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

RE: 24-0602-A1 - GAINEY HOME

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

Site Information:

Customer Info: ROBINSON RENOVATION& CUSTOM HOMES INC. Project Name: GAINEY HOME Model: -
Lot/Block: - Subdivision: -
Address: 3181 SW COUNTY RD 138, -
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: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 74 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.

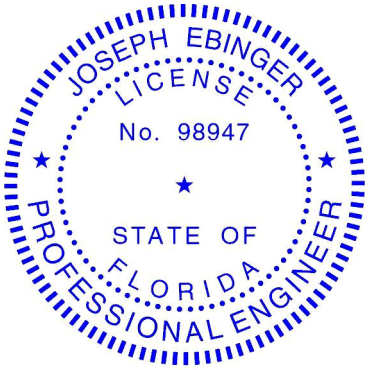
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T37314091	AT-1	5/14/25	15	T37314105	FG-3	5/14/25
2	T37314092	T-1	5/14/25	16	T37314106	FT-1	5/14/25
3	T37314093	T-2	5/14/25	17	T37314107	FT-2	5/14/25
4	T37314094	PG-1	5/14/25	18	T37314108	FT-3	5/14/25
5	T37314095	PT-1	5/14/25	19	T37314109	FT-4	5/14/25
6	T37314096	PT-2	5/14/25	20	T37314110	FT-5	5/14/25
7	T37314097	F-1	5/14/25	21	T37314111	FT-6	5/14/25
8	T37314098	F-2	5/14/25	22	T37314112	FT-7	5/14/25
9	T37314099	F-3	5/14/25	23	T37314113	FT-8	5/14/25
10	T37314100	F-4	5/14/25	24	T37314114	FT-9	5/14/25
11	T37314101	F-5	5/14/25	25	T37314115	T-3	5/14/25
12	T37314102	F-6	5/14/25	26	T37314116	T-4	5/14/25
13	T37314103	FG-1	5/14/25	27	T37314117	T-5	5/14/25
14	T37314104	FG-2	5/14/25	28	T37314118	T-6	5/14/25

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

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

Truss Design Engineer's Name: Ebinger, Joseph
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.



Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

Ebinger, Joseph

RE: 24-0602-A1 - GAINEY HOME

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

Site Information:

Customer Info: ROBINSON RENOVATION& CUSTOM HOMES INC. Project Name: GAINEY HOME Model: -
Lot/Block: - Subdivision: -
Address: 3181 SW COUNTY RD 138, -
City: FORT WHITE State: FL

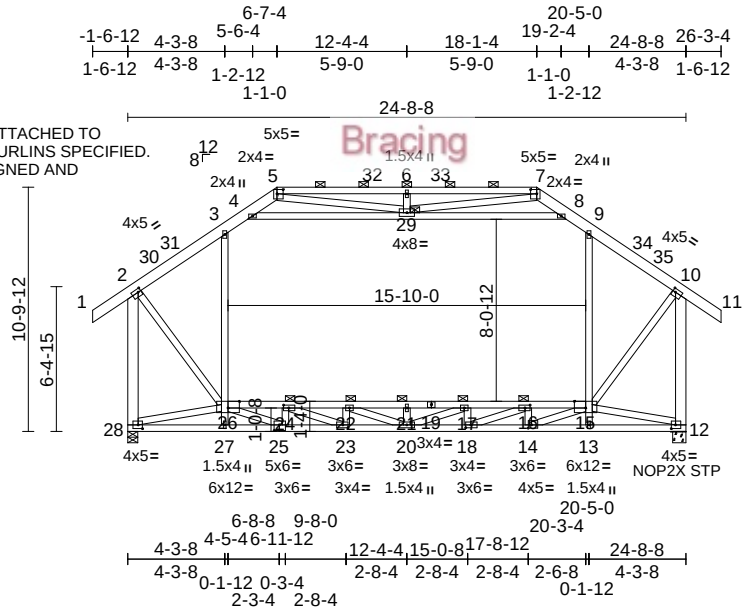
No.	Seal#	Truss Name	Date
29	T37314119	T-7	5/14/25
30	T37314120	T-8	5/14/25
31	T37314121	T-9	5/14/25
32	T37314122	T-10	5/14/25
33	T37314123	T-11	5/14/25
34	T37314124	T-12	5/14/25
35	T37314125	T-14	5/14/25
36	T37314126	T-15	5/14/25
37	T37314127	T-16	5/14/25
38	T37314128	T-17	5/14/25
39	T37314129	T-18	5/14/25
40	T37314130	T-19	5/14/25
41	T37314131	T-20	5/14/25
42	T37314132	T-21	5/14/25
43	T37314133	T-22	5/14/25
44	T37314134	T-23	5/14/25
45	T37314135	T-24	5/14/25
46	T37314136	T-25	5/14/25
47	T37314137	T-26	5/14/25
48	T37314138	T-27	5/14/25
49	T37314139	T-28	5/14/25
50	T37314140	T-29	5/14/25
51	T37314141	T-30	5/14/25
52	T37314142	T-31	5/14/25
53	T37314143	T-32	5/14/25
54	T37314144	T-33	5/14/25
55	T37314145	T-34	5/14/25
56	T37314146	UT-1	5/14/25
57	T37314147	UT-2	5/14/25
58	T37314148	UT-3	5/14/25
59	T37314149	MG-1	5/14/25
60	T37314150	M-1	5/14/25
61	T37314151	J8V	5/14/25
62	T37314152	J7-8	5/14/25
63	T37314153	J7-8A	5/14/25
64	T37314154	J7-8S	5/14/25
65	T37314155	J7	5/14/25
66	T37314156	J4-10	5/14/25
67	T37314157	C-1	5/14/25
68	T37314158	C-2	5/14/25
69	T37314159	C-3	5/14/25
70	T37314160	C-4	5/14/25
71	T37314161	C-5	5/14/25
72	T37314162	C-6	5/14/25
73	T37314163	C-7	5/14/25
74	T37314164	C-8	5/14/25

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314091
24-0602-A1	AT-1	Attic	5	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:55
ID:bgnl?TEO6XpCq1wDOxaUSpyHfyF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

NOTE:
STRUCTURAL WOOD SHEATHING DIRECTLY ATTACHED TO BOTTOM CHORD IN ATTIC ROOM IN LIEU OF PURLINS SPECIFIED. STRUCTURAL WOOD SHEATHING TO BE DESIGNED AND FURNISHED BY OTHERS.



Scale = 1:102

Plate Offsets (X, Y): [2:0-1-8,0-1-12], [5:0-3-4,0-2-4], [7:0-3-4,0-2-4], [10:0-1-8,0-1-12], [12:0-2-4,0-2-0], [14:0-1-12,0-1-12], [15:0-6-0,Edge], [16:0-2-12,0-1-8], [18:0-2-12,0-1-8], [23:0-2-12,0-1-8], [24:0-2-12,0-1-8], [25:0-2-12,0-3-0], [26:0-6-0,Edge], [28:0-2-4,0-2-0]

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	0.59	Vert(LL)	-0.13	17-21	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.23	17-21	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	25-27	>999	240	Weight: 274 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1 *Except* 5-7:2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 4-8:2x4 SP No.1, 28-2,12-10:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-6-10 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 24, 22, 21, 17, 16, 29

REACTIONS (size) 12=0-7-0, 28=0-5-4
Max Horiz 28=-306 (LC 10)
Max Grav 12=1807 (LC 19), 28=1807 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-1255/0, 3-4=-1066/42, 4-5=-686/245, 5-6=-1710/475, 6-7=-1710/475, 7-8=-685/249, 8-9=-1075/42, 9-10=-1269/0, 10-11=0/54, 2-28=-2063/0, 10-12=-2086/0
BOT CHORD 27-28=-1359/95, 23-27=-1410/1240, 20-23=0/2442, 18-20=0/2443, 14-18=0/1105, 13-14=-1271/0, 12-13=-1219/0, 24-26=-161/414, 22-24=-1521/0, 21-22=-2016/0, 17-21=-2016/0, 16-17=-1522/0, 15-16=-386/400
WEBS 26-27=0/179, 3-26=-253/440, 13-15=0/186, 9-15=-254/437, 4-29=-914/0, 8-29=-918/0, 26-28=0/1200, 12-15=0/1275, 25-26=0/2215, 24-25=-939/0, 23-24=0/1502, 22-23=-488/0, 20-22=0/584, 20-21=-332/0, 17-20=0/590, 17-18=-492/0, 16-18=0/1508, 14-16=-904/0, 14-15=0/2415, 2-26=0/1626, 10-15=0/1646, 6-29=-282/115, 5-29=-279/1235, 7-29=-274/1237

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; 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 6-8-0, Zone2 6-8-0 to 10-10-15, Zone1 10-10-15 to 18-2-0, Zone2 18-2-0 to 22-4-15, Zone1 22-4-15 to 26-4-0 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Ceiling dead load (5.0 psf) on member(s). 3-4, 8-9, 4-29, 8-29; Wall dead load (5.0psf) on member(s).3-26, 9-15
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 24-26, 22-24, 21-22, 17-21, 16-17, 15-16
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.
12) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

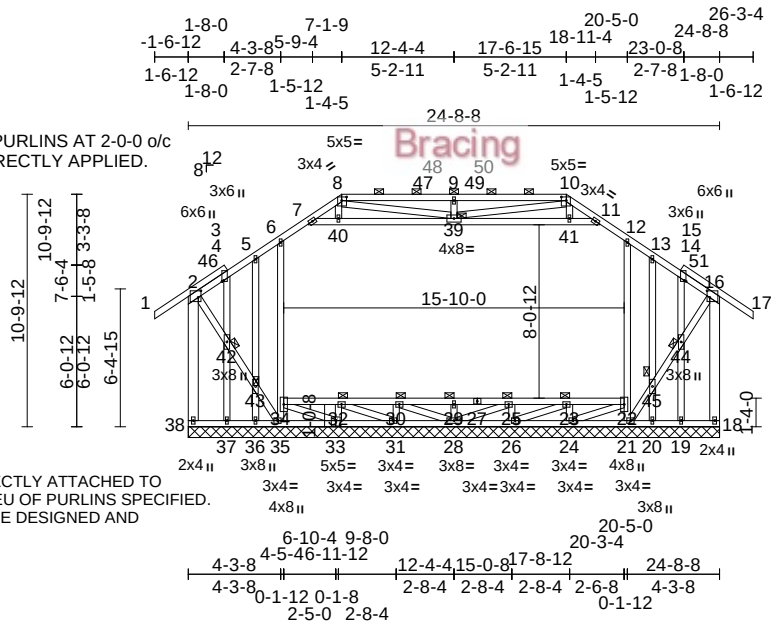
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314092
24-0602-A1	T-1	Attic Supported Gable	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:06
ID:naDQ7ZbDYKxO5_L7k0wioJyHdQO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LATERALLY BRACE TOP CHORD WITH PURLINS AT 2-0-0 o/c IF STRUCTURAL SHEATHING IS NOT DIRECTLY APPLIED.



NOTE:
STRUCTURAL WOOD SHEATHING DIRECTLY ATTACHED TO BOTTOM CHORD IN ATTIC ROOM IN LIEU OF PURLINS SPECIFIED. STRUCTURAL WOOD SHEATHING TO BE DESIGNED AND FURNISHED BY OTHERS.

Scale = 1:107.2

Plate Offsets (X, Y): [2:0-3-12,0-1-8], [3:0-0-9,0-1-0], [8:0-2-12,0-2-0], [10:0-2-12,0-2-0], [15:0-0-9,0-1-0], [16:0-3-12,0-1-8], [33:0-2-8,0-3-0]

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 295 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 38-2,18-16:2x6 SP No.1, 7-11:2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-14 max.): 8-10.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 39, 32, 30, 29, 25, 23, 42, 43, 44, 45

REACTIONS (size) 18=24-8-8, 19=24-8-8, 20=24-8-8, 21=24-8-8, 24=24-8-8, 26=24-8-8, 28=24-8-8, 31=24-8-8, 33=24-8-8, 35=24-8-8, 36=24-8-8, 37=24-8-8, 38=24-8-8
Max Horiz 38=-302 (LC 10)
Max Uplift 18=-196 (LC 9), 19=-1 (LC 8), 20=-68 (LC 24), 21=-289 (LC 18), 35=-301 (LC 19), 36=-67 (LC 25), 37=-1 (LC 9), 38=-222 (LC 8)
Max Grav 18=1090 (LC 1), 19=131 (LC 1), 20=12 (LC 9), 21=223 (LC 11), 24=252 (LC 3), 26=220 (LC 3), 28=201 (LC 3), 31=226 (LC 3), 33=255 (LC 3), 35=223 (LC 10), 36=9 (LC 8), 37=131 (LC 1), 38=1090 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-38=-1065/307, 1-2=0/48, 2-3=-552/151, 3-5=-526/146, 5-6=-473/169, 6-7=-651/202, 7-8=-903/189, 8-9=-1736/375, 9-10=-1736/375, 10-11=-903/194, 11-12=-651/199, 12-13=-473/169, 13-15=-534/144, 15-16=-552/151, 16-17=0/48, 16-18=-1065/270
BOT CHORD 37-38=-278/277, 36-37=-278/277, 35-36=-278/277, 31-35=-147/445, 28-31=-94/280, 26-28=-96/283, 24-26=-101/297, 21-24=-145/442, 20-21=-94/107, 19-20=-94/107, 18-19=-94/107, 32-34=-45/164, 30-32=-54/173, 29-30=-30/106, 25-29=-30/106, 23-25=-53/170, 22-23=-47/156
WEBS 2-42=-178/782, 42-43=-188/824, 35-43=-181/797, 34-35=-432/22, 6-34=-469/74, 21-22=-437/22, 12-22=-469/56, 21-45=-150/781, 44-45=-155/808, 16-44=-147/765, 7-40=-36/361, 39-40=-39/352, 39-41=-55/352, 11-41=-52/361, 9-39=-268/110, 8-39=-206/1022, 10-39=-201/1022, 8-40=-8/80, 10-41=-8/80, 33-34=-168/48, 32-33=-118/0, 31-32=-18/5, 30-31=-111/0, 28-30=-27/72, 28-29=-110/0, 25-28=-24/69, 25-26=-111/0, 23-26=-15/6, 23-24=-119/0, 22-24=-156/47, 3-42=-83/46, 37-42=-118/58, 5-43=-1/59, 36-43=-8/88, 15-44=-82/46, 19-44=-115/55, 13-45=-6/59, 20-45=-11/88

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-12 to 1-5-4, Zone1 1-5-4 to 7-1-9, Zone2 7-1-9 to 11-4-8, Zone1 11-4-8 to 17-6-15, Zone2 17-6-15 to 21-7-0, Zone1 21-7-0 to 26-3-4 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
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) Provide adequate drainage to prevent water ponding.
6) All plates are 1.5x4 (||) MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

Continued on page 2

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

9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Ceiling dead load (5.0 psf) on member(s). 6-7, 11-12, 7-40, 39-40, 39-41, 11-41; Wall dead load (5.0psf) on member(s).6-34, 12-22
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint 38, 196 lb uplift at joint 18, 301 lb uplift at joint 35, 289 lb uplift at joint 21, 1 lb uplift at joint 37, 67 lb uplift at joint 36, 1 lb uplift at joint 19 and 68 lb uplift at joint 20.

14) 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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314093
24-0602-A1	T-2	Attic Girder	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:07
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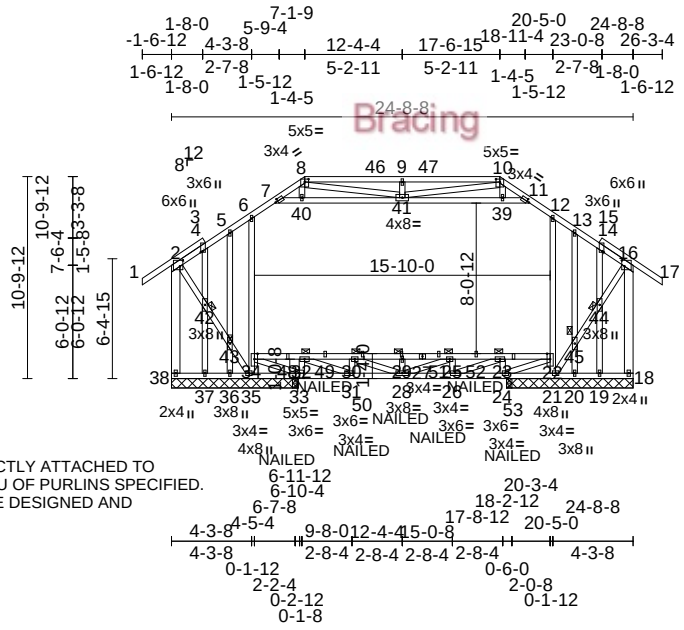
Page: 1



NOTE:
STRUCTURAL WOOD SHEATHING DIRECTLY ATTACHED TO BOTTOM CHORD IN ATTIC ROOM IN LIEU OF PURLINS SPECIFIED. STRUCTURAL WOOD SHEATHING TO BE DESIGNED AND FURNISHED BY OTHERS.

Scale = 1:123.3

Plate Offsets (X, Y): [2:0-3-12,0-1-12], [3:0-0-9,0-1-0], [7:0-1-9,0-1-8], [8:0-2-8,0-1-13], [10:0-2-8,0-1-13], [11:0-1-9,0-1-8], [15:0-0-9,0-1-0], [16:0-3-12,0-1-12], [33:0-2-8,0-3-0]

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	0.31	Vert(LL)	-0.04	29-30	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.06	29-30	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	-0.01	25-29	>999	240	Weight: 295 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 7-11:2x4 SP No.1, 38-2,18-16:2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-9-11 oc bracing.
JOINTS 1 Brace at Jt(s): 32, 30, 29, 25, 23, 42, 43, 44, 45

REACTIONS (size) 18=6-9-4, 19=6-9-4, 20=6-9-4, 21=6-9-4, 24=6-9-4, 33=6-9-4, 35=6-9-4, 36=6-9-4, 37=6-9-4, 38=6-9-4
Max Horiz 38=302 (LC 7)
Max Uplift 18=-200 (LC 25), 19=-1 (LC 24), 20=-59 (LC 20), 21=-518 (LC 14), 35=-554 (LC 15), 36=-58 (LC 21), 38=-225 (LC 24)
Max Grav 18=1095 (LC 1), 19=134 (LC 1), 20=25 (LC 25), 21=149 (LC 5), 24=1342 (LC 12), 33=1362 (LC 12), 35=144 (LC 4), 36=21 (LC 24), 37=134 (LC 1), 38=1095 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-556/151, 3-5=-530/145, 5-6=-476/172, 6-7=-654/200, 7-8=-882/165, 8-9=-1742/340, 9-10=-1742/340, 10-11=-882/168, 11-12=-654/200, 12-13=-476/172, 13-15=-538/146, 15-16=-556/151, 16-17=0/48, 2-38=-1072/219, 16-18=-1072/194
BOT CHORD 37-38=-279/230, 36-37=-279/230, 35-36=-279/230, 31-35=-522/441, 28-31=0/901, 26-28=0/868, 24-26=-588/0, 21-24=-125/439, 20-21=-72/67, 19-20=-72/67, 18-19=-72/67, 32-34=0/845, 30-32=-593/0, 29-30=-1097/0, 25-29=-1097/0, 23-25=-555/0, 22-23=0/799
WEBS 34-35=-301/66, 6-34=-470/43, 21-22=-318/56, 12-22=-470/31, 7-40=-25/331, 40-41=-28/322, 39-41=-44/322, 11-39=-40/332, 2-42=-168/787, 42-43=-177/830, 35-43=-171/803, 21-45=-150/788, 44-45=-155/815, 16-44=-147/772, 10-39=0/84, 8-40=0/84, 9-41=-283/113, 8-41=-212/1053, 10-41=-208/1053, 33-34=-896/0, 32-33=-928/0, 31-32=0/1378, 30-31=-479/0, 28-30=0/541, 28-29=-343/0, 25-28=0/581, 25-26=-495/0, 23-26=0/1408, 23-24=-932/0, 22-24=-839/0, 3-42=-68/15, 37-42=-114/26, 5-43=-2/62, 36-43=-8/91, 15-44=-68/15, 19-44=-114/24, 13-45=-6/62, 20-45=-12/91

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; 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
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) Provide adequate drainage to prevent water ponding.
6) All plates are 1.5x4 (||) MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Ceiling dead load (5.0 psf) on member(s). 6-7, 11-12, 7-40, 40-41, 39-41, 11-39; Wall dead load (5.0psf) on member(s).6-34, 12-22
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 32-34, 30-32, 29-30, 25-29, 23-25, 22-23
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 38, 554 lb uplift at joint 35, 518 lb uplift at joint 21, 200 lb uplift at joint 18, 58 lb uplift at joint 36, 1 lb uplift at joint 19 and 59 lb uplift at joint 20.

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

Continued on page 2

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14) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
16) Attic room checked for L/360 deflection.
17) 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: 1-2=-54, 2-6=-54, 6-7=-64, 7-8=-54, 8-10=-54, 10-11=-54, 11-12=-64, 12-16=-54, 16-17=-54, 18-38=-20, 22-34=-40, 7-40=-10, 40-41=-10, 39-41=-10, 11-39=-10
   Drag: 6-34=-10, 12-22=-10
   Concentrated Loads (lb)
   Vert: 29=-24 (B), 48=-24 (B), 49=-24 (B), 50=-24 (B), 51=-24 (B), 52=-24 (B), 53=-24 (B)

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	PG-1	Half Hip	2	**2**	T37314094
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:05 Page: 1
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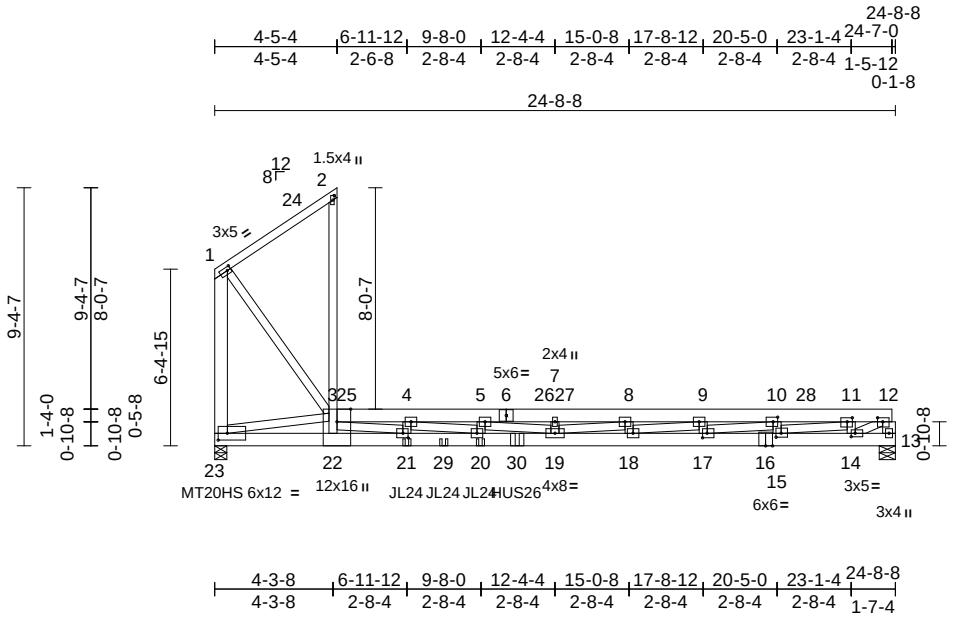

Scale = 1:83.6

Plate Offsets (X, Y): [1:0-1-8,0-1-8], [2:0-2-0,0-0-8], [10:0-2-0,0-2-0], [11:0-2-4,0-1-12], [12:0-2-4,0-1-12], [14:0-1-12,0-1-8], [15:0-2-4,0-1-12], [17:0-2-0,0-2-0], [21:0-2-4,0-2-0], [23:0-4-0,0-3-0]

Loading	(psf)	**Spacing**	2-0-0	**CSI**		**DEFL**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	40.0	Plate Grip DOL	1.00	TC	0.83	Vert(LL)	-0.73	19-20	>402	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-1.14	19-20	>257	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.09	13	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.27	19-20	>999	240	Weight: 373 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1 *Except* 1-2:2x4 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 16-23:2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except* 12-13,1-23:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13=0-7-0, 23=0-5-4
Max Horiz 23=285 (LC 12)
Max Uplift 13=-142 (LC 9), 23=-5 (LC 8)
Max Grav 13=1957 (LC 17), 23=2694 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/137, 3-22=-345/118, 2-3=-212/119, 3-4=-15892/1007, 4-5=-17684/622, 5-7=-16896/490, 7-8=-16896/490, 8-9=-14614/610, 9-10=-11395/592, 10-11=-7427/450, 11-12=-3174/210, 12-13=-1871/138
BOT CHORD 22-23=-1067/11110, 21-22=-1251/12276, 20-21=-988/15896, 19-20=-602/17689, 18-19=-622/14619, 17-18=-605/11400, 15-17=-462/7431, 14-15=-223/3179, 13-14=-38/441
WEBS 1-23=-263/106, 3-23=-11157/807, 1-3=-147/259, 3-21=0/3866, 4-21=-742/18, 4-20=0/2150, 5-20=-208/223, 5-19=-855/158, 7-19=-197/68, 8-19=0/2399, 8-18=-1012/43, 9-18=-63/3385, 9-17=-1257/83, 10-17=-150/4174, 10-15=-1414/118, 11-14=-1614/143, 11-15=-252/4472, 12-14=-219/3245

NOTES
1) 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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-8 to 3-3-8, Zone1 3-3-8 to 24-6-8 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 4x5 (=) MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 13 and 5 lb uplift at joint 23.
12) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 1-4-0 oc max. starting at 7-0-8 from the left end to 9-8-8 to connect truss(es) to back face of bottom chord.
13) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent at 11-0-8 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
14) Fill all nail holes where hanger is in contact with lumber.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 900 lb down and 126 lb up at 4-10-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-100, 3-12=-100, 13-23=-20
Concentrated Loads (lb)
Vert: 21=-85 (B), 20=-29 (B), 25=-900, 29=-29 (B), 30=-244 (B)

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

May 14,2025

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	PT-1	Half Hip	1	2	T37314095
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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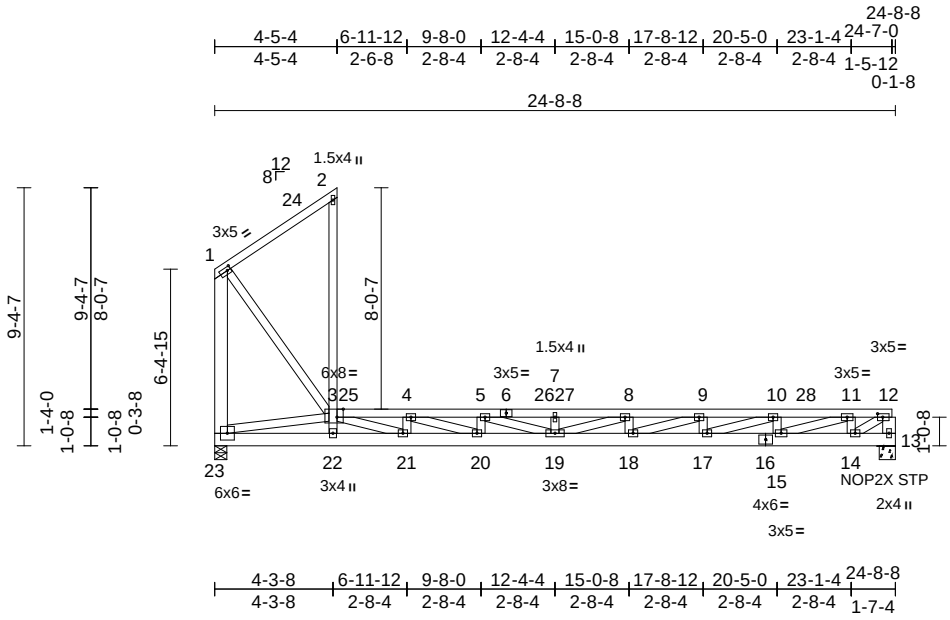

Scale = 1:83.6

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

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	40.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.50	19-20	>587	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.75	19-20	>391	360		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.06	13	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.24	19-20	>999	240	Weight: 345 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 12-13,1-23:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 13=0-7-0, 23=0-5-4
Max Horiz 23=187 (LC 12)
Max Uplift 13=-223 (LC 9), 23=-215 (LC 8)
Max Grav 13=1158 (LC 1), 23=1685 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-103/97, 3-22=-116/62, 2-3=-144/79, 3-4=-7946/1728, 4-5=-8262/1641, 5-7=-7902/1532, 7-8=-7902/1532, 8-9=-7275/1407, 9-10=-5907/1139, 10-11=-3968/762, 11-12=-1666/317, 12-13=-1111/216
BOT CHORD 22-23=-1415/6023, 21-22=-1637/6585, 20-21=-1713/7946, 19-20=-1643/8262, 18-19=-1416/7275, 17-18=-1148/5907, 15-17=-771/3968, 14-15=-326/1666, 13-14=-33/145
WEBS 1-23=-165/72, 3-23=-6165/1264, 1-3=-99/168, 3-21=-196/1481, 4-21=-472/76, 4-20=-321/393, 5-20=-44/181, 5-19=-545/184, 7-19=-163/40, 8-19=-196/694, 8-18=-411/103, 9-18=-300/1452, 9-17=-663/146, 10-17=-400/2059, 10-15=-859/184, 11-15=-472/2443, 11-14=-971/202, 12-14=-358/1855

NOTES
1) 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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-2-12 to 3-2-12, Zone1 3-2-12 to 24-5-12 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 (=) MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 223 lb uplift at joint 13 and 215 lb uplift at joint 23.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 900 lb down and 171 lb up at 4-10-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-67, 3-12=-67, 13-23=-13
Concentrated Loads (lb)
Vert: 25=-900

