



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

RE: 0820-102 - Evans Replaceemtn

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

Site Information:

Customer Info: SCCI 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: **FBC2023/TPI2014** Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-22 Wind Speed: 130 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	T36351150	CJ01	2/12/25
2	T36351151	H01	2/12/25
3	T36351152	J01	2/12/25
4	T36351153	J02	2/12/25
5	T36351154	J03	2/12/25
6	T36351155	J04	2/12/25
7	T36351156	T04	2/12/25
8	T36351157	T05	2/12/25
9	T36351158	T06	2/12/25



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

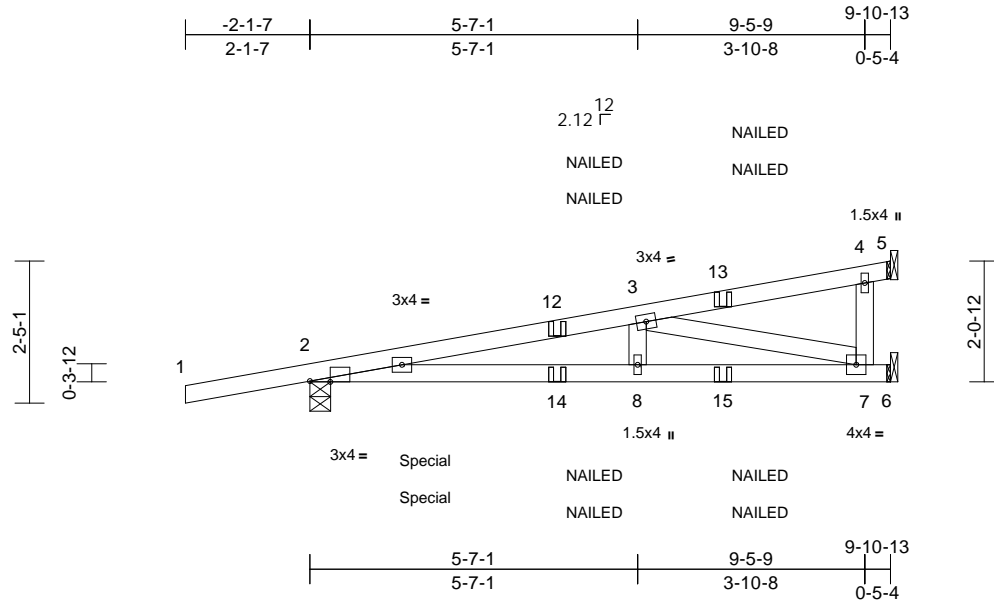
February 12, 2025

Job 0820-102	Truss CJ01	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Evans Replacemtn Job Reference (optional)	T36351150
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:39.3

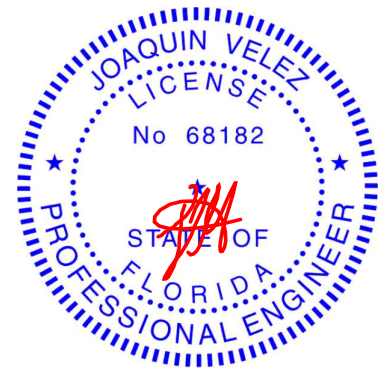
Plate Offsets (X, Y): [2:0-4-3,Edge]

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)	-0.05	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.11	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 42 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 or 5-1-6 oc purlins.
 - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 2=0-4-4, 5= Mechanical, 6= Mechanical
- Max Horiz 2=60 (LC 23)
 - Max Uplift 2=-122 (LC 4), 6=-44 (LC 4)
 - Max Grav 2=499 (LC 1), 5=204 (LC 3), 6=302 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/22, 2-3=-1263/29, 3-4=-36/14, 4-5=0/35
 - BOT CHORD 2-8=-40/1226, 7-8=-25/1226, 6-7=0/0
 - WEBS 3-8=0/244, 4-7=0/168, 3-7=-1267/26

- 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 2 and 44 lb uplift at joint 6.
 - 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 20 lb down and 93 lb up at 1-4-11, and 20 lb down and 93 lb up at 1-4-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 - Uniform Loads (lb/ft)
 - Vert: 1-5=-60, 6-9=-20
 - Concentrated Loads (lb)
 - Vert: 11=99 (F=50, B=50), 13=-76 (F=-38, B=-38), 14=-15 (F=-7, B=-7), 15=-66 (F=-33, B=-33)

- NOTES**
- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 5) Bearings are assumed to be: , Joint 2 SP No.2 .



