

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

RE: Alesi_Porch_Add - Alesi Porch Add

MiTek USA, Inc.

6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:

Customer Info: Shore Builders Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: Columbia County 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 8.4
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 2 individual, Truss Design Drawings and 0 Additional Drawings.

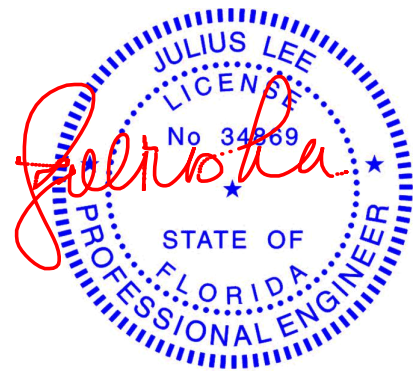
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T25257440	A1GE	9/7/21
2	T25257441	A2	9/7/21

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc.
under my direct supervision based on the parameters
provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Lee, Julius
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.



Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

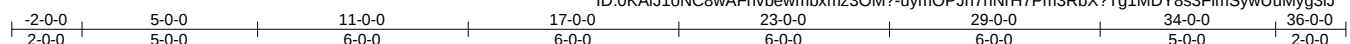
September 7, 2021

Job	Truss	Truss Type	Qty	Ply	Alesi Porch Add	Units: 1.0	T25257440
ALES1_PORCH_ADD	A1GE	GABLE	1	1		Eng: HMC	

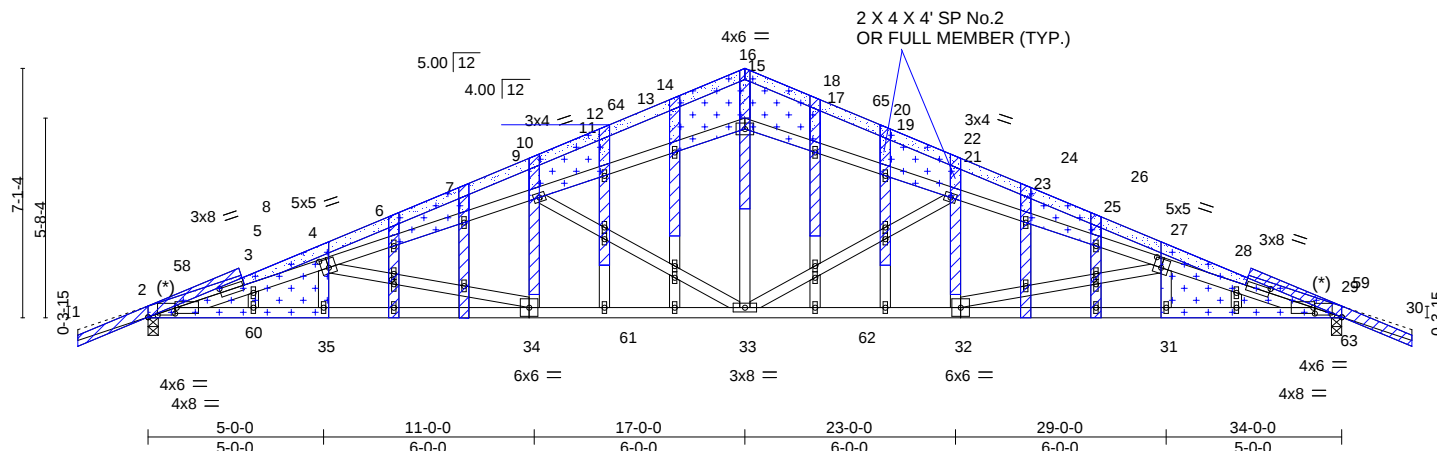
Mayo Truss, Mayo, FL

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8.430 e May 12 2021 MiTek Industries, Inc. Tue Sep 7 10:07:38 2021 Page 1



Scale = 1:65.6



REPAIR: MODIFY THE TOP CHORD PROFILE AS SHOWN.

