



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

RE: 3236478 - BLAKE CONST. - PLATT RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: BLAKE CONST. Project Name: Platt Res. Model: Custom

Lot/Block: N/A Subdivision: NA

Address: TBD, TBD

City: Columbia Cty State: FL

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

Name: License #:

Address:

City: State:

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

Design Code: FBC2020/TPI2014

Design Program: MiTek 20/20 8.5

Wind Code: ASCE 7-16

Wind Speed: 130 mph

Roof Load: 37.0 psf

Floor Load: N/A psf

This package includes 4 individual, Truss Design Drawings and 0 Additional Drawings.

With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T29157711	T02	11/7/22
2	T29157712	T02G	11/7/22
3	T29157713	T04A	11/7/22
4	T29157714	T05	11/7/22

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

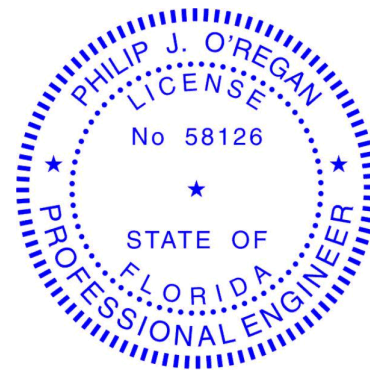
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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

Truss Design Engineer's Name: ORegan, Philip

My license renewal date for the state of Florida is February 28, 2023.

**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.



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

November 7, 2022

ORegan, Philip

1 of 1

Job	Truss	Truss Type	Qty	Ply	BLAKE CONST. - PLATT RES.	T29157711
3236478	T02	ROOF TRUSS	9	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Nov 7 08:55:43 2022 Page 1

ID:MRUpuoKKMqHfYtM1PC4d7zYSsJ-9wRxACqXQeAX4FcXBsiaeSSSS8\_Co22V7ek?wOyLdEE  
 2-0-0 6-10-0 13-4-0 17-0-0 20-0-0 23-0-0 26-0-0 29-0-0 31-4-0 36-0-0 42-0-1 46-2-3 52-0-0 54-0-0  
 2-0-0 6-10-0 6-6-0 3-8-0 3-0-0 3-0-0 3-0-0 3-0-0 2-4-0 4-8-0 6-0-1 4-2-1 5-9-13 2-0-0

Scale: 1/8"=1'

