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

RE: 0326-016 - MATHERS CONSTRUCTION - TEGGART

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

Site Information:

Customer Info: MATHERS CONSTRUCTION Project Name: TEGGART Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: FORT WHITE State: FL

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

Name: License #:
Address:
City: State:

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

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: ASCE 7-22 Wind Speed: 150 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 9 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	T41009862	A01	4/30/26
2	T41009863	A02	4/30/26
3	T41009864	A03	4/30/26
4	T41009865	A04	4/30/26
5	T41009866	B01	4/30/26
6	T41009867	B02	4/30/26
7	T41009868	B03	4/30/26
8	T41009869	C01	4/30/26
9	T41009870	C02	4/30/26

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: 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
LICENSE
NO. 68182
STATE OF FLORIDA
PROFESSIONAL ENGINEER

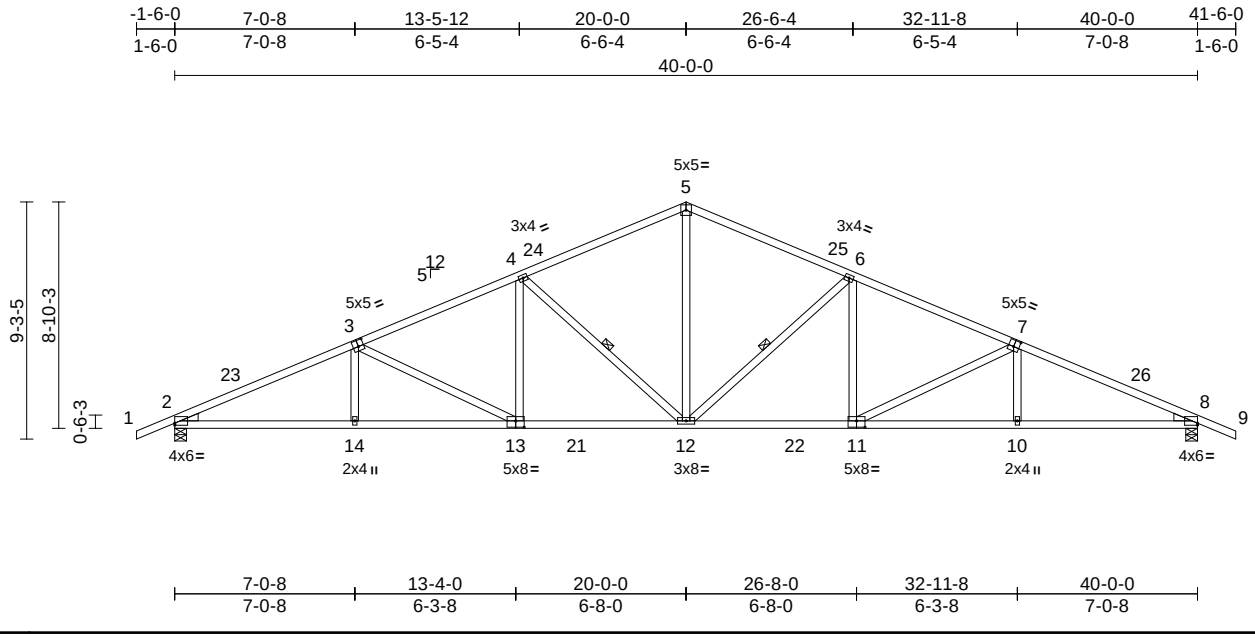
Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

April 30,2026

Velez, Joaquin

Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	A01	Common	10	1	T41009862 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:47:59 Page: 1
ID:mCqjN0nlQq_xfBgWn9WdaAzdhW_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:90.1

Plate Offsets (X, Y): [2:Edge,0-0-15], [3:0-2-8,0-3-0], [7:0-2-8,0-3-0], [8:Edge,0-0-15], [11:0-4-0,0-3-0], [13:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.29	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.53	12-13	>900	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.17	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 214 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-12, 4-12

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=-296 (LC 10)
Max Uplift 2=-556 (LC 12), 8=-556 (LC 12)
Max Grav 2=1922 (LC 17), 8=1922 (LC 18)

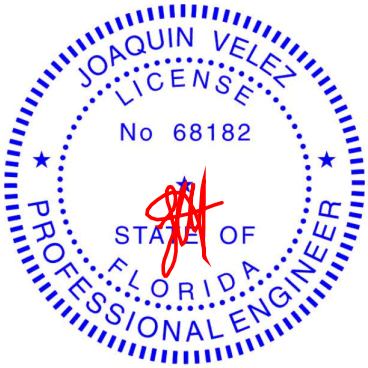
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-4=-3741/1187, 4-5=-2345/960, 5-6=-2345/960, 6-8=-3741/1188, 8-9=0/35
BOT CHORD	2-14=-937/3577, 12-14=-939/3572, 10-12=-964/3351, 8-10=-961/3356
WEBS	5-12=-420/1437, 6-12=-1043/413, 4-12=-1043/413, 3-14=0/227, 3-13=-661/247, 4-13=-41/575, 6-11=-41/575, 7-11=-662/247, 7-10=0/227

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-6-0, Zone1 2-6-0 to 20-0-0, Zone2 20-0-0 to 25-7-14, Zone1 25-7-14 to 41-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 556 lb uplift at joint 2 and 556 lb uplift at joint 8.
7) 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.