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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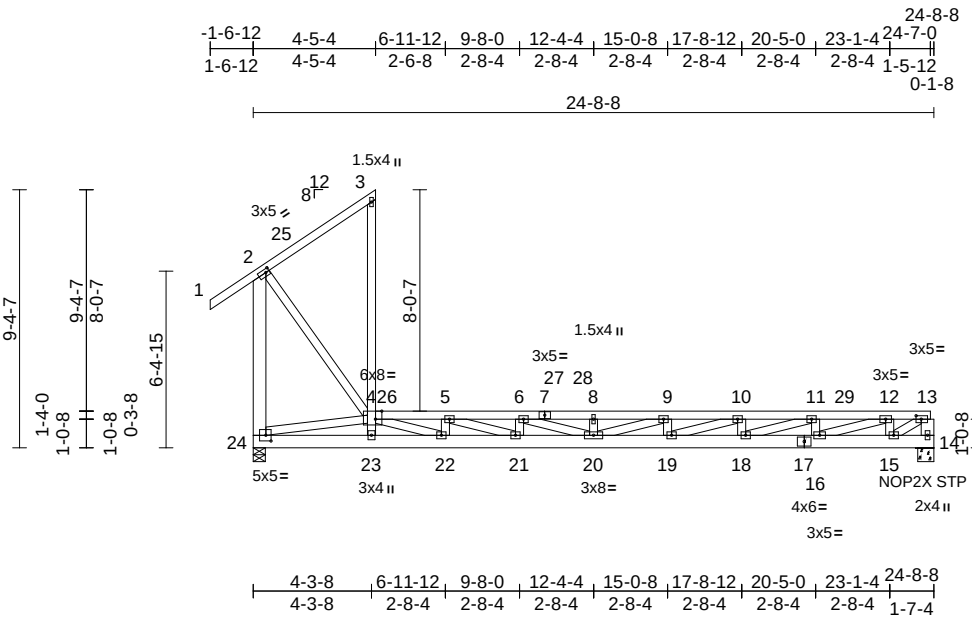
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	PT-2	Half Hip	9	2	T37314096
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:05 ID:M7GJct0rL3gNplEF_xqYmmyIyEy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:83.6

Plate Offsets (X, Y): [2:0-1-8,0-1-8], [4:0-2-12,Edge], [13:0-2-4,0-1-8], [24:0-2-4,0-2-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.47	20-21	>616	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.82	Vert(CT)	-0.71	20-21	>410	360		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.06	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.25	20-21	>999	240	Weight: 350 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 13-14,24-2:2x6 SP No.1

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14=0-7-0, 24=0-5-4
Max Horiz 24=314 (LC 12)
Max Uplift 14=-233 (LC 9), 24=-233 (LC 8)
Max Grav 14=1138 (LC 1), 24=1821 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/66, 2-3=-111/68, 4-23=-153/78, 3-4=-107/59, 4-5=-7597/2015, 5-6=-7966/1883, 6-8=-7664/1662, 8-9=-7664/1662, 9-10=-7086/1497, 10-11=-5773/1203, 11-12=-3887/800, 12-13=-1636/332, 13-14=-1091/226, 2-24=-285/116

BOT CHORD 23-24=-1731/5734, 22-23=-1957/6335, 21-22=-2000/7597, 20-21=-1869/7966, 19-20=-1506/7086, 18-19=-1212/5773, 16-18=-810/3887, 15-16=-341/1636, 14-15=-34/142

WEBS 4-24=-5770/1553, 2-4=-217/314, 4-22=-187/1527, 5-22=-485/74, 5-21=-277/434, 6-21=-60/164, 6-20=-496/234, 8-20=-164/39, 9-20=-237/675, 9-19=-393/118, 10-19=-347/1394, 10-18=-644/155, 11-18=-427/2002, 11-16=-840/194, 12-16=-498/2390, 12-15=-953/211, 13-15=-374/1820

NOTES

1) 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.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; B=45ft; L=25ft; 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 24-6-8 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 (=) MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 14 and 233 lb uplift at joint 24.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 900 lb down and 171 lb up at 4-11-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-2=-67, 2-3=-67, 4-13=-67, 14-24=-13
Concentrated Loads (lb)
Vert: 26=-900

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	F-1	Floor	3	1	T37314097
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:59
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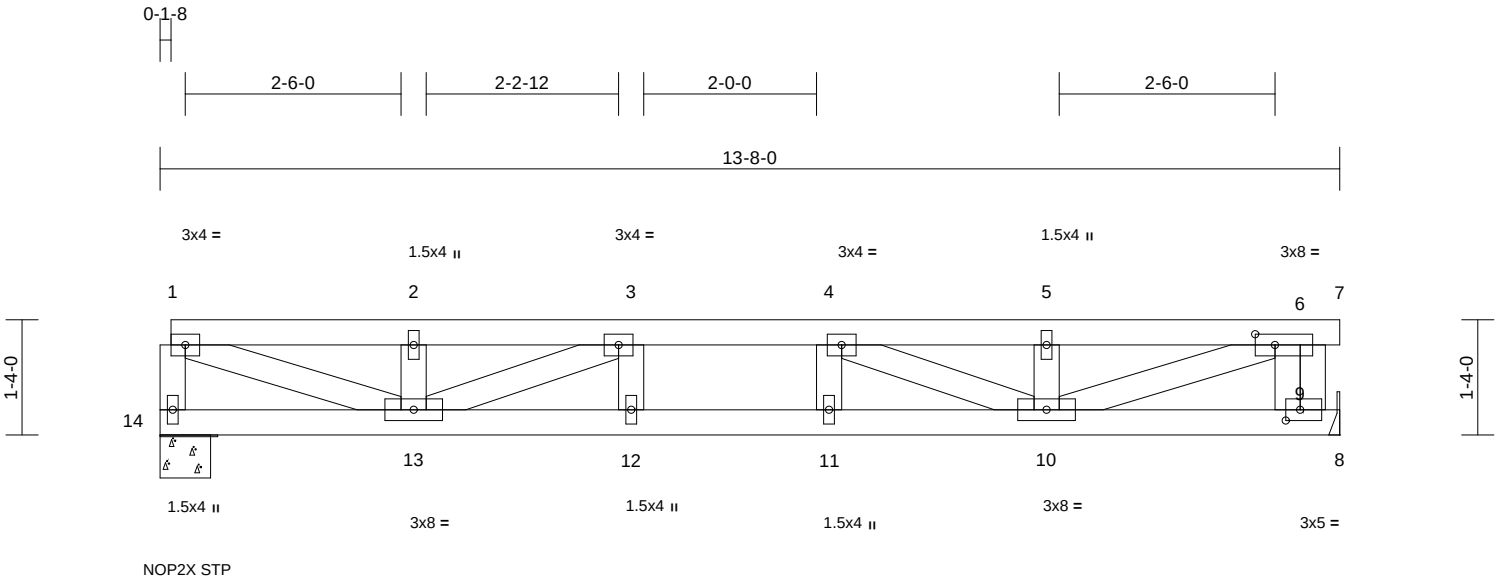

Scale = 1:26.7

Plate Offsets (X, Y): [6:0-2-12,0-1-8], [9:0-2-0,0-1-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.15	Vert(LL)	-0.07	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.10	11-12	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 63 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 9= Mechanical, 14=0-7-0
Max Grav 9=513 (LC 1), 14=478 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-449/0, 6-9=-475/0, 1-2=-996/0, 2-3=-996/0, 3-4=-1439/0, 4-5=-1021/0, 5-6=-1021/0, 6-7=0/0
BOT CHORD 13-14=0/74, 12-13=0/1439, 11-12=0/1439, 10-11=0/1439, 9-10=0/116, 8-9=0/0
WEBS 1-13=0/985, 2-13=-190/0, 6-10=0/960, 5-10=-181/4, 3-13=-552/0, 4-10=-531/0, 3-12=-28/67, 4-11=-32/62

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 0 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	F-2	Floor Girder	1	1	T37314098
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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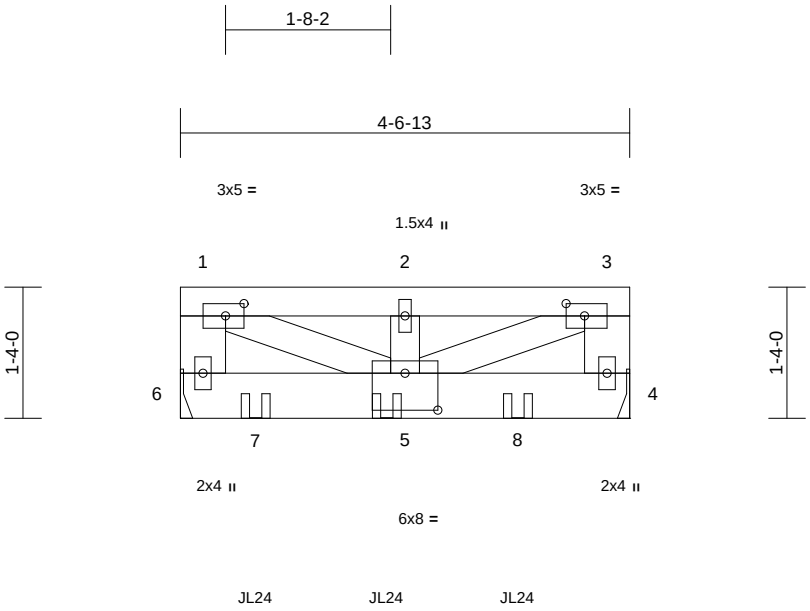

Scale = 1:23.4

Plate Offsets (X, Y): [1:0-2-4,0-1-8], [3:0-2-4,0-1-8], [5:0-4-0,0-4-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	-0.01	5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MP							Weight: 26 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 6-1,4-3:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Grav 4=868 (LC 1), 6=960 (LC 1)
Vert: 5=-509 (F), 7=-509 (F), 8=-509 (F)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-545/0, 3-4=-545/0, 1-2=-999/0, 2-3=-999/0
BOT CHORD 5-6=0/0, 4-5=0/0
WEBS 1-5=0/1102, 2-5=-116/0, 3-5=0/1102

NOTES
1) Plates checked for a plus or minus 0 degree rotation about its center.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 1-4-0 oc max. starting at 0-9-3 from the left end to 3-5-3 to connect truss(es) to front face of bottom chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-6=-7, 1-3=-67
Concentrated Loads (lb)

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	F-3	Floor	2	1	T37314099
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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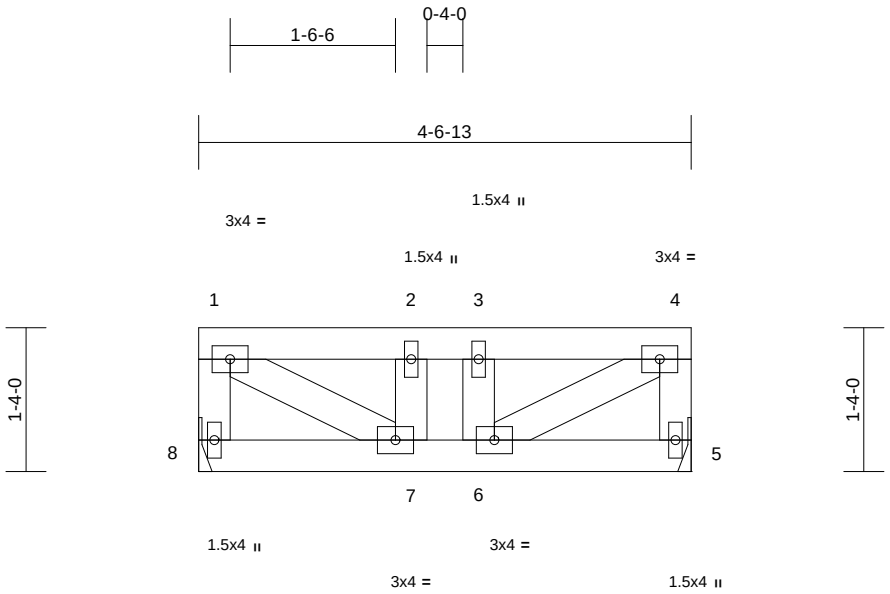

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.04	Vert(LL)	0.00	7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.04	Vert(CT)	0.00	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 23 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Grav 5=157 (LC 1), 8=157 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-142/0, 4-5=-142/0, 1-2=-158/0, 2-3=-158/0, 3-4=-158/0
BOT CHORD 7-8=0/21, 6-7=0/158, 5-6=0/21
WEBS 1-7=0/157, 4-6=0/157, 2-7=-78/0, 3-6=-78/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) 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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314100
24-0602-A1	F-4	Floor Girder	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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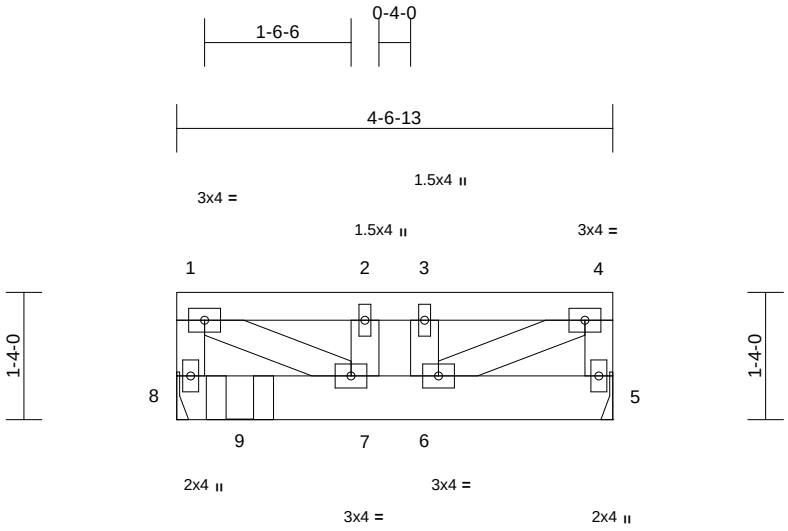

Scale = 1:24.1

THDH26-2

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	0.00	7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.08	Vert(CT)	0.00	7	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-MS							Weight: 26 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Grav 5=428 (LC 1), 8=369 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-164/0, 4-5=-164/0, 1-2=-220/0, 2-3=-220/0, 3-4=-220/0
BOT CHORD 7-8=0/40, 6-7=0/220, 5-6=0/22
WEBS 1-7=0/203, 4-6=0/223, 2-7=-67/0, 3-6=-101/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 0-7-15 from the left end to connect truss(es) to back face of bottom chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 242 lb down at 4-5-1 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 5-8=-7, 1-4=-67
Concentrated Loads (lb)
Vert: 5=-242 (B), 9=-241 (B)

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	F-5	Floor	1	**2**	T37314101
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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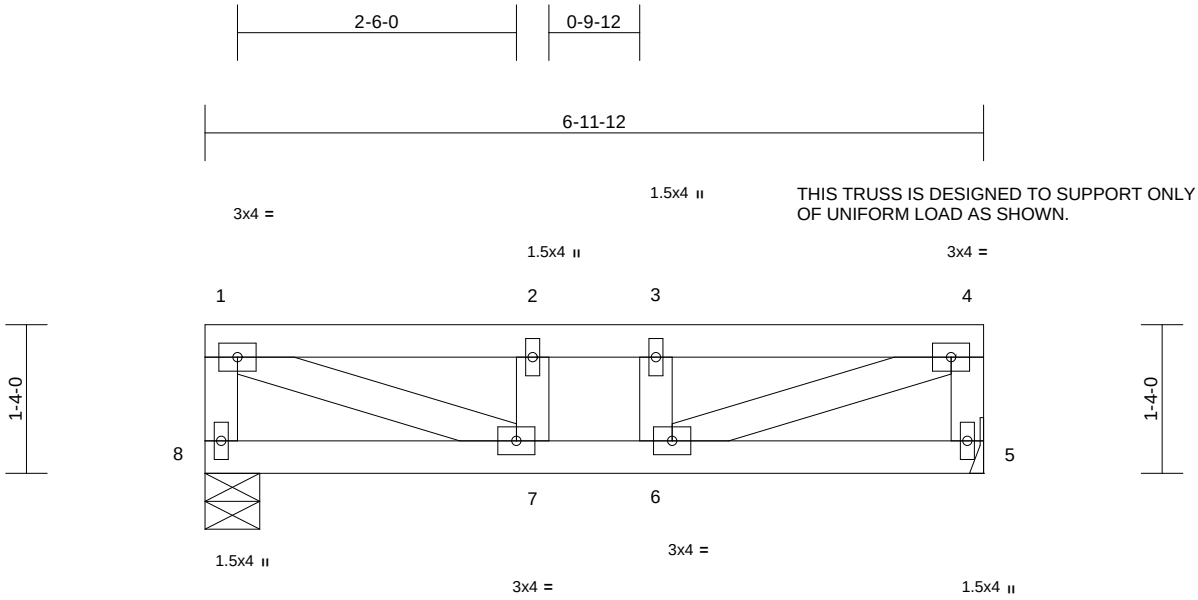

Scale = 1:20.7

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	0.00	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.05	Vert(CT)	-0.01	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 66 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8=0-5-14
Max Grav 5=245 (LC 1), 8=245 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-225/0, 4-5=-225/0, 1-2=-387/0, 2-3=-387/0, 3-4=-387/0
BOT CHORD 7-8=0/52, 6-7=0/387, 5-6=0/52
WEBS 1-7=0/360, 2-7=-124/0, 4-6=0/360, 3-6=-124/0

NOTES
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced floor live loads have been considered for this design.
4) Plates checked for a plus or minus 0 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	F-6	Floor	1	1	T37314102
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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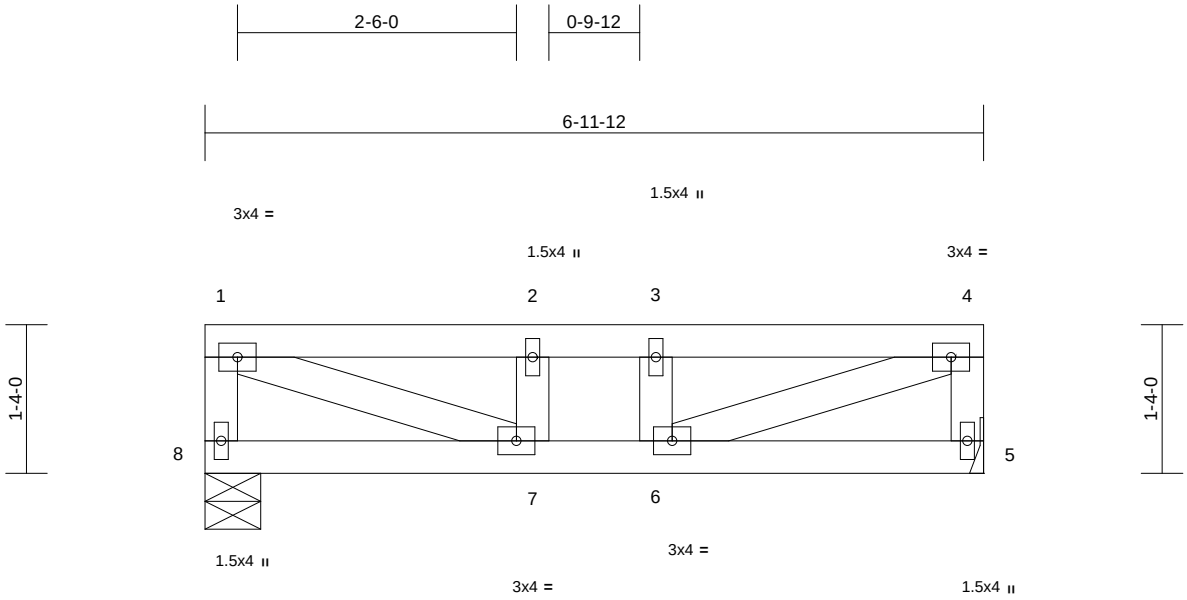

Scale = 1:20.7

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	-0.01	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.09	Vert(CT)	-0.01	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 33 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8=0-6-0
Max Grav 5=245 (LC 1), 8=245 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-225/0, 4-5=-225/0, 1-2=-387/0, 2-3=-387/0, 3-4=-387/0
BOT CHORD 7-8=0/52, 6-7=0/387, 5-6=0/52
WEBS 1-7=0/360, 2-7=-124/0, 4-6=0/360, 3-6=-124/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 0 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) 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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

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Date:

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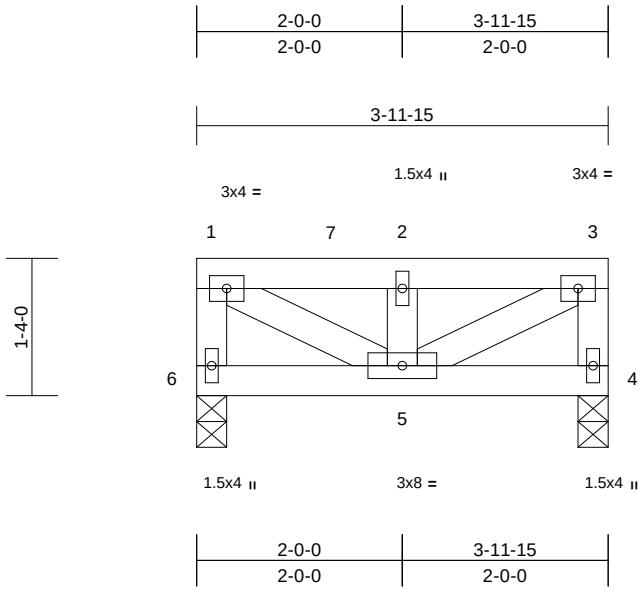
Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	FG-1	Flat	1	**2**	T37314103
					Job Reference (optional)



Scale = 1:22.4

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	0.27	Vert(LL)	-0.01	5	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	-0.01	5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP		Wind(LL)	0.00	5	>999	240	Weight: 41 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=33 (LC 11)
Max Uplift 4=-165 (LC 9), 6=-112 (LC 8)
Max Grav 4=1751 (LC 1), 6=1177 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-1116/159, 1-2=-1398/150, 2-3=-1398/150, 3-4=-1689/200
BOT CHORD 5-6=-45/46, 4-5=-16/18
WEBS 3-5=-185/1604, 2-5=-1622/203, 1-5=-185/1604

NOTES
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
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) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 6 and 165 lb uplift at joint 4.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 877 lb down and 83 lb up at 1-3-11, and 877 lb down and 83 lb up at 1-8-12, and 901 lb down and 88 lb up at 3-10-3 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-54, 4-6=-20
Concentrated Loads (lb)
Vert: 3=-901, 2=-877, 7=-877

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	FG-2	Roof Special Girder	1	1	T37314104
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:00
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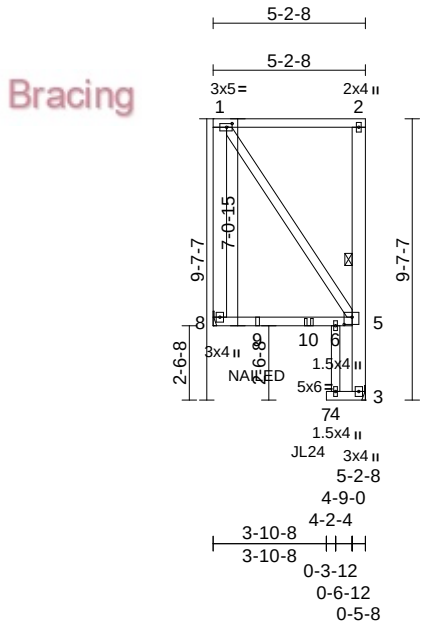

Scale = 1:78.8

Plate Offsets (X, Y): [1:0-2-4,0-1-8], [5:0-3-4,0-3-0]

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	0.38	Vert(LL)	-0.08	6-8	>720	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.14	6-8	>409	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.13	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.08	6-8	>692	240	Weight: 68 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1 *Except* 5-1,6-4:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-3

REACTIONS (size) 3= Mechanical, 8= Mechanical
Max Uplift 3=-179 (LC 4), 8=-218 (LC 4)
Max Grav 3=564 (LC 1), 8=535 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-173/79, 1-2=-72/23, 3-5=-416/139, 2-5=-132/69
BOT CHORD 6-8=-15/38, 5-6=-15/38, 4-7=0/0, 3-4=0/0
WEBS 1-5=-15/60, 4-6=-126/53

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); 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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 8 and 179 lb uplift at joint 3.
8) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent at 3-3-4 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
11) 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: 1-2=-54, 6-8=-20, 3-7=-20
Concentrated Loads (lb)
Vert: 9=-247 (B), 10=-493 (B)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	FG-3	Roof Special Girder	1	1	T37314105
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:01 Page: 1
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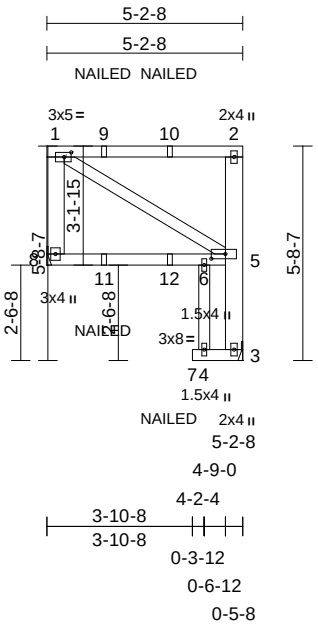

Scale = 1:61.3

Plate Offsets (X, Y): [1:0-2-4,0-1-8], [5:0-4-8,0-1-8]

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	0.24	Vert(LL)	-0.03	6-8	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.07	6-8	>846	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.04	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.03	6-8	>999	240	Weight: 46 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x6 SP No.1 *Except* 6-4,5-1:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 8= Mechanical
Max Horiz 8=155 (LC 7)
Max Uplift 3=-112 (LC 5), 8=-124 (LC 4)
Max Grav 3=383 (LC 13), 8=410 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-189/121, 1-2=-119/30, 3-5=-294/121, 2-5=-160/97
BOT CHORD 6-8=-124/151, 5-6=-124/151, 4-7=0/0, 3-4=0/0
WEBS 4-6=-82/29, 1-5=-34/69

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 8 and 112 lb uplift at joint 3.
8) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
9) 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: 1-2=-54, 6-8=-20, 3-7=-20
Concentrated Loads (lb)
Vert: 9=-35 (F), 10=-35 (F), 11=-177 (F), 12=-177 (F)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

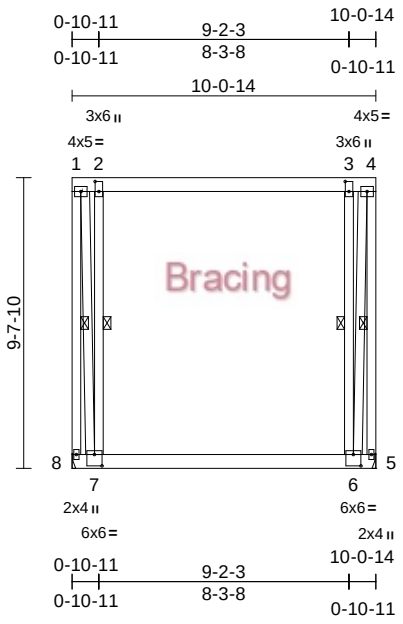
May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314106
24-0602-A1	FT-1	Attic	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:01 ID:GsLqBh4onuTWhk_5d5vHTozHGz_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76.4

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

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	0.25	Vert(LL)	-0.08	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.15	6-7	>760	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	6-7	>999	240	Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-8, 4-5, 2-7, 3-6

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Uplift 5=-57 (LC 8), 8=-57 (LC 8)
Max Grav 5=488 (LC 18), 8=488 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-726/7, 1-2=-62/26, 2-3=-67/37, 3-4=-62/26, 4-5=-726/7
BOT CHORD 7-8=-5/11, 6-7=-37/67, 5-6=-5/11
WEBS 1-7=-327/795, 2-7=-433/677, 3-6=-433/677, 4-6=-327/795

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 8 and 57 lb uplift at joint 5.
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.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314107
24-0602-A1	FT-2	Attic	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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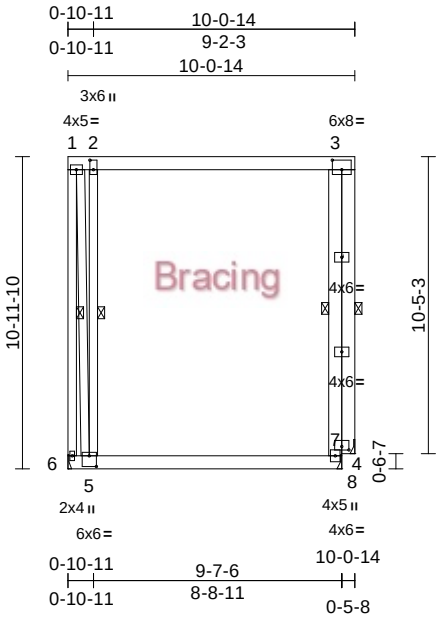

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Plate Offsets (X, Y): [2:0-4-0,0-1-8], [3:0-4-0,0-4-0], [5:0-3-0,0-4-8], [7:0-3-0,0-1-7]

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	0.29	Vert(LL)	-0.09	4-5	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.16	4-5	>706	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	-0.01	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.02	4-5	>999	240	Weight: 138 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 3-4:2x6 SP No.1
OTHERS 2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-6, 3-7, 2-5, 3-8

REACTIONS (size) 4= Mechanical, 6= Mechanical, 8= Mechanical
Max Uplift 4=-3 (LC 8), 6=-56 (LC 8), 8=-44 (LC 8)
Max Grav 4=329 (LC 18), 6=469 (LC 18), 8=144 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-698/0, 1-2=-47/20, 2-3=-50/30, 4-7=-97/166, 3-7=-97/166
BOT CHORD 5-6=-11/12, 4-5=-37/50
WEBS 1-5=-274/682, 2-5=-417/729, 3-8=-144/137

