



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

RE: 4461241 - BLACKBURN RES.

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

Site Information:

Customer Info: AMIRA CUSTOM HOMES Project Name: Blackburn Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: 1199 SW Marynik Drive, TBD
City: Columbia Cty State: FL

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

Name: License #:
Address: State:
City:

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: 37.0 psf Floor Load: N/A psf

This package includes 26 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	T36518281	PB01	2/27/25	15	T36518295	T06G	2/27/25
2	T36518282	PB01G	2/27/25	16	T36518296	T07	2/27/25
3	T36518283	PB02	2/27/25	17	T36518297	T08	2/27/25
4	T36518284	PB02G	2/27/25	18	T36518298	T08G	2/27/25
5	T36518285	T01	2/27/25	19	T36518299	V01	2/27/25
6	T36518286	T01G	2/27/25	20	T36518300	V02	2/27/25
7	T36518287	T02	2/27/25	21	T36518301	V03	2/27/25
8	T36518288	T03	2/27/25	22	T36518302	V04	2/27/25
9	T36518289	T03G	2/27/25	23	T36518303	V05	2/27/25
10	T36518290	T04	2/27/25	24	T36518304	V06	2/27/25
11	T36518291	T04G	2/27/25	25	T36518305	V07	2/27/25
12	T36518292	T05	2/27/25	26	T36518306	V08	2/27/25
13	T36518293	T05G	2/27/25				
14	T36518294	T06	2/27/25				



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Universal Engineering Science

Joaquin Velez
Examiner-License No.

PX2707

03/07/2025

This item has been digitally signed and sealed by Velez, Joaquin, PE on the date adjacent to the seal.

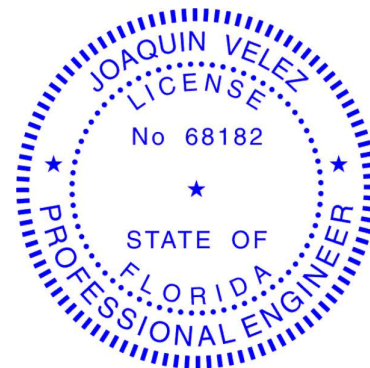
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The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: 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:

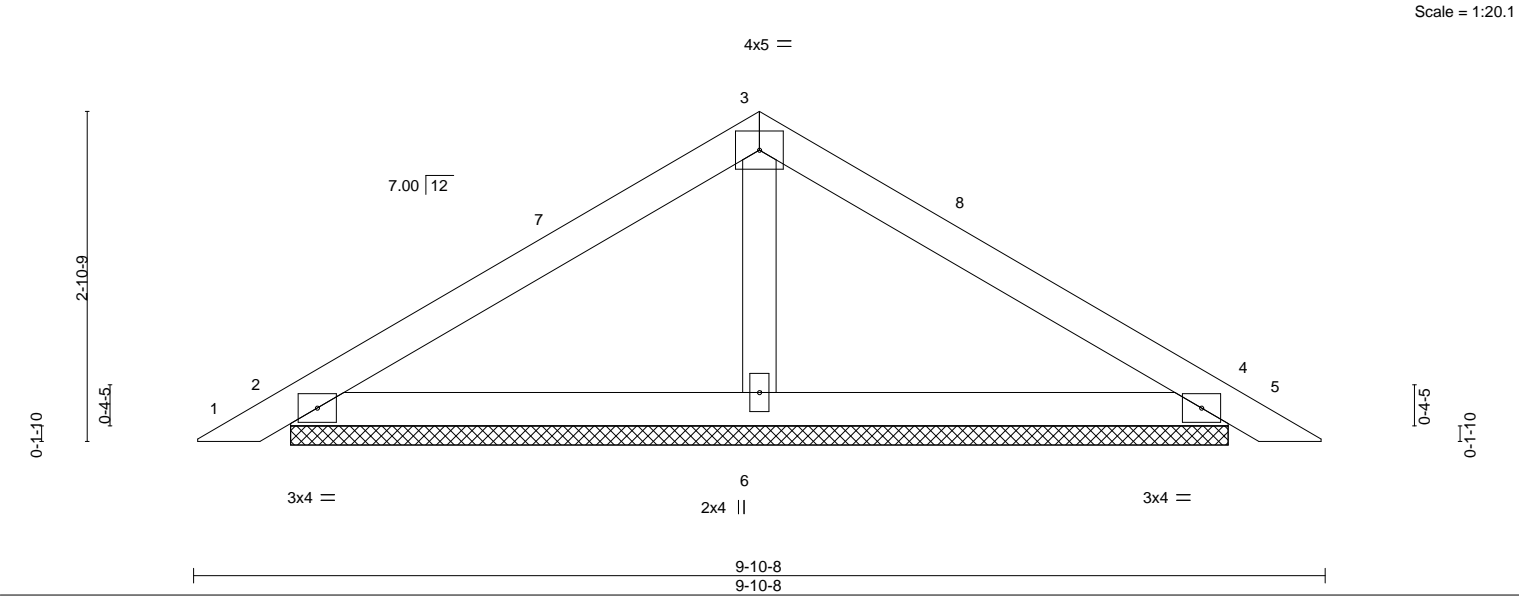
February 27, 2025

Velez, Joaquin

1 of 1

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518281
4461241	PB01	Piggyback	12	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:27 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKZncau-k?r_FQjtgM?qlekDRsw42e_l1pa_JrlmutYwbxzhHFY
4-11-4 4-11-4 9-10-8 4-11-4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.25	Vert(LL)	0.01	5	n/r	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.16	Vert(CT)	0.01	5	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-S					Weight: 32 lb	FT = 20%

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

REACTIONS. (size) 2=8-2-2, 4=8-2-2, 6=8-2-2
Max Horz 2=-86(LC 10)
Max Uplift 2=-89(LC 12), 4=-100(LC 13), 6=-91(LC 12)
Max Grav 2=173(LC 1), 4=177(LC 20), 6=317(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown
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- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cal. 4, Exp C, Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 4-11-4, Zone2 4-11-4 to 9-0-5, Zone1 9-0-5 to 9-6-13 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) 2, 4, 6.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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.

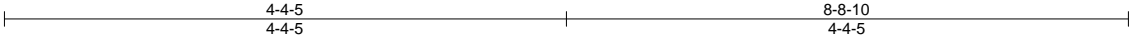
Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 27,2025

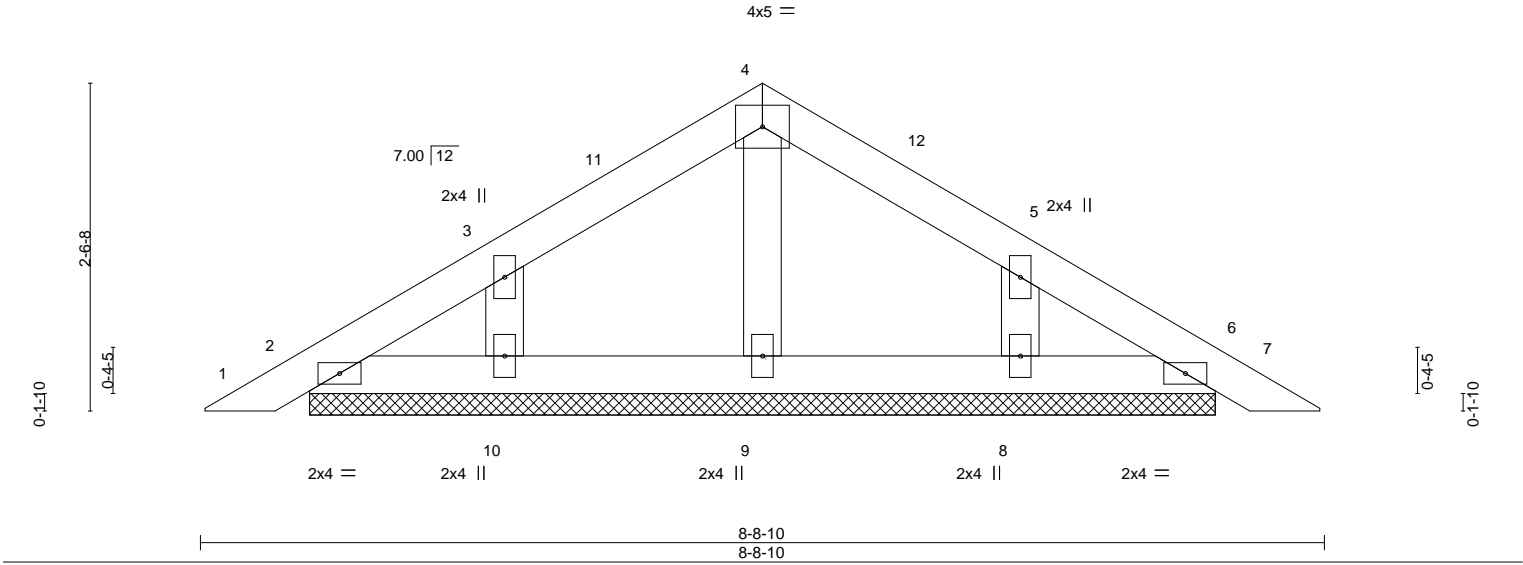
Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518282
4461241	PB01G	GABLE	2	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:27 2025 Page 1
ID:GGScTh?26Bd?NnxBP5LMKZncau-k?r_FQjtqM?qlekDRsw42e_nkpc2Jq5mutYwbxzhHFY



Scale = 1:17.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.07	Vert(LL)	-0.00	6	n/r	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.03	Vert(CT)	-0.00	6	n/r		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-S					Weight: 30 lb	FT = 20%

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

REACTIONS. All bearings 7-0-5.
(lb) - Max Horz 2=75(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 9 except 10=106(LC 12), 8=105(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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



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- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cal. A, Exp C, Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 4-4-5, Zone3 4-4-5 to 8-4-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 2, 6, 9 except (jt=lb) 10=106, 8=105.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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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:

February 27,2025

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)