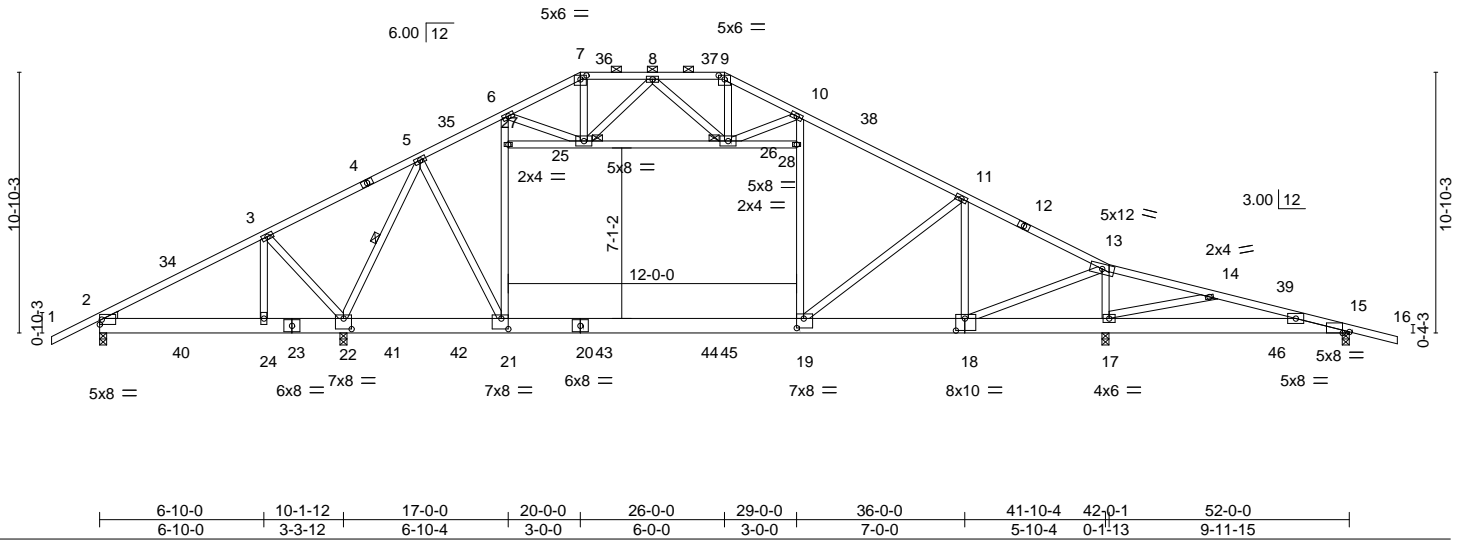


Plate Offsets (X,Y)--	[7:0-3-0,0-2-0], [9:0-3-0,0-2-0], [15:0-3-6,Edge], [18:0-4-8,0-6-0], [19:0-3-8,0-4-12], [21:0-3-8,0-5-4], [22:0-4-0,0-5-4]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.47	Vert(LL)	-0.23 19-21	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.48	Vert(CT)	-0.38 19-21	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.60	Horz(CT)	0.02 17	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Attic	-0.17 19-21	856	360	Weight: 395 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-7-9 oc purlins, except
BOT CHORD 2x8 SP 2400F 2.0E	2-0-0 oc purlins (5-9-1 max.): 7-9.
WEBS 2x4 SP No.3 *Except*	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
27-28,6-21,10-19,13-18: 2x4 SP No.2	6-0-0 oc bracing: 17-18,15-17.
WEDGE	WEBS 1 Row at midpt 5-22
Left: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 25, 26

**REACTIONS.** All bearings 0-3-8.  
 (lb) - Max Horz 2=166(LC 16)  
 Max Uplift All uplift 100 lb or less at joint(s) except 2=139(LC 13), 22=224(LC 12),  
 17=284(LC 13), 15=280(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 15 except 2=982(LC 2),  
 22=1712(LC 26), 17=2673(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=1324/608, 3-5=1110/363, 5-6=2018/730, 6-7=1180/460, 7-8=1038/434,  
 8-9=1045/432, 9-10=1239/475, 10-11=2070/687, 11-13=1444/326, 13-14=487/1222,  
 14-15=216/863  
 BOT CHORD 2-24=422/1125, 22-24=422/1125, 21-22=280/1455, 19-21=346/1779, 18-19=131/1275,  
 17-18=1290/590, 15-17=786/243  
 WEBS 3-24=339/215, 3-22=435/520, 5-22=1548/558, 5-21=199/777, 7-25=132/430,  
 9-26=148/442, 11-18=1011/512, 13-17=2091/646, 14-17=492/319, 25-26=727/235,  
 21-27=221/591, 6-27=148/600, 19-28=144/611, 10-28=72/618, 6-25=793/299,  
 10-26=844/326, 11-19=275/707, 13-18=776/2679

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 3-2-6, Interior(1) 3-2-6 to 20-0-0, Exterior(2R) 20-0-0 to 25-2-7, Interior(1) 25-2-7 to 26-0-0, Exterior(2R) 26-0-0 to 31-2-7, Interior(1) 31-2-7 to 54-0-0 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 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.
  - Ceiling dead load (5.0 psf) on member(s). 25-27, 25-26, 26-28; Wall dead load (5.0psf) on member(s).21-27, 19-28
  - Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 19-21

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

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

November 7,2022

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	BLAKE CONST. - PLATT RES.	T29157711
3236478	T02	ROOF TRUSS	9	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Nov 7 08:55:43 2022 Page 2  
ID:MRUpuoKKMqHFLytM1PC4d7zYSsJ-9wRxACqXQeAX4FcXBsiaWeSSS8\_Co22V7ek?wOyLdEE

- NOTES-**
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 2, 224 lb uplift at joint 22, 284 lb uplift at joint 17 and 280 lb uplift at joint 15.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	BLAKE CONST. - PLATT RES.	T29157712
3236478	T02G	ROOF TRUSS	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022
MiTek Industries, Inc.
Mon Nov 7 08:55:48 2022
Page 1

