MiTek®

RE: B240154
Lot 11 CB

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

Site Information:

Customer: Summit Homes Project Name: B240154
Lot/Block: 11 Model: Cherry Blossom - Farmhouse
Address: 3437 SE Corbin Dr. Subdivision: Cobey Creek
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I67451622	A1	8/12/2024	21	I67451642	LAY1	8/12/2024
2	I67451623	A2	8/12/2024	22	I67451643	LAY2	8/12/2024
3	I67451624	A3	8/12/2024	23	I67451644	LAY3	8/12/2024
4	I67451625	A4	8/12/2024	24	I67451645	V1	8/12/2024
5	I67451626	A5	8/12/2024	25	I67451646	V2	8/12/2024
6	I67451627	A6	8/12/2024	26	I67451647	V3	8/12/2024
7	I67451628	A7	8/12/2024	27	I67451648	V4	8/12/2024
8	I67451629	A8	8/12/2024	28	I67451649	V5	8/12/2024
9	I67451630	A9	8/12/2024	29	I67451650	V6	8/12/2024
10	I67451631	A10	8/12/2024	30	I67451651	V7	8/12/2024
11	I67451632	B1	8/12/2024				
12	I67451633	B2	8/12/2024				
13	I67451634	C1	8/12/2024				
14	I67451635	C2	8/12/2024				
15	I67451636	C3	8/12/2024				
16	I67451637	D1	8/12/2024				
17	I67451638	J1	8/12/2024				
18	I67451639	J2	8/12/2024				
19	I67451640	J3	8/12/2024				
20	I67451641	J4	8/12/2024				

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2025.

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.

August 12, 2024
Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451622
B240154	A1	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Apr 25 2024 Print: 8.730 E Apr 25 2024 MiTek Industries, Inc. Mon Aug 12 10:25:07 Page: 1
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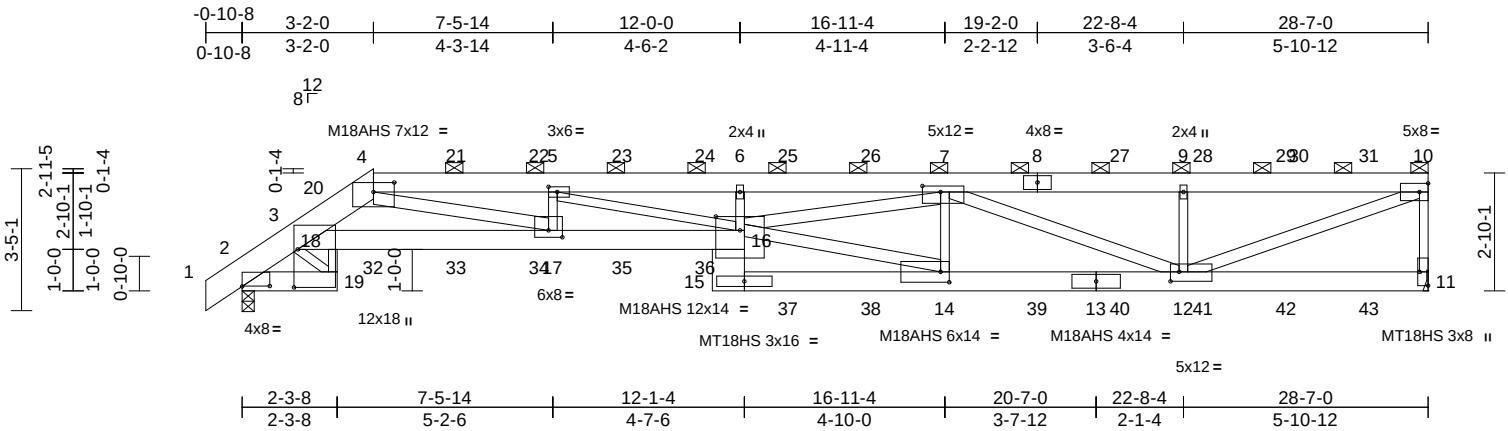

Scale = 1:55.5

Plate Offsets (X, Y): [2:0-8-0,0-0-2], [4:0-6-0,0-2-12], [5:0-2-8,0-1-8], [7:0-5-4,0-1-12], [11:Edge,0-2-8], [12:0-2-8,0-2-12], [14:0-2-8,0-3-0], [16:0-7-0,0-4-0], [17:0-4-0,0-2-0], [18:0-11-0,0-1-1]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.65	16-17	>520	360	M18AHS	142/136
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.96	16-17	>354	240	MT20	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.27	11	n/a	n/a	MT18HS	197/144
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	16-17	>999	240		
BCDL	10.0										Weight: 182 lb	FT = 10%

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E *Except* 4-8:2x6 SP 2400F 2.0E, 8-10:2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 2-19:2x6 SPF No.2, 19-18:2x3 SPF No.2, 16-15:2x10 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 14-16,12-7,12-10,17-4:2x4 SPF 2100F 1.8E, 16-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-12 max.): 4-10.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=1692/0-3-8, 11=1530/ Mechanical
Max Horiz 2=-72 (LC 13)
Max Uplift 2=-216 (LC 5), 11=-138 (LC 5)
Max Grav 2=2074 (LC 15), 11=2140 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-1834/189, 3-20=-4529/411, 4-20=-4510/423, 4-21=-8614/723, 21-22=-8614/723, 5-22=-8614/723, 5-23=-9666/752, 23-24=-9666/752, 6-24=-9666/752, 6-25=-9743/765, 25-26=-9743/765, 7-26=-9743/765, 7-8=-4220/309, 8-27=-4220/309, 9-27=-4220/309, 9-28=-4220/309, 28-29=-4220/309, 29-30=-4220/309, 30-31=-4220/309, 10-31=-4220/309, 10-11=-2045/170

BOT CHORD 2-19=-32/518, 18-19=-23/552, 3-18=-338/4170, 18-32=-339/4207, 32-33=-339/4207, 33-34=-339/4207, 17-34=-339/4207, 17-35=-657/8614, 35-36=-657/8614, 16-36=-657/8614, 15-16=0/136, 15-37=-76/1324, 37-38=-76/1324, 14-38=-76/1324, 14-39=-403/6219, 13-39=-403/6219, 13-40=-403/6219, 12-40=-403/6219, 12-41=0/63, 41-42=0/63, 42-43=0/63, 11-43=0/63

WEBS 5-17=-872/59, 5-16=-31/1107, 14-16=-333/4984, 7-16=-307/3646, 7-14=-864/149, 7-12=-2163/173, 9-12=-763/143, 10-12=-294/4511, 3-19=-664/42, 4-17=-333/4626, 6-16=-389/64

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 7-5-14, Interior (1) 7-5-14 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 11 and 216 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 12,2024

Continued on page 2

MiTek®
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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451622
B240154	A1	Half Hip Girder	1	1	Job Reference (optional)	09/09/2024

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 135 lb down and 105 lb up at 3-2-0, 57 lb down and 42 lb up at 5-2-0, 54 lb down and 42 lb up at 7-2-0, 47 lb down and 42 lb up at 9-2-0, 47 lb down and 42 lb up at 11-2-0, 64 lb down and 64 lb up at 13-2-0, 64 lb down and 64 lb up at 15-2-0, 64 lb down and 64 lb up at 17-2-0, 64 lb down and 64 lb up at 19-2-0, 64 lb down and 64 lb up at 21-2-0, 64 lb down and 64 lb up at 23-2-0, and 66 lb down and 64 lb up at 25-2-0, and 70 lb down and 64 lb up at 27-2-0 on top chord, and 125 lb down and 62 lb up at 3-2-0, 46 lb down and 29 lb up at 5-2-0, 46 lb down and 29 lb up at 7-2-0, 46 lb down and 29 lb up at 9-2-0, 46 lb down and 29 lb up at 11-2-0, 22 lb down at 13-2-0, 22 lb down at 15-2-0, 22 lb down at 17-2-0, 22 lb down at 19-2-0, 22 lb down at 21-2-0, 22 lb down at 23-2-0, and 22 lb down at 25-2-0, and 22 lb down at 27-2-0 on bottom 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-4=-70, 4-10=-70, 2-19=-20, 16-18=-20, 11-15=-20
   Concentrated Loads (lb)
   Vert: 4=-43 (F), 8=-22 (F), 14=-12 (F), 7=-22 (F), 21=-7 (F), 22=-7 (F), 23=-7 (F), 24=-7 (F), 25=-22 (F), 26=-22 (F), 27=-22 (F), 28=-22 (F), 29=-22 (F), 31=-22 (F), 32=-114 (F), 33=-36 (F), 34=-36 (F), 35=-36 (F), 36=-36 (F), 37=-12 (F), 38=-12 (F), 39=-12 (F), 40=-12 (F), 41=-12 (F), 42=-12 (F), 43=-12 (F)

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451623
B240154	A2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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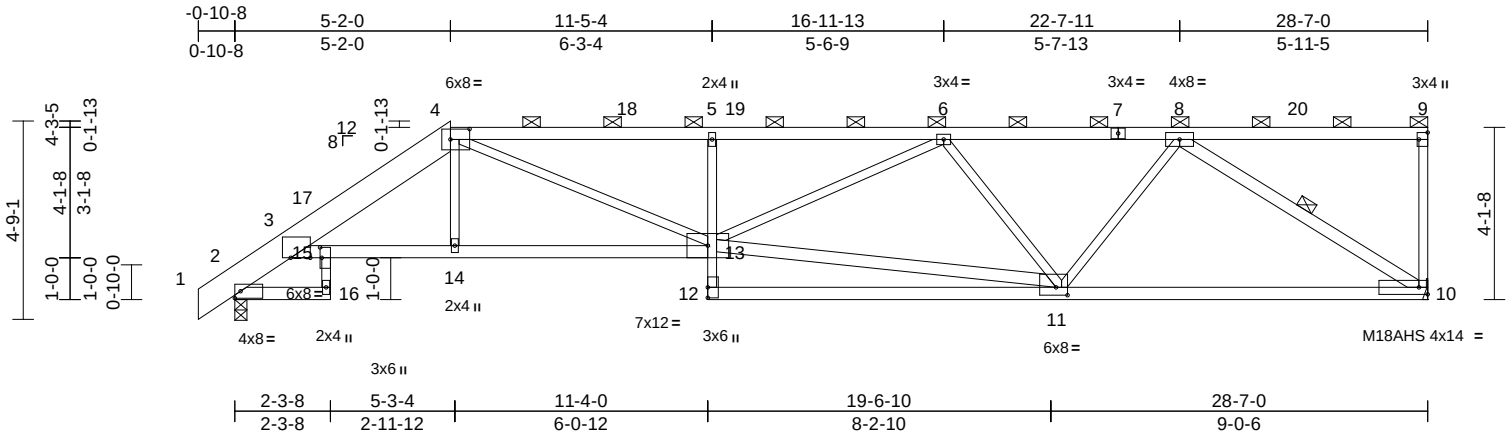

Scale = 1:55.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.34	5	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.49	11-12	>695	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.23	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	5	>999	240		
BCDL	10.0										Weight: 127 lb	FT = 10%

LUMBER
TOP CHORD 2x8 SP 2400F 2.0E *Except* 4-7:2x4 SPF 2100F 1.8E, 7-9:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-15,5-12:2x3 SPF No.2, 3-13:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 11-13,10-8:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-3 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-5 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-10

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-121 (LC 13)
Max Grav 2=1665 (LC 15), 10=1993 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-1199/0, 3-4=-3226/0, 4-5=-4729/0, 5-6=-4682/0, 6-8=-3114/0, 8-9=-34/49, 9-10=-307/23
BOT CHORD 2-16=0/165, 15-16=0/82, 3-15=0/2637, 14-15=0/2803, 13-14=0/2812, 12-13=0/78, 5-13=-732/42, 11-12=0/266, 10-11=0/2481
WEBS 4-13=0/2097, 4-14=0/249, 11-13=0/3631, 6-13=0/911, 6-11=-1315/0, 8-11=0/1038, 8-10=-2928/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 9-4-15, Interior (1) 9-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

August 12,2024

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451624
B240154	A3	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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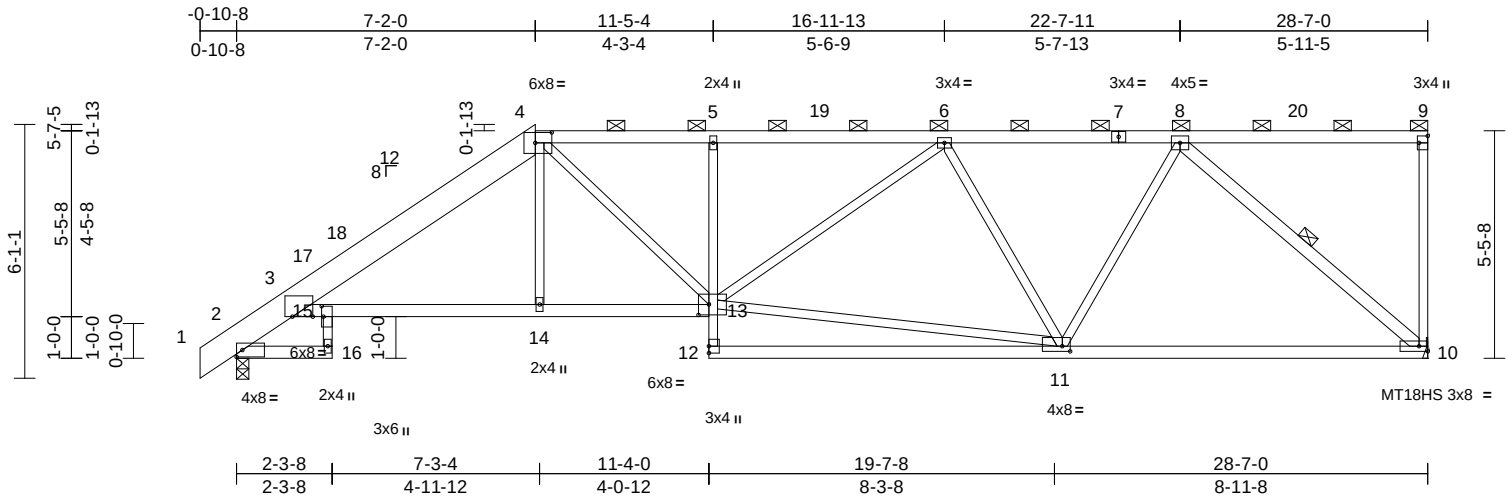