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 4-5
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 6, 3 lb uplift at joint 4 and 44 lb uplift at joint 8.
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.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314108
24-0602-A1	FT-3	Attic	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Wed May 14 11:18:56 Page: 1
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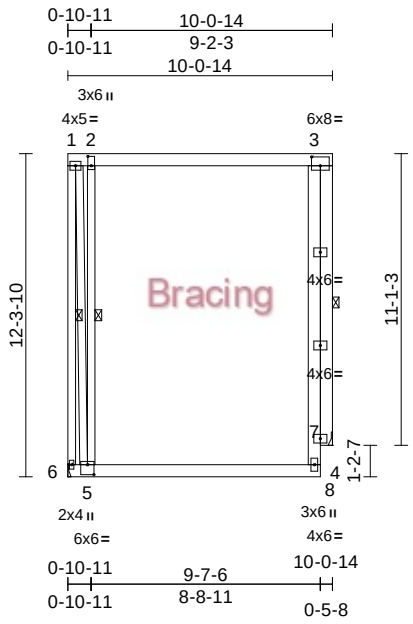


Scale = 1:87.7

Plate Offsets (X, Y): [2:0-4-4,0-1-8], [3:0-4-0,0-4-0], [5:0-3-0,0-4-8]

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	0.42	Vert(LL)	-0.10	4-5	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.18	4-5	>670	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.76	Horz(CT)	-0.03	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.03	4-5	>999	240	Weight: 148 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 3-4:2x6 SP No.1
OTHERS 2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-6, 2-5, 3-8

REACTIONS (lb/size) 6=406/ Mechanical, 8=364/ Mechanical
Max Uplift 6=-57 (LC 8), 8=-47 (LC 8)
Max Grav 6=490 (LC 18), 8=453 (LC 18)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-738/0, 4-8=0/294, 3-8=0/294
WEBS 1-5=-313/790, 2-5=-490/783, 3-8=-454/242

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 4-5
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 6 and 47 lb uplift at joint 8.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

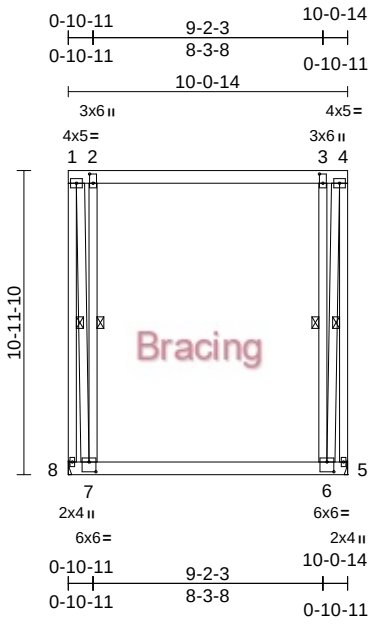
May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314109
24-0602-A1	FT-4	Attic	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:02
ID:eoyPUKOEZtfGjFf?sQLJFHzHGw_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:83.1

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

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	0.30	Vert(LL)	-0.09	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.16	6-7	>716	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	6-7	>999	240	Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-8, 4-5, 2-7, 3-6

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Uplift 5=-57 (LC 8), 8=-57 (LC 8)
Max Grav 5=488 (LC 18), 8=488 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-703/4, 1-2=-52/22, 2-3=-56/31, 3-4=-52/22, 4-5=-703/4
BOT CHORD 7-8=-4/9, 6-7=-31/56, 5-6=-4/9
WEBS 1-7=-309/758, 2-7=-420/663, 3-6=-420/663, 4-6=-309/758

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 8 and 57 lb uplift at joint 5.
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.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314110
24-0602-A1	FT-5	Attic	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:02
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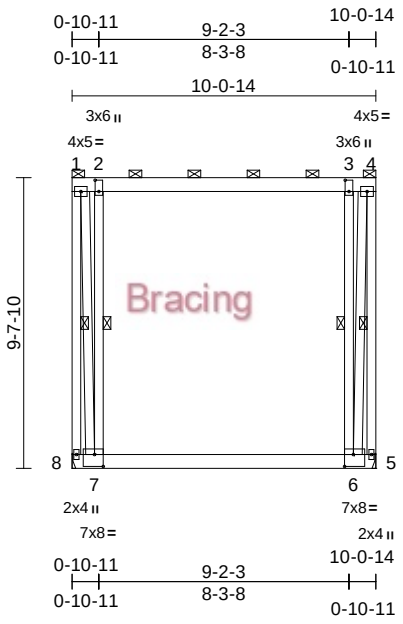

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Plate Offsets (X, Y): [2:0-4-8,0-1-8], [3:0-4-8,0-1-8], [6:0-3-8,0-4-12], [7:0-3-8,0-4-12]

Loading	(psf)	Spacing	3-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.46	Vert(LL)	-0.13	6-7	>925	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.68	Vert(CT)	-0.24	6-7	>496	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.06	6-7	>999	240	Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-8, 4-5, 2-7, 3-6

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Uplift 5=-85 (LC 8), 8=-85 (LC 8)
Max Grav 5=731 (LC 18), 8=731 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-1110/16, 1-2=-94/41, 2-3=-102/58, 3-4=-94/41, 4-5=-1110/16
BOT CHORD 7-8=-5/11, 6-7=-58/102, 5-6=-5/11
WEBS 1-7=-543/1271, 2-7=-703/1064, 3-6=-703/1064, 4-6=-543/1271

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 8 and 85 lb uplift at joint 5.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314111
24-0602-A1	FT-6	Attic	1	1	Job Reference (optional)

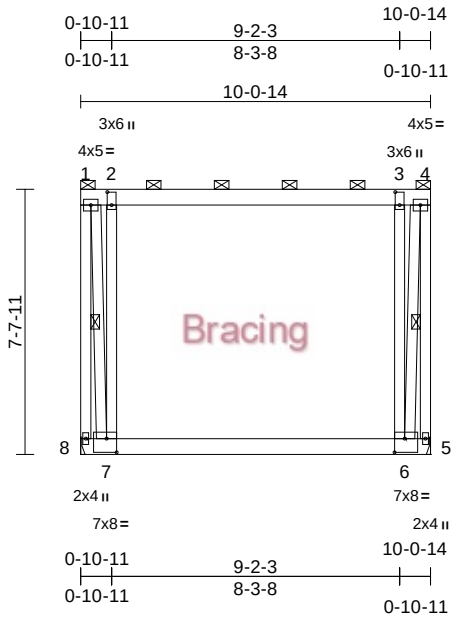

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Plate Offsets (X, Y): [2:0-4-8,0-1-8], [3:0-4-8,0-1-8], [6:0-3-8,0-4-12], [7:0-3-8,0-4-12]

Loading	(psf)	Spacing	3-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	-0.11	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.64	Vert(CT)	-0.21	6-7	>552	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.05	6-7	>999	240	Weight: 107 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-8, 4-5

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Uplift 5=-85 (LC 8), 8=-85 (LC 8)
Max Grav 5=731 (LC 18), 8=731 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-1171/27, 1-2=-129/56, 2-3=-140/78, 3-4=-129/56, 4-5=-1171/27
BOT CHORD 7-8=-7/15, 6-7=-78/140, 5-6=-7/15
WEBS 1-7=-588/1367, 2-7=-733/1097, 3-6=-733/1097, 4-6=-588/1367

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 8 and 85 lb uplift at joint 5.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314112
24-0602-A1	FT-7	Attic	1	1	Job Reference (optional)

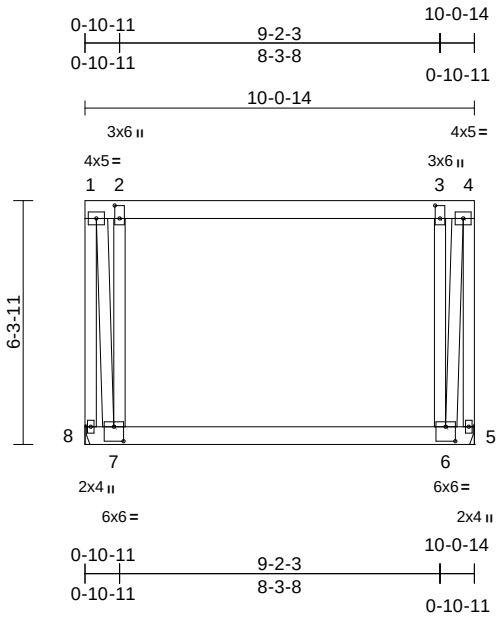

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Plate Offsets (X, Y): [2:0-4-0,0-1-8], [3:0-4-0,0-1-8], [6:0-3-0,0-4-8], [7:0-3-0,0-4-8]

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	0.39	Vert(LL)	-0.07	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.37	Vert(CT)	-0.13	6-7	>920	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	6-7	>999	240	Weight: 95 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Uplift 5=-57 (LC 8), 8=-57 (LC 8)
Max Grav 5=488 (LC 18), 8=488 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-792/17, 1-2=-110/47, 2-3=-119/65, 3-4=-110/47, 4-5=-792/17
BOT CHORD 7-8=-9/18, 6-7=-65/119, 5-6=-9/18
WEBS 1-7=-379/903, 2-7=-471/718, 3-6=-471/718, 4-6=-379/903

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 8 and 57 lb uplift at joint 5.
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.
10) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314113
24-0602-A1	FT-8	Attic	1	1	Job Reference (optional)

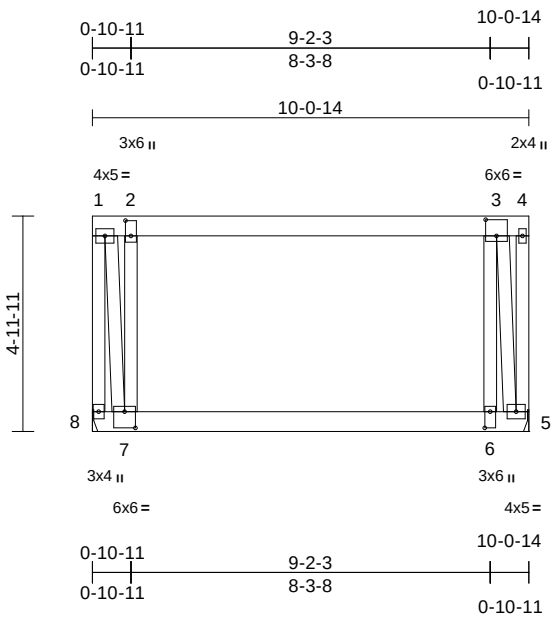

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Plate Offsets (X, Y): [2:0-4-4,0-1-8], [3:0-3-0,0-4-8], [6:0-4-8,0-1-8], [7:0-3-0,0-4-8]

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	0.25	Vert(LL)	-0.06	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.10	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.02	6-7	>999	240	Weight: 83 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 5= Mechanical, 8= Mechanical
Max Horiz 8=-145 (LC 10)
Max Uplift 5=-91 (LC 9), 8=-90 (LC 8)
Max Grav 5=507 (LC 18), 8=512 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-866/169, 1-2=-170/84, 2-3=-179/102, 3-4=-73/81, 4-5=-721/336
BOT CHORD 7-8=-174/182, 6-7=-195/203, 5-6=-199/190
WEBS 1-7=-749/1123, 2-7=-514/965, 3-6=0/687, 3-5=-1120/996

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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) Provide adequate drainage to prevent water ponding.
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) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 6-7
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 8 and 91 lb uplift at joint 5.
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.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314114
24-0602-A1	FT-9	Flat Girder	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:03
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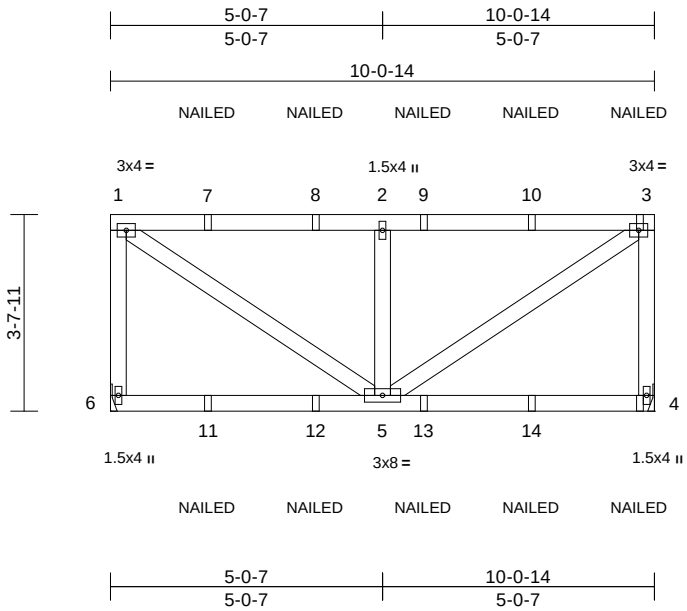

Scale = 1:42.7

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	0.35	Vert(LL)	-0.02	5-6	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.04	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.01	5	>999	240	Weight: 60 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Uplift 4=-132 (LC 4), 6=-118 (LC 4)
Max Grav 4=670 (LC 1), 6=574 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-499/151, 1-2=-525/106, 2-3=-525/106, 3-4=-565/181
BOT CHORD 5-6=-6/26, 4-5=-5/23
WEBS 1-5=-121/605, 2-5=-475/254, 3-5=-123/609

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever 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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 6 and 132 lb uplift at joint 4.
8) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
9) 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: 1-3=-54, 4-6=-20
Concentrated Loads (lb)
Vert: 4=-43 (F), 3=-81 (F), 7=-64 (F), 8=-64 (F), 9=-58 (F), 10=-58 (F), 11=-41 (F), 12=-41 (F), 13=-35 (F), 14=-35 (F)

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314115
24-0602-A1	T-3	Scissor	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Mar 20 2025 Print: 8.830 S Mar 20 2025 MiTek Industries, Inc. Wed May 14 11:32:34 Page: 1
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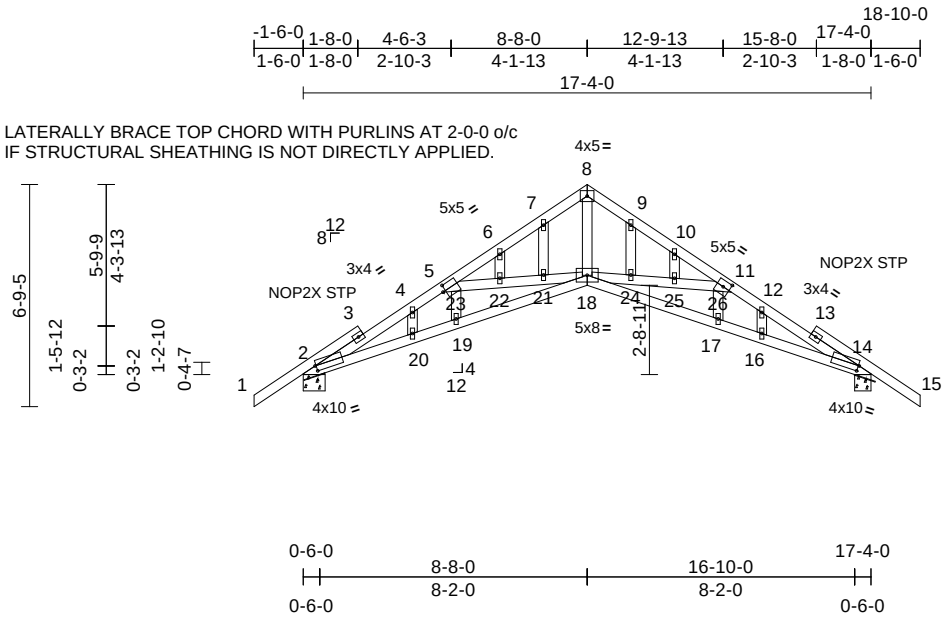

Scale = 1:70.3

Plate Offsets (X, Y): [2:0-0-6,0-2-0], [5:0-1-1,0-2-4], [11:0-2-8,0-2-4], [14:0-0-6,0-2-0]

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	0.21	Vert(LL)	-0.07	17-18	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.14	17-18	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.12	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	17-18	>999	240	Weight: 98 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS (lb/size) 2=726/0-8-0, 14=714/0-6-0
Max Horiz 2=-127 (LC 10)
Max Uplift 2=-122 (LC 12), 14=-128 (LC 12)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1604/167, 3-4=-1663/185, 4-5=-1642/185, 5-6=-1187/78, 6-7=-1152/106, 7-8=-1119/112, 8-9=-1119/102, 9-10=-1151/85, 10-11=-1189/58, 11-12=-1672/210, 12-13=-1684/207, 13-14=-1630/190
BOT CHORD 2-20=-82/1457, 19-20=-72/1475, 18-19=-86/1477, 17-18=-127/1505, 16-17=-114/1508, 14-16=-123/1482
WEBS 8-18=-15/1043, 18-24=-488/203, 24-25=-487/202, 25-26=-489/205, 11-26=-496/201, 5-23=-465/198, 22-23=-459/203, 21-22=-457/199, 18-21=-458/200

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-4-15, Zone1 1-4-15 to 8-8-0, Zone2 8-8-0 to 13-1-6, Zone1 13-1-6 to 18-10-0 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
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 MT20 plates unless otherwise indicated.
6) All plates are 1.5x4 (||) MT20 unless otherwise indicated.
7) Gable studs spaced at 1-4-0 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) Bearing at joint(s) 2, 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 2 and 128 lb uplift at joint 14.
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.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-4	Scissor	1	1	T37314116
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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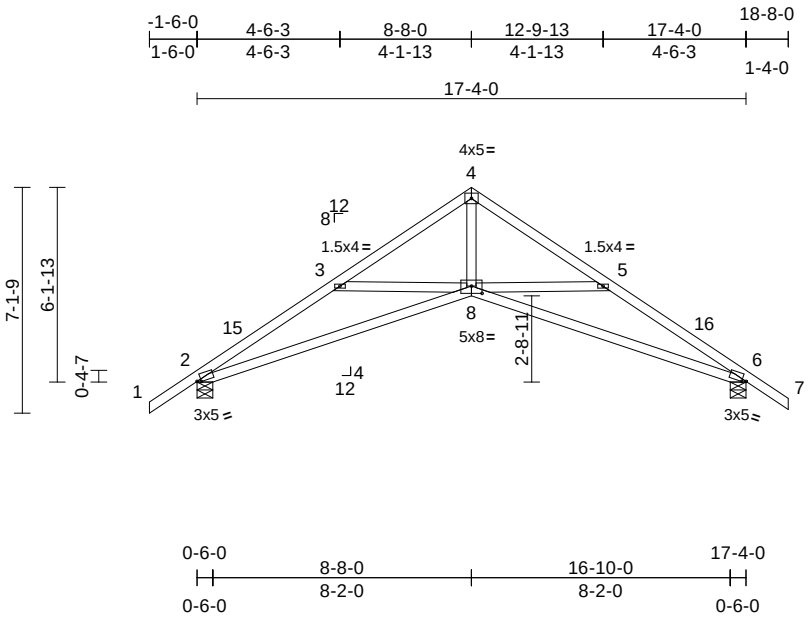

Scale = 1:72.7

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

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	0.14	Vert(LL)	-0.11	8-11	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.22	8-14	>935	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.11	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	8	>999	240	Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 6=0-6-0
Max Horiz 2=133 (LC 11)
Max Uplift 2=-122 (LC 12), 6=-115 (LC 12)
Max Grav 2=723 (LC 1), 6=713 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1520/239, 3-4=-1173/108, 4-5=-1173/95, 5-6=-1524/253, 6-7=0/40
BOT CHORD 2-8=-126/1305, 6-8=-156/1303
WEBS 4-8=0/977, 5-8=-323/227, 3-8=-318/227

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 8-8-0, Zone2 8-8-0 to 13-0-15, Zone1 13-0-15 to 18-8-0 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) Bearing at joint(s) 2, 6 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 122 lb uplift at joint 2 and 115 lb uplift at joint 6.
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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-5	Scissor	4	1	T37314117
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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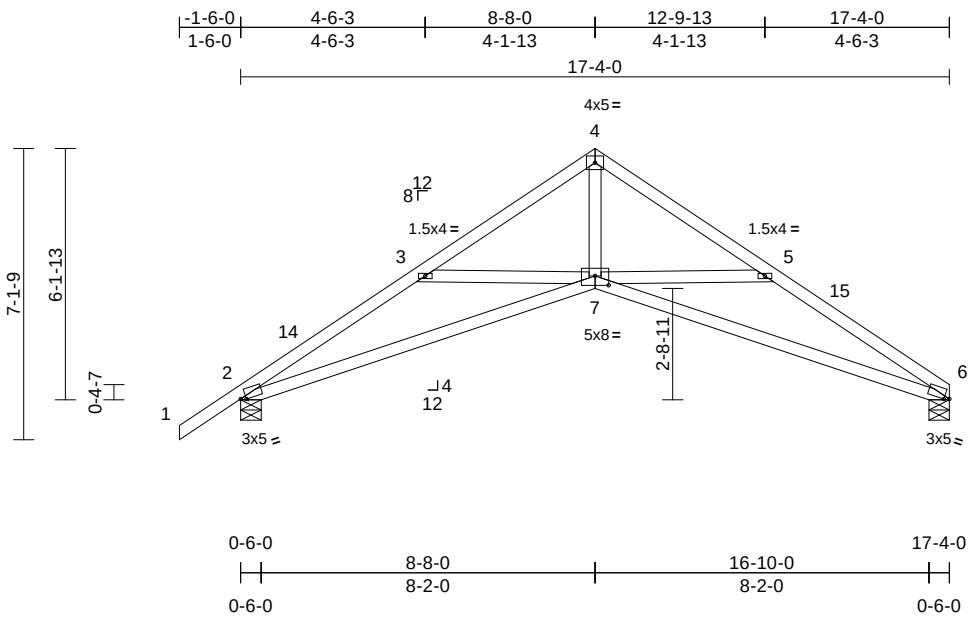

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Plate Offsets (X, Y): [2:0-1-9,0-0-9], [6:0-1-9,0-0-9], [7:0-4-0,0-2-12]

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	0.15	Vert(LL)	-0.11	7-10	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.22	7-10	>925	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.11	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	7	>999	240	Weight: 78 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 6=0-6-0
Max Horiz 2=129 (LC 11)
Max Uplift 2=-125 (LC 12), 6=-67 (LC 12)
Max Grav 2=726 (LC 1), 6=638 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1529/307, 3-4=-1183/148, 4-5=-1184/170, 5-6=-1548/313
BOT CHORD 2-7=-228/1306, 6-7=-208/1329
WEBS 4-7=-43/991, 5-7=-339/231, 3-7=-318/221

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 8-8-0, Zone2 8-8-0 to 13-0-15, Zone1 13-0-15 to 17-4-0 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) 6, 2 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 67 lb uplift at joint 6 and 125 lb uplift at joint 2.
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

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

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314118
24-0602-A1	T-6	Half Hip	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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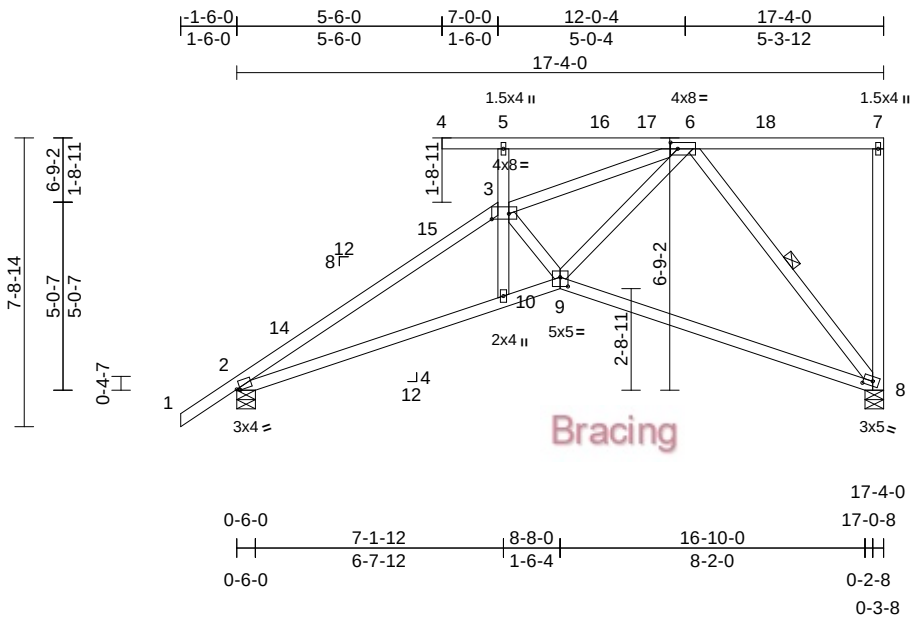

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Plate Offsets (X, Y): [2:0-1-1,0-0-9], [3:0-5-8,0-1-12], [6:0-2-5,0-2-0], [8:0-3-0,0-1-8], [9:0-2-8,0-3-0]

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	0.35	Vert(LL)	-0.19	8-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.39	8-9	>535	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.05	10-13	>999	240	Weight: 105 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals.
Except:
6-0-0 oc bracing: 3-5
BOT CHORD Rigid ceiling directly applied or 8-9-6 oc bracing.
WEBS 1 Row at midpt 6-8

REACTIONS (size) 2=0-6-0, 8=0-6-0
Max Horiz 2=226 (LC 12)
Max Uplift 2=-124 (LC 12), 8=-158 (LC 9)
Max Grav 2=735 (LC 1), 8=641 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1517/506, 3-10=0/131, 3-5=-219/218, 4-5=0/0, 5-6=-61/19, 6-7=-18/0, 7-8=-117/59
BOT CHORD 2-10=-513/1273, 9-10=-492/1206, 8-9=-172/522
WEBS 3-6=-1153/436, 3-9=-47/143, 6-9=-338/942, 6-8=-751/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 7-1-12, Zone3 5-6-0 to 9-8-15, Zone1 9-8-15 to 17-2-4 zone; cantilever left and right exposed ; end vertical left 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 2 and 158 lb uplift at joint 8.
9) 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

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314119
24-0602-A1	T-7	Half Hip	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:08 Page: 1
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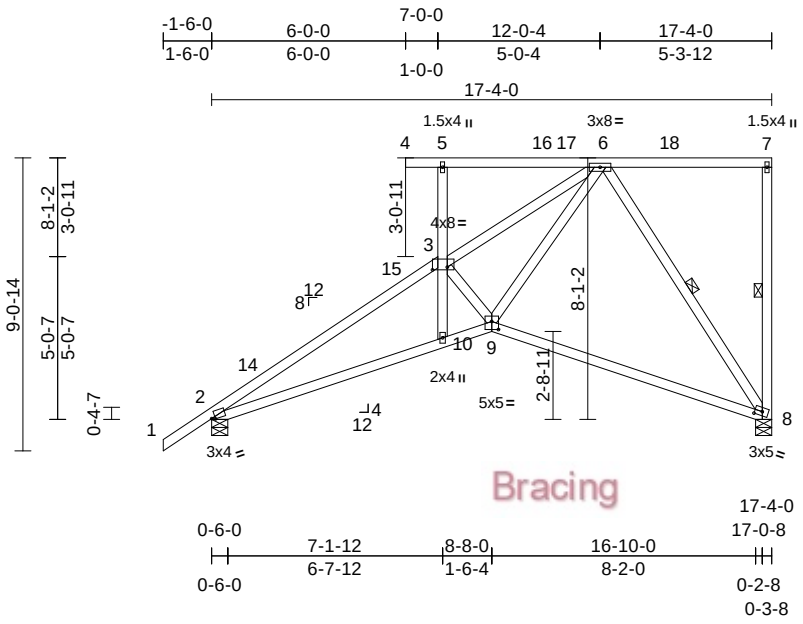

Scale = 1:71.3

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

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	0.36	Vert(LL)	-0.19	8-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	-0.39	8-9	>524	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.05	10-13	>999	240	Weight: 112 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
Except:
6-0-0 oc bracing: 3-5
BOT CHORD Rigid ceiling directly applied or 9-5-7 oc bracing.
WEBS 1 Row at midpt 7-8, 6-8

REACTIONS (size) 2=0-6-0, 8=0-6-0
Max Horiz 2=264 (LC 12)
Max Uplift 2=-96 (LC 12), 8=-166 (LC 9)
Max Grav 2=730 (LC 1), 8=639 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1514/413, 3-10=0/128, 3-5=-182/166, 4-5=0/0, 5-6=-43/37, 6-7=-14/0, 7-8=-115/59
BOT CHORD 2-10=-440/1273, 9-10=-414/1201, 8-9=-145/419
WEBS 3-6=-1109/326, 3-9=-293/189, 6-9=-294/1031, 6-8=-670/232

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 7-1-12, Zone3 6-0-0 to 10-2-15, Zone1 10-2-15 to 17-2-4 zone; cantilever left and right exposed ; end vertical left 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 2 and 166 lb uplift at joint 8.
9) 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-8	Half Hip Girder	1	2	T37314120
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:09 Page: 1
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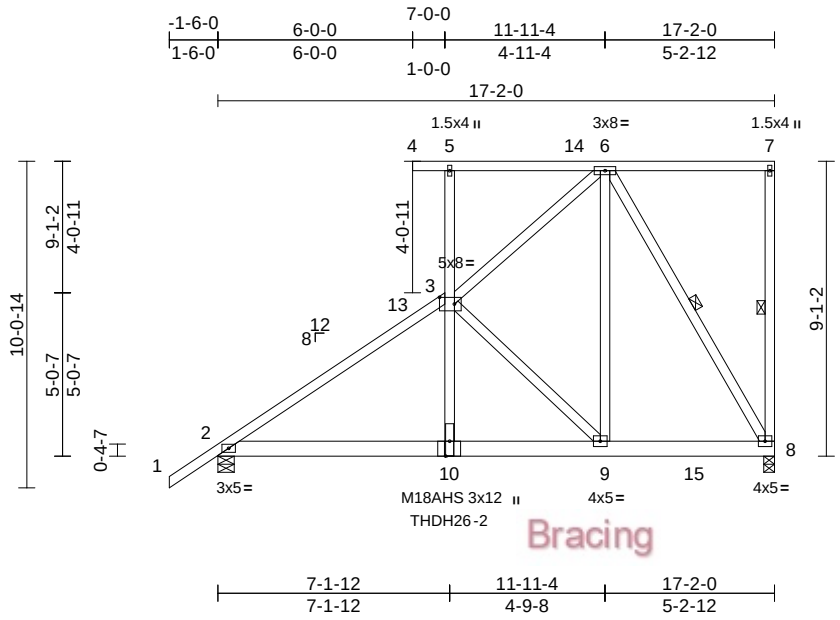