LOAD CASE(S) Standard



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

April 30,2026

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.sbcscomponents.com)

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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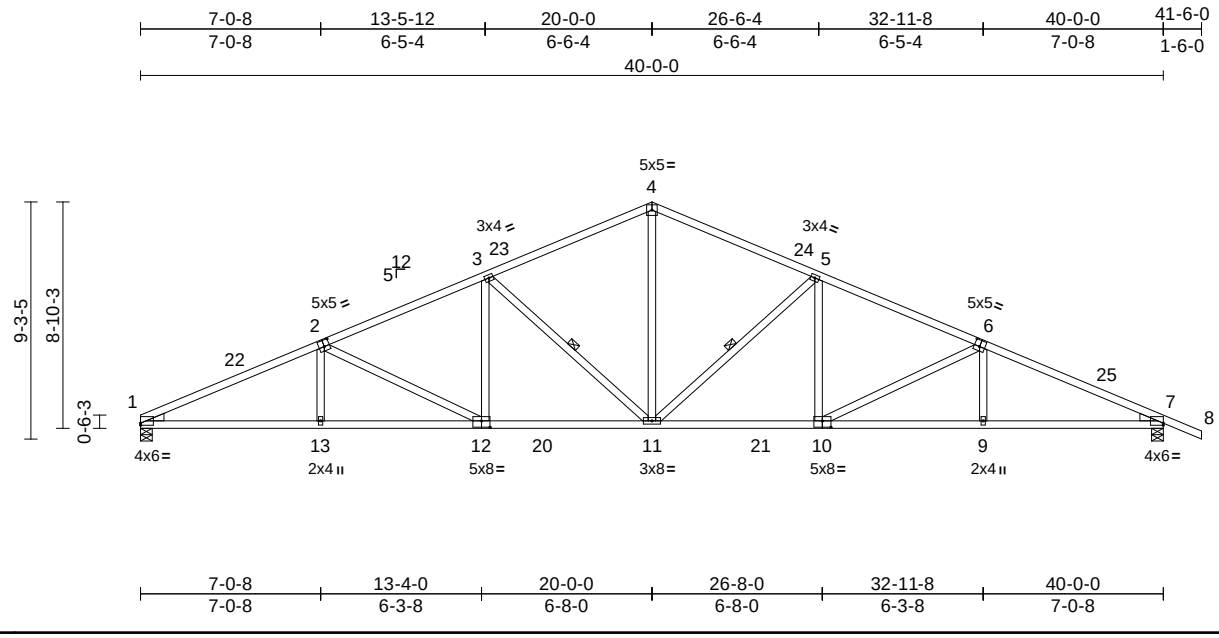
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	A02	Common	4	1	T41009863 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:00 Page: 1
ID:EyWNOAKj3lrCGBL6sI96w3zdhIM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:90.1

Plate Offsets (X, Y): [1:Edge,0-0-15], [2:0-2-8,0-3-0], [6:0-2-8,0-3-0], [7:Edge,0-0-15], [10:0-4-0,0-3-0], [12:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.29	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.53	11-12	>900	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.17	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 211 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-11, 3-11

REACTIONS (size) 1=0-5-8, 7=0-5-8
Max Horiz 1=-292 (LC 10)
Max Uplift 1=-463 (LC 12), 7=-557 (LC 12)
Max Grav 1=1837 (LC 17), 7=1923 (LC 18)

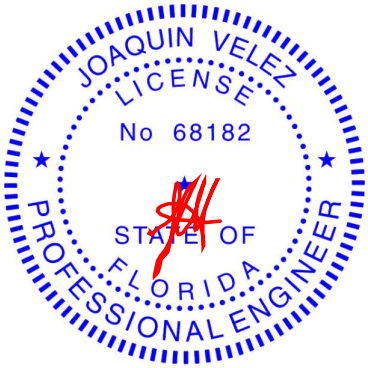
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-3762/1278, 3-4=-2348/978, 4-5=-2348/963, 5-7=-3743/1190, 7-8=0/35
BOT CHORD	1-13=-1027/3599, 11-13=-1029/3594, 9-11=-979/3353, 7-9=-977/3358
WEBS	4-11=-432/1439, 2-13=0/230, 3-12=-68/580, 5-10=-41/575, 6-9=0/227, 2-12=-678/319, 5-11=-1043/412, 6-10=-662/247, 3-11=-1047/414

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-0-0, Zone1 4-0-0 to 20-0-0, Zone2 20-0-0 to 25-7-14, Zone1 25-7-14 to 41-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 463 lb uplift at joint 1 and 557 lb uplift at joint 7.
7) 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.