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

February 12, 2025

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

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

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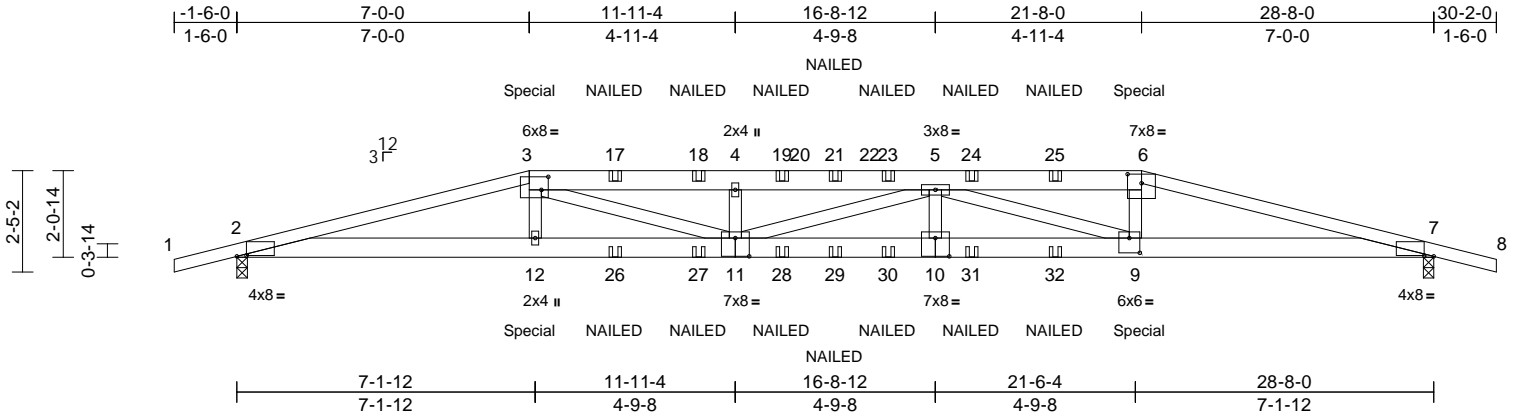
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0820-102	Truss H01	Truss Type Hip Girder	Qty 1	Ply 2	Evans Replacemtn Job Reference (optional)	T36351151
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



THIS TRUSS IS NOT SYMMETRIC.
PROPER ORIENTATION IS ESSENTIAL.

Scale = 1:55.2

Plate Offsets (X, Y): [2:0-2-12,0-0-4], [3:0-2-0,0-3-12], [6:0-4-0,0-2-10], [7:0-2-12,0-0-4], [9:0-3-0,0-4-4], [10:0-4-0,0-5-4], [11:0-4-0,0-5-4]

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	0.64	Vert(LL)	-0.38	10-11	>887	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.77	10-11	>440	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS								

Weight: 310 lb FT = 20%

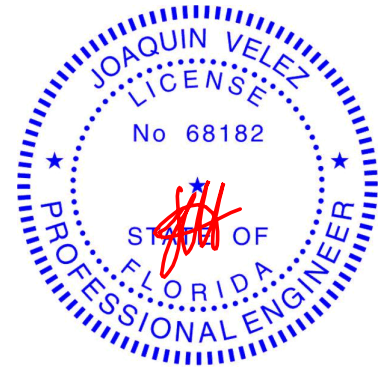
- LUMBER**
TOP CHORD 2x4 SP No.2 *Except* 3-6:2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
- BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 2=0-3-0, 7=0-3-0
Max Horiz 2=-18 (LC 24)
Max Uplift 2=-3 (LC 8), 7=-3 (LC 8)
Max Grav 2=2437 (LC 1), 7=2437 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-8610/0, 3-4=-11258/0, 4-5=-11252/0, 5-6=-8400/0, 6-7=-8551/0, 7-8=0/24
BOT CHORD 2-12=0/8314, 9-12=0/11459, 7-9=0/8256
WEBS 3-12=0/651, 3-11=0/3180, 4-11=-767/107, 5-11=-261/33, 5-10=0/445, 5-9=-3359/0, 6-9=0/1612

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=29ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2 and 3 lb uplift at joint 7.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 254 lb down at 7-0-0, and 254 lb down at 21-8-0 on top chord, and 339 lb down and 33 lb up at 7-0-0, and 339 lb down and 33 lb up at 21-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Vert: 3=-207 (F), 6=-207 (F), 12=-339 (F), 9=-339 (F), 17=-123 (F), 18=-123 (F), 19=-123 (F), 21=-123 (F), 23=-123 (F), 24=-123 (F), 25=-123 (F), 26=-65 (F), 27=-65 (F), 28=-65 (F), 29=-65 (F), 30=-65 (F), 31=-65 (F), 32=-65 (F)

- NOTES**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 3-12 2x4 - 1 row at 0-3-0 oc, Except member 6-9 2x4 - 1 row at 0-3-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-6=-60, 6-8=-60, 2-7=-20
Concentrated Loads (lb)



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Date:

February 12, 2025

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

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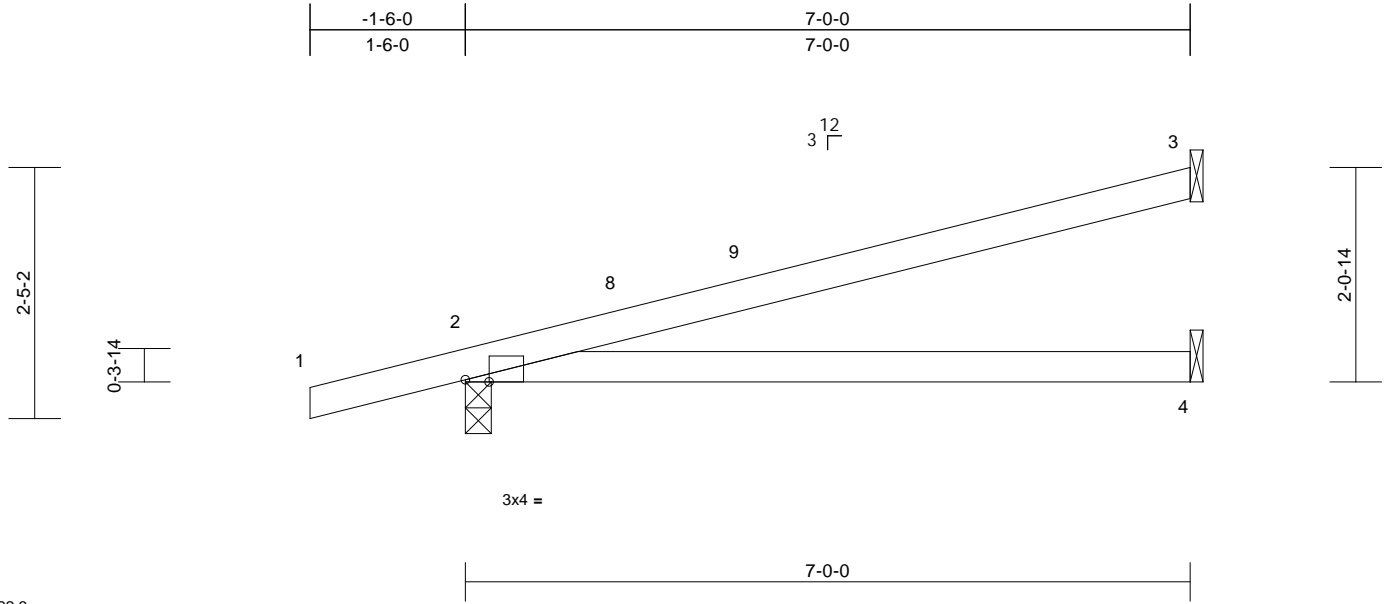
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0820-102	Truss J01	Truss Type Jack-Open	Qty 5	Ply 1	Evans Replacemtn Job Reference (optional)	T36351152
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Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:22.3

Plate Offsets (X, Y): [2:0-2-12,Edge]

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	0.58	Vert(LL)	0.10	4-7	>875	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.21	4-7	>401	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 24 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical

Max Horiz 2=55 (LC 12)
Max Uplift 2=-35 (LC 12), 3=-28 (LC 12)
Max Grav 2=377 (LC 1), 3=183 (LC 1), 4=121 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-3=-148/36
BOT CHORD 2-4=-52/150

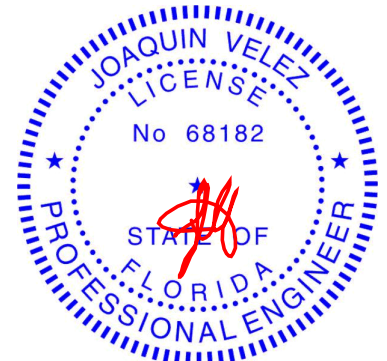
NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0,
Zone1 1-6-0 to 6-11-4 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
- 2) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 5) Bearings are assumed to be: , Joint 2 SP No.2 .
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate at joint(s) 2.

8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 28 lb uplift at joint
3 and 35 lb uplift at joint 2.

9) 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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Date:

February 12, 2025

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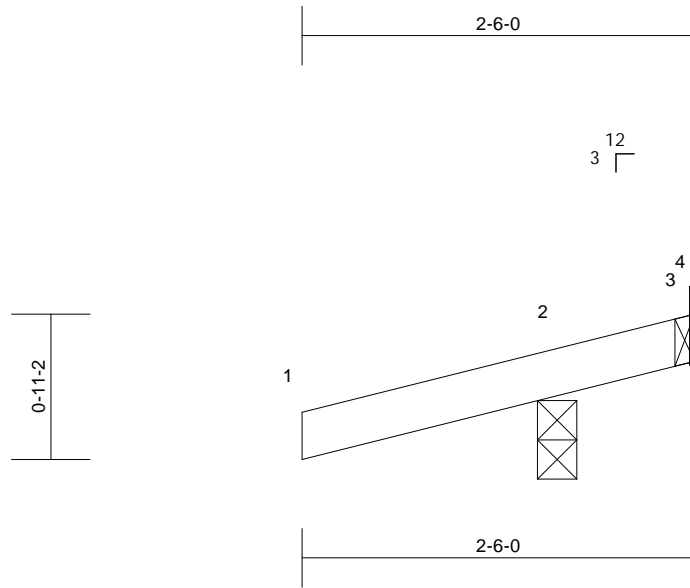
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Evans Replacemtn	T36351153
0820-102	J02	Jack-Open	2	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

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Page: 1



Scale = 1:14.7

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	0.17	Vert(LL)	0.00	2-3	>999	240	
TCDL	10.0	Lumber DOL	1.25	BC	0.00	Vert(CT)	0.00	2-3	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 4 lb FT = 20%

LUMBER **LOAD CASE(S)** Standard

TOP CHORD 2x4 SP No.2

BRACING

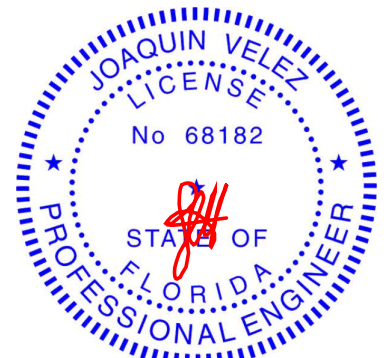
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 3= Mechanical
 Max Horiz 2=20 (LC 12)
 Max Uplift 2=-88 (LC 12), 3=-72 (LC 1)
 Max Grav 2=219 (LC 1), 3=38 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/24, 2-3=-30/27, 3-4=0/0

NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)
 Vasd=101mph; TCDL=6.0psf; BCCL=6.0psf; h=15ft;
 B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; 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
- 2) Building Designer / Project engineer responsible for
 verifying applied roof live load shown covers rain loading
 requirements specific to the use of this truss component.
- 3) * This truss has been designed for a 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.
- 4) Bearings are assumed to be: , Joint 2 SP No.2 .
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to
 bearing plate at joint(s) 2.
- 7) Provide mechanical connection (by others) of truss to
 bearing plate capable of withstanding 72 lb uplift at joint
 3 and 88 lb uplift at joint 2.
- 8) Beveled plate or shim required to provide full bearing
 surface with truss chord at joint(s) 2.



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

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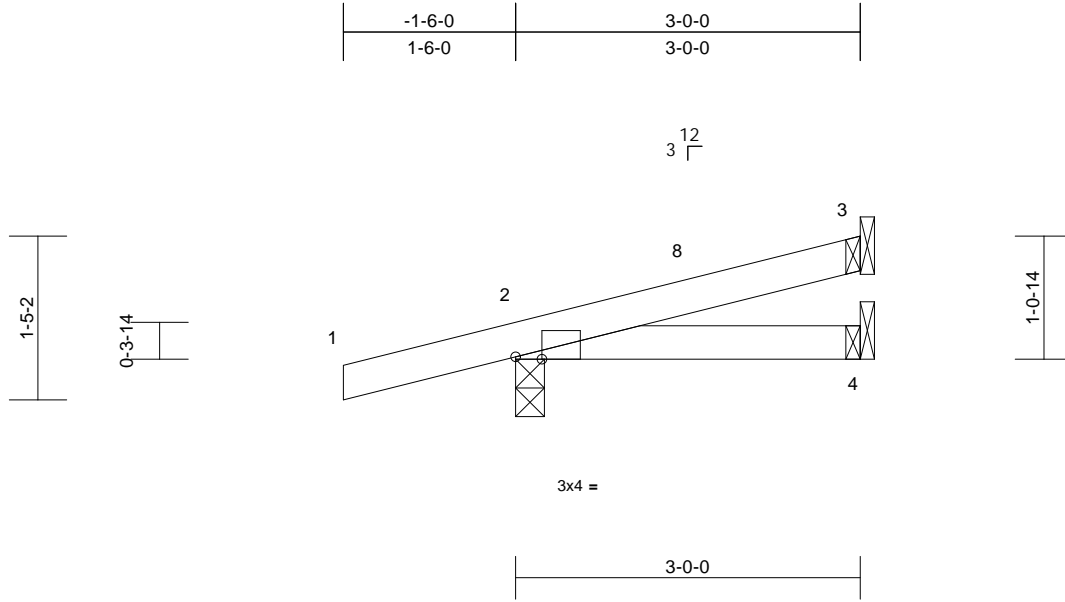
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 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Evans Replacemtn	T36351154
0820-102	J03	Jack-Open	2	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Feb 11 13:01:30
ID:LQdYVafHUsydlga4Oy3bQMyiOQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:20.1

Plate Offsets (X, Y): [2:0-2-12,Edge]

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	0.15	Vert(LL)	0.00	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	0.00	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=31 (LC 12)
Max Uplift 2=-44 (LC 12), 3=-5 (LC 12)
Max Grav 2=230 (LC 1), 3=62 (LC 1), 4=48 (LC 3)

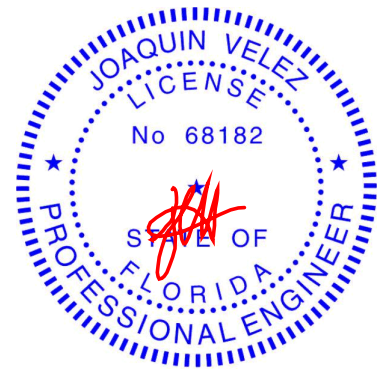
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-69/12
BOT CHORD 2-4=0/54

NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0,
Zone1 1-6-0 to 2-11-4 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
- 2) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 5) Bearings are assumed to be: , Joint 2 SP No.2 .
- 6) Refer to girder(s) for truss to truss connections.

- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 5 lb uplift at joint 3
and 44 lb uplift at joint 2.
- 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:

February 12, 2025

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

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

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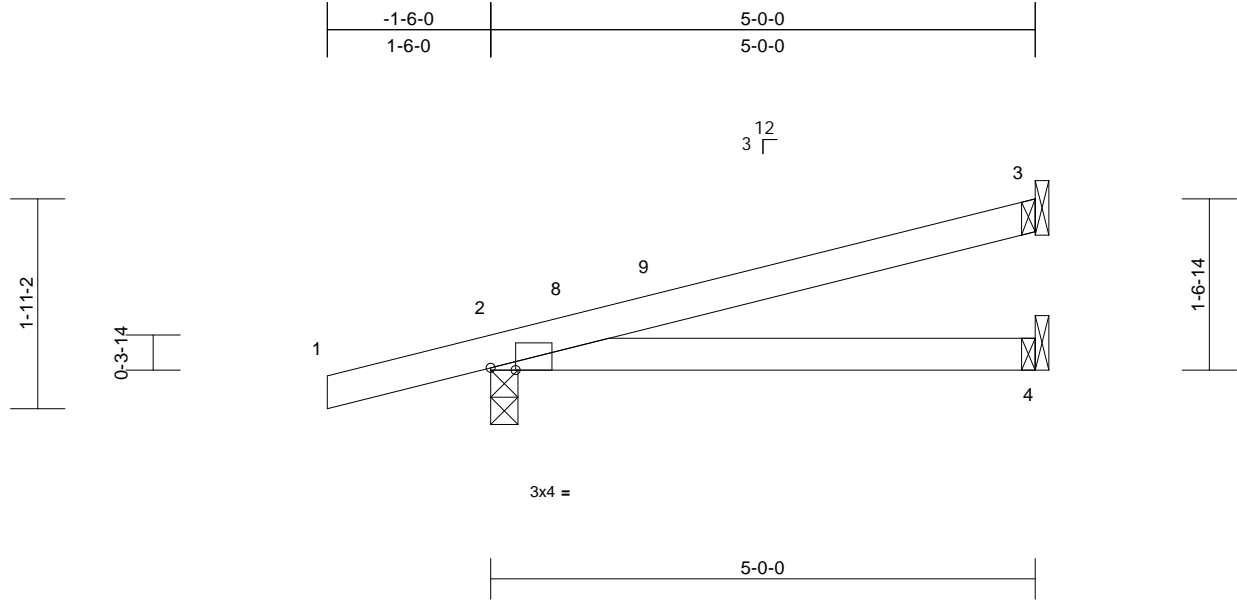
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Evans Replacemtn	T36351155
0820-102	J04	Jack-Open	2	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Feb 11 13:01:31
ID:LQdYVafHUsydlga4Oy3bQMyiOQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?#

Page: 1



Scale = 1:21.2

Plate Offsets (X, Y): [2:0-2-12,Edge]

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	0.27	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.22	Vert(CT)	-0.05	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 18 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical

Max Horiz 2=43 (LC 12)

Max Uplift 2=-39 (LC 12), 3=-17 (LC 12)

Max Grav 2=301 (LC 1), 3=123 (LC 1), 4=85 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-3=-96/24

BOT CHORD 2-4=-40/100

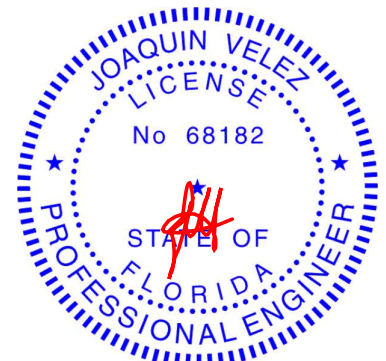
NOTES

- 1) Wind: ASCE 7-22; Vult=130mph (3-second gust)
Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Zone3 -1-6-0 to 1-6-0,
Zone1 1-6-0 to 4-11-4 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
- 2) Building Designer / Project engineer responsible for
verifying applied roof live load shown covers rain loading
requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 5) Bearings are assumed to be: , Joint 2 SP No.2 .
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate at joint(s) 2.

8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 17 lb uplift at joint
3 and 39 lb uplift at joint 2.

9) 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:

February 12, 2025

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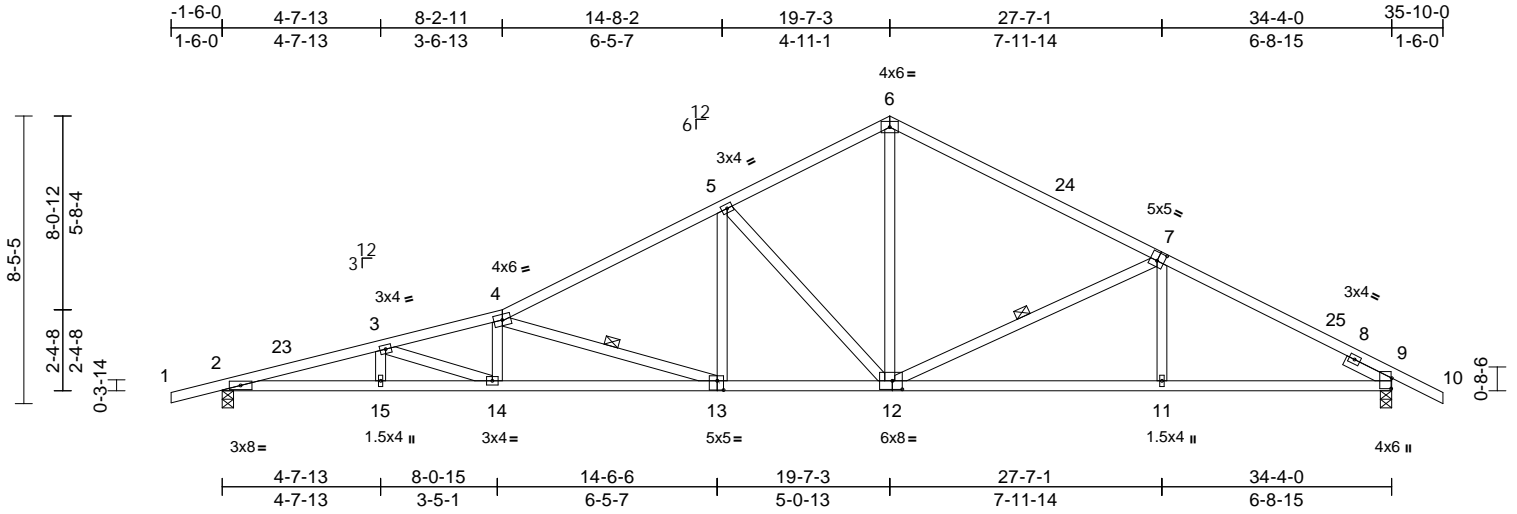
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0820-102	Truss T04	Truss Type Roof Special	Qty 6	Ply 1	Evans Replacemtn Job Reference (optional)	T36351156
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Feb 11 13:01:31
ID:LQdYVafHUydlga4Oy3bQMyiOQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:67.6

