MiTek®

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

Re: Avalon - Craftsman
Avalon - Craftsman

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

Pages or sheets covered by this seal: I65139922 thru I65139974

My license renewal date for the state of Kansas is April 30, 2024.

Kansas COA: E-943

April 25,2024

Garcia, Juan

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Re: Avalon - Craftsman
Avalon - Craftsman

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

Pages or sheets covered by this seal: I65139922 thru I65139974

My license renewal date for the state of Missouri is December 31, 2024.

Missouri COA: Engineering 001193

April 25,2024

Garcia, Juan ,Engineer

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A1	Hip Girder	1	4	I65139922
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:29 Page: 1
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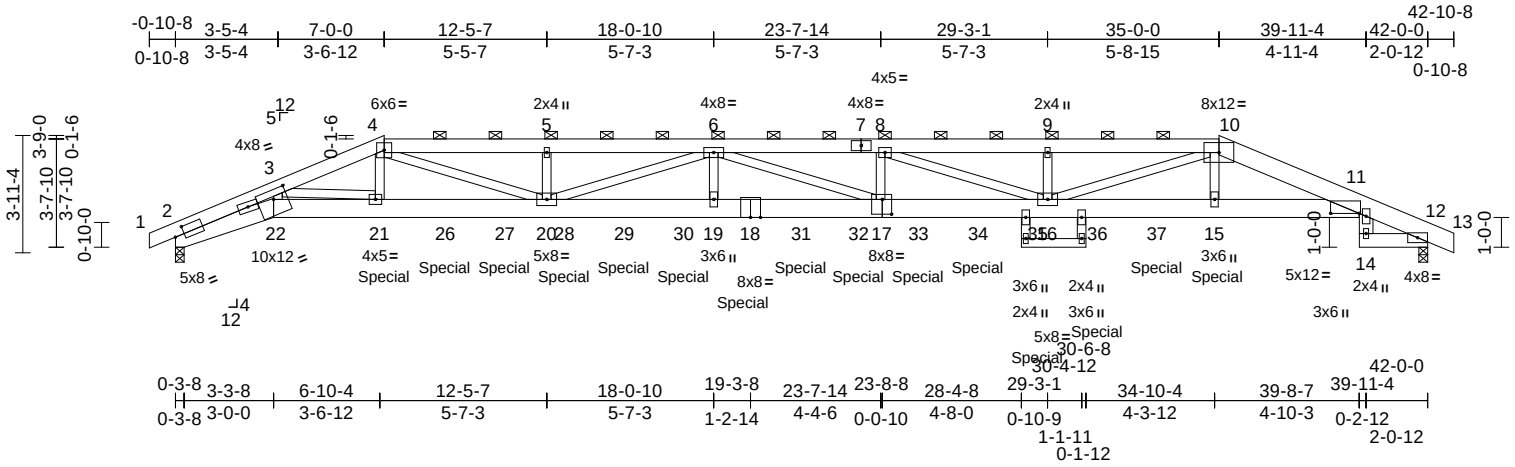

Scale = 1:77.3

Plate Offsets (X, Y): [2:0-3-13,0-3-0], [11:0-11-8,Edge], [17:0-3-12,0-6-0], [22:0-5-8,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.54	17-19	>923	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.94	17-19	>532	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.47	Horz(CT)	0.38	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.34	17-19	>999	240	Weight: 1160 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 10-13:2x8 SP 2400F 2.0E
BOT CHORD 2x8 SP 2400F 2.0E *Except* 14-12:2x6 SP 2400F 2.0E, 23-24:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 11-14:2x6 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.): 4-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-35 (LC 26)
Max Uplift 2=-497 (LC 4), 12=-493 (LC 5)
Max Grav 2=4546 (LC 1), 12=4541 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-17242/1903, 3-4=-14805/1712, 4-5=-19682/2215, 5-6=-19681/2214, 6-8=-23506/2614, 8-9=-19955/2246, 9-10=-19955/2247, 10-11=-14866/1690, 11-12=-2841/320, 12-13=0/6
BOT CHORD 2-22=-1692/15529, 21-22=-1562/14298, 20-21=-1527/13719, 19-20=-2543/23496, 16-19=-2547/23530, 15-16=-1581/14415, 11-15=-1566/14255, 12-14=-35/373
WEBS 11-14=-83/883, 3-22=-326/3348, 4-21=-289/2420, 10-15=-184/1642, 4-20=-668/6510, 5-20=-404/100, 6-20=-4142/428, 6-19=-52/993, 6-17=-67/90, 8-17=-51/959, 8-16=-3886/396, 9-16=-233/164, 10-16=-639/6027, 3-21=-428/89

NOTES
1) 4-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, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 497 lb uplift at joint 2 and 493 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 785 lb down and 185 lb up at 7-0-0, 278 lb down and 38 lb up at 9-0-12, 278 lb down and 38 lb up at 11-0-12, 278 lb down and 38 lb up at 13-0-12, 278 lb down and 38 lb up at 15-0-12, 278 lb down and 38 lb up at 17-0-12, 278 lb down and 38 lb up at 19-0-12, 278 lb down and 38 lb up at 21-0-0, 278 lb down and 38 lb up at 22-11-4, 278 lb down and 38 lb up at 24-11-4, 278 lb down and 38 lb up at 26-11-4, 260 lb down and 47 lb up at 28-11-4, 278 lb down and 38 lb up at 30-11-4, and 278 lb down and 38 lb up at 32-11-4, and 818 lb down and 166 lb up at 34-11-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
14) Filler applied to ply: 1(Front)

LOAD CASE(S) Standard

April 25,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A1	Hip Girder	1	4	I65139922
					Job Reference (optional)

1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-10=-70, 10-13=-70, 2-22=-20,
11-22=-20, 12-14=-20
Concentrated Loads (lb)
Vert: 18=-278 (B), 21=-785 (B), 15=-818 (B),
26=-278 (B), 27=-278 (B), 28=-278 (B), 29=-278 (B),
30=-278 (B), 31=-278 (B), 32=-278 (B), 33=-278 (B),
34=-278 (B), 35=-260 (B), 36=-278 (B), 37=-278 (B)

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A2	Hip	1	1	I65139923
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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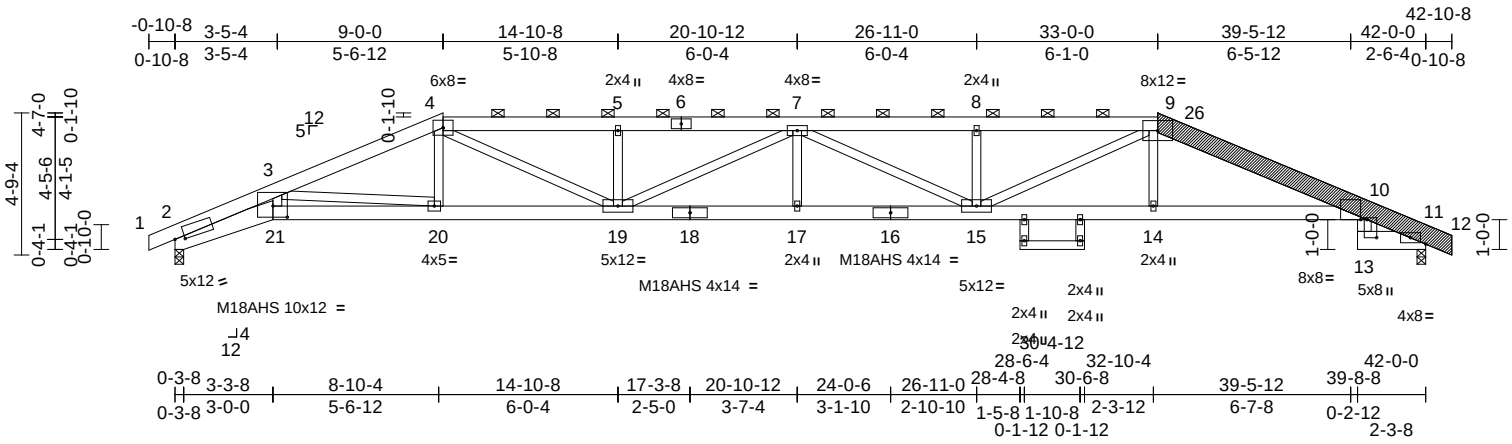

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Plate Offsets (X, Y): [2:0-4-0,0-1-0], [10:0-2-10,Edge], [11:0-2-2,0-0-9], [13:0-2-10,1-7-12], [21:0-5-12,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.50	17-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.90	17-19	>557	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.42	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.37	17-19	>999	240	Weight: 307 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 9-12:2x8 SP 2400F 2.0E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 2-21,13-11:2x8 SP 2400F 2.0E, 22-23:2x4 SPF No.2

WEBS 2x4 SPF No.2 *Except* 10-13:2x6 SPF No.2

LBR SCAB 9-12 SP 2400F 2.0E one side

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins, except 2-0-0 oc purlins (4-0-14 max.): 4-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-13.

