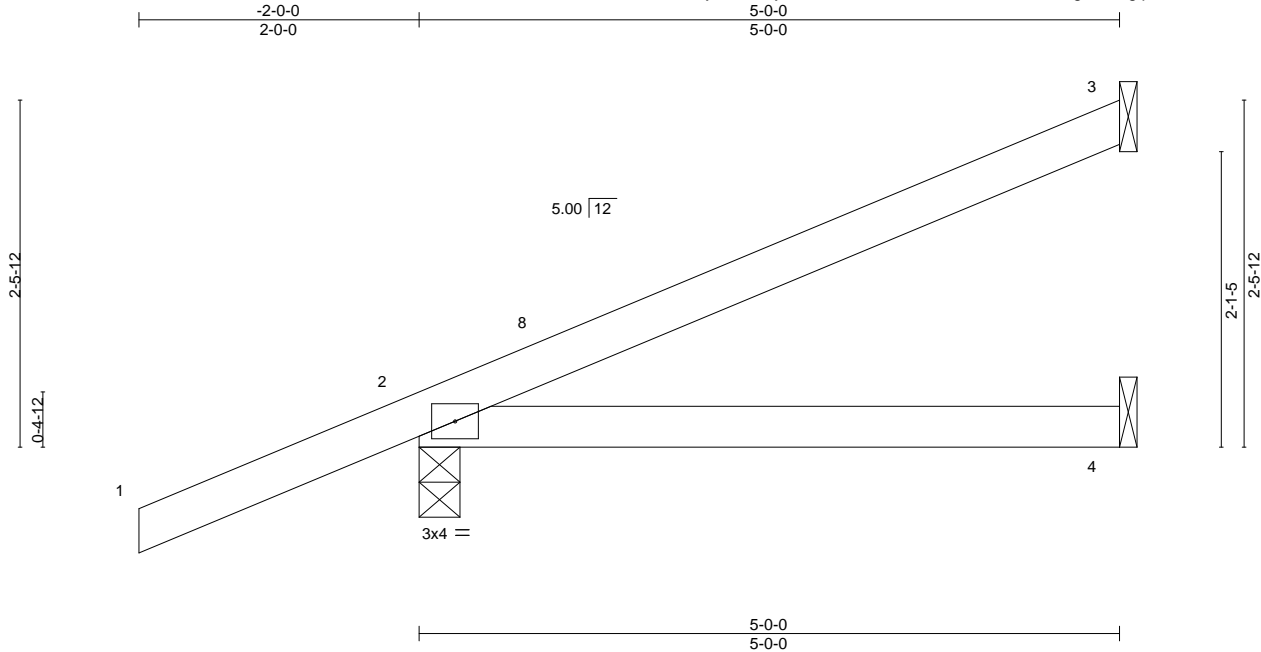
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

**MiTek®**

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

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160309
4573903	CJ05	Jack-Open	12	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.830 s Apr 11 2025 MiTek Industries, Inc.
Mon Apr 28 16:46:17 2025
Page 1
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-cERfw?rQ5I9Neg?GNYgtpK7llkBa6L5vPfmGO4zM7bK



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 0.29	Vert(LL)	0.05	4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.23	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/TPI2014		Matrix-MP						Weight: 19 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=107(LC 12)  
Max Uplift 3=-69(LC 12), 2=-145(LC 8), 4=-32(LC 9)  
Max Grav 3=119(LC 1), 2=342(LC 1), 4=88(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; 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=145.

This item has been  
digitally signed and  
sealed by Velez, Joaquin, PE  
on the date indicated here.  
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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 29,2025

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

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

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160310
4573903	EJ01	Jack-Partial	30	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:18 2025 Page 1  
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-4Q?17Ls2sbIEFqaSxGB6MYgpe8RLrol2dJWpwXzM7bJ

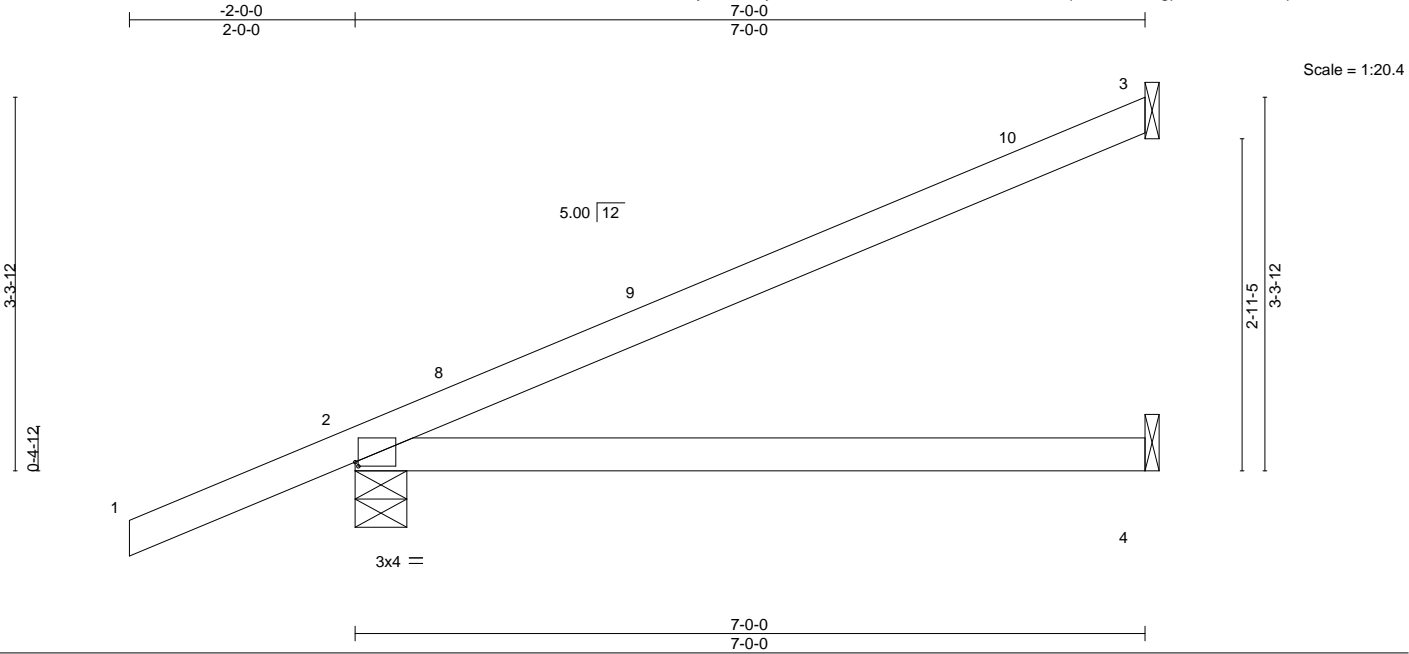


Plate Offsets (X,Y)--		[2:0-0-5,0-0-7]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.66
TCDL 10.0	Lumber DOL	1.25	BC 0.52
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	FBC2023/TPI2014	Matrix-MS
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) 0.17 4-7 >492 240
			Vert(CT) -0.22 4-7 >378 180
			Horz(CT) 0.01 3 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 244/190
			Weight: 25 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
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 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=135(LC 12)  
Max Uplift 3=90(LC 12), 2=-168(LC 8), 4=-47(LC 9)  
Max Grav 3=177(LC 1), 2=415(LC 1), 4=127(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 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=168.

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 29,2025

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

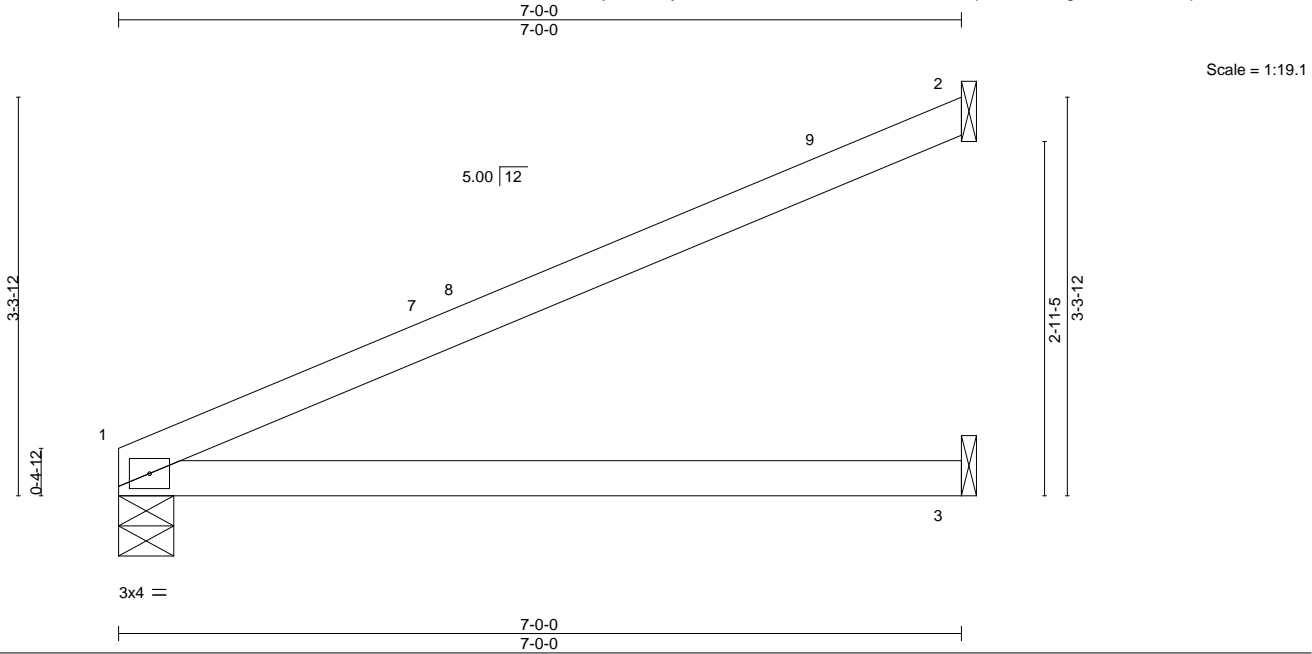
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**MiTek®**

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

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160311
4573903	EJ02	Jack-Partial	9	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:18 2025 Page 1  
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-4Q?17Ls2sbIEFqaSxGB6MYgof8RwroL2dJWpwXzM7bJ



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 0.72	Vert(LL)	0.12	3-6	>690	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.55	Vert(CT)	-0.25	3-6	>339	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	1	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS						Weight: 22 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 6'-0" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS.** (size) 1=0-5-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=107(LC 12)  
Max Uplift 1=60(LC 12), 2=94(LC 12), 3=3(LC 12)  
Max Grav 1=278(LC 1), 2=186(LC 1), 3=130(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 6-11-4 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" tall by 2'-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  
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Chesterfield, MO 63017  
Date:

April 29,2025

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314.434.1200 / MiTek-US.com



Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160312
4573903	EJ03	Jack-Partial	4	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:19 2025 Page 1

ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-YdZPKgthdvQ5t\_9eUziLuCxcXI?aFbBsZFMSzzM7bl



Scale = 1:19.1

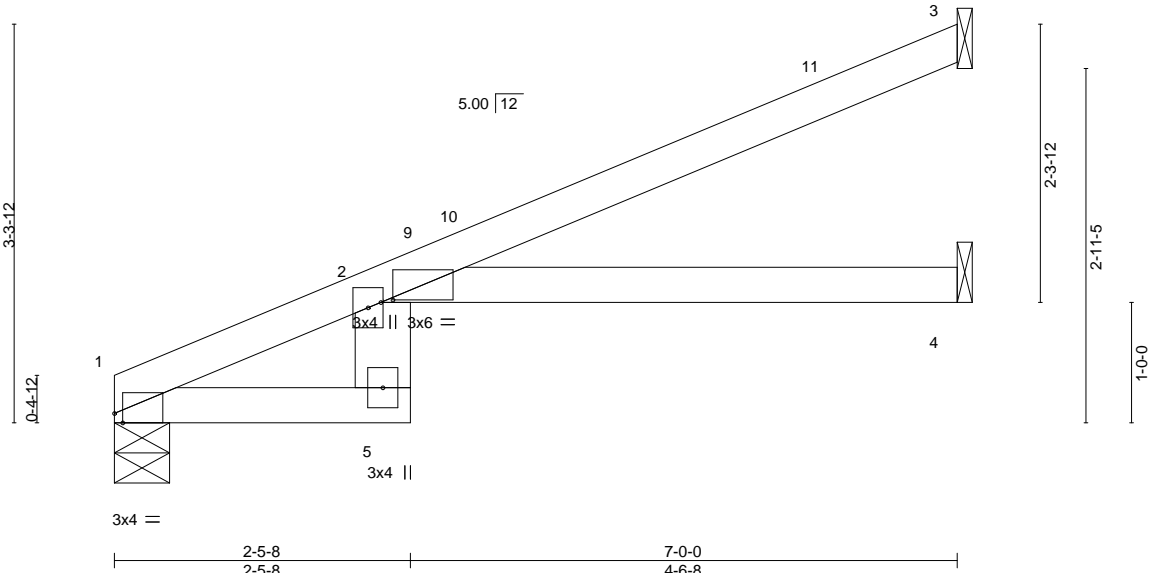


Plate Offsets (X,Y)--		[1:0-0-13,Edge], [2:0-1-3,0-0-4]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL	1.25	TC 0.84		Vert(LL)	0.17 2-4	>479	240	MT20	244/190
TCDL 10.0		Lumber DOL	1.25	BC 0.69		Vert(CT)	-0.31 2-4	>270	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.13 4	n/a	n/a		
BCDL 10.0		Code FBC2023/TPI2014		Matrix-MR						Weight: 24 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
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 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	2-5: 2x6 SP No.2		

**REACTIONS.** (size) 1=0-5-8, 3=Mechanical, 4=Mechanical  
Max Horz 1=107(LC 12)  
Max Uplift 1=-60(LC 12), 3=-80(LC 12), 4=-17(LC 12)  
Max Grav 1=278(LC 1), 3=172(LC 1), 4=124(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 6-11-4 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, 3, 4.