Scale = 1:71.1

Plate Offsets (X, Y): [3:0-5-8,0-2-8]

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	0.70	Vert(LL)	-0.08	10-12	>999	360	M18AHS	186/179
TCDL	7.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.14	10-12	>999	240	MT20	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.06	10-12	>999	240	Weight: 284 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.
Except:
6-0-0 oc bracing: 3-5
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 6-8

REACTIONS (size) 2=0-6-0, 8=0-4-0
Max Horiz 2=360 (LC 25)
Max Uplift 2=-614 (LC 8), 8=-580 (LC 5)
Max Grav 2=3678 (LC 13), 8=2902 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-6361/1011, 3-10=-788/5257, 3-5=-176/121, 4-5=0/0, 5-6=-77/76, 6-7=-108/96, 7-8=-116/60
BOT CHORD 2-10=-1028/5382, 9-10=-1028/5349, 8-9=-380/1609
WEBS 3-6=-2087/380, 3-9=-5145/950, 6-9=-620/3764, 6-8=-3133/622

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 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.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 614 lb uplift at joint 2 and 580 lb uplift at joint 8.
11) Use MiTek THDH26-2 (With 22-16d nails into Girder & 8-16d nails into Truss) or equivalent at 7-1-9 from the left end to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-13=-54, 3-13=-14, 4-5=-54, 5-7=-54, 2-8=-20
Concentrated Loads (lb)
Vert: 10=-4476 (F)

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314121
24-0602-A1	T-9	Roof Special	2	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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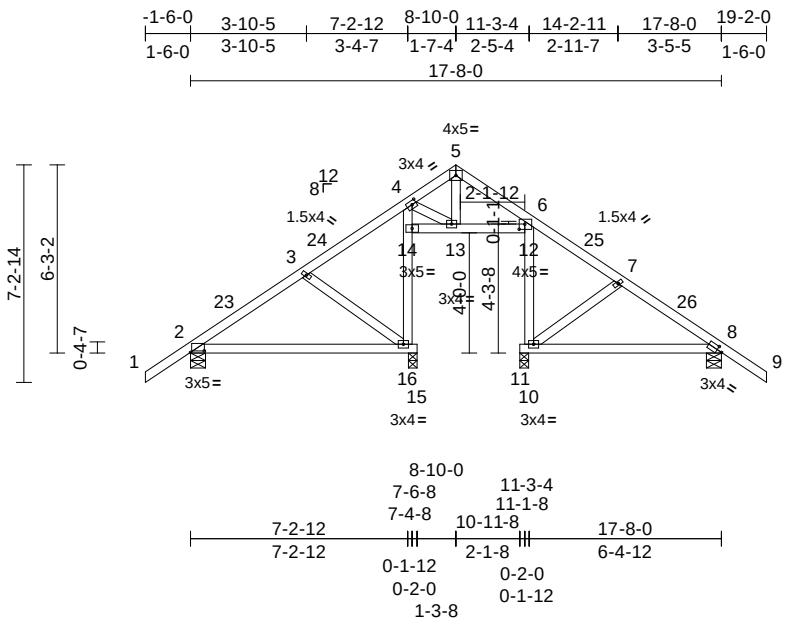

Scale = 1:76.7

Plate Offsets (X, Y): [2:0-5-8,0-0-10], [4:0-1-12,0-1-8], [8:0-2-0,0-1-8], [12:0-2-4,0-2-0]

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	0.27	Vert(LL)	-0.07	16-19	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.15	16-19	>582	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	-0.01	16-19	>999	240	Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 8=0-6-0, 10=0-3-8, 16=0-3-8
Max Horiz 2=-136 (LC 10)
Max Uplift 2=-159 (LC 12), 8=-145 (LC 12), 10=-3 (LC 12)
Max Grav 2=352 (LC 23), 8=326 (LC 1), 10=377 (LC 1), 16=466 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-251/208, 3-4=-141/198, 4-5=-130/95, 5-6=-124/83, 6-7=-123/193, 7-8=-209/196, 8-9=0/45
BOT CHORD 2-16=-78/179, 15-16=0/0, 13-14=-6/3, 12-13=-37/160, 10-11=0/0, 8-10=-50/153
WEBS 14-16=-271/4, 4-14=-256/15, 10-12=-214/51, 6-12=-164/102, 5-13=-62/67, 4-13=-37/180, 7-10=-184/72, 3-16=-221/97

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 8-10-0, Zone2 8-10-0 to 13-0-15, Zone1 13-0-15 to 19-2-0 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 159 lb uplift at joint 2, 3 lb uplift at joint 10 and 145 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314122
24-0602-A1	T-10	Roof Special	2	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:09 Page: 1
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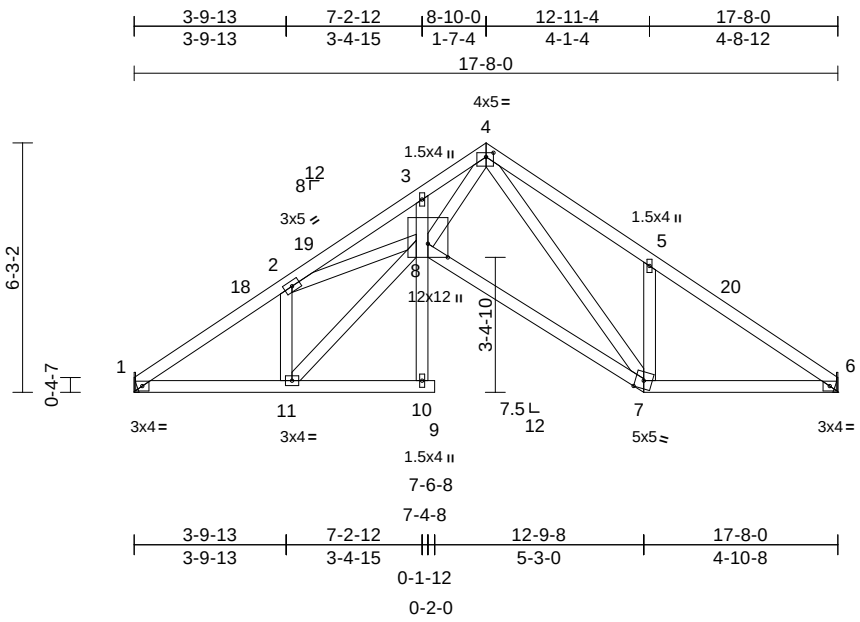

Scale = 1:57.8

Plate Offsets (X, Y): [4:0-2-4,0-1-4], [8:0-4-2,0-6-0]

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	0.16	Vert(LL)	-0.08	9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.16	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.13	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.05	9	>999	240	Weight: 101 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 1= Mechanical, 6= Mechanical
Max Horiz 1=-116 (LC 10)
Max Uplift 1=-70 (LC 12), 6=-70 (LC 12)
Max Grav 1=656 (LC 1), 6=655 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-984/198, 2-3=-2187/258, 3-4=-2138/315, 4-5=-959/296, 5-6=-946/189
BOT CHORD 1-11=-102/793, 10-11=0/15, 9-10=0/0, 7-8=-13/1014, 6-7=-87/753
WEBS 8-10=0/68, 3-8=-81/110, 5-7=-257/186, 4-8=-177/1886, 4-7=-273/96, 2-11=-661/141, 2-8=0/992, 8-11=-141/1078

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 8-10-0, Zone2 8-10-0 to 12-11-4, Zone1 12-11-4 to 17-8-0 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 1 and 70 lb uplift at joint 6.
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

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-11	Common	1	1	T37314123
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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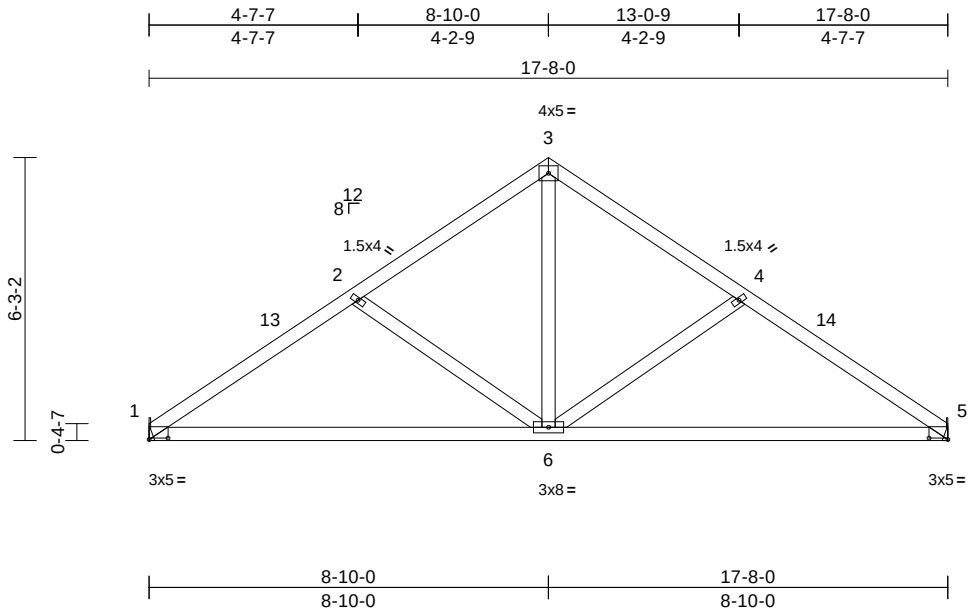

Scale = 1:51

Plate Offsets (X, Y): [1:0-5-0,0-0-6], [5:0-5-0,0-0-6]

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)	-0.09	6-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.18	6-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	6-12	>999	240	Weight: 82 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 1= Mechanical, 5= Mechanical
Max Horiz 1=-116 (LC 10)
Max Uplift 1=-71 (LC 12), 5=-71 (LC 12)
Max Grav 1=654 (LC 1), 5=654 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-902/214, 2-3=-699/183, 3-4=-699/183, 4-5=-902/214
BOT CHORD 1-6=-118/730, 5-6=-113/730
WEBS 3-6=-70/509, 4-6=-265/160, 2-6=-265/160

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-0-0 to 3-0-0, Zone1 3-0-0 to 8-10-0, Zone2 8-10-0 to 13-2-2, Zone1 13-2-2 to 17-8-0 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 1 and 71 lb uplift at joint 5.
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

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Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314124
24-0602-A1	T-12	Common Supported Gable	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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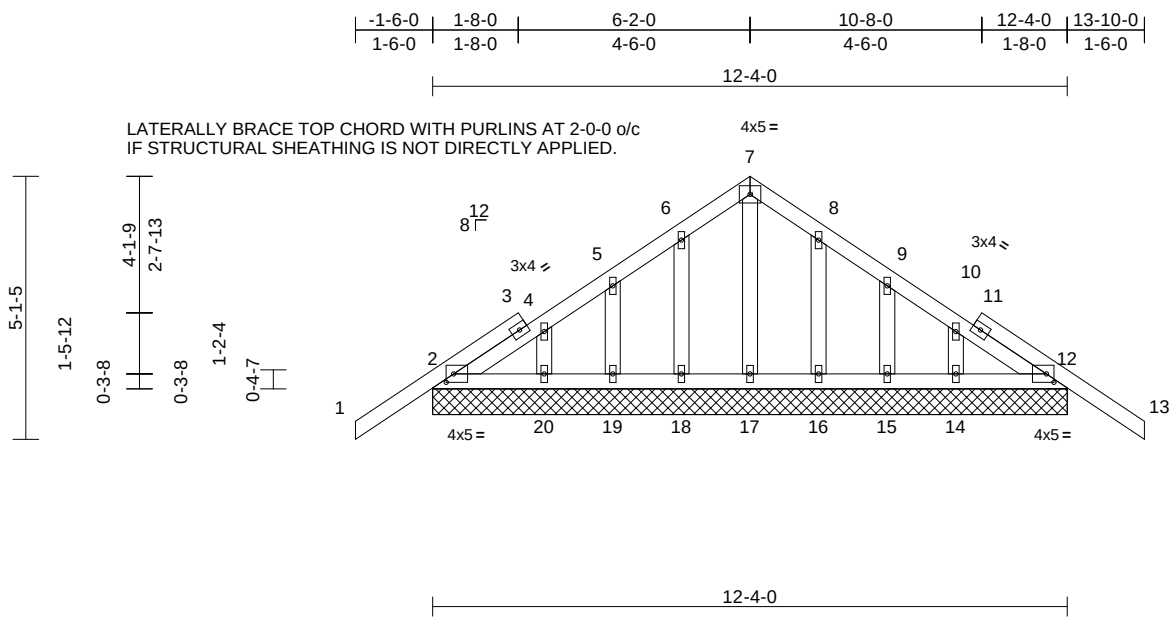

Scale = 1:44.8

Plate Offsets (X, Y): [2:0-1-12,0-1-15], [12:0-1-12,0-1-15]

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 72 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS (size) 2=12-4-0, 12=12-4-0, 14=12-4-0, 15=12-4-0, 16=12-4-0, 17=12-4-0, 18=12-4-0, 19=12-4-0, 20=12-4-0
Max Horiz 2=-94 (LC 10)
Max Uplift 2=-84 (LC 12), 12=-84 (LC 12), 15=-45 (LC 12), 16=-17 (LC 12), 18=-17 (LC 12), 19=-45 (LC 12)
Max Grav 2=189 (LC 1), 12=189 (LC 1), 14=109 (LC 18), 15=100 (LC 18), 16=102 (LC 24), 17=87 (LC 17), 18=104 (LC 17), 19=100 (LC 23), 20=106 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-75/60, 4-5=-58/48, 5-6=-50/95, 6-7=-70/146, 7-8=-70/146, 8-9=-46/96, 9-10=-31/30, 10-12=-70/36, 12-13=0/45
BOT CHORD 2-20=-47/131, 19-20=-47/131, 18-19=-47/131, 17-18=-47/131, 16-17=-47/131, 15-16=-47/131, 14-15=-47/131, 12-14=-47/131
WEBS 7-17=-86/16, 6-18=-77/80, 5-19=-74/107, 4-20=-84/79, 8-16=-75/80, 9-15=-75/108, 10-14=-83/78

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; 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 1-4-0 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 84 lb uplift at joint 2, 84 lb uplift at joint 12, 17 lb uplift at joint 18, 45 lb uplift at joint 19, 17 lb uplift at joint 16, 45 lb uplift at joint 15, 84 lb uplift at joint 2 and 84 lb uplift at joint 12.
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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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-14	Common	3	1	T37314125
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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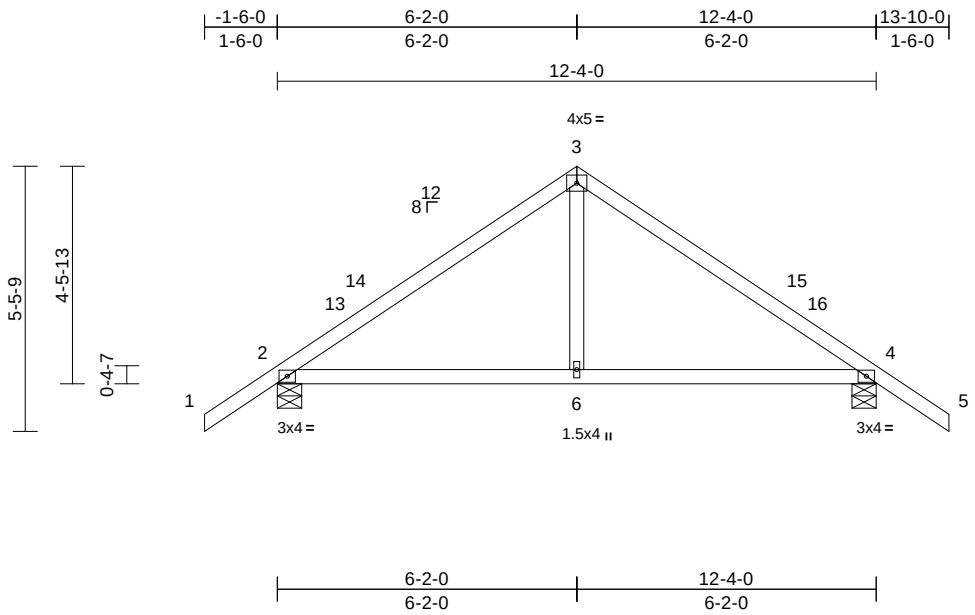

Scale = 1:47.5

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	0.23	Vert(LL)	-0.03	6-12	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.06	6-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	6-12	>999	240	Weight: 52 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 4=0-6-0
Max Horiz 2=-101 (LC 10)
Max Uplift 2=-102 (LC 12), 4=-102 (LC 12)
Max Grav 2=537 (LC 1), 4=537 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-540/163, 3-4=-540/163, 4-5=0/45
BOT CHORD 2-6=0/384, 4-6=0/384
WEBS 3-6=0/277

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 6-2-0, Zone2 6-2-0 to 10-4-15, Zone1 10-4-15 to 13-10-0 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
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 102 lb uplift at joint 2 and 102 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

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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16023 Swingley Ridge Rd.
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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-15	Common Girder	1	**2**	T37314126
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:10
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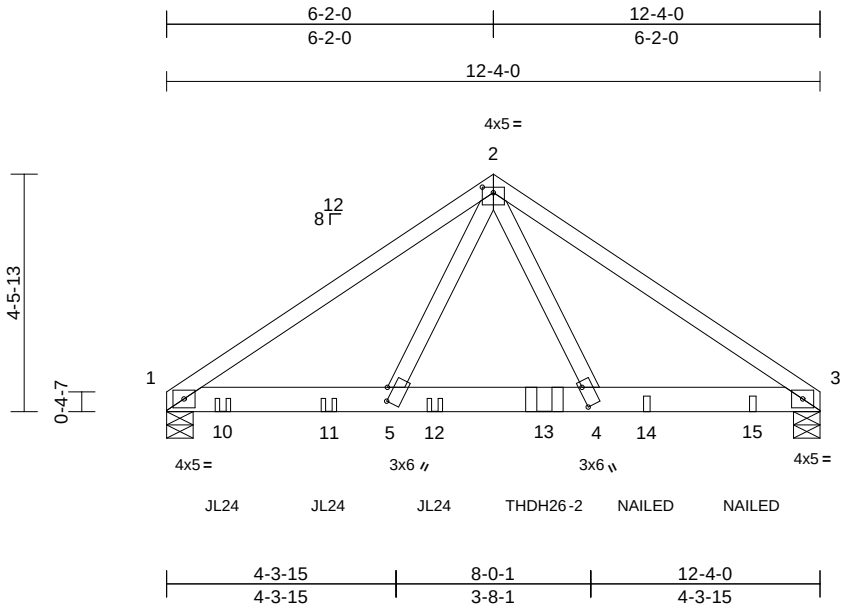

Scale = 1:43.5

Plate Offsets (X, Y): [2:0-2-8,0-1-4], [4:0-4-10,0-0-12], [5:0-2-14,0-1-4]

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	0.33	Vert(LL)	-0.06	4-5	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.78	Vert(CT)	-0.11	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.04	4-5	>999	240	Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-6-0, 3=0-6-0
Max Horiz 1=81 (LC 7)
Max Uplift 1=-414 (LC 8), 3=-313 (LC 8)
Max Grav 1=3111 (LC 1), 3=2881 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4674/649, 2-3=-5127/662
BOT CHORD 1-5=-463/3877, 4-5=-322/2827, 3-4=-473/4223
WEBS 2-5=-327/2483, 2-4=-349/3292

NOTES
1) 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.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 414 lb uplift at joint 1 and 313 lb uplift at joint 3.
9) Use MiTek JL24 (With 4-16d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 5-0-12 to connect truss(es) to back face of bottom chord.
10) Use MiTek THDH26-2 (With 22-16d nails into Girder & 4-16d nails into Truss) or equivalent at 7-1-9 from the left end to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-2=-54, 2-3=-54, 1-3=-20
Concentrated Loads (lb)
Vert: 10=-635 (B), 11=-635 (B), 12=-634 (B), 13=-2761 (B), 14=-159 (B), 15=-159 (B)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-16	Piggyback Base Girder	1	2	T37314127
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:10
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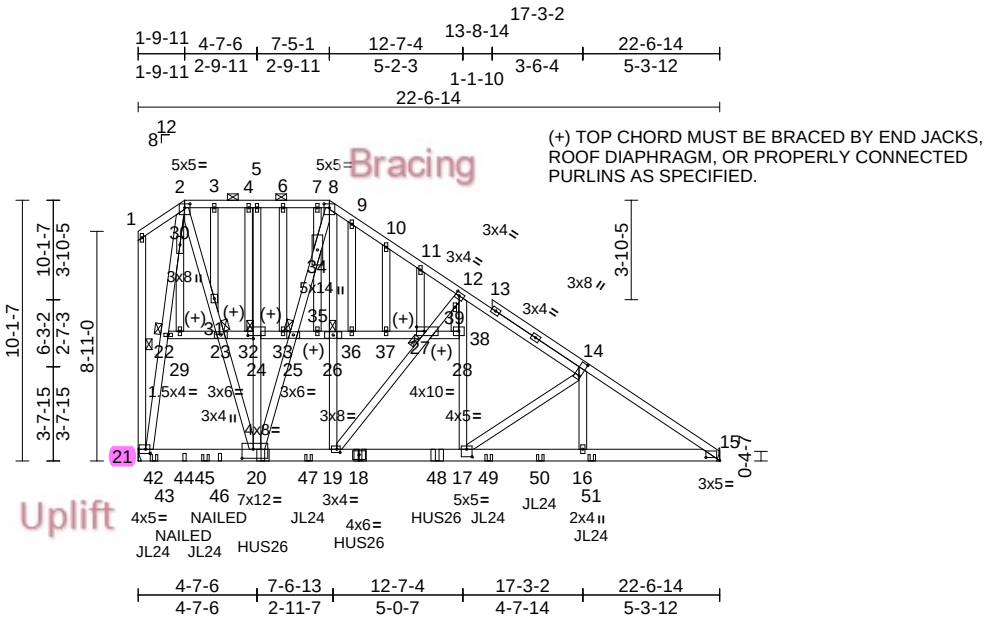

Scale = 1:89.4

Plate Offsets (X, Y): [2:0-2-8,0-1-13], [8:0-2-8,0-1-13], [12:0-1-12,0-1-8], [14:0-6-4,0-0-12], [15:0-6-7,0-1-7], [17:0-2-8,0-3-8], [19:0-1-8,0-1-8], [20:0-5-4,0-4-4], [21:0-2-0,0-2-0], [24:0-2-8,0-1-8], [27:0-3-9,0-2-0]

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	0.28	Vert(LL)	-0.09	17-19	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.16	17-19	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.03	15	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.07	17-19	>999	240	Weight: 560 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-21
JOINTS 1 Brace at Jt(s): 22, 23, 24, 25, 26, 27

REACTIONS (size) 15= Mechanical, 21= Mechanical
Max Horiz 21=-246 (LC 8)
Max Uplift 15=-441 (LC 8), 21=-843 (LC 8)
Max Grav 15=3151 (LC 14), 21=5059 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 8-9=-2566/446, 9-10=-2666/449, 10-11=-2677/430, 11-12=-2568/383, 12-14=-4436/647, 14-15=-5577/816, 2-3=-1758/328, 3-4=-1758/328, 4-5=-1758/328, 5-6=-1749/327, 6-7=-1749/327, 7-8=-1749/327, 1-21=-101/37, 1-2=-72/30
BOT CHORD 20-21=-68/829, 19-20=-214/2488, 17-19=-397/3649, 16-17=-626/4641, 15-16=-629/4661
WEBS 14-16=-155/1067, 14-17=-1212/283, 17-28=-323/2294, 12-28=-299/2089, 19-27=-2109/410, 27-39=-2197/381, 12-39=-2032/361, 20-24=-37/81, 5-24=-20/132, 21-22=-4172/701, 22-30=-4180/701, 2-30=-4051/681, 19-26=-403/2730, 8-26=-370/2458, 2-31=-691/4136, 23-31=-685/4234, 20-23=-686/4268, 20-25=-1599/259, 25-34=-1479/241, 8-34=-1354/233, 22-29=-97/16, 23-29=-97/16, 23-32=-248/32, 24-32=-248/32, 24-33=-266/34, 25-33=-266/34, 25-35=-370/49, 26-35=-370/49, 26-36=-317/40, 36-37=-317/40, 27-37=-316/39, 27-38=-6/61, 28-38=-6/65, 29-30=-5/35, 3-31=-15/114, 4-32=-85/30, 6-33=-319/62, 7-34=-49/211, 34-35=-58/341, 9-36=-13/123, 10-37=-45/26, 11-27=-268/72, 38-39=-29/246

NOTES
1) 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.
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.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
7) Provide adequate drainage to prevent water ponding.
8) All plates are 1.5x4 (||) MT20 unless otherwise indicated.
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

Continued on page 2

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12) Refer to girder(s) for truss to truss connections.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 441 lb uplift at joint 15 and 843 lb uplift at joint 21.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent at 4-10-2 from the left end to connect truss(es) to front face of bottom chord.
16) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 6-11-15 oc max. starting at 0-7-6 from the left end to 17-7-5 to connect truss(es) to back face of bottom chord.
17) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-11-15 oc max. starting at 8-7-6 from the left end to 11-7-5 to connect truss(es) to back face of bottom chord.
18) Fill all nail holes where hanger is in contact with lumber.
19) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (lb/ft)
   Vert: 8-15=-54, 2-8=-54, 15-21=-20, 1-2=-54
   Concentrated Loads (lb)
   Vert: 18=-577 (B), 20=-1509 (F=-1123, B=-386), 42=-390 (B), 44=-242 (F), 45=-371 (B), 46=-242 (F), 47=-385 (B), 48=-577 (B), 49=-385 (B), 50=-385 (B), 51=-554 (B)

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-17	Piggyback Base Girder	1	2	T37314128
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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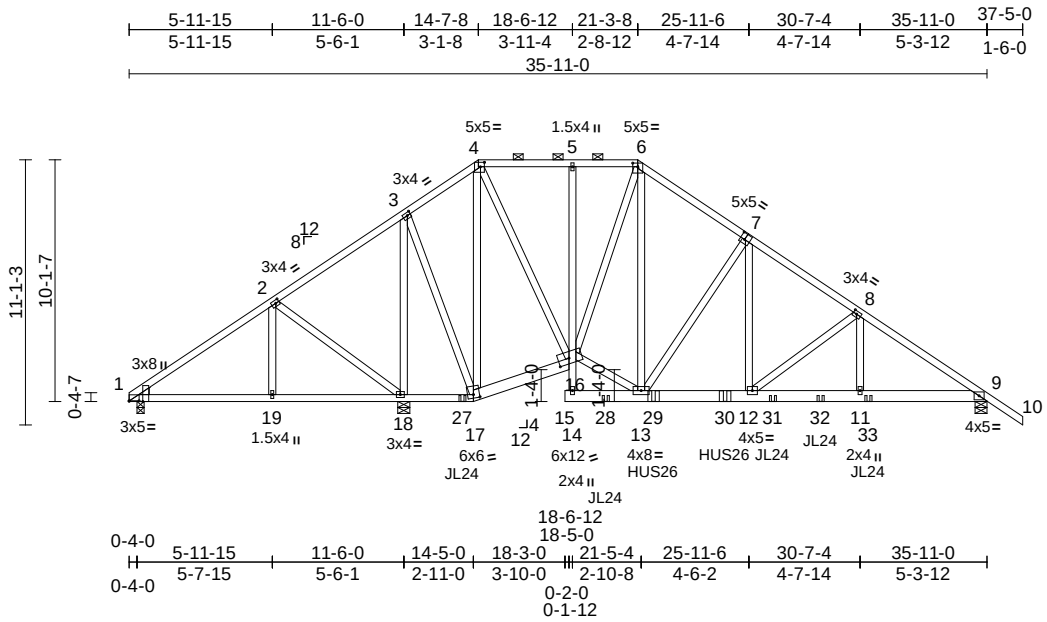
Page: 1



Scale = 1:96.5

Plate Offsets (X, Y): [1:0-5-0,0-0-2], [1:0-0-4,Edge], [2:0-1-12,0-1-8], [3:0-1-12,0-1-8], [4:0-2-0,0-2-4], [6:0-2-8,0-1-13], [7:0-2-4,0-3-0], [8:0-1-12,0-1-8], [16:0-5-8,0-2-12], [17:0-3-0,0-1-12]