LOAD CASE(S) Standard



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

April 30,2026

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	MATHERS CONSTRUCTION - TEGGART
0326-016	A03	Common Supported Gable	2	1	T41009864 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066,
Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:00
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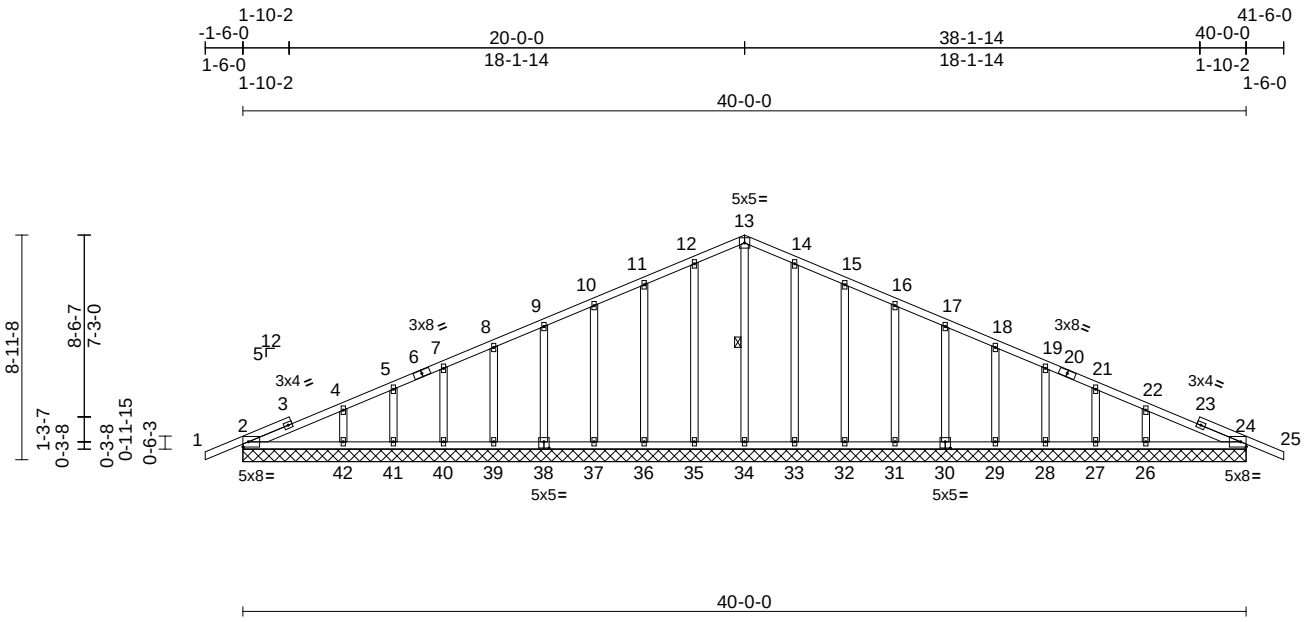


Scale = 1:91.9

Plate Offsets (X, Y): [30:0-2-8,0-3-0], [38:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 247 lb	FT = 20%

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

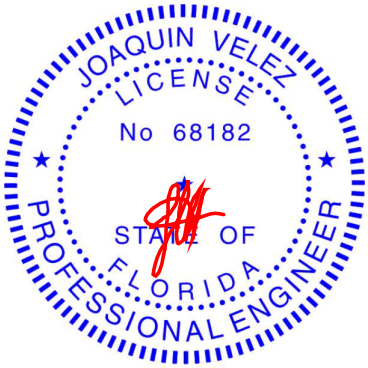
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 13-34

REACTIONS (size) 2=40-0-0, 24=40-0-0, 26=40-0-0, 27=40-0-0, 28=40-0-0, 29=40-0-0, 30=40-0-0, 31=40-0-0, 32=40-0-0, 33=40-0-0, 34=40-0-0, 35=40-0-0, 36=40-0-0, 37=40-0-0, 38=40-0-0, 39=40-0-0, 40=40-0-0, 41=40-0-0, 42=40-0-0
Max Horiz 2=-286 (LC 10)
Max Uplift 2=-121 (LC 12), 24=-121 (LC 12), 26=-84 (LC 12), 27=-56 (LC 12), 28=-65 (LC 12), 29=-63 (LC 12), 30=-63 (LC 12), 31=-62 (LC 12), 32=-67 (LC 12), 33=-53 (LC 12), 35=-53 (LC 12), 36=-67 (LC 12), 37=-62 (LC 12), 38=-63 (LC 12), 39=-63 (LC 12), 40=-65 (LC 12), 41=-56 (LC 12), 42=-84 (LC 12)
Max Grav 2=246 (LC 1), 24=246 (LC 1), 26=302 (LC 18), 27=117 (LC 18), 28=182 (LC 18), 29=166 (LC 18), 30=170 (LC 18), 31=169 (LC 18), 32=169 (LC 18), 33=173 (LC 18), 34=168 (LC 17), 35=177 (LC 17), 36=168 (LC 17), 37=169 (LC 17), 38=170 (LC 17), 39=166 (LC 17), 40=182 (LC 17), 41=118 (LC 17), 42=298 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-4=-196/213, 4-5=-187/178, 5-7=-169/171, 7-8=-155/154, 8-9=-139/184, 9-10=-125/255, 10-11=-110/326, 11-12=-127/400, 12-13=-147/465, 13-14=-147/465, 14-15=-127/400, 15-16=-104/326, 16-17=-83/255, 17-18=-61/184, 18-19=-40/113, 19-21=-44/44, 21-22=-63/49, 22-24=-189/87, 24-25=0/35
BOT CHORD 2-42=-78/237, 41-42=-78/237, 40-41=-78/237, 39-40=-78/237, 37-39=-78/237, 36-37=-78/237, 35-36=-78/237, 34-35=-78/237, 33-34=-78/237, 32-33=-78/237, 31-32=-78/237, 29-31=-78/237, 28-29=-78/237, 27-28=-78/237, 26-27=-78/237, 24-26=-78/237
WEBS 13-34=-204/17, 12-35=-137/146, 11-36=-128/169, 10-37=-129/160, 9-38=-129/162, 8-39=-128/160, 7-40=-136/168, 5-41=-100/140, 4-42=-209/236, 14-33=-133/146, 15-32=-129/169, 16-31=-129/160, 17-30=-130/162, 18-29=-128/160, 19-28=-136/168, 21-27=-99/140, 22-26=-213/236

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed ; end vertical 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 2x4 (||) MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



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

April 30,2026

Continued on page 2

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10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2, 121 lb uplift at joint 24, 53 lb uplift at joint 35, 67 lb uplift at joint 36, 62 lb uplift at joint 37, 63 lb uplift at joint 38, 63 lb uplift at joint 39, 65 lb uplift at joint 40, 56 lb uplift at joint 41, 84 lb uplift at joint 42, 53 lb uplift at joint 33, 67 lb uplift at joint 32, 62 lb uplift at joint 31, 63 lb uplift at joint 30, 63 lb uplift at joint 29, 65 lb uplift at joint 28, 56 lb uplift at joint 27, 84 lb uplift at joint 26, 121 lb uplift at joint 2 and 121 lb uplift at joint 24.
11) 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.