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 29,2025

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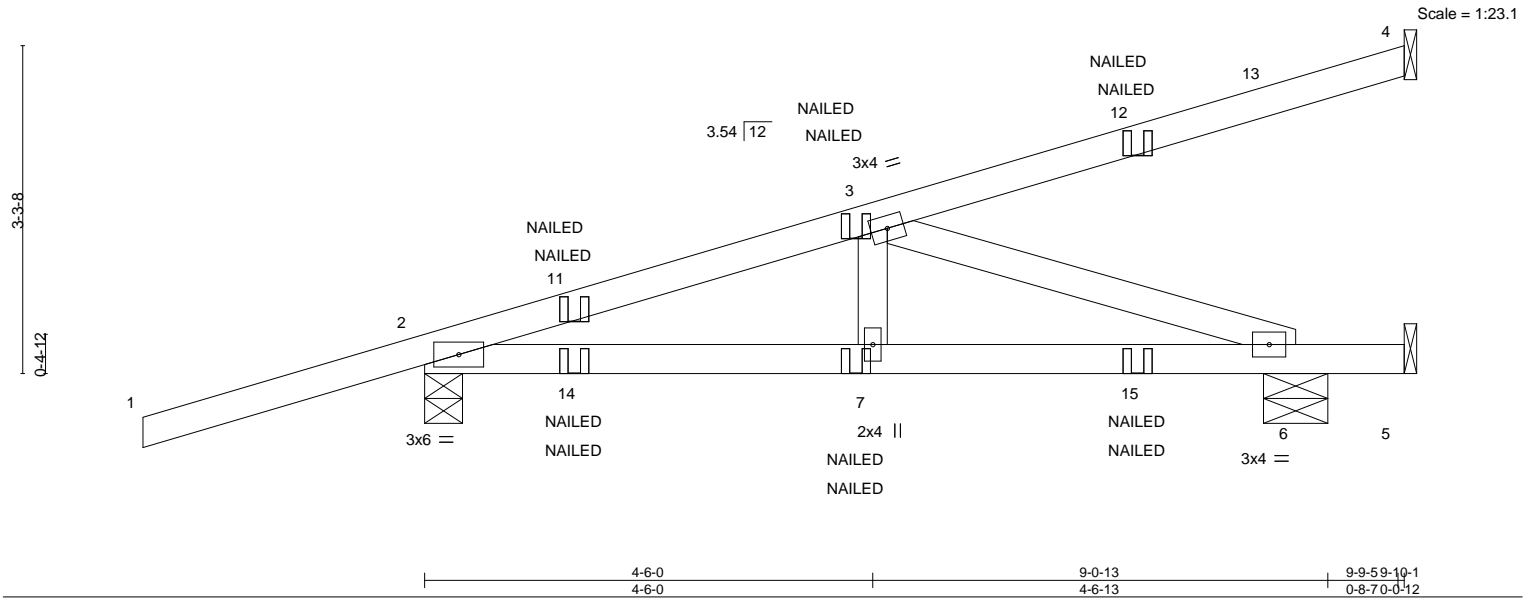


Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160313
4573903	HJ10	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

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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 0.63	Vert(LL)	-0.05 7-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.61	Vert(CT)	0.06 7-10	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.23	Horz(CT)	-0.01 4	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 42 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.**

All bearings Mechanical except (jt=length) 2=0-4-9, 6=0-7-12.  
(lb) - Max Horz 2=150(LC 25)  
Max Uplift All uplift 100 lb or less at joint(s) 4, 5 except 2=236(LC 4), 6=224(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 4, 5 except 2=442(LC 1), 6=417(LC 3)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-577/285  
BOT CHORD 2-7=-314/527, 6-7=-314/527  
WEBS 3-6=-555/331

**NOTES-**

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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) 4, 5 except (jt=lb) 2=236, 6=224.
- 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, 5-8=-20  
Concentrated Loads (lb)  
Vert: 7=5(F=2, B=2) 11=74(F=37, B=37) 12=-69(F=-35, B=-35) 14=81(F=40, B=40) 15=-51(F=-25, B=-25)

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Chesterfield, MO 63017  
Date:

April 29,2025

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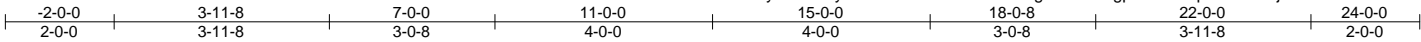
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160315
4573903	T01	Hip Girder	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:21 2025 Page 1  
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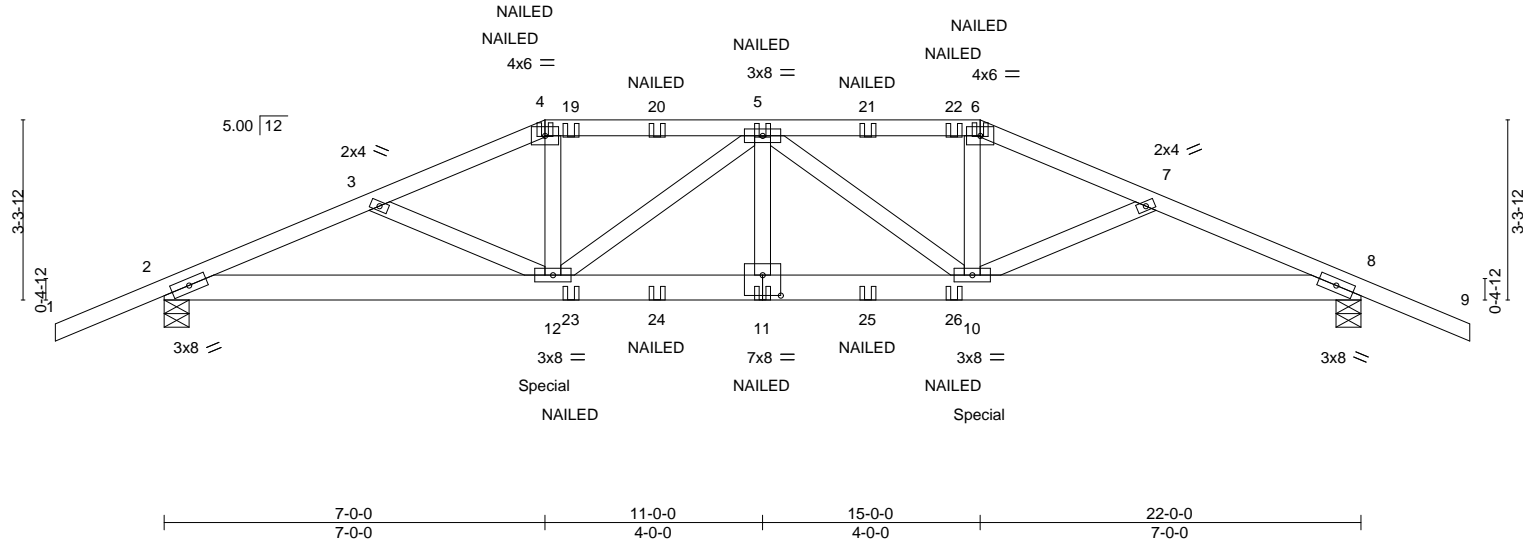


Plate Offsets (X,Y)-- [11:0-4-0,0-4-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	0.18	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	-0.28	11	>929	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MS							Weight: 127 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 2-9-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 5-6-12 oc bracing.

**REACTIONS.**

(size) 2=0-5-8, 8=0-5-8  
Max Horz 2=-63(LC 34)  
Max Uplift 2=-785(LC 8), 8=-785(LC 9)  
Max Grav 2=1766(LC 1), 8=1766(LC 1)

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

TOP CHORD 2-3=-3727/1746, 3-4=-3525/1686, 4-5=-3274/1601, 5-6=-3274/1601, 6-7=-3525/1686,  
7-8=-3727/1747  
BOT CHORD 2-12=-1599/3403, 11-12=-1758/3781, 10-11=-1758/3781, 8-10=-1537/3403  
WEBS 4-12=-410/890, 5-12=-687/352, 5-11=-134/301, 5-10=-687/351, 6-10=-409/890

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; 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) 2=785, 8=785.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 220 lb down and 179 lb up at 7-0-0, and 220 lb down and 179 lb up at 15-0-0 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).

**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, 13-16=-20

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Chesterfield, MO 63017  
Date:

April 29,2025

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160315
4573903	T01	Hip Girder	1	1	Job Reference (optional)	

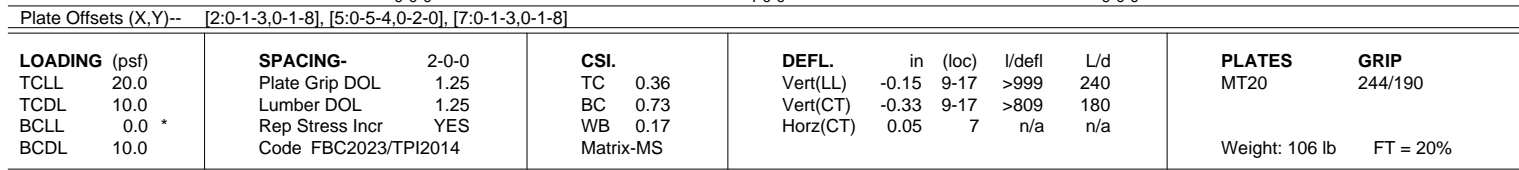
**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 4=-95(F) 6=-95(F) 12=-220(F) 11=-63(F) 5=-117(F) 10=-220(F) 19=-117(F) 20=-117(F) 21=-117(F) 22=-117(F) 23=-63(F) 24=-63(F) 25=-63(F) 26=-63(F)

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 Scale = 1:42.4



**REACTIONS.** (size) 2=0-5-8, 7=0-5-8  
 Max Horz 2=-77(LC 13)  
 Max Uplift 2=-266(LC 12), 7=-266(LC 13)  
 Max Grav 2=1000(LC 1), 7=1000(LC 1)

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

TOP CHORD	2-3=-1701/421, 3-4=-1365/304, 4-5=-1219/308, 5-6=-1364/304, 6-7=-1701/422
BOT CHORD	2-11=-387/1530, 9-11=-168/1219, 7-9=-311/1530
WEBS	3-11=-358/193, 4-11=-40/325, 5-9=-42/325, 6-9=-358/193

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 2-0-0 to 1-0-0, Zone1 1-0-0 to 9-0-0, Zone3 9-0-0 to 13-0-0, Zone2 13-0-0 to 17-4-1, Zone1 17-4-1 to 24-0-0 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) 2=266, 7=266.

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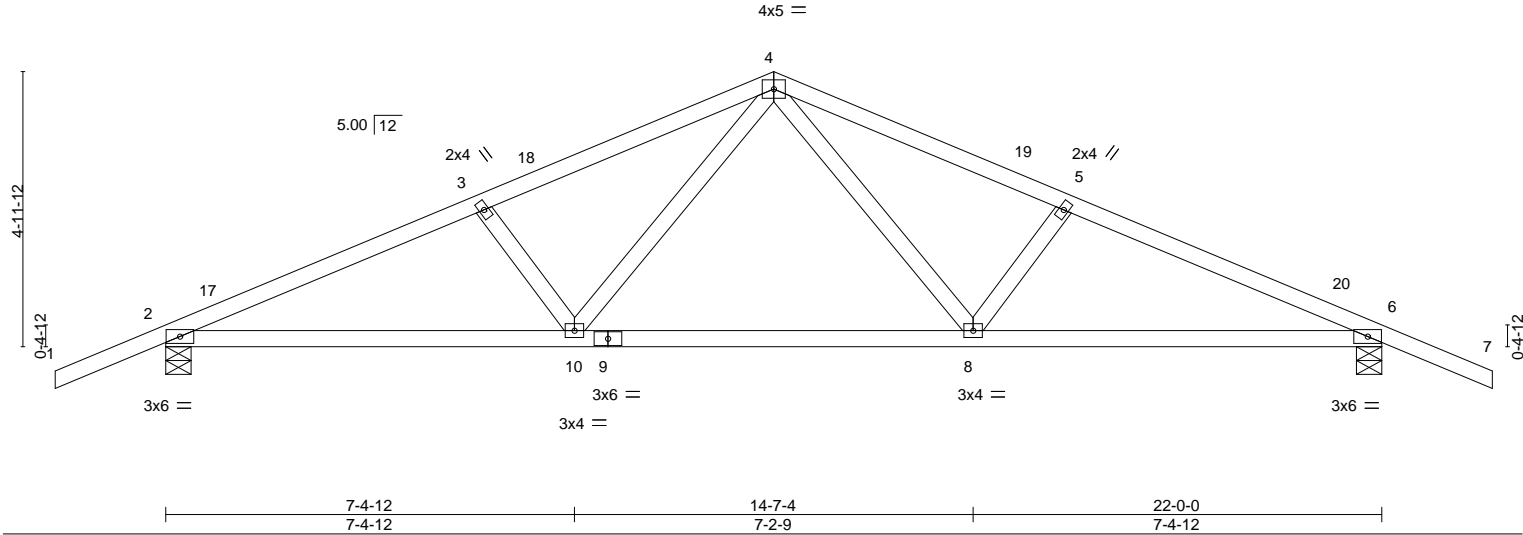
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Joaquin Velez PE No.68182  
MITek Inc. DBA MITek USA FL Cert 6634  
16023 Swingle Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29, 2025

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160317
4573903	T03	Common	8	1		
Job Reference (optional)						

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-2-0-0 5-9-1 11-0-0 16-2-15 22-0-0 24-0-0  
2-0-0 5-9-1 5-2-15 5-9-1 2-0-0  
Scale = 1:41.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.52	Vert(LL)	-0.21 8-10 >999 240	MT20		244/190	
TCDL	10.0	Lumber DOL	1.25	BC	0.97	Vert(CT)	-0.44 8-10 >597 180				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.06 6 n/a n/a				
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MS							
Weight: 100 lb										FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-9: 2x4 SP No.1  
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 8-0-4 oc bracing.

REACTIONS.