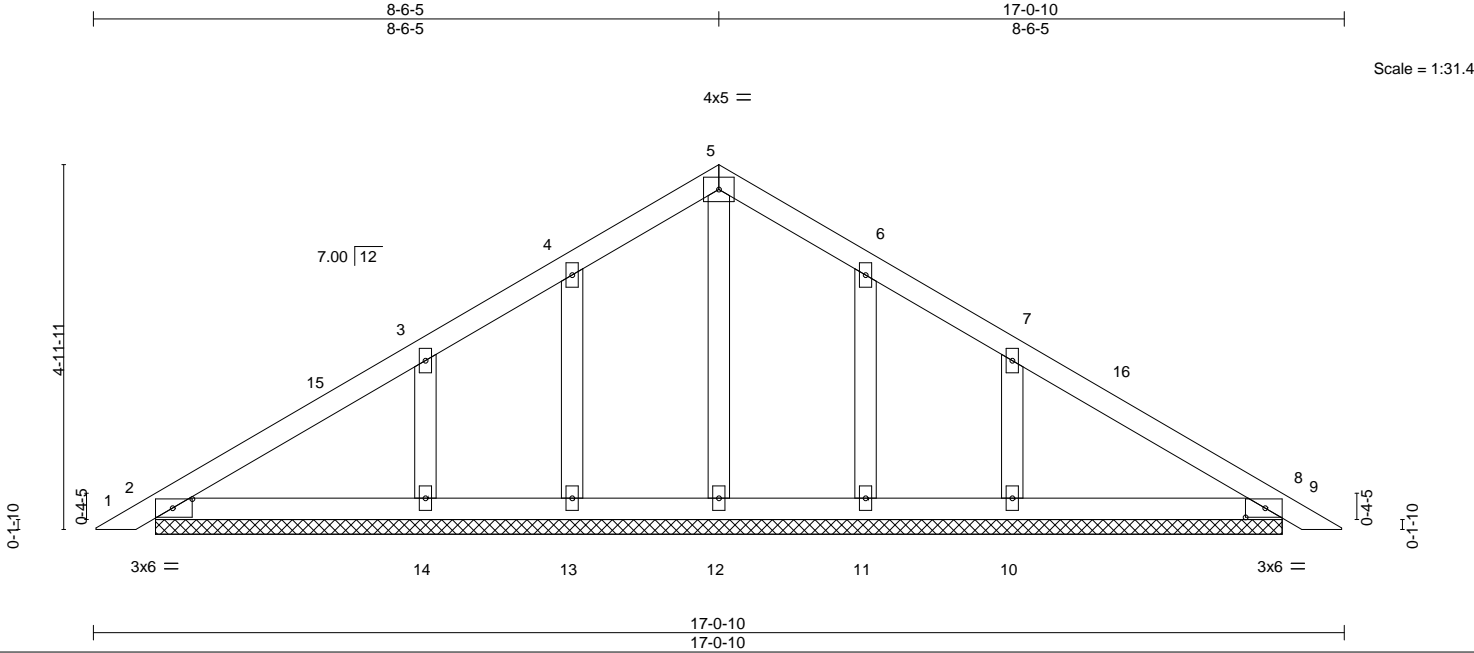
MiTek®

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

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518284
4461241	PB02G	GABLE	2	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:28 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKzncau-CCOMSlkVbf7hvoJP_ZRJbrXxeDxC2lVv7XIU7NzhHFX




LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	0.00	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	0.01				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-S							
								Weight: 73 lb		FT = 20%	

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

REACTIONS.	
All bearings 15-4-5.	
(lb) - Max Horz 2=153(LC 11)	
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 11 except 14=194(LC 12), 10=194(LC 13)	
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=302(LC 19), 10=302(LC 20)	

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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 8-6-5, Zone2 8-6-5 to 12-6-5, Zone1 12-6-5 to 16-8-15 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.	
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.	
5) All plates are 2x4 MT20 unless otherwise indicated.	
6) Gable requires continuous bottom chord bearing.	
7) Gable studs spaced at 2'-0" oc.	
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.	
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 11 except (jt=lb) 14=194, 10=194.	
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.	


Examiner License No. PX2707 03/07/2025
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Universal Engineering Science

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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:

February 27,2025

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

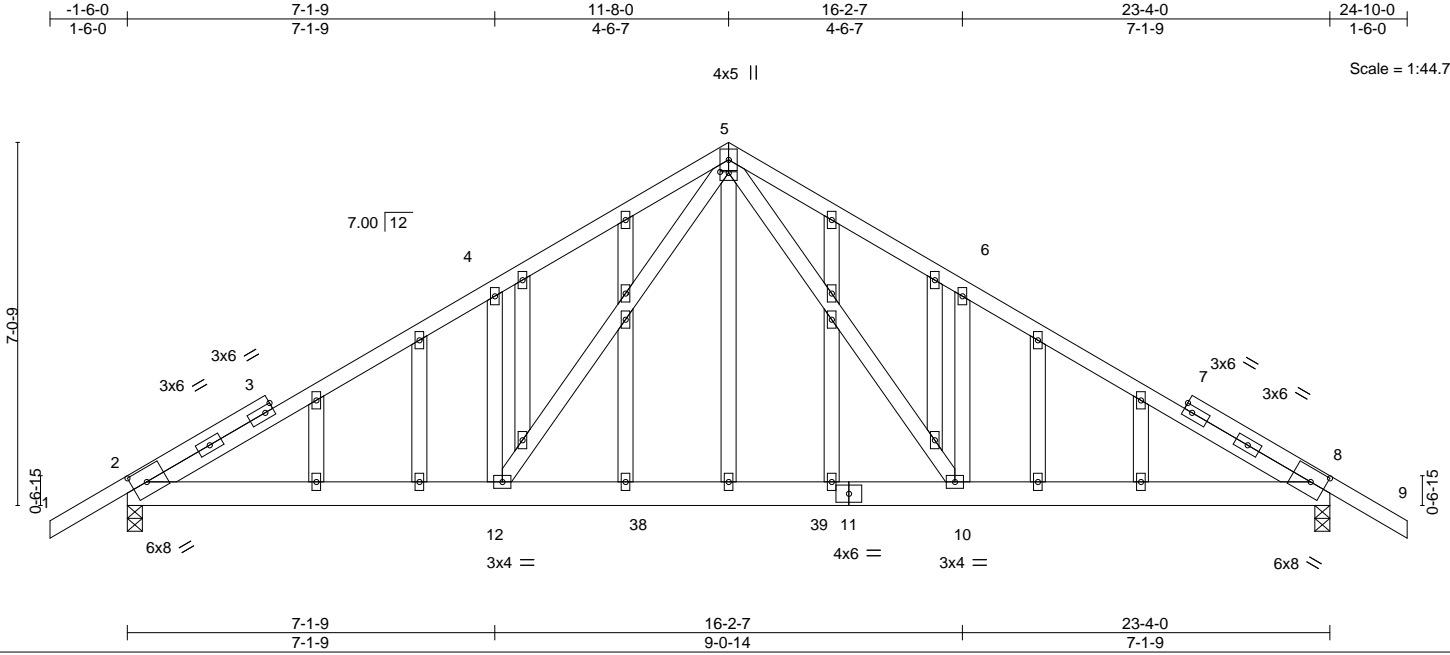
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518286
4461241	T01G	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:29 2025 Page 1
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	-0.10 10-12 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.17 10-12 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.01 8 n/a n/a				
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							
								Weight: 189 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-4-4 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 7-5-9 oc bracing.
WEBS	2x4 SP No.3		
OTHERS	2x4 SP No.3		

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=234(LC 11)
Max Uplift 2=383(LC 12), 8=383(LC 13)
Max Grav 2=1009(LC 2), 8=1009(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1479/1159, 4-5=-1495/1358, 5-6=-1495/1358, 6-8=-1479/1159
BOT CHORD 2-12=-856/1238, 10-12=-445/796, 8-10=-864/1238
WEBS 5-10=-743/788, 6-10=-386/358, 5-12=-743/788, 4-12=-386/358



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Lawrence Pennell
Examiner-License No.

PX2707 03/07/2025

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=383, 8=383.

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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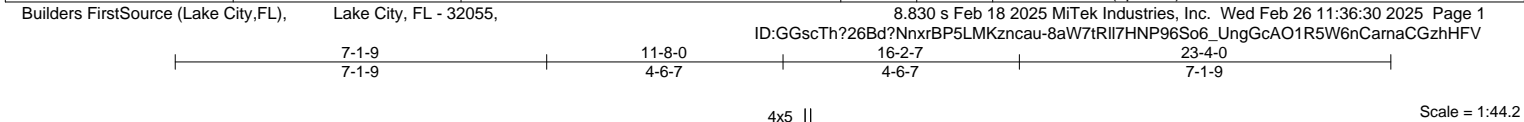
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MiTek®

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518287
4461241	T02	Common	6	1	Job Reference (optional)	



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.62	Vert(LL)	0.30	6-8	>926	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.84	Vert(CT)	-0.34	6-8	>822	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.39	Horz(CT)	0.03	5	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014		Matrix-MS						Weight: 131 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-3-12 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 3-6, 3-8

REACTIONS. (size) 1=0-3-8, 5=0-3-8
 Max Horz 1=217(LC 9)
 Max Uplift 1=458(LC 12), 5=458(LC 13)
 Max Grav 1=1185(LC 2), 5=1185(LC 2)

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

TOP CHORD 1-2=1953/1532, 2-3=1928/1681, 3-4=1928/1681, 4-5=1953/1532

BOT CHORD 1-8=1217/1624, 6-8=708/1059, 5-6=1210/1616

WEBS 3-6=935/1063, 4-6=362/357, 3-8=935/1062, 2-8=362/357

Review for Code Compliance

Universal Engineering Science

Lawrence Pennell PX2707 03/07/2025

Examiner-License No.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; 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 11-8-0, Zone2 11-8-0 to 16-2-7, Zone1 16-2-7 to 23-4-0 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.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=458, 5=458.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-54, 3-5=-54, 8-9=-20, 6-8=-80(F=-60), 6-12=-20

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:

February 27,2025

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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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518288
4461241	T03	Piggyback Base	6	1	Job Reference (optional)	