ID:MRUpuoKKMqHFLytM1PC4d7zYSsJ-VuFqDvtfFAppA0UV\_PlmDiANv9mRTO3EGwSmbbyLdE9

2-0-0  
2-0-0

17-0-0  
17-0-0

20-7-14  
3-7-14

23-0-0  
2-4-2

25-4-2  
2-4-2

29-0-0  
3-7-14

42-0-1  
13-0-1

52-0-0  
9-11-15

54-0-0  
2-0-0

Scale = 1:99.8

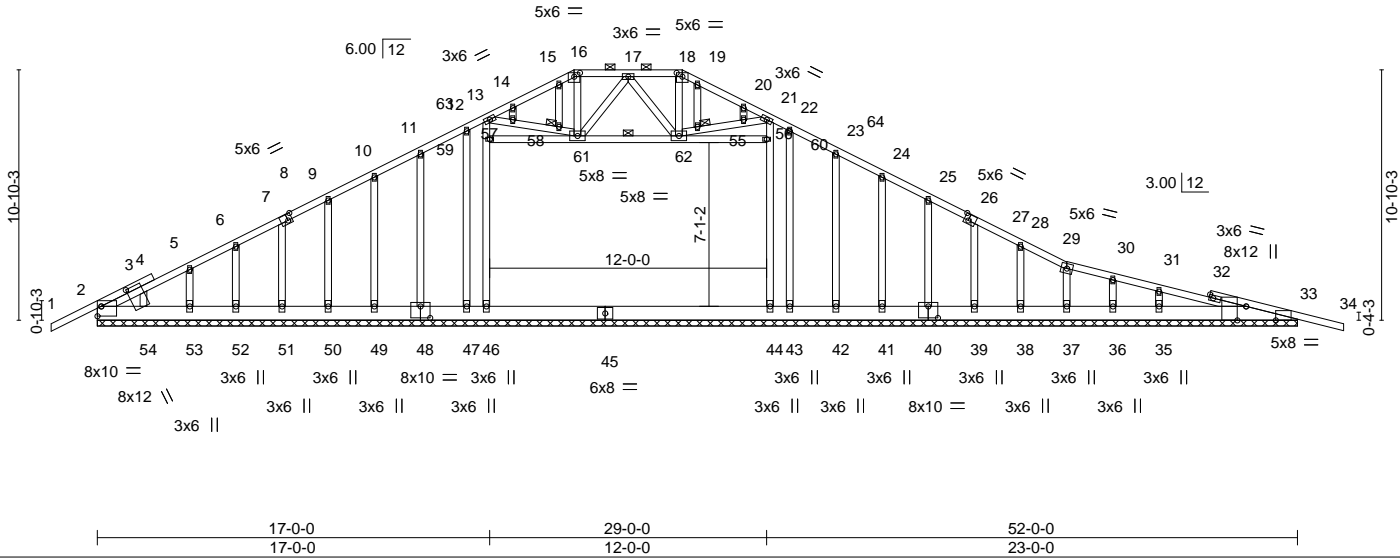


Plate Offsets (X,Y)--	[2:Edge,0-5-1], [8:0-2-4,0-3-4], [16:0-3-0,0-2-0], [18:0-3-0,0-2-0], [26:0-2-4,0-3-4], [33:1-3-7,Edge], [33:0-7-4,Edge], [40:0-5-0,0-6-0], [48:0-5-0,0-6-0], [54:0-1-15,1-3-3]
-----------------------	--

LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.23		Vert(LL)	-0.01	34	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.16		Vert(CT)	-0.01	34	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30		Horz(CT)	0.01	33	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 436 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, except
BOT CHORD	2x8 SP 2400F 2.0E		2-0-0 oc purlins (6-0-0 max.): 16-18.
WEBS	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3	WEBS	1 Row at midpt 59-60
		JOINTS	1 Brace at Jt(s): 55, 58

<b>REACTIONS.</b>	All bearings 52-0-0.		
(lb) - Max Horz	2=164(LC 16)		
Max Uplift	All uplift 100 lb or less at joint(s) 2, 35, 36, 37, 38, 39, 40, 41, 42, 54, 53, 52, 51, 50, 49, 48 except 33=138(LC 9), 43=971(LC 18), 47=971(LC 18)		
Max Grav	All reactions 250 lb or less at joint(s) 36, 37, 38, 39, 40, 41, 42, 54, 53, 52, 51, 50, 49, 48 except 33=329(LC 1), 2=274(LC 1), 35=469(LC 2), 46=1575(LC 18), 44=1575(LC 18)		