REACTIONS (lb/size) 2=1949/0-3-8, 11=1952/0-3-8
Max Horiz 2=-74 (LC 13)
Max Uplift 2=-278 (LC 4), 11=-276 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/3, 2-3=-7265/968, 3-4=-4811/726, 4-5=-5970/994, 5-6=-5968/993, 6-7=-5968/993, 7-8=-6012/998, 8-9=-6013/999, 9-26=-4611/707, 10-26=-4777/680, 10-11=-974/152, 11-12=0/11

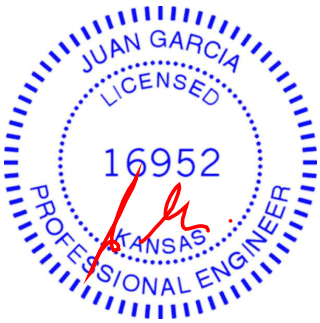
BOT CHORD 2-21=-856/6544, 20-21=-786/5922, 19-20=-591/4434, 18-19=-991/6573, 17-18=-991/6573, 16-17=-991/6573, 15-16=-991/6573, 14-15=-573/4481, 10-14=-577/4471, 11-13=-41/2

WEBS 10-13=-11/195, 3-21=-173/1840, 4-20=0/490, 9-14=0/327, 4-19=-343/1868, 5-19=-454/183, 7-19=-768/130, 7-17=0/256, 7-15=-721/119, 8-15=-421/179, 9-15=-351/1846, 3-20=-1481/294

NOTES

1) Attached 10-11-6 scab 9 to 12, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-3-14 from end at joint 9, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 6-7-7 from end at joint 9, nail 2 row(s) at 4" o.c. for 3-11-7.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
10) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 278 lb uplift at joint 2 and 276 lb uplift at joint 11.
12) 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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A3	Hip	1	1	I65139924
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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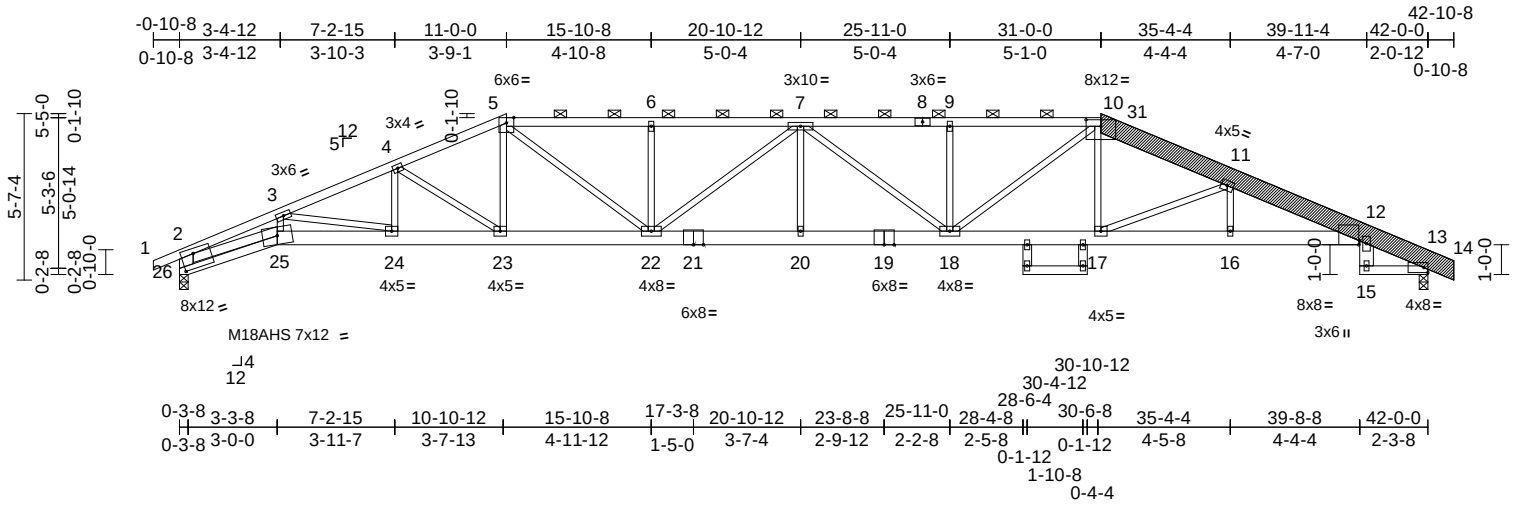
Page: 1



Scale = 1:77.5

Plate Offsets (X, Y): [10:0-6-0,0-2-10], [12:0-0-7,Edge], [26:0-5-0,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.51	20-22	>986	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.91	20-22	>546	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.44	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.37	20-22	>999	240	Weight: 264 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 10-14:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 25-21,19-12:2x6 SP 2400F 2.0E, 21-19:2x6 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-15,26-2:2x6 SPF No.2, 25-2:2x4 SPF 2100F 1.8E, 27-29,28-30:2x4 SPF No.2

LBR SCAB 10-14 SP 2400F 2.0E one side

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-10.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 20-22,18-20.

REACTIONS (size) 13=0-3-8, 26=0-3-8
Max Horiz 26=-82 (LC 13)
Max Uplift 13=-254 (LC 5), 26=-257 (LC 4)
Max Grav 13=1944 (LC 1), 26=1951 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-6135/739, 3-4=-4799/636, 4-5=-4152/613, 5-6=-4683/743, 6-7=-4680/741, 7-9=-4711/744, 9-10=-4711/744, 10-11=-4260/624, 11-12=-5113/654, 12-13=-998/140, 13-14=0/0, 2-26=-1977/277

BOT CHORD 25-26=-116/478, 24-25=-643/5529, 23-24=-512/4414, 22-23=-445/3789, 20-22=-666/5021, 18-20=-666/5021, 17-18=-449/3917, 16-17=-557/4888, 12-16=-559/4890, 13-15=0/0

WEBS 12-15=0/48, 3-25=-26/665, 5-23=-52/583, 10-17=-31/644, 11-17=-1086/195, 2-25=-609/5151, 11-16=-53/91, 4-23=-735/176, 5-22=-220/1257, 6-22=-419/161, 7-22=-539/88, 7-20=0/231, 7-18=-503/80, 9-18=-344/149, 10-18=-199/1126, 4-24=-8/386, 3-24=-1141/216

NOTES

1) Attached 13-1-6 scab 10 to 14, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 8-6-12 from end at joint 10, nail 2 row(s) at 4" o.c. for 2-0-0; starting at 10-9-9 from end at joint 10, nail 2 row(s) at 7" o.c. for 2-0-0.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Bearing at joint(s) 26 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 257 lb uplift at joint 26 and 254 lb uplift at joint 13.
12) 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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A4	Hip	1	1	I65139925
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:30 Page: 1

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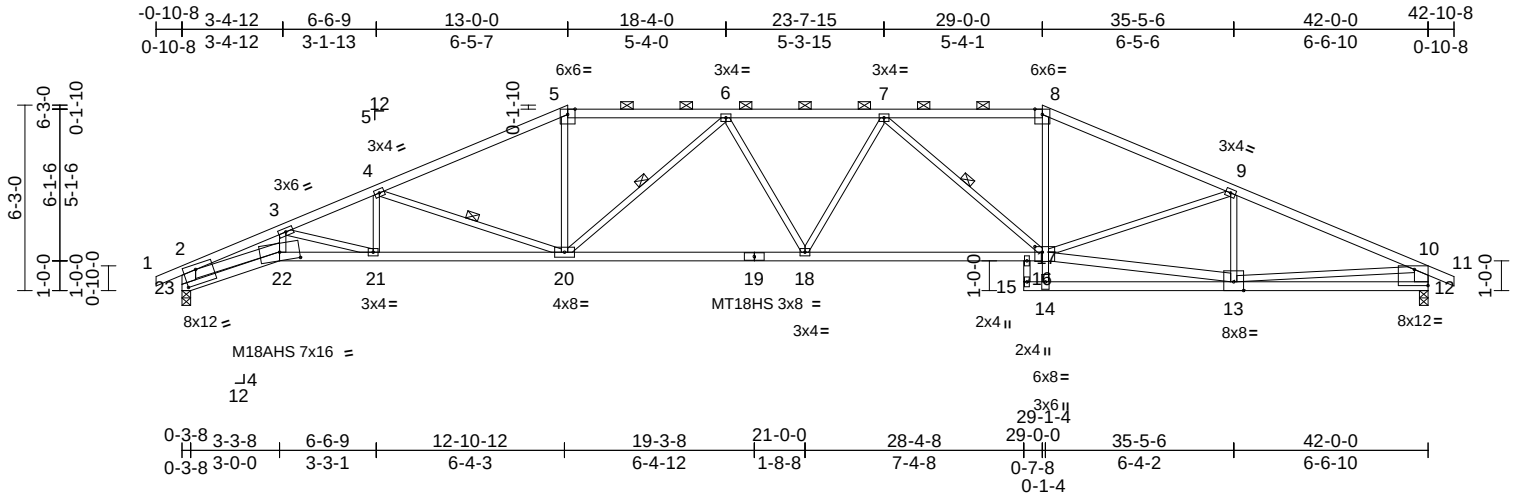

Scale = 1:77.7

Plate Offsets (X, Y): [12:Edge,0-6-8], [16:0-3-0,0-2-4], [22:0-8-0,0-3-7], [23:0-5-0,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.41	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.77	17-18	>649	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.35	12	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.28	17-18	>999	240	Weight: 165 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-8:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 22-19,19-16:2x4 SPF 2100F 1.8E, 17-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 23-2,12-10:2x6 SPF No.2, 22-2:2x4 SPF 2100F 1.8E, 16-13:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-7-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-11 max.): 5-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15.

WEBS 1 Row at midpt 4-20, 6-20, 7-16

REACTIONS (size) 12=0-3-8, 23=0-3-8
Max Horiz 23=-79 (LC 13)
Max Uplift 12=-232 (LC 5), 23=-232 (LC 4)
Max Grav 12=1947 (LC 1), 23=1947 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-6014/628, 3-4=-4880/566, 4-5=-3794/505, 5-6=-3410/489, 6-7=-4020/580, 7-8=-3410/488, 8-9=-3761/502, 9-10=-3482/408, 10-11=0/30, 2-23=-2023/259, 10-12=-1868/264

BOT CHORD 22-23=-150/553, 21-22=-536/5372, 20-21=-457/4517, 18-20=-447/3974, 17-18=-448/3971, 16-17=-407/3894, 15-17=-272/0, 14-15=-42/77, 13-14=-32/134, 12-13=-111/659

WEBS 3-22=-58/740, 4-20=-1154/288, 5-20=-68/1046, 14-16=0/440, 8-16=-69/1031, 9-13=-614/152, 2-22=-496/4953, 10-13=-242/2480, 4-21=0/390, 3-21=-893/148, 6-18=-14/203, 6-20=-913/181, 7-18=-6/207, 7-16=-909/183, 9-16=-24/510, 13-16=-287/3029

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Bearing at joint(s) 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 23 and 232 lb uplift at joint 12.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A5	Hip	1	1	I65139926
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:30

ID:q5HqtzhfPb1JIXYhfa?Y3kzNWbA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