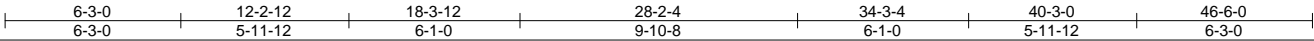
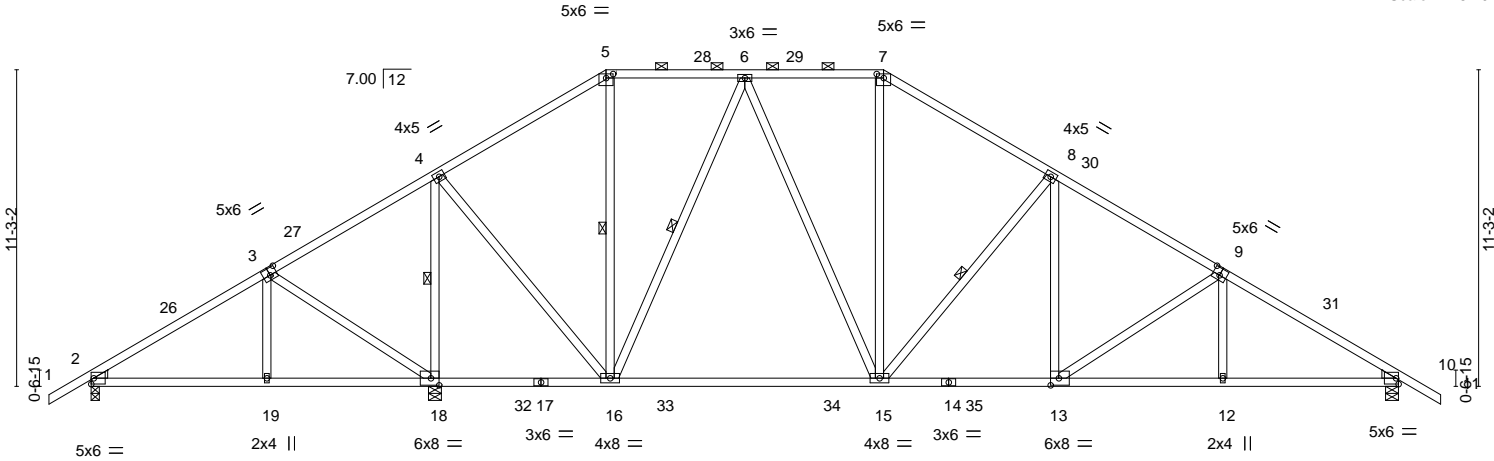
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:31 2025 Page 1

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Scale = 1:81.9



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.44	in	(loc)	I/defl	L/d	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.97	Vert(LL)	-0.36 15-16	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Vert(CT)	-0.58 15-16	>712	180		
BCDL	10.0	Code FBC2023/TP12014		Matrix-MS		Horz(CT)	0.06 10	n/a	n/a		
										Weight: 300 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-8-15 oc purlins, except
BOT CHORD	2x4 SP No.2		2-0-0 oc purlins (5-8-5 max.): 5-7.
WEBS	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEDGE		WEBS	1 Row at midpt 4-18, 5-16, 6-16, 8-15
Left: 2x4 SP No.3 , Right: 2x4 SP No.3			

REACTIONS. (size) 2=0-3-8, 18=0-5-8, 10=0-5-8
Max Horz 2=-369(LC 10)
Max Uplift 2=-175(LC 12), 18=-741(LC 12), 10=-580(LC 13)
Max Grav 2=407(LC 25), 18=2265(LC 2), 10=1483(LC 20)



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FORCES.		(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		PX2707	03/07/2025
TOP CHORD	2-3=-300/287, 3-4=-97/488, 4-5=-652/391, 5-6=-499/384, 6-7=-1019/614, 7-8=-1252/627, 8-9=-1735/741, 9-10=-2182/827	Examiner-License No.			
BOT CHORD	2-19=-365/278, 18-19=-364/278, 16-18=-465/368, 15-16=-199/810, 13-15=-327/1427, 12-13=-568/1789, 10-12=-568/1791				
WEBS	3-19=-215/268, 3-18=-509/471, 4-18=-1779/605, 4-16=-287/1315, 6-16=-798/380, 6-15=-213/657, 7-15=-116/376, 8-15=-798/446, 8-13=-128/494, 9-13=-505/290				

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 1-6-0 to 3-1-13, Zone1 3-1-13 to 18-3-12, Zone2 18-3-12 to 24-10-11, Zone1 24-10-11 to 28-2-4, Zone2 28-2-4 to 34-9-2, Zone1 34-9-2 to 48-0-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=175, 18=741, 10=580.
 - 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.

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

February 27,2025

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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.
4461241	T03G	GABLE	1	1	T36518289

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

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- NOTES-**
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 152 lb down and 118 lb up at 24-7-12, 152 lb down and 118 lb up at 26-7-12, 152 lb down and 118 lb up at 28-7-12, 152 lb down and 118 lb up at 29-11-4, 152 lb down and 118 lb up at 31-11-4, 152 lb down and 118 lb up at 33-11-4, and 152 lb down and 118 lb up at 35-11-4, and 152 lb down and 118 lb up at 37-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) 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: 1-7=-54, 7-9=-54, 9-15=-54, 71-74=-20
- Concentrated Loads (lb)
- Vert: 79=-152(F) 81=-152(F) 82=-152(F) 83=-152(F) 85=-152(F) 86=-152(F) 87=-152(F) 88=-152(F)



Review for Code Compliance
Universal Engineering Science

Lawrence Powell
Examiner-License No.

PX2707 03/07/2025

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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518291
4461241	T04G	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:35 2025 Page 1
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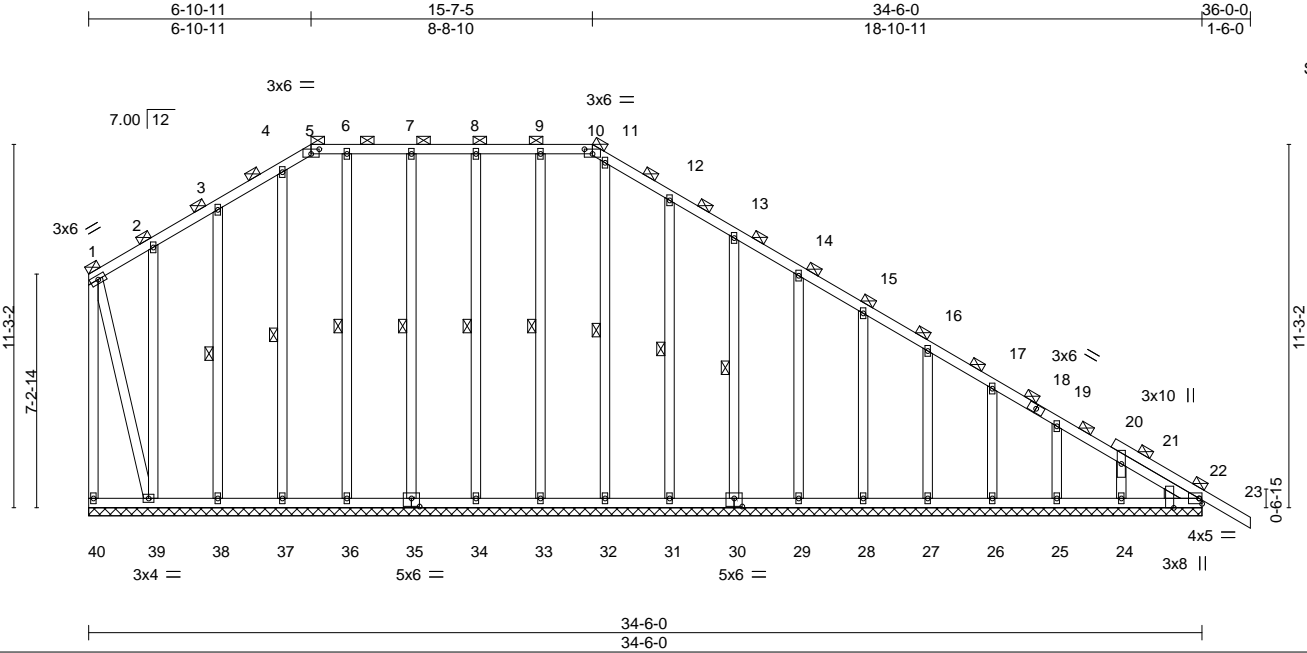


Plate Offsets (X,Y)--		[5:0-3-0,0-1-12], [10:0-3-0,0-1-12], [22:0-3-8,Edge], [30:0-3-0,0-3-0], [35:0-3-0,0-3-0]								
LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.19	Vert(LL)	-0.01	23	n/r	120	MT20
TCDL	7.0	Lumber DOL	1.25	BC 0.08	Vert(CT)	-0.01	23	n/r	120	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.02	22	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-S						
									Weight: 319 lb	FT = 20%

LUMBER-		BRACING-	
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	WEBS	1 Row at midpt
OTHERS	2x4 SP No.3		3-38, 4-37, 6-36, 7-35, 8-34, 9-33, 11-32, 12-31, 13-30
WEDGE			
Right: 2x4 SP No.3			

REACTIONS.		Review for Code Compliance	
All bearings 34-6-0.		Universal Engineering Science	
(lb) - Max Horz 40=-459(LC 13)		Examiner-License No.	
Max Uplift All uplift 100 lb or less at joint(s) 37, 36, 35, 34, 33, 32, 25, 40=-206(LC 13), 39=-165(LC 9), 38=-121(LC 12), 31=-116(LC 13), 30=-104(LC 13), 29=-105(LC 13), 28=-105(LC 13), 27=-104(LC 13), 26=-108(LC 13), 24=-125(LC 13)		PX2707 03/07/2025	
Max Grav All reactions 250 lb or less at joint(s) 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 22, 24 except 39=286(LC 19)			

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	17-19=-277/190, 19-21=-335/208, 21-22=-390/226
BOT CHORD	39-40=-256/458, 38-39=-218/415, 37-38=-218/415, 36-37=-218/415, 35-36=-218/415, 34-35=-218/415, 33-34=-218/415, 32-33=-218/415, 31-32=-218/415, 30-31=-218/415, 29-30=-218/415, 28-29=-218/415, 27-28=-218/415, 26-27=-218/415, 25-26=-218/415, 24-25=-218/415, 22-24=-221/417

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 C; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.	
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.	
5) Provide adequate drainage to prevent water ponding.	
6) All plates are 2x4 MT20 unless otherwise indicated.	
7) Gable requires continuous bottom chord bearing.	
8) Gable studs spaced at 2-0-0 oc.	
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
10) * 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.	
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 37, 36, 35, 34, 40=-206, 39=-165, 38=-121, 31=-116, 30=-104, 29=-105, 28=-105, 27=-104, 26=-108, 24=-125.	

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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: February 27,2025


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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.
4461241	T04G	GABLE	1	1	T36518291
Job Reference (optional)					

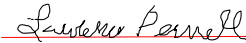
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:35 2025 Page 2
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NOTES-
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Review for Code Compliance
Universal Engineering Science



PX2707 03/07/2025

Examiner-License No.