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	13-14=-482/291, 14-15=-466/312, 15-16=-398/318, 16-17=-395/322, 17-18=-395/296, 18-19=-398/305, 19-20=-466/301, 20-21=-482/287		
WEBS	31-35=-257/117, 46-59=-461/217, 13-59=-377/225, 44-60=-461/167, 21-60=-377/176, 61-62=-73/355, 55-62=-20/331, 55-56=-23/321, 21-56=-26/329, 13-57=-54/328, 57-58=-48/320, 58-61=-41/330		

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 3-2-6, Exterior(2N) 3-2-6 to 20-7-14, Corner(3E) 20-7-14 to 25-4-2, Corner(3R) 25-4-2 to 30-6-8, Exterior(2N) 30-6-8 to 54-0-0 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) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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, with BCDL = 10.0psf.
9) Ceiling dead load (5.0 psf) on member(s). 59-61, 61-62, 60-62; Wall dead load (5.0psf) on member(s).46-59, 44-60
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 35, 36, 37, 38, 39, 40, 41, 42, 54, 53, 52, 51, 50, 49, 48 except (jt=lb) 33=138, 43=971, 47=971.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Attic room checked for L/360 deflection.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

November 7,2022



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	BLAKE CONST. - PLATT RES.	T29157713
3236478	T04A	Piggyback Base	2	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Nov 7 08:55:50 2022 Page 1

