



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

RE: 4487910 - CADY GARAGE

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

Site Information:

Customer Info: VISION PROPERTY DEV. Project Name: Cady Garage Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: 413 SW Highpoint Glen, N/A
City: Columbia Cty State: FL

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

Name: License #:
Address:
City: State:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 65.0 psf

This package includes 5 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.

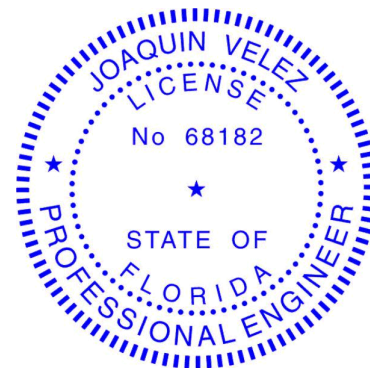
No.	Seal#	Truss Name	Date
1	T36618234	F01	3/10/25
2	T36618235	F02	3/10/25
3	T36618236	KW1	3/10/25
4	T36618237	KW2	3/10/25
5	T36618238	KW3	3/10/25

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

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

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

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



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

March 10,2025

Velez, Joaquin

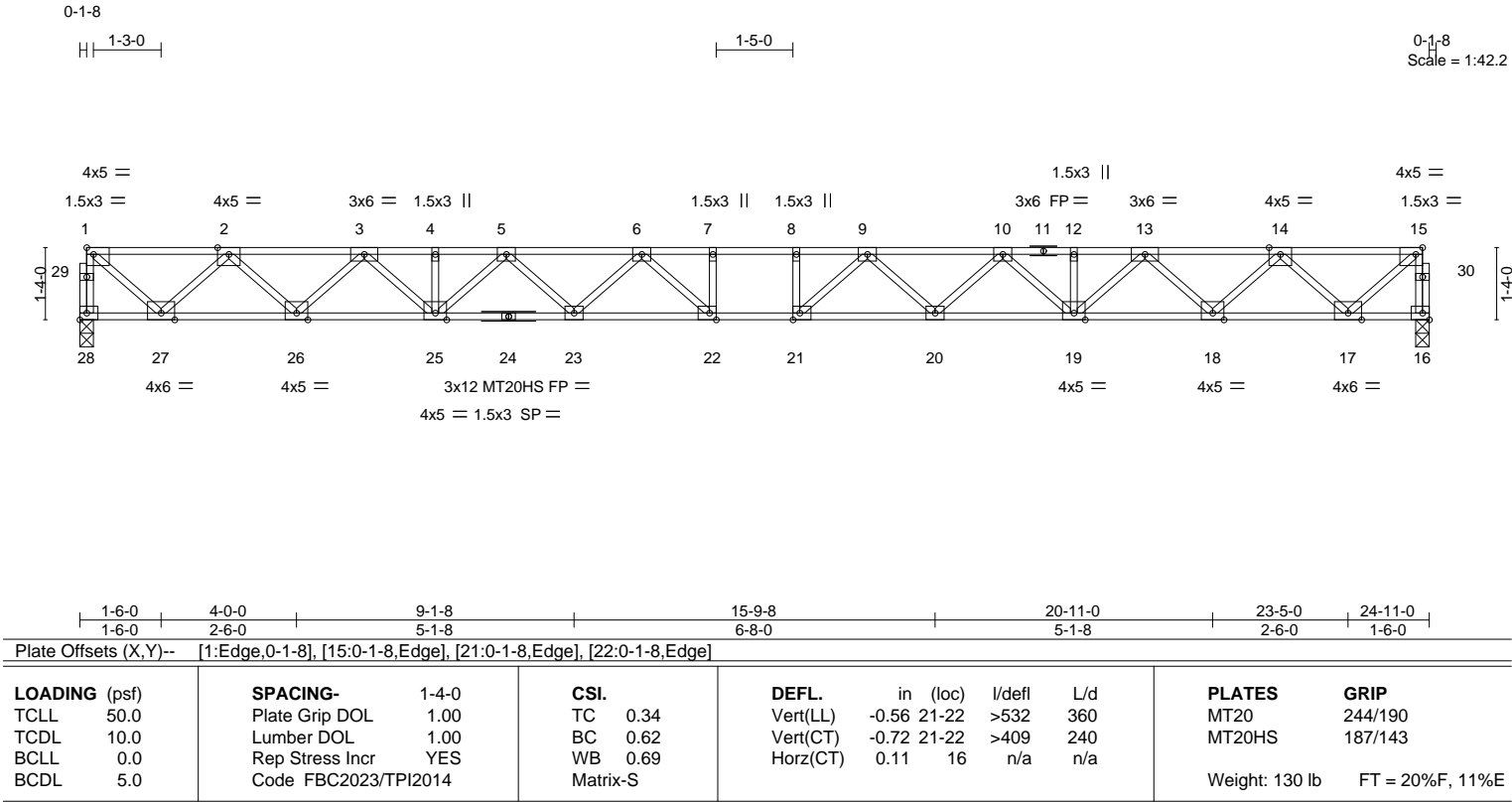
1 of 1

Job	Truss	Truss Type	Qty	Ply	CADY GARAGE	T36618234
4487910	F01	Floor	22	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.830 s Feb 18 2025 MiTek Industries, Inc. Fri Mar 7 12:53:00 2025 Page 1
ID:zn7HyhqYDIOqjy2zXpkIjVzJFHd-43UNC9oQLh2RsnddTArbdrNgfPEy88ira_MSjzdJ?n



LUMBER-		BRACING-	
TOP CHORD	2x4 SP 2700F 2.2E or 2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP 2700F 2.2E or 2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