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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518292
4461241	T05	Piggyback Base	12	1	Job Reference (optional)	

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

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ID:GGscTh?26Bd?NnxrBP5LMKZncau-zktO8VqWi78Yt1wySFbBvXsFtRbRwjm5ynEvPvzhHFP

1-6-0	6-3-0	12-2-12	18-3-12	22-7-14	27-0-0	31-9-2	36-6-4	41-5-5	46-0-8	50-9-2	54-10-0	56-4-0
1-6-0	6-3-0	5-11-12	6-1-0	4-4-2	4-4-2	4-9-2	4-9-2	4-11-1	4-7-3	4-8-10	4-0-14	1-6-0

Scale = 1:98.1

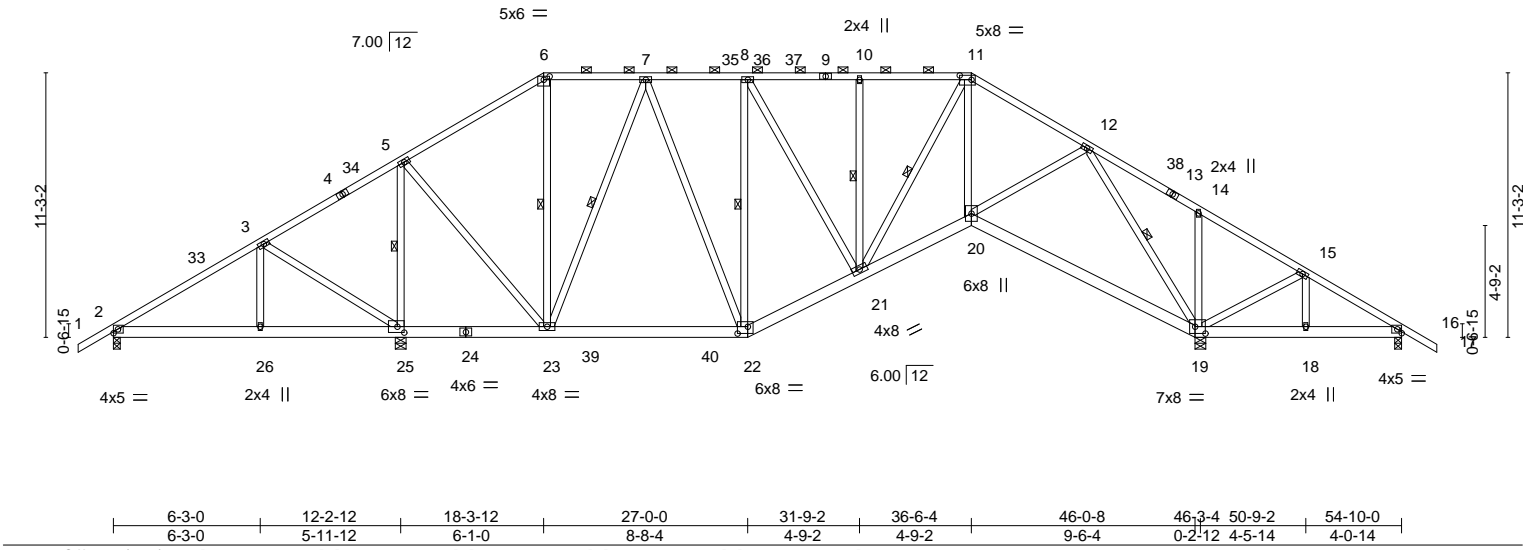


Plate Offsets (X,Y)--	[6:0-3-0,0-1-12], [11:0-6-0,0-2-4], [19:0-5-4,0-3-8], [22:0-5-4,0-3-8], [25:0-3-8,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.43	Vert(LL) -0.10	22-23	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.39	Vert(CT) -0.20	19-20	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.87	Horz(CT) 0.09	19	n/a	n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-MS						
							Weight: 422 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins, except 2-0-0 oc purlins (5-10-7 max.): 6-11.
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 5-25, 6-23, 7-23, 8-22, 10-21, 11-21, 12-19

REACTIONS. All bearings 0-3-8 except (jt=length) 19=0-5-8, 25=0-5-8.
(lb) - Max Horz 2=-369(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-172(LC 12), 19=-786(LC 13), 16=-177(LC 25), 25=-777(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 16 except 2=403(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-303/288, 3-5=-187/413, 5-6=-601/351, 6-7=-454/363, 7-8=-801/508, 8-10=-960/525, 10-11=-960/525, 11-12=-1181/426, 12-14=-218/912, 14-15=-211/908, 15-16=-153/536
BOT CHORD 2-26=-291/333, 25-26=-291/333, 23-25=-325/339, 22-23=-311/711, 21-22=-374/919, 20-21=-329/1146, 19-20=-56/388, 18-19=-440/133, 16-18=-440/133
WEBS 3-26=-223/270, 3-25=-497/477, 5-25=-1535/632, 5-23=-297/1097, 7-23=-608/378, 7-22=-187/394, 8-22=-528/254, 8-21=-83/339, 10-21=-286/224, 11-21=-255/101, 11-20=0/439, 12-20=-304/877, 12-19=-1957/475, 14-19=-290/266, 15-19=-361/374

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 3-11-13, Zone1 3-11-13 to 18-3-12, Zone2 18-3-12 to 26-0-13, Zone1 26-0-13 to 36-6-4, Zone2 36-6-4 to 44-3-5, Zone1 44-3-5 to 56-4-0 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 3x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 2, 786 lb uplift at joint 19, 177 lb uplift at joint 16 and 777 lb uplift at joint 25.
 - 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.

Joaquin Velez PE No.68182
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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

February 27,2025

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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518293
4461241	T05G	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:38 2025 Page 1

ID:GGscTh?26Bd?NnxrBP5LMKZncau-v7?8ZArmEkOG6K4Kafdf_yxa6FHwObwOQ5j?UozhHFN

1-6-0	6-3-0	12-2-12	18-3-12	22-7-14	27-0-0	31-9-2	35-11-5	41-3-6	46-0-8	50-3-0	54-10-0	56-4-0
1-6-0	6-3-0	5-11-12	6-1-0	4-4-2	4-4-2	4-9-2	4-2-3	5-4-1	4-9-2	4-2-8	4-7-0	1-6-0

Scale = 1:101.0

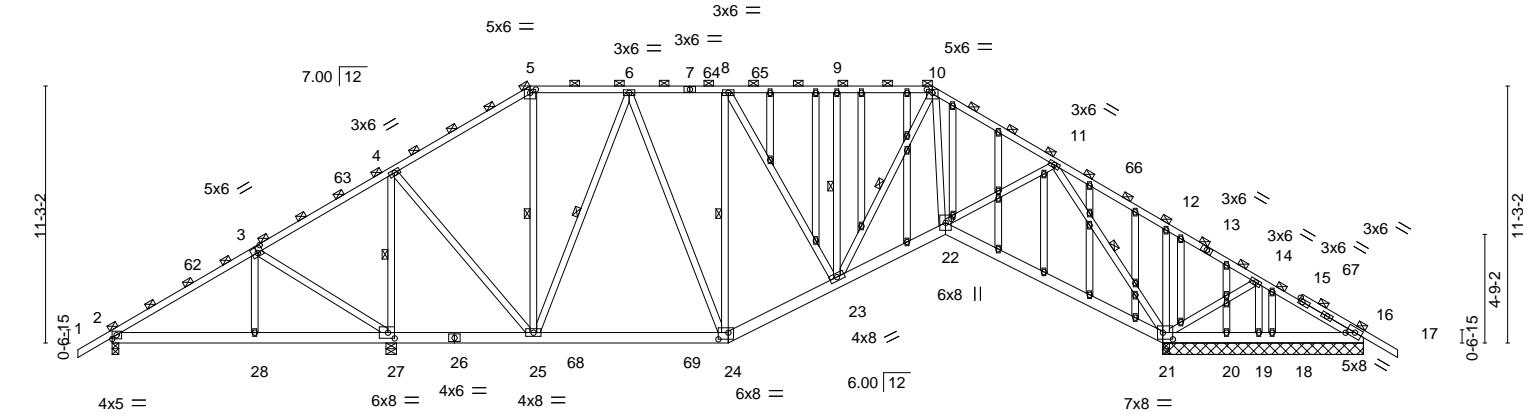


Plate Offsets (X,Y)--	[3:0-3-0,0-3-0], [5:0-3-0,0-1-12], [10:0-3-0,0-1-12], [16:0-4-4,Edge], [21:0-5-4,0-3-8], [24:0-5-4,0-3-8], [27:0-3-8,0-3-0], [45:0-2-0,0-0-12]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.45	Vert(LL) -0.10	24-25	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.39	Vert(CT) -0.20	21-22	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.90	Horz(CT) 0.09	21	n/a	n/a		
BCDL 10.0	Code FBC2023/TP12014	Matrix-MS					Weight: 506 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (4-11-14 max.).
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 4-27, 5-25, 6-25, 8-24, 9-23, 10-23, 11-21
OTHERS 2x4 SP No.3	

REACTIONS.	All bearings 8-9-8 except (jt=length) 2=0-3-8, 27=0-5-8.
(lb) - Max Horz	2=-369(LC 10)
Max Uplift	All uplift 100 lb or less at joint(s) 16, 20 except 2=-171(LC 12), 21=-788(LC 13), 27=-770(LC 12), 19=-387(LC 27), 18=-155(LC 8)
Max Grav	All reactions 250 lb or less at joint(s) 16, 19, 18, 16 except (LC 23)=287(LC 8), (LC 21)=287(LC 8), (LC 27)=287(LC 8)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-295/281, 3-4=-184/427, 4-5=-588/351, 5-6=-443/358, 6-8=-791/508, 8-9=-944/526, 9-10=-944/526, 10-11=-1217/435, 11-12=-225/997, 12-14=-217/987, 14-16=-112/502
BOT CHORD	2-28=-292/318, 27-28=-291/317, 25-27=-343/344, 24-25=-304/698, 23-24=-363/907, 22-23=-316/1117, 21-22=-44/401, 20-21=-399/180, 19-20=-399/180, 18-19=-399/180, 16-18=-399/180
WEBS	3-28=-224/271, 3-27=-495/475, 4-27=-1544/624, 4-25=-288/1106, 6-25=-608/376, 6-24=-196/396, 8-24=-526/242, 8-23=-64/331, 9-23=-266/211, 11-22=-289/864, 11-21=-2053/509, 12-21=-279/252, 14-21=-476/198, 14-19=-150/374, 10-22=0/449

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 3-11-13, Zone1 3-11-13 to 18-3-12, Zone2 18-3-12 to 26-0-13, Zone1 26-0-13 to 35-11-5, Zone2 35-11-5 to 43-8-6, Zone1 43-8-6 to 56-4-0 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TP1 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 16, 20, 16 except (jt=lb) 2=171, 21=788, 27=770, 19=387, 18=155.
 - 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.