Plate Offsets (X, Y): [7:0-2-8,0-3-0], [9:0-3-11,0-0-3], [12:0-3-8,0-3-0], [13:0-2-4,0-3-4]

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	0.85	Vert(LL)	-0.30	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.85	Vert(CT)	-0.64	13-14	>641	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 180 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 2-13:2x4 SP No.1
WEBS 2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-13, 7-12

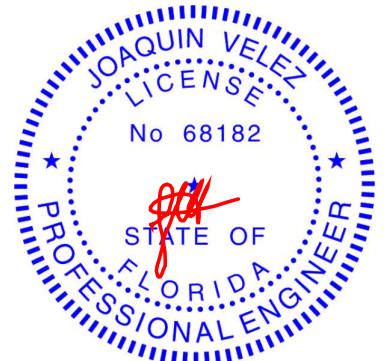
REACTIONS (size) 2=0-4-0, 9=0-4-0
Max Horiz 2=136 (LC 11)
Max Uplift 2=-35 (LC 12), 9=-35 (LC 12)
Max Grav 2=1463 (LC 1), 9=1463 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-4647/155, 3-4=-4300/166, 4-5=-2568/157, 5-6=-1753/182, 6-9=-2339/172, 9-10=0/40
BOT CHORD 2-15=-90/4485, 14-15=-90/4485, 11-14=-86/4144, 9-11=-41/2016
WEBS 3-15=0/91, 3-14=-370/14, 4-14=0/319, 4-13=-2019/93, 5-13=0/741, 5-12=-1014/111, 6-12=-29/1130, 7-12=-593/97, 7-11=0/263

- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.1 , Joint 9 SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 9.
- 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

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-22; 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; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-11-3, Zone1 1-11-3 to 19-7-3, Zone2 19-7-3 to 24-5-7, Zone1 24-5-7 to 35-10-0 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
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.



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

February 12, 2025

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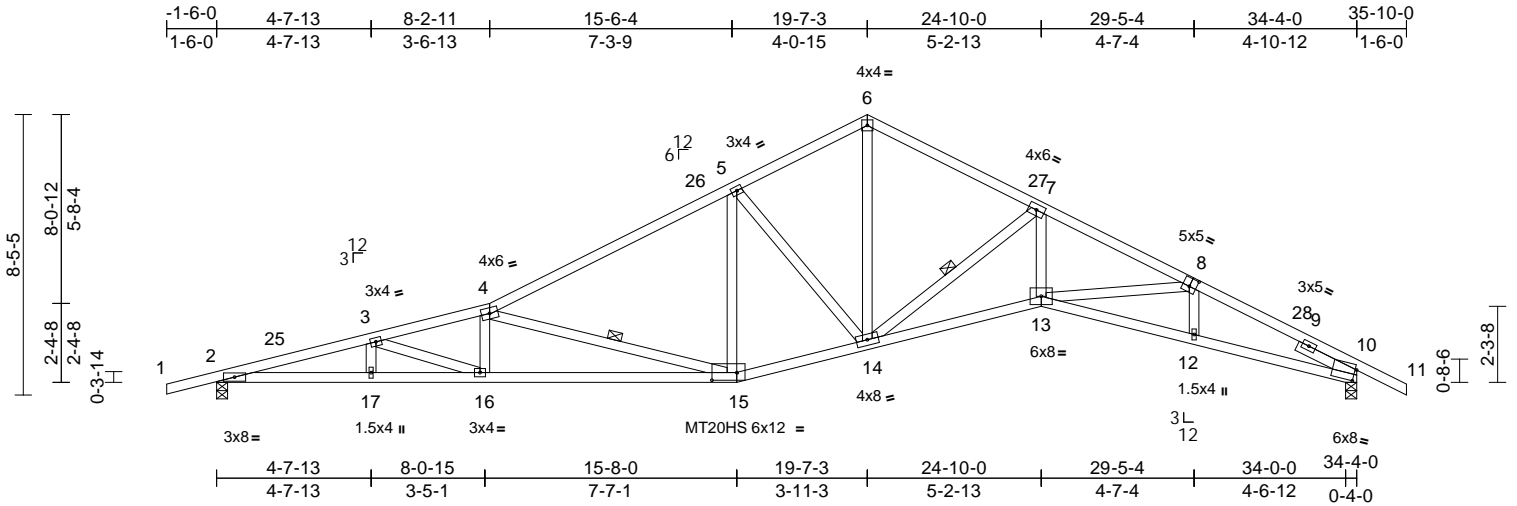
MiTek®
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job 0820-102	Truss T05	Truss Type Roof Special	Qty 10	Ply 1	Evans Replacemtn Job Reference (optional)	T36351157
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Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Feb 11 13:01:31
ID:LQdYvafHUySgdga4Oy3bQMyiOQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