ID:MRUpuoKKMqHfYtM1PC4d7zYSsJ-RHMbebvwno3XPKet6qKEI7FYHzLEx7pXkDxtgUyLdE7

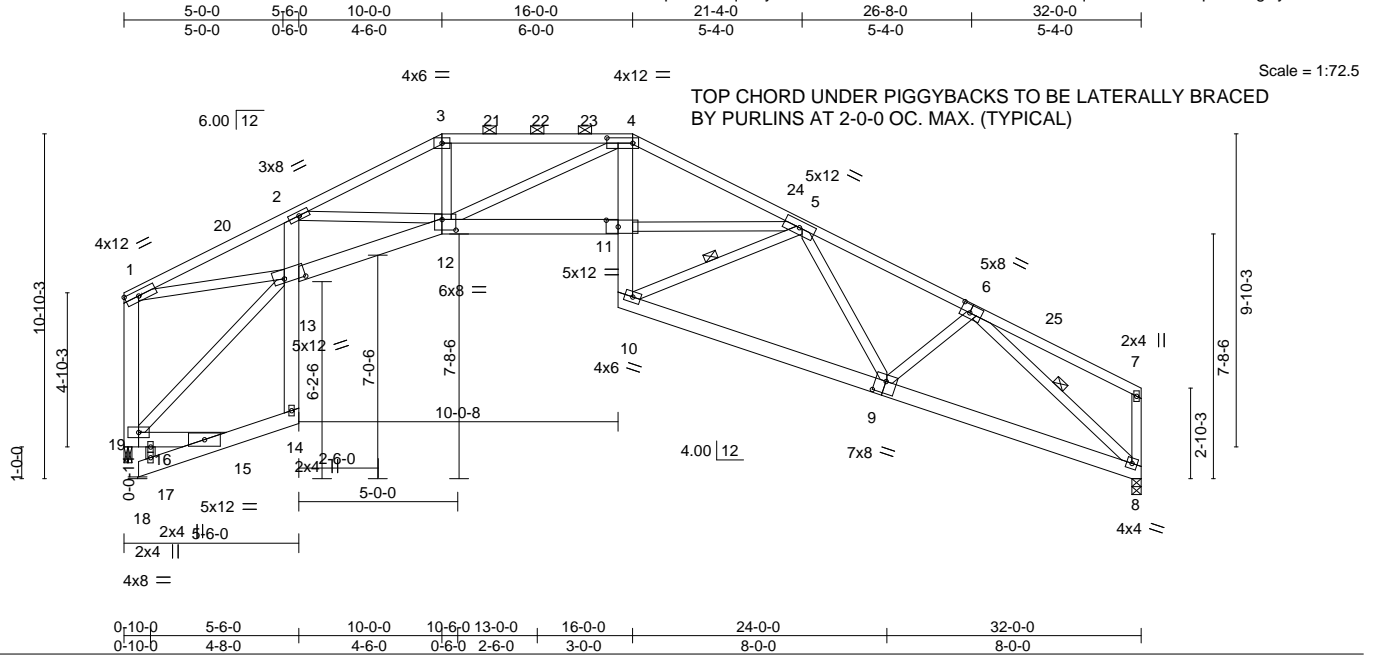


Plate Offsets (X,Y)-- [4:0-9-12,0-2-0], [6:0-3-8,0-3-0], [9:0-4-0,0-4-8], [11:0-4-8,0-2-8], [12:0-5-4,0-4-0], [13:0-8-0,0-1-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.94	Vert(LL)	-0.30	11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.58	Vert(CT)	-0.55	11	>686	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.99	Horz(CT)	0.74	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 253 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
4-10,1-19,2-14: 2x6 SP No.2, 5-11: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-9-15 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-17.  
10-0-0 oc bracing: 16-19  
WEBS 1 Row at midpt 5-10, 6-8

**REACTIONS.** (size) 8=0-3-8, 19=0-3-0  
Max Horz 19=-178(LC 13)  
Max Uplift 8=-253(LC 13), 19=-221(LC 12)  
Max Grav 8=1168(LC 1), 19=1175(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2957/577, 2-3=-3264/526, 3-4=-2864/499, 4-5=-3406/543, 5-6=-2065/450, 1-19=-1088/252  
BOT CHORD 9-10=-318/2028, 8-9=-316/1598, 11-12=-337/3358, 12-13=-530/2853  
WEBS 3-12=-109/1151, 4-12=-691/283, 10-11=-197/1453, 4-11=-181/1478, 5-10=-1762/277, 5-9=-262/74, 6-9=0/415, 6-8=-2038/399, 2-13=-425/146, 1-13=-463/2589, 5-11=-250/2680, 2-12=-135/347

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-5-2, Interior(1) 3-5-2 to 10-0-0, Exterior(2R) 10-0-0 to 14-6-5, Interior(1) 14-6-5 to 16-0-0, Exterior(2R) 16-0-0 to 20-6-5, Interior(1) 20-6-5 to 31-10-4 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.
  - 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.
  - Bearing at joint(s) 8, 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 8=253, 19=221.
  - 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 electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

November 7,2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



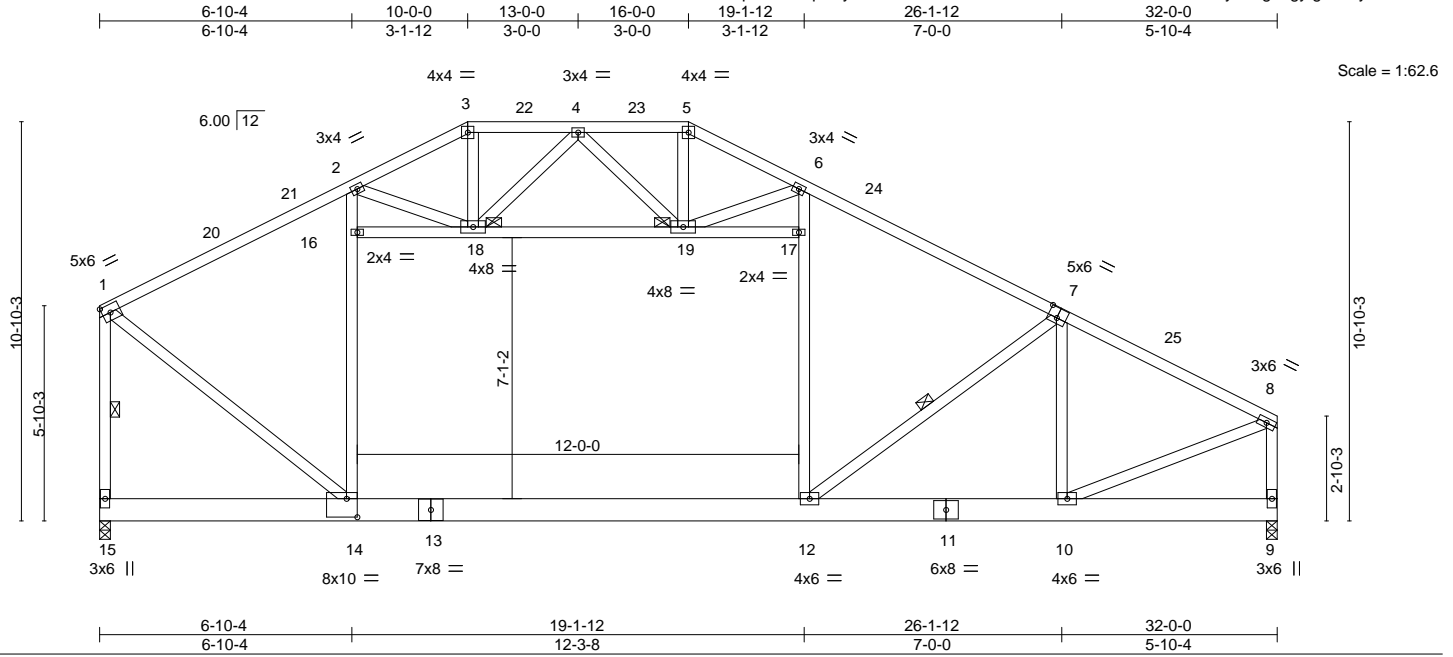
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	BLAKE CONST. - PLATT RES.	T29157714
3236478	T05	Attic	4	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Nov 7 08:55:51 2022 Page 1