(size) 2=0-5-8, 6=0-5-8  
Max Horz 2=-90(LC 17)  
Max Uplift 2=-329(LC 12), 6=-329(LC 13)  
Max Grav 2=1216(LC 1), 6=1216(LC 1)

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

TOP CHORD 2-3=-2274/569, 3-4=-2092/545, 4-5=-2097/546, 5-6=-2279/570  
BOT CHORD 2-10=-530/2041, 8-10=-278/1393, 6-8=-441/2045  
WEBS 4-8=-236/808, 5-8=-303/190, 4-10=-234/800, 3-10=-303/190

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 1-0-0, Zone1 1-0-0 to 11-0-0, Zone2 11-0-0 to 15-2-15, Zone1 15-2-15 to 24-0-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=329, 6=329.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-7=-60, 10-11=-20, 8-10=-80(F=-60), 8-14=-20

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Chesterfield, MO 63017  
Date:

April 29,2025

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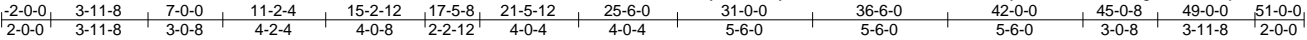
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160318
4573903	T04	Hip Girder	1	2	Job Reference (optional)	

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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160318
4573903	T04	Hip Girder	1	2	Job Reference (optional)	

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8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:27 2025 Page 2  
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- NOTES-**
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 2, 1903 lb uplift at joint 26, 1364 lb uplift at joint 17 and 958 lb uplift at joint 15.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 220 lb down and 179 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-13=-60, 13-16=-60, 25-29=-20, 23-24=-20, 22-32=-20

Concentrated Loads (lb)

Vert: 4=-95(F) 8=-112(F) 13=-80(F) 25=-63(F) 7=-117(F) 10=-126(F) 28=-220(F) 5=-117(F) 6=-117(F) 23=-72(F) 18=87(F) 35=-117(F) 36=-117(F) 37=-117(F) 38=-112(F) 39=-112(F) 40=-112(F) 41=-126(F) 42=-126(F) 43=-126(F) 44=-126(F) 45=-126(F) 46=-126(F) 47=-126(F) 48=-126(F) 49=-63(F) 50=-63(F) 51=-63(F) 52=-63(F) 53=-86(F) 54=-86(F) 55=-86(F) 56=-86(F) 57=-72(F) 58=-72(F) 59=-72(F) 60=-72(F) 61=-72(F) 62=-72(F) 63=-72(F) 64=-72(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  
314.434.1200 / [MiTek-US.com](http://MiTek-US.com)

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160319
4573903	T05	Hip	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:27 2025 Page 1

ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-J92Q0PziIMQzrCmByfrDDRYN5mSJSDnICBnkVzM7bA

-2-0-0

4-11-8

9-0-0

15-2-12

17-5-8

21-5-12

25-6-0

32-9-0

40-0-0

44-0-8

49-0-0

51-0-0

2-0-0

4-11-8

4-0-8

6-2-12

2-2-12

4-0-4

4-0-4

7-3-0

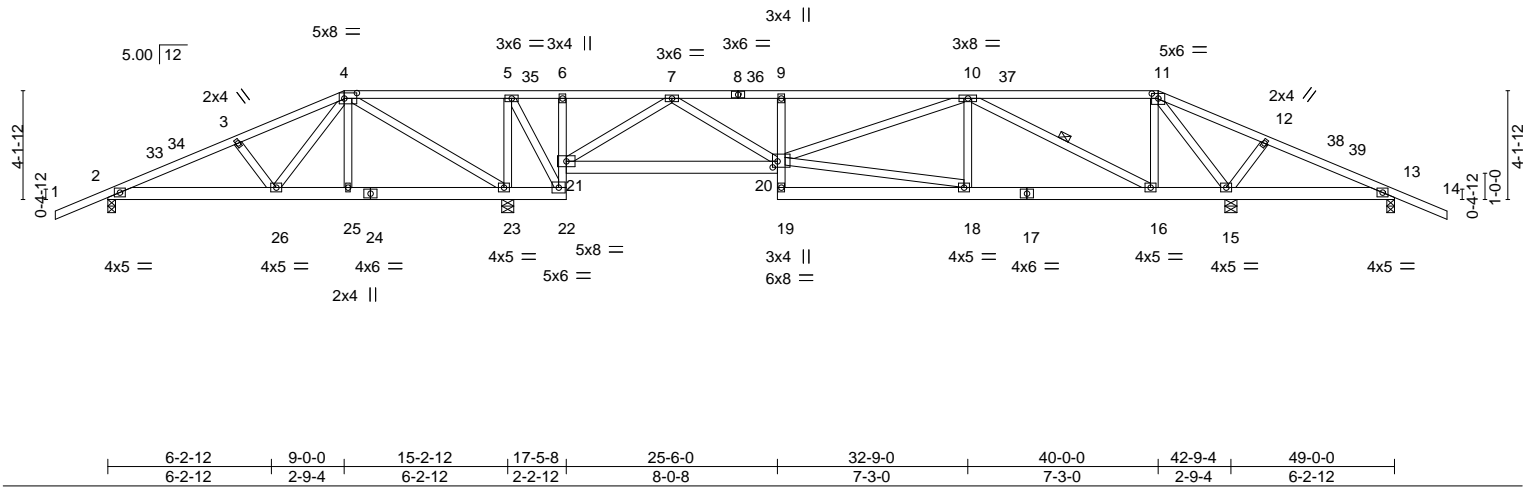
7-3-0

4-0-8

4-11-8

2-0-0

Scale = 1:87.7



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 0.61	Vert(LL)	-0.08 20	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.79	Vert(CT)	-0.15 18-19	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.02 15	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 308 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD 2x6 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 4-2-15 oc bracing.
6-22,9-19: 2x4 SP No.3	WEBS 1 Row at midpt 10-16
WEBS 2x4 SP No.3	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 23=0-5-8, 15=0-5-8.  
(lb) - Max Horz 2=-77(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-266(LC 8), 23=-688(LC 8), 15=-485(LC 9), 13=-133(LC 25)  
Max Grav All reactions 250 lb or less at joint(s) 13 except 2=501(LC 25), 23=1989(LC 1), 15=1611(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-487/456, 3-4=-335/438, 4-5=-142/851, 5-6=-29/405, 6-7=-42/414, 7-9=-1514/521, 9-10=-1508/531, 11-12=-200/840, 12-13=-190/701  
BOT CHORD 2-26=-356/413, 22-23=-851/260, 21-22=-966/282, 20-21=-211/746, 9-20=-333/167, 16-18=-316/1237, 13-15=-630/227  
WEBS 4-26=-238/407, 4-23=-1033/381, 5-23=-1166/377, 5-22=-233/925, 7-21=-1361/439, 7-20=-220/929, 18-20=-262/1083, 10-20=-93/291, 10-16=-1229/400, 11-16=-131/631, 11-15=-1512/428

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 9-0-0, Zone2 9-0-0 to 15-11-2, Zone1 15-11-2 to 40-0-0, Zone2 40-0-0 to 46-11-3, Zone1 46-11-3 to 51-0-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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 266 lb uplift at joint 2, 688 lb uplift at joint 23, 485 lb uplift at joint 15 and 133 lb uplift at joint 13.

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 29,2025

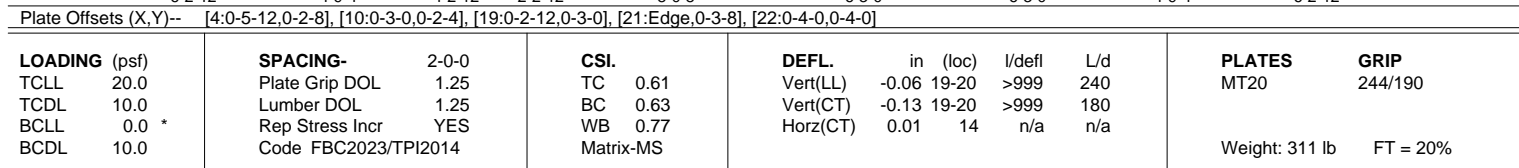
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:28 2025 Page 1  
 ID: iLFy0EbzAAyMv2fsVKQNPZzSscM-nLbpDL\_KWgYqSMLNWMMSmf4YwAr1B8sWxsxLGyzM7b9  
 | -2-0-0 | 6-2-12 | 11-0-0 | 17-5-8 | 21-5-12 | 25-6-0 | 31-9-0 | 38-0-0 | 42-9-4 | 49-0-0 | 51-0-0 |  
 | 2-0-0 | 6-2-12 | 4-9-4 | 6-5-8 | 4-0-4 | 4-0-4 | 6-3-0 | 6-3-0 | 4-9-4 | 6-2-12 | 2-0-0 |  
 Scale = 1:87.1



**REACTIONS.** All bearings 0-3-8 except (jt=length) 22=0-5-8, 14=0-5-8.  
 (lb) - Max Horz 2=91(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) except 2=-256(LC 8), 22=-685(LC 8), 14=-434(LC 13), 12=-113(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 12 except 2=485(LC 25), 22=2048(LC 1), 14=1488(LC 26)

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

TOP CHORD	2-3=-408/433, 3-4=0/365, 4-5=-138/827, 5-6=-5/353, 6-8=-1221/441, 8-9=-1212/444, 9-10=-574/274, 10-11=-686/269, 11-12=-130/545
BOT CHORD	2-25=-324/323, 23-25=-324/323, 22-23=-313/144, 21-22=-327/126, 5-20=-154/744, 19-20=-135/573, 8-19=-311/155, 15-17=-269/1129, 14-15=-442/176, 12-14=-442/176
WEBS	3-25=-122/271, 3-23=-595/337, 4-23=-214/339, 4-22=-924/345, 5-22=-1226/371, 6-20=-1173/363, 6-19=-204/866, 17-19=-226/1039, 9-15=-706/239, 11-15=-278/1151, 11-14=-1297/435

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 11-0-0, Zone2 11-0-0 to 17-11-2, Zone1 17-11-2 to 38-0-0, Zone2 38-0-0 to 44-11-3, Zone1 44-11-3 to 51-0-0 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
  - 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 256 lb uplift at joint 2, 685 lb uplift at joint 22, 434 lb uplift at joint 14 and 113 lb uplift at joint 12.
- This item has been digitally signed and sealed by Velez, Joaquin, F 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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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29, 2025



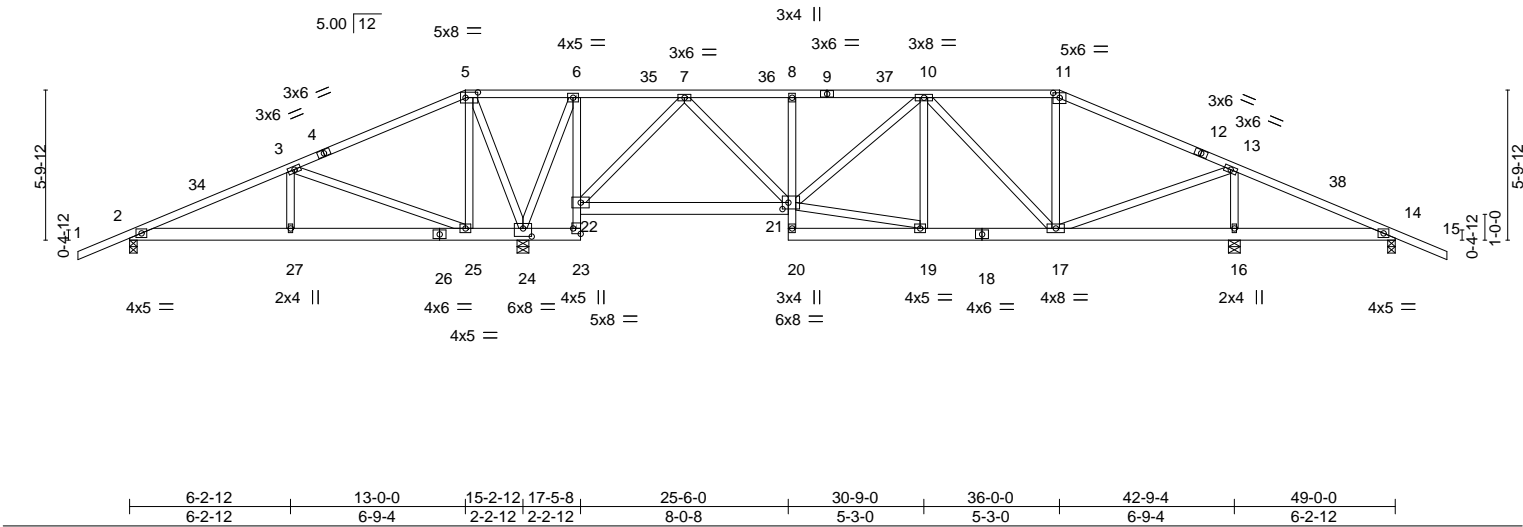
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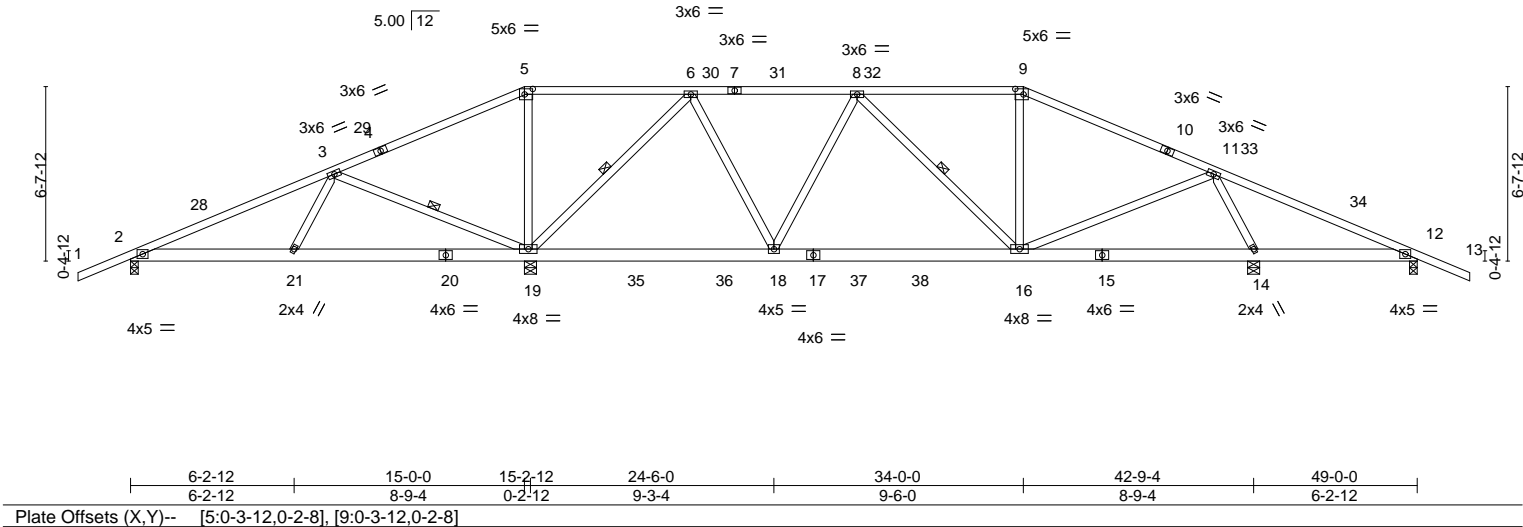
Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160321
4573903	T07	Hip	1	1		
Job Reference (optional)						