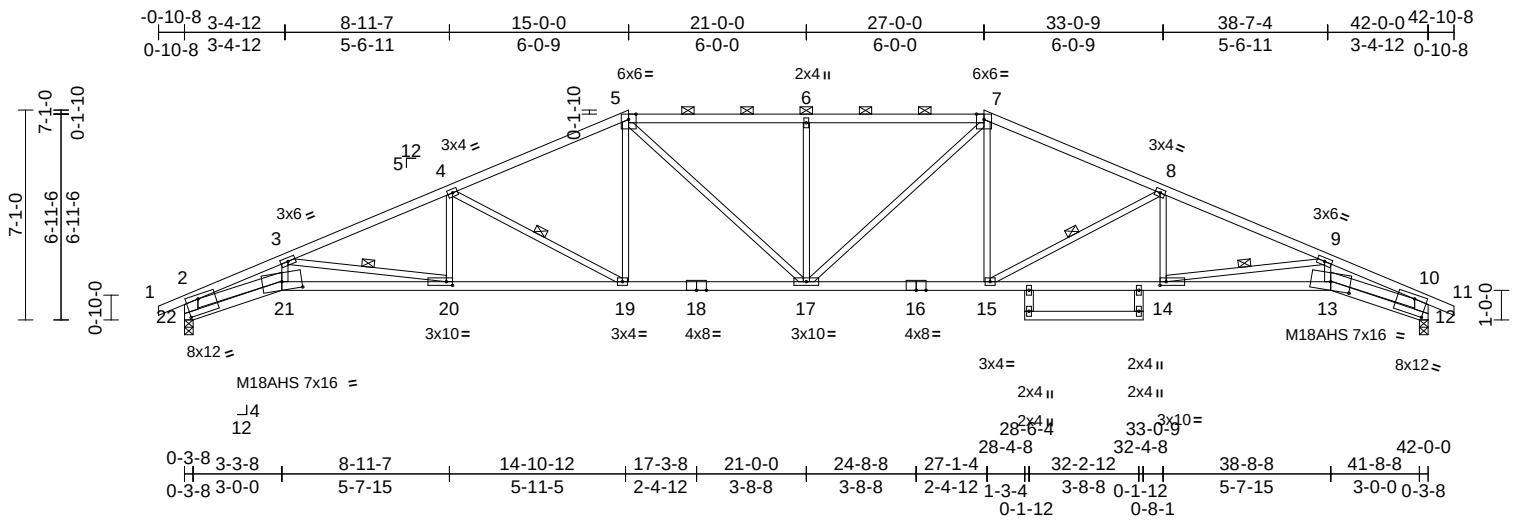

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Plate Offsets (X, Y): [12:0-5-0,0-6-4], [13:0-8-0,0-3-7], [14:0-2-8,0-1-8], [20:0-2-8,0-1-8], [21:0-8-0,0-3-7], [22:0-5-0,0-6-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.48	17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.87	15-17	>570	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.54	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.32	17	>999	240	Weight: 168 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 21-18,16-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 22-2,12-10:2x6 SPF No.2, 21-2,13-10:2x4 SPF 2100F 1.8E, 23-25,24-26:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-7.

BOT CHORD Rigid ceiling directly applied or 9-6-15 oc bracing.

WEBS 1 Row at midpt 3-20, 4-19, 8-15, 9-14

REACTIONS (size) 12=0-3-8, 22=0-3-8
Max Horiz 22=-94 (LC 9)
Max Uplift 12=-213 (LC 9), 22=-213 (LC 8)
Max Grav 12=1947 (LC 1), 22=1947 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-6154/685, 3-4=-4412/463, 4-5=-3482/436, 5-6=-3479/486, 6-7=-3479/486, 2-22=-1982/263, 10-12=-1982/232, 7-8=-3482/436, 8-9=-4412/463, 9-10=-6154/580, 10-11=0/30

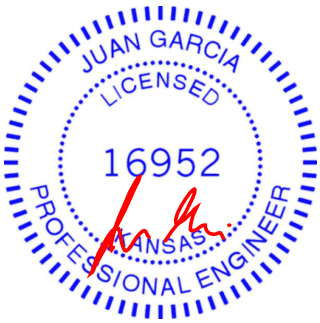
BOT CHORD 21-22=-138/430, 20-21=-680/5526, 19-20=-363/4040, 17-19=-238/3132, 15-17=-238/3132, 14-15=-337/4040, 13-14=-495/5526, 12-13=-37/430

WEBS 3-21=-49/761, 3-20=-1507/322, 4-20=0/431, 4-19=-1023/261, 5-19=-53/611, 5-17=-105/670, 6-17=-537/205, 7-17=-105/670, 7-15=-46/611, 8-15=-1023/246, 8-14=0/431, 9-14=-1507/259, 9-13=-7/761, 2-21=-560/5227, 10-13=-477/5227

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Bearing at joint(s) 22, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 213 lb uplift at joint 22 and 213 lb uplift at joint 12.
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



April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A6	Hip	1	1	I65139927
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Thu Apr 25 14:31:08 Page: 1
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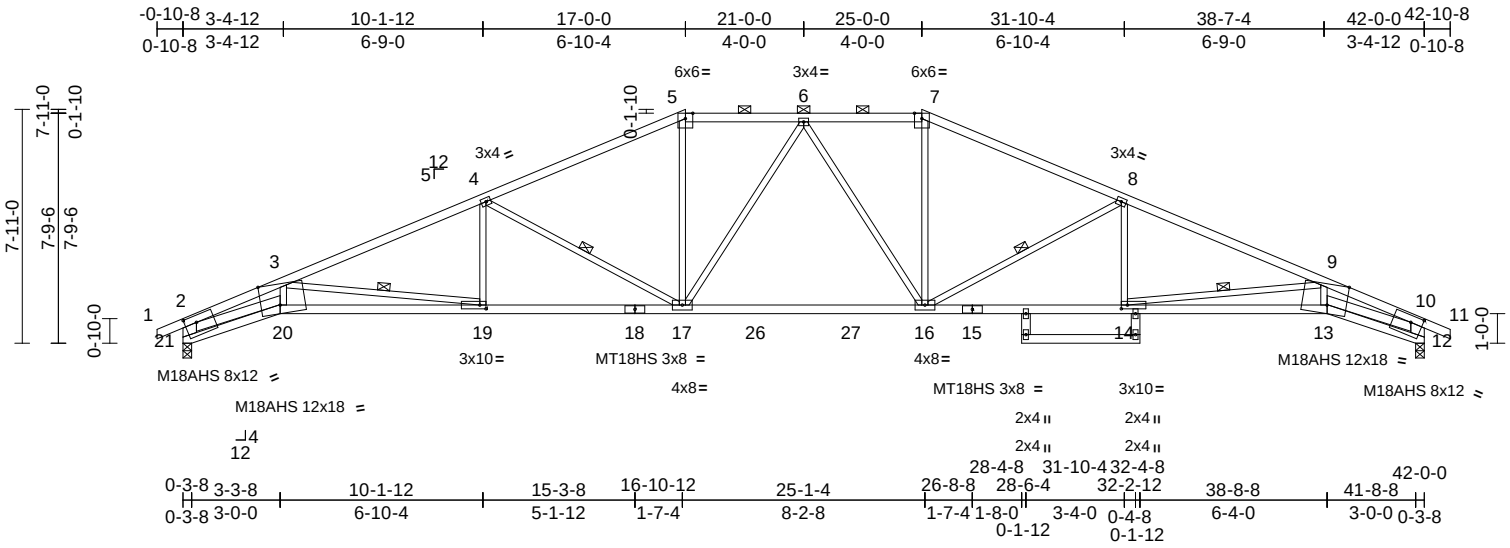

Scale = 1:78

Plate Offsets (X, Y): [12:0-4-12,0-2-12], [13:0-7-12,Edge], [14:0-2-8,0-1-8], [19:0-2-8,0-1-8], [20:0-7-12,Edge], [21:0-4-12,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.54	16-17	>919	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.94	16-17	>531	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.55	12	n/a	n/a	M18AHS	142/136
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	17	>999	240	Weight: 169 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-7:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 20-18,15-13,18-15:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 21-2,12-10:2x6 SPF No.2, 20-2,13-10:2x4 SPF 2100F 1.8E, 22-24,23-25:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-11 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-10-6 oc bracing: 19-20.
WEBS 1 Row at midpt 3-19, 4-17, 8-16, 9-14

REACTIONS (lb/size) 12=1947/0-3-8, 21=1947/0-3-8
Max Horiz 21=-109 (LC 13)
Max Uplift 12=-232 (LC 9), 21=-232 (LC 8)
Max Grav 12=2009 (LC 2), 21=2009 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-6449/785, 3-4=-4410/447, 4-5=-3373/357, 5-6=-3029/352, 6-7=-3029/352, 2-21=-2049/282, 10-12=-2049/246, 7-8=-3373/357, 8-9=-4410/415, 9-10=-6449/665, 10-11=0/30
BOT CHORD 20-21=-148/535, 19-20=-790/5784, 18-19=-395/4038, 17-18=-395/4038, 17-26=-177/3124, 26-27=-177/3124, 16-27=-177/3124, 15-16=-257/4038, 14-15=-257/4038, 13-14=-577/5784, 12-13=-31/492
WEBS 3-20=-53/902, 3-19=-1763/399, 4-19=0/508, 4-17=-1139/298, 5-17=-31/1000, 7-16=-31/1000, 8-16=-1139/283, 8-14=0/508, 9-14=-1763/324, 9-13=-5/902, 2-20=-660/5453, 10-13=-552/5453, 6-17=-417/109, 6-16=-417/110

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Bearing at joint(s) 21, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 21 and 232 lb uplift at joint 12.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	A7	Hip	1	1	I65139928
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:31 Page: 1