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

Date: February 27, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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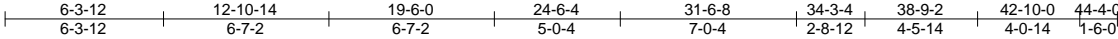
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518294
4461241	T06	Piggyback Base	2	1	Job Reference (optional)	

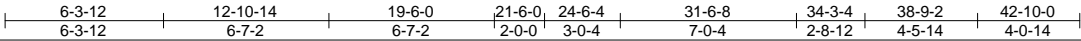
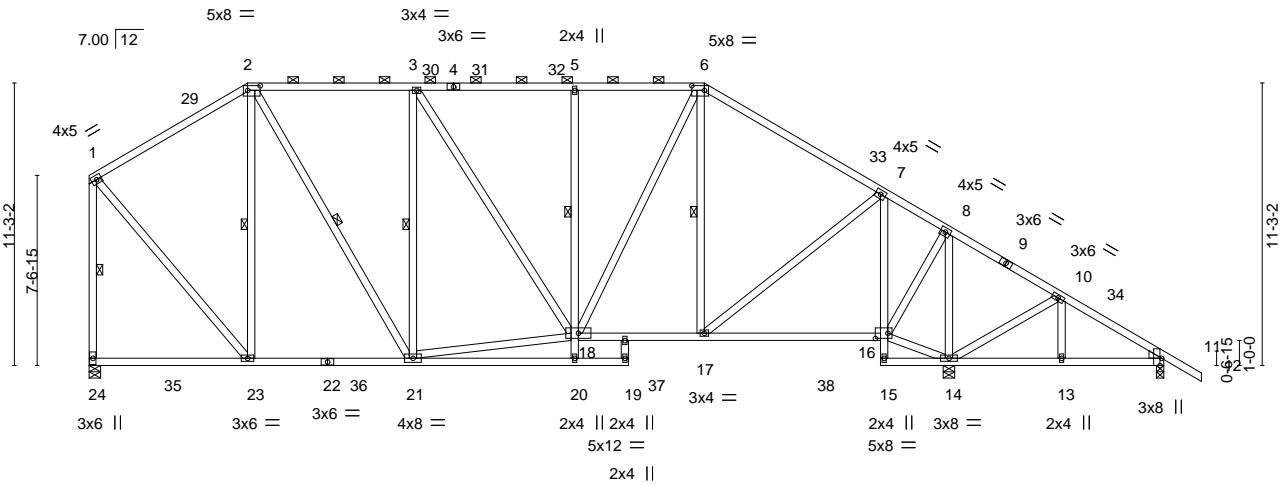
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:39 2025 Page 1

ID:GGscTh?26Bd?NnxrBP5LMKzncau-OJZXmWsO?2W7kUeW8N8uXAUlVWw73IXfISZ0EzhHFM



Scale = 1:91.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.10 16-17 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.86	Vert(CT)	-0.19 16-17 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.04 14 n/a n/a				
BCDL	10.0	Code FBC2023/TPI2014		Matrix-MS							
								Weight: 340 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-10-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-10 max.): 2-6.
BOT CHORD	2x4 SP No.2 *Except* 5-20,7-15: 2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15,13-14,11-13.
WEBS	2x4 SP No.3 *Except* 2-21: 2x4 SP No.2		1 Row at midpt 5-18
WEDGE			10-0-0 oc bracing: 18-20
Right: 2x4 SP No.3		WEBS	1 Row at midpt 2-23, 2-21, 3-21, 6-17, 1-24

REACTIONS. (size) 24=0-5-8, 11=0-3-8, 14=0-5-8
Max Horz 24=-468(LC 13)
Max Uplift 24=-474(LC 12), 11=-124(LC 13), 14=-714(LC 13)
Max Grav 24=1423(LC 2), 11=188(LC 26), 14=2127(LC 2)



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Universal Engineering Science

Lawrence Pennell
Examiner-License No.

PX2707 03/07/2025

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-850/339, 2-3=-1022/478, 3-5=-1151/511, 5-6=-1152/509, 6-7=-1149/465,
7-8=-352/202, 8-10=-116/503, 1-24=-1299/499
BOT CHORD 23-24=-250/463, 21-23=-295/808, 5-18=-327/260, 17-18=-235/913, 16-17=-19/358,
7-16=-1105/418
WEBS 2-23=-531/285, 2-21=-373/717, 3-21=-569/370, 18-21=-381/994, 3-18=-140/275,
6-18=-331/569, 6-17=-258/213, 7-17=-279/767, 14-16=-372/341, 8-16=-301/1322,
8-14=-1639/480, 10-14=-372/352, 1-23=-323/1019

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-1-12 to 4-5-2, Zone1 4-5-2 to 6-3-12, Zone2 6-3-12 to 12-4-7, Zone1 12-4-7 to 24-6-4, Zone2 24-6-4 to 30-6-15, Zone1 30-6-15 to 44-4-0 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 24=474, 11=124, 14=714.
 - 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.

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

February 27,2025

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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Chesterfield, MO 63017
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Continued on page 12, 15-734.

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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.
4461241	T06G	GABLE	1	1	T36518295
Job Reference (optional)					

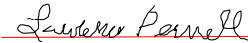
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:40 2025 Page 2
ID:GGscTh?26Bd?NnxrBP5LMKzncau-sV7vzt0mLe_LeDjh4f74N1tq3tGsYXgtPC6YgzhHFL

NOTES-
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Review for Code Compliance
Universal Engineering Science



PX2707 03/07/2025

Examiner-License No.

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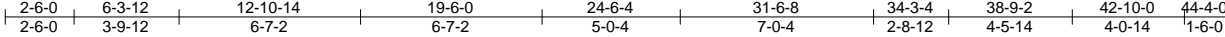
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518296
4461241	T07	Piggyback Base	2	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:41 2025 Page 1

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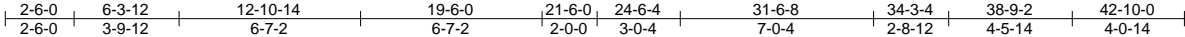
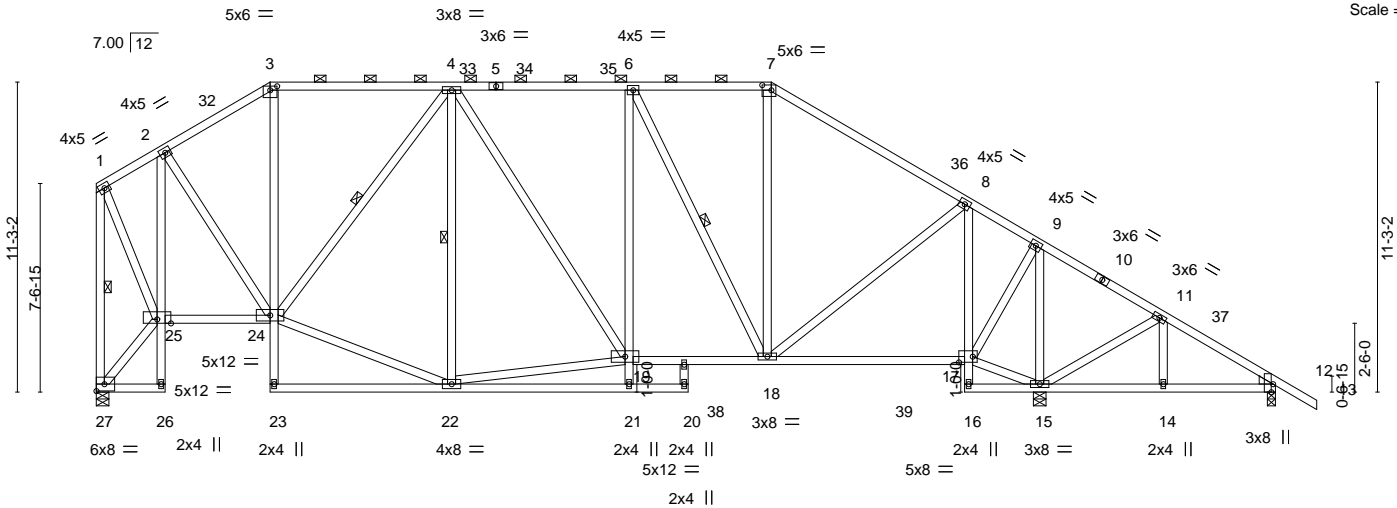


Plate Offsets (X,Y)--		[3:0-3-0,0-1-12], [7:0-4-0,0-2-4], [12:0-3-8,Edge], [17:0-6-0,0-2-8]															
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP					
TCLL	20.0	2-0-0		TC 0.51		in (loc)		I/defl		MT20		244/190					
TCDL	7.0	Plate Grip DOL 1.25		BC 0.86		Vert(LL) -0.10 20		>999									
BCLL	0.0 *	Lumber DOL 1.25		WB 0.89		Vert(CT) -0.19 17-18		>999									
BCDL	10.0	Rep Stress Incr YES		Matrix-MS		Horz(CT) 0.09 15		n/a									
		Code FBC2023/TP12014															
										Weight: 368 lb		FT = 20%					

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-10-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-0 max.): 3-7.
BOT CHORD	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS	2x4 SP No.3	WEBS	10-0-0 oc bracing: 19-21
WEDGE			1 Row at midpt
Right: 2x4 SP No.3			4-24, 4-22, 6-18, 1-27

REACTIONS.		Review for Code Compliance	
(size) 12=0-3-8, 15=0-5-8, 27=0-5-8		Universal Engineering Science	
Max Horz 27=-468(LC 13)			
Max Uplift 12=-144(LC 13), 15=-689(LC 13), 27=-475(LC 12)			
Max Grav 12=190(LC 20), 15=2130(LC 2), 27=1348(LC 2)			

FORCES.		Examiner-License No.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		PX2707	
TOP CHORD		03/07/2025	
1-2=-558/222, 2-3=-993/378, 3-4=-826/377, 4-6=-1159/520, 6-7=-917/495,			
7-8=-1145/479, 8-9=-366/234, 9-11=-110/509, 1-27=-1329/504			
BOT CHORD			
2-25=-885/448, 24-25=-305/750, 3-24=-22/281, 19-21=0/262, 6-19=-39/335,			
18-19=-383/1161, 17-18=-3/338, 8-17=-1106/405			
WEBS			
2-24=-356/642, 22-24=-421/1084, 4-24=-340/396, 4-22=-346/259, 19-22=-380/1004,			
4-19=-146/318, 6-18=-591/335, 7-18=-77/340, 8-18=-290/770, 15-17=-376/306,			
9-17=-294/1323, 9-15=-1641/469, 11-15=-372/351, 1-25=-415/1124, 25-27=-369/697			

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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-1-12 to 4-5-2, Zone1 4-5-2 to 6-3-12, Zone2 6-3-12 to 12-4-7, Zone1 12-4-7 to 24-6-4, Zone2 24-6-4 to 30-6-15, Zone1 30-6-15 to 44-4-0 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60			
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.			
4) Provide adequate drainage to prevent water ponding.			
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.			
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.			
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=144, 15=689, 27=475.			
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.			