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:29 2025 Page 1  
ID:ILFy0EbZAAyMv2fsVKQNPZzSscM-GY9BR5?yG\_gg4WwZ44uhlSdksZCwMg9WgupOzM7b8  
-2-0-0 6-2-12 13-0-0 17-5-8 21-5-12 25-6-0 30-9-0 36-0-0 42-9-4 49-0-0 51-0-0  
2-0-0 6-2-12 6-9-4 4-5-8 4-0-4 4-0-4 5-3-0 5-3-0 6-9-4 6-2-12 2-0-0  
Scale = 1:89.2



Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160322
4573903	T08	Hip	1	1		
Job Reference (optional)						

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ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-kkjZeR?a1HoXigUmenPwr4Atyzabf4kpOQASLqzM7b7  
-2-0-0 7-9-1 15-0-0 21-4-0 27-8-0 34-0-0 41-2-15 49-0-0 51-0-0  
2-0-0 7-9-1 7-2-15 6-4-0 6-4-0 6-4-0 7-2-15 7-9-1 2-0-0  
Scale = 1:87.7



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 0.70	Vert(LL)	-0.08 16-18	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.43	Vert(CT)	-0.14 16-18	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.02 14	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 293 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-14 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 3-19, 6-19, 8-16

**REACTIONS.** All bearings 0-3-8 except (jt=length) 19=0-5-8, 14=0-5-8.  
(lb) - Max Horz 2=118(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-215(LC 8), 19=-692(LC 8), 14=-391(LC 13), 12=-143(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 12 except 2=475(LC 25), 19=2318(LC 2), 14=1524(LC 28)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-366/269, 3-5=-190/779, 5-6=-130/674, 6-8=-808/273, 8-9=-934/347, 9-11=-1088/332, 11-12=-81/396  
BOT CHORD 2-21=-165/342, 18-19=0/456, 16-18=-115/959, 14-16=-48/324, 12-14=-298/157  
WEBS 3-21=-193/379, 3-19=-816/437, 5-19=-622/235, 6-19=-1479/420, 6-18=-136/812, 8-18=-429/197, 11-16=-61/685, 11-14=-1327/451

**NOTES-**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 15-0-0, Zone2 15-0-0 to 21-11-2, Zone1 21-11-2 to 34-0-0, Zone2 34-0-0 to 40-11-3, Zone1 40-11-3 to 51-0-0 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  
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 215 lb uplift at joint 2, 692 lb uplift at joint 19, 391 lb uplift at joint 14 and 143 lb uplift at joint 12.

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Joaquin Velez PE No.68182  
MiTek Inc. DBA MiTek USA FL Cert 6634  
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Date:

April 29,2025

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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160323
4573903	T09	HIP	2	1		

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:31 2025 Page 1

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-2-0-0

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8-0-0

8-0-0

15-5-8

7-5-8

17-0-0

1-6-8

23-0-0

6-0-0

29-0-0

6-0-0

32-0-0

3-0-0

37-0-0

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6-5-8

51-0-0

2-0-0

Scale = 1:89.2

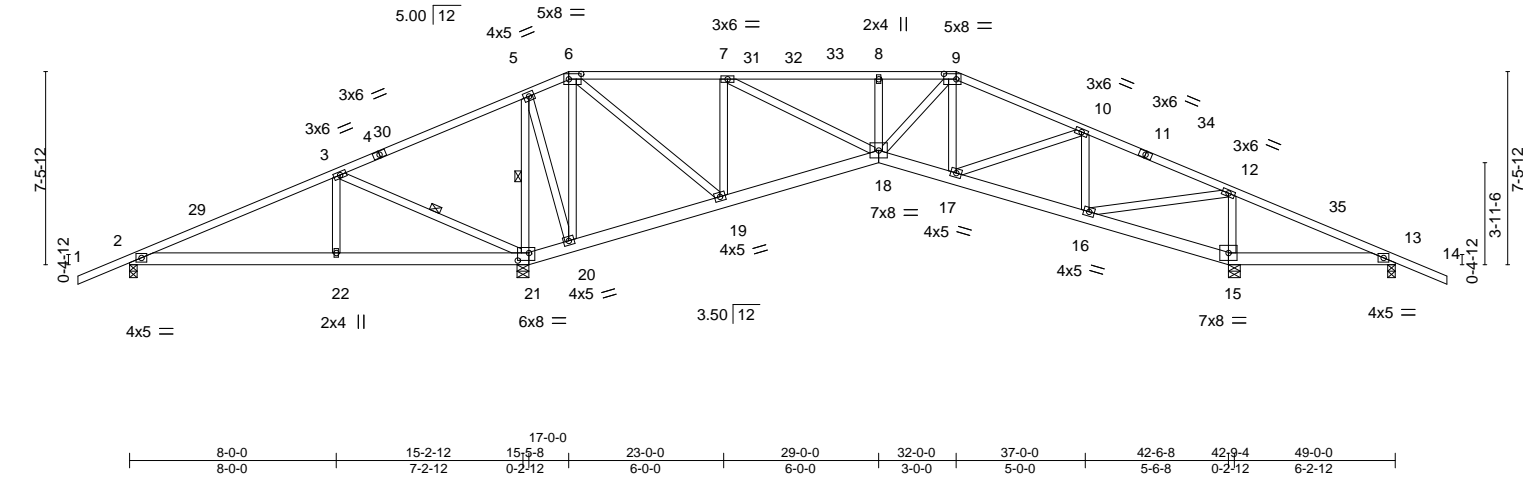


Plate Offsets (X,Y)--		[6:0-5-12,0-2-8], [9:0-5-12,0-2-8], [21:0-5-4,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.76
TCDL 10.0	Lumber DOL	1.25	BC 0.27
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.90
BCDL 10.0	Code	FBC2023/TPI2014	Matrix-MS
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.07 18 >999 240
		Vert(CT)	-0.14 18 >999 180
		Horz(CT)	0.07 15 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 310 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-13 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 3-21, 5-21

**REACTIONS.** All bearings 0-3-8 except (jt=length) 21=0-5-8, 15=0-5-8.  
(lb) - Max Horz 2=132(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=207(LC 8), 21=677(LC 8), 15=426(LC 13), 13=115(LC 25)  
Max Grav All reactions 250 lb or less at joint(s) 13 except 2=391(LC 25), 21=2239(LC 1), 15=1603(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-60/476, 3-5=-220/1070, 5-6=-88/672, 6-7=-320/142, 7-8=-1094/279, 8-9=-1094/279, 9-10=-988/279, 10-12=-652/235, 12-13=-155/949  
BOT CHORD 2-22=-410/212, 21-22=-410/212, 20-21=-1014/384, 19-20=-701/323, 18-19=0/342, 17-18=-1/883, 16-17=-40/576, 15-16=-933/255, 13-15=-811/218  
WEBS 3-22=-168/368, 3-21=-862/458, 5-21=-1451/344, 5-20=-194/1040, 6-20=-1090/264, 6-19=-264/1133, 7-19=-816/262, 7-18=-155/874, 8-18=-283/144, 9-18=-43/359, 10-17=-16/334, 10-16=-580/172, 12-16=-276/1436, 12-15=-1176/366

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 17-0-0, Zone2 17-0-0 to 23-11-2, Zone1 23-11-2 to 32-0-0, Zone2 32-0-0 to 38-11-2, Zone1 38-11-2 to 51-0-0 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
  - 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 207 lb uplift at joint 2, 677 lb uplift at joint 21, 426 lb uplift at joint 15 and 115 lb uplift at joint 13.

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

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Chesterfield, MO 63017  
Date:

April 29,2025

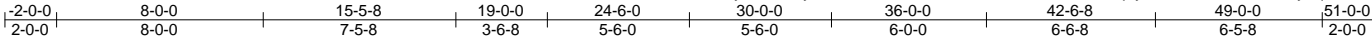


Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160324
4573903	T10	HIP	2	1	Job Reference (optional)	

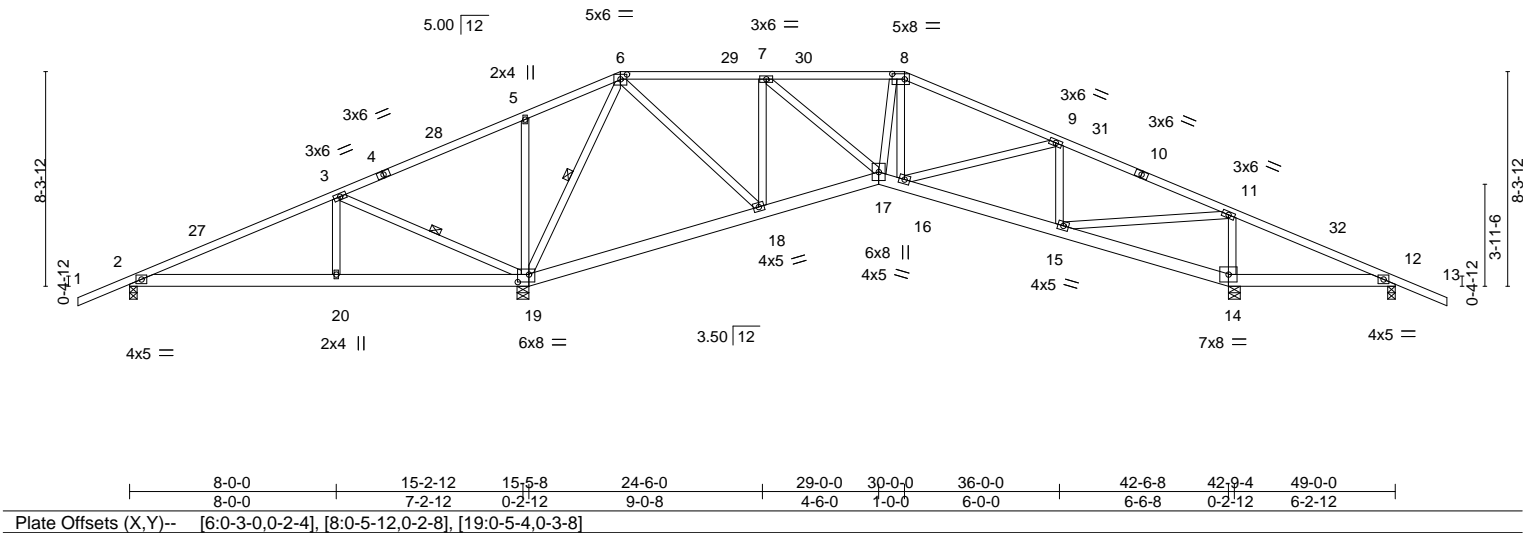
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:31 2025 Page 1

ID: iLFy0EbZAAyMv2fsVKQNPZzSscM-CwHxsn0CobwOJq3yBVw9NH1uNx8OYhyd9?GzM7b6



Scale = 1:89.2



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 0.75	Vert(LL)	-0.06 17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.28	Vert(CT)	-0.12 18-19	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.06 14	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 304 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 5-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 3-19, 6-19

**REACTIONS.**

All bearings 0-3-8 except (jt=length) 19=0-5-8, 14=0-5-8.  
(lb) - Max Horz 2=146(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=215(LC 8), 19=638(LC 8), 14=405(LC 13), 12=134(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 12 except 2=421(LC 25), 19=2234(LC 1), 14=1500(LC 26)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-140/408, 3-5=-205/1033, 5-6=-129/990, 6-7=-508/186, 7-8=-923/249,  
8-9=-1080/257, 9-11=-968/292, 11-12=-107/709  
BOT CHORD 2-20=-348/208, 19-20=-348/208, 18-19=-353/277, 17-18=0/530, 16-17=0/944,  
15-16=-86/875, 14-15=-698/207, 12-14=-587/172  
WEBS 3-20=-175/362, 3-19=-869/458, 5-19=-355/219, 6-19=-1406/286, 6-18=-177/1020,  
7-18=-748/217, 7-17=-84/561, 9-15=-475/155, 11-15=-270/1481, 11-14=-1139/366

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 19-0-0, Zone2 19-0-0 to 25-11-2, Zone1 25-11-2 to 30-0-0, Zone2 30-0-0 to 36-11-3, Zone1 36-11-3 to 51-0-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 215 lb uplift at joint 2, 638 lb uplift at joint 19, 405 lb uplift at joint 14 and 134 lb uplift at joint 12.