LUMBER AND CONNECTOR PLATES (SHOWN DASHED) TO BE CUT CLEANLY AND ACCURATELY AND THE REMAINING PLATE(S) MUST BE FULLY EMBEDDED AND UNDISTURBED.



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO FRONT FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS: SPACED @ 4" O.C. IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

NOTE: DO NOT APPLY NAILS IN THE SECTION OF PLYWOOD THAT WILL BE COVERED BY SCAB(S).



INSTALL 2 X 4 SP NO.2 CUT TO FIT TIGHT.



APPLY 2 X 4 SP NO.2 SCAB TO FRONT FACE OF TRUSS, OUTSIDE PLYWOOD. ATTACH WITH (0.131" X 3.5") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 2 ROWS: SPACED @ 4" O.C. AND 1 ROW: SPACED @ 4" O.C. WHERE SHOWN (*). USE 2" MEMBER END DISTANCE.

1/2" PLYWOOD/OSB SHIM MUST BE USED BEHIND SCAB(S).
<USE SCAB NAILS TO ATTACH PLYWOOD. DO NOT DOUBLE NAIL>

Plate Offsets (X,Y)-- [2:0-3-4,0-0-11], [2:0-9-4,0-1-4], [3:1-3-14,0-1-8], [4:0-2-8,0-3-0], [27:0-2-8,0-3-0], [28:1-3-14,0-1-8], [29:0-9-4,0-1-4], [29:0-3-4,0-0-11], [41:0-1-9,0-0-12], [50:0-1-9,0-0-12]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.70	Vert(LL)	0.31	32-33	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.66	Vert(CT)	-0.39	33-34	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.15	29	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-AS					Weight: 267 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
2-4,27-29: 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except*
32-34: 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied. Except: [PSA]
2 Rows at 1/3 pts 3-11, 19-28
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 15, 17, 19, 11, 13

REACTIONS. (lb/size) 2=1477/0-3-8, 29=1477/0-3-8
Max Horz 2=112(LC 11)
Max Uplift 2=-343(LC 12), 29=-343(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-58=-1879/1448, 2-3=-3745/2791, 3-4=-2120/1698, 4-6=-1228/956, 6-7=-1181/942,
7-9=-1174/939, 9-11=-334/254, 11-13=-315/245, 13-15=-298/238, 15-17=-298/239,
17-19=-315/244, 19-21=-334/253, 21-23=-1174/938, 23-25=-1181/941, 25-27=-1228/955,
27-28=-2120/1697, 28-29=-3745/2791, 29-59=-1879/1448, 3-5=-1636/1142,
5-8=-1598/1170, 8-10=-1564/1184, 10-12=-1617/1230, 12-64=-1589/1243,
14-64=-1570/1248, 14-16=-1569/1265, 16-18=-1569/1264, 18-65=-1570/1248,
20-65=-1589/1242, 20-22=-1617/1229, 22-24=-1564/1184, 24-26=-1598/1170,
26-28=-1636/1142
BOT CHORD 2-60=-1452/1893, 2-35=-2607/3542, 34-35=-2593/3533, 34-61=-1825/2566,
33-61=-1825/2566, 33-62=-1835/2566, 32-62=-1835/2566, 31-32=-2602/3533,
29-31=-2617/3542, 29-63=-1457/1893
WEBS 15-33=-975/1050, 21-33=-947/742, 21-32=-435/433, 27-32=-981/771, 9-33=-947/742,
9-34=-435/433, 4-34=-981/772, 15-16=-870/963, 9-10=-267/101, 21-22=-267/101

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



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September 7, 2021

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



6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	Alesi Porch Add	T25257440
ALESI_PORCH_ADD	A1GE	GABLE	1	1	Job Reference (optional)	

Mayo Truss, Mayo, FL

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- NOTES-**
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-4-13, Interior(1) 1-4-13 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 36-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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 1.5x4 MT20 unless otherwise indicated.
 - 6) N/A
 - 7) Gable studs spaced at 2-0-0 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 3-6-0 tall by 2-0-0 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 343 lb uplift at joint 2 and 343 lb uplift at joint 29.
 - 11) N/A
 - 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