Scale = 1:55.3

Plate Offsets (X, Y): [3:0-5-14,Edge], [4:0-4-12,0-3-0], [9:Edge,0-2-8], [11:0-2-4,0-1-8], [13:0-3-0,0-3-0], [15:0-3-0,0-0-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.22	5	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.35	11-12	>985	240	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.22	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	14-15	>999	240		
BCDL	10.0										Weight: 135 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 16-15,5-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-5 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-10

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-164 (LC 13)
Max Grav 2=1525 (LC 15), 10=1956 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-1072/17, 3-4=-2659/0, 4-5=-3033/0, 5-6=-3021/0, 6-8=-2245/0, 8-9=-20/69, 9-10=-302/27
BOT CHORD 2-16=-9/130, 15-16=0/70, 3-15=0/2127, 14-15=0/2257, 13-14=0/2262, 12-13=0/77, 5-13=-600/41, 11-12=0/225, 10-11=0/1803
WEBS 4-13=0/1071, 4-14=0/206, 11-13=0/2520, 6-13=0/419, 6-11=-1024/14, 8-11=0/905, 8-10=-2381/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-11-1, Exterior(2R) 2-11-1 to 11-5-4, Interior (1) 11-5-4 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451625
B240154	A4	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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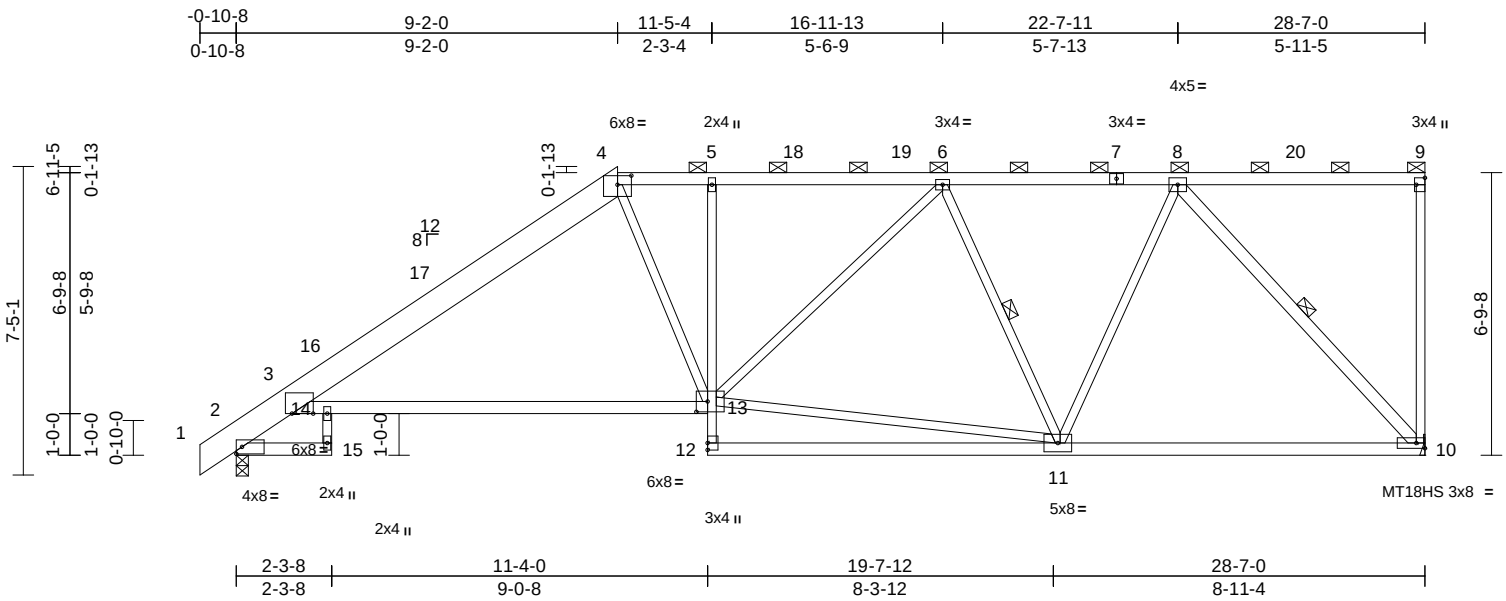

Scale = 1:55.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.29	13-14	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.65	13-14	>522	240	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.23	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	13-14	>999	240		
BCDL	10.0										Weight: 143 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 15-14,5-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-11 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 8-10

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=-208 (LC 13)
Max Grav 2=1579 (LC 16), 10=1905 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-971/64, 3-4=-2196/0, 4-5=-2166/0, 5-6=-2157/0, 6-8=-1718/0, 8-9=-14/87, 9-10=-299/31
BOT CHORD 2-15=-52/46, 14-15=-2/45, 3-14=0/1824, 13-14=0/1843, 12-13=0/74, 5-13=-453/44, 11-12=-17/37, 10-11=0/1390
WEBS 4-13=0/837, 11-13=0/2035, 6-13=0/364, 6-11=-862/17, 8-11=0/813, 8-10=-2059/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-11-1, Exterior(2R) 4-11-1 to 13-4-15, Interior (1) 13-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451626
B240154	A5	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:21:32 Page: 1
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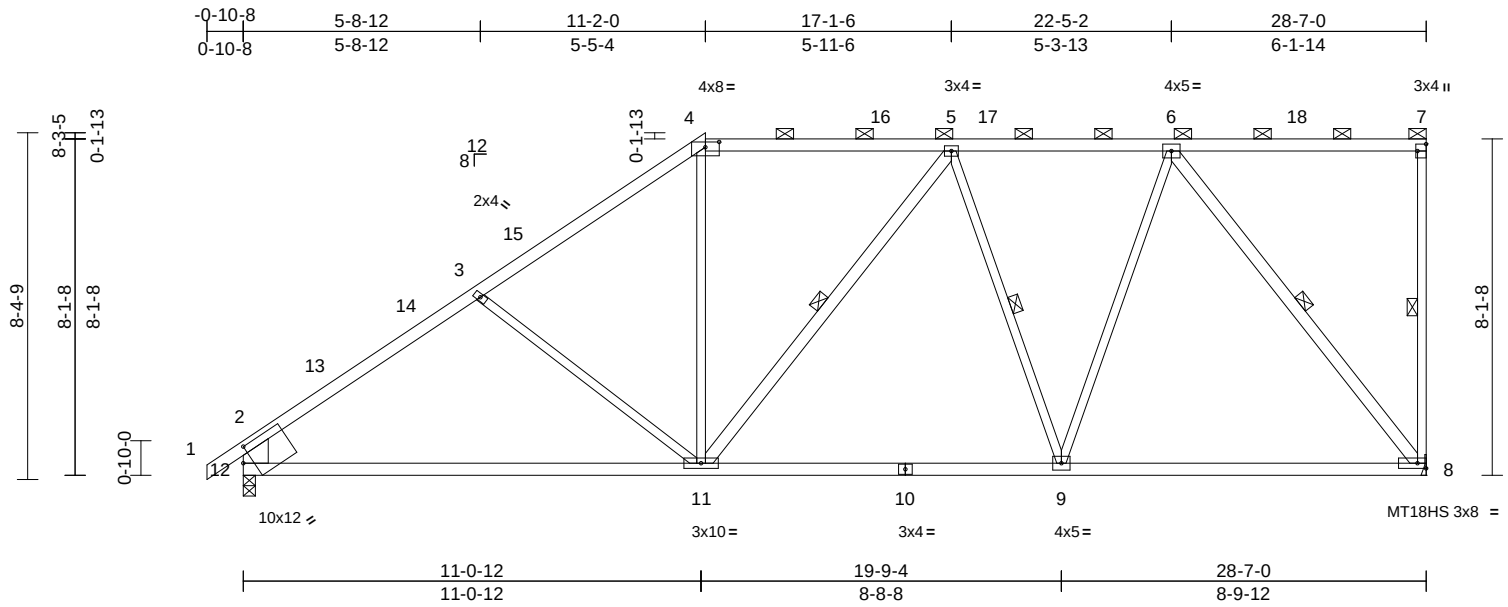

Scale = 1:55.7

Plate Offsets (X, Y): [4:0-4-0,0-1-9], [7:Edge,0-2-8], [12:0-2-11,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.17	9-11	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.31	11-12	>999	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	8-9	>999	240		
BCDL	10.0										Weight: 124 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-5,8-6:2x4 SPF No.2, 12-2:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-7 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-8, 5-11, 5-9, 6-8

REACTIONS (size) 8= Mechanical, 12=0-3-8
Max Horiz 12=-243 (LC 13)
Max Grav 8=1836 (LC 15), 12=1700 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/81, 2-3=-2007/4, 3-4=-1613/16, 4-5=-1338/43, 5-6=-1356/37, 6-7=-11/103, 7-8=-315/37, 2-12=-1580/36
BOT CHORD 11-12=0/1467, 9-11=0/1520, 8-9=0/1127
WEBS 3-11=-458/76, 4-11=0/400, 5-11=-305/244, 5-9=-512/35, 6-9=0/711, 6-8=-1827/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-11-1, Exterior(2R) 6-11-1 to 15-4-15, Interior (1) 15-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451627
B240154	A6	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:32 Page: 1
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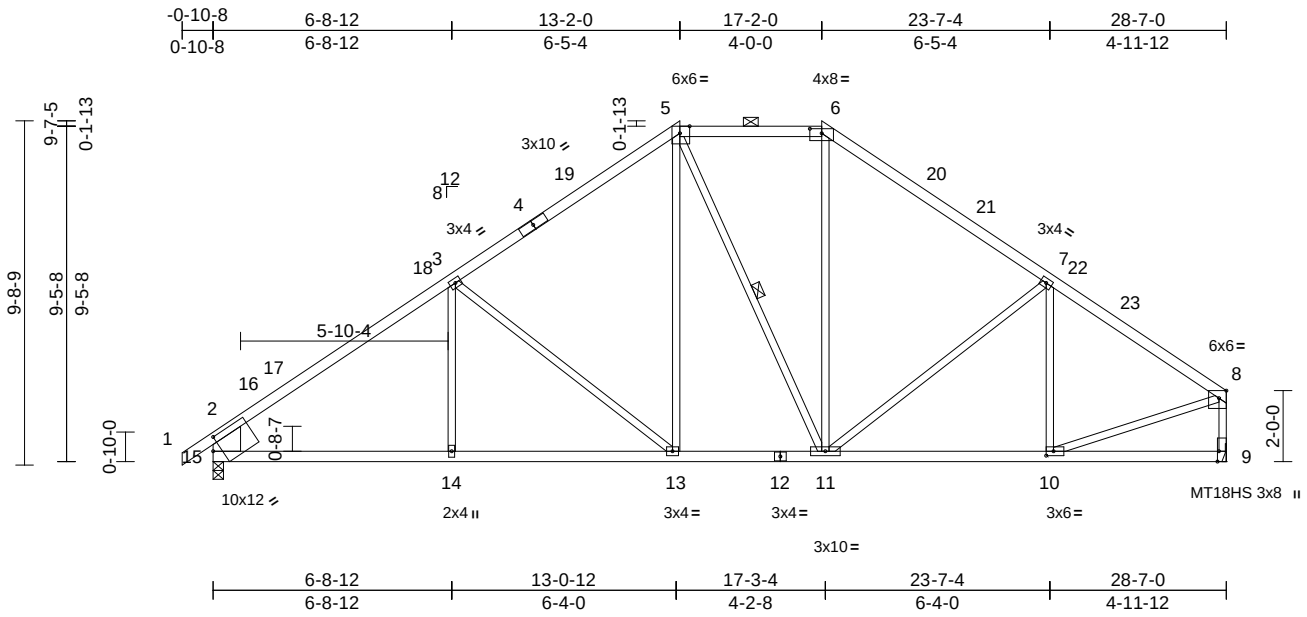

Scale = 1:65

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.21	13-14	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.33	13-14	>999	240	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	13-14	>999	240		
BCDL	10.0										Weight: 123 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x4 SPF 2100F 1.8E, 1-4:2x4 SPF 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 12-9:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-2:2x10 SP 2400F 2.0E