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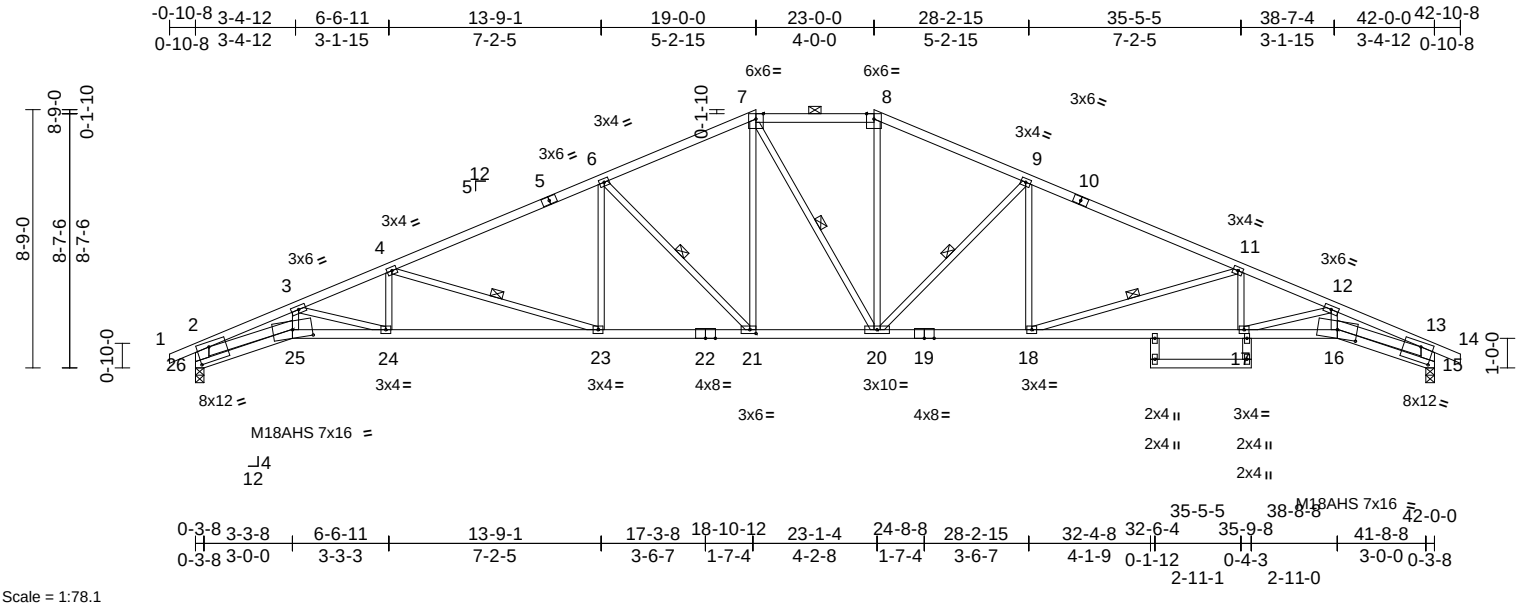

Scale = 1:78.1

Plate Offsets (X, Y): [15:0-5-0,0-6-0], [16:0-8-0,0-3-7], [21:0-2-8,0-1-8], [25:0-8-0,0-3-7], [26:0-5-0,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.44	21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.80	21-23	>623	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.50	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29	21-23	>999	240	Weight: 176 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 25-22,19-16:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 26-2,15-13:2x6 SPF No.2, 25-2,16-13:2x4 SPF 2100F 1.8E, 27-29,28-17:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-9 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-8-14 oc bracing: 24-25.

WEBS 1 Row at midpt 7-20, 6-21, 9-20, 4-23, 11-18

REACTIONS (size) 15=0-3-8, 26=0-3-8
Max Horiz 26=-123 (LC 13)
Max Uplift 15=-250 (LC 9), 26=-250 (LC 8)
Max Grav 15=1947 (LC 1), 26=1947 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-6023/808, 3-4=-4898/615, 4-6=-3668/416, 6-7=-2911/338, 7-8=-2612/320, 8-9=-2913/319, 9-11=-3667/390, 11-12=-4899/556, 12-13=-6023/669, 13-14=0/30, 2-26=-2003/325, 13-15=-2003/285

BOT CHORD 25-26=-209/508, 24-25=-809/5391, 23-24=-612/4532, 21-23=-317/3298, 20-21=-135/2609, 18-20=-170/3297, 17-18=-434/4532, 16-17=-564/5391, 15-16=-78/508

WEBS 3-25=-105/714, 7-21=-133/774, 7-20=-244/252, 8-20=-66/775, 12-16=-50/714, 2-25=-628/5010, 13-16=-502/5010, 6-21=-969/258, 9-20=-965/249, 4-24=0/438, 3-24=-896/205, 4-23=-1294/310, 6-23=-14/531, 9-18=-4/528, 11-18=-1295/277, 11-17=0/438, 12-17=-896/135

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 3x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Bearing at joint(s) 26, 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 26 and 250 lb uplift at joint 15.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B1	Roof Special	1	1	I65139929
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:31 Page: 1

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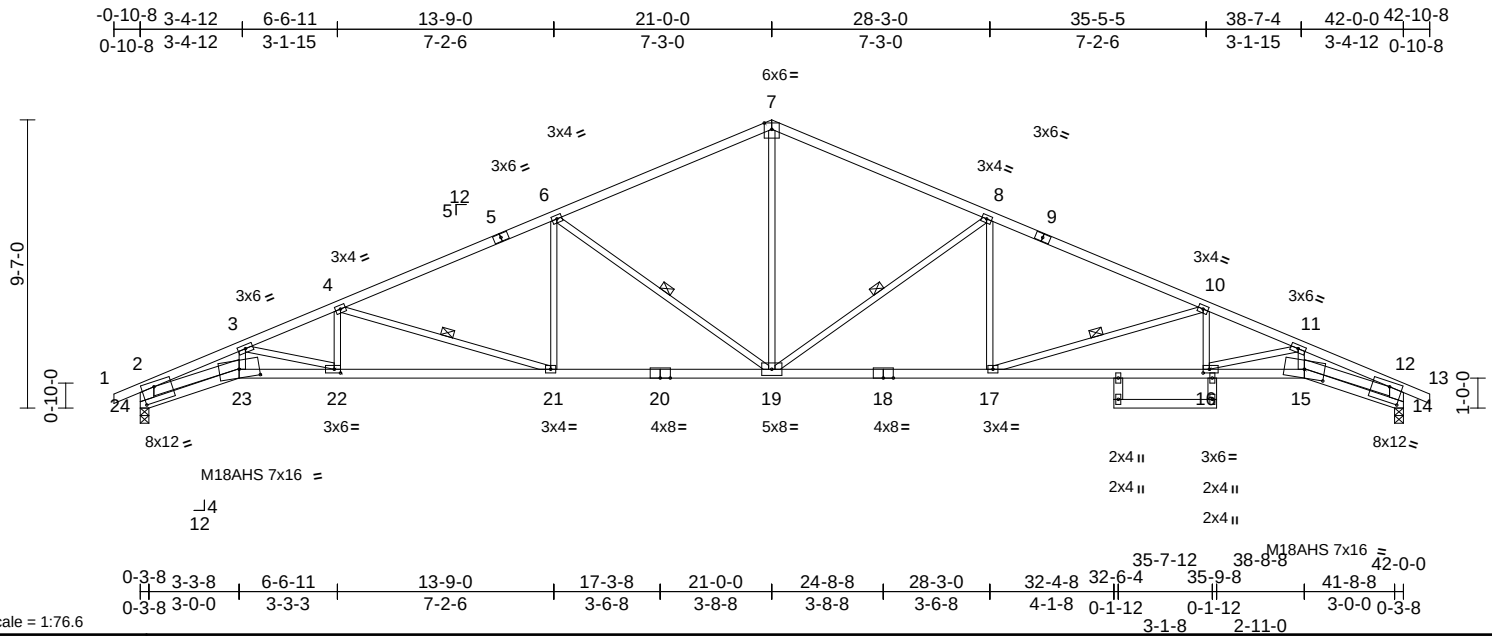

Scale = 1:76.6

Plate Offsets (X, Y): [14:0-5-0,0-6-0], [15:0-8-0,0-3-7], [16:0-2-8,0-1-8], [22:0-2-8,0-1-8], [23:0-8-0,0-3-7], [24:0-5-0,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.44	17-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.82	17-19	>608	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.51	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	21	>999	240	Weight: 167 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-5,9-13:2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 23-20,18-15:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 24-2,14-12:2x6 SPF No.2, 23-2,15-12:2x4 SPF 2100F 1.8E, 25-27,26-16:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied or 8-4-1 oc bracing.

WEBS 1 Row at midpt 8-19, 6-19, 4-21, 10-17

REACTIONS (size) 14=0-3-8, 24=0-3-8
Max Horiz 24=-139 (LC 9)
Max Uplift 14=-265 (LC 9), 24=-265 (LC 8)
Max Grav 14=1947 (LC 1), 24=1947 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-6030/882, 3-4=-4887/664, 4-6=-3682/466, 6-7=-2676/338, 7-8=-2676/356, 8-10=-3682/437, 10-11=-4887/598, 11-12=-6030/725, 12-13=0/30, 2-24=-2001/345, 12-14=-2001/300

BOT CHORD 23-24=-227/503, 22-23=-892/5399, 21-22=-672/4518, 19-21=-383/3317, 17-19=-217/3317, 16-17=-471/4518, 15-16=-616/5399, 14-15=-79/503

WEBS 7-19=-126/1520, 8-19=-1170/304, 11-15=-54/716, 6-19=-1170/316, 3-23=-116/716, 2-23=-696/5022, 12-15=-554/5022, 4-22=0/431, 3-22=-920/230, 4-21=-1258/303, 6-21=-1/556, 8-17=0/556, 10-17=-1258/266, 10-16=0/431, 11-16=-920/152

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 24, 14 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 265 lb uplift at joint 24 and 265 lb uplift at joint 14.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED 16952 KANSAS PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B2	Roof Special	4	1	I65139930 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:31 Page: 1