LOAD CASE(S) Standard

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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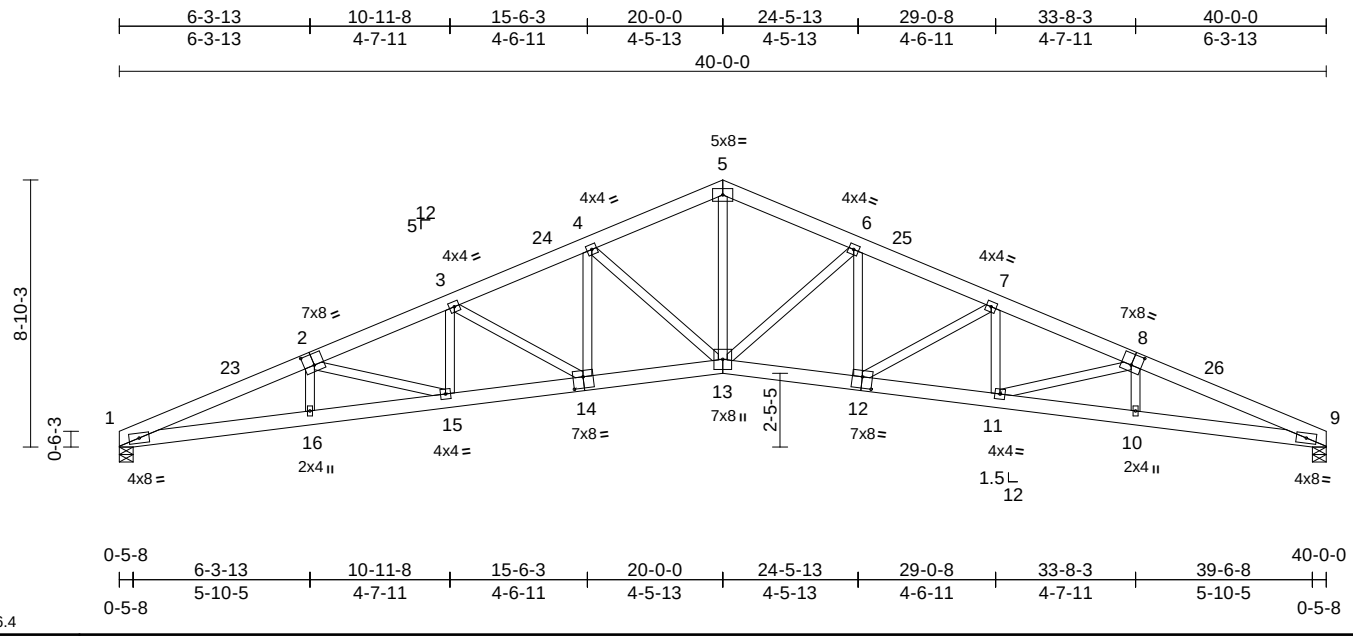
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	A04	Scissor	8	1	T41009865 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:01 Page: 1
ID:mHxRfGcPPkYHpdtbmRkaLWzdhUw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76.4

Plate Offsets (X, Y): [2:0-4-0,0-4-8], [8:0-4-0,0-4-8], [12:0-4-0,0-4-8], [14:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.29	Vert(LL)	0.30	13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.52	12-13	>932	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.24	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 275 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2

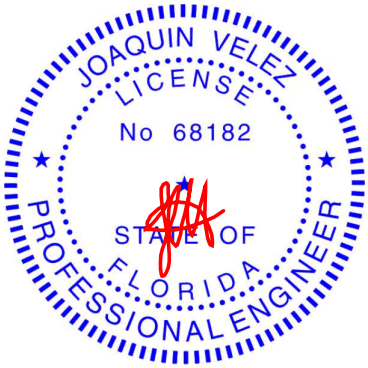
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=0-5-8, 9=0-5-8
Max Horiz 1=-276 (LC 10)
Max Uplift 1=-465 (LC 12), 9=-465 (LC 12)
Max Grav 1=1600 (LC 1), 9=1600 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-4715/1795, 3-4=-3637/1416, 4-5=-2995/1230, 5-6=-2995/1229, 6-7=-3637/1417, 7-9=-4715/1794
BOT CHORD 1-16=-1549/4328, 15-16=-1549/4334, 13-15=-1282/3926, 11-13=-1287/3926, 10-11=-1545/4334, 9-10=-1545/4328
WEBS 5-13=-713/1964, 4-13=-826/413, 2-16=0/152, 2-15=-477/298, 3-15=-73/334, 3-14=-729/317, 4-14=-141/540, 6-13=-828/413, 6-12=-141/541, 7-12=-729/317, 7-11=-73/334, 8-11=-487/299, 8-10=0/152

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 4-0-0, Zone1 4-0-0 to 20-0-0, Zone2 20-0-0 to 25-7-14, Zone1 25-7-14 to 40-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 1, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 465 lb uplift at joint 1 and 465 lb uplift at joint 9.
8) 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.