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

REACTIONS (size) 9= Mechanical, 15=0-3-8
Max Horiz 15=-59 (LC 6)
Max Grav 9=1827 (LC 19), 15=1884 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/84, 2-3=-2406/0, 3-5=-1806/60, 5-6=-1264/84, 6-7=-1762/62, 7-8=-1973/5, 8-9=-1782/0, 2-15=-1739/18
BOT CHORD 14-15=0/1791, 13-14=0/1791, 11-13=0/1311, 10-11=0/1541, 9-10=0/56
WEBS 3-14=0/100, 3-13=-604/26, 5-13=0/518, 5-11=-267/127, 6-11=0/414, 7-11=-346/45, 7-10=-419/54, 8-10=0/1586

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-11-1, Exterior(2R) 8-11-1 to 21-4-15, Interior (1) 21-4-15 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451628
B240154	A7	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Apr 25 2024 Print: 8.730 E Apr 25 2024 MiTek Industries, Inc. Mon Aug 12 10:23:23 Page: 1
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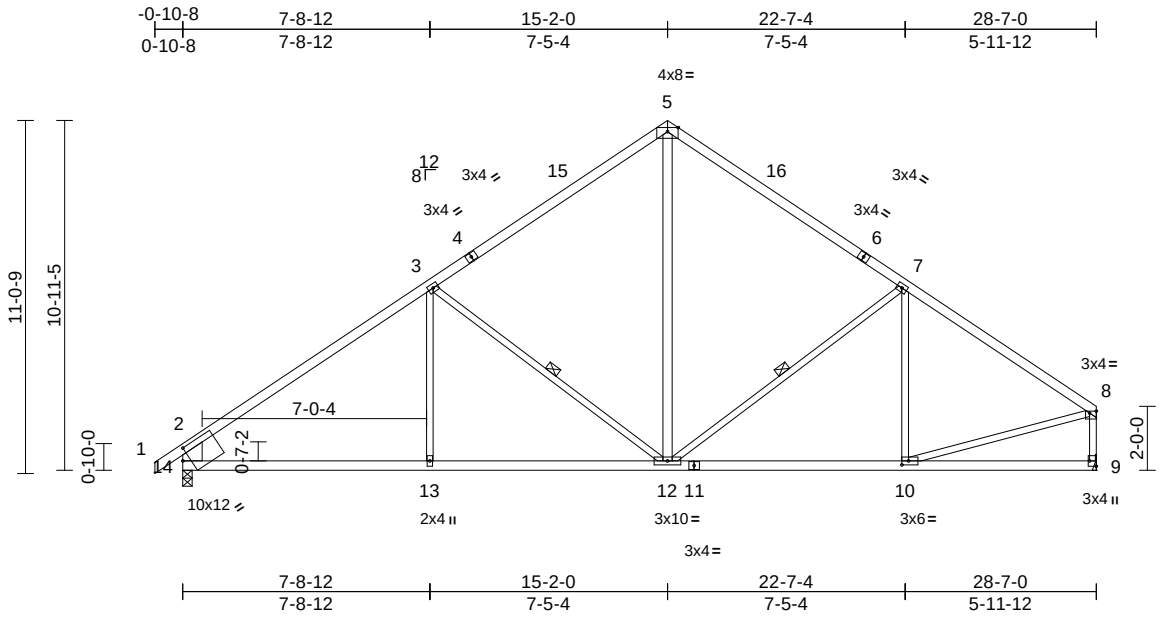

Scale = 1:72.1

Plate Offsets (X, Y): [8:Edge,0-0-12], [9:Edge,0-2-8], [10:0-2-8,0-1-8], [14:0-2-11,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.14	12-13	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.28	12-13	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	12-13	>999	240		
BCDL	10.0										Weight: 116 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-1,6-8:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-5:2x4 SPF No.2, 14-2:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-12, 3-12

REACTIONS (lb/size) 9=1266/ Mechanical, 14=1352/0-3-8
Max Horiz 14=-60 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 8-9=-1214/0, 1-2=0/78, 2-3=-1697/11, 3-4=-1189/44, 4-15=-1060/68, 5-15=-1043/88, 5-16=-1049/87, 6-16=-1062/66, 6-7=-1196/42, 7-8=-1423/22, 2-14=-1245/44
BOT CHORD 13-14=0/1265, 12-13=0/1265, 11-12=0/1112, 10-11=0/1112, 9-10=0/59
WEBS 5-12=0/700, 7-12=-340/71, 7-10=-185/69, 3-12=-538/67, 3-13=0/132, 8-10=0/1114

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-2-0, Exterior(2R) 12-2-0 to 18-2-0, Interior (1) 18-2-0 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
5) Refer to girder(s) for truss to truss connections.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451629
B240154	A8	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:21:32 Page: 1
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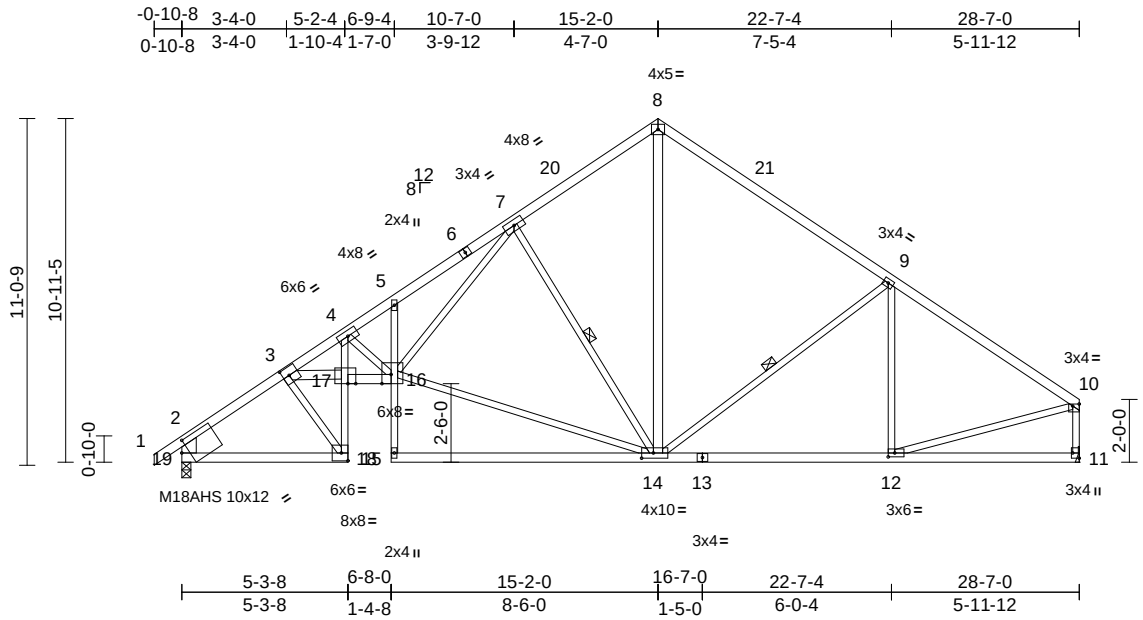

Scale = 1:73.4

Plate Offsets (X, Y): [3:0-2-6,0-3-0], [10:Edge,0-0-12], [11:Edge,0-2-8], [12:0-2-8,0-1-8], [14:0-4-8,0-2-0], [16:0-3-8,Edge], [17:0-3-0,Edge], [19:0-2-11,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.22	5	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.45	14-15	>756	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.26	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	5	>999	240		
BCDL	10.0										Weight: 135 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-6:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 18-4,5-15:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-8,3-17:2x4 SPF No.2, 19-2:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-14, 9-14

REACTIONS (size) 11= Mechanical, 19=0-3-8
Max Horiz 19=-60 (LC 4)
Max Grav 11=1270 (LC 1), 19=1350 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-1628/0, 3-4=-4123/0, 4-5=-3028/0, 5-7=-3032/0, 7-8=-1151/94, 8-9=-1195/84, 9-10=-1427/22, 2-19=-1267/29, 10-11=-1217/1
BOT CHORD 18-19=0/1179, 17-18=0/1607, 4-17=0/1286, 16-17=0/3458, 15-16=0/73, 5-16=-158/52, 14-15=0/47, 12-14=0/1115, 11-12=0/62
WEBS 4-16=-1313/0, 14-16=0/1340, 7-16=0/1934, 7-14=-924/42, 8-14=-6/796, 9-14=-344/73, 9-12=-185/66, 10-12=0/1113, 3-18=-1963/0, 3-17=0/3456

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-2-0, Exterior(2R) 12-2-0 to 18-2-0, Interior (1) 18-2-0 to 25-5-12, Exterior(2E) 25-5-12 to 28-5-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All plates are MT20 plates unless otherwise indicated.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451630
B240154	A9	Common	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:21:32 Page: 1
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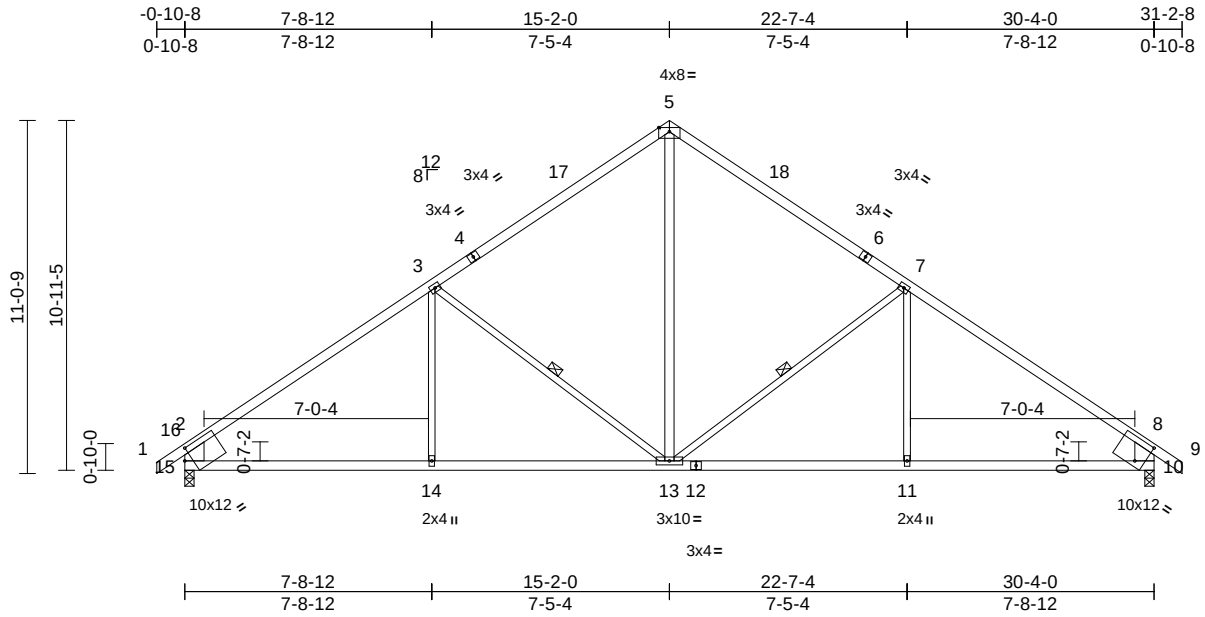

Scale = 1:72.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.19	11-13	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.37	11-13	>958	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	13-14	>999	240		
BCDL	10.0										Weight: 118 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4,6-9:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-5:2x4 SPF No.2, 15-2,10-8:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 3-13

REACTIONS (size) 10=0-3-8, 15=0-3-8
Max Horiz 15=-39 (LC 3)
Max Grav 10=1420 (LC 1), 15=1420 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/62, 2-3=-1803/8, 3-5=-1305/85, 5-7=-1305/85, 7-8=-1803/10, 8-9=0/78, 2-15=-1308/32, 8-10=-1308/42
BOT CHORD 14-15=0/1349, 13-14=0/1349, 11-13=0/1349, 10-11=0/1349
WEBS 5-13=0/812, 7-13=-519/70, 7-11=0/128, 3-13=-520/67, 3-14=0/128

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-14, Interior (1) 2-1-14 to 12-1-10, Exterior(2R) 12-1-10 to 18-2-6, Interior (1) 18-2-6 to 28-2-2, Exterior(2E) 28-2-2 to 31-2-8; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB
B240154	A10	Hip Girder	1	2	Job Reference (optional) I67451631

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:21:32 Page: 1
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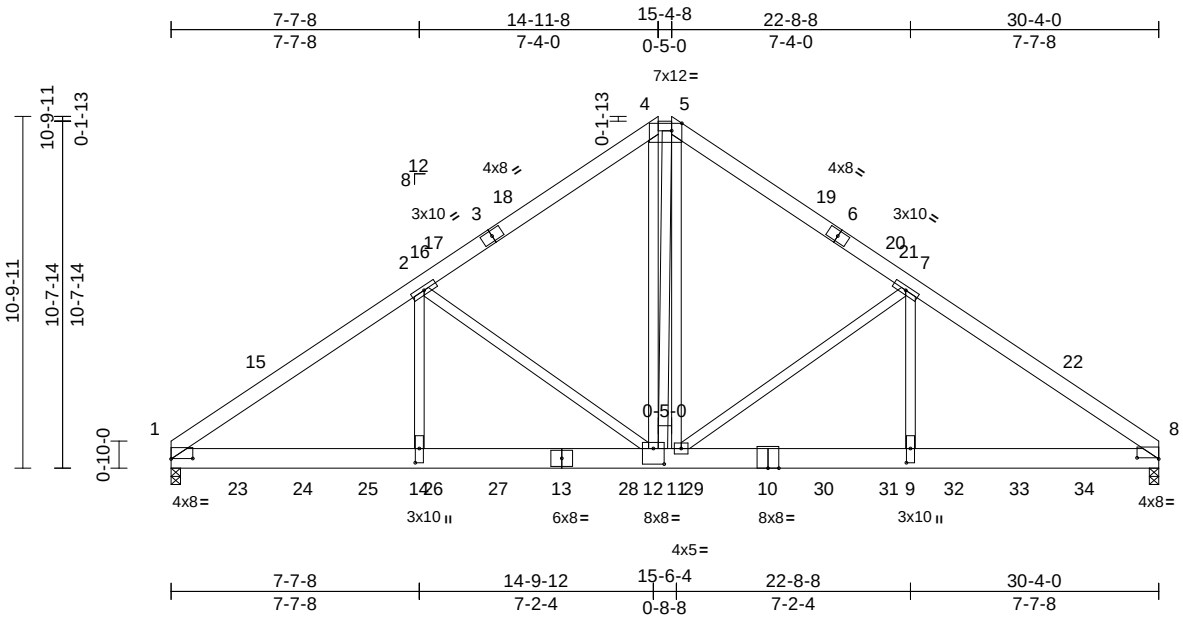