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

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

April 29,2025

**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  
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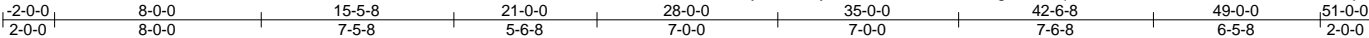


Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160325
4573903	T11	HIP	2	1	Job Reference (optional)	

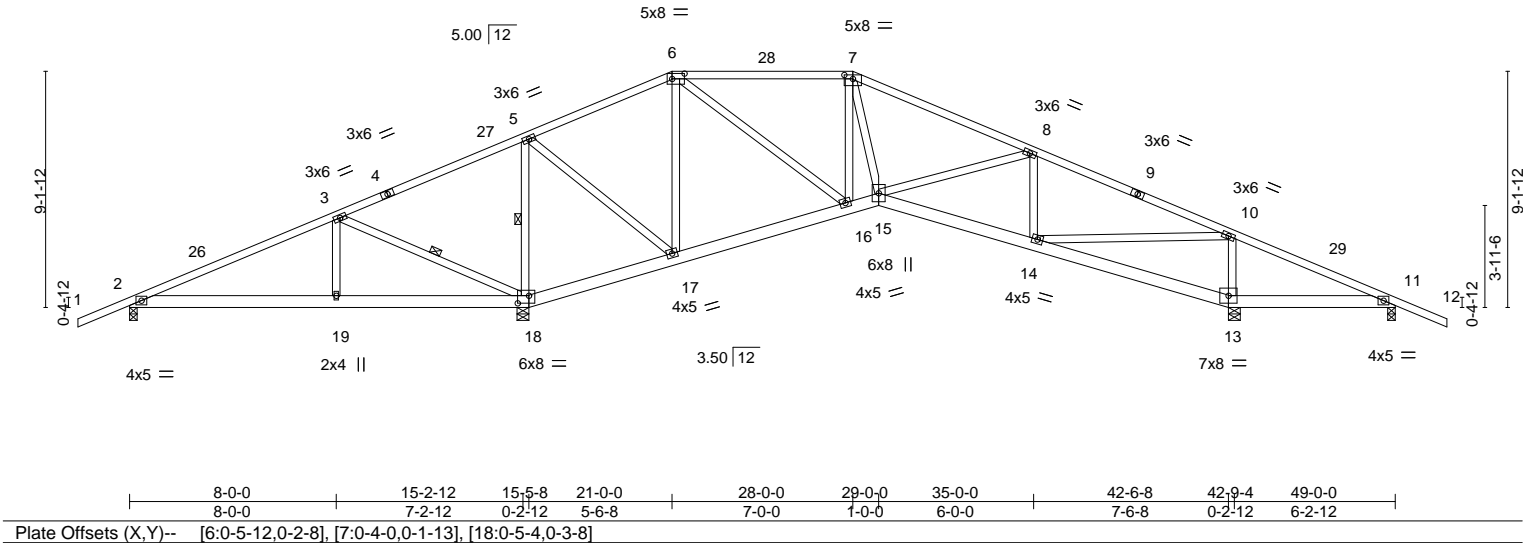
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

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Scale = 1:89.2



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.74	Vert(LL) -0.06 14-15 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.29	Vert(CT) -0.13 14-15 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Horz(CT) 0.07 13 n/a n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-MS		Weight: 302 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	10-0-0 oc bracing: 15-16,14-15.
	WEBS 1 Row at midpt 3-18, 5-18

**REACTIONS.** All bearings 0-3-8 except (jt=length) 18=0-5-8, 13=0-5-8.  
(lb) - Max Horz 2=160(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-227(LC 8), 18=-589(LC 8), 13=-405(LC 13), 11=-139(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 11 except 2=451(LC 25), 18=2221(LC 1), 13=1467(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-216/377, 3-5=-174/1010, 6-7=-720/239, 7-8=-998/230, 8-10=-1109/312, 10-11=-99/645  
BOT CHORD 2-19=-319/205, 18-19=-319/205, 17-18=-945/343, 16-17=-76/254, 15-16=0/745, 14-15=-98/992, 13-14=-632/198, 11-13=-523/162  
WEBS 3-19=-173/373, 3-18=-870/445, 5-18=-1491/370, 5-17=-168/1161, 6-17=-868/191, 6-16=-139/857, 7-16=-549/148, 7-15=-46/504, 8-14=-389/147, 10-14=-270/1525, 10-13=-1125/375

**NOTES-**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 21-0-0, Zone3 21-0-0 to 28-0-0, Zone2 28-0-0 to 35-0-0, Zone1 35-0-0 to 51-0-0 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  
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 227 lb uplift at joint 2, 589 lb uplift at joint 18, 405 lb uplift at joint 13 and 139 lb uplift at joint 11.

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 29,2025

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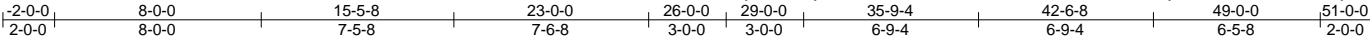
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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160326
4573903	T12	HIP	2	1	Job Reference (optional)	

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

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ID: iLFy0EbZAAyMv2fsVKQNPZzSscM-8JPiGT2TKCA6Z7DLJvydTioMBBd7sP0F48e6y9zM7b4



Scale = 1:89.2

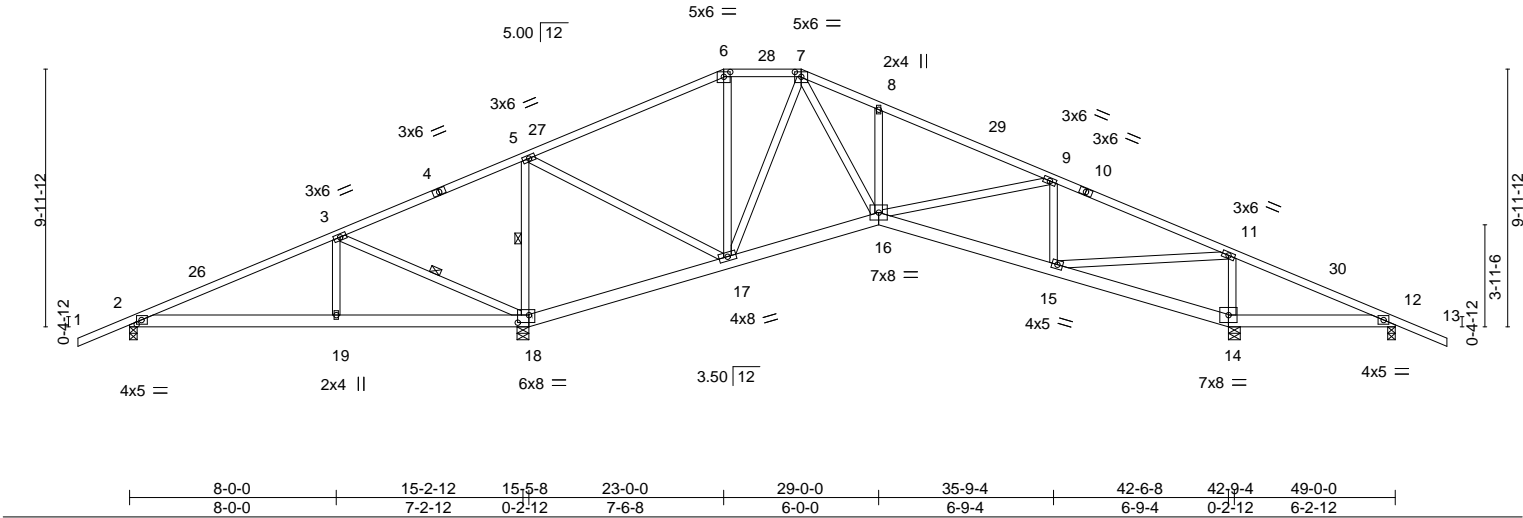


Plate Offsets (X,Y)--		[2:0-2-4,0-2-0], [6:0-3-0,0-2-4], [7:0-3-0,0-2-4], [18:0-5-4,0-3-8]
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0
TCLL 20.0	Plate Grip DOL	1.25
TCDL 10.0	Lumber DOL	1.25
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code	FBC2023/TPI2014
	<b>CSI.</b>	
	TC	0.83
	BC	0.31
	WB	0.71
	Matrix-MS	
	<b>DEFL.</b>	
	in (loc)	l/defl L/d
	Vert(LL)	-0.06 15-16 >999 240
	Vert(CT)	-0.13 15-16 >999 180
	Horz(CT)	0.06 14 n/a n/a
	<b>PLATES</b>	<b>GRIP</b>
	MT20	244/190
	Weight: 305 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 5-5-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
WEBS 10-0-0 oc bracing: 16-17,15-16.  
1 Row at midpt 3-18, 5-18

REACTIONS.

All bearings 0-3-8 except (jt=length) 18=0-5-8, 14=0-5-8.  
(lb) - Max Horz 2=174(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=232(LC 8), 18=551(LC 8), 14=404(LC 13), 12=146(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 12 except 2=468(LC 25), 18=2214(LC 1), 14=1469(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-255/354, 3-5=-168/990, 5-6=-322/155, 7-8=-968/316, 8-9=-995/227, 9-11=-989/286, 11-12=-110/686  
BOT CHORD 2-19=-299/217, 18-19=-299/217, 17-18=-924/345, 16-17=0/466, 15-16=-80/889, 14-15=-674/211, 12-14=-565/174  
WEBS 3-19=-177/368, 3-18=-841/434, 5-18=-1485/389, 5-17=-138/1213, 6-17=-264/131, 7-17=-611/110, 7-16=-204/914, 8-16=-338/207, 9-15=-431/155, 11-15=-266/1464, 11-14=-1118/365

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 23-0-0, Zone3 23-0-0 to 26-0-0, Zone2 26-0-0 to 32-11-2, Zone1 32-11-2 to 51-0-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 232 lb uplift at joint 2, 551 lb uplift at joint 18, 404 lb uplift at joint 14 and 146 lb uplift at joint 12.

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

Joaquin Velez PE No.68182  
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Chesterfield, MO 63017  
Date:

April 29,2025

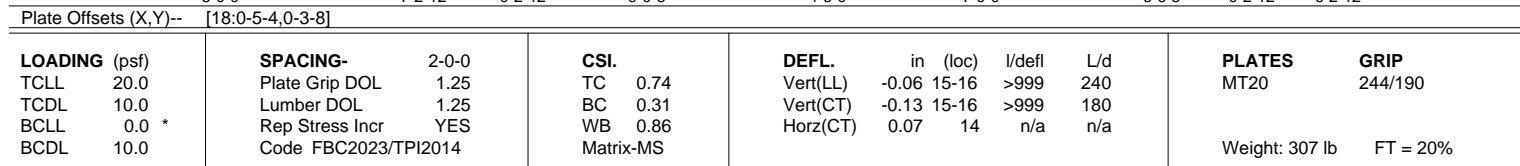
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:33 2025 Page 1  
ID:iLFy0EzbAayMv2fsVKQNPZzSscM-8JPIGT2TKCA6Z7DLJvydTioNdBd8sNZF4866y9Zm7b4  
|-2-0-0| 8-0-0| 15-5-8| 19-11-12| 24-6-0| 29-0-0| 36-0-0| 42-6-8| 49-0-0| 51-0-0|  
|2-0-0| 8-0-0| 7-5-8| 4-6-4| 4-6-4| 4-6-0| 7-0-0| 6-6-8| 6-5-8| 2-0-0|  
Scale = 1:86



		WEBS	1 Row at midpt	3-18, 6-18
<b>REACTIONS.</b>	All bearings 0-3-8 except (jit=length) 18=0-5-8, 14=0-5-8.			
(lb) -	Max Horz 2=184(LC 16)			
	Max Uplift All uplift 100 lb or less at joint(s) except 2=-233(LC 8), 18=-532(LC 12), 14=-389(LC 13), 12=-156(LC 9)			
	Max Grav All reactions 250 lb or less at joint(s) 12 except 2=481(LC 25), 18=2198(LC 1), 14=1483(LC 1)			

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

TOP CHORD	2-3=-293/308, 3-5=-183/976, 5-6=-109/950, 6-7=-382/180, 7-8=-391/171, 8-9=-1009/220, 9-11=-955/284, 11-12=-92/708
BOT CHORD	2-19=-256/229, 18-19=-256/229, 17-18=-188/284, 16-17=0/895, 15-16=-81/859, 14-15=-697/194, 12-14=-587/159
WEBS	3-19=-176/361, 3-18=-867/452, 5-18=-370/225, 6-18=-1463/236, 6-17=-57/708, 8-17=-891/226, 8-16=-5/559, 9-15=-448/153, 11-15=-251/1469, 11-14=-1127/353

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=13.0mph (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 2-10-13, Zone1 2-10-13 to 24-6-0, Zone2 24-6-0 to 31-5-2, Zone1 31-5-2 to 51-0-0 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
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 2, 532 lb uplift at joint 18, 389 lb uplift at joint 14 and 156 lb uplift at joint 12.