REACTIONS. (size) 28=0-3-0, 16=0-3-0 Max Grav 28=1064(LC 1), 16=1064(LC 1)			
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	1-28=-1060/0, 15-16=-1060/0, 1-2=-1115/0, 2-3=-2865/0, 3-4=-4196/0, 4-5=-4196/0, 5-6=-5018/0, 6-7=-5424/0, 7-8=-5424/0, 8-9=-5424/0, 9-10=-5018/0, 10-12=-4196/0, 12-13=-4196/0, 13-14=-2865/0, 14-15=-1115/0		
BOT CHORD	26-27=0/2112, 25-26=0/3600, 23-25=0/4712, 22-23=0/5306, 21-22=0/5424, 20-21=0/5306, 19-20=0/4712, 18-19=0/3600, 17-18=0/2112		
WEBS	15-17=0/1441, 1-27=0/1441, 14-17=-1386/0, 2-27=-1386/0, 14-18=0/1047, 2-26=0/1047, 13-18=-1022/0, 3-26=-1022/0, 13-19=0/811, 3-25=0/811, 10-19=-701/0, 5-25=-701/0, 10-20=0/425, 5-23=0/425, 9-20=-441/0, 6-23=-441/0, 9-21=-256/546, 6-22=-256/546, 7-22=-257/87, 8-21=-257/87		
NOTES-			
1) Unbalanced floor live loads have been considered for this design.			
2) All plates are MT20 plates unless otherwise indicated.			
3) All plates are 3x4 MT20 unless otherwise indicated.			
4) The Fabrication Tolerance at joint 24 = 11%			
5) Required 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.			

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Date:

March 10,2025

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®

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Job	Truss	Truss Type	Qty	Ply	CADY GARAGE	T36618236
4487910	KW1	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Fri Mar 7 12:53:01 2025 Page 1
ID:zn7HyhqYDIOqjy2zXpkIjVzJFHd-YG2mPVp26?AIUxCp1Iy48qNdH3u7hIgr4Ekv?9zdJ?m