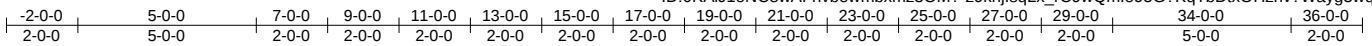
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Alesi Porch Add	Units: 1.0 Eng: HMC	T25257441
ALESI_PORCH_ADD	A2	Common	7	1	Job Reference (optional)		

Mayo Truss, Mayo, FL

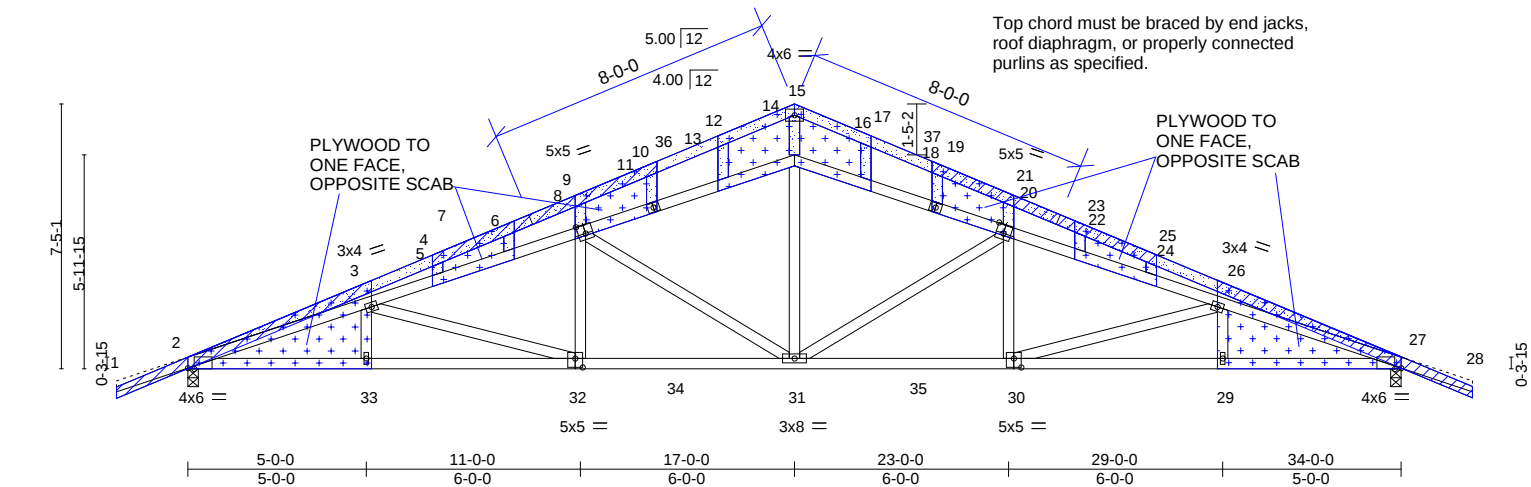
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Scale: 3/16"=1'

Top chord must be braced by end jacks, roof diaphragm, or properly connected purlins as specified.



REPAIR: MODIFY THE TOP CHORD PROFILE AS SHOWN.

LUMBER AND CONNECTOR PLATES (SHOWN DASHED) TO BE CUT CLEANLY AND ACCURATELY AND THE REMAINING PLATE(S) MUST BE FULLY EMBEDDED AND UNDISTURBED.

INSTALL 2 X 4 SP NO.2 CUT TO FIT TIGHT.

ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 3 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

APPLY 2 X 4 SP NO.2 SCAB TO ONE FACE OF TRUSS. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 4'S - 2 ROWS: SPACED @ 4" O.C. USE 2" MEMBER END DISTANCE.