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

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MiTek®

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Chesterfield, MO 63017  
314.434.1200 / [MiTek-USA.com](http://MiTek-USA.com)

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160328
4573903	T14	Hip Girder	1	2	Job Reference (optional)	

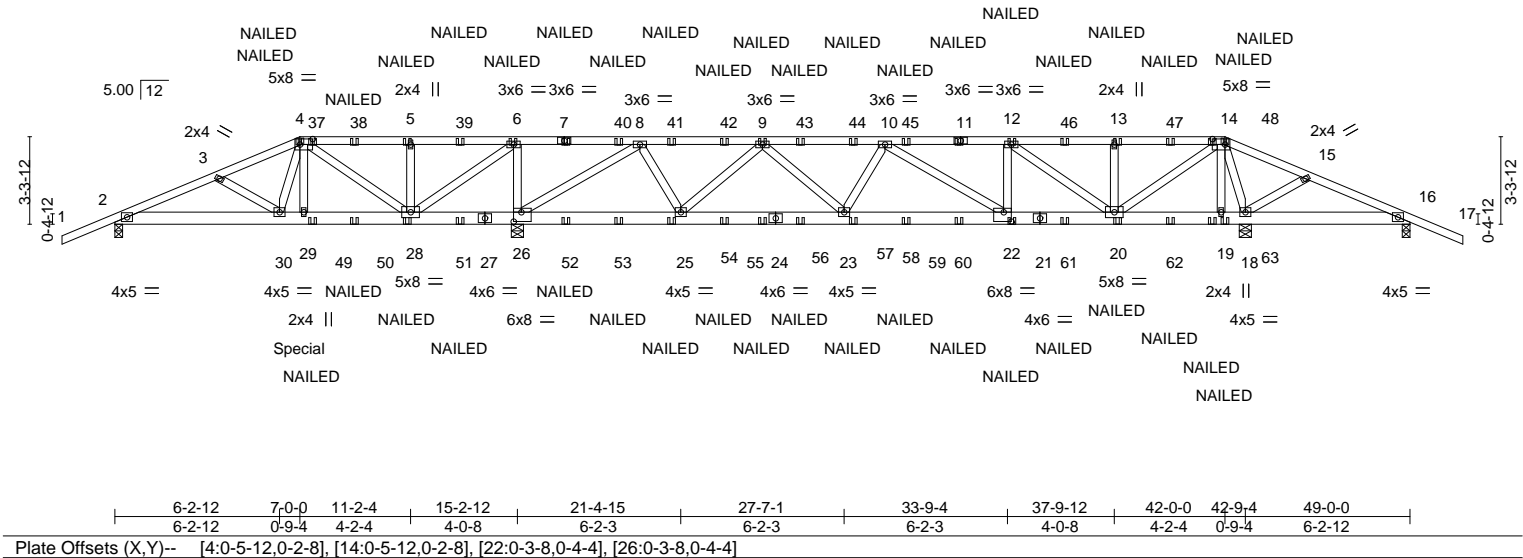
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-2-0-0	3-11-8	7-0-0	11-2-4	15-2-12	19-10-6	24-6-0	29-1-10	33-9-4	37-9-12	42-0-0	45-0-8	49-0-0	51-0-0
2-0-0	3-11-8	3-0-8	4-2-4	4-0-8	4-7-10	4-7-10	4-7-10	4-7-10	4-0-8	4-2-4	3-0-8	3-11-8	2-0-0

Scale = 1:87.2



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 0.58	Vert(LL)	0.10 22-23	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.34	Vert(CT)	-0.15 22-23	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60	Horz(CT)	0.02 18	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 596 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 6-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 26=0-5-8, 18=0-5-8.  
(lb) - Max Horz 2=63(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-269(LC 4), 26=-2169(LC 4), 18=-1736(LC 4), 16=-793(LC 21)  
Max Grav All reactions 250 lb or less at joint(s) except 2=538(LC 1), 26=4413(LC 21), 18=3484(LC 22), 16=415(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-628/327, 3-4=-445/295, 4-5=-385/913, 5-6=-385/913, 6-8=-1403/2958, 8-9=-1108/556, 9-10=-3010/1480, 10-12=-2636/1318, 12-13=-1151/622, 13-14=-1151/622, 14-15=-1109/2429, 15-16=-1072/2290  
BOT CHORD 2-30=-272/553, 29-30=-164/354, 28-29=-176/368, 26-28=-2958/1510, 25-26=-101/319, 23-25=-1070/2383, 22-23=-1441/3135, 20-22=-1202/2636, 19-20=-1451/732, 18-19=-1438/732, 16-18=-2098/1034  
WEBS 4-30=-126/287, 4-29=-269/362, 4-28=-1505/742, 5-28=-509/256, 6-28=-1304/2541, 6-26=-2038/1041, 8-26=-3829/1847, 8-25=-807/1704, 9-25=-1776/869, 9-23=-422/882, 10-23=-280/155, 10-22=-603/283, 12-22=-251/642, 12-20=-1855/865, 13-20=-522/263, 14-20=-1489/3145, 14-19=-259/123, 14-18=-3020/1557

**NOTES-**  
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.  
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.  
3) Unbalanced roof live loads have been considered for this design.  
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60  
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.  
6) Provide adequate drainage to prevent water ponding.  
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 2, 2169 lb uplift at joint 18 and 793 lb uplift at joint 16.

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 29,2025

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH
4573903	T14	Hip Girder	1	2	T37160328

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:39 2025 Page 2  
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-zTmzXW6Dw2xGH2hUfA31iz1Qdbf5G9B8S45Q9pzM7b\_

- NOTES-**
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 220 lb down and 179 lb up at 7'-0" on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-14=-60, 14-17=-60, 31-34=-20

Concentrated Loads (lb)

Vert: 4=-95(B) 7=-117(B) 14=-80(B) 29=-220(B) 28=-63(B) 5=-117(B) 6=-117(B) 9=-117(B) 22=-63(B) 12=-117(B) 13=-117(B) 20=-63(B) 19=87(B) 11=-117(B) 37=-117(B) 38=-117(B) 39=-117(B) 40=-117(B) 41=-117(B) 42=-117(B) 43=-117(B) 44=-117(B) 45=-117(B) 46=-117(B) 47=-117(B) 48=-117(B) 49=-63(B) 50=-63(B) 51=-63(B) 52=-63(B) 53=-63(B) 54=-63(B) 55=-63(B) 56=-63(B) 57=-63(B) 58=-63(B) 59=-63(B) 60=-63(B) 61=-63(B) 62=-63(B) 63=-63(B)

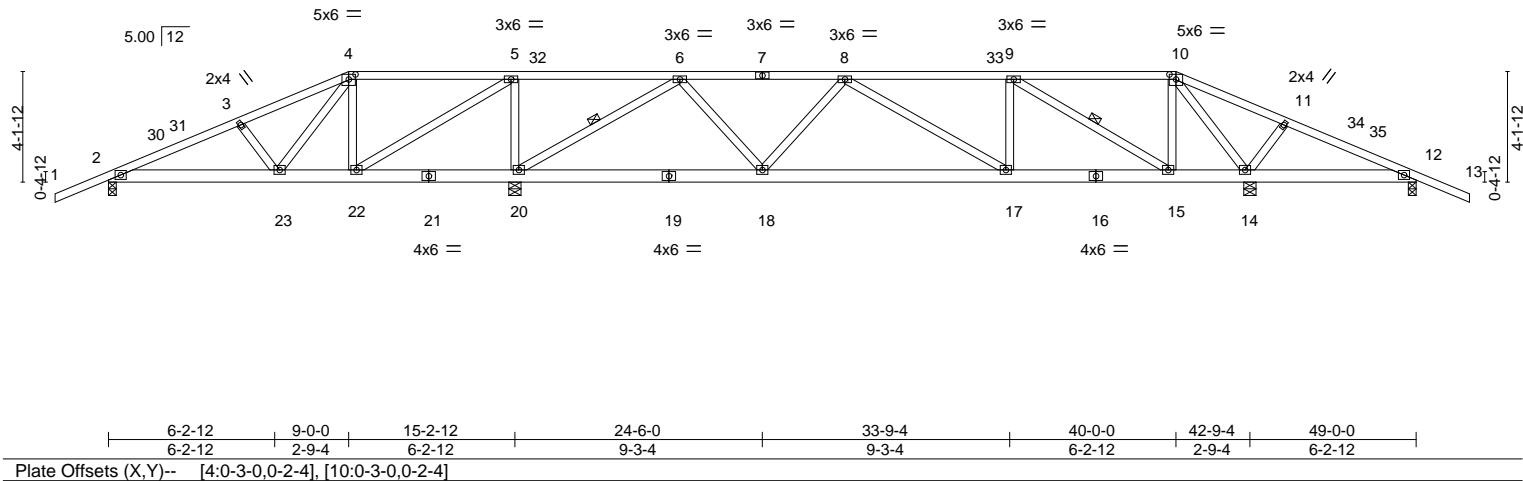
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbccomponents.com](http://www.sbccomponents.com))

**MiTek®**  
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314.434.1200 / [MiTek-US.com](http://MiTek-US.com)

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160329
4573903	T15	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:40 2025 Page 1  
ID: iLFy0EbZAAyMv2fsVKQNPZzSscM-RfKLks7shM37uCFhDuaGFBaa5??k\_caHhkr\_hFzM7az  
-2-0-0 4-11-8 9-0-0 15-2-12 21-4-15 27-7-1 33-9-4 40-0-0 44-0-8 49-0-0 51-0-0  
2-0-0 4-11-8 4-0-8 6-2-12 6-2-3 6-2-3 6-2-3 6-2-12 4-0-8 4-11-8 2-0-0  
Scale = 1:86.3



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 0.66	Vert(LL)	-0.06 17-18	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.38	Vert(CT)	-0.15 17-18	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.02 14	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS					Weight: 290 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-1 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 6-20, 9-15

**REACTIONS.** All bearings 0-3-8 except (jt=length) 20=0-5-8, 14=0-5-8.  
(lb) - Max Horz 2=-77(LC 17)  
Max Uplift All uplift 100 lb or less at joint(s) 12 except 2=-239(LC 8), 20=-733(LC 8), 14=-453(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 12 except 2=470(LC 25), 20=2047(LC 1), 14=1544(LC 26)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-408/368, 3-4=-255/349, 5-6=-260/969, 6-8=-964/285, 8-9=-1172/398,  
10-11=-167/721, 11-12=-155/581  
BOT CHORD 2-23=-275/369, 20-22=-969/387, 18-20=-81/544, 17-18=-294/1234, 15-17=-260/1172,  
12-14=-519/195  
WEBS 3-23=-252/150, 4-23=-231/402, 4-22=-532/176, 5-22=-443/1067, 5-20=-972/439,  
6-20=-1695/532, 6-18=-135/678, 8-18=-444/214, 9-17=0/316, 9-15=-1144/338,  
10-15=-131/615, 10-14=-1408/398, 11-14=-253/151

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 9-0-0, Zone2 9-0-0 to 15-11-2, Zone1 15-11-2 to 40-0-0, Zone2 40-0-0 to 46-11-2, Zone1 46-11-2 to 51-0-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x5 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) 12 except (jt=lb) 2=239, 20=733, 14=453.

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 29,2025

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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160330
4573903	T16	Hip	1	1		
Job Reference (optional)						

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:40 2025 Page 1

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-2-0-0

6-2-12

11-0-0

17-9-0

24-6-0

31-3-0

38-0-0

42-9-4

49-0-0

51-0-0

2-0-0

6-2-12

4-9-4

6-9-0

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6-9-0

6-9-0

4-9-4

6-2-12

2-0-0

Scale = 1:86.3

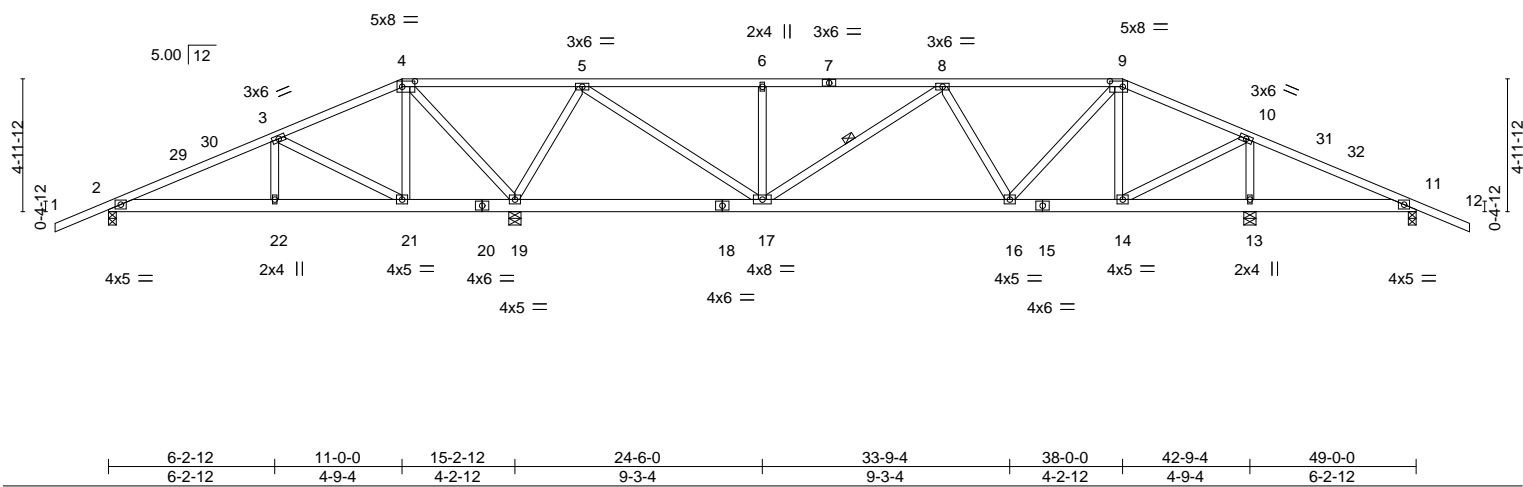


Plate Offsets (X,Y)--		[4:0-5-12,0-2-8], [9:0-5-12,0-2-8]											
LOADING (psf)		SPACING-	2-0-0	CSI.				DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.72			Vert(LL)	-0.05 16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.38			Vert(CT)	-0.13 16-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73			Horz(CT)	0.01 13	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014		Matrix-MS							Weight: 293 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-1-10 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS	2x4 SP No.3		10-0-0 oc bracing: 16-17,14-16.
		WEBS	1 Row at midpt 8-17
<b>REACTIONS.</b> All bearings 0-3-8 except (jt=length) 19=0-5-8, 13=0-5-8.			
(lb) - Max Horz 2=91(LC 17)			
Max Uplift All uplift 100 lb or less at joint(s) except 2=-221(LC 8), 19=-741(LC 8), 13=-405(LC 13), 11=-122(LC 9)			
Max Grav All reactions 250 lb or less at joint(s) 11 except 2=451(LC 25), 19=2109(LC 1), 13=1445(LC 26)			

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-322/310, 3-4=-52/393, 4-5=-269/951, 5-6=-890/285, 6-8=-890/285, 8-9=-981/348, 9-10=-707/260, 10-11=-109/467
BOT CHORD	2-22=-211/301, 21-22=-211/301, 19-21=-338/225, 17-19=-295/221, 16-17=-245/1132, 14-16=-67/580, 13-14=-371/157, 11-13=-371/157
WEBS	3-22=-120/278, 3-21=-594/334, 4-21=-231/307, 4-19=-986/424, 5-19=-1366/489, 5-17=-365/1339, 6-17=-384/194, 8-17=-331/165, 8-16=-315/165, 9-16=-146/592, 9-14=-491/158, 10-14=-249/1093, 10-13=-1245/409

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

2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 11-0-0, Zone2 11-0-0 to 17-9-0, Zone1 17-9-0 to 38-0-0, Zone2 38-0-0 to 44-11-2, Zone1 44-11-2 to 51-0-0 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

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 221 lb uplift at joint 2, 741 lb uplift at joint 19, 405 lb uplift at joint 13 and 122 lb uplift at joint 11.