LOAD CASE(S) Standard



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

April 30,2026

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MiTek®
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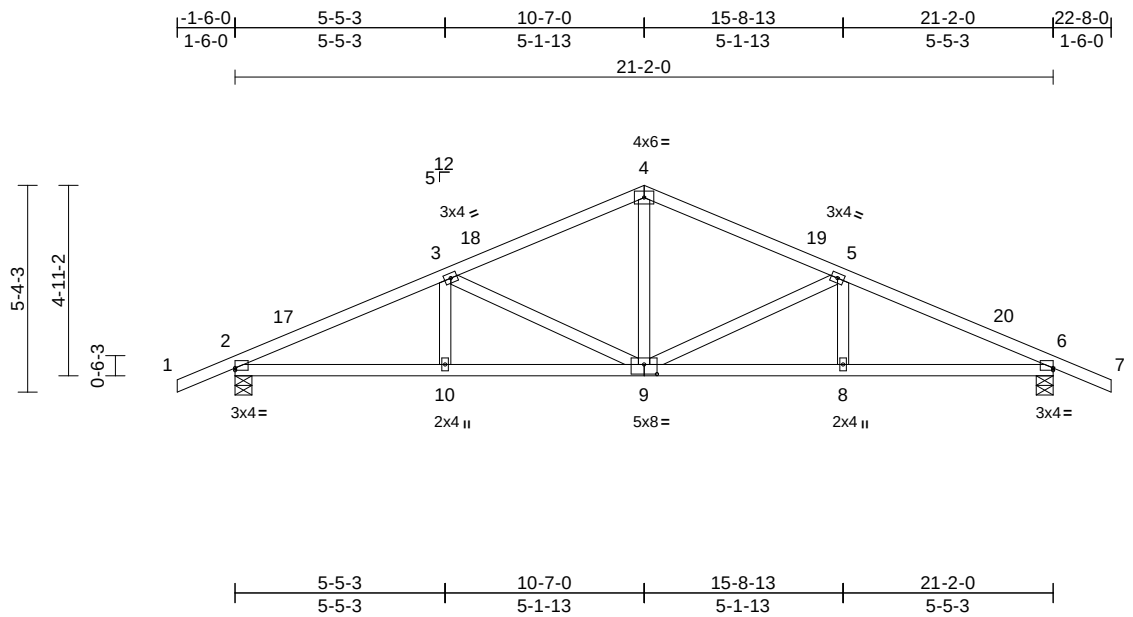
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	B01	Common	4	1	T41009866 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:01 Page: 1
ID:7T8SbEf1fMYLoT5h2SiqcyzdhN6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.6

Plate Offsets (X, Y): [2:Edge,0-0-11], [6:Edge,0-0-11], [9:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	0.10	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.14	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 100 lb	FT = 20%

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

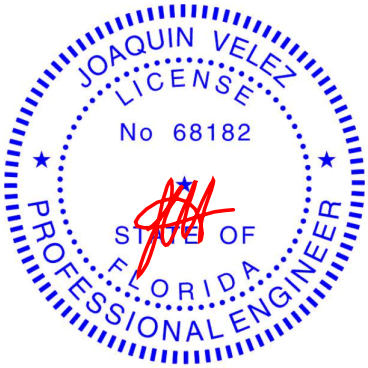
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-5-4, 6=0-5-4
Max Horiz 2=141 (LC 11)
Max Uplift 2=-532 (LC 12), 6=-532 (LC 12)
Max Grav 2=991 (LC 17), 6=991 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1674/1019, 3-4=-1220/821, 4-5=-1220/821, 5-6=-1674/1019, 6-7=0/35
BOT CHORD 2-10=-790/1569, 8-10=-818/1569, 6-8=-818/1479
WEBS 3-10=0/187, 3-9=-571/405, 4-9=-276/596, 5-9=-572/405, 5-8=0/187

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 10-7-0, Zone2 10-7-0 to 14-9-15, Zone1 14-9-15 to 22-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 532 lb uplift at joint 6 and 532 lb uplift at joint 2.
7) 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.

LOAD CASE(S) Standard



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

April 30,2026

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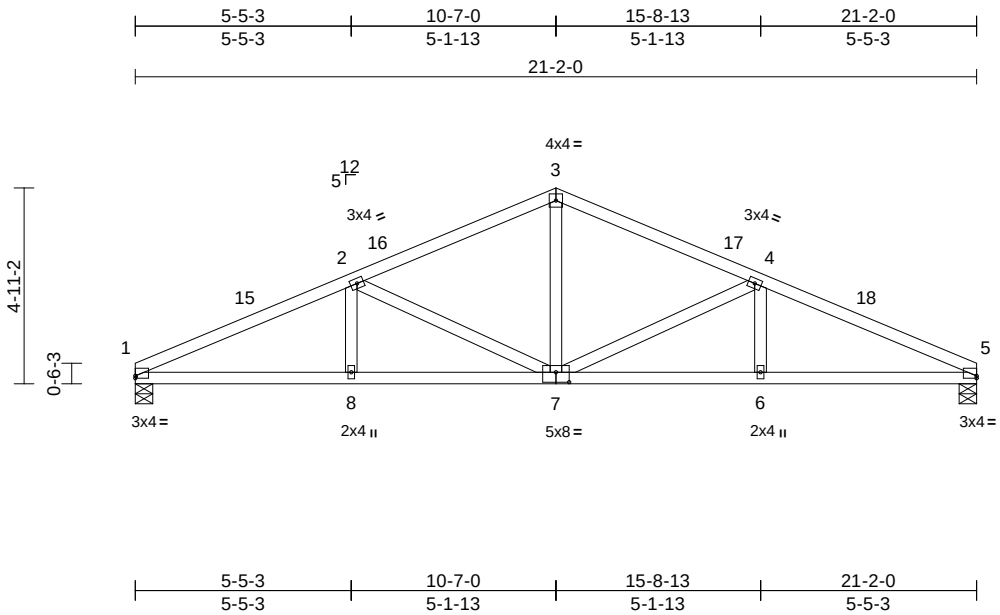
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	B02	Common	1	1	T41009867 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066,
Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:02
ID:j9_lX0qpMfJMUdANtOy6AvzdhMu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:58