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	0.16	Vert(LL)	-0.07	11-12	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.13	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.06	11-12	>999	240	Weight: 565 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1 *Except* 1-17:2x4 SP No.1
WEBS	2x4 SP No.2
WEDGE	Left: 2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 9=0-6-0, 18=0-6-0
Max Horiz 1=-218 (LC 6)
Max Uplift 1=-102 (LC 26), 9=-510 (LC 8), 18=-451 (LC 8)
Max Grav 1=345 (LC 20), 9=2921 (LC 14), 18=3264 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-297/168, 2-3=-31/279, 3-4=-849/272, 4-5=-1683/362, 5-6=-1686/363, 6-8=-3741/637, 8-9=-4898/798, 9-10=0/45
BOT CHORD	1-19=-135/263, 18-19=-114/263, 17-18=-228/162, 16-17=-30/798, 14-15=0/0, 13-14=0/15, 12-13=-328/2988, 11-12=-556/4010, 9-11=-556/4010
WEBS	14-16=-8/169, 5-16=-202/73, 2-19=0/232, 2-18=-408/122, 3-18=-2834/425, 3-17=-231/2245, 13-16=-154/2113, 6-16=-847/196, 6-13=-383/1960, 7-13=-1969/394, 7-12=-310/2096, 8-12=-1241/279, 8-11=-166/1140, 4-17=-1863/167, 4-16=-283/2407

NOTES

1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-8-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=5ft; 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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 510 lb uplift at joint 9, 451 lb uplift at joint 18 and 102 lb uplift at joint 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 6-11-15 oc max. starting at 13-11-8 from the left end to 28-11-7 to connect truss(es) to front face of bottom chord.
12) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-11-15 oc max. starting at 21-11-8 from the left end to 24-11-7 to connect truss(es) to front face of bottom chord.
13) Use MiTek JL24 (With 4-16d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent at 30-11-7 from the left end to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-4=-54, 4-6=-54, 6-10=-54, 17-22=-20, 16-17=-20, 9-15=-20
Concentrated Loads (lb)
Vert: 27=-385 (F), 28=-385 (F), 29=-577 (F), 30=-577 (F), 31=-385 (F), 32=-383 (F), 33=-650 (F)

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314129
24-0602-A1	T-18	Piggyback Base	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:11
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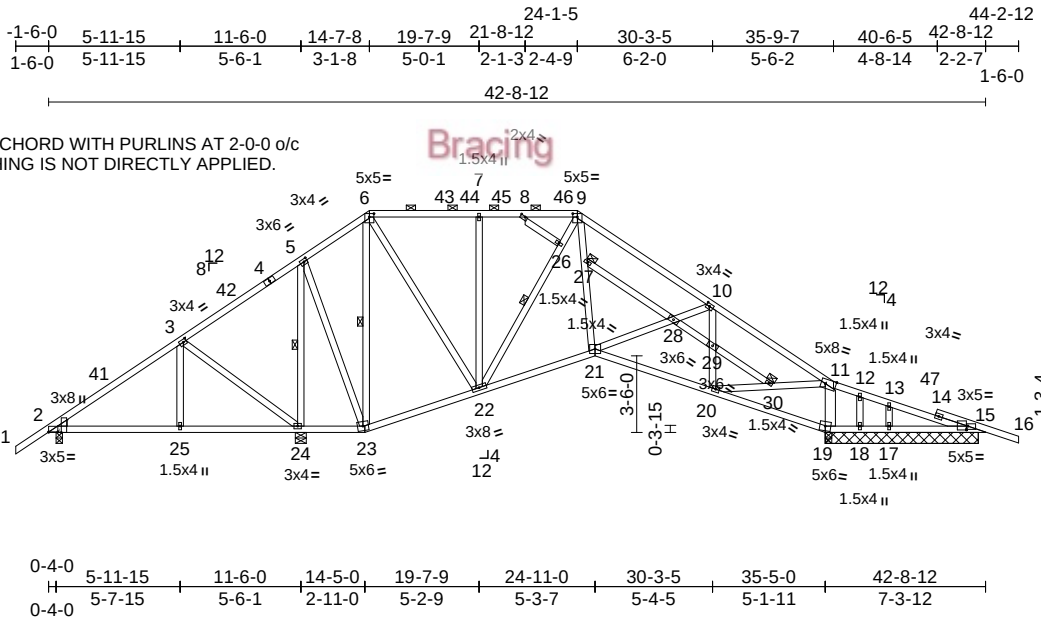

Scale = 1:105.1

Plate Offsets (X, Y): [2:0-5-0,0-0-2], [2:0-0-4,Edge], [3:0-1-12,0-1-8], [5:0-1-12,0-1-8], [6:0-2-8,0-1-13], [8:0-2-8,0-0-4], [9:0-2-8,0-1-13], [10:0-1-12,0-1-8], [11:0-5-12,0-2-8], [15:0-0-12,0-2-2], [15:0-0-12,0-1-12]

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	0.22	Vert(LL)	-0.04	21	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.22	Vert(CT)	-0.09	20-21	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.05	19	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.02	20-21	>999	240	Weight: 293 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 11-19:2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE Left: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-24, 6-23, 9-22
JOINTS 1 Brace at Jt(s): 27, 30

REACTIONS (size) 2=0-3-8, 15=6-11-12, 17=6-11-12, 18=6-11-12, 19=6-11-12, 24=0-6-0
Max Horiz 2=-220 (LC 10)
Max Uplift 2=-99 (LC 12), 15=-88 (LC 12), 17=-13 (LC 12), 18=-112 (LC 18), 19=-120 (LC 12), 24=-145 (LC 12)
Max Grav 2=461 (LC 23), 15=172 (LC 24), 17=260 (LC 24), 18=16 (LC 12), 19=1170 (LC 1), 24=1411 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-348/180, 3-5=0/246, 5-6=-218/223, 6-7=-475/253, 7-8=-475/253, 8-9=-486/258, 11-12=-18/367, 12-13=-16/326, 13-15=-127/357, 15-16=0/26, 9-10=-998/233, 10-11=-979/222
BOT CHORD 2-25=-213/426, 24-25=-69/284, 23-24=-185/170, 22-23=-36/212, 21-22=0/712, 20-21=-72/757, 19-20=-519/124, 18-19=-312/71, 17-18=-312/71, 15-17=-312/141
WEBS 5-24=-1085/252, 5-23=-74/720, 6-23=-659/65, 6-22=-85/649, 7-22=-289/147, 20-29=-375/138, 10-29=-357/136, 9-27=0/571, 21-27=0/554, 22-26=-383/27, 9-26=-386/28, 3-24=-407/124, 3-25=0/236, 11-19=-919/209, 20-30=-163/1168, 11-30=-171/1231, 21-28=-64/153, 10-28=-71/157, 8-26=-6/16, 27-28=0/26, 28-29=-6/43, 29-30=-10/78, 13-17=-170/80, 12-18=-36/73

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-9-4, Zone1 2-9-4 to 14-7-8, Zone2 14-7-8 to 20-8-0, Zone1 20-8-0 to 24-1-5, Zone2 24-1-5 to 30-3-5, Zone1 30-3-5 to 44-2-12 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) Provide adequate drainage to prevent water ponding.
6) Gable studs spaced at 1-4-0 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 99 lb uplift at joint 2, 120 lb uplift at joint 19, 88 lb uplift at joint 15, 145 lb uplift at joint 24, 13 lb uplift at joint 17, 112 lb uplift at joint 18 and 88 lb uplift at joint 15.
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

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

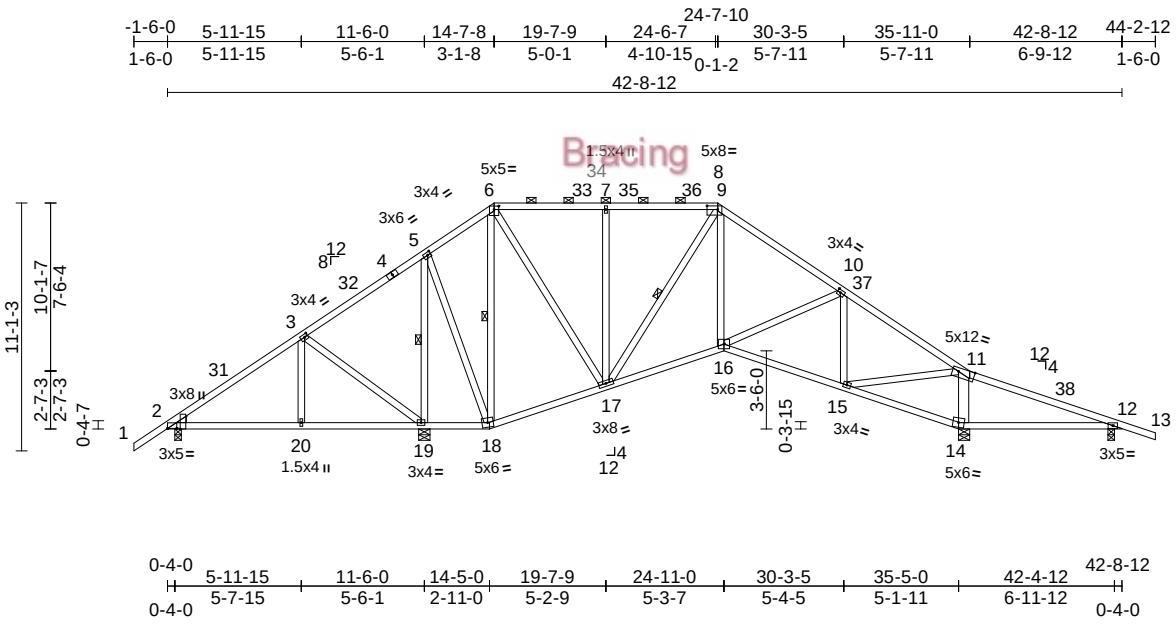
May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314130
24-0602-A1	T-19	Piggyback Base	6	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:12 ID:uMtl2KR5qRfVHk8IGDkUxryHx0F-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:103.1

Plate Offsets (X, Y): [2:0-5-0,0-0-2], [2:0-0-4,Edge], [3:0-1-12,0-1-8], [5:0-1-12,0-1-8], [6:0-2-8,0-1-13], [9:0-5-12,0-2-0], [10:0-1-12,0-1-8], [11:0-8-12,0-2-0]

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	0.27	Vert(LL)	-0.05	14-30	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	-0.11	14-30	>782	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.05	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.02	15-16	>999	240	Weight: 272 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 11-14:2x6 SP No.1
WEDGE Left: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-19, 6-18, 8-17

REACTIONS (size) 2=0-3-8, 12=0-3-8, 14=0-6-0, 19=0-6-0
Max Horiz 2=-220 (LC 10)
Max Uplift 2=-99 (LC 12), 12=-90 (LC 12), 14=-115 (LC 12), 19=-146 (LC 12)
Max Grav 2=475 (LC 23), 12=279 (LC 24), 14=1224 (LC 1), 19=1389 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-371/178, 3-5=-22/215, 5-6=-240/226, 6-7=-504/253, 7-8=-504/253, 8-9=-258/736, 9-10=-976/232, 10-11=-920/207, 11-12=-212/220, 12-13=0/26
BOT CHORD 2-20=-212/426, 19-20=-53/308, 18-19=-157/167, 17-18=-22/234, 16-17=0/769, 15-16=-52/750, 14-15=-401/121, 12-14=-198/283
WEBS 5-19=-1064/248, 5-18=-71/701, 6-18=-649/62, 6-17=-84/660, 7-17=-303/158, 10-16=-56/143, 10-15=-365/131, 3-19=-405/123, 3-20=0/235, 11-14=-979/233, 11-15=-145/1062, 8-16=0/553, 8-17=-403/12

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-9-4, Zone1 2-9-4 to 14-7-8, Zone2 14-7-8 to 20-8-0, Zone1 20-8-0 to 24-7-10, Zone2 24-7-10 to 30-8-2, Zone1 30-8-2 to 44-2-12 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 2, 115 lb uplift at joint 14, 146 lb uplift at joint 19 and 90 lb uplift at joint 12.
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.
9) 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

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

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314131
24-0602-A1	T-20	Piggyback Base	11	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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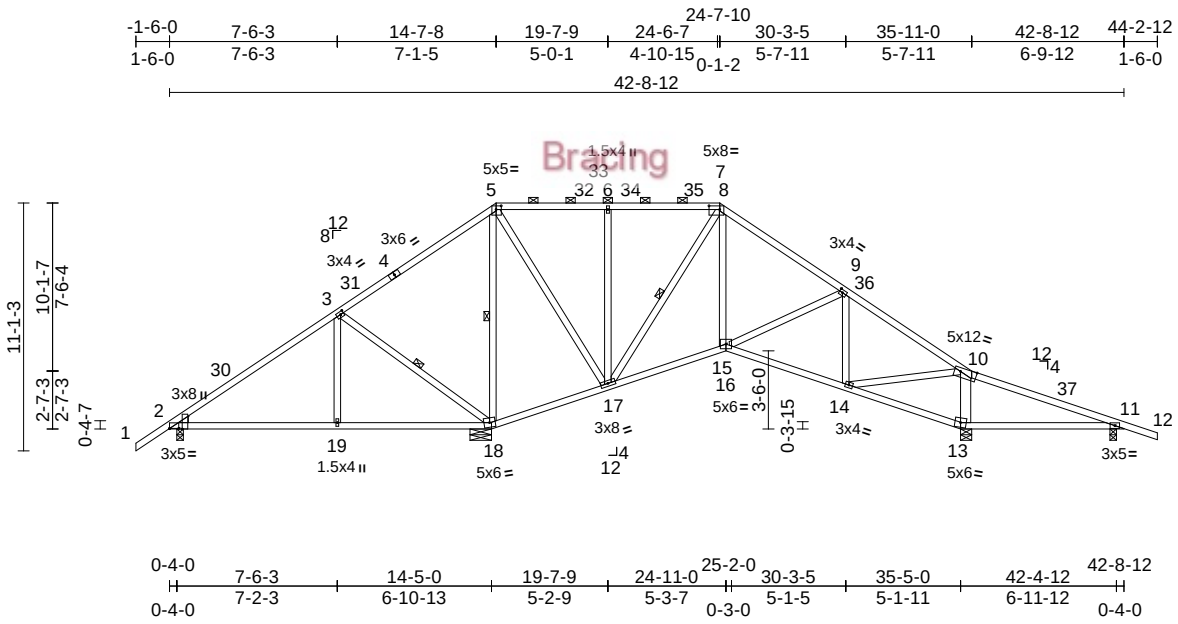

Scale = 1:103.1

Plate Offsets (X, Y): [2:0-5-0,0-0-2], [2:0-0-4,Edge], [3:0-1-12,0-1-8], [5:0-2-12,0-2-0], [8:0-5-12,0-2-0], [9:0-1-12,0-1-8], [10:0-8-12,0-2-0]

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	0.34	Vert(LL)	-0.05	13-29	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.11	13-29	>790	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.04	13	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.02	19-24	>999	240	Weight: 253 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 10-13:2x6 SP No.1
WEDGE Left: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-18, 5-18, 7-17

REACTIONS (size) 2=0-3-8, 11=0-3-8, 13=0-6-0, 18=0-11-8
Max Horiz 2=-220 (LC 10)
Max Uplift 2=-114 (LC 12), 11=-91 (LC 12), 13=-103 (LC 12), 18=-141 (LC 12)
Max Grav 2=521 (LC 23), 11=309 (LC 24), 13=1024 (LC 24), 18=1540 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-408/176, 3-5=0/359, 5-6=-207/204, 6-7=-207/204, 7-8=-219/492, 8-9=-682/184, 9-10=-747/179, 10-11=-212/177, 11-12=0/26
BOT CHORD 2-19=-210/425, 18-19=-68/320, 17-18=-263/212, 16-17=0/517, 15-16=0/551, 14-15=-28/598, 13-14=-268/100, 11-13=-197/282
WEBS 3-19=0/309, 3-18=-548/207, 5-18=-1051/175, 5-17=-89/713, 6-17=-289/136, 9-15=-124/163, 9-14=-247/109, 10-13=-820/208, 10-14=-102/792, 7-16=0/478, 7-17=-517/31

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 2-9-4, Zone1 2-9-4 to 14-7-8, Zone2 14-7-8 to 20-8-0, Zone1 20-8-0 to 24-7-10, Zone2 24-7-10 to 30-8-2, Zone1 30-8-2 to 44-2-12 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 2, 103 lb uplift at joint 13, 141 lb uplift at joint 18 and 91 lb uplift at joint 11.
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.
9) 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314132
24-0602-A1	T-21	Piggyback Base Girder	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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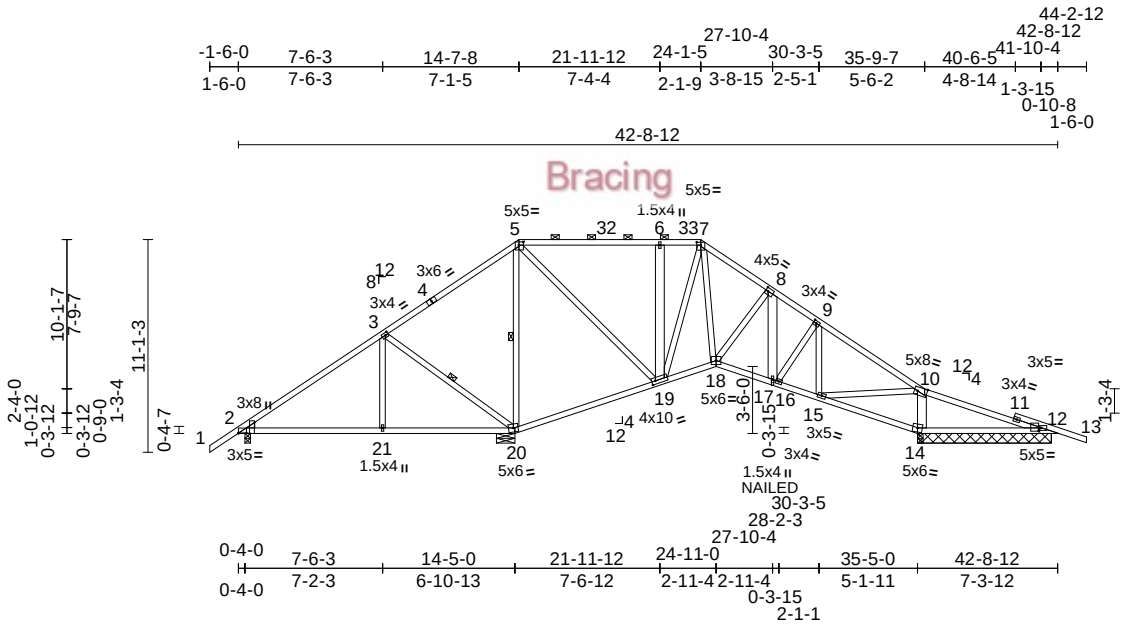

Scale = 1:120.2

Plate Offsets (X, Y): [2:0-5-0,0-0-2], [2:0-0-4,Edge], [3:0-1-12,0-1-8], [5:0-2-12,0-2-0], [7:0-2-8,0-1-13], [8:0-1-8,0-2-0], [9:0-1-12,0-1-8], [10:0-6-0,0-2-8], [12:0-1-6,0-2-0], [12:0-1-6,0-1-8], [19:0-2-6,0-2-0]

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	0.51	Vert(LL)	-0.08	19-20	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.17	19-20	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.06	14	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.04	17-18	>999	240	Weight: 271 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 10-14,6-19,17-8:2x6 SP No.1
WEDGE Left: 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-20, 5-20

REACTIONS (size) 2=0-3-8, 12=6-11-12, 14=6-11-12, 20=0-11-8
Max Horiz 2=-220 (LC 6)
Max Uplift 2=-181 (LC 25), 12=-105 (LC 25), 14=-293 (LC 8), 20=-397 (LC 8)
Max Grav 2=403 (LC 19), 12=170 (LC 20), 14=1559 (LC 20), 20=2162 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/45, 2-3=-209/231, 3-5=-15/570, 5-6=-658/277, 6-7=-658/277, 10-12=-146/642, 12-13=0/26, 7-8=-1084/316, 8-9=-1264/364, 9-10=-1105/262
BOT CHORD 2-21=-215/240, 20-21=-163/204, 19-20=-433/244, 18-19=-64/783, 17-18=-105/1074, 16-17=-86/986, 15-16=-91/907, 14-15=-829/222, 12-14=-558/148
WEBS 3-21=0/314, 3-20=-555/150, 5-20=-1598/317, 5-19=-273/1393, 9-15=-577/163, 10-14=-1180/295, 10-15=-281/1622, 6-19=-390/129, 8-17=-99/223, 8-18=-318/155, 9-16=-71/284, 7-19=-337/0, 7-18=-131/832

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=43ft; eave=5ft; 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
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 2, 293 lb uplift at joint 14, 397 lb uplift at joint 20, 105 lb uplift at joint 12 and 105 lb uplift at joint 12.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates Girder: 3-16d (0.162" x 3.5") toe-nails per NDS guidelines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 515 lb down and 230 lb up at 21-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) 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=-54, 5-7=-54, 10-13=-54, 20-22=-20, 18-20=-20, 14-18=-20, 14-27=-20, 7-10=-54
Concentrated Loads (lb)
Vert: 17=-388 (B), 19=-515 (B)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314133
24-0602-A1	T-22	Piggyback Base	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:13
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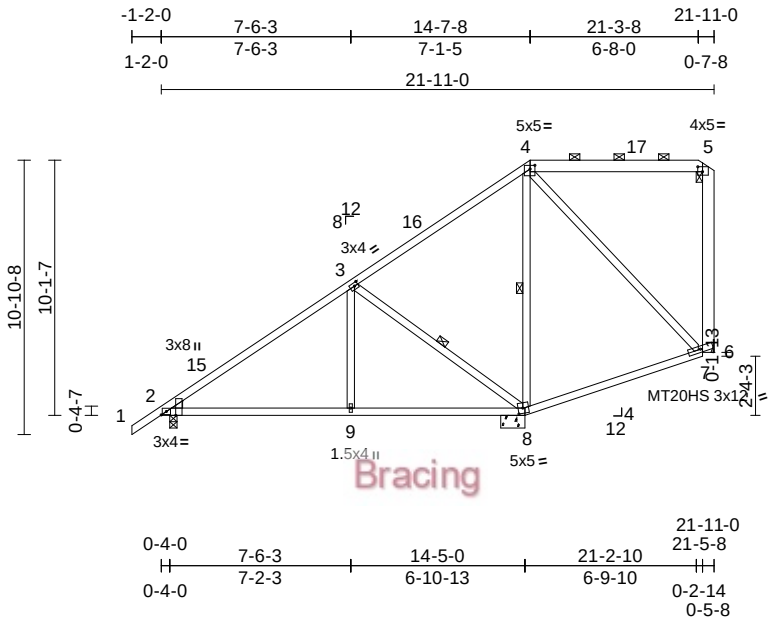

Scale = 1:91.3

Plate Offsets (X, Y): [2:0-0-7,0-0-2], [2:0-0-4,Edge], [3:0-1-12,0-1-8], [4:0-2-4,0-1-12], [5:0-2-4,0-2-5], [8:0-2-4,0-2-8]

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	0.30	Vert(LL)	-0.05	7-8	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.10	7-8	>849	240	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	9-14	>999	240	Weight: 143 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1 *Except* 4-5:2x6 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2 *Except* 6-5:2x6 SP No.1
WEDGE	Left: 2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-8, 4-8

REACTIONS (size) 2=0-3-8, 6= Mechanical, 8=0-11-8
Max Horiz 2=309 (LC 12)
Max Uplift 2=-56 (LC 12), 6=-161 (LC 9), 8=-36 (LC 12)
Max Grav 2=603 (LC 1), 6=267 (LC 24), 8=814 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-3=-583/100, 3-4=-120/102, 4-5=-30/6, 5-6=-199/99
BOT CHORD	2-9=-203/428, 8-9=-203/428, 7-8=-108/45, 6-7=-26/49
WEBS	3-9=0/300, 3-8=-521/151, 4-8=-387/59, 4-7=-23/127

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-2-0 to 1-10-0, Zone1 1-10-0 to 14-7-8, Zone2 14-7-8 to 18-10-6, Zone1 18-10-6 to 21-8-4 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2, 36 lb uplift at joint 8 and 161 lb uplift at joint 6.
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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-23	Piggyback Base	1	1	T37314134
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:14 Page: 1
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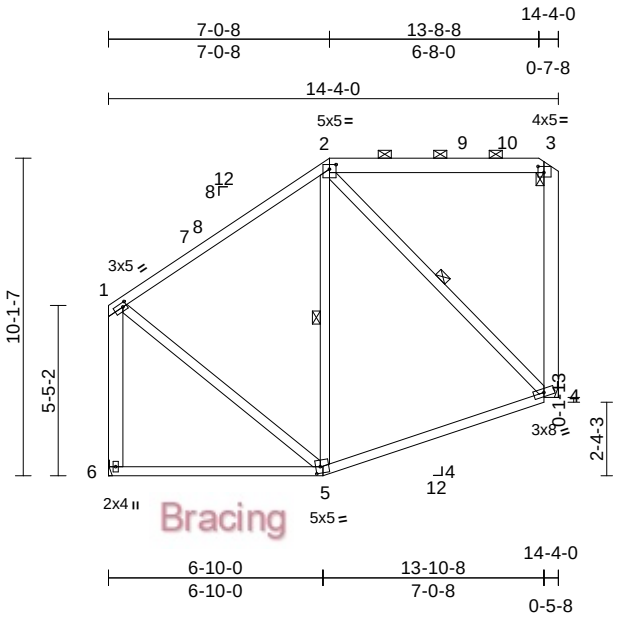

Scale = 1:73.4

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

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	0.24	Vert(LL)	-0.06	4-5	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.13	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.00	4-5	>999	240	Weight: 120 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 2-3:2x6 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 4-3,6-1:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-5, 2-4

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Horiz 6=128 (LC 12)
Max Uplift 4=-136 (LC 9)
Max Grav 4=513 (LC 1), 6=513 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-345/50, 2-3=-28/3, 3-4=-197/97, 1-6=-449/58
BOT CHORD 5-6=-171/99, 4-5=-125/241
WEBS 2-5=-64/136, 2-4=-266/151, 1-5=0/216

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 7-5-12 to 10-5-12, Zone1 10-5-12 to 14-3-8, Zone2 14-3-8 to 18-6-6, Zone1 18-6-6 to 21-4-4 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 4.
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.
10) 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-24	Piggyback Base Girder	1	1	T37314135
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:14 Page: 1
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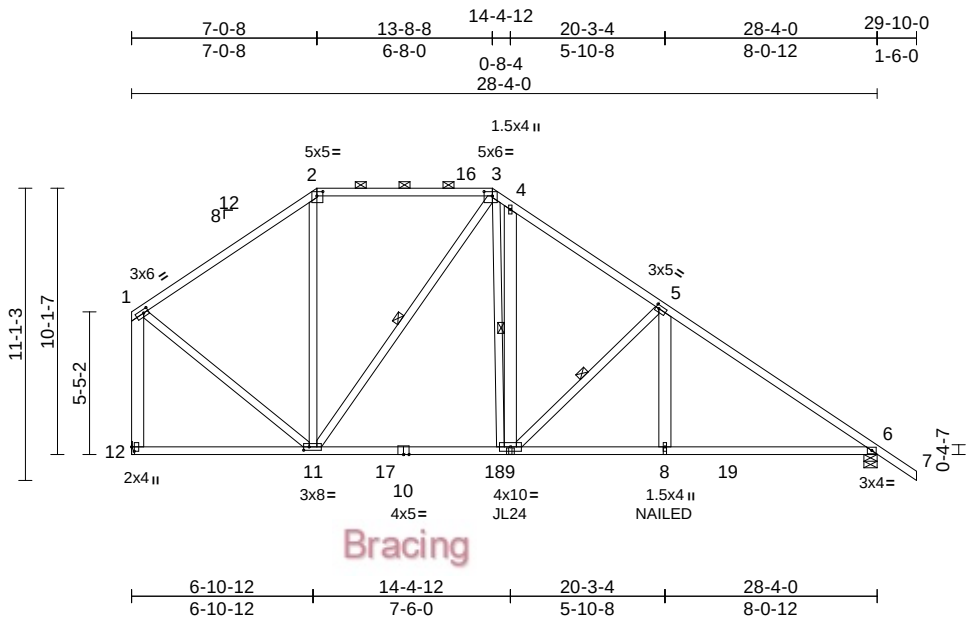

Scale = 1:87.6

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

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	0.70	Vert(LL)	-0.16	8-15	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.72	Vert(CT)	-0.30	8-15	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.09	8-15	>999	240	Weight: 208 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 12-1,9-4,8-5:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-11, 4-9, 5-9

REACTIONS (size) 6=0-6-0, 12= Mechanical
Max Horiz 12=-288 (LC 6)
Max Uplift 6=-349 (LC 8), 12=-245 (LC 8)
Max Grav 6=1800 (LC 14), 12=1516 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1159/277, 2-3=-907/281, 3-4=-1694/500, 4-5=-1840/446, 5-6=-2626/507, 6-7=0/45, 1-12=-1422/279
BOT CHORD 11-12=-165/242, 9-11=-84/1400, 8-9=-284/2095, 6-8=-284/2095
WEBS 1-11=-169/1138, 2-11=-16/347, 3-11=-883/222, 4-9=-35/162, 5-8=-52/671, 3-9=-372/1407, 5-9=-965/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; 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
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 245 lb uplift at joint 12 and 349 lb uplift at joint 6.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent at 21-7-12 from the left end to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
13) 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: 1-2=-54, 2-3=-54, 3-7=-54, 12-13=-20
Concentrated Loads (lb)
Vert: 9=-544 (F), 8=-354 (F)