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  
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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29,2025

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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160331
4573903	T17	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:41 2025 Page 1

ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-vrujyC8USgB\_WMqtnb5VnO7jYPKCj?bRwOaXDhzm7ay

-2-0-0

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13-0-0

20-8-0

28-4-0

36-0-0

42-9-4

49-0-0

51-0-0

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6-9-4

6-2-12

2-0-0

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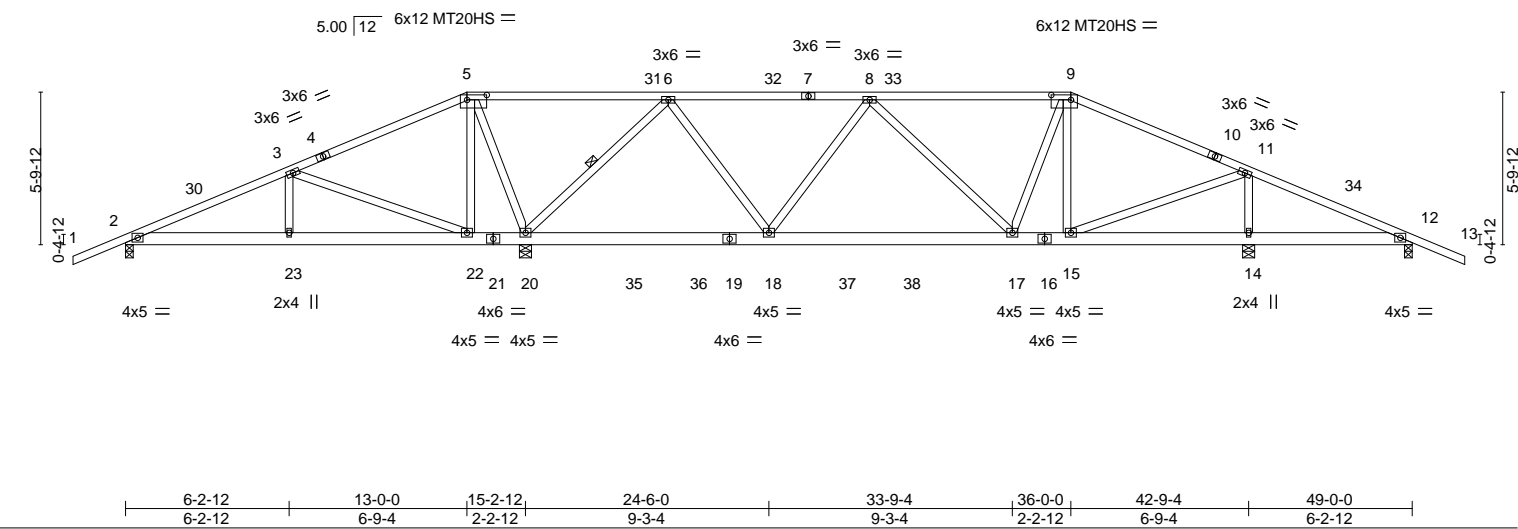


Plate Offsets (X,Y)--		[5:0-9-0,0-2-4], [9:0-9-0,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.25		TC 0.81		Vert(LL)	-0.08 17-18	>999	240	MT20	244/190
TCDL 10.0		Lumber DOL 1.25		BC 0.43		Vert(CT)	-0.15 17-18	>999	180	MT20HS	187/143
BCLL 0.0 *		Rep Stress Incr YES		WB 0.86		Horz(CT)	0.01 14	n/a	n/a		
BCDL 10.0		Code FBC2023/TPI2014		Matrix-MS						Weight: 297 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-3 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 6-20

**REACTIONS.** All bearings 0-3-8 except (jt=length) 20=0-5-8, 14=0-5-8.  
(lb) - Max Horz 2=-104(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-217(LC 8), 20=-723(LC 8), 12=-146(LC 9), 14=-380(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) except 2=454(LC 25), 20=2334(LC 2), 12=271(LC 1), 14=1454(LC 28)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-353/293, 3-5=-113/636, 5-6=-213/881, 6-8=-839/259, 8-9=-993/336, 9-11=-998/315  
BOT CHORD 2-23=-200/346, 22-23=-200/346, 20-22=-521/253, 18-20=0/370, 17-18=-185/1068, 15-17=-95/847  
WEBS 3-23=-130/307, 3-22=-835/427, 5-22=-249/322, 5-20=-947/444, 6-20=-1598/503, 6-18=-149/889, 8-18=-489/224, 9-17=-48/390, 9-15=-328/110, 11-15=-204/1083, 11-14=-1154/403

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -2-0-0 to 2-10-13, Zone1 2-10-13 to 13-0-0, Zone2 13-0-0 to 19-11-2, Zone1 19-11-2 to 36-0-0, Zone2 36-0-0 to 42-9-4, Zone1 42-9-4 to 51-0-0 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
  - 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) All plates are MT20 plates unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 2, 723 lb uplift at joint 20, 146 lb uplift at joint 12 and 380 lb uplift at joint 14.

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  
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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29,2025

Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160332
4573903	T18	Hip	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:42 2025 Page 1

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29-9-15

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7-10-0

7-2-0

8-0-0

6-9-15

4-2-1

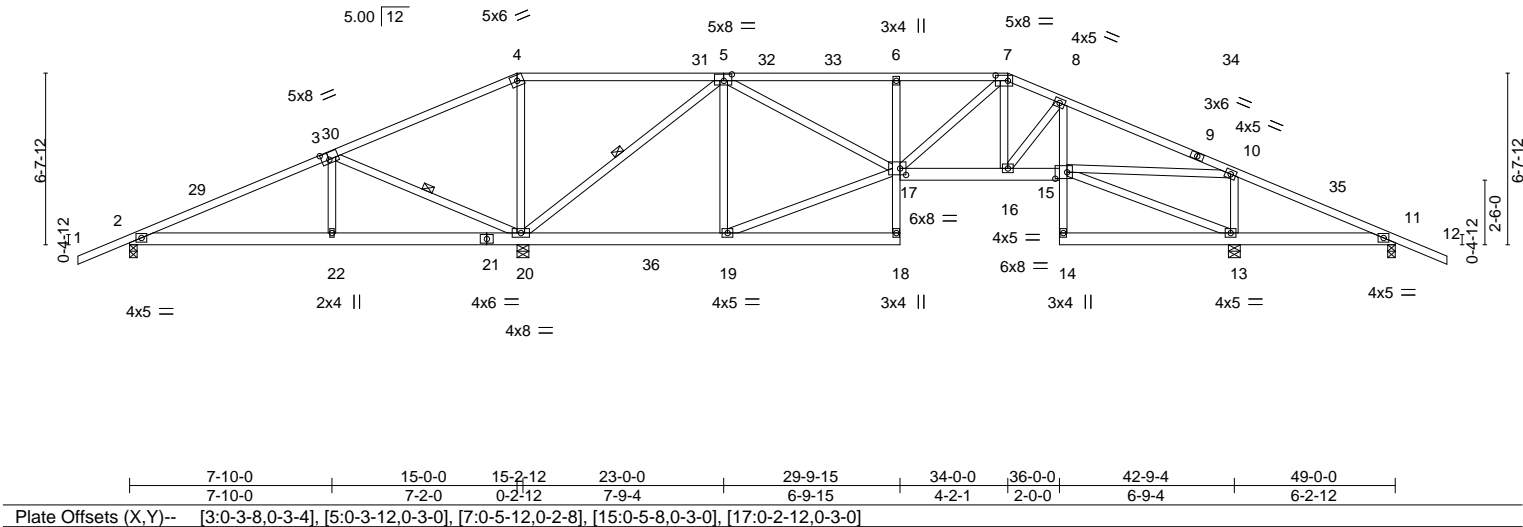
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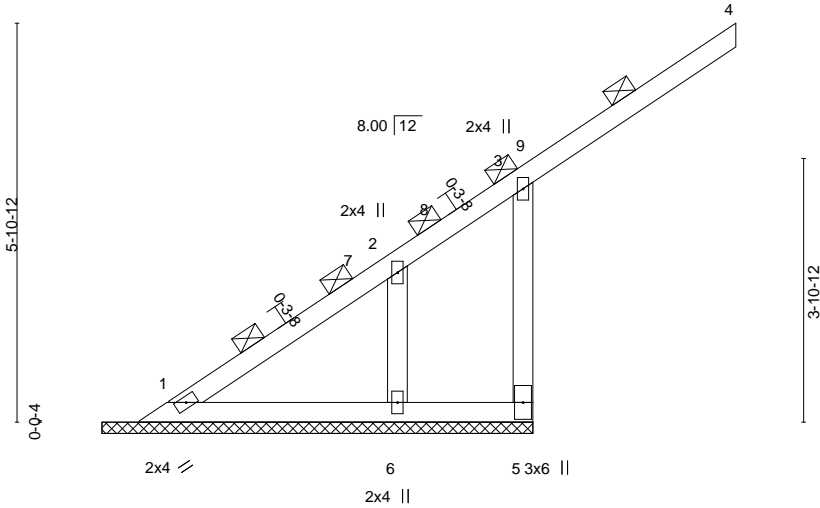
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH
4573903	V01	GABLE	2	1	T37160333
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,					8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:42 2025 Page 1
					ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-N2S59Y96DzJq8WP3LldkKcfuTpkSta92K4l8zM7ax
					Job Reference (optional)



Scale = 1:34.1



LOADING (psf)	SPACING-		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.80		Vert(LL)	-0.18	3-4	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.09		Vert(CT)	-0.12	4	n/r	120	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03		Horz(CT)	0.00		n/a	n/a	
BCDL 10.0	Code FBC2023/TPI2014		Matrix-P							
										Weight: 31 lb FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.), 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		
OTHERS	2x4 SP No.3		

**REACTIONS.** (size) 1=6-4-7, 5=6-4-7, 6=6-4-7  
Max Horz 1=182(LC 12)  
Max Uplift 5=268(LC 9), 6=68(LC 12)  
Max Grav 1=133(LC 21), 5=404(LC 1), 6=143(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-313/134, 2-3=-323/137, 3-5=-397/542

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 1-0-1 to 4-0-1, Zone1 4-0-1 to 9-4-7 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) Gable requires continuous bottom chord bearing.
  - 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 268 lb uplift at joint 5 and 68 lb uplift at joint 6.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29,2025

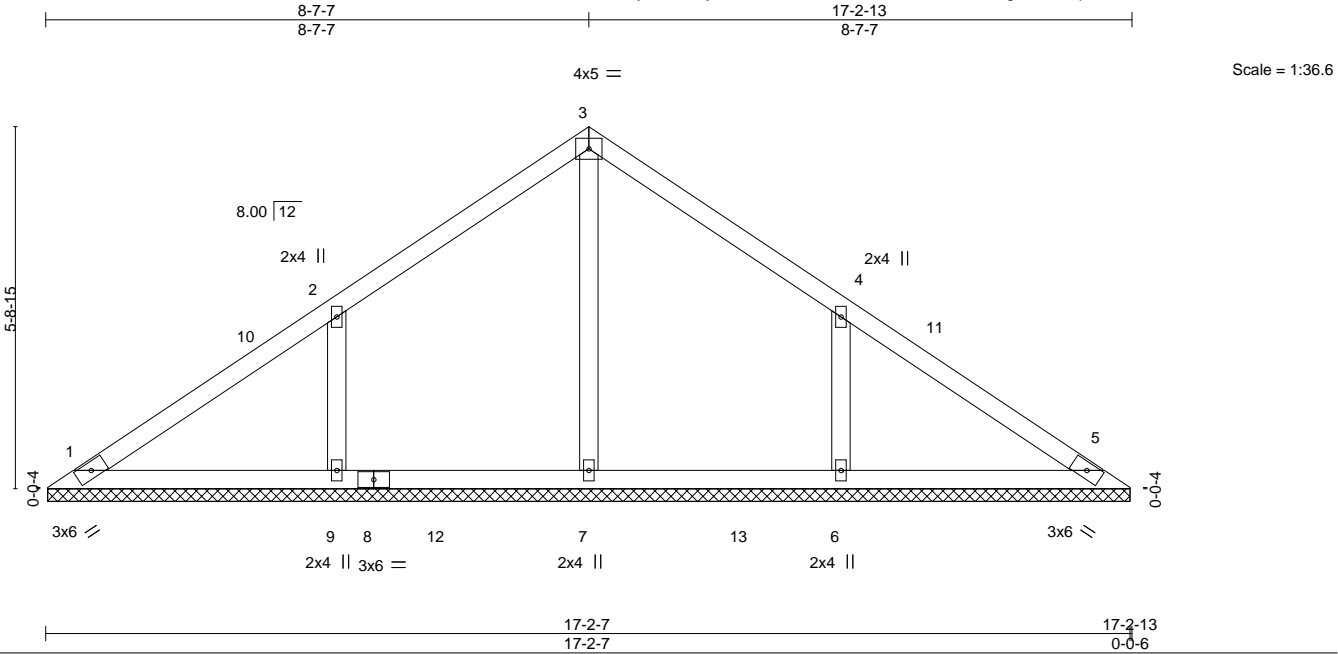
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160334
4573903	V02	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:43 2025 Page 1  
ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-rE?UNu9kzHRhlg\_Gu08ztpCC5D3xB43kNi3eHazM7aw



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 0.23	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.15	Vert(CT)	n/a	-	n/a	999	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code FBC2023/TP12014		Matrix-S						
								Weight: 70 lb	FT = 20%

**LUMBER-**

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

All bearings 17-2-1.  
(lb) - Max Horz 1=-134(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-205(LC 12), 6=-205(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=339(LC 19), 9=491(LC 19), 6=491(LC 20)

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

WEBS 2-9=-314/224, 4-6=-314/224

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-12 to 3-5-12, Zone1 3-5-12 to 8-7-7, Zone2 8-7-7 to 12-7-7, Zone1 12-7-7 to 16-9-1 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.
- Gable requires continuous bottom chord bearing.
- 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) 1, 5 except (jt=lb) 9=205, 6=205.