Plate Offsets (X, Y): [1:Edge,0-0-11], [5:Edge,0-0-11], [7:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	0.07	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 95 lb	FT = 20%

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

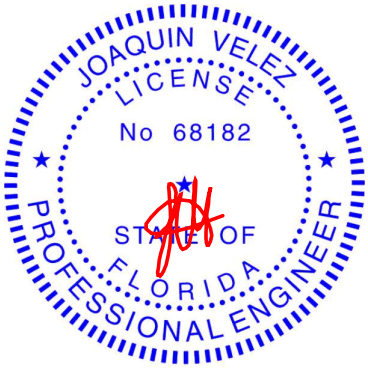
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=0-5-4, 5=0-5-4
Max Horiz 1=123 (LC 11)
Max Uplift 1=-246 (LC 12), 5=-246 (LC 12)
Max Grav 1=847 (LC 1), 5=847 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1609/712, 2-3=-1148/574, 3-4=-1148/574, 4-5=-1609/712
BOT CHORD 1-8=-565/1426, 6-8=-569/1426, 5-6=-569/1426
WEBS 2-8=0/190, 2-7=-500/284, 3-7=-187/529, 4-7=-500/284, 4-6=0/190

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Partially Open; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 10-7-0, Zone2 10-7-0 to 14-9-15, Zone1 14-9-15 to 21-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 246 lb uplift at joint 1 and 246 lb uplift at joint 5.
7) 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.

LOAD CASE(S) Standard



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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:
April 30,2026

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MiTek®
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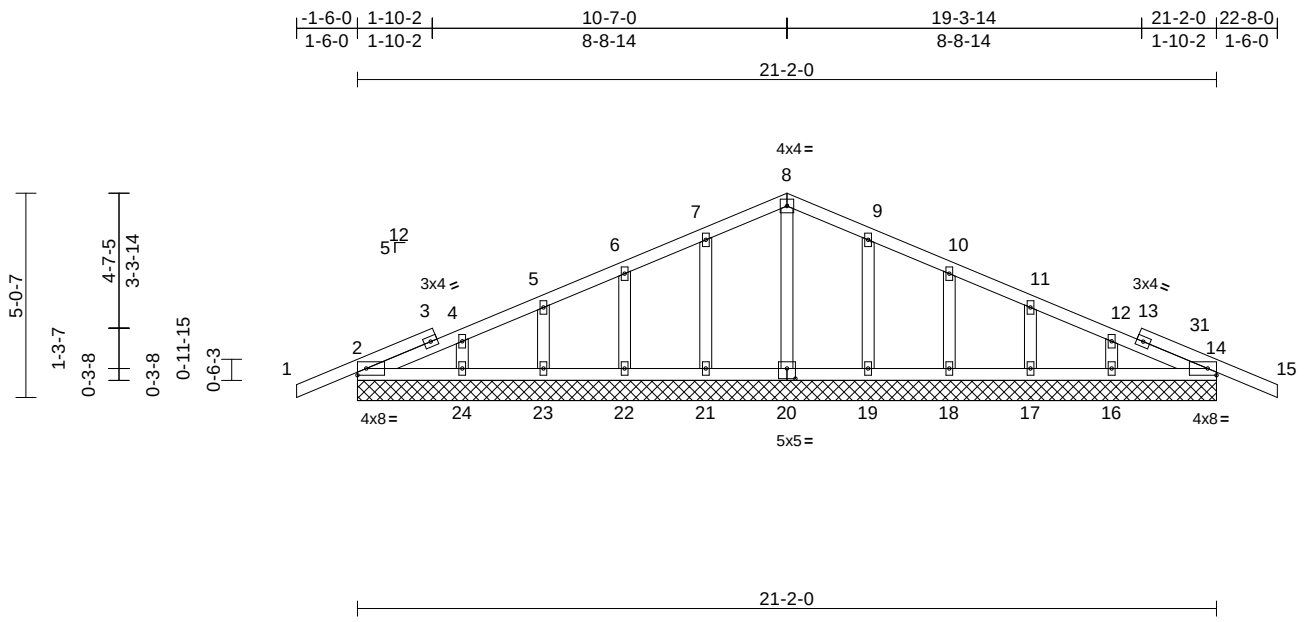
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	B03	Common Supported Gable	1	1	T41009868 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066,
Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:02
ID:nJwrFyCuqULpJYcXl6XcTfzdhMO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:56.8

Plate Offsets (X, Y): [20:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	28	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 106 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