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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:

February 27,2025

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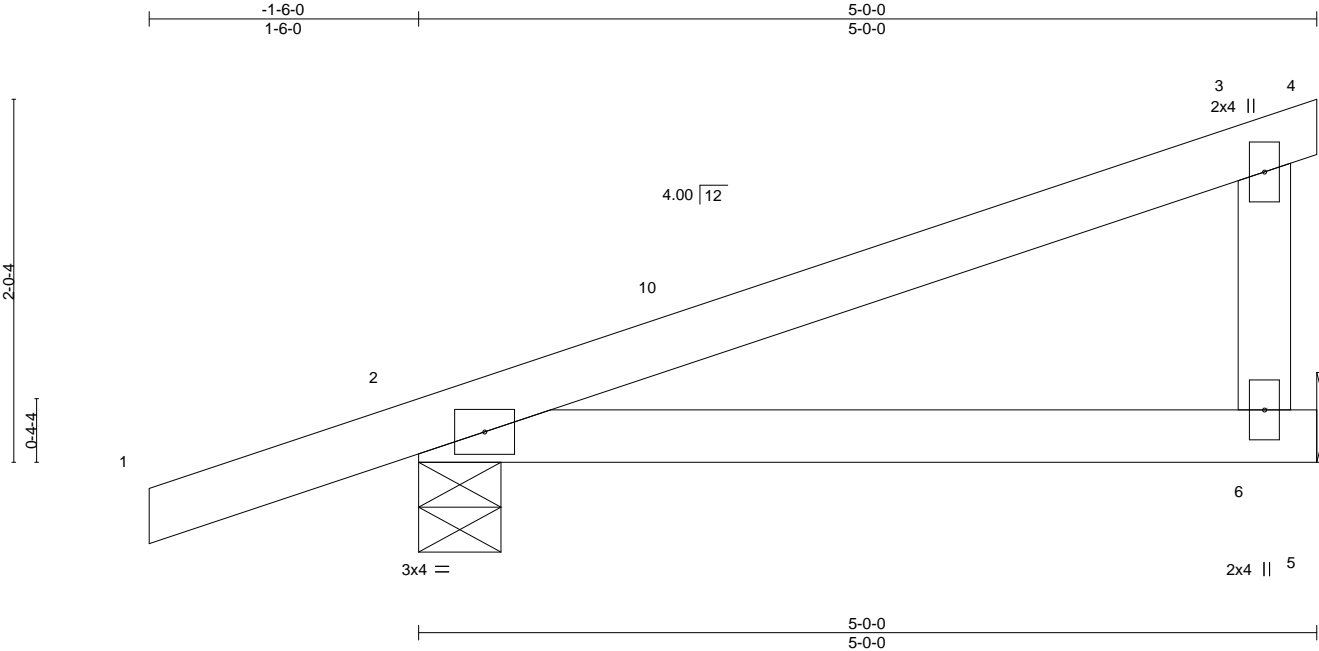
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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518297
4461241	T08	Jack-Open	8	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:42 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKzncau-ouFfOYuHlzuibyN5pVib9o6lBsggKctzLjhDdZzhHFJ



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	Vert(LL)	0.04	6-9	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.28	Vert(CT)	-0.04	6-9	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.07	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP						
	Code FBC2023/TPI2014						Weight: 20 lb	FT = 20%

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

REACTIONS. (size) 2=0-5-8, 6=Mechanical
Max Horz 2=115(LC 8)
Max Uplift 2=-170(LC 8), 6=-98(LC 12)
Max Grav 2=268(LC 1), 6=172(LC 1)

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



Review for Code Compliance
Universal Engineering Science

NOTES-

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft Cat. II; Exp C; Encl., PX2707 GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 1-6-0, Zone1 -1-6-0 to 5-0-0 Zone E-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) 6 except (jt=lb) 2=170.

03/07/2025

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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:

February 27,2025

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	BLACKBURN RES.	T36518298
4461241	T08G	Monopitch Supported Gable	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:42 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKzncau-ouFIOYUhlzuibyN5pVib9o6G?sglKZvzLjhDdZzhHFJ

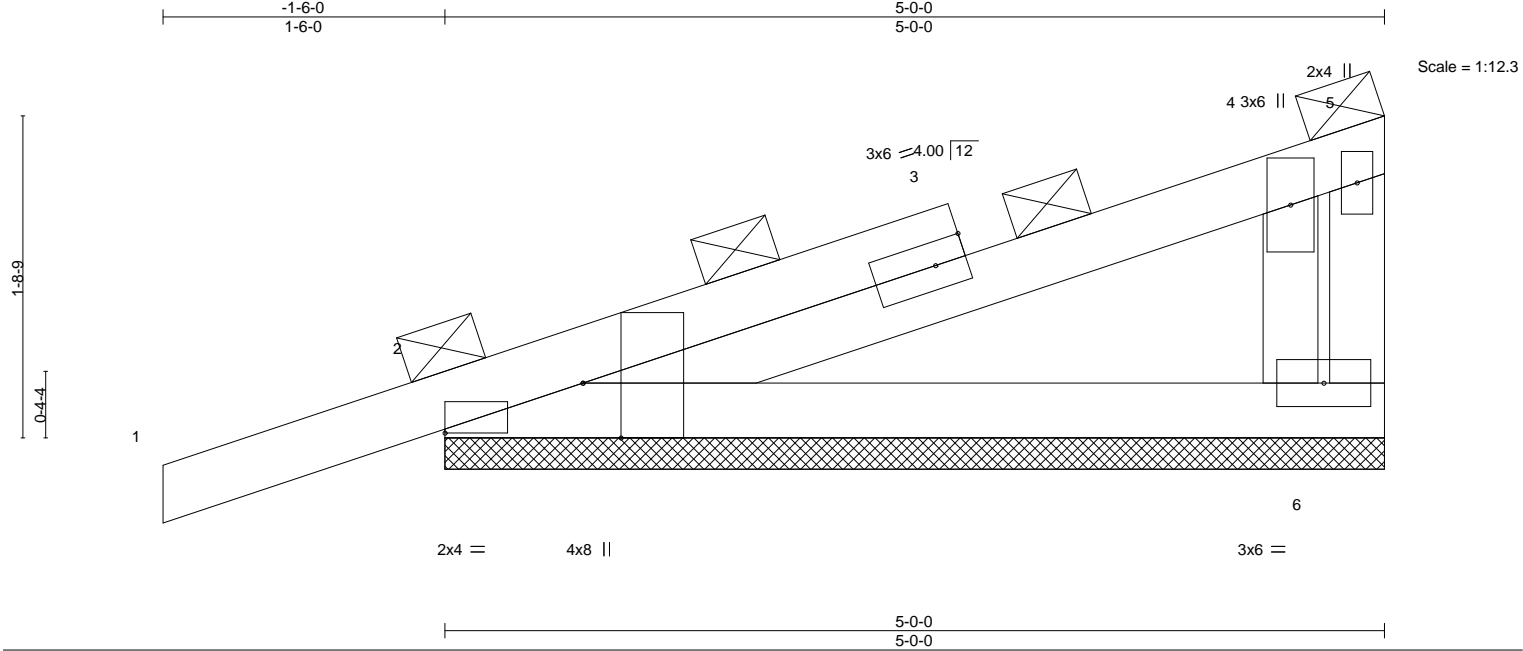


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [2:Edge,0-3-3]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.39
TCDL 7.0	Lumber DOL	1.25	BC 0.27
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.26
BCDL 10.0	Code	FBC2023/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) -0.00 6 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 24 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS.	(size) 2=5-0-0, 6=5-0-0
	Max Horz 2=98(LC 8)
	Max Uplift 2=-175(LC 8), 6=-91(LC 12)
	Max Grav 2=267(LC 1), 6=170(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	5-6=-504/206
WEBS	4-6=-338/861

- 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 C; 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 6 except (jt=lb) 2=175.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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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: February 27,2025

Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518299
4461241	V01	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:43 2025 Page 1
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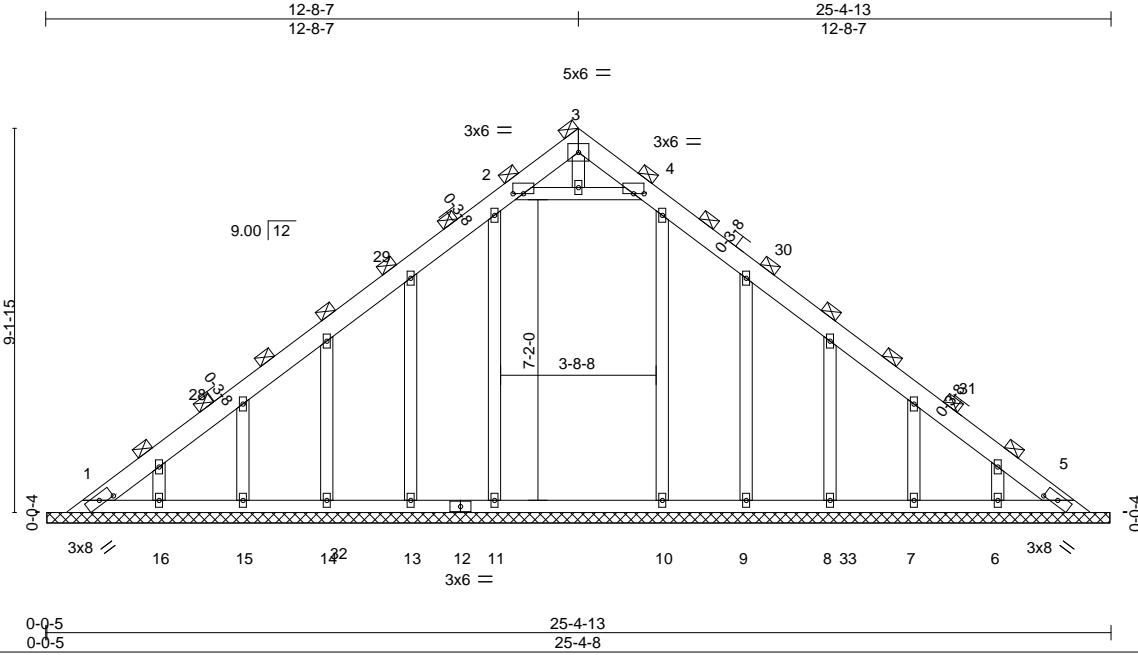