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

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-25	Piggyback Base	1	1	T37314136
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:14
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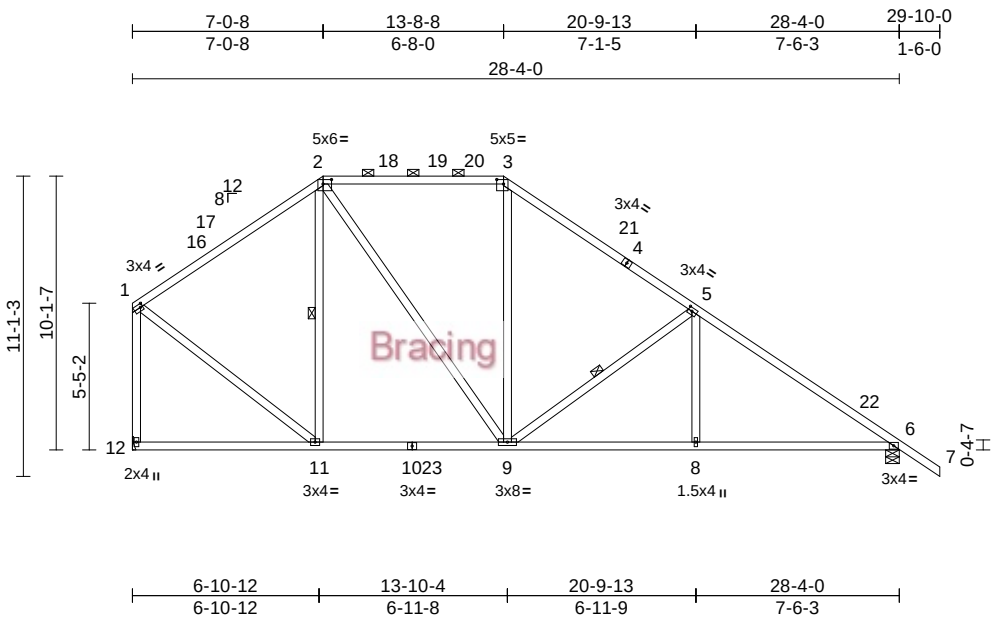

Scale = 1:85.1

Plate Offsets (X, Y): [1:0-1-0,0-1-8], [2:0-3-12,0-2-0], [3:0-3-0,0-2-0], [5:0-1-12,0-1-8]

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	0.47	Vert(LL)	-0.09	8-15	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.18	8-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.05	8-15	>999	240	Weight: 178 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-11, 5-9

REACTIONS (size) 6=0-6-0, 12= Mechanical
Max Horiz 12=-190 (LC 12)
Max Uplift 6=-154 (LC 12), 12=-125 (LC 12)
Max Grav 6=1266 (LC 18), 12=1166 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-876/159, 2-3=-897/221, 3-5=-1161/199, 5-6=-1697/176, 6-7=0/45, 1-12=-1067/185
BOT CHORD 11-12=-146/180, 9-11=0/744, 8-9=-44/1348, 6-8=-44/1348
WEBS 2-11=-275/119, 2-9=-57/437, 3-9=0/322, 5-9=-653/156, 5-8=0/305, 1-11=-45/827

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 7-4-12 to 10-4-12, Zone1 10-4-12 to 14-3-8, Zone2 14-3-8 to 18-6-6, Zone1 18-6-6 to 20-11-8, Zone2 20-11-8 to 25-2-7, Zone1 25-2-7 to 37-1-0 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 12 and 154 lb uplift at joint 6.
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.
10) 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

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

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314137
24-0602-A1	T-26	Piggyback Base	2	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:14 Page: 1
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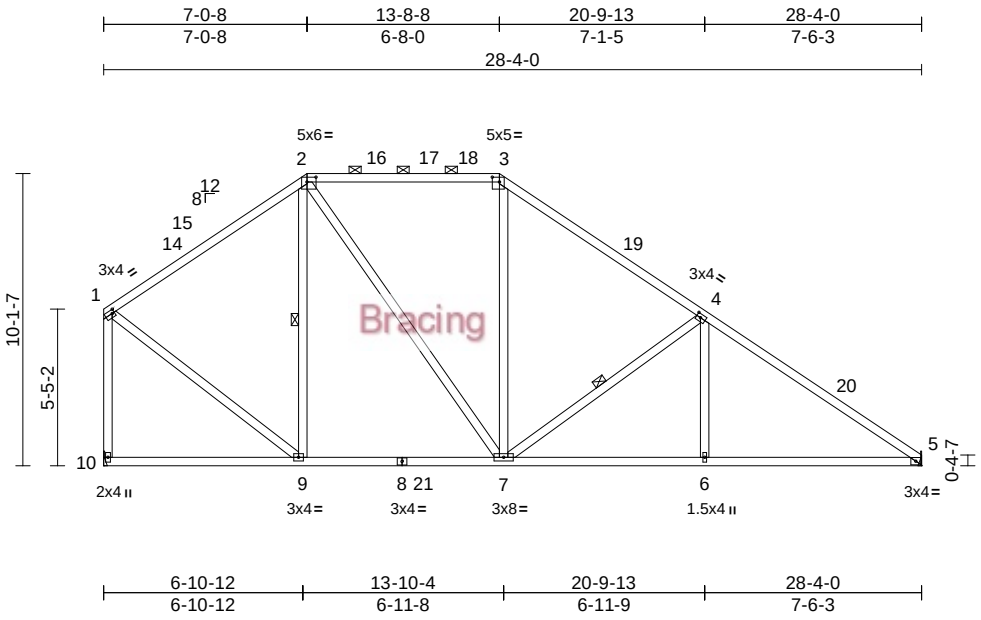

Scale = 1:79.8

Plate Offsets (X, Y): [1:0-1-0,0-1-8], [2:0-3-12,0-2-0], [3:0-3-0,0-2-0], [4:0-1-12,0-1-8]

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	0.47	Vert(LL)	-0.10	6-13	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.19	6-13	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.06	6-13	>999	240	Weight: 176 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-9, 4-7

REACTIONS (size) 5= Mechanical, 10= Mechanical
Max Horiz 10=148 (LC 11)
Max Uplift 5=-100 (LC 12), 10=-127 (LC 12)
Max Grav 5=1192 (LC 18), 10=1168 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-878/160, 2-3=-899/222, 3-4=-1165/202, 4-5=-1708/183, 1-10=-1069/186
BOT CHORD 9-10=-141/161, 7-9=0/733, 6-7=-71/1362, 5-6=-71/1362
WEBS 2-9=-276/119, 2-7=-58/438, 3-7=0/323, 4-7=-663/166, 4-6=0/307, 1-9=-46/829

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 7-4-12 to 10-4-12, Zone1 10-4-12 to 14-3-8, Zone2 14-3-8 to 18-6-6, Zone1 18-6-6 to 20-11-8, Zone2 20-11-8 to 25-2-7, Zone1 25-2-7 to 35-7-0 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 5 and 127 lb uplift at joint 10.
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.
10) 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314138
24-0602-A1	T-27	Piggyback Base Girder	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:15 Page: 1
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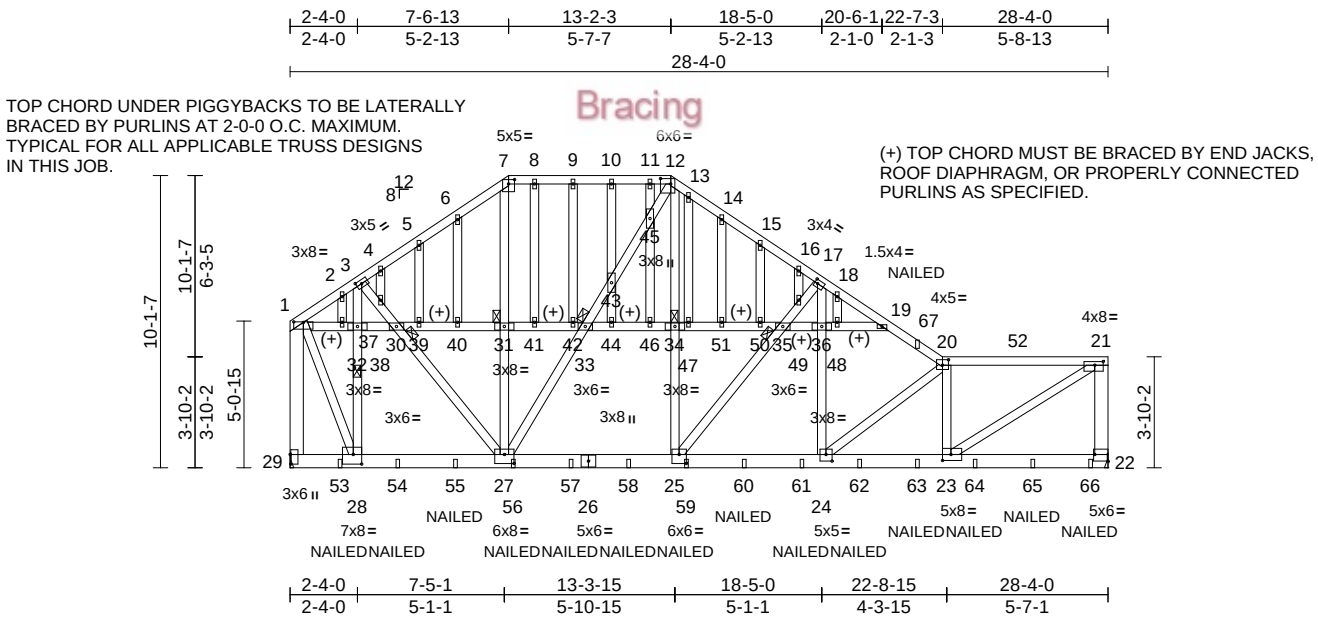

Scale = 1:79.8

Plate Offsets (X, Y): [1:0-4-0,0-0-4], [3:0-2-4,0-1-8], [7:0-2-8,0-1-13], [12:0-4-4,0-2-4], [17:0-1-4,0-1-8], [20:0-2-8,0-2-4], [21:0-3-8,0-1-8], [22:Edge,0-2-12], [23:0-3-8,0-2-8], [24:0-2-8,0-2-12], [25:0-3-0,0-3-12], [27:0-4-0,0-3-12], [28:0-3-8,0-4-0], [29:0-4-0,0-0-4]

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	0.62	Vert(LL)	-0.14	24-25	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-0.26	24-25	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.05	22	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.12	24-25	>999	240	Weight: 332 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 29-1,21-22:2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-3-6 oc bracing.
WEBS 1 Row at midpt 3-28
JOINTS 1 Brace at Jt(s): 30, 31, 33, 34, 35

REACTIONS (size) 22= Mechanical, 29= Mechanical
Max Horiz 29=-257 (LC 6)
Max Uplift 22=-599 (LC 8), 29=-612 (LC 8)
Max Grav 22=3036 (LC 14), 29=3001 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-29=-2929/619, 7-8=-1616/442, 8-9=-1616/442, 9-10=-1616/442, 10-11=-1616/442, 11-12=-1616/442, 20-21=-3816/784, 21-22=-2530/529, 1-2=-950/196, 2-3=-914/197, 3-4=-2002/436, 4-5=-1961/459, 5-6=-1985/492, 6-7=-1961/507, 12-13=-2390/598, 13-14=-2577/624, 14-15=-2542/603, 15-16=-2558/575, 16-17=-2510/534, 17-18=-3394/700, 18-19=-3449/696, 19-20=-3845/815
BOT CHORD 28-29=-198/212, 27-28=-285/1221, 25-27=-429/2480, 24-25=-590/3224, 23-24=-722/3857, 22-23=-51/119
WEBS 25-35=-1285/320, 35-49=-1196/261, 17-49=-1074/212, 24-36=-226/1320, 17-36=-228/1311, 21-23=-862/4385, 1-28=-541/2633, 28-32=-1810/398, 3-32=-1777/389, 3-38=-282/1411, 30-38=-273/1464, 27-30=-257/1383, 20-23=-1644/393, 25-34=-396/2036, 12-34=-356/1787, 27-31=-186/894, 7-31=-193/881, 27-33=-1071/242, 33-43=-989/180, 43-45=-982/174, 12-45=-1049/191, 20-24=-852/173, 30-32=-390/146, 30-39=-322/88, 39-40=-322/88, 31-40=-322/88, 1-37=-357/139, 32-37=-356/138, 31-41=-352/94, 41-42=-352/94, 33-42=-352/94, 33-44=-405/113, 44-46=-405/113, 34-46=-405/113, 34-47=-359/104, 47-51=-359/104, 50-51=-359/104, 35-50=-359/104, 35-36=-429/153, 36-48=-430/152, 19-48=-430/152, 2-37=-14/12, 4-38=-33/105, 5-39=-101/48, 6-40=-11/16, 8-41=-21/73, 9-42=-104/51, 10-43=-106/41, 43-44=-91/29, 11-45=-59/235, 45-46=-39/158, 13-47=-49/277, 18-48=-7/27, 16-49=-160/65, 15-50=-51/51, 14-51=-121/28

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=28ft; 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
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) Provide adequate drainage to prevent water ponding.
6) All plates are 1.5x4 (||) MT20 unless otherwise indicated.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Refer to girder(s) for truss to truss connections.

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Date:

May 14,2025

Continued on page 2

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12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 612 lb uplift at joint 29 and 599 lb uplift at joint 22.
13) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
14) 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: 7-12=-54, 20-21=-54, 22-29=-20, 1-7=-54, 12-20=-54
   Concentrated Loads (lb)
   Vert: 53=-267 (B), 54=-267 (B), 55=-267 (B), 56=-267 (B), 57=-267 (B), 58=-267 (B), 59=-267 (B), 60=-267 (B), 61=-267 (B), 62=-267 (B), 63=-228 (B), 64=-250 (B), 65=-250 (B), 66=-256 (B)

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Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314139
24-0602-A1	T-28	Common Supported Gable	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:15

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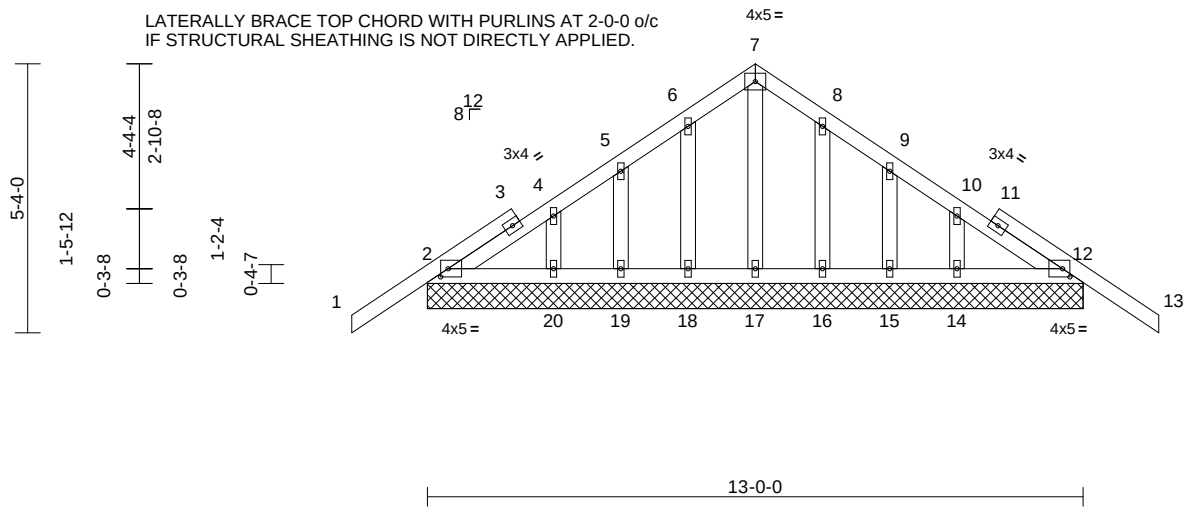

Scale = 1:45.7

Plate Offsets (X, Y): [2:0-1-12,0-1-15], [12:0-1-12,0-1-15]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 77 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING

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

REACTIONS (size) 2=13-0-0, 12=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0, 17=13-0-0, 18=13-0-0, 19=13-0-0, 20=13-0-0
Max Horiz 2=98 (LC 11)
Max Uplift 2=-81 (LC 12), 12=-81 (LC 12), 14=-3 (LC 8), 15=-44 (LC 12), 16=-17 (LC 12), 18=-17 (LC 12), 19=-44 (LC 12), 20=-1 (LC 9)
Max Grav 2=195 (LC 1), 12=195 (LC 1), 14=135 (LC 18), 15=92 (LC 18), 16=104 (LC 24), 17=89 (LC 17), 18=106 (LC 17), 19=91 (LC 17), 20=132 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-78/66, 4-5=-58/49, 5-6=-48/101, 6-7=-70/149, 7-8=-70/149, 8-9=-47/101, 9-10=-31/39, 10-12=-73/40, 12-13=0/45
BOT CHORD 2-20=-51/133, 19-20=-51/133, 18-19=-51/133, 17-18=-51/133, 16-17=-51/133, 15-16=-51/133, 14-15=-51/133, 12-14=-51/133
WEBS 7-17=-91/17, 6-18=-78/76, 5-19=-69/101, 4-20=-96/93, 8-16=-76/77, 9-15=-70/101, 10-14=-95/92

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; 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 1-4-0 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 81 lb uplift at joint 2, 81 lb uplift at joint 12, 17 lb uplift at joint 18, 44 lb uplift at joint 19, 1 lb uplift at joint 20, 17 lb uplift at joint 16, 44 lb uplift at joint 15, 3 lb uplift at joint 14, 81 lb uplift at joint 2 and 81 lb uplift at joint 12.
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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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314140
24-0602-A1	T-29	Common Structural Gable	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:16
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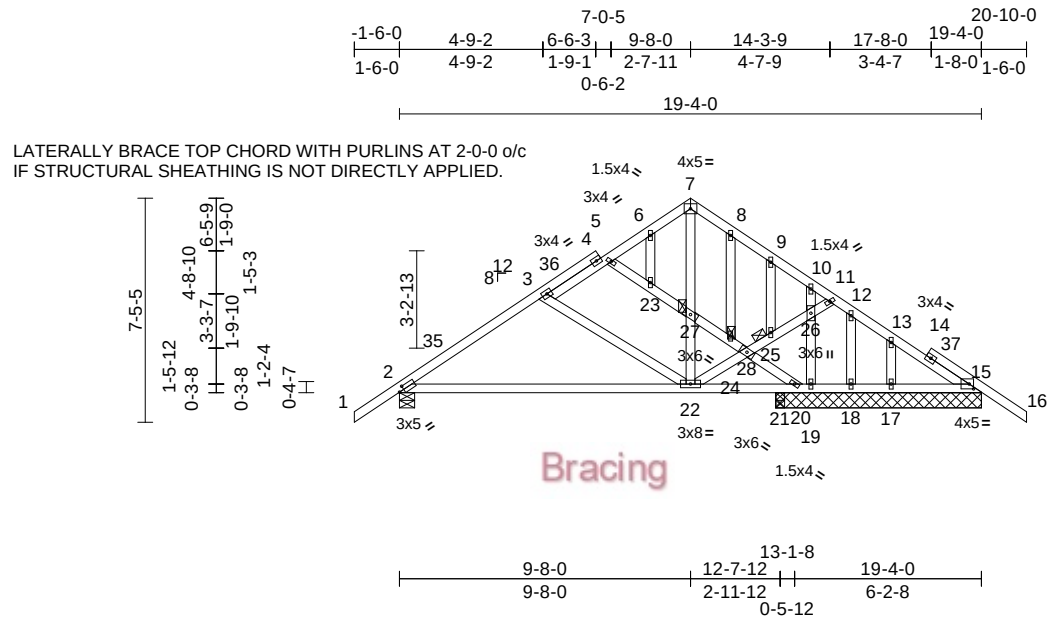

Scale = 1:76.5

Plate Offsets (X, Y): [2:0-2-0,0-1-8], [15:0-1-12,0-1-15]

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	0.35	Vert(LL)	-0.14	22-31	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.29	22-31	>531	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	-0.02	22-31	>999	240	Weight: 132 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.1
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
JOINTS	1 Brace at Jt(s): 24, 25, 27

REACTIONS (size) 2=0-6-0, 15=6-10-0, 17=6-10-0, 18=6-10-0, 19=6-10-0, 20=6-10-0, 21=0-3-8
Max Horiz 2=140 (LC 11)
Max Uplift 2=-98 (LC 12), 15=-58 (LC 12), 17=-15 (LC 8), 19=-52 (LC 12), 21=-149 (LC 3)
Max Grav 2=589 (LC 1), 15=189 (LC 24), 17=154 (LC 24), 18=266 (LC 1), 19=308 (LC 1), 20=211 (LC 3), 21=-46 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/45, 2-3=-610/108, 3-5=-405/80, 5-6=-290/46, 6-7=-276/58, 7-8=-274/63, 8-9=-282/42, 9-10=-288/14, 10-11=-205/0, 11-12=-78/4, 12-13=-38/99, 13-15=-78/107, 15-16=0/45
BOT CHORD	2-22=0/526, 21-22=-3/106, 20-21=-3/106, 19-20=-96/132, 18-19=-96/132, 17-18=-96/132, 15-17=-96/132
WEBS	22-27=0/277, 7-27=-1/275, 22-28=0/288, 25-28=0/309, 25-26=0/327, 11-26=0/296, 3-22=-212/78, 6-23=-18/18, 8-24=-56/47, 9-25=-58/58, 10-26=-236/41, 19-26=-304/75, 12-18=-251/2, 13-17=-99/55, 5-23=-129/104, 23-27=-137/114, 24-27=-133/103, 24-28=-155/118, 20-28=-198/148

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 9-8-0, Zone2 9-8-0 to 13-8-0, Zone1 13-8-0 to 20-10-0 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
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 studs spaced at 1-4-0 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 98 lb uplift at joint 2, 58 lb uplift at joint 15, 52 lb uplift at joint 19, 15 lb uplift at joint 17, 149 lb uplift at joint 21 and 58 lb uplift at joint 15.
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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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-30	Common	4	1	T37314141
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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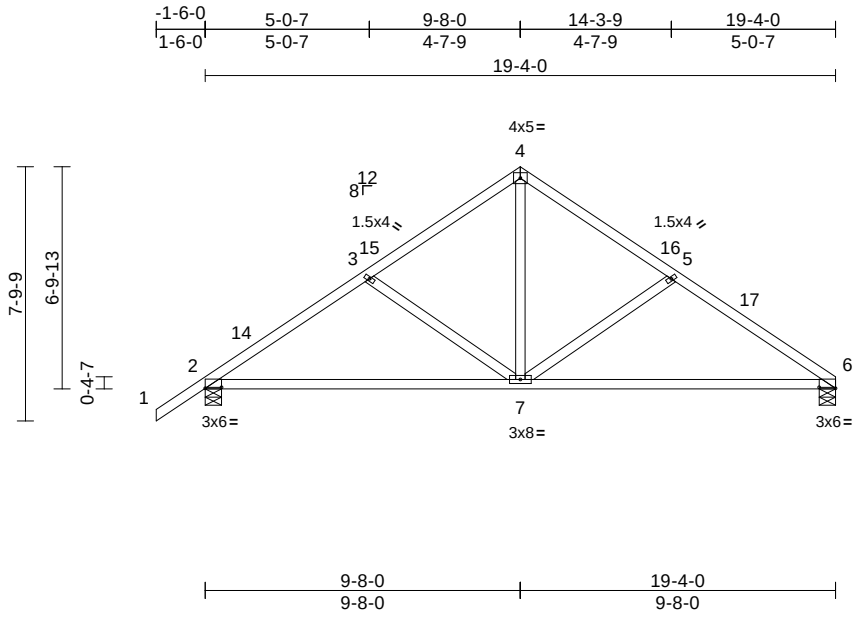

Scale = 1:70.7

Plate Offsets (X, Y): [2:0-6-0,0-0-6], [6:0-6-0,0-0-6]

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)	-0.12	7-10	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.26	7-10	>910	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	7-10	>999	240	Weight: 92 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 6=0-6-0
Max Horiz 2=142 (LC 11)
Max Uplift 2=-133 (LC 12), 6=-75 (LC 12)
Max Grav 2=799 (LC 1), 6=712 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-978/198, 3-4=-759/166, 4-5=-760/181, 5-6=-984/213
BOT CHORD 2-7=-108/787, 6-7=-99/796
WEBS 4-7=-61/556, 5-7=-292/164, 3-7=-281/159

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 9-8-0, Zone2 9-8-0 to 13-10-15, Zone1 13-10-15 to 19-4-0 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 75 lb uplift at joint 6 and 133 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-31	Common Girder	1	**2**	T37314142
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:16
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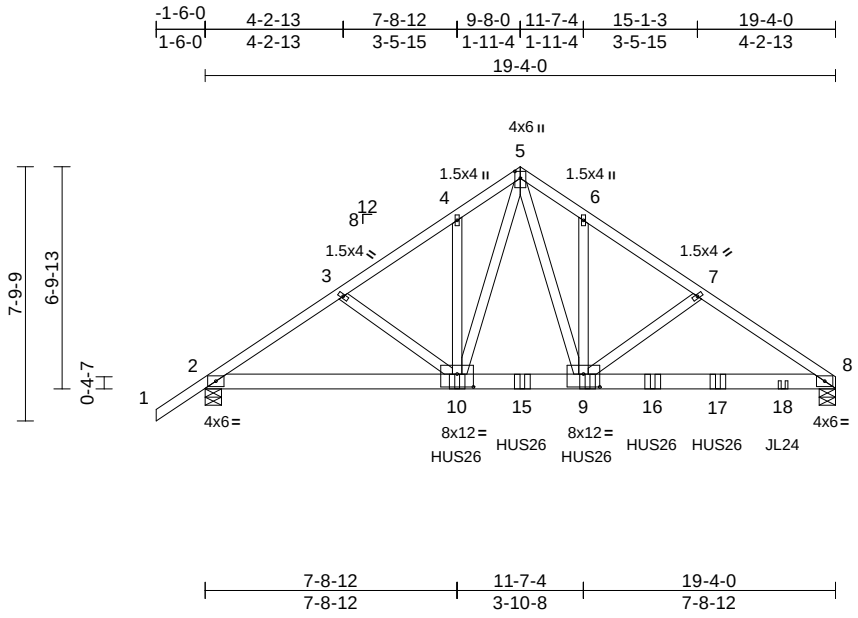

Scale = 1:70.7

Plate Offsets (X, Y): [5:0-2-8,0-2-0], [9:0-6-0,0-4-12], [10:0-6-0,0-4-12]

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	0.91	Vert(LL)	-0.20	9-12	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.36	9-12	>637	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.14	9-12	>999	240	Weight: 257 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-6-0, 8=0-6-0
Max Horiz 2=142 (LC 7)
Max Uplift 2=-709 (LC 8), 8=-666 (LC 8)
Max Grav 2=4230 (LC 13), 8=5610 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-7193/1177, 3-4=-7049/1157, 4-5=-6957/1210, 5-6=-7477/1186, 6-7=-7656/1140, 7-8=-8884/1171
BOT CHORD 2-10=-926/6052, 9-10=-641/4924, 8-9=-935/6718
WEBS 5-9=-631/4858, 5-10=-695/3276, 4-10=-50/173, 6-9=-50/258, 3-10=-225/105, 7-9=-584/138

NOTES
1) 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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-10 2x4 - 2 rows staggered at 0-9-0 oc.

2) 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.

3) Unbalanced roof live loads have been considered for this design.

4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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

5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

7) * 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.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 666 lb uplift at joint 8 and 709 lb uplift at joint 2.

9) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 7-8-12 from the left end to 15-8-12 to connect truss(es) to back face of bottom chord.

10) Use MiTek JL24 (With 4-10d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent at 17-8-12 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.