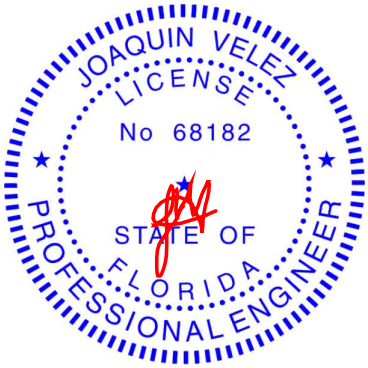
REACTIONS (size) 2=21-2-0, 14=21-2-0, 16=21-2-0, 17=21-2-0, 18=21-2-0, 19=21-2-0, 20=21-2-0, 21=21-2-0, 22=21-2-0, 23=21-2-0, 24=21-2-0
Max Horiz 2=-133 (LC 10)
Max Uplift 2=-138 (LC 12), 14=-134 (LC 12), 16=-35 (LC 12), 17=-71 (LC 12), 18=-62 (LC 12), 19=-62 (LC 12), 21=-62 (LC 12), 22=-62 (LC 12), 23=-71 (LC 12), 24=-35 (LC 12)
Max Grav 2=212 (LC 1), 14=198 (LC 1), 16=171 (LC 18), 17=160 (LC 24), 18=159 (LC 18), 19=167 (LC 24), 20=147 (LC 17), 21=167 (LC 23), 22=159 (LC 17), 23=160 (LC 23), 24=172 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-144/92, 4-5=-84/80, 5-6=-69/100, 6-7=-66/171, 7-8=-89/242, 8-9=-89/242, 9-10=-66/171, 10-11=-43/100, 11-12=-36/26, 12-14=-148/55, 14-15=0/35
BOT CHORD 2-24=-47/167, 23-24=-28/132, 22-23=-28/132, 21-22=-28/132, 19-21=-28/132, 18-19=-28/132, 17-18=-28/132, 16-17=-28/132, 14-16=-49/184
WEBS 8-20=-107/0, 7-21=-127/161, 6-22=-119/162, 5-23=-121/168, 4-24=-124/152, 9-19=-127/161, 10-18=-119/162, 11-17=-121/168, 12-16=-125/151

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed ; end vertical 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 2x4 (||) MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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 3-06-00 tall by 2-00-00 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 138 lb uplift at joint 2, 134 lb uplift at joint 14, 62 lb uplift at joint 21, 62 lb uplift at joint 22, 71 lb uplift at joint 23, 35 lb uplift at joint 24, 62 lb uplift at joint 19, 62 lb uplift at joint 18, 71 lb uplift at joint 17, 35 lb uplift at joint 16, 138 lb uplift at joint 2 and 134 lb uplift at joint 14.
11) 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.

LOAD CASE(S) Standard



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April 30,2026

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Chesterfield, MO 63017
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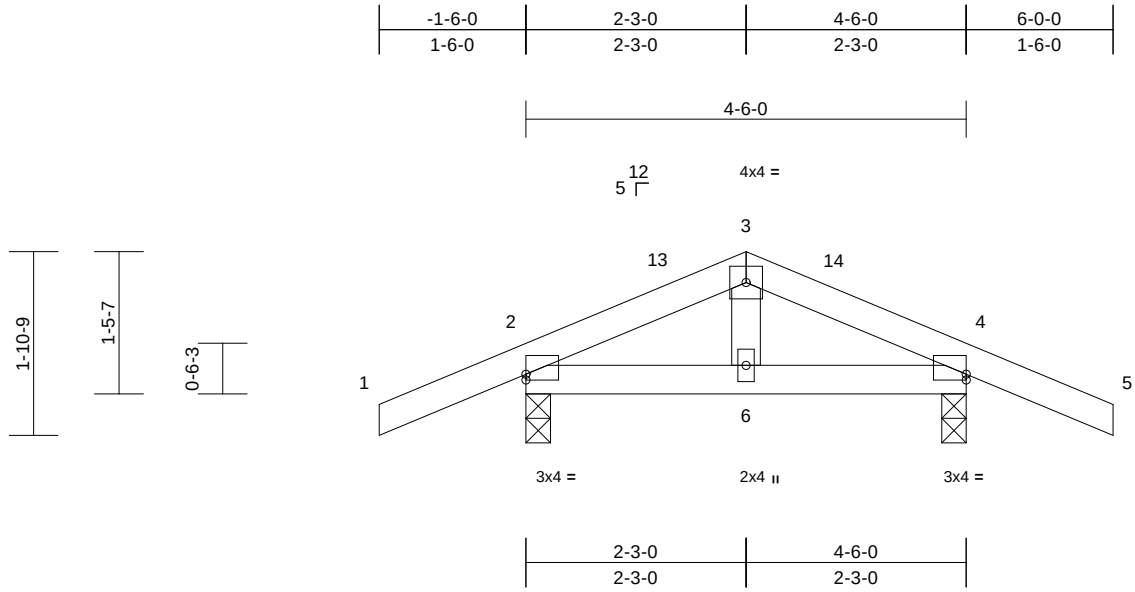
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	C01	Common	3	1	T41009869 Job Reference (optional)

Mayo Truss Company, Inc., Mayo, FL - 32066, Run: 9.1 S 8.83 Mar 11 2026 Print: 8.830 S Mar 11 2026 MiTek Industries, Inc. Wed Apr 29 09:48:02 Page: 1
ID:174yPH8Bh82u3N?KlnPg5uzdhLB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.5

Plate Offsets (X, Y): [2:Edge,0-0-11], [4:Edge,0-0-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	0.00	6-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	0.00	6-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 20 lb	FT = 20%

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

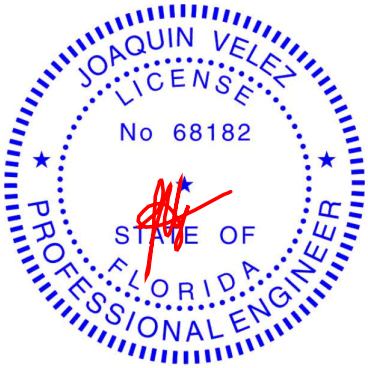
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-0, 4=0-3-0
Max Horiz 2=44 (LC 11)
Max Uplift 2=-184 (LC 12), 4=-184 (LC 12)
Max Grav 2=276 (LC 17), 4=276 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-397/169, 3-4=-404/148, 4-5=0/35
BOT CHORD 2-6=-37/224, 4-6=-37/234
WEBS 3-6=0/81

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Partially Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0, Zone1 1-6-0 to 2-3-0, Zone3 2-3-0 to 6-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 2 and 184 lb uplift at joint 4.
7) 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.