0-1-8

0-1-8

Scale = 1:41.5

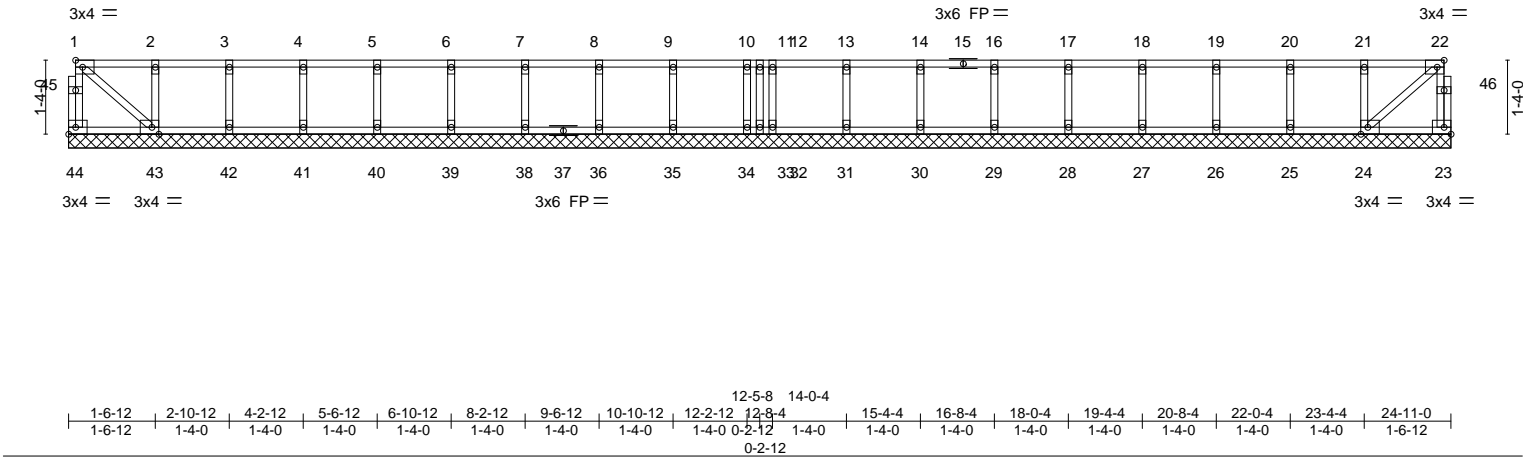


Plate Offsets (X,Y)--		[22:0-1-8,Edge], [24:0-1-8,Edge], [43:0-1-8,Edge]	
LOADING (psf)	SPACING-	1-4-0	CSI.
TCLL 50.0	Plate Grip DOL	1.00	TC 0.03
TCDL 10.0	Lumber DOL	1.00	BC 0.00
BCLL 0.0	Rep Stress Incr	YES	WB 0.03
BCDL 5.0	Code	FBC2023/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) -0.00 24 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 115 lb FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP 2700F 2.2E or 2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)	TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP 2700F 2.2E or 2x4 SP 2850F 2.0E or 2x4 SP M 31(flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 43-44,23-24.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

REACTIONS. All bearings 24-11-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 33
Max Grav All reactions 250 lb or less at joint(s) 44, 23, 43, 24, 25, 26, 27, 28, 29, 30, 31, 32, 42, 41, 40, 39, 38, 36, 35, 34

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Date:

March 10,2025

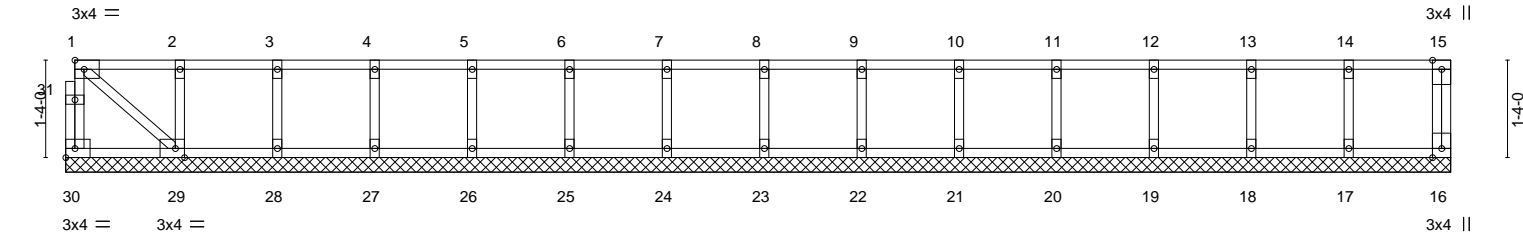
Job	Truss	Truss Type	Qty	Ply	CADY GARAGE	T36618237
4487910	KW2	GABLE	1	1	Job Reference (optional)	