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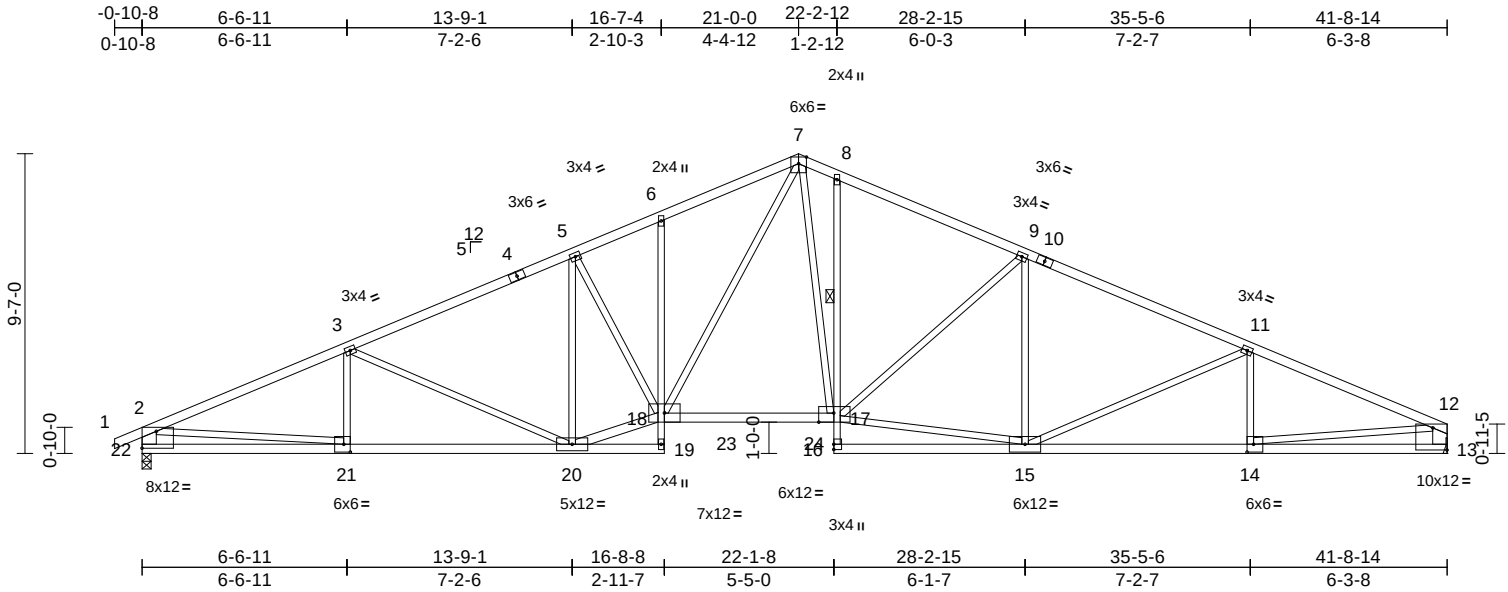


Scale = 1:73.7

Plate Offsets (X, Y): [13:Edge,0-8-8], [14:0-2-8,0-3-0], [17:0-5-12,Edge], [21:0-2-8,0-3-0], [22:Edge,0-6-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.36	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.63	17-18	>788	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.17	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	17-18	>999	240	Weight: 184 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x3 SPF No.2 *Except* 22-19:2x4 SPF 2100F 1.8E, 18-17,16-13:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 22-2,13-12:2x6 SPF No.2, 18-20:2x4 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, Except:
6-0-0 oc bracing: 19-20
2-2-0 oc bracing: 14-15.

1 Row at midpt 8-17

REACTIONS (size) 13= Mechanical, 22=0-3-8
Max Horiz 22=87 (LC 8)
Max Uplift 13=-26 (LC 9), 22=-39 (LC 8)
Max Grav 13=1929 (LC 2), 22=1995 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-3598/58, 3-5=-3189/65, 5-6=-3289/82, 6-7=-3268/125, 7-8=-2807/96, 8-9=-2875/63, 9-11=-3162/63, 11-12=-3480/56, 2-22=-1874/71, 12-13=-1818/56

BOT CHORD 21-22=-127/652, 20-21=-86/3251, 19-20=-42/31, 18-19=0/8, 6-18=-166/59, 17-18=0/2427, 16-17=0/103, 8-17=-260/91, 15-16=-1/88, 14-15=-12/3153, 13-14=-19/367

WEBS 5-18=0/294, 7-18=-103/1195, 7-17=-91/1106, 9-17=-475/112, 2-21=0/2618, 12-14=0/2806, 3-21=-135/104, 3-20=-479/87, 5-20=-654/33, 18-20=0/3049, 9-15=-160/83, 11-15=-411/86, 15-17=0/2812, 11-14=-208/84

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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 39 lb uplift at joint 22 and 26 lb uplift at joint 13.
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

April 25,2024

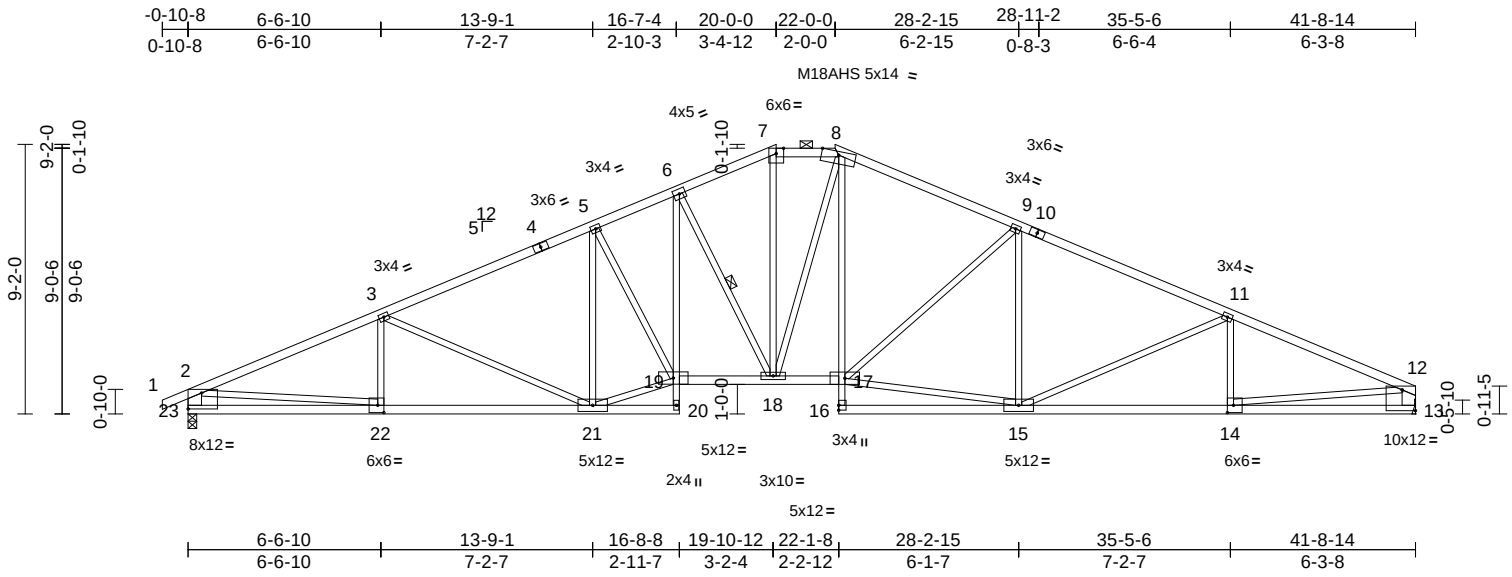
Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B3	Hip	1	1	I65139931
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:32

ID:1FPIUnMFZBMonijiN1vSSFzX46y-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:78.4

Plate Offsets (X, Y): [13:Edge,0-8-8], [14:0-2-8,0-3-0], [22:0-2-8,0-3-0], [23:Edge,0-6-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.29	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.52	18-19	>958	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.18	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	19	>999	240	Weight: 188 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 20-6,8-16:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 23-2,13-12:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-7 max.): 7-8.

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

WEBS 1 Row at midpt 6-18

REACTIONS (size) 13= Mechanical, 23=0-3-8

Max Horiz 23=82 (LC 8)

Max Uplift 13=-21 (LC 9), 23=-34 (LC 8)

Max Grav 13=1857 (LC 1), 23=1936 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-3473/50, 3-5=-3070/55, 5-6=-3136/72, 6-7=-2696/59, 7-8=-2467/67, 8-9=-2745/49, 9-11=-3051/53, 11-12=-3359/46, 2-23=-1862/67, 12-13=-1785/52

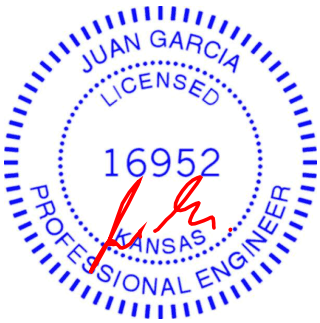
BOT CHORD 22-23=-120/600, 21-22=-73/3123, 20-21=-8/110, 19-20=0/14, 6-19=-53/770, 18-19=0/2831, 17-18=0/2439, 16-17=0/104, 8-17=-31/646, 15-16=0/179, 14-15=-3/3030, 13-14=-19/356

WEBS 5-19=-1/288, 9-17=-484/116, 2-22=0/2536, 12-14=0/2694, 6-18=-789/89, 8-18=-165/338, 9-15=-135/106, 11-15=-401/85, 15-17=0/2583, 11-14=-208/83, 3-22=-131/107, 3-21=-477/88, 5-21=-629/32, 19-21=0/2792, 7-18=-4/795

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 23 and 21 lb uplift at joint 13.
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



April 25,2024

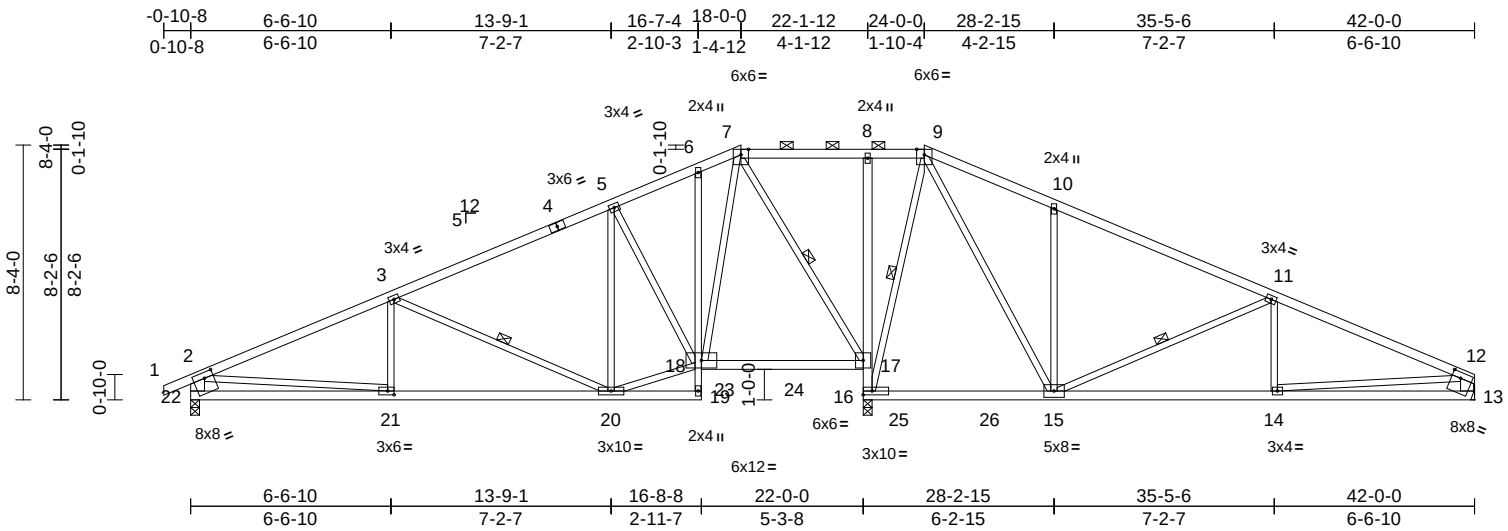
Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B4	Hip	1	1	I65139932
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:32