11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-5=-54, 5-8=-54, 2-8=-20
Concentrated Loads (lb)
Vert: 10=-2795 (B), 9=-1023 (B), 15=-1023 (B), 16=-1021 (B), 17=-1389 (B), 18=-493 (B)

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

MiTek®
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-32	Common Girder	1	**2**	T37314143
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:16
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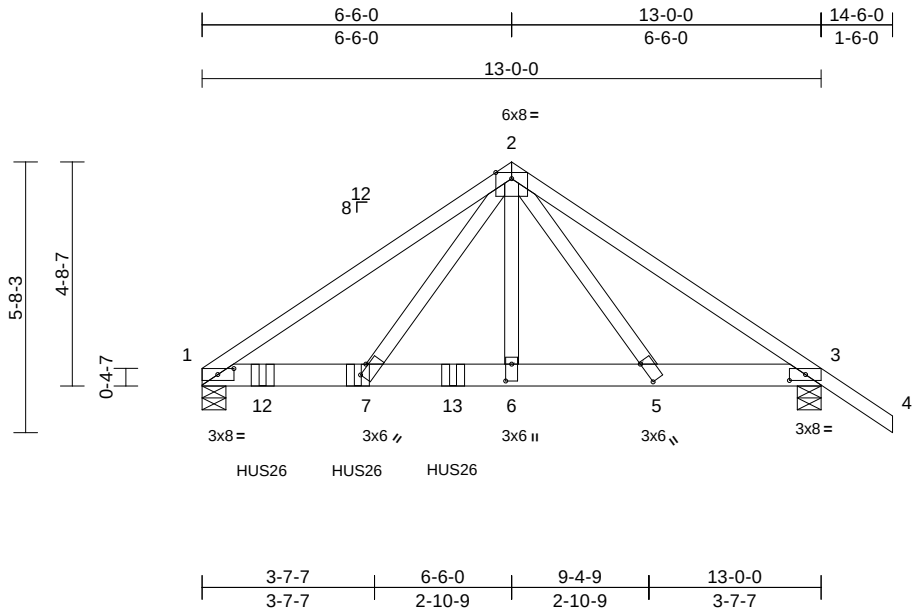

Scale = 1:48.4

Plate Offsets (X, Y): [1:0-4-1,0-1-8], [3:0-4-1,0-1-8], [5:0-5-8,Edge], [6:0-4-4,0-1-8], [7:0-3-0,0-0-8]

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	0.52	Vert(LL)	-0.06	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.10	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MS		Wind(LL)	0.04	6-7	>999	240	Weight: 154 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-6-0, 3=0-6-0
Max Horiz 1=-100 (LC 6)
Max Uplift 1=-594 (LC 8), 3=-397 (LC 8)
Max Grav 1=4171 (LC 13), 3=2177 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6241/999, 2-3=-3477/575, 3-4=0/45
BOT CHORD 1-7=-707/5208, 6-7=-409/3097, 5-6=-409/3097, 3-5=-354/2861
WEBS 2-6=-415/2399, 2-7=-516/3651, 2-5=-417/149

NOTES
1) 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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 594 lb uplift at joint 1 and 397 lb uplift at joint 3.
9) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-3-4 from the left end to 5-3-4 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-2=-54, 2-4=-54, 1-3=-20
Concentrated Loads (lb)
Vert: 7=-1023 (B), 12=-1023 (B), 13=-2888 (B)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	T-33	Common	4	1	T37314144
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:17
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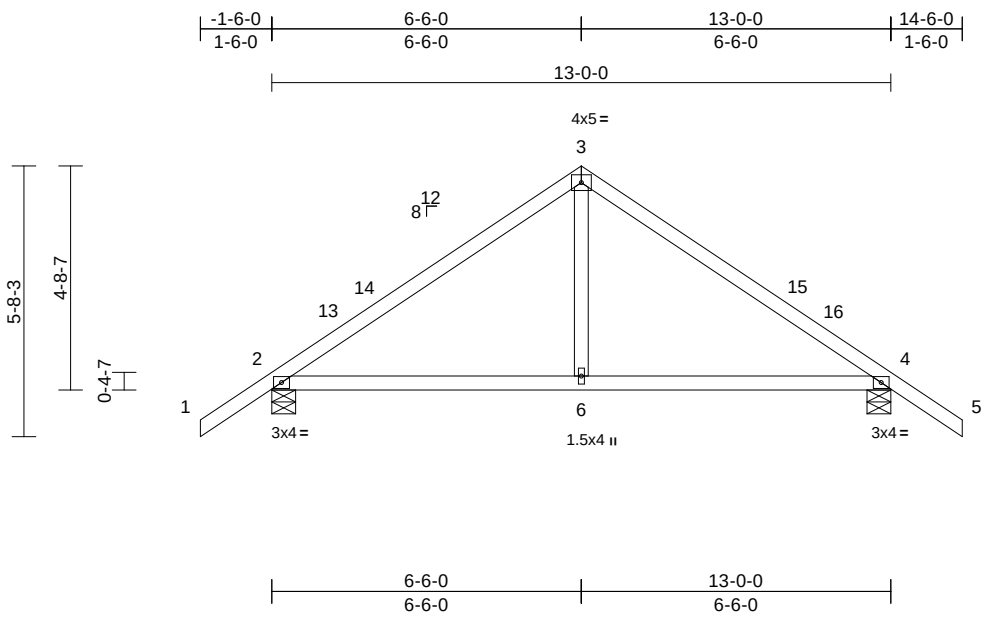

Scale = 1:48.4

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	0.26	Vert(LL)	-0.04	6-12	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.29	Vert(CT)	-0.07	6-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.03	6-12	>999	240	Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 4=0-6-0
Max Horiz 2=105 (LC 11)
Max Uplift 2=-104 (LC 12), 4=-104 (LC 12)
Max Grav 2=562 (LC 1), 4=562 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-572/165, 3-4=-572/165, 4-5=0/45
BOT CHORD 2-6=0/407, 4-6=0/407
WEBS 3-6=0/293

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 6-6-0, Zone2 6-6-0 to 10-8-15, Zone1 10-8-15 to 14-6-0 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2 and 104 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

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314145
24-0602-A1	T-34	Common Supported Gable	1	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:17

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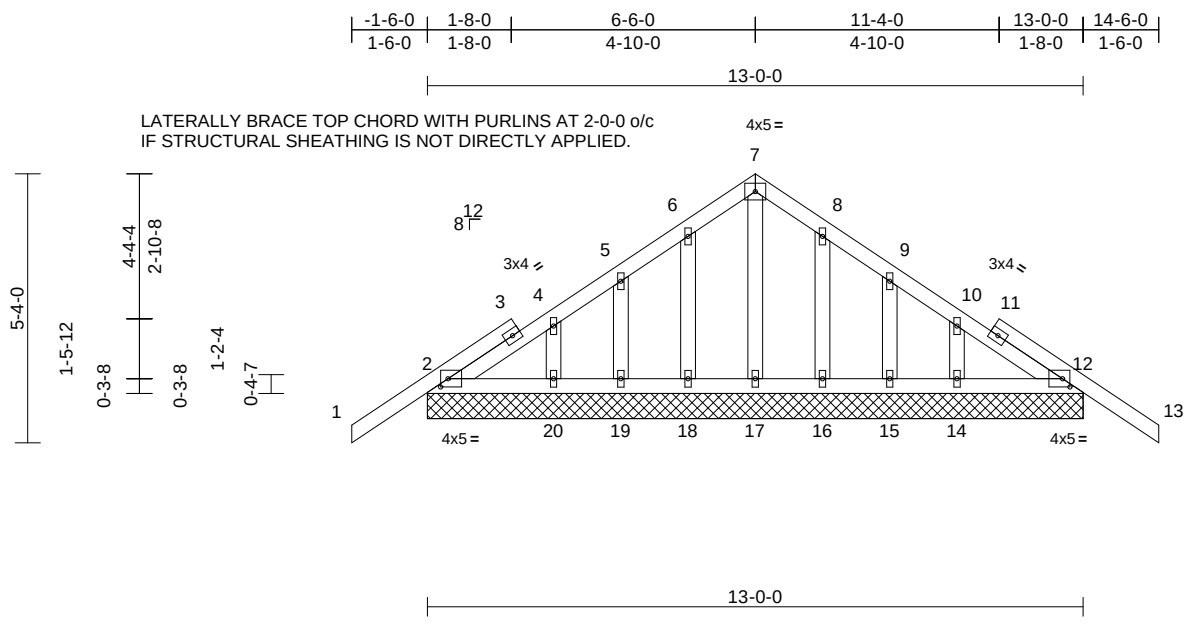

Scale = 1:45.7

Plate Offsets (X, Y): [2:0-1-12,0-1-15], [12:0-1-12,0-1-15]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	24	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 77 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING

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

REACTIONS (size) 2=13-0-0, 12=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0, 17=13-0-0, 18=13-0-0, 19=13-0-0, 20=13-0-0
Max Horiz 2=98 (LC 11)
Max Uplift 2=-81 (LC 12), 12=-81 (LC 12), 14=-3 (LC 8), 15=-44 (LC 12), 16=-17 (LC 12), 18=-17 (LC 12), 19=-44 (LC 12), 20=-1 (LC 9)
Max Grav 2=195 (LC 1), 12=195 (LC 1), 14=135 (LC 18), 15=92 (LC 18), 16=104 (LC 24), 17=89 (LC 17), 18=106 (LC 17), 19=91 (LC 17), 20=132 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-4=-78/66, 4-5=-58/49, 5-6=-48/101, 6-7=-70/149, 7-8=-70/149, 8-9=-47/101, 9-10=-31/39, 10-12=-73/40, 12-13=0/45
BOT CHORD 2-20=-51/133, 19-20=-51/133, 18-19=-51/133, 17-18=-51/133, 16-17=-51/133, 15-16=-51/133, 14-15=-51/133, 12-14=-51/133
WEBS 7-17=-91/17, 6-18=-78/76, 5-19=-69/101, 4-20=-96/93, 8-16=-76/77, 9-15=-70/101, 10-14=-95/92

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; 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 1-4-0 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 81 lb uplift at joint 2, 81 lb uplift at joint 12, 17 lb uplift at joint 18, 44 lb uplift at joint 19, 1 lb uplift at joint 20, 17 lb uplift at joint 16, 44 lb uplift at joint 15, 3 lb uplift at joint 14, 81 lb uplift at joint 2 and 81 lb uplift at joint 12.
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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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

MiTek®
16023 Swingley Ridge Rd.
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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314146
24-0602-A1	UT-1	Roof Special	2	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:17 Page: 1
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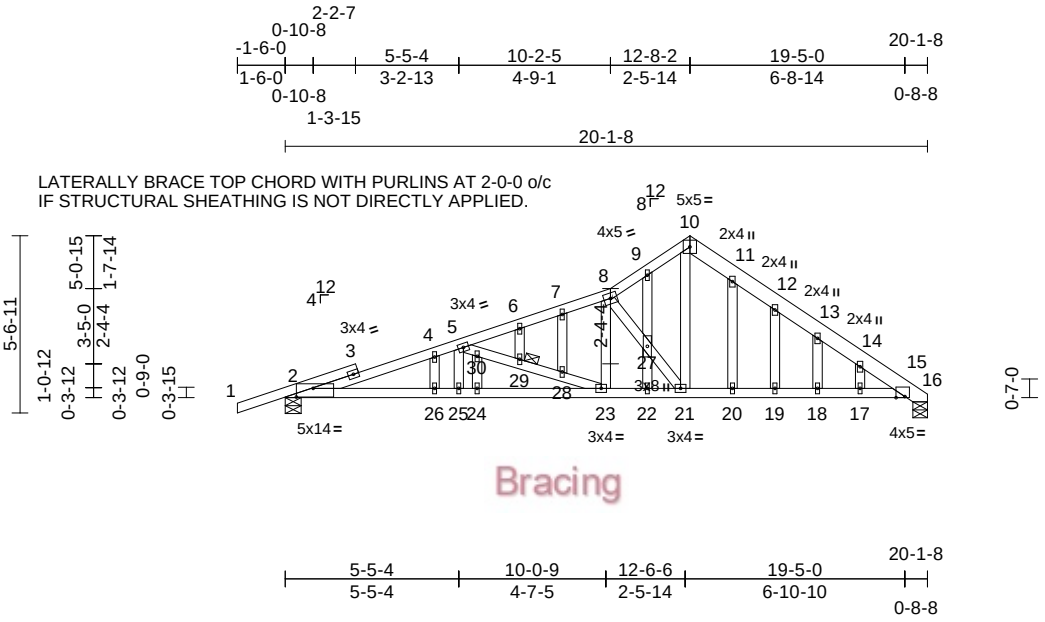

Scale = 1:72.2

Plate Offsets (X, Y): [2:0-6-5,0-3-4], [15:0-3-5,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	0.41	Vert(LL)	-0.09	18-19	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.16	18-19	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.05	16	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.08	18-19	>999	240	Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 10-16:2x6 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 29

REACTIONS (size) 2=0-6-0, 16=0-5-8
Max Horiz 2=103 (LC 11)
Max Uplift 2=-143 (LC 12), 16=-75 (LC 12)
Max Grav 2=826 (LC 1), 16=725 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-4=-1955/400, 4-5=-1956/420, 5-6=-1247/283, 6-7=-1219/297, 7-8=-1217/307, 10-11=-822/283, 11-12=-867/257, 12-13=-898/235, 13-14=-938/212, 14-15=-973/233, 15-16=-400/126, 8-9=-953/299, 9-10=-859/289
BOT CHORD 2-26=-322/1870, 25-26=-322/1870, 24-25=-322/1870, 23-24=-322/1870, 22-23=-166/1137, 21-22=-166/1137, 20-21=-79/757, 19-20=-79/757, 18-19=-79/757, 17-18=-79/757, 15-17=-135/757
WEBS 5-25=-78/331, 5-30=-773/179, 29-30=-745/154, 28-29=-751/163, 23-28=-773/169, 10-21=-164/603, 8-23=-10/332, 8-27=-654/161, 21-27=-578/129, 9-27=-29/108, 22-27=-20/28, 7-28=-67/19, 6-29=-25/32, 24-30=-89/76, 4-26=-132/56, 11-20=-17/45, 12-19=-15/36, 13-18=0/40, 14-17=0/35

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 -1-6-0 to 1-8-13, Zone1 1-8-13 to 12-8-2, Zone2 12-8-2 to 16-8-2, Zone1 16-8-2 to 19-10-12 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 studs spaced at 1-4-0 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) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 16 and 143 lb uplift at joint 2.
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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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	UT-2	Roof Special	3	1	T37314147
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:18
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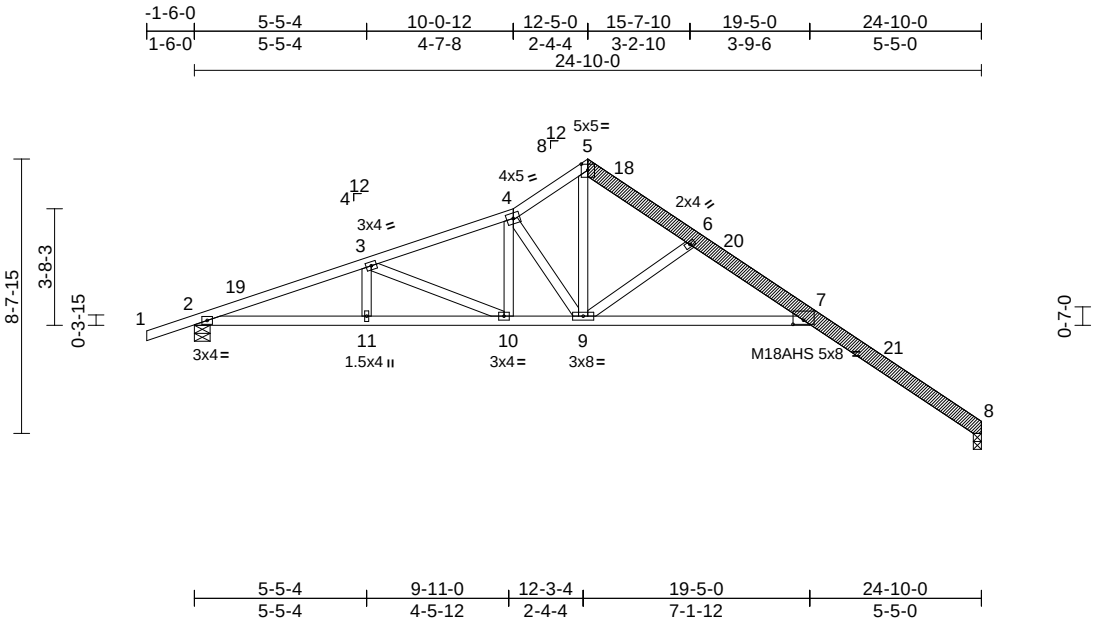

Scale = 1:72.7

Plate Offsets (X, Y): [5:0-2-8,0-2-4], [7:0-4-0,0-1-9]

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	0.80	Vert(LL)	-0.63	9-17	>472	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.57	Vert(CT)	-1.19	9-17	>248	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.82	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.41	9-17	>715	240	Weight: 154 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-8:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2
LBR SCAB 5-8 SP 2400F 2.0E one side

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

REACTIONS (size) 2=0-6-0, 8=0-3-0
Max Horiz 2=138 (LC 11)
Max Uplift 2=-145 (LC 12), 8=-93 (LC 12)
Max Grav 2=1000 (LC 1), 8=931 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-2292/447, 3-4=-1758/394, 4-5=-1471/373, 5-6=-1559/351, 6-7=-3516/604, 7-8=-493/202
BOT CHORD 2-11=-229/2149, 10-11=-229/2149, 9-10=-126/1617, 7-9=-413/2426
WEBS 3-11=0/210, 3-10=-572/123, 4-10=-12/233, 5-9=-326/1623, 4-9=-767/213, 6-9=-1356/354

NOTES
1) Attached 15-1-10 scab 5 to 8, front face(s) 2x6 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 2-11-10 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-11-14; starting at 6-9-10 from end at joint 5, nail 2 row(s) at 3" o.c. for 2-5-9.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 12-5-0, Zone2 12-5-0 to 16-7-15, Zone1 16-7-15 to 24-8-8 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
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 MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 8 and 145 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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Date:

May 14,2025

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16023 Swingley Ridge Rd.
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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314148
24-0602-A1	UT-3	Roof Special	6	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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Page: 1

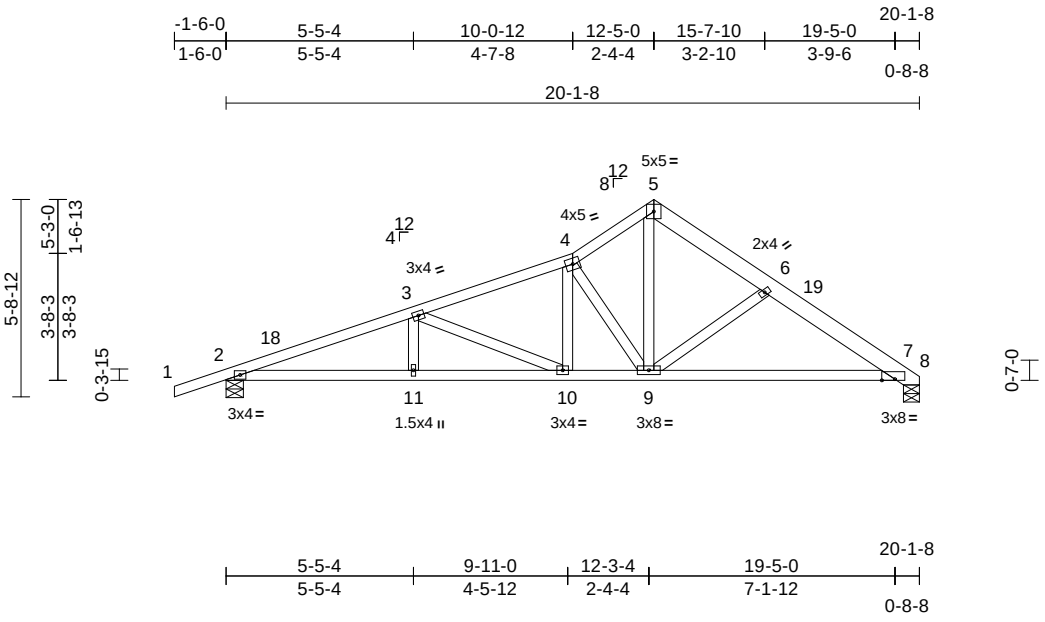

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Plate Offsets (X, Y): [7:0-4-9,Edge]

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	0.22	Vert(LL)	-0.06	10-11	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.31	Vert(CT)	-0.12	9-17	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.04	10-11	>999	240	Weight: 105 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 5-8:2x6 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS (size) 2=0-6-0, 8=0-5-8
Max Horiz 2=106 (LC 11)
Max Uplift 2=-134 (LC 12), 8=-77 (LC 12)
Max Grav 2=820 (LC 1), 8=735 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-1742/359, 3-4=-1200/307, 4-5=-911/285, 5-6=-922/275, 6-7=-1116/322, 7-8=-406/126
BOT CHORD 2-11=-264/1629, 10-11=-264/1629, 9-10=-151/1086, 7-9=-193/937
WEBS 3-11=0/211, 3-10=-578/122, 4-10=-16/256, 5-9=-219/834, 4-9=-649/202, 6-9=-285/185

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 12-5-0, Zone2 12-5-0 to 16-7-15, Zone1 16-7-15 to 19-10-12 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) 8 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 77 lb uplift at joint 8 and 134 lb uplift at joint 2.
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

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Joseph Ebinger PE No. 98947
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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	MG-1	Monopitch Girder	1	1	T37314149
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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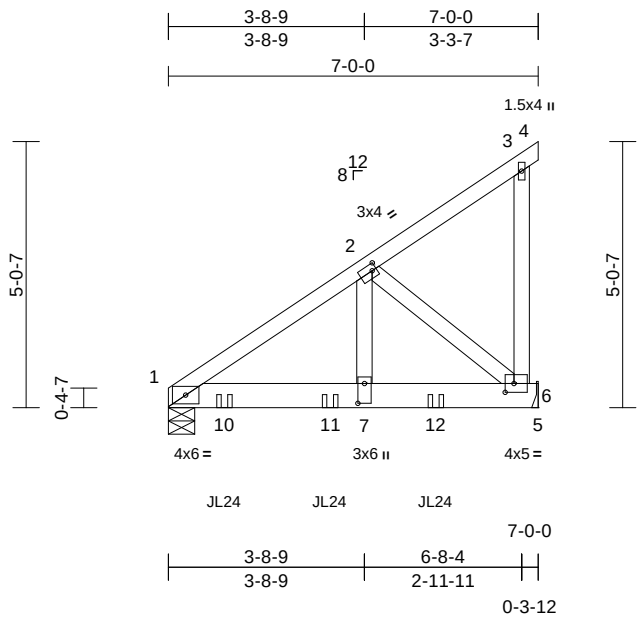

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Plate Offsets (X, Y): [2:0-1-0,0-1-8], [6:0-2-0,0-2-0], [7:0-4-8,0-1-8]

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	0.21	Vert(LL)	-0.02	7-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.04	7-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP		Wind(LL)	0.02	7-9	>999	240	Weight: 44 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-6-0, 6= Mechanical
Max Horiz 1=160 (LC 5)
Max Uplift 1=-146 (LC 8), 6=-173 (LC 5)
Max Grav 1=1280 (LC 1), 6=1143 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1371/152, 2-3=-107/42, 3-4=-9/0, 3-6=-81/61
BOT CHORD 1-7=-170/1072, 6-7=-170/1072, 5-6=0/0
WEBS 2-6=-1387/221, 2-7=-133/1355

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 1 and 173 lb uplift at joint 6.
7) Use MiTek JL24 (With 4-16d nails into Girder & 2-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 5-0-12 to connect truss(es) to front face of bottom chord.
8) Fill all nail holes where hanger is in contact with lumber.
9) 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: 1-3=-54, 3-4=-54, 1-5=-20
Concentrated Loads (lb)
Vert: 10=-636 (F), 11=-636 (F), 12=-634 (F)

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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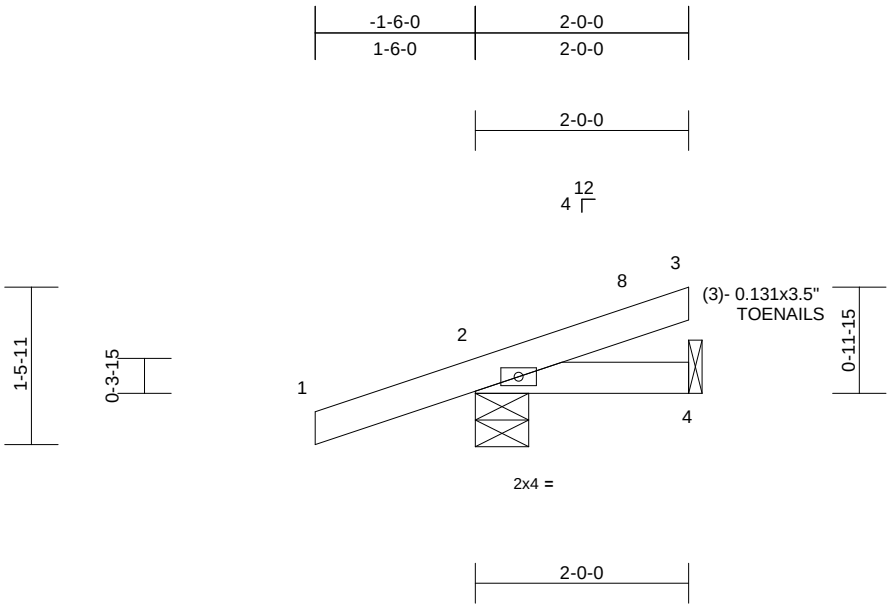
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	M-1	Jack-Closed	7	1	T37314150
					Job Reference (optional)



Scale = 1:21.6

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)	0.00	4-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.07	Vert(CT)	0.00	4-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-MP		Wind(LL)	0.00	4-7	>999	240	Weight: 9 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 2-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-6-0, 4= Mechanical
Max Horiz 2=46 (LC 12)
Max Uplift 2=-82 (LC 12), 4=-11 (LC 9)
Max Grav 2=185 (LC 1), 4=46 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-102/35
BOT CHORD 2-4=-29/79

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 2-0-0 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
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 2 and 11 lb uplift at joint 4.

LOAD CASE(S) Standard

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Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314151
24-0602-A1	J8V	Jack-Partial	2	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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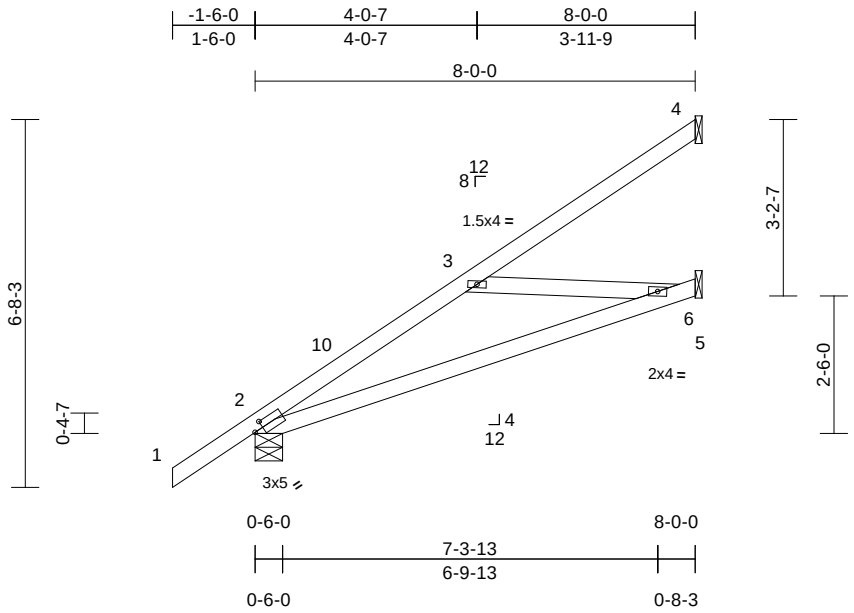

Scale = 1:41.9

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

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	0.41	Vert(LL)	-0.13	6-9	>729	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.57	Vert(CT)	-0.26	6-9	>363	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	-0.01	6-9	>999	240	Weight: 36 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=0-6-0, 4= Mechanical, 5= Mechanical
Max Horiz 2=194 (LC 12)
Max Uplift 2=-36 (LC 12), 4=-61 (LC 12), 5=-19 (LC 12)
Max Grav 2=382 (LC 1), 4=90 (LC 17), 5=202 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-474/185, 3-4=-85/40
BOT CHORD 2-6=-368/424, 5-6=-27/64
WEBS 3-6=-391/334

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 7-11-4 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) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 2 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 61 lb uplift at joint 4, 36 lb uplift at joint 2 and 19 lb uplift at joint 5.
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

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Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	J7-8	Jack-Closed	10	1	T37314152
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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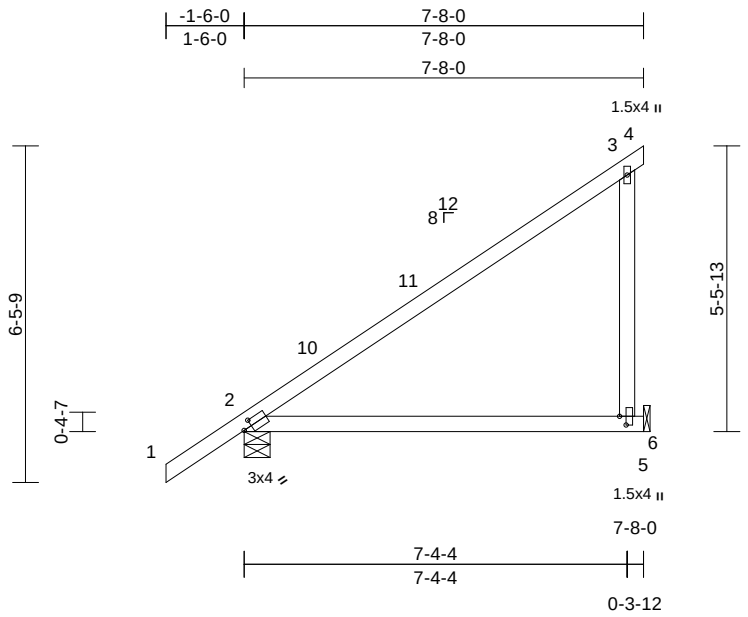

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Plate Offsets (X, Y): [2:0-2-0,0-1-8], [6:0-2-0,0-1-8]

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	0.61	Vert(LL)	-0.11	6-9	>792	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.25	6-9	>346	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.12	6-9	>722	240	Weight: 35 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 end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-6-0, 6= Mechanical
Max Horiz 2=192 (LC 9)
Max Uplift 2=-73 (LC 12), 6=-64 (LC 9)
Max Grav 2=361 (LC 1), 6=299 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-252/159, 3-4=-9/0, 3-6=-208/256
BOT CHORD 2-6=-97/132, 5-6=0/0

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 7-8-0 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
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 6 and 73 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

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	J7-8A	Half Hip	1	1	T37314153
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:34:04
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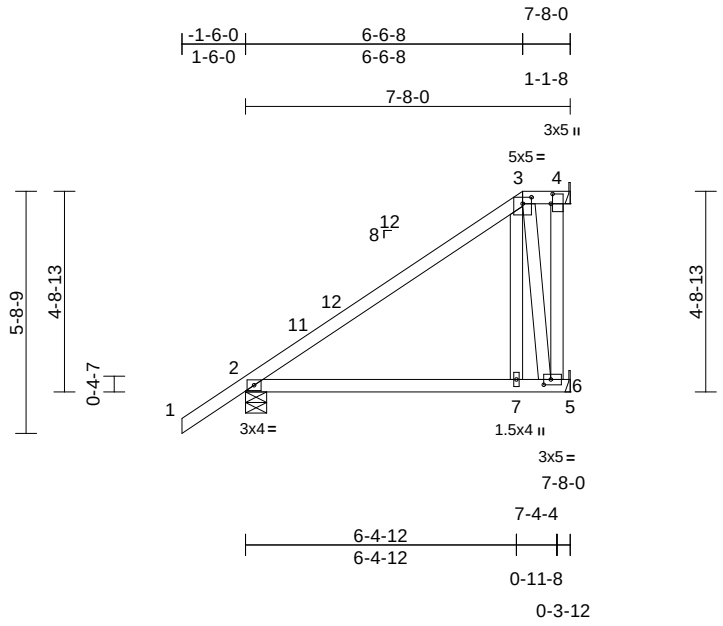