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

8.830 s Feb 18 2025 MiTek Industries, Inc. Fri Mar 7 12:53:02 2025 Page 1
ID:zn7HyhqYDIOqjyZzXpkIjVzJFHd-0Sc8drqgtII955n?a?UJg2wnhTEEQCi?luTSXbzdJ?I

0-1-8

Scale = 1:31.5



1-6-12	2-10-12	4-2-12	5-6-12	6-10-12	8-2-12	9-6-12	10-10-12	12-2-12	13-6-12	14-10-12	16-2-12	17-6-12	18-11-8
1-6-12	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-12
Plate Offsets (X,Y)-- [29:0-1-8,Edge]													
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP			
TCLL	50.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	MT20		244/190			
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a						
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00						
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-S									
										Weight: 86 lb		FT = 20%F, 11%E	

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

REACTIONS. All bearings 18-11-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

NOTES-

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	CADY GARAGE	T36618238
4487910	KW3	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.830 s Feb 18 2025 MiTek Industries, Inc. Fri Mar 7 12:53:02 2025 Page 1
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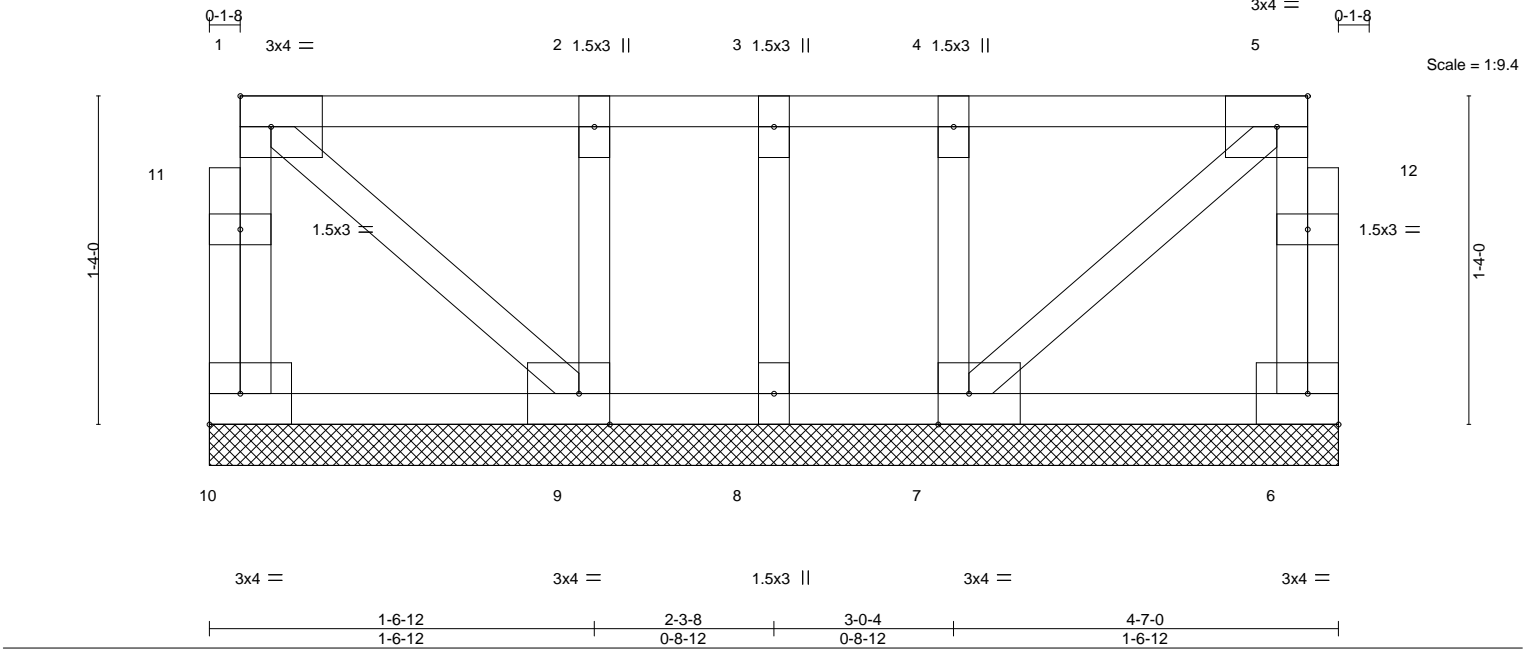