ID:dgk9slKNGG_DwE_7ivMlqdzX47?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:75.4

Plate Offsets (X, Y): [13:0-3-8,0-2-4], [21:0-2-8,0-1-8], [22:0-3-8,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.10	20-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.19	20-21	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.61	Horz(CT)	-0.04	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	20-21	>999	240	Weight: 186 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 19-6:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 22-2,13-12:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20,15-16.

WEBS 1 Row at midpt 9-16, 7-17, 11-15, 3-20

REACTIONS (size) 13= Mechanical, 16=0-3-8, 22=0-3-8

Max Horiz 22=72 (LC 10)

Max Uplift 13=-69 (LC 9), 22=-61 (LC 8)

Max Grav 13=827 (LC 22), 16=2192 (LC 2), 22=1004 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-3=-1535/104, 3-5=-868/117, 5-6=-561/140, 6-7=-472/142, 7-8=0/314, 8-9=0/298, 2-22=-932/93, 12-13=-744/101, 9-10=-595/231, 10-11=-621/163, 11-12=-1306/148

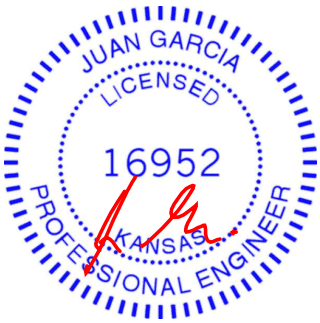
BOT CHORD 21-22=-118/412, 20-21=-114/1353, 19-20=-55/4, 18-19=0/7, 6-18=-12/80, 17-18=0/296, 16-17=-1253/17, 8-17=-297/66, 15-16=-96/32, 14-15=-93/1148, 13-14=-29/304

WEBS 5-18=-585/80, 9-16=-858/16, 2-21=0/961, 12-14=-64/848, 7-18=-34/812, 7-17=-1015/28, 10-15=-440/131, 11-15=-723/80, 11-14=0/229, 9-15=-91/1073, 3-21=0/228, 3-20=-690/80, 5-20=0/266, 18-20=-20/805

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 22 and 69 lb uplift at joint 13.
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



April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B5	Hip	1	1	I65139933
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:32 Page: 1
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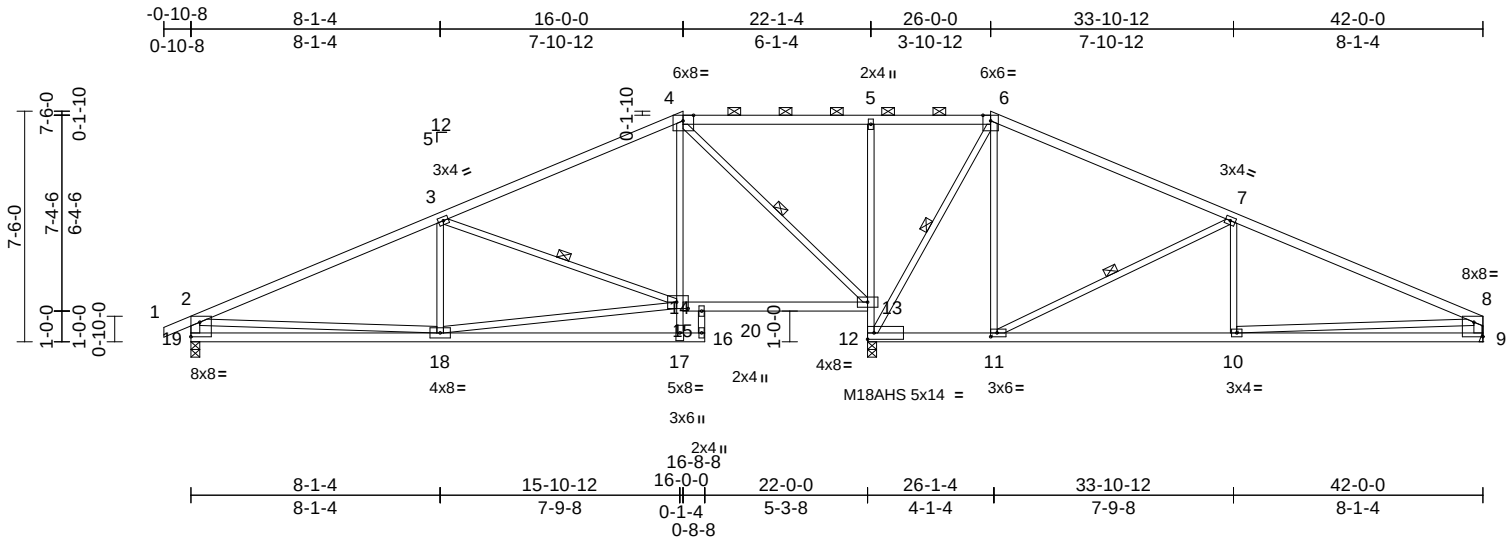


Scale = 1:74.9

Plate Offsets (X, Y): [4:0-4-2,Edge], [8:Edge,0-5-11], [11:0-2-8,0-1-8], [15:0-4-8,0-2-8], [19:Edge,0-5-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.10	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.21	18-19	>999	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	-0.03	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	17-18	>999	240	Weight: 170 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 16-14,5-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 19-2:2x4 SPF 2100F 1.8E, 9-8:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-12, 7-11, 3-15

REACTIONS (size) 9= Mechanical, 12=0-3-8, 19=0-3-8
Max Horiz 19=65 (LC 8)
Max Uplift 9=-66 (LC 9), 19=-58 (LC 8)
Max Grav 9=842 (LC 22), 12=2128 (LC 2), 19=1021 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 4-5=0/276, 5-6=0/273, 6-7=-438/157, 7-8=-1290/147, 2-19=-927/101, 8-9=-754/108, 1-2=0/27, 2-3=-1532/105, 3-4=-769/107
BOT CHORD 18-19=-142/621, 17-18=-7/113, 16-17=-20/81, 14-16=-249/0, 14-15=0/580, 13-14=0/626, 12-13=-1265/30, 5-13=-395/92, 11-12=0/286, 10-11=-80/1112, 9-10=-41/443
WEBS 4-13=-1176/0, 6-12=-975/0, 6-11=0/666, 7-11=-928/103, 7-10=0/311, 2-18=0/723, 8-10=-39/676, 3-18=-40/202, 3-15=-764/104, 15-17=0/447, 4-15=0/708, 15-18=-88/1246

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 19 and 66 lb uplift at joint 9.
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

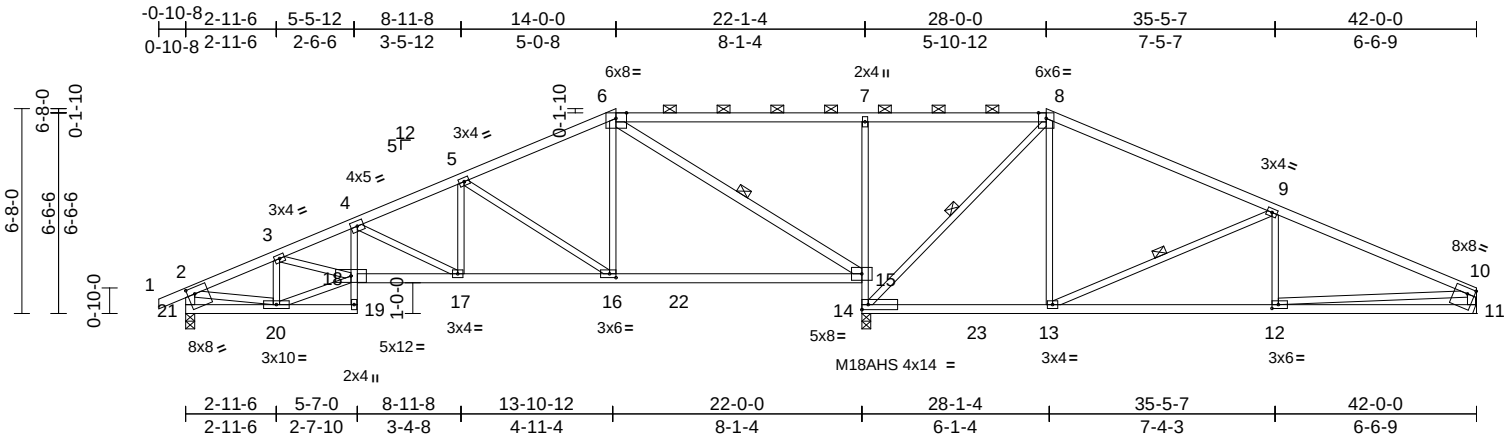
April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B6	Hip	1	1	I65139934
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:32

ID:hHcPR4I6kekWhwrkaUJHlCzX471-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:75

Plate Offsets (X, Y): [6:0-4-2,Edge], [10:0-2-12,0-2-4], [12:0-2-8,0-1-8], [16:0-2-8,0-1-8], [21:0-2-12,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.14	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.26	15-16	>995	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	17-18	>999	240	Weight: 165 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 19-4,7-14:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 15-6,21-2,11-10:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-15 oc purlins, except end verticals, and 2-0-0 oc purlins (9-10-3 max.): 6-8.