Plate Offsets (X,Y)-- [2:0-2-2,Edge], [27:0-2-2,Edge], [30:0-2-8,0-3-0], [32:0-2-8,0-3-0]

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 0.98	Vert(LL)	0.28 30-31	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC 0.73	Vert(CT)	-0.35 30-31	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.15 27	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-AS					Weight: 237 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

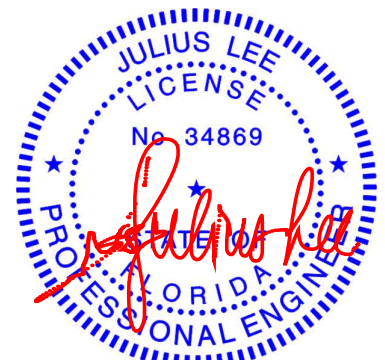
BRACING-
TOP CHORD Structural wood sheathing directly applied. Except:
1 Row at midpt 3-11, 18-26
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=1483/0-3-8, 27=1478/0-3-8
Max Horz 2=-122(LC 10)
Max Uplift 2=-343(LC 12), 27=-341(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1549/1258, 3-5=-1063/801, 5-6=-962/762, 6-8=-983/770, 20-22=-994/776, 22-24=-971/768, 24-26=-1074/807, 26-27=-1591/1286, 2-4=-1703/1169, 4-7=-1664/1226, 7-9=-1592/1227, 9-10=-1663/1279, 10-36=-1630/1291, 12-36=-1606/1296, 12-15=-1606/1312, 15-17=-1606/1312, 17-37=-1606/1296, 19-37=-1629/1290, 19-21=-1663/1279, 21-23=-1592/1227, 23-25=-1665/1226, 25-27=-1704/1168 2-33=-2183/2972, 32-33=-2184/2972, 32-34=-1708/2427, 31-34=-1708/2427, 31-35=-1720/2437, 30-35=-1720/2437, 29-30=-2218/3012, 27-29=-2218/3012
BOT CHORD 14-31=-966/1045, 20-31=-895/690, 20-30=-387/384, 26-30=-592/502, 8-31=-885/683, 8-32=-381/377, 3-32=-562/480, 14-15=-911/1005, 20-21=-310/120, 24-25=-324/123, 8-9=-309/120, 4-5=-319/122
WEBS

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to -0-0-0, Interior(1) -0-0-0 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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.
 - All plates are 1.5x4 MT20 unless otherwise indicated.
 - N/A
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

Continued on page 2



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Date:

September 7, 2021

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



6904 Parke East Blvd.
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	Alesi Porch Add	T25257441
ALESI_PORCH_ADD	A2	Common	7	1	Job Reference (optional)	

Mayo Truss, Mayo, FL

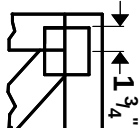
8.430 s May 12 2021 MiTek Industries, Inc. Tue Sep 7 09:55:21 2021 Page 2
ID:0KAIJ1oNC8wAFhvbewmbxmz3OM?-z9knjlsqLx_rC9wQmlo95G?KqTbDtxOHznv?Wayg3wq

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 343 lb uplift at joint 2 and 341 lb uplift at joint 27.
- 9) N/A
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

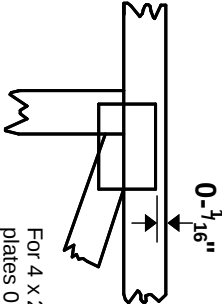
LOAD CASE(S) Standard

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

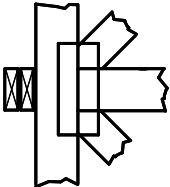
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



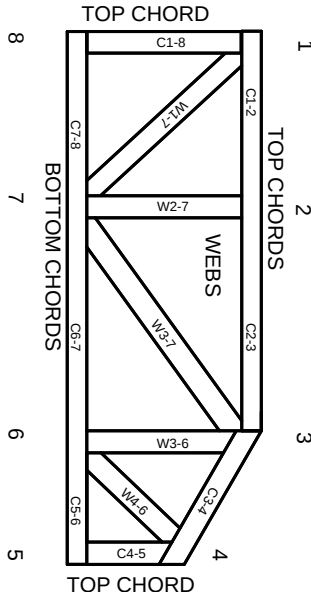
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: 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.