LOAD CASE(S) Standard



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

April 30,2026

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

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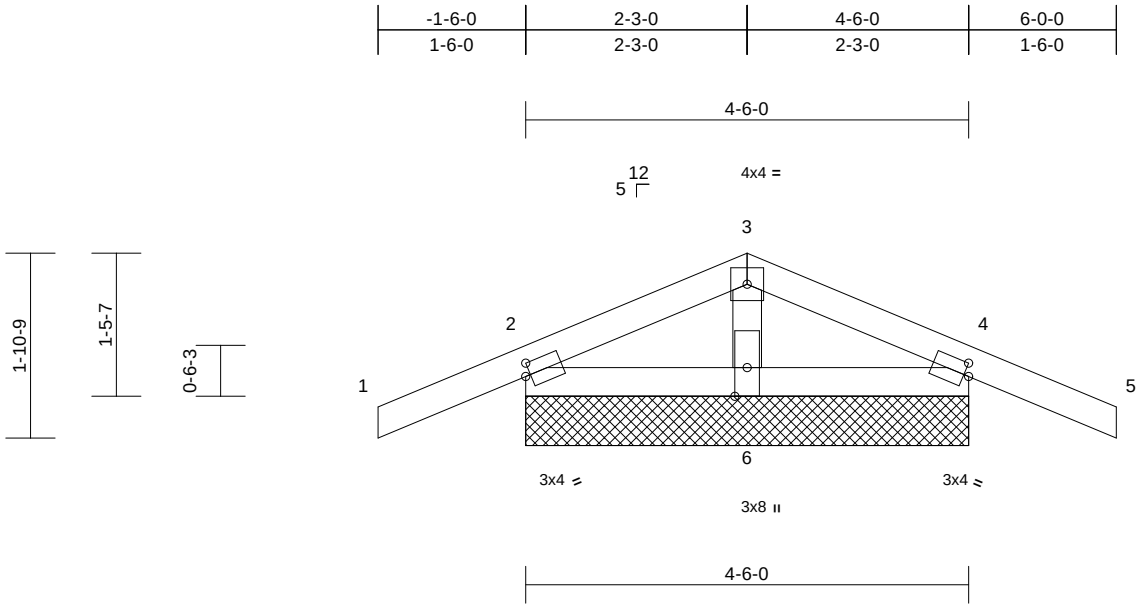
Job	Truss	Truss Type	Qty	Ply	MATHERS CONSTRUCTION - TEGGART
0326-016	C02	Common Supported Gable	1	1	T41009870 Job Reference (optional)



Scale = 1:23.4

Plate Offsets (X, Y): [2:0-0-10,0-1-8], [4:0-0-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 20 lb	FT = 20%

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

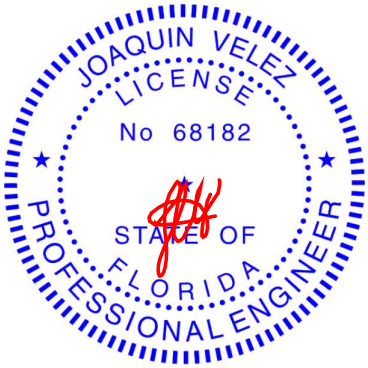
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=4-6-0, 4=4-6-0, 6=4-6-0
Max Horiz 2=-44 (LC 10)
Max Uplift 2=-125 (LC 24), 6=-369 (LC 12)
Max Grav 2=125 (LC 23), 6=553 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1039/413, 3-4=-1034/413, 4-5=0/35
BOT CHORD 2-6=-422/1178, 4-6=-422/1178
WEBS 3-6=-468/1085

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=150mph (3-second gust) Vasd=116mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Partially Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever left and right exposed ; end vertical 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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 2, 369 lb uplift at joint 6 and 125 lb uplift at joint 2.
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.

LOAD CASE(S) Standard



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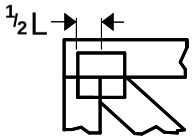
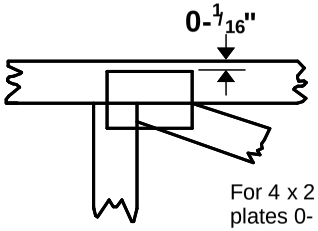
Symbols

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- 1/16" from outside edge of truss.

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

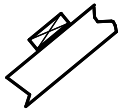
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

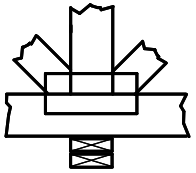
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

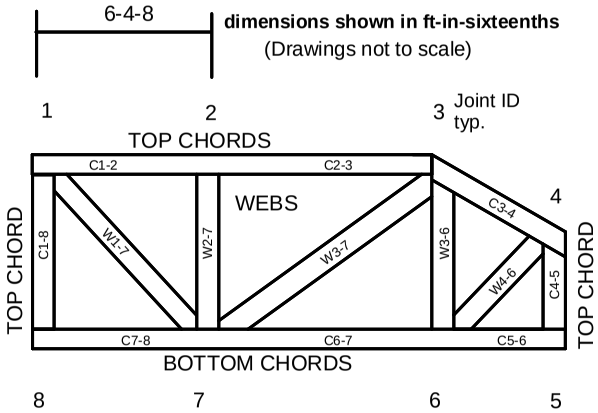


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.