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

WEBS 1 Row at midpt 6-15, 8-14, 9-13

REACTIONS (size) 11= Mechanical, 14=0-3-8, 21=0-3-8

Max Horiz 21=56 (LC 8)

Max Uplift 11=-58 (LC 9), 21=-50 (LC 8)

Max Grav 11=849 (LC 22), 14=2138 (LC 2), 21=1015 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-1444/69, 3-4=-2238/135, 4-5=-1654/118, 5-6=-1009/89, 6-7=0/269, 7-8=0/268, 8-9=-642/132, 9-10=-1374/129, 2-21=-946/64, 10-11=-763/90

BOT CHORD 20-21=-62/205, 19-20=-8/81, 18-19=0/61, 4-18=0/364, 17-18=-120/2066, 16-17=-72/1507, 15-16=0/874, 14-15=-1324/65, 7-15=-579/135, 13-14=0/501, 12-13=-76/1213, 11-12=-24/306

WEBS 5-16=-742/100, 6-16=0/702, 6-15=-1295/0, 8-14=-1018/0, 8-13=0/617, 9-13=-771/97, 9-12=0/235, 10-12=-53/911, 5-17=0/418, 4-17=-630/55, 3-20=-676/79, 3-18=-31/786, 18-20=-90/1304, 2-20=-31/1133

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 21 and 58 lb uplift at joint 11.
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

April 25,2024

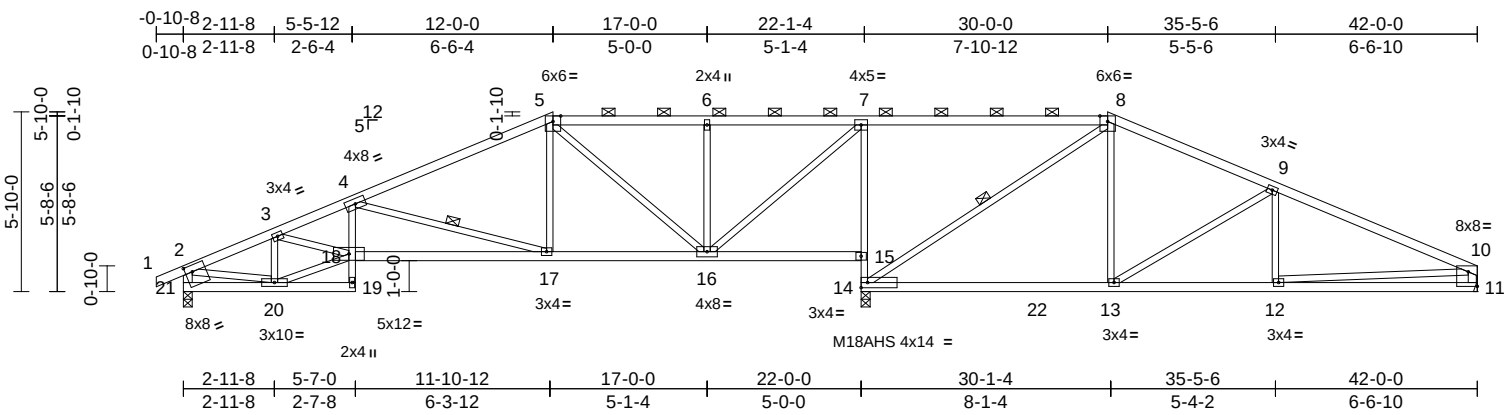
Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B7	Hip	1	1	I65139935
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:32

ID:D520EkHUzLcf3mGY0no2C_zX472-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:74.8

Plate Offsets (X, Y): [10:Edge,0-5-11], [21:0-2-12,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.15	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.29	13-14	>804	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	17-18	>999	240	Weight: 160 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 19-4,7-14:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 21-2,11-10:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-6 max.): 5-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16.

WEBS 1 Row at midpt 4-17, 8-14

REACTIONS (size) 11= Mechanical, 14=0-3-8, 21=0-3-8
Max Horiz 21=47 (LC 8)
Max Uplift 11=-36 (LC 9), 14=-43 (LC 5), 21=-33 (LC 8)
Max Grav 11=882 (LC 22), 14=2053 (LC 2), 21=1031 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-1460/32, 3-4=-2347/88, 4-5=-1348/42, 5-6=-759/73, 6-7=-757/71, 7-8=0/165, 8-9=-914/81, 9-10=-1395/81, 2-21=-960/47, 10-11=-770/73

BOT CHORD 20-21=-57/217, 19-20=-22/80, 18-19=0/59, 4-18=0/387, 17-18=-85/2227, 16-17=0/1167, 15-16=-178/34, 14-15=-1349/98, 7-15=-1284/125, 13-14=0/778, 12-13=-30/1226, 11-12=-24/372

WEBS 4-17=-1088/128, 5-17=0/529, 5-16=-556/27, 7-16=-2/1182, 8-14=-1076/0, 8-13=0/578, 9-13=-524/86, 9-12=0/164, 10-12=-6/858, 3-20=-672/48, 3-18=-31/903, 18-20=-29/1332, 2-20=0/1124, 6-16=-326/75

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 21, 43 lb uplift at joint 14 and 36 lb uplift at joint 11.
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

April 25,2024

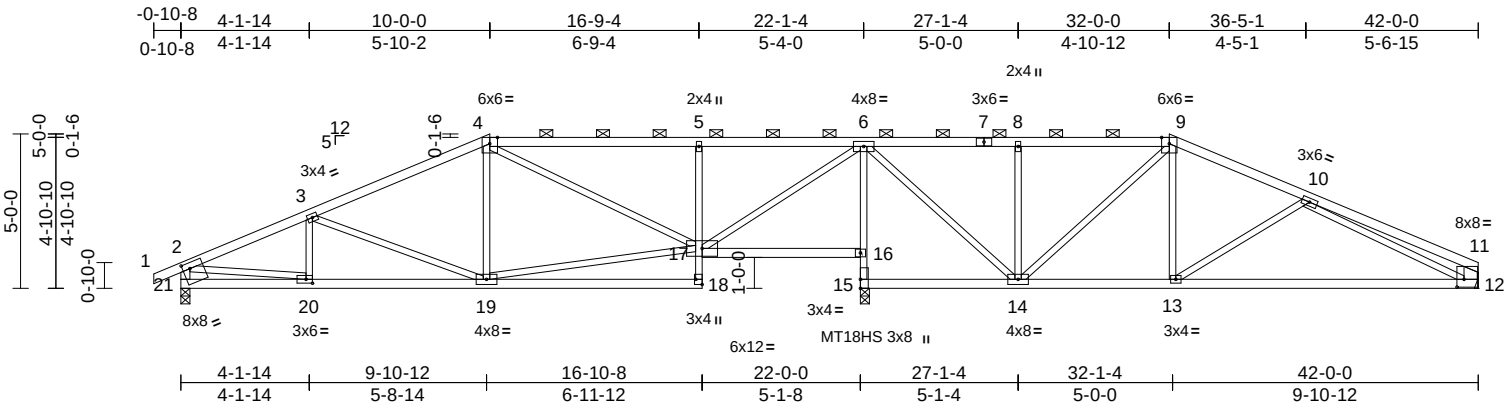
Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	B8	Hip	1	1	I65139936
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33

ID:lvUe0OHsC1UoRdhMT3HpgnzX473-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:74.6

Plate Offsets (X, Y): [11:0-2-12,0-3-0], [18:Edge,0-2-8], [20:0-2-8,0-1-8], [21:0-2-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.22	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.45	12-13	>519	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	-0.01	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	19-20	>999	240	Weight: 163 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 18-5,6-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 21-2:2x4 SPF 2400F 2.0E, 12-11:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-10 max.): 4-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 16-17,14-15.

REACTIONS (size) 12= Mechanical, 15=0-3-8, 21=0-3-8
Max Horiz 21=39 (LC 10)
Max Uplift 12=-27 (LC 9), 15=-51 (LC 5), 21=-27 (LC 8)
Max Grav 12=848 (LC 20), 15=1952 (LC 1), 21=1027 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-1596/41, 3-4=-1298/59, 4-5=-1013/109, 5-6=-1007/104, 6-8=-636/92, 8-9=-638/93, 9-10=-1044/51, 10-11=-441/0, 2-21=-976/47, 11-12=-319/34

BOT CHORD 20-21=-36/204, 19-20=-44/1427, 18-19=0/80, 17-18=0/123, 5-17=-472/110, 16-17=-161/15, 15-16=-1911/81, 6-16=-1836/112, 14-15=-148/12, 13-14=0/899, 12-13=-52/1155

WEBS 3-19=-320/85, 4-19=0/255, 17-19=0/1059, 4-17=-143/29, 6-17=-39/1388, 9-14=-370/0, 9-13=0/380, 2-20=-8/1236, 10-12=-918/101, 8-14=-369/87, 6-14=-16/1042, 3-20=-107/60, 10-13=-295/120