ID:MRUpuoKKMqHfIytM1PC4d7zYSSJ-wTwzswYY5BO1UD4fXrTrKomyMfZgd6gytgQCwyLdE6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	-0.44 12-14 >869 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.77 12-14 >493 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.02 9 n/a n/a				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS		Attic	-0.30 12-14 484 360				
								Weight: 273 lb		FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 2-14,6-12: 2x4 SP No.2

#### REACTIONS.

(size) 15=0-3-8, 9=0-3-8  
 Max Horz 15=-177(LC 13)  
 Max Uplift 15=-2(LC 12), 9=-97(LC 13)  
 Max Grav 15=1762(LC 2), 9=1524(LC 2)

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

TOP CHORD 1-2=-1696/30, 2-3=-986/108, 3-4=-830/105, 4-5=-977/116, 5-6=-1094/116,  
 6-7=-1805/38, 7-8=-1731/125, 1-15=-2058/41, 8-9=-1489/130  
 BOT CHORD 12-14=0/1514, 10-12=-60/1515  
 WEBS 14-16=-216/370, 2-16=-138/379, 18-19=-584/0, 12-17=0/541, 6-17=0/550,  
 7-12=-271/299, 7-10=-383/42, 1-14=0/1917, 8-10=-53/1612, 3-18=-28/406,  
 5-19=-15/343, 4-18=-252/87, 2-18=-570/6, 6-19=-796/27

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-4-2, Interior(1) 3-4-2 to 10-0-0, Exterior(2R) 10-0-0 to 14-6-5, Interior(1) 14-6-5 to 16-0-0, Exterior(2R) 16-0-0 to 20-6-5, Interior(1) 20-6-5 to 31-10-4 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.
- 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.
- Ceiling dead load (5.0 psf) on member(s). 16-18, 18-19, 17-19; Wall dead load (5.0psf) on member(s).14-16, 12-17
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 9.
- Attic room checked for L/360 deflection.

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

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

November 7, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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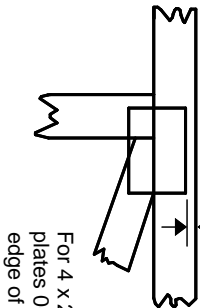


# Symbols

## PLATE LOCATION AND ORIENTATION



0-<sup>1</sup>/<sub>16</sub>"



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

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

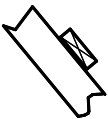
\* Plate location details available in **MiTek 20/20** software or upon request.

## PLATE SIZE

4 X 4

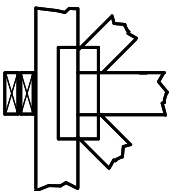
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



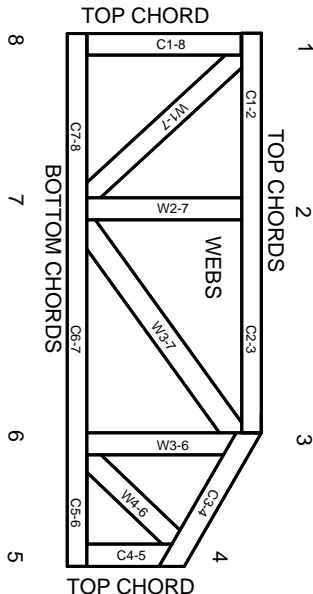
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# 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.