Scale = 1:70.8

Plate Offsets (X, Y): [1:0-8-0,0-0-3], [4:0-3-12,0-2-12], [8:0-8-0,0-0-7], [9:0-5-4,0-1-8], [12:0-4-0,0-5-12], [14:0-5-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.14	9-11	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.23	9-11	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	9-11	>999	240		
BCDL	10.0										Weight: 446 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 4-5:2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-1 oc purlins, except 2-0-0 oc purlins (4-10-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 8=0-3-8
Max Grav 1=6408 (LC 18), 8=6994 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9330/0, 2-4=-6539/0, 4-5=-5173/0, 5-7=-6455/0, 7-8=-9381/0
BOT CHORD 1-14=0/7498, 12-14=0/7498, 11-12=0/5107, 9-11=0/7543, 8-9=0/7543
WEBS 2-14=0/2603, 2-12=-2833/0, 4-12=0/2542, 5-12=0/1516, 5-11=0/2078, 7-11=-2998/0, 7-9=0/2735

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 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) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-1-12 to 3-2-2, Interior (1) 3-2-2 to 10-8-0, Exterior(2R) 10-8-0 to 19-8-0, Interior (1) 19-8-0 to 27-1-14, Exterior(2E) 27-1-14 to 30-2-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All bearings are assumed to be SP 2400F 2.0E .
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 630 lb down at 2-0-12, 630 lb down at 4-0-12, 630 lb down at 6-0-12, 630 lb down at 8-0-12, 630 lb down at 10-0-12, 630 lb down at 12-0-12, 630 lb down at 14-0-12, 630 lb down at 16-0-12, 630 lb down at 18-0-12, 630 lb down at 20-0-12, 630 lb down at 22-0-12, 630 lb down at 24-0-12, 630 lb down at 26-0-12, and 630 lb down at 28-0-12, and 638 lb down at 30-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 1-8=-20
Concentrated Loads (lb)
Vert: 13=-630 (B), 8=-638 (B), 10=-630 (B), 23=-630 (B), 24=-630 (B), 25=-630 (B), 26=-630 (B), 27=-630 (B), 28=-630 (B), 29=-630 (B), 30=-630 (B), 31=-630 (B), 32=-630 (B), 33=-630 (B), 34=-630 (B)

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451632
B240154	B1	Common Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:33 Page: 1
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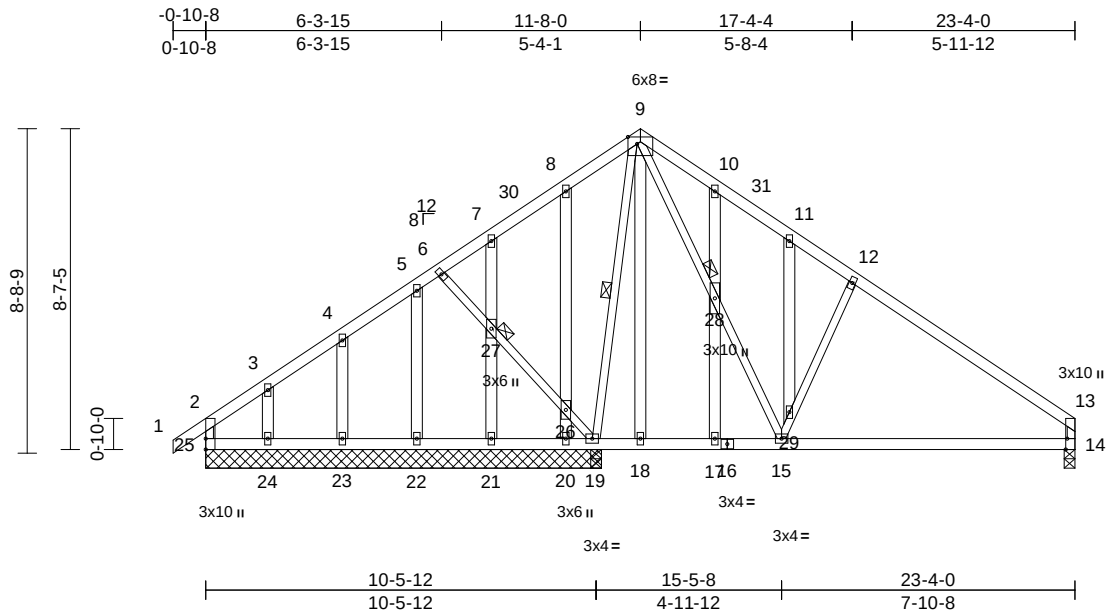

Scale = 1:61.8

Plate Offsets (X, Y): [9:0-2-15,Edge], [13:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.03	15-17	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.09	14-15	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	15-17	>999	240		
BCDL	10.0										Weight: 129 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF 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 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 9-19
JOINTS 1 Brace at Jt(s): 27, 28

REACTIONS (size) 14=0-3-8, 19=10-7-8, 20=10-7-8, 21=10-7-8, 22=10-7-8, 23=10-7-8, 24=10-7-8, 25=10-7-8
Max Horiz 25=-19 (LC 4)
Max Uplift 20=-38 (LC 3), 21=-2 (LC 3), 23=-16 (LC 3), 24=-16 (LC 3), 25=-16 (LC 8)
Max Grav 14=502 (LC 7), 19=901 (LC 1), 20=79 (LC 7), 21=144 (LC 7), 22=83 (LC 1), 23=199 (LC 7), 24=192 (LC 7), 25=155 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/65, 2-3=-18/93, 3-4=0/99, 4-5=-29/91, 5-6=-22/87, 6-7=-9/158, 7-8=-24/185, 8-9=-54/170, 9-10=-339/127, 10-11=-362/102, 11-12=-386/78, 12-13=-525/54, 2-25=-142/22, 13-14=-428/42
BOT CHORD 24-25=-48/37, 23-24=-48/37, 22-23=-48/37, 21-22=-48/37, 20-21=-48/37, 19-20=-48/37, 18-19=-44/68, 17-18=-44/68, 15-17=-44/68, 14-15=0/346
WEBS 9-28=-17/582, 15-28=-15/611, 15-29=-377/102, 12-29=-325/85, 9-19=-656/0, 6-27=-111/35, 26-27=-112/36, 19-26=-115/36, 9-18=-22/50, 8-26=-163/42, 20-26=-159/41, 7-27=-95/29, 21-27=-93/28, 5-22=-46/1, 4-23=-161/42, 3-24=-139/32, 10-28=-88/20, 17-28=-120/18, 11-29=-58/18

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-6-8, Exterior(2R) 8-6-8 to 14-6-8, Interior (1) 14-6-8 to 20-2-12, Exterior(2E) 20-2-12 to 23-2-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 25, 38 lb uplift at joint 20, 2 lb uplift at joint 21, 16 lb uplift at joint 23 and 16 lb uplift at joint 24.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB
B240154	B2	Common Girder	1	3	Job Reference (optional) I67451633

Wheeler Lumber, Waverly, KS - 66871,

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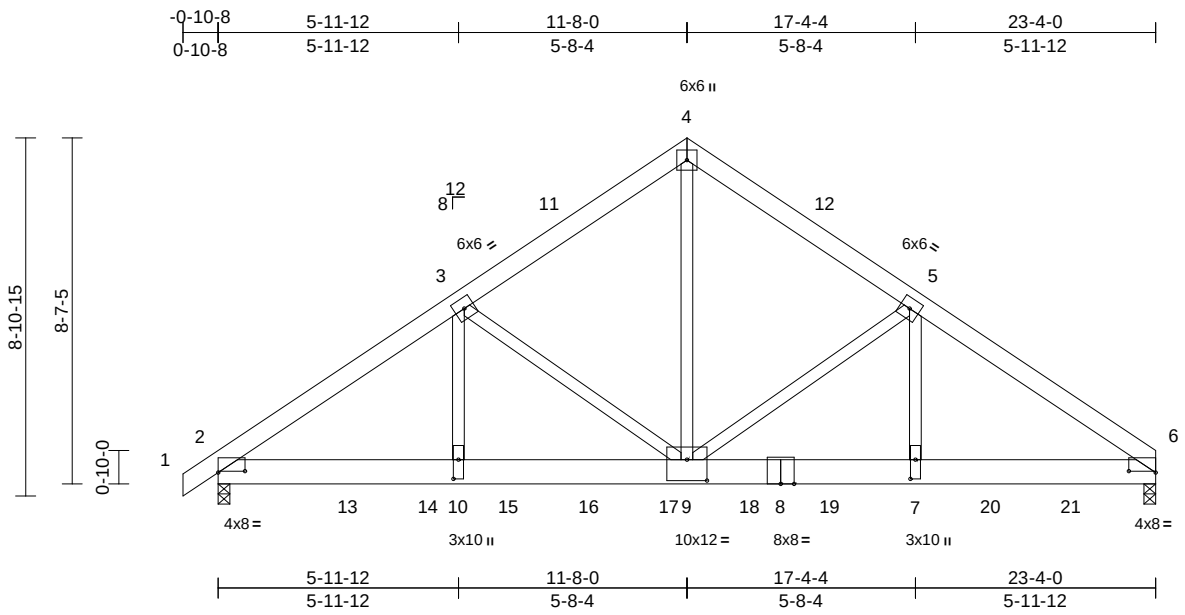

Scale = 1:57.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.13	9-10	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.19	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.02	9-10	>999	240		
BCDL	10.0										Weight: 472 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=11 (LC 10)
Max Grav 2=9752 (LC 1), 6=8902 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-14536/0, 3-4=-9588/0, 4-5=-9590/0, 5-6=-12989/0
BOT CHORD 2-10=0/11696, 9-10=0/11696, 7-9=0/10438, 6-7=0/10438
WEBS 4-9=0/10084, 5-7=0/3798, 3-9=-4705/0, 3-10=0/5639, 5-9=-3136/0

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 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) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-8-0, Exterior(2R) 8-8-0 to 14-8-0, Interior (1) 14-8-0 to 20-2-4, Exterior(2E) 20-2-4 to 23-2-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
6) All bearings are assumed to be SP 2400F 2.0E .
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2120 lb down and 85 lb up at 3-2-12, 1973 lb down at 5-2-12, 1936 lb down at 7-2-12, 1885 lb down at 9-2-12, 1816 lb down at 11-2-12, 1807 lb down at 13-2-12, 1241 lb down at 15-2-12, 1241 lb down at 17-2-12, and 1241 lb down at 19-2-12, and 1250 lb down at 21-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 7=-1241 (B), 13=-2120 (B), 14=-1973 (B), 15=-1936 (B), 16=-1885 (B), 17=-1816 (B), 18=-1807 (B), 19=-1241 (B), 20=-1241 (B), 21=-1250 (B)

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451634
B240154	C1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:33 Page: 1
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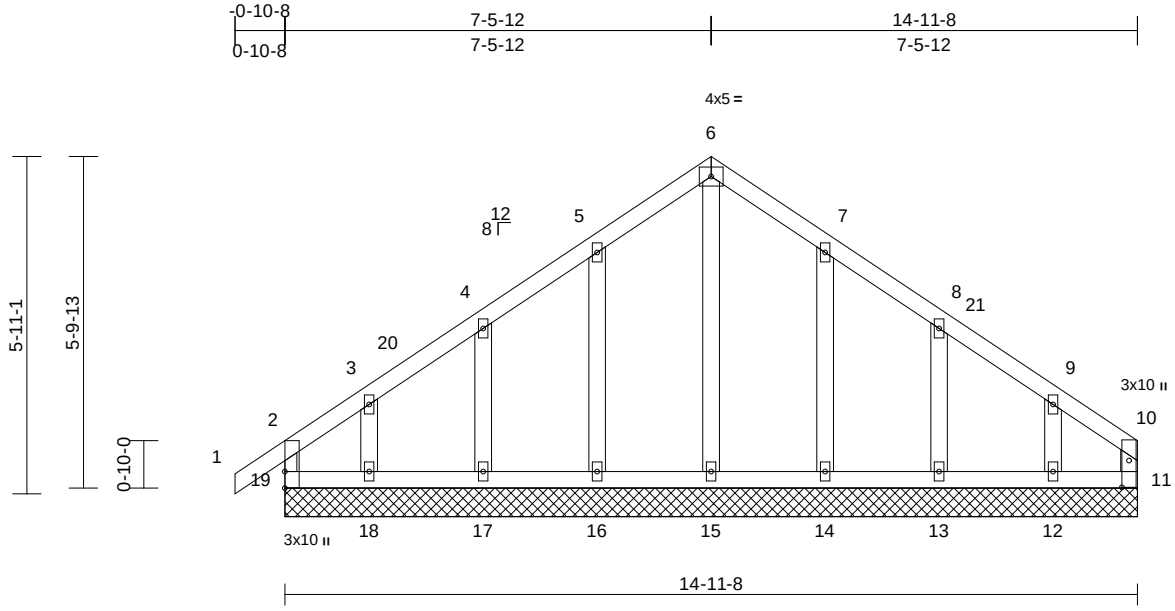

Scale = 1:40.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 64 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 10-11:2x4 SPF No.2
OTHERS	2x4 SPF 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 6-0-0 oc bracing.