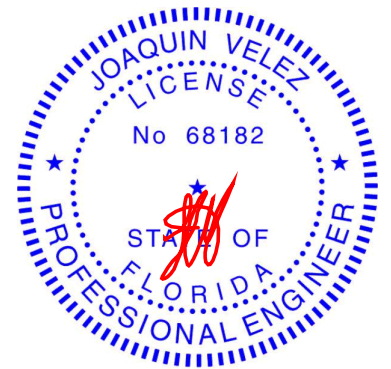
Scale = 1:69.4
Plate Offsets (X, Y): [8:0-2-8,0-3-0], [10:0-0-9,0-4-3], [15:0-9-0,0-2-12]

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	0.89	Vert(LL)	-0.37	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.77	Vert(CT)	-0.82	15-16	>504	180	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS								Weight: 185 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 8-11:2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except* 15-13:2x4 SP No.2, 13-10:2x4 SP SS
WEBS 2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 2-0-0
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-15, 7-14
REACTIONS (size) 2=0-4-0, 10=0-4-0
Max Horiz 2=136 (LC 11)
Max Uplift 2=-35 (LC 12), 10=-35 (LC 12)
Max Grav 2=1463 (LC 1), 10=1463 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-4639/156, 3-4=-4321/161, 4-5=-2398/159, 5-6=-1986/181, 6-7=-1991/169, 7-10=-3773/160, 10-11=0/40
BOT CHORD 2-17=-91/4478, 16-17=-91/4478, 15-16=-83/4165, 14-15=0/2142, 13-14=-41/3475, 12-13=-63/3286, 10-12=-59/3231
WEBS 3-17=0/69, 3-16=-335/18, 4-16=0/353, 4-15=-2182/93, 5-15=0/296, 5-14=-597/118, 6-14=-67/1488, 7-14=-2102/110, 7-13=0/1751, 8-13=0/246, 8-12=-116/55

- Wind: ASCE 7-22; 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; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-11-3, Zone1 1-11-3 to 19-7-3, Zone2 19-7-3 to 24-5-7, Zone1 24-5-7 to 35-10-0 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
- 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 MT20 plates 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.1, Joint 10 SP SS.
- Bearing at joint(s) 10 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 35 lb uplift at joint 2 and 35 lb uplift at joint 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



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

February 12, 2025

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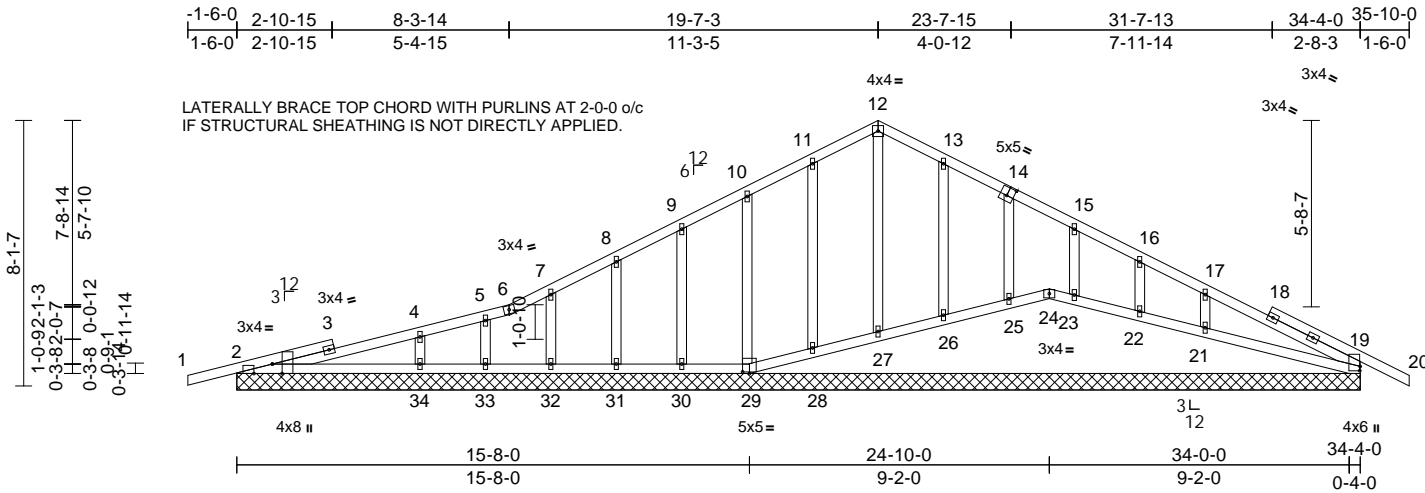
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Evans Replacemtn	T36351158
0820-102	T06	Roof Special Supported Gable	1	1	Job Reference (optional)	