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [7:0-1-8,Edge], [9:0-1-8,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	50.0	Plate Grip DOL	1.00	TC	0.11	in (loc)	L/d	MT20	GRIP
TCDL	10.0	Lumber DOL	1.00	BC	0.01	n/a	999		244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	n/a	999		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-P		0.00	9	Weight: 29 lb	FT = 20%F, 11%E

LUMBER-					BRACING-				
TOP CHORD	2x4	SP No.2(flat)			TOP CHORD	Structural wood sheathing directly applied or 4-7-0 oc purlins, except end verticals.			
BOT CHORD	2x4	SP No.2(flat)			BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.			
WEBS	2x4	SP No.3(flat)							
OTHERS	2x4	SP No.3(flat)							

REACTIONS. All bearings 4-7-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 10, 6, 9, 7, 8

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

NOTES-
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
Strongbacks to be attached to walls at their outer ends or restrained by other means.

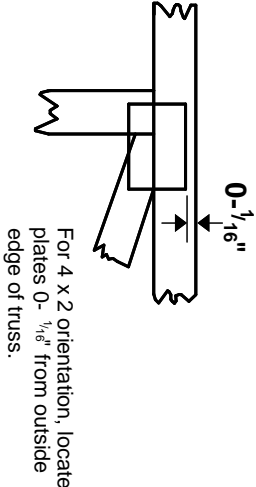
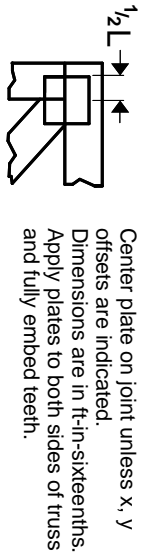
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Date:

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Symbols

PLATE LOCATION AND ORIENTATION



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

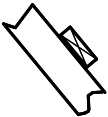
This symbol indicates the required direction of slots in connector plates.

PLATE SIZE

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

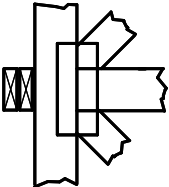
4 X 4

LATERAL BRACING LOCATION



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

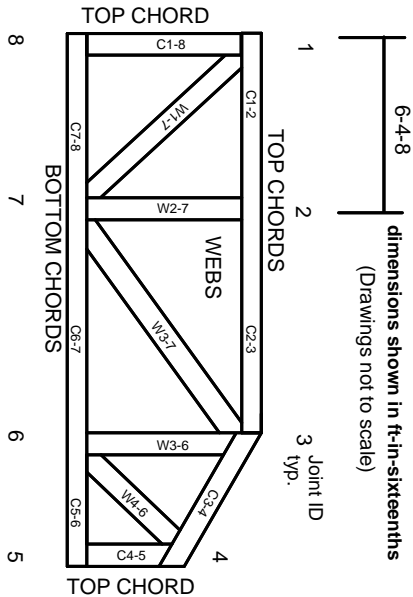
BEARING



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

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

Numbering System



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

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

Product Code Approvals

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

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: 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.