Plate Offsets (X,Y)-- [1:0-4-0,0-1-6], [2:0-3-0,0-0-0], [4:0-3-0,0-0-0], [5:0-4-0,0-1-6]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) I/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.25		TC	0.57	Vert(LL)	n/a - n/a	999	MT20 244/190
TCDL	7.0	Lumber DOL 1.25		BC	0.58	Vert(CT)	n/a - n/a	999	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.29	Horz(CT)	0.02 5 n/a	n/a	
BCDL	10.0	Code FBC2023/TP12014		Matrix-S					Weight: 169 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-7-15 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS.	All bearings 25-4-3.
(lb) - Max Horz	1=-278(LC 8)
Max Uplift	All uplift 100 lb or less at joint(s) 14, 15, 8, 7 except 1=-284(LC 13), 5=-284(LC 12), 16=-246(LC 12), 6=-245(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) 11, 13, 14, 15, 10, 9, 8 except 1=-284(LC 13), 5=-284(LC 12), 16=-326(LC 19), 6=-325(LC 20)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-795/452, 2-3=-392/355, 3-4=-393/355, 4-5=-795/452
BOT CHORD	1-16=-262/539, 15-16=-262/539, 14-15=-262/539, 13-14=-262/539, 11-13=-262/539, 10-11=-262/539, 9-10=-262/539, 8-9=-262/539, 7-8=-262/539, 6-7=-262/539, 5-6=-262/539
WEBS	2-4=-990/976

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 1-0-12 to 4-0-12, Zone1 4-0-12 to 12-8-7, Zone2 12-8-7 to 16-11-5, Zone1 16-11-5 to 24-4-1 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - 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) 14, 15, 8, 7 except (jt=lb) 1=284, 5=284, 16=246, 6=245.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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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:

February 27,2025

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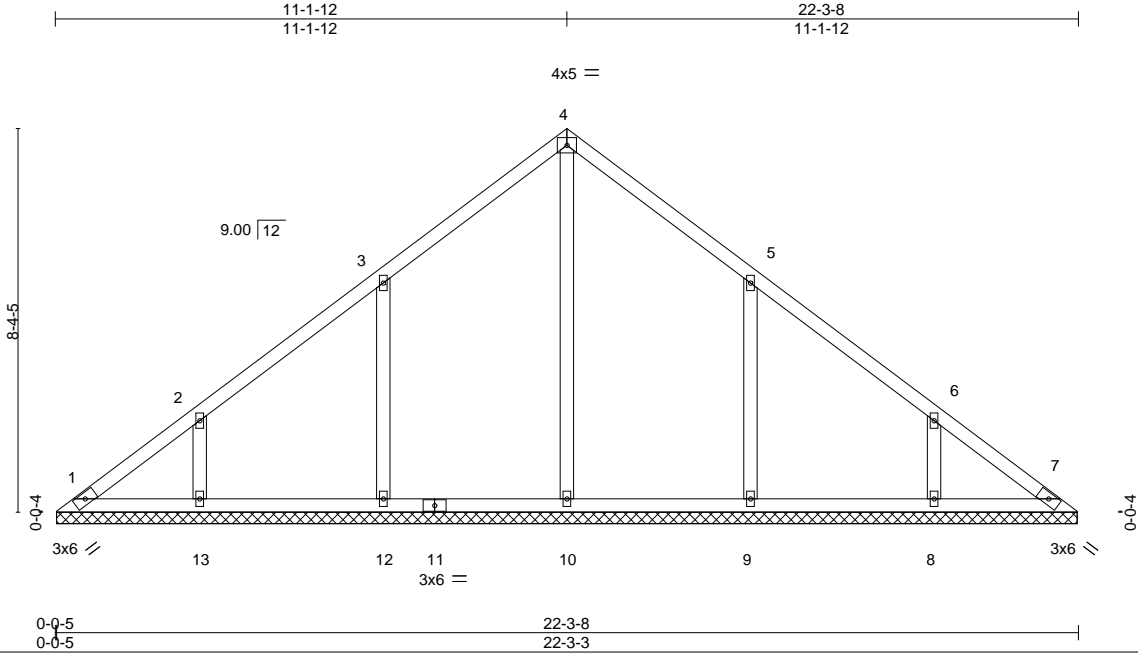
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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518300
4461241	V02	Valley	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:43 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKZncau-G4o1cuvv3G0ZC6ylNDDqh0fVwG2Y31j7ZNQm9?zhHF1




Scale = 1:50.2

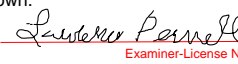
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.22	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-S					Weight: 104 lb	FT = 20%

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

REACTIONS. All bearings 22-2-13.
(lb) - Max Horz 1=256(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=278(LC 12), 13=231(LC 12), 9=278(LC 13), 8=231(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=386(LC 22), 12=458(LC 19), 13=362(LC 19), 9=457(LC 20), 8=362(LC 20)

 **Review for Code Compliance**
Universal Engineering Science

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=286/304, 5-9=286/303

 PX2707 03/07/2025
Examiner-License No.

- 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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-4 to 3-1-12, Zone1 3-1-12 to 11-1-12, Zone2 11-1-12 to 15-1-12, Zone1 15-1-12 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - 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, 7 except (jt=lb) 12=278, 13=231, 9=278, 8=231.

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

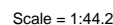
February 27,2025

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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.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		



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February 27, 2025



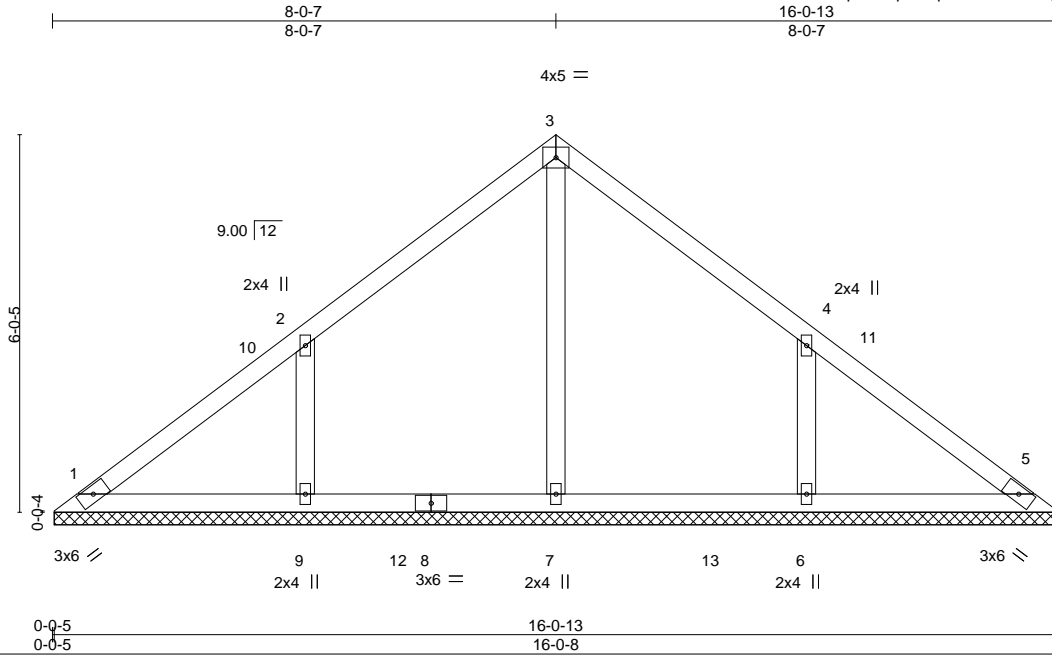
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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518302
4461241	V04	Valley	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:44 2025 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 68 lb	FT = 20%
	Code FBC2023/TPI2014							

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 16-0-3.
(lb) - Max Horz 1=182(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=290(LC 12), 6=290(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=338(LC 19), 9=456(LC 19), 6=455(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown
WEBS 2-9=293/311, 4-6=292/311



Review for Code Compliance
Universal Engineering Science

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 C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-4 to 3-5-4, Zone1 3-5-4 to 8-0-7, Zone2 8-0-7 to 12-0-7, Zone1 12-0-7 to 15-7-9 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=290, 6=290.

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Examiner License No.