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Chesterfield, MO 63017  
Date:

April 29,2025

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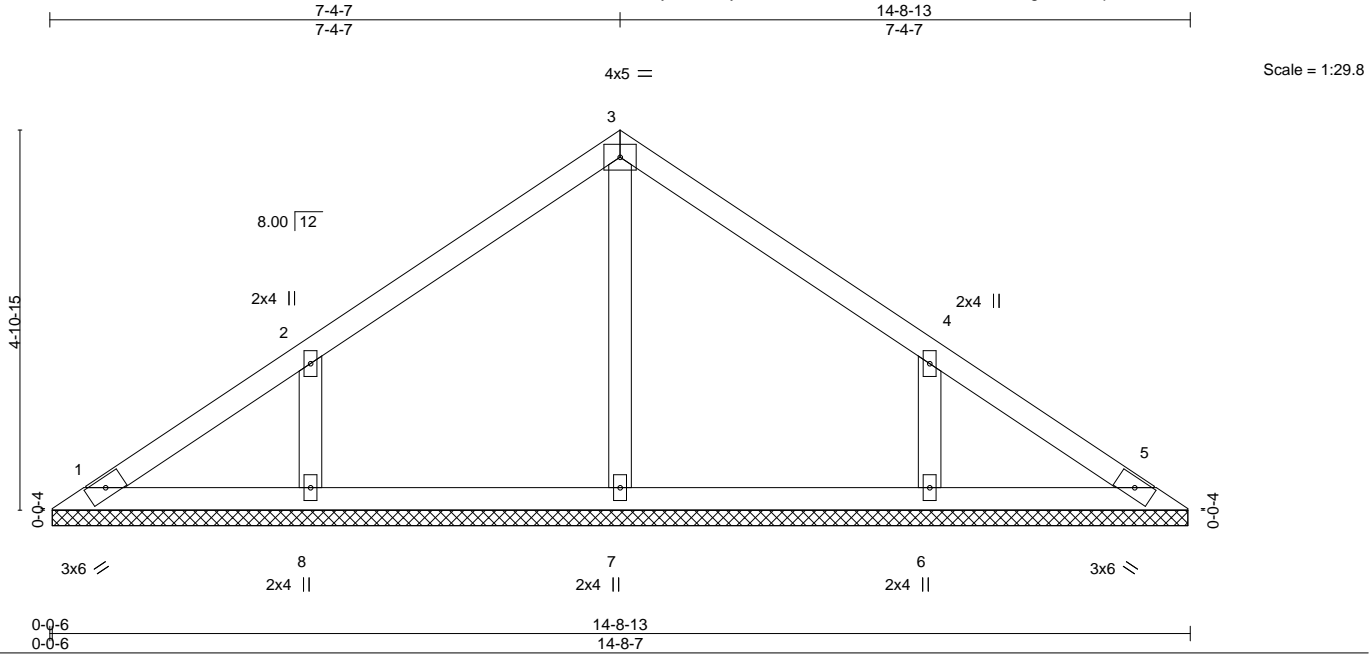
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160335
4573903	V03	Valley	1	1	Job Reference (optional)	

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

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:43 2025 Page 1

ID:iLFy0EbzAAyMv2fsVKQNPZzSscM-rE?UNu9kzHRhlg\_Gu08ztpCD5D4YB4MkNi3eHazM7aw



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.16		Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.11		Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08		Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-S							Weight: 58 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 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.** All bearings 14-8-1.  
(lb) - Max Horz 1=113(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=174(LC 12), 6=174(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=259(LC 1), 8=346(LC 19), 6=345(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-267/193, 4-6=-267/193

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-12 to 3-4-7, Zone1 3-4-7 to 7-4-7, Zone2 7-4-7 to 11-4-7, Zone1 11-4-7 to 14-3-1 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.
  - Gable requires continuous bottom chord bearing.
  - 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) 1, 5 except (jt=lb) 8=174, 6=174.

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Chesterfield, MO 63017  
Date:

April 29,2025

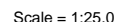
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LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD	2x4 SP No.2	BOT CHORD	
OTHERS	2x4 SP No.3		

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

**NOTES-**

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April 29, 2025



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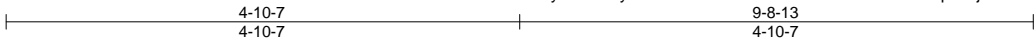
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH
4573903	V05	Valley	1	1	T37160337
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,					Job Reference (optional)

8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:44 2025 Page 1  
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Scale = 1:21.8

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 0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2023/TP12014		Matrix-S						Weight: 34 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 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) 1=9-8-1, 3=9-8-1, 4=9-8-1  
Max Horz 1=72(LC 9)  
Max Uplift 1=51(LC 12), 3=60(LC 13), 4=59(LC 12)  
Max Grav 1=173(LC 1), 3=173(LC 1), 4=356(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-12 to 3-5-12, Zone1 3-5-12 to 4-10-7, Zone3 4-10-7 to 9-3-1 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) Gable requires continuous bottom chord bearing.
- 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) 1, 3, 4.

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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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
Date:

April 29,2025

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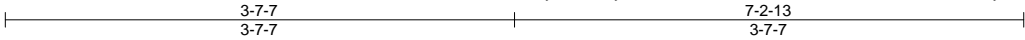
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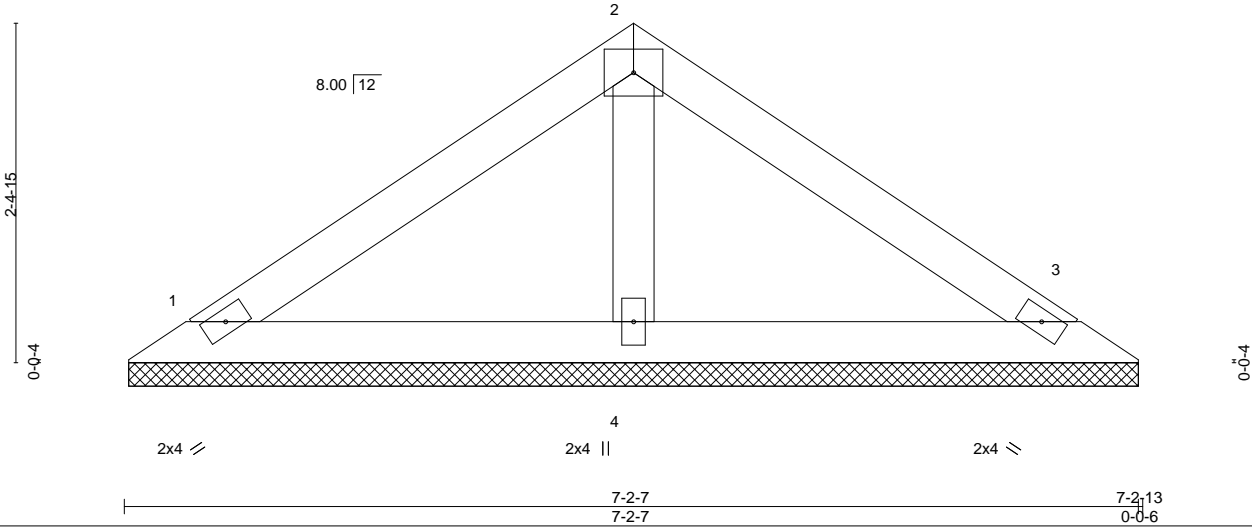


Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160338
4573903	V06	Valley	1	1	Job Reference (optional)	

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4x5 = Scale = 1:16.4



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 0.13	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.25	BC 0.10	Vert(CT)	n/a	-	n/a	999	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2023/TPI2014		Matrix-S						
								Weight: 25 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
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 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=7-2-1, 3=7-2-1, 4=7-2-1  
Max Horz 1=-52(LC 8)  
Max Uplift 1=-36(LC 12), 3=-43(LC 13), 4=-42(LC 12)  
Max Grav 1=124(LC 1), 3=124(LC 1), 4=255(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 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) Gable requires continuous bottom chord bearing.
  - 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) 1, 3, 4.

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Chesterfield, MO 63017  
Date:

April 29,2025

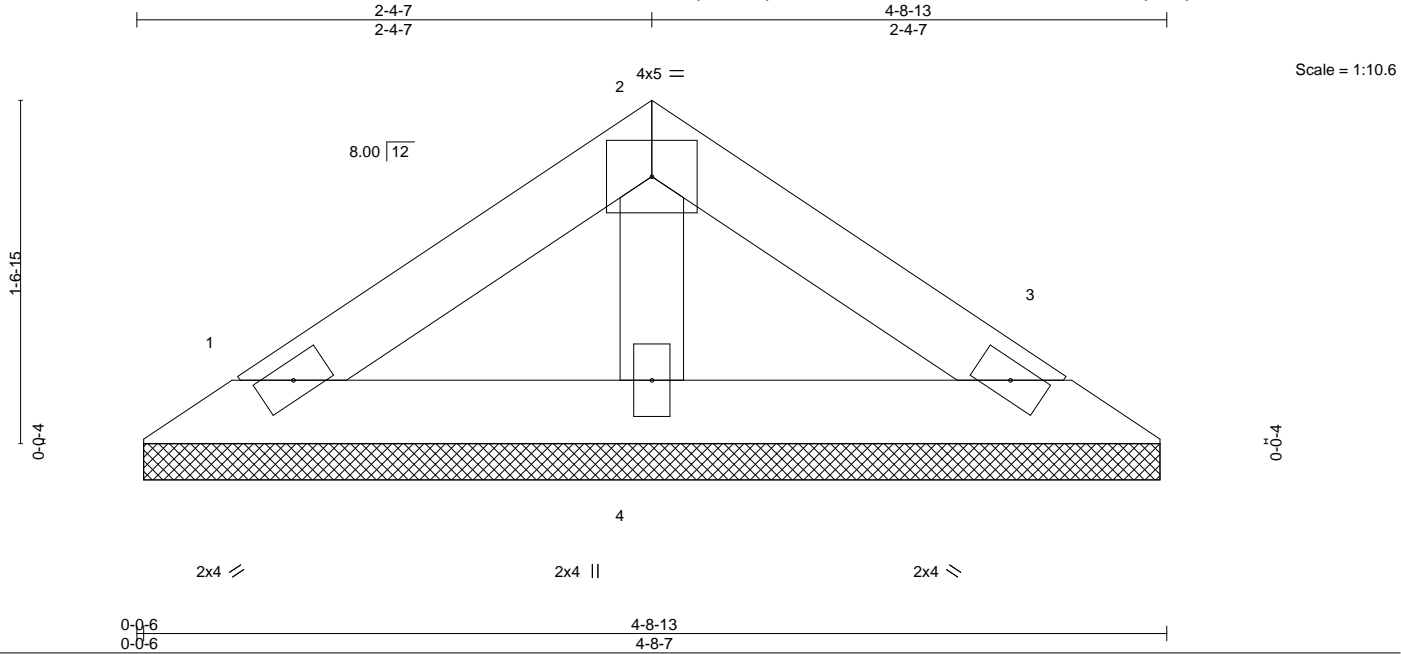
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Job	Truss	Truss Type	Qty	Ply	KURTIS-BETH	T37160339
4573903	V07	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Apr 11 2025 MiTek Industries, Inc. Mon Apr 28 16:46:45 2025 Page 1  
ID:ILFy0EbzAAyMv2fsVKQNPZzSscM-od7EoZB\_VuhP?z8e0RARyEHay0nEf?f0r0YkMSzM7au



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 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=4-8-1, 3=4-8-1, 4=4-8-1  
Max Horz 1=-31(LC 8)  
Max Uplift 1=-26(LC 12), 3=-30(LC 13), 4=-16(LC 12)  
Max Grav 1=81(LC 1), 3=81(LC 1), 4=139(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCdL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 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) Gable requires continuous bottom chord bearing.
  - 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) 1, 3, 4.

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 29,2025

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

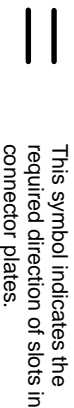
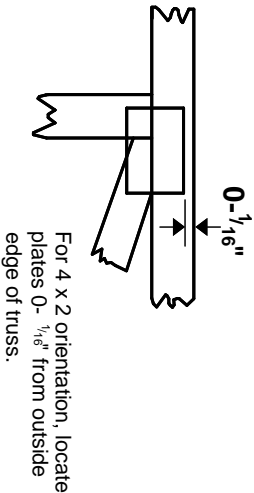
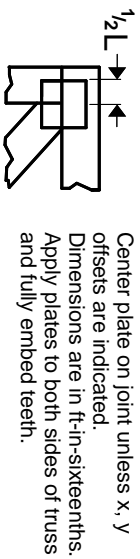
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

**MiTek®**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
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## Symbols

### PLATE LOCATION AND ORIENTATION



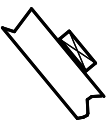
\* Plate location details available in MITek software or upon request.

### PLATE SIZE

**4 X 4**

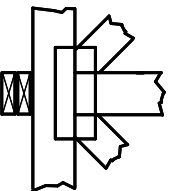
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

### LATERAL BRACING LOCATION



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

### BEARING

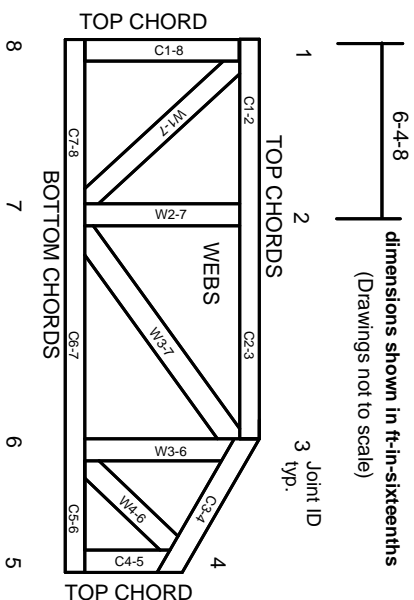


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

#### 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®

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.