REACTIONS (size) 11=14-11-8, 12=14-11-8, 13=14-11-8, 14=14-11-8, 15=14-11-8, 16=14-11-8, 17=14-11-8, 18=14-11-8, 19=14-11-8
Max Horiz 19=-23 (LC 4)
Max Uplift 12=-80 (LC 3), 13=-51 (LC 3), 14=-44 (LC 3), 16=-44 (LC 3), 17=-49 (LC 3), 18=-54 (LC 3), 19=-43 (LC 3)
Max Grav 11=46 (LC 1), 12=175 (LC 7), 13=192 (LC 7), 14=195 (LC 7), 15=161 (LC 1), 16=194 (LC 7), 17=194 (LC 7), 18=160 (LC 7), 19=176 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-19=-161/57, 1-2=0/65, 2-3=-39/24, 3-4=-44/52, 4-5=-65/107, 5-6=-87/158, 6-7=-87/158, 7-8=-65/107, 8-9=-45/51, 9-10=-24/31, 10-11=-37/0
BOT CHORD	18-19=-9/44, 17-18=-9/44, 16-17=-9/44, 15-16=-9/44, 14-15=-9/44, 13-14=-9/44, 12-13=-9/44, 11-12=-9/44
WEBS	6-15=-126/22, 5-16=-155/67, 4-17=-153/75, 3-18=-122/66, 7-14=-155/67, 8-13=-151/78, 9-12=-137/89

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-5-12, Corner(3R) 4-5-12 to 10-5-12, Exterior(2N) 10-5-12 to 11-9-12, Corner(3E) 11-9-12 to 14-9-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 19, 44 lb uplift at joint 16, 49 lb uplift at joint 17, 54 lb uplift at joint 18, 44 lb uplift at joint 14, 51 lb uplift at joint 13 and 80 lb uplift at joint 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451635
B240154	C2	Scissor	15	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:33 Page: 1
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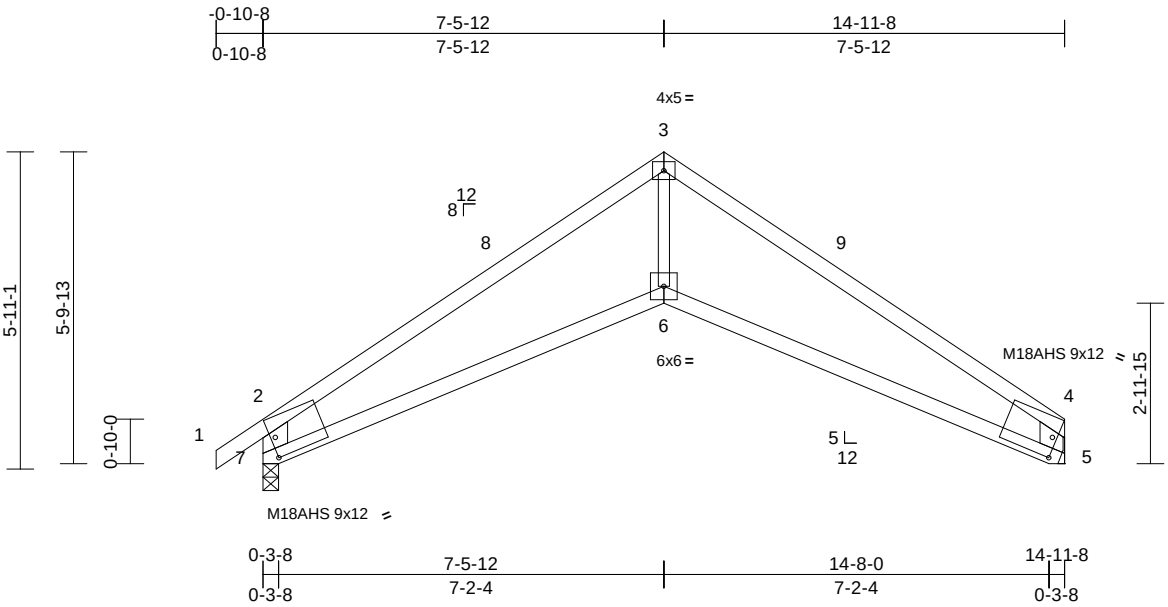

Scale = 1:43

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.20	6	>857	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.38	6	>458	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.35	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.02	6-7	>999	240		
BCDL	10.0										Weight: 45 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SP 2400F 2.0E *Except* 6-3:2x3 SPF No.2

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

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=-22 (LC 4)
Max Uplift 5=-8 (LC 3), 7=-38 (LC 3)
Max Grav 5=650 (LC 1), 7=733 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-1330/0, 3-4=-1320/0, 2-7=-1033/50, 4-5=-937/20
BOT CHORD 6-7=0/1053, 5-6=0/1048
WEBS 3-6=0/877

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-5-12, Exterior(2R) 4-5-12 to 10-5-12, Interior (1) 10-5-12 to 11-8-12, Exterior(2E) 11-8-12 to 14-8-12; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All plates are MT20 plates unless otherwise indicated.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 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 38 lb uplift at joint 7 and 8 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451636
B240154	C3	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:12:33 Page: 1
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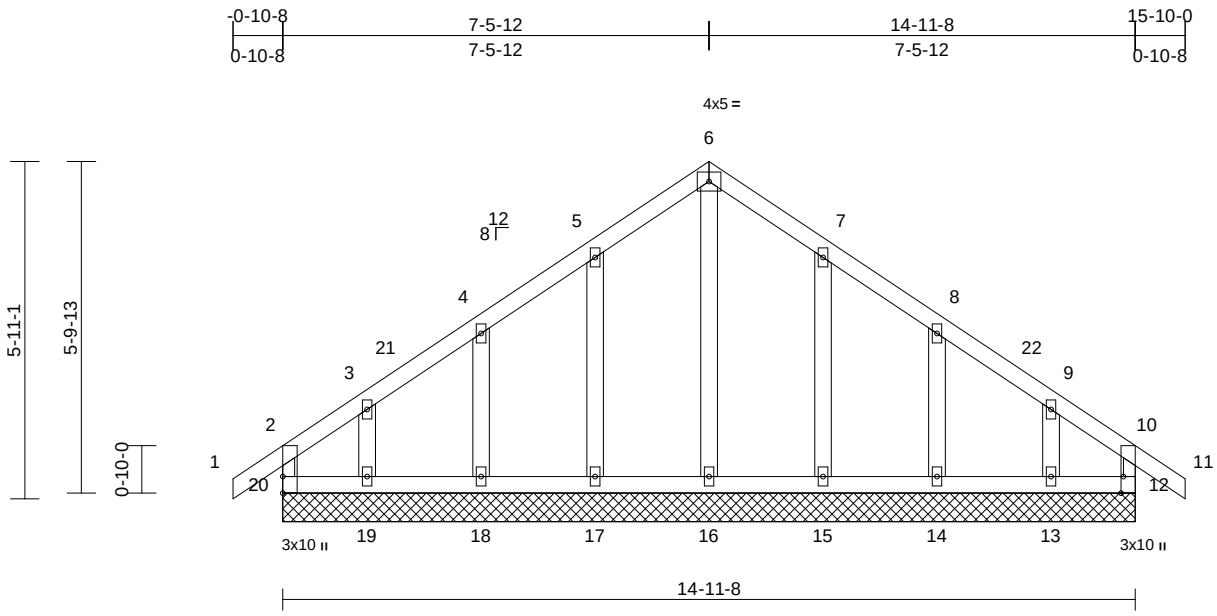

Scale = 1:40.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 65 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x4 SPF 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 6-0-0 oc bracing.

REACTIONS (size) 12=14-11-8, 13=14-11-8, 14=14-11-8, 15=14-11-8, 16=14-11-8, 17=14-11-8, 18=14-11-8, 19=14-11-8, 20=14-11-8
Max Horiz 20=-30 (LC 4)
Max Uplift 12=-43 (LC 3), 13=-59 (LC 3), 14=-48 (LC 3), 15=-44 (LC 3), 17=-44 (LC 3), 18=-49 (LC 3), 19=-50 (LC 3), 20=-51 (LC 3)
Max Grav 12=161 (LC 5), 13=157 (LC 7), 14=194 (LC 7), 15=195 (LC 7), 16=171 (LC 1), 17=195 (LC 7), 18=193 (LC 7), 19=164 (LC 7), 20=161 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-20=-150/64, 1-2=0/65, 2-3=-29/33, 3-4=-36/60, 4-5=-57/115, 5-6=-79/166, 6-7=-79/166, 7-8=-57/115, 8-9=-36/61, 9-10=-29/31, 10-11=0/65, 10-12=-150/60
BOT CHORD	19-20=-21/67, 18-19=-21/67, 17-18=-21/67, 16-17=-21/67, 15-16=-21/67, 14-15=-21/67, 13-14=-21/67, 12-13=-21/67
WEBS	6-16=-134/18, 5-17=-155/67, 4-18=-153/75, 3-19=-124/64, 7-15=-155/67, 8-14=-153/75, 9-13=-121/68

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-5-12, Corner(3R) 4-5-12 to 10-5-12, Exterior(2N) 10-5-12 to 12-10-0, Corner(3E) 12-10-0 to 15-10-0; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 20, 43 lb uplift at joint 12, 44 lb uplift at joint 17, 49 lb uplift at joint 18, 50 lb uplift at joint 19, 44 lb uplift at joint 15, 48 lb uplift at joint 14 and 59 lb uplift at joint 13.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB
B240154	D1	Common Supported Gable	1	1	Job Reference (optional)

I67451637

Wheeler Lumber, Waverly, KS - 66871,

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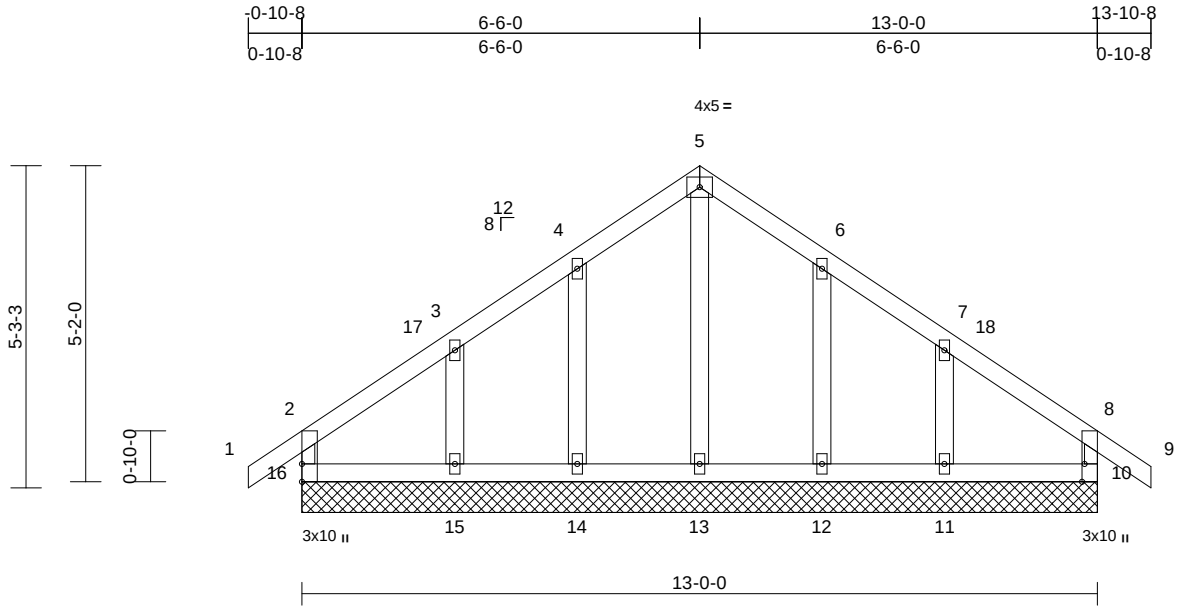

Scale = 1:37.7

Plate Offsets (X, Y): [10:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 53 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF 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 6-0-0 oc bracing.