Mayo Truss Company, Inc., Mayo, FL - 32066,

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Tue Feb 11 13:01:31
 ID:LQdYVafHUySylga4Oy3bQMiyOQq-RfC?PsB70Hq3NSgPqnL8w3UfTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:70.4

Plate Offsets (X, Y): [2:0-3-8,Edge], [2:0-6-12,Edge], [14:0-2-8,0-3-0], [19:0-1-9,0-0-2], [29:0-2-8,0-0-10]

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 183 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=34-4-0, 19=34-4-0, 21=34-4-0,
 22=34-4-0, 23=34-4-0, 24=34-4-0,
 25=34-4-0, 26=34-4-0, 27=34-4-0,
 28=34-4-0, 29=34-4-0, 30=34-4-0,
 31=34-4-0, 32=34-4-0, 33=34-4-0,
 34=34-4-0
 Max Horiz 2=131 (LC 11)
 Max Uplift 2=-36 (LC 12), 19=-47 (LC 12),
 21=-17 (LC 12), 22=-10 (LC 12),
 23=-14 (LC 12), 24=-10 (LC 11),
 25=-15 (LC 12), 26=-7 (LC 12),
 28=-7 (LC 12), 29=-32 (LC 12),
 30=-10 (LC 12), 31=-13 (LC 12),
 32=-9 (LC 12), 33=-11 (LC 12)
 Max Grav 2=291 (LC 1), 19=273 (LC 24),
 21=337 (LC 1), 22=89 (LC 24),
 23=176 (LC 1), 24=38 (LC 12),
 25=153 (LC 1), 26=168 (LC 24),
 27=150 (LC 17), 28=168 (LC 23),
 29=156 (LC 23), 30=165 (LC 23),
 31=150 (LC 23), 32=196 (LC 1),
 33=26 (LC 18), 34=436 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/22, 2-4=-96/94, 4-5=-104/75,
 5-6=-96/79, 12-13=-98/277, 13-15=-81/224,
 15-16=-41/108, 16-17=-58/66, 17-19=-75/70,
 19-20=0/40, 6-7=-93/91, 7-8=-98/81,
 8-9=-87/113, 9-10=-78/168, 10-11=-81/225,
 11-12=-98/277

BOT CHORD 2-34=-35/129, 33-34=-35/129,
 32-33=-35/129, 31-32=-35/129,
 30-31=-35/129, 29-30=-35/129,
 28-29=-39/137, 27-28=-39/137,
 26-27=-39/137, 25-26=-40/137,
 24-25=-39/135, 23-24=-39/134,
 22-23=-38/137, 21-22=-43/137,
 19-21=-41/148
WEBS 12-27=-159/25, 11-28=-127/93,
 10-29=-118/104, 9-30=-121/101,
 8-31=-115/100, 7-32=-138/106, 5-33=-49/60,
 4-34=-277/144, 13-26=-127/93,
 14-25=-117/103, 15-23=-132/108,
 16-22=-74/71, 17-21=-244/190

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; B=45ft; L=34ft; eave=2ft; Cat. II; Exp B; 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 1.5x4 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) All bearings are assumed to be SP No.2.
 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2, 10 lb uplift at joint 24, 47 lb uplift at joint 19, 7 lb uplift at joint 28, 32 lb uplift at joint 29, 10 lb uplift at joint 30, 13 lb uplift at joint 31, 9 lb uplift at joint 32, 11 lb uplift at joint 33, 7 lb uplift at joint 26, 15 lb uplift at joint 25, 14 lb uplift at joint 23, 10 lb uplift at joint 22, 17 lb uplift at joint 21, 36 lb uplift at joint 2 and 47 lb uplift at joint 19.
 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 24, 27, 28, 26, 25, 23, 22, 21.
 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheathing be applied directly to the bottom chord.

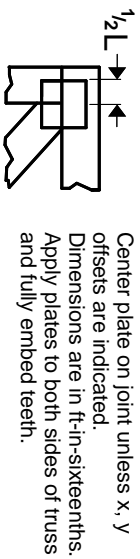
LOAD CASE(S) Standard

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

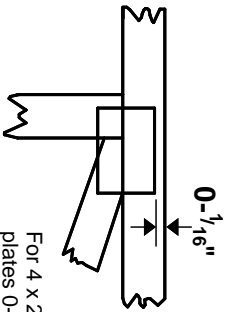
February 12, 2025

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\"/>



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

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

PLATE SIZE

4 X 4

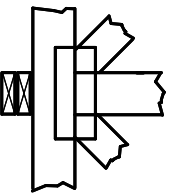
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

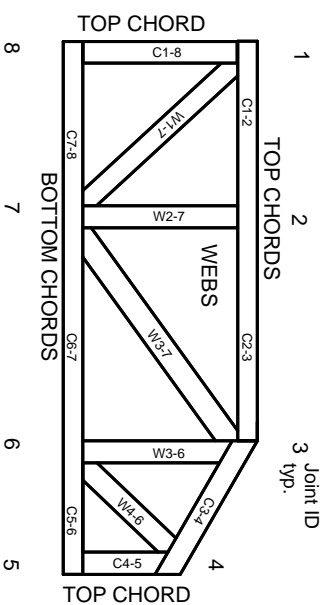


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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 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/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.



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