PX2707

03/07/2025

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Joaquin Velez PE No.68182
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16023 Swingle Ridge Rd.
Chesterfield, MO 63017
Date:

February 27, 2025

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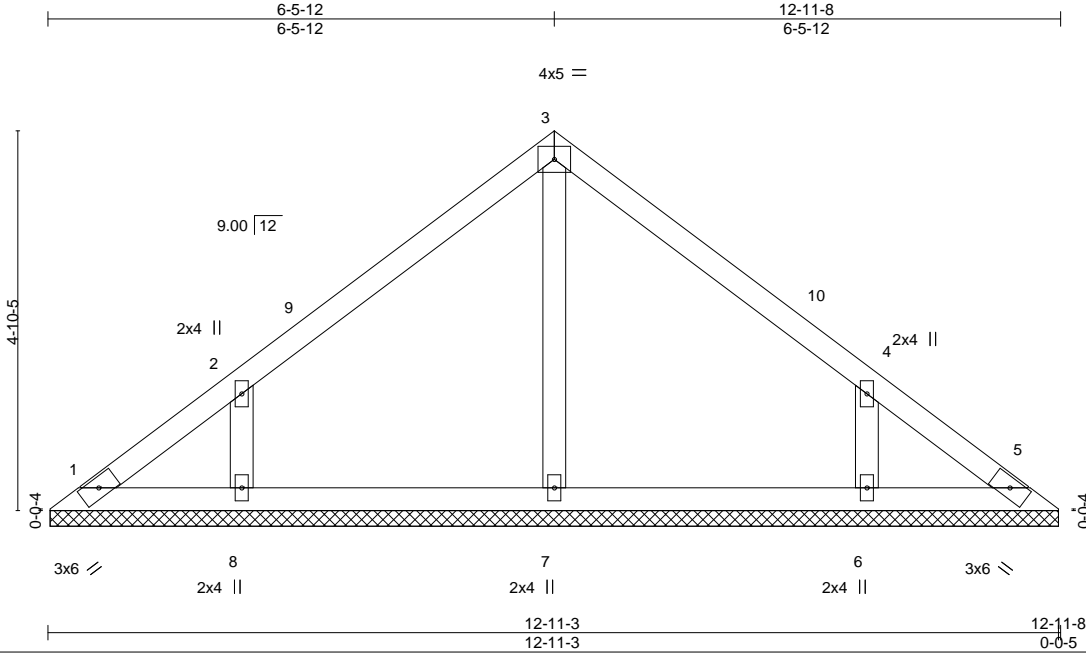
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518303
4461241	V05	Valley	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:45 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKzncau-CTwo1Zx9buGGSP6gUdFlnRkqF4lpXz8Q1hvtEuzhHFG



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code FBC2023/TPI2014	Matrix-S					Weight: 52 lb	FT = 20%

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

REACTIONS. All bearings 12-10-13.
(lb) - Max Horz 1=-144(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-245(LC 12), 6=-244(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=318(LC 19), 6=318(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown
WEBS 2-8=-252/327, 4-6=-251/327

Review for Code Compliance
Universal Engineering Science
Lawrence Parnell PX2707 03/07/2025
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- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 0-5-4 to 3-5-4, Zone1 3-5-4 to 6-5-12, Zone2 6-5-12 to 10-5-12, Zone1 10-5-12 to 12-6-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 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, 7 except (jt=lb) 8=245, 6=244.

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:

February 27,2025

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

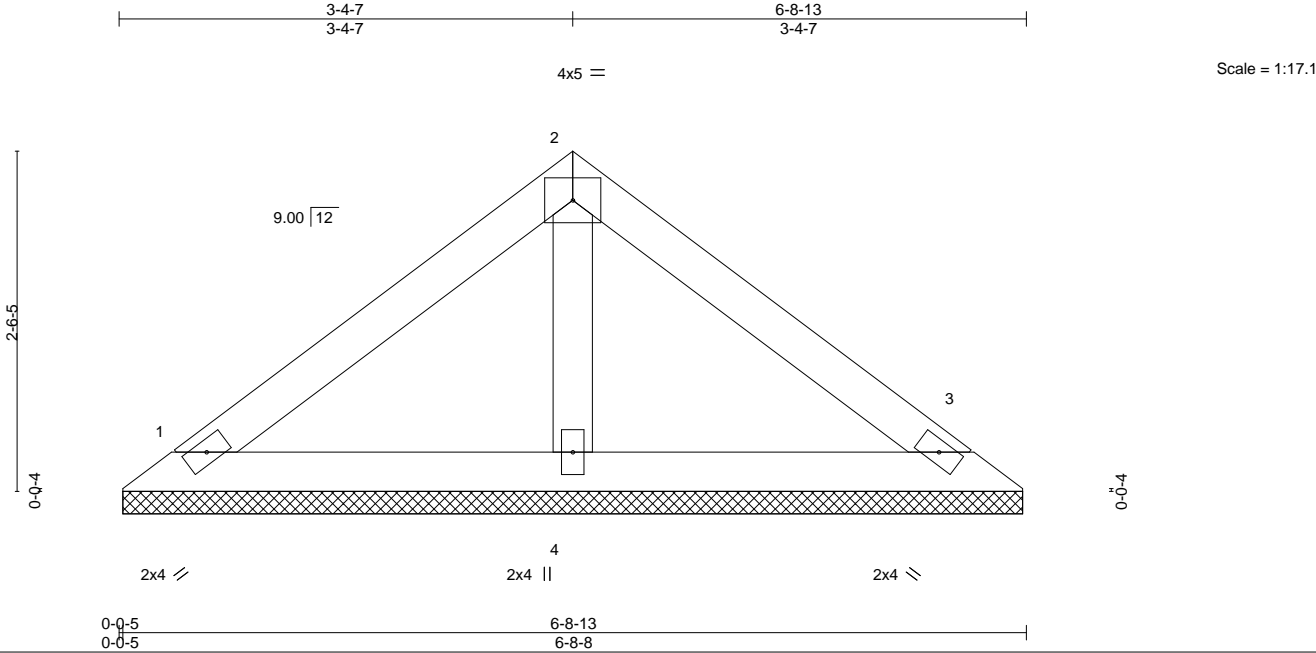
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518305
4461241	V07	Valley	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:46 2025 Page 1
ID:GGscTh?26Bd?NnrxBP5LMKzncau-gfUAEvynMBO73Zht2LmXJeH_YT5bGRAZGKfRmKzhHFF



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 24 lb	FT = 20%
	Code FBC2023/TPI2014							

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

REACTIONS. (size) 1=6-8-3, 3=6-8-3, 4=6-8-3
Max Horz 1=70(LC 9)
Max Uplift 1=-59(LC 12), 3=-69(LC 13), 4=-39(LC 12)
Max Grav 1=120(LC 1), 3=120(LC 1), 4=194(LC 1)

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

 **Review for Code Compliance**
Universal Engineering Science

- 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. A, Exp C, End., 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
 - 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, 3, 4.

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February 27,2025

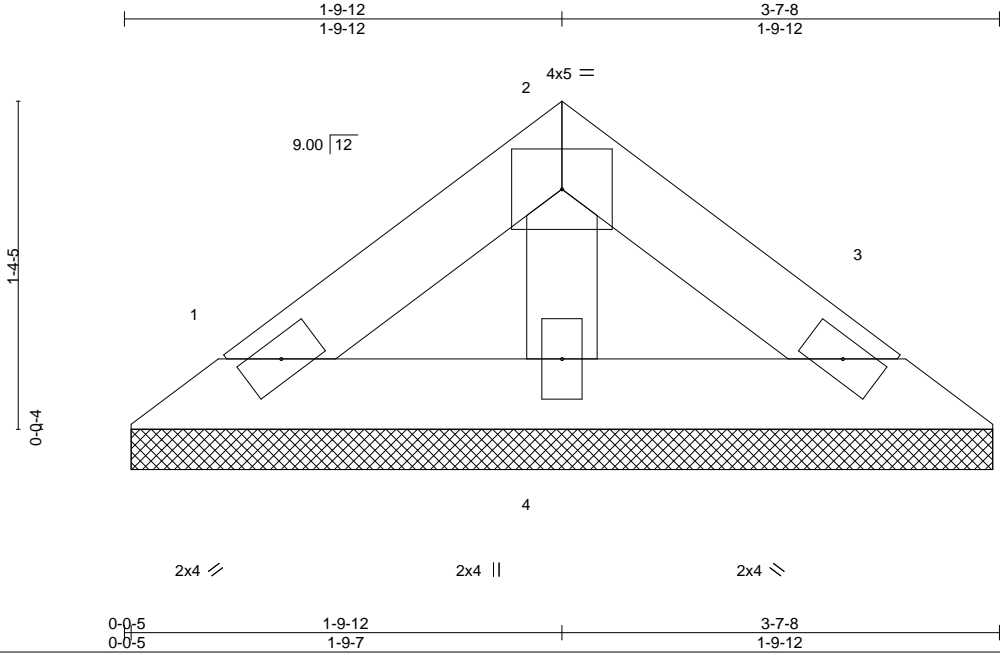
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Job	Truss	Truss Type	Qty	Ply	BLACKBURN RES.	T36518306
4461241	V08	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Feb 18 2025 MiTek Industries, Inc. Wed Feb 26 11:36:46 2025 Page 1
ID:GGscTh?26Bd?NnxrBP5LMKZncau-gfUAEvynMBO73Zht2LmXJeH14T6eGRXZGKfRmKzhHFF



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 12 lb	FT = 20%
	Code FBC2023/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS.	(size)	1=3-6-13, 3=3-6-13, 4=3-6-13
	Max Horz	1=-33(LC 8)
	Max Uplift	1=-28(LC 12), 3=-32(LC 13), 4=-18(LC 12)
	Max Grav	1=56(LC 1), 3=56(LC 1), 4=91(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown	Review for Code Compliance Universal Engineering Science
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- NOTES-**
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 - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. A, Exp. C, End., 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
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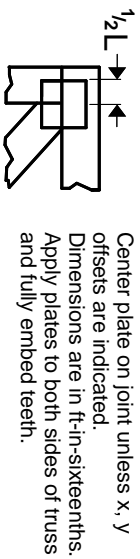
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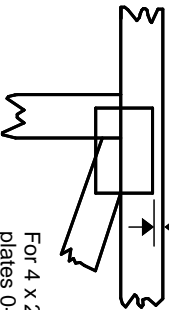
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Symbols

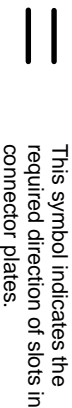
PLATE LOCATION AND ORIENTATION



0-¹/₁₆"



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



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

PLATE SIZE

4 X 4

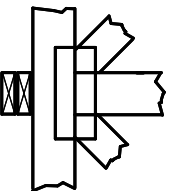
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

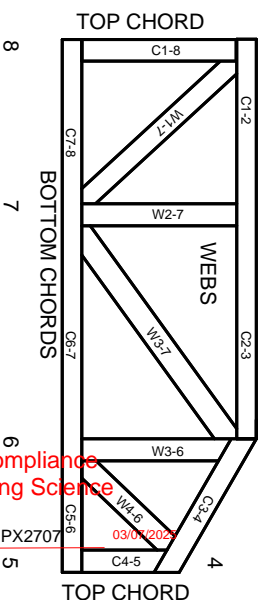
Industry Standards:

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

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

1 2 3 Joint ID typ.



JOINTS ARE GENERALLY NUMBERED/LETTERED IN A 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 section 6.3. These truss designs rely on lumber values established by others.

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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