REACTIONS (size) 10=13-0-0, 11=13-0-0, 12=13-0-0, 13=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0
Max Horiz 16=-30 (LC 4)
Max Uplift 10=-81 (LC 3), 11=-75 (LC 3), 12=-45 (LC 3), 14=-47 (LC 3), 15=-69 (LC 3), 16=-86 (LC 3)
Max Grav 10=185 (LC 1), 11=222 (LC 7), 12=189 (LC 7), 13=157 (LC 3), 14=187 (LC 7), 15=226 (LC 7), 16=185 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-163/101, 1-2=0/65, 2-3=-62/50, 3-4=-77/116, 4-5=-97/168, 5-6=-98/168, 6-7=-77/116, 7-8=-62/49, 8-9=0/65, 8-10=-163/99
BOT CHORD 15-16=-24/54, 14-15=-24/54, 13-14=-24/54, 12-13=-24/54, 11-12=-24/54, 10-11=-24/54
WEBS 5-13=-133/24, 4-14=-151/70, 3-15=-175/94, 6-12=-152/70, 7-11=-172/97

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-6-0, Corner(3R) 3-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 10-10-8, Corner(3E) 10-10-8 to 13-10-8; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 16, 81 lb uplift at joint 10, 47 lb uplift at joint 14, 69 lb uplift at joint 15, 45 lb uplift at joint 12 and 75 lb uplift at joint 11.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB
B240154	J1	Diagonal Hip Girder	1	1	Job Reference (optional) I67451638

Wheeler Lumber, Waverly, KS - 66871,

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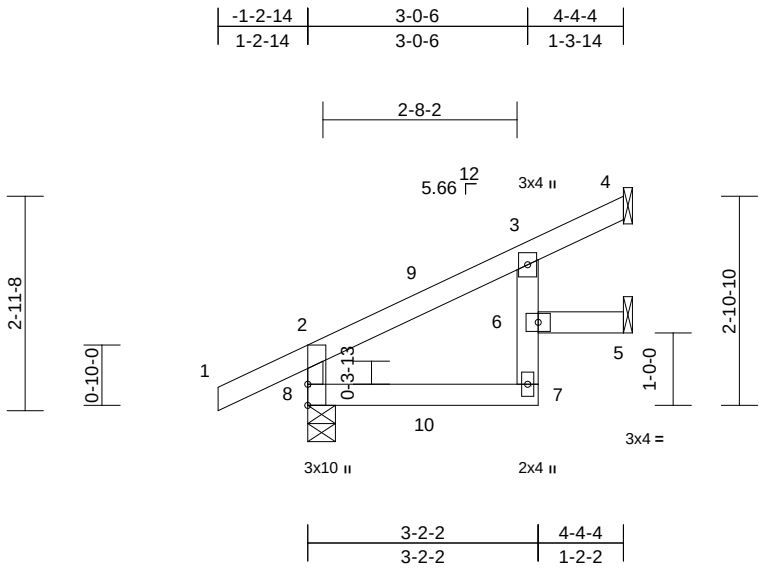

Scale = 1:31.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.02	6	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.02	6	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	6	>999	240		
BCDL	10.0										Weight: 14 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-4-9
Max Horiz 8=125 (LC 5)
Max Uplift 4=-47 (LC 5), 5=-33 (LC 5), 8=-110 (LC 5)
Max Grav 4=135 (LC 8), 5=106 (LC 8), 8=429 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-398/127, 1-2=0/69, 2-3=-201/2, 3-4=-26/52
BOT CHORD 7-8=-52/102, 6-7=-2/39, 3-6=-59/46, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Corner (3) -1-2-14 to 3-0-6, Exterior(2R) 3-0-6 to 4-3-8; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 8, 47 lb uplift at joint 4 and 33 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 87 lb down and 31 lb up at 1-7-6, and 87 lb down and 31 lb up at 1-7-6 on top chord, and 4 lb down and 10 lb up at 1-7-6, and 4 lb down and 10 lb up at 1-7-6 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=6 (F=3, B=3)

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451639
B240154	J2	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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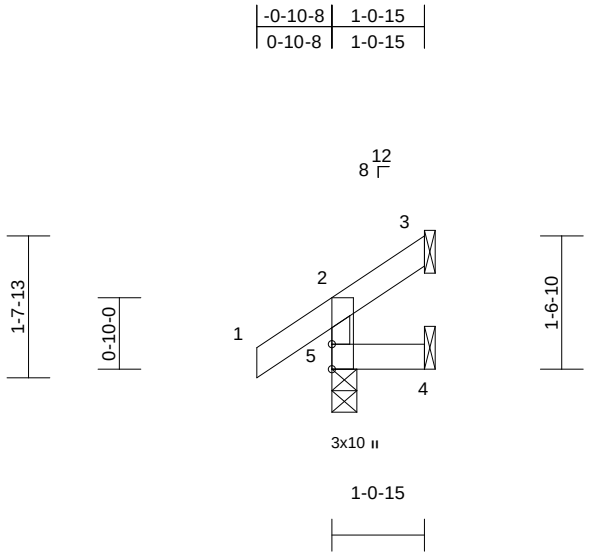

Scale = 1:26.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	5	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 4 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-0-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=60 (LC 3)
Max Uplift 3=-42 (LC 5), 4=-9 (LC 3), 5=-48 (LC 3)
Max Grav 3=31 (LC 4), 4=14 (LC 4), 5=197 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-178/69, 1-2=0/65, 2-3=-36/16
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 5, 9 lb uplift at joint 4 and 42 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451640
B240154	J3	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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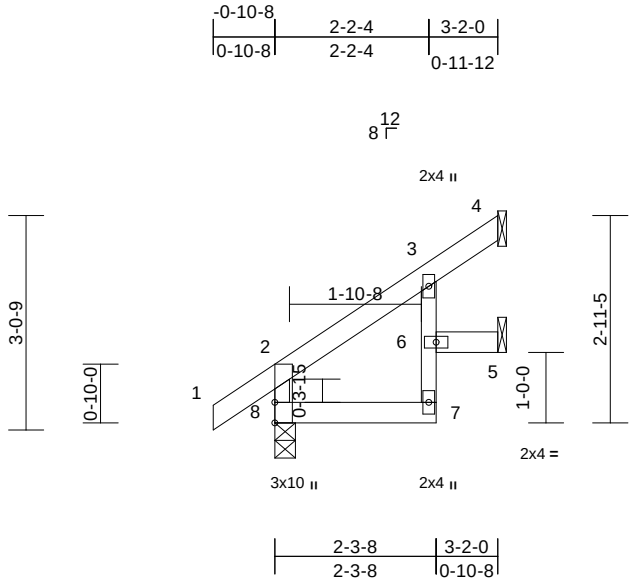

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	6	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	6	>999	240		
BCDL	10.0										Weight: 11 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x3 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=106 (LC 3)
Max Uplift 4=-31 (LC 3), 5=-31 (LC 3), 8=-28 (LC 3)
Max Grav 4=74 (LC 7), 5=72 (LC 7), 8=215 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-193/55, 1-2=0/65, 2-3=-97/0, 3-4=-23/38
BOT CHORD 7-8=-30/47, 6-7=-2/28, 3-6=-28/40, 5-6=0/0

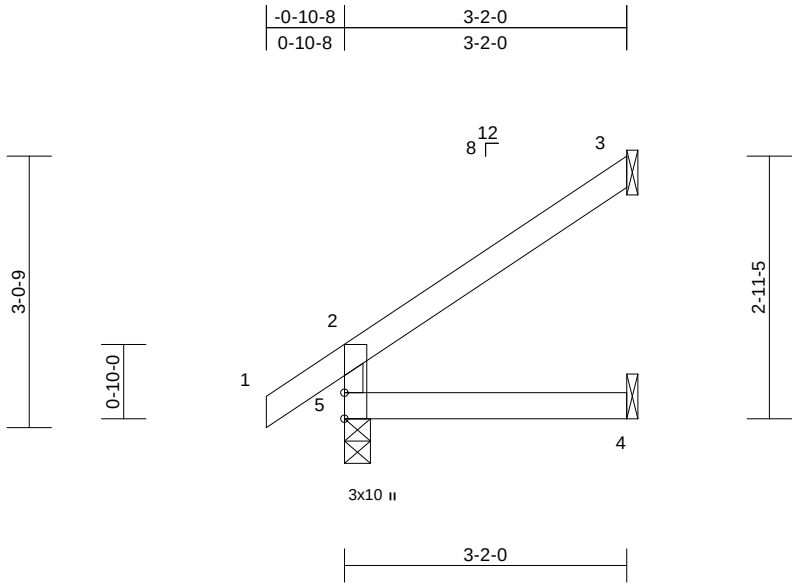
NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 8, 31 lb uplift at joint 4 and 31 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451641
B240154	J4	Jack-Open	8	1	Job Reference (optional)	



Scale = 1:25.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 10 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=106 (LC 3)
Max Uplift 3=-67 (LC 3), 5=-28 (LC 3)
Max Grav 3=110 (LC 7), 4=37 (LC 7), 5=215 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-187/59, 1-2=0/65, 2-3=-65/51
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 5 and 67 lb uplift at joint 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451642
B240154	LAY1	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:34 Page: 1
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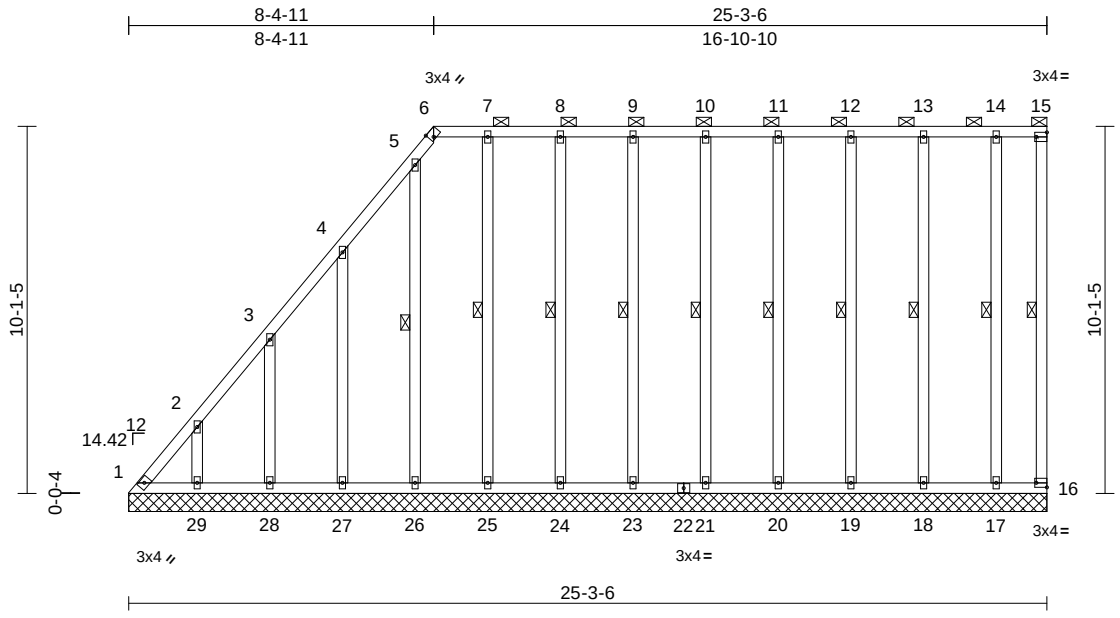

Scale = 1:63.4

Plate Offsets (X, Y): [6:0-1-5,Edge], [15:Edge,0-1-8], [16:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	16	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 185 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-15.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	1 Row at midpt	15-16, 5-26, 7-25, 8-24, 9-23, 10-21, 11-20, 12-19, 13-18, 14-17

REACTIONS (size) 1=25-3-6, 16=25-3-6, 17=25-3-6, 18=25-3-6, 19=25-3-6, 20=25-3-6, 21=25-3-6, 23=25-3-6, 24=25-3-6, 25=25-3-6, 26=25-3-6, 27=25-3-6, 28=25-3-6, 29=25-3-6
Max Horiz 1=-376 (LC 4)
Max Uplift 1=-292 (LC 4), 17=-27 (LC 3), 19=-4 (LC 3), 24=-9 (LC 3), 27=-83 (LC 3), 28=-59 (LC 3), 29=-63 (LC 3)
Max Grav 1=97 (LC 3), 16=53 (LC 6), 17=155 (LC 1), 18=202 (LC 6), 19=181 (LC 6), 20=187 (LC 6), 21=185 (LC 6), 23=187 (LC 6), 24=180 (LC 1), 25=214 (LC 6), 26=282 (LC 6), 27=223 (LC 6), 28=231 (LC 6), 29=229 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-128/438, 2-3=-56/366, 3-4=-54/287, 4-5=-55/218, 5-6=-56/111, 6-7=0/125, 7-8=0/125, 8-9=0/125, 9-10=0/125, 10-11=0/125, 11-12=0/125, 12-13=0/125, 13-14=0/125, 14-15=0/125, 15-16=-33/110
BOT CHORD	1-29=0/126, 28-29=0/126, 27-28=0/126, 26-27=0/126, 25-26=0/126, 24-25=0/126, 23-24=0/126, 21-23=0/126, 20-21=0/126, 19-20=0/126, 18-19=0/126, 17-18=0/126, 16-17=0/126
WEBS	2-29=-183/83, 3-28=-193/83, 4-27=-183/107, 5-26=-243/0, 7-25=-174/0, 8-24=-140/33, 9-23=-147/19, 10-21=-145/21, 11-20=-146/21, 12-19=-144/22, 13-18=-149/25, 14-17=-181/0