Scale = 1:54.4

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

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	0.33	Vert(LL)	-0.04	7-10	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.28	Vert(CT)	-0.08	7-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.05	7-10	>999	240	Weight: 46 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-6-0, 4= Mechanical, 6= Mechanical
Max Horiz 2=167 (LC 11)
Max Uplift 2=-81 (LC 12), 4=-12 (LC 9), 6=-41 (LC 9)
Max Grav 2=361 (LC 1), 4=22 (LC 1), 6=256 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-222/46, 3-4=-76/82, 4-6=0/0
BOT CHORD 2-7=-100/152, 6-7=-96/129, 5-6=0/0
WEBS 3-7=-36/316, 3-6=-390/241

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 6-6-8, Zone3 6-6-8 to 7-4-4 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) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 4, 41 lb uplift at joint 6 and 81 lb uplift at joint 2.
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.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	J7-8S	Common	3	1	T37314154
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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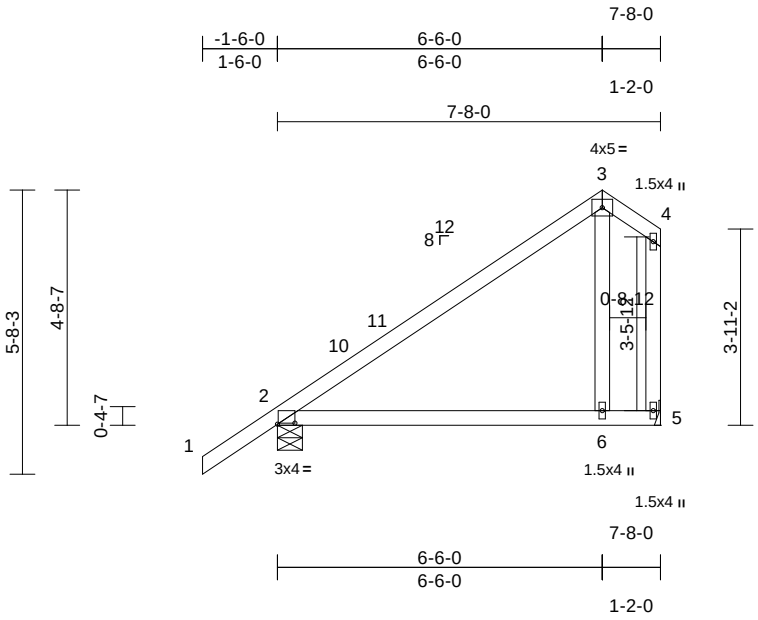

Scale = 1:46.1

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

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	0.40	Vert(LL)	-0.14	6-9	>659	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.30	6-9	>297	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS		Wind(LL)	0.18	6-9	>509	240	Weight: 38 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SPF No.2 *Except* 6-3:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-6-0, 5= Mechanical
Max Horiz 2=147 (LC 12)
Max Uplift 2=-64 (LC 12), 5=-49 (LC 12)
Max Grav 2=367 (LC 1), 5=270 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-249/85, 3-4=-15/30, 4-5=-28/46
BOT CHORD 2-6=-39/82, 5-6=0/0
WEBS 3-6=-194/184

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 6-6-0, Zone3 6-6-0 to 7-6-4 zone; cantilever 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 2 and 49 lb uplift at joint 5.
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

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	J7	Jack-Closed	2	1	T37314155
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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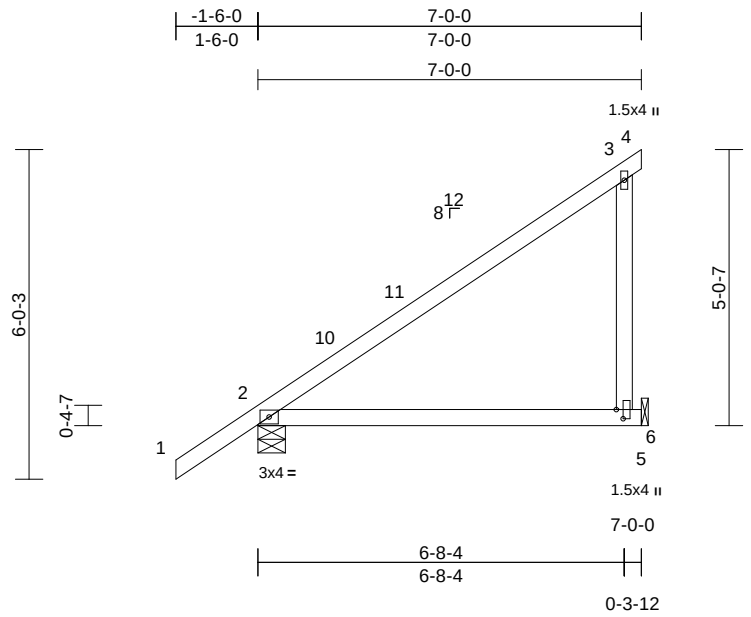

Scale = 1:42.1

Plate Offsets (X, Y): [6:0-2-0,0-1-8]

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	0.50	Vert(LL)	-0.08	6-9	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.17	6-9	>459	240		
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		Wind(LL)	0.09	6-9	>892	240	Weight: 32 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 end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-6-0, 6= Mechanical
Max Horiz 2=176 (LC 9)
Max Uplift 2=-72 (LC 12), 6=-58 (LC 9)
Max Grav 2=337 (LC 1), 6=273 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-234/146, 3-4=-9/0, 3-6=-189/245
BOT CHORD 2-6=-84/121, 5-6=0/0

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 7-0-0 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
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 6 and 72 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

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	J4-10	Jack-Open	3	1	T37314156
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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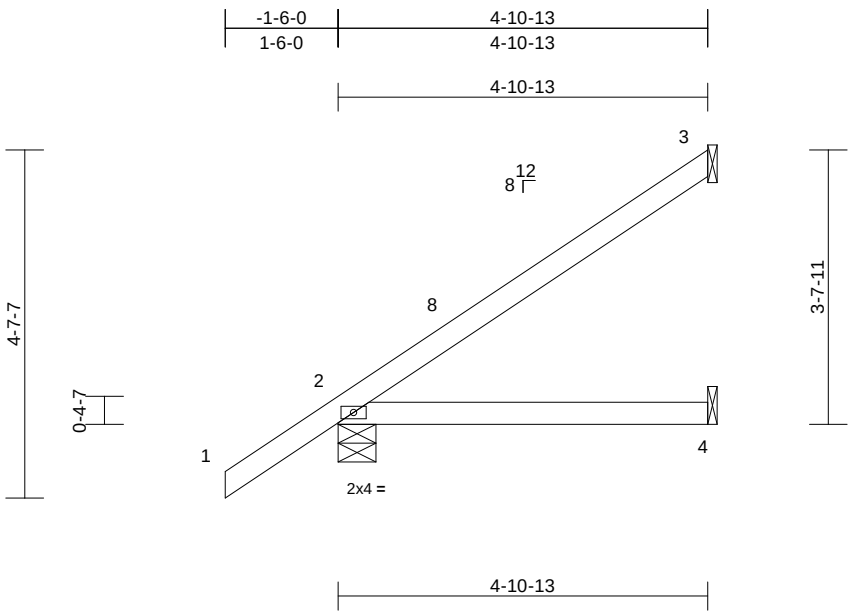

Scale = 1:30.6

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	0.26	Vert(LL)	-0.02	4-7	>999	360	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.22	Vert(CT)	-0.05	4-7	>999	240		
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-AS		Wind(LL)	0.03	4-7	>999	240	Weight: 19 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=0-6-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=135 (LC 12)
Max Uplift 2=-52 (LC 12), 3=-57 (LC 12)
Max Grav 2=273 (LC 1), 3=115 (LC 17), 4=86 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-226/59
BOT CHORD 2-4=-24/83

NOTES
1) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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 4-10-1 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 3 and 52 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

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Date:

May 14,2025

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Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314157
24-0602-A1	C-1	Piggyback	2	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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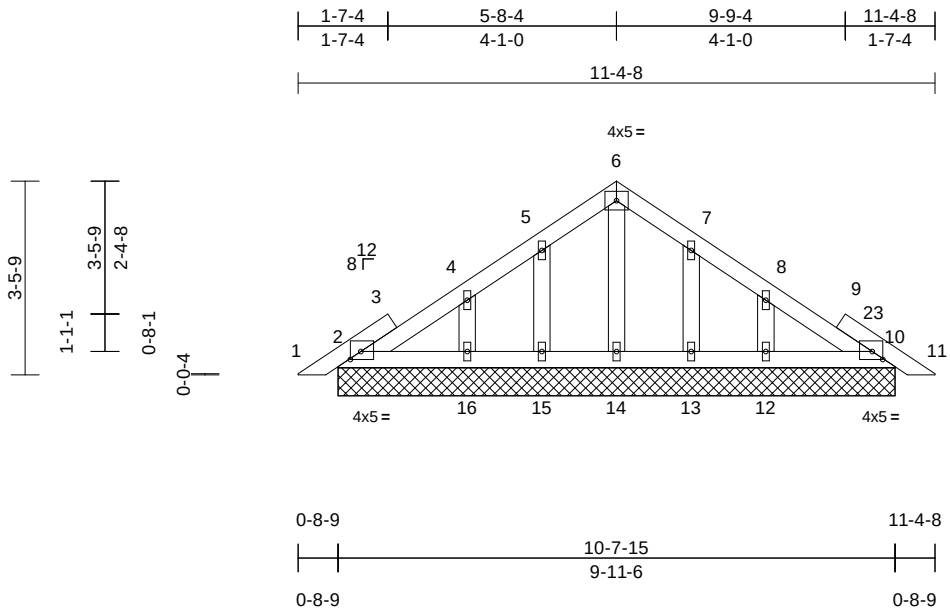

Scale = 1:41.2

Plate Offsets (X, Y): [2:0-2-4,0-1-11], [10:0-2-4,0-1-11]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 50 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=9-11-6, 10=9-11-6, 12=9-11-6, 13=9-11-6, 14=9-11-6, 15=9-11-6, 16=9-11-6
Max Horiz 2=-65 (LC 10)
Max Uplift 2=-18 (LC 12), 10=-16 (LC 12), 12=-37 (LC 12), 13=-22 (LC 12), 15=-21 (LC 12), 16=-37 (LC 12)
Max Grav 2=99 (LC 1), 10=85 (LC 1), 12=163 (LC 1), 13=79 (LC 18), 14=106 (LC 1), 15=81 (LC 17), 16=165 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-4=-40/57, 4-5=-39/46, 5-6=-44/80, 6-7=-44/80, 7-8=-23/45, 8-10=-40/40, 10-11=0/14
BOT CHORD 2-16=-37/67, 15-16=-37/67, 14-15=-37/67, 13-14=-37/67, 12-13=-37/67, 10-12=-37/67
WEBS 6-14=-72/0, 5-15=-68/76, 4-16=-102/100, 7-13=-67/76, 8-12=-101/98

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-11 to 3-1-0, Zone1 3-1-0 to 5-9-0, Zone2 5-9-0 to 9-9-8, Zone1 9-9-8 to 11-2-5 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 1-4-0 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 18 lb uplift at joint 2, 16 lb uplift at joint 10, 21 lb uplift at joint 15, 37 lb uplift at joint 16, 22 lb uplift at joint 13, 37 lb uplift at joint 12, 18 lb uplift at joint 2 and 16 lb uplift at joint 10.
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.
12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	C-2	Piggyback	5	1	T37314158
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:57 ID:nsExYCL3DrYv1iskHHv4s2zlZ2Q-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

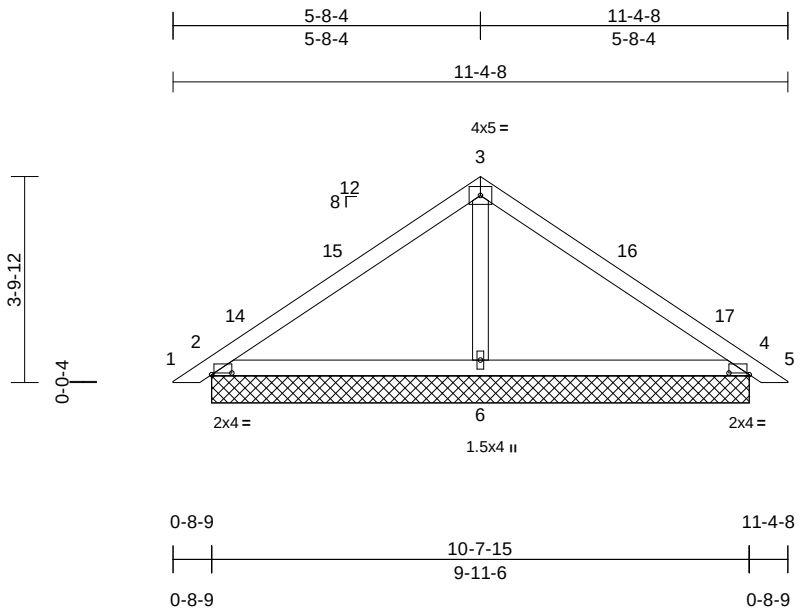

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Plate Offsets (X, Y): [2:0-0-8,Edge], [4:0-0-8,Edge]

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 40 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=9-11-6, 4=9-11-6, 6=9-11-6
Max Horiz 2=-71 (LC 10)
Max Uplift 2=-57 (LC 12), 4=-57 (LC 12)
Max Grav 2=231 (LC 1), 4=231 (LC 1), 6=324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-163/120, 3-4=-163/125, 4-5=0/14
BOT CHORD 2-6=-29/94, 4-6=-31/94
WEBS 3-6=-166/67

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 5-9-0, Zone2 5-9-0 to 9-11-15, Zone1 9-11-15 to 11-2-5 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 4-0-0 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 57 lb uplift at joint 2, 57 lb uplift at joint 4, 57 lb uplift at joint 2 and 57 lb uplift at joint 4.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME T37314159
24-0602-A1	C-3	Piggyback	1	1	Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:58
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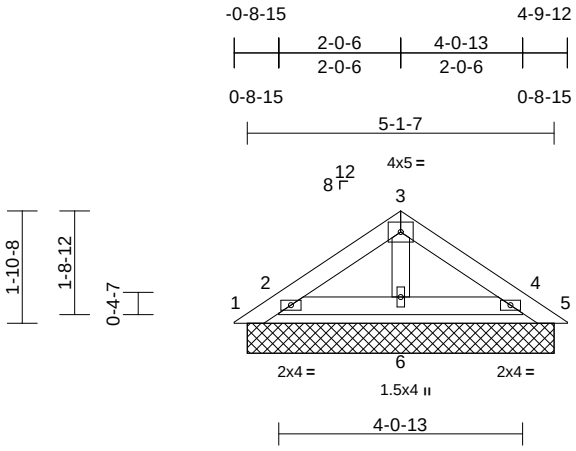

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	4	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
OTHERS 2x4 SP No.2

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

REACTIONS (size) 1=5-1-7, 2=5-1-7, 4=5-1-7, 5=5-1-7, 6=5-1-7
Max Horiz 1=-33 (LC 10)
Max Uplift 1=-43 (LC 17), 2=-25 (LC 12), 4=-32 (LC 12), 5=-26 (LC 24)
Max Grav 1=17 (LC 11), 2=170 (LC 17), 4=153 (LC 24), 5=11 (LC 12), 6=121 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-36/63, 2-3=-47/66, 3-4=-47/65, 4-5=-20/36
BOT CHORD 2-6=-12/42, 4-6=-12/42
WEBS 3-6=-57/28

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; 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) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 25 lb uplift at joint 2, 32 lb uplift at joint 4, 43 lb uplift at joint 1, 26 lb uplift at joint 5 and 25 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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Joseph Ebinger PE No. 98947
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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	C-4	Piggyback	1	1	T37314160
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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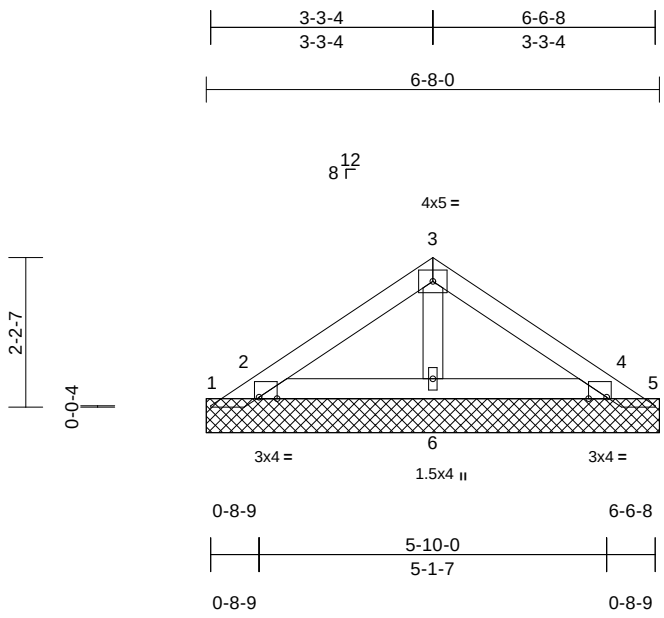
Page: 1



Scale = 1:33.9

Plate Offsets (X, Y): [2:0-3-3,Edge], [4:0-3-3,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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 21 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) 1=6-8-0, 2=6-8-0, 4=6-8-0, 5=6-8-0, 6=6-8-0
Max Horiz 1=-40 (LC 10)
Max Uplift 1=-274 (LC 17), 2=-98 (LC 12), 4=-54 (LC 12), 5=-57 (LC 25), 6=-16 (LC 12)
Max Grav 1=44 (LC 9), 2=851 (LC 17), 4=242 (LC 18), 5=31 (LC 32), 6=493 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-45/194, 2-3=-133/77, 3-4=-136/74, 4-5=-52/52
BOT CHORD 2-6=-20/97, 4-6=-19/97
WEBS 3-6=-392/35

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
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 4-0-0 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 98 lb uplift at joint 2, 54 lb uplift at joint 4, 274 lb uplift at joint 1, 57 lb uplift at joint 5, 16 lb uplift at joint 6, 98 lb uplift at joint 2 and 54 lb uplift at joint 4.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 453 lb down and 56 lb up at 1-4-0, and 421 lb down and 49 lb up at 3-4-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
13) 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: 1-8=-78, 3-8=-54, 3-4=-54, 4-5=-78, 7-10=-20
Concentrated Loads (lb)
Vert: 3=-310 (F), 8=-337 (F)

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Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME	T37314161
24-0602-A1	C-5	Piggyback	2	1	Job Reference (optional)	

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:58
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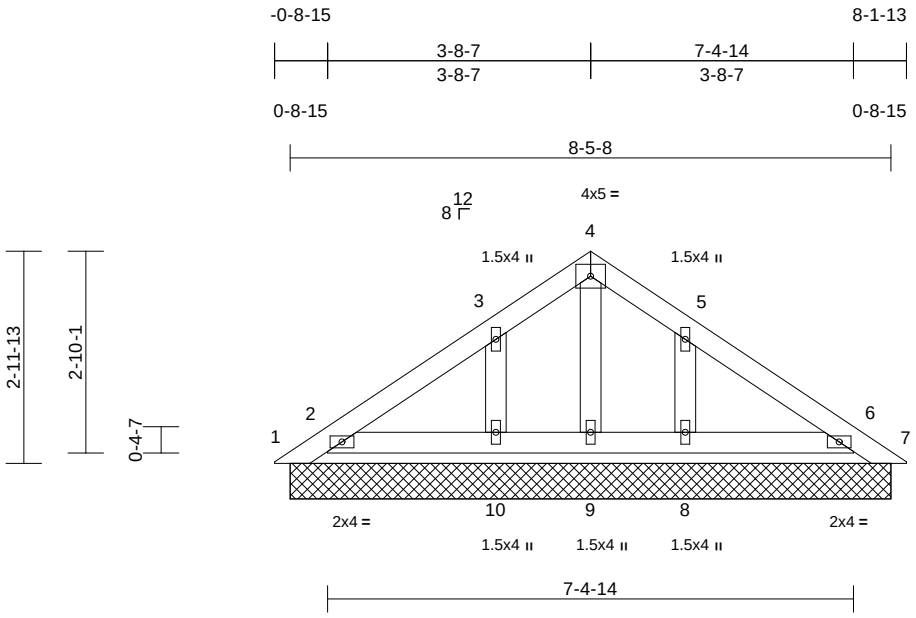

Scale = 1:32.4

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 34 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) 1=8-5-8, 2=8-5-8, 6=8-5-8, 7=8-5-8, 8=8-5-8, 9=8-5-8, 10=8-5-8
Max Horiz 1=-55 (LC 10)
Max Uplift 1=-64 (LC 17), 2=-16 (LC 12), 6=-23 (LC 12), 7=-37 (LC 18), 8=-47 (LC 12), 10=-46 (LC 12)
Max Grav 1=23 (LC 11), 2=188 (LC 17), 6=168 (LC 1), 7=13 (LC 12), 8=163 (LC 18), 9=48 (LC 12), 10=164 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-58/89, 2-3=-47/39, 3-4=-59/114, 4-5=-59/105, 5-6=-38/25, 6-7=-25/42
BOT CHORD 2-10=-30/86, 9-10=-30/86, 8-9=-30/86, 6-8=-30/86
WEBS 4-9=-78/22, 3-10=-113/154, 5-8=-112/176

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-9-10 to 3-8-1, Zone1 3-8-1 to 5-0-1, Zone3 5-0-1 to 9-2-8 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 1-4-0 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 16 lb uplift at joint 2, 23 lb uplift at joint 6, 64 lb uplift at joint 1, 37 lb uplift at joint 7, 46 lb uplift at joint 10, 47 lb uplift at joint 8 and 16 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	C-6	Piggyback	17	1	T37314162
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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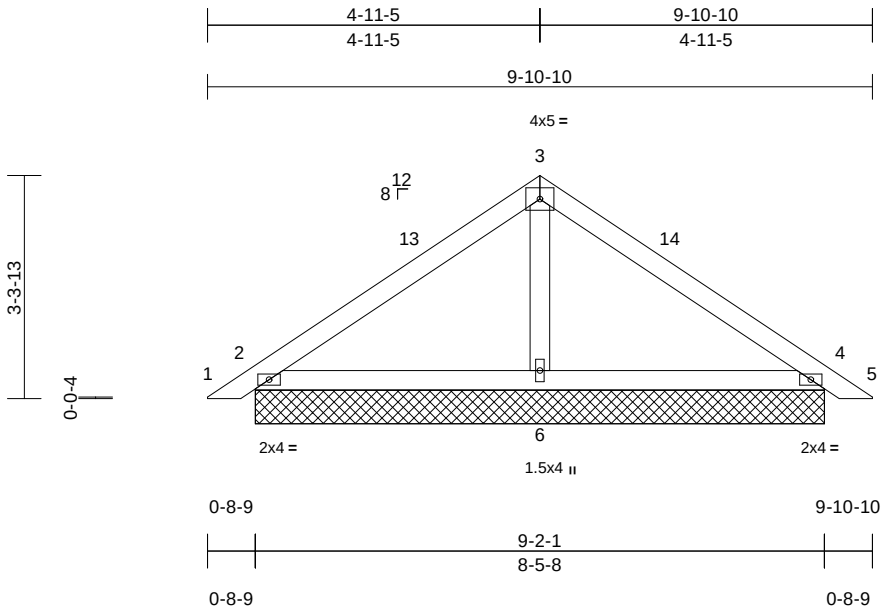

Scale = 1:34.2

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)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 34 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=8-5-8, 4=8-5-8, 6=8-5-8
Max Horiz 2=-62 (LC 10)
Max Uplift 2=-50 (LC 12), 4=-50 (LC 12)
Max Grav 2=197 (LC 1), 4=197 (LC 1), 6=282 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-119/106, 3-4=-119/112, 4-5=0/14
BOT CHORD 2-6=-23/75, 4-6=-25/75
WEBS 3-6=-147/68

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Zone3 0-3-11 to 3-3-11, Zone1 3-3-11 to 5-0-1, Zone2 5-0-1 to 9-2-13, Zone1 9-2-13 to 9-8-7 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 4-0-0 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 50 lb uplift at joint 2, 50 lb uplift at joint 4, 50 lb uplift at joint 2 and 50 lb uplift at joint 4.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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Date:

May 14,2025

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	C-7	Piggyback	6	1	T37314163
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

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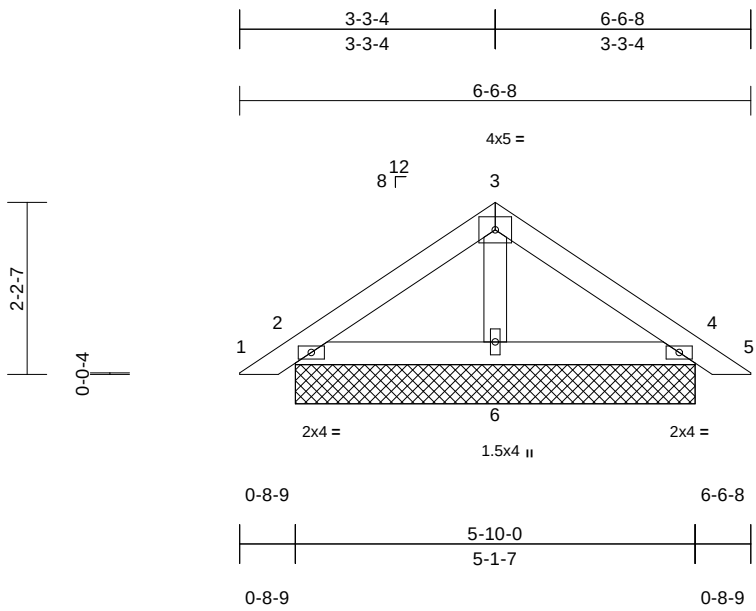

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FBC2023/TPI2014	Matrix-AS							Weight: 21 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=5-1-7, 4=5-1-7, 6=5-1-7
Max Horiz 2=-40 (LC 10)
Max Uplift 2=-39 (LC 12), 4=-39 (LC 12)
Max Grav 2=130 (LC 1), 4=130 (LC 1), 6=169 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-68/87, 3-4=-68/82, 4-5=0/14
BOT CHORD 2-6=-4/45, 4-6=-9/45
WEBS 3-6=-72/36

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; 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
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 4-0-0 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 39 lb uplift at joint 2, 39 lb uplift at joint 4, 39 lb uplift at joint 2 and 39 lb uplift at joint 4.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

This item has been digitally signed and sealed by Ebinger, Joseph, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joseph Ebinger PE No. 98947
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Road, Chesterfield, MO 63017
Date:

May 14,2025

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

Job	Truss	Truss Type	Qty	Ply	GAINEY HOME
24-0602-A1	C-8	Piggyback	1	1	T37314164
					Job Reference (optional)

Arnold Truss Mfg. LLC, Ocala, FL - 34475,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 13 10:33:59
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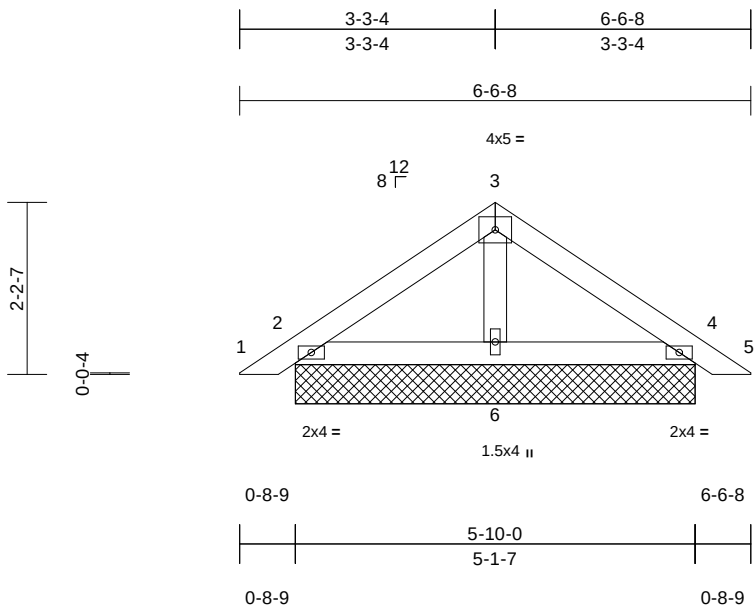

Scale = 1:29.5

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Date:

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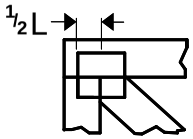
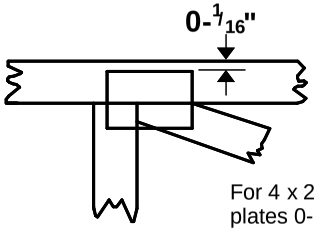
Symbols

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.

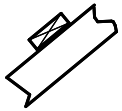
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

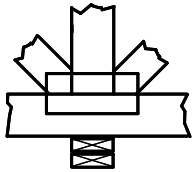
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

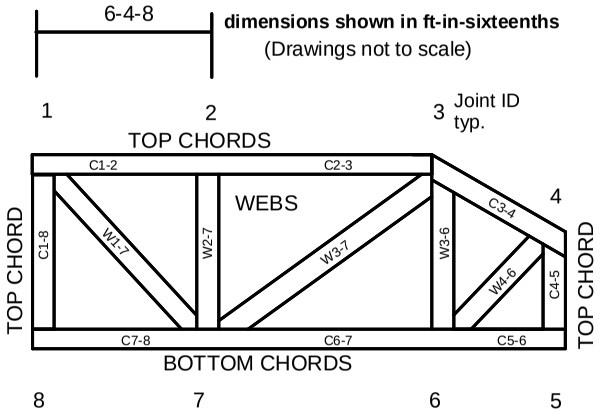


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

MiTek®

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.