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-3-12 to 3-3-12, Interior (1) 3-3-12 to 3-10-13, Exterior(2R) 3-10-13 to 12-7-13, Interior (1) 12-7-13 to 21-10-13, Exterior(2E) 21-10-13 to 25-1-13; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 1, 63 lb uplift at joint 29, 59 lb uplift at joint 28, 83 lb uplift at joint 27, 9 lb uplift at joint 24, 4 lb uplift at joint 19 and 27 lb uplift at joint 17.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451643
B240154	LAY2	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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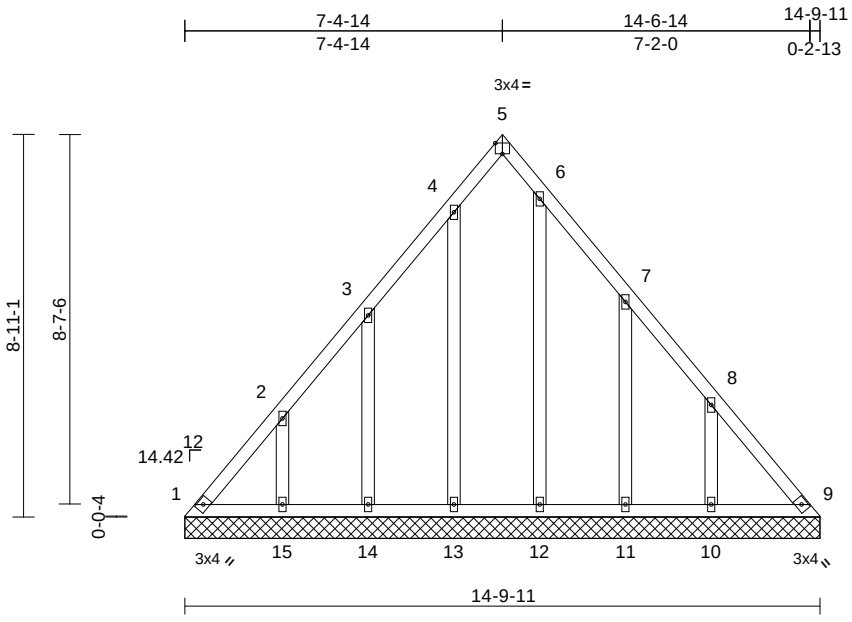

Scale = 1:53.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 75 lb	FT = 10%

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

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

REACTIONS (size) 1=14-9-11, 9=14-9-11, 10=14-9-11, 11=14-9-11, 12=14-9-11, 13=14-9-11, 14=14-9-11, 15=14-9-11
Max Uplift 1=-95 (LC 4), 9=-84 (LC 4), 10=-83 (LC 3), 11=-82 (LC 3), 13=-15 (LC 3), 14=-82 (LC 3), 15=-77 (LC 3)
Max Grav 1=168 (LC 3), 9=164 (LC 3), 10=285 (LC 6), 11=237 (LC 6), 12=160 (LC 6), 13=178 (LC 6), 14=243 (LC 6), 15=263 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-223/202, 2-3=-129/111, 3-4=-85/28, 4-5=-77/30, 5-6=-72/27, 6-7=-85/23, 7-8=-116/98, 8-9=-218/198
BOT CHORD 1-15=-141/163, 14-15=-141/163, 13-14=-141/163, 12-13=-141/163, 11-12=-141/163, 10-11=-141/163, 9-10=-141/163
WEBS 2-15=-209/98, 3-14=-206/107, 4-13=-137/39, 6-12=-119/21, 7-11=-203/106, 8-10=-226/106

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-3-12 to 3-3-12, Interior (1) 3-3-12 to 4-3-8, Exterior(2R) 4-3-8 to 10-3-8, Interior (1) 10-3-8 to 11-6-6, Exterior(2E) 11-6-6 to 14-6-6; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 1, 84 lb uplift at joint 9, 77 lb uplift at joint 15, 82 lb uplift at joint 14, 15 lb uplift at joint 13, 82 lb uplift at joint 11 and 83 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451644
B240154	LAY3	Lay-In Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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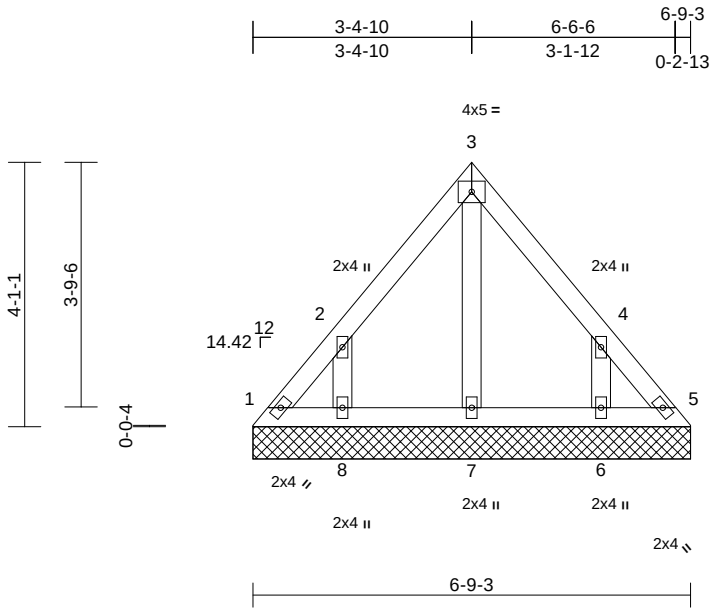

Scale = 1:35.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 25 lb	FT = 10%

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

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

REACTIONS (size) 1=6-9-3, 5=6-9-3, 6=6-9-3, 7=6-9-3, 8=6-9-3
Max Uplift 1=-20 (LC 4), 5=-20 (LC 4), 6=-89 (LC 3), 8=-89 (LC 3)
Max Grav 1=51 (LC 3), 5=51 (LC 3), 6=245 (LC 6), 7=109 (LC 1), 8=245 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-67/60, 2-3=-107/43, 3-4=-107/43, 4-5=-67/60
BOT CHORD 1-8=-37/49, 7-8=-37/49, 6-7=-37/49, 5-6=-37/49
WEBS 3-7=-67/1, 2-8=-211/109, 4-6=-211/109

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 20 lb uplift at joint 5, 89 lb uplift at joint 8 and 89 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451645
B240154	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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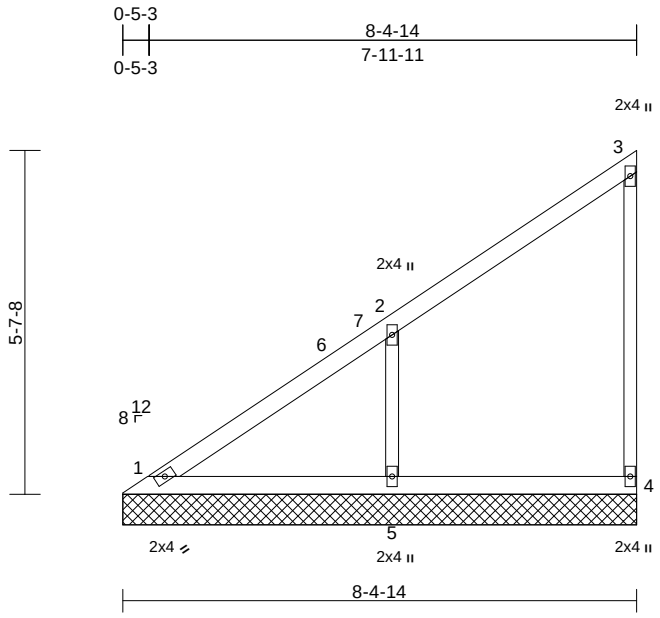

Scale = 1:37.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 27 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF 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) 1=8-4-14, 4=8-4-14, 5=8-4-14
Max Horiz 1=-182 (LC 4)
Max Uplift 1=-14 (LC 7), 5=-109 (LC 3)
Max Grav 1=134 (LC 1), 4=163 (LC 6), 5=460 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-86/183, 2-3=-95/94, 3-4=-133/6
BOT CHORD 1-5=0/72, 4-5=0/72
WEBS 2-5=-362/168

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Interior (1) 3-5-12 to 4-1-1, Exterior(2R) 4-1-1 to 8-4-0; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 109 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451646
B240154	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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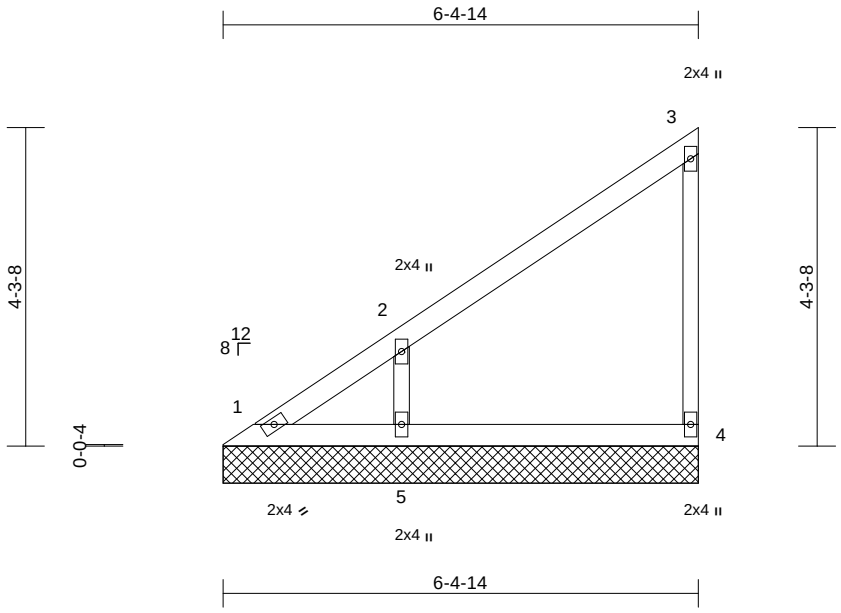

Scale = 1:31.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 19 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF 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) 1=6-4-14, 4=6-4-14, 5=6-4-14
Max Horiz 1=-143 (LC 4)
Max Uplift 1=-53 (LC 4), 4=-7 (LC 3), 5=-108 (LC 3)
Max Grav 1=49 (LC 3), 4=171 (LC 6), 5=384 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/146, 2-3=-90/89, 3-4=-140/26
BOT CHORD 1-5=0/54, 4-5=0/54
WEBS 2-5=-304/156

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 7 lb uplift at joint 4 and 108 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451647
B240154	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:34 Page: 1
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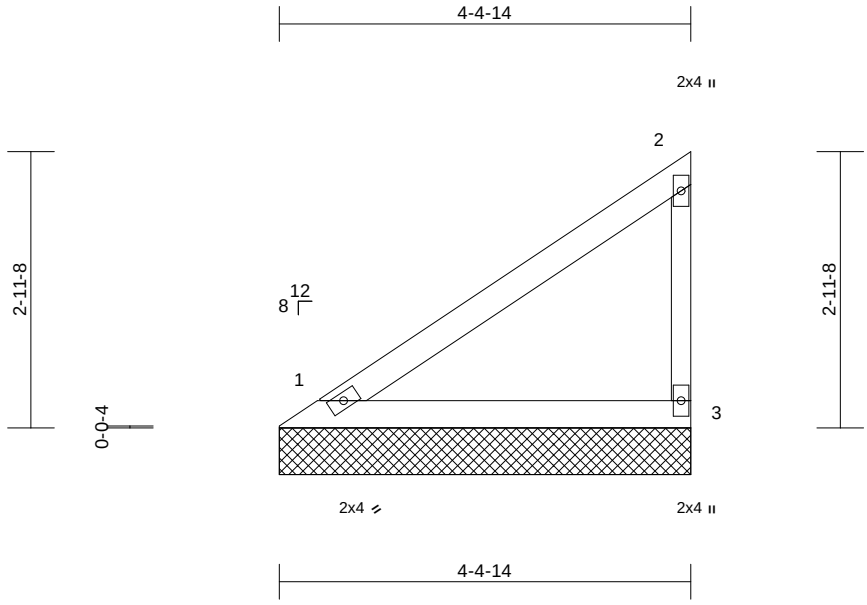

Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 12 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-4-14, 3=4-4-14
Max Horiz 1=-98 (LC 4)
Max Uplift 1=-18 (LC 3), 3=-36 (LC 3)
Max Grav 1=173 (LC 1), 3=200 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/93, 2-3=-162/60
BOT CHORD 1-3=0/35

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 36 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451648
B240154	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:13:34 Page: 1
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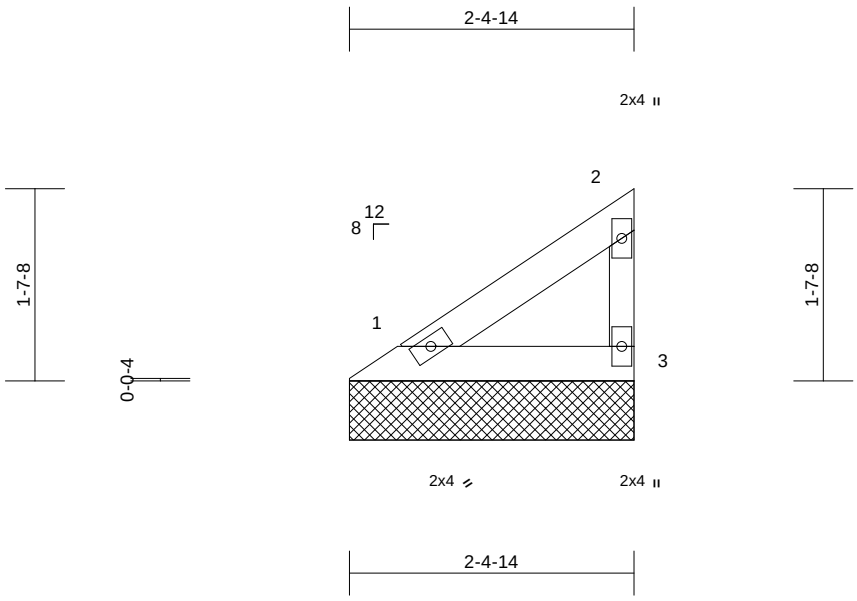

Scale = 1:19.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 6 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-14, 3=2-4-14
Max Horiz 1=-50 (LC 4)
Max Uplift 1=-11 (LC 3), 3=-23 (LC 3)
Max Grav 1=83 (LC 1), 3=98 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-29/46, 2-3=-80/34
BOT CHORD 1-3=0/17

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 23 lb uplift at joint 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 12,2024

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451649
B240154	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:23:34 Page: 1
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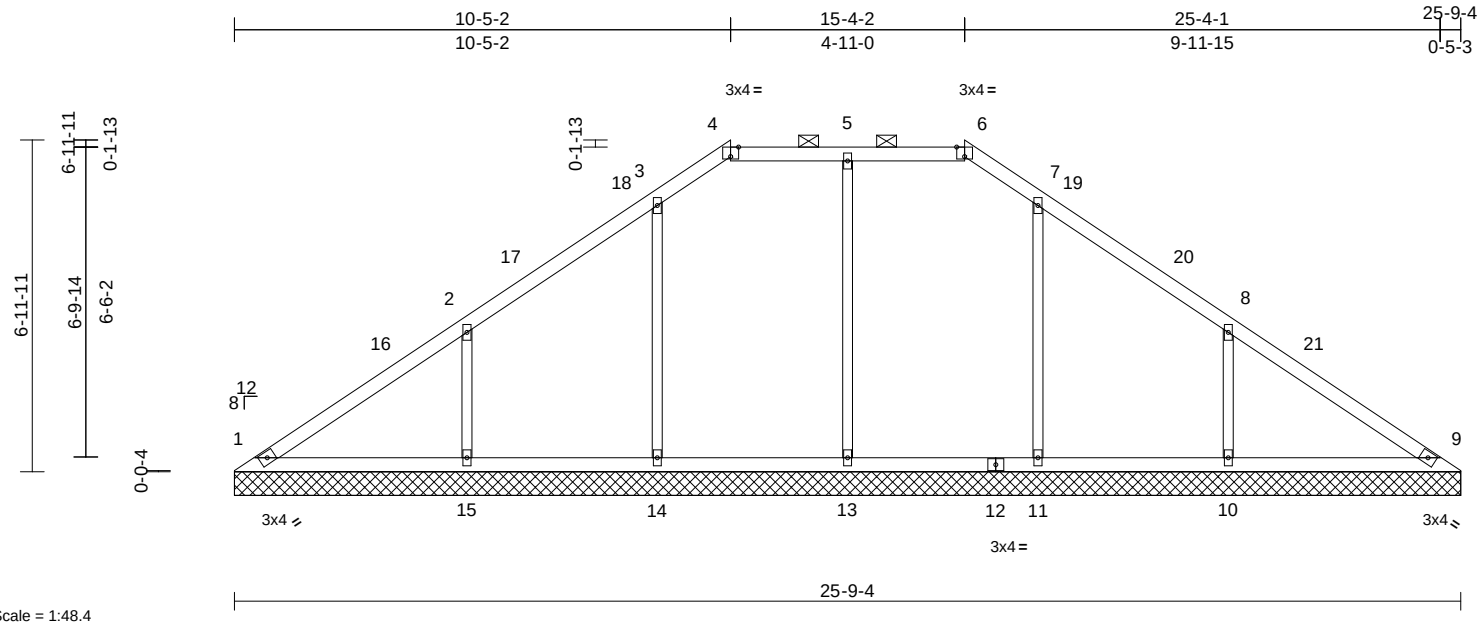

Scale = 1:48.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 81 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF 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 10-0-0 oc bracing.

REACTIONS (size) 1=25-9-4, 9=25-9-4, 10=25-9-4, 11=25-9-4, 13=25-9-4, 14=25-9-4, 15=25-9-4
Max Uplift 10=-22 (LC 5), 11=-15 (LC 5), 14=-15 (LC 5), 15=-22 (LC 5)
Max Grav 1=303 (LC 18), 9=303 (LC 18), 10=713 (LC 18), 11=446 (LC 18), 13=489 (LC 17), 14=446 (LC 18), 15=713 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-246/83, 2-3=-257/34, 3-4=-244/60, 4-5=-156/57, 5-6=-156/57, 6-7=-244/60, 7-8=-257/34, 8-9=-246/83
BOT CHORD 1-15=-37/152, 14-15=-37/152, 13-14=-37/152, 11-13=-37/152, 10-11=-37/152, 9-10=-37/152
WEBS 5-13=-406/25, 3-14=-377/61, 2-15=-596/75, 7-11=-377/61, 8-10=-595/75

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Interior (1) 3-5-12 to 6-2-9, Exterior(2R) 6-2-9 to 19-7-7, Interior (1) 19-7-7 to 22-4-4, Exterior(2E) 22-4-4 to 25-4-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 14, 22 lb uplift at joint 15, 15 lb uplift at joint 11 and 22 lb uplift at joint 10.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) 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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451650
B240154	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:23:34 Page: 1
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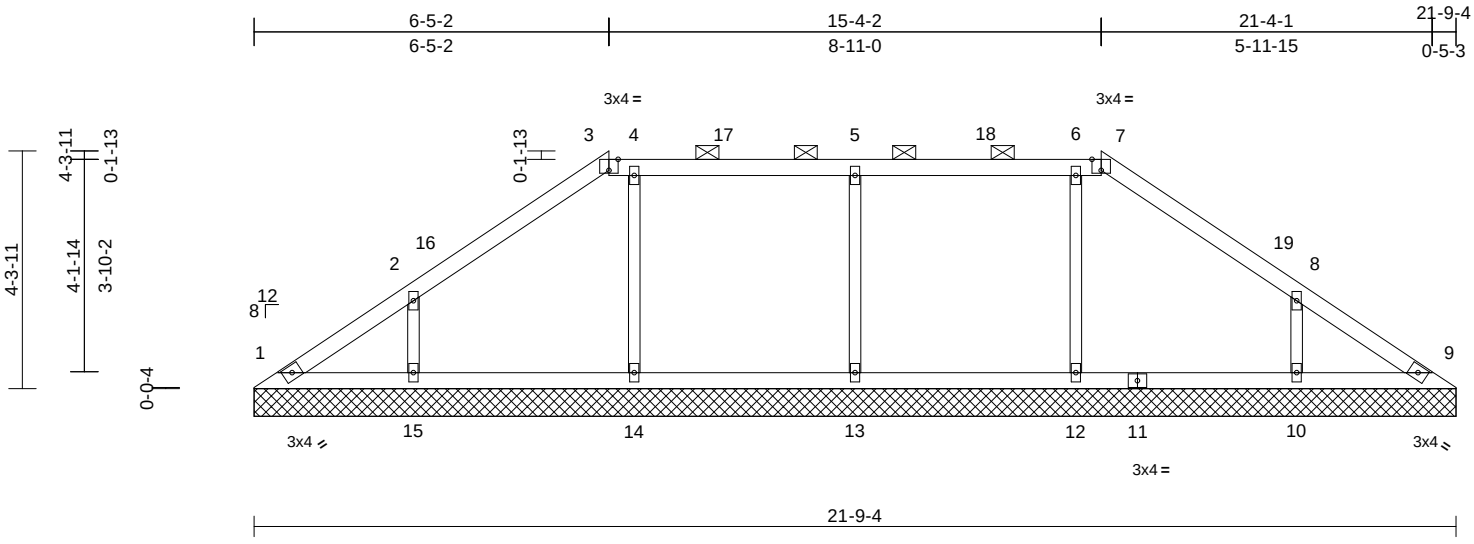

Scale = 1:41.7

Plate Offsets (X, Y): [3:0-2-0,Edge], [7:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 62 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF 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.): 3-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=21-9-4, 9=21-9-4, 10=21-9-4, 12=21-9-4, 13=21-9-4, 14=21-9-4, 15=21-9-4
Max Uplift 10=-31 (LC 5), 13=-10 (LC 5), 15=-31 (LC 5)
Max Grav 1=197 (LC 18), 9=197 (LC 18), 10=525 (LC 18), 12=456 (LC 17), 13=623 (LC 17), 14=456 (LC 17), 15=525 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-198/87, 2-3=-294/92, 3-4=-146/59, 4-5=-134/58, 5-6=-134/58, 6-7=-146/59, 7-8=-294/92, 8-9=-198/87
BOT CHORD 1-15=-48/134, 14-15=-48/134, 13-14=-48/134, 12-13=-48/134, 10-12=-48/134, 9-10=-48/134
WEBS 5-13=-544/57, 4-14=-374/33, 2-15=-450/73, 6-12=-374/33, 8-10=-450/73

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 3-5-12, Exterior(2R) 3-5-12 to 18-4-4, Exterior(2E) 18-4-4 to 21-4-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 13, 31 lb uplift at joint 15 and 31 lb uplift at joint 10.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) 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

August 12,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 11 CB	I67451651
B240154	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jul 24 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Fri Aug 09 10:12:35 Page: 1
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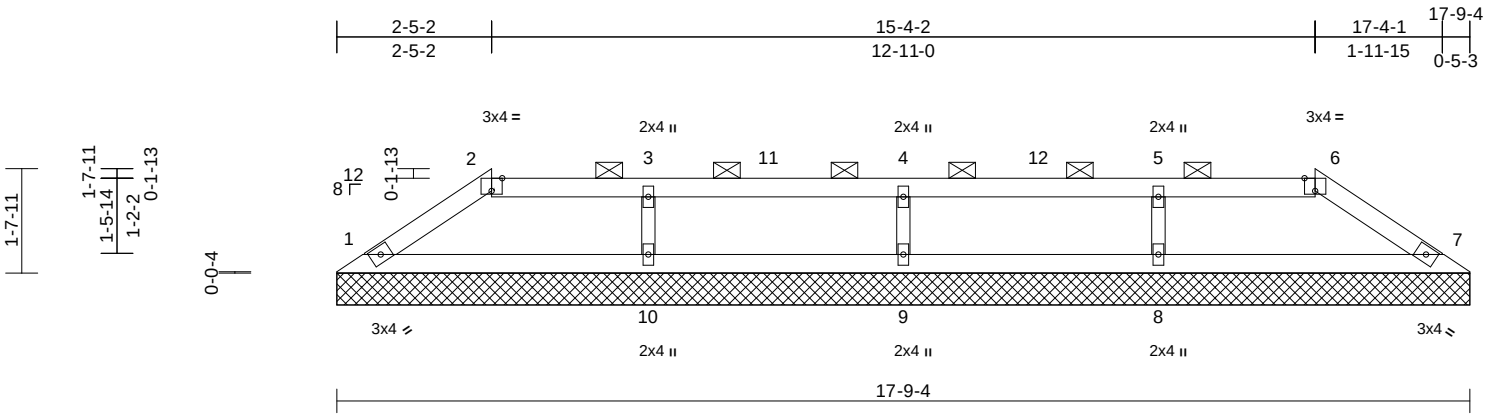


Scale = 1:36.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 43 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF 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.): 2-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=17-9-4, 7=17-9-4, 8=17-9-4, 9=17-9-4, 10=17-9-4
Max Uplift 1=-6 (LC 5), 7=-6 (LC 5)
Max Grav 1=299 (LC 18), 7=299 (LC 18), 8=548 (LC 17), 9=583 (LC 17), 10=548 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-318/37, 2-3=-226/38, 3-4=-225/37, 4-5=-225/37, 5-6=-226/38, 6-7=-318/37
BOT CHORD 1-10=-12/225, 9-10=-12/225, 8-9=-12/225, 7-8=-12/225
WEBS 4-9=-512/34, 3-10=-451/46, 5-8=-451/46

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; C-C Exterior(2E) 0-5-12 to 2-5-8, Exterior(2R) 2-5-8 to 6-8-7, Interior (1) 6-8-7 to 11-1-9, Exterior(2R) 11-1-9 to 15-4-8, Exterior(2E) 15-4-8 to 17-4-4; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

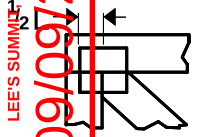
LOAD CASE(S) Standard

August 12,2024

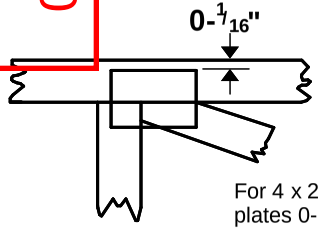
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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.

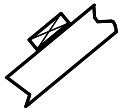
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

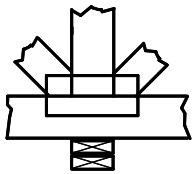
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

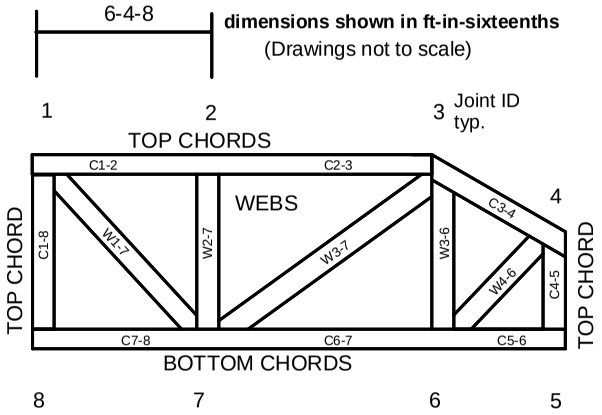


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.