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 21, 51 lb uplift at joint 15 and 27 lb uplift at joint 12.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	C1	Common Supported Gable	1	1	I65139937 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33 Page: 1
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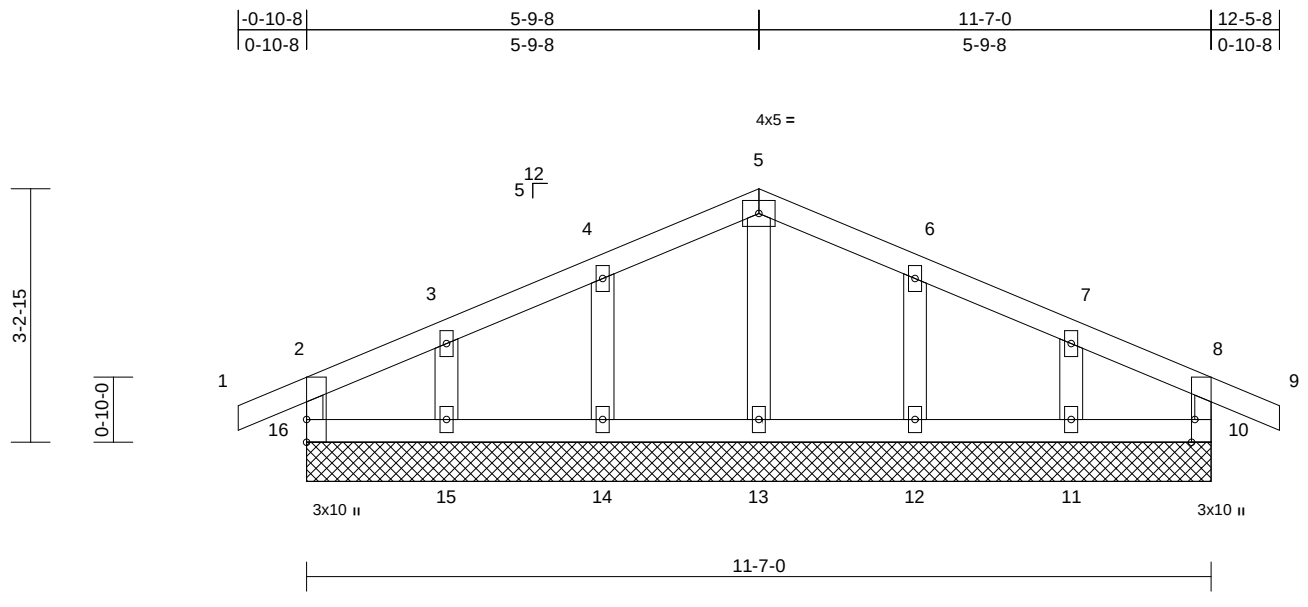

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Plate Offsets (X, Y): [10:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 40 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=11-7-0, 11=11-7-0, 12=11-7-0, 13=11-7-0, 14=11-7-0, 15=11-7-0, 16=11-7-0
Max Horiz 16=-30 (LC 9)
Max Uplift 10=-43 (LC 5), 11=-51 (LC 9), 12=-51 (LC 9), 14=-51 (LC 8), 15=-53 (LC 8), 16=-43 (LC 4)
Max Grav 10=149 (LC 22), 11=156 (LC 1), 12=197 (LC 22), 13=169 (LC 1), 14=197 (LC 21), 15=156 (LC 1), 16=149 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-134/53, 1-2=0/26, 2-3=-29/42, 3-4=-21/57, 4-5=-28/78, 5-6=-28/74, 6-7=-21/53, 7-8=-26/39, 8-9=0/26, 8-10=-134/52
BOT CHORD 15-16=-10/25, 14-15=-10/25, 13-14=-10/25, 12-13=-10/25, 11-12=-10/25, 10-11=-10/25
WEBS 5-13=-129/0, 4-14=-156/76, 3-15=-117/70, 6-12=-156/77, 7-11=-117/69

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 16, 43 lb uplift at joint 10, 51 lb uplift at joint 14, 53 lb uplift at joint 15, 51 lb uplift at joint 12 and 51 lb uplift at joint 11.
12) 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	C2	Common Structural Gable	1	1	I65139938 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33 Page: 1
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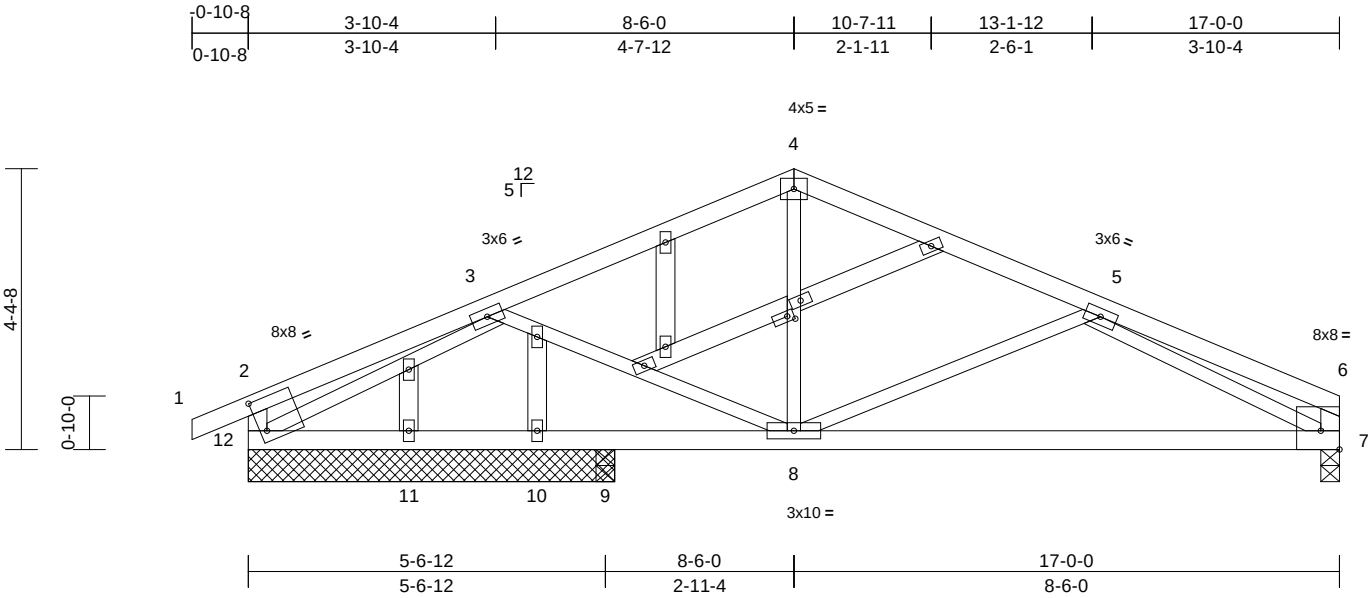

Scale = 1:35.9

Plate Offsets (X, Y): [2:0-1-4,0-6-0], [6:Edge,0-3-8], [14:0-1-4,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.13	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.26	7-8	>514	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 71 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,7-6,13-14,14-15:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 9=0-3-8, 10=5-8-8, 11=5-8-8, 12=5-8-8
Max Horiz 12=56 (LC 12)
Max Uplift 7=-99 (LC 9), 9=-44 (LC 8), 10=-33 (LC 1), 12=-150 (LC 8)
Max Grav 7=722 (LC 1), 9=91 (LC 1), 10=72 (LC 3), 11=94 (LC 3), 12=745 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-179/62, 3-4=-876/124, 4-5=-877/122, 5-6=-289/0, 2-12=-244/86, 6-7=-200/35
BOT CHORD 11-12=-207/936, 10-11=-207/936, 9-10=-207/936, 8-9=-207/936, 7-8=-161/971
WEBS 4-8=0/326, 5-8=-292/181, 3-8=-257/188, 3-12=-944/154, 5-7=-865/216

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 12, 99 lb uplift at joint 7, 33 lb uplift at joint 10 and 44 lb uplift at joint 9.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	C3	Common	4	1	I65139939
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33

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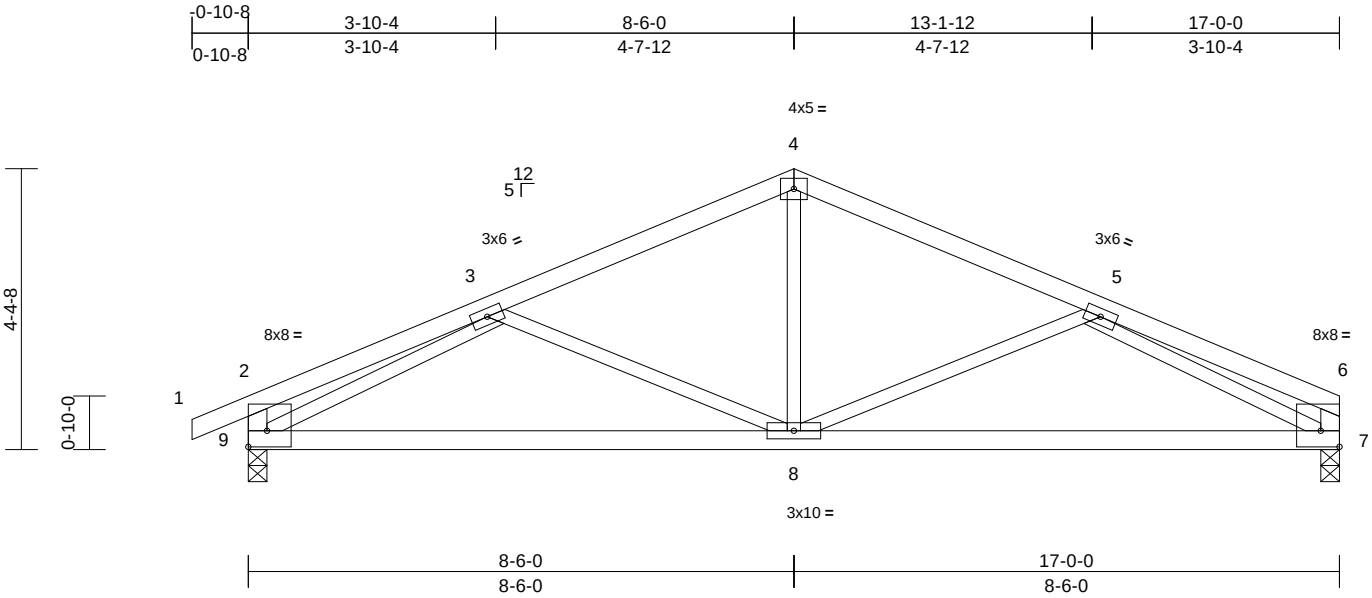

Scale = 1:35.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.10	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.20	8-9	>978	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	8	>999	240	Weight: 60 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-2,7-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7=0-3-8, 9=0-3-8
Max Horiz 9=56 (LC 8)
Max Uplift 7=-95 (LC 9), 9=-119 (LC 8)
Max Grav 7=750 (LC 1), 9=826 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-275/17, 3-4=-955/112, 4-5=-955/112, 5-6=-262/5, 2-9=-282/69, 6-7=-193/37
BOT CHORD 8-9=-191/1012, 7-8=-154/1026
WEBS 4-8=0/393, 5-8=-276/185, 3-8=-261/181, 3-9=-928/185, 5-7=-953/200

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 9 and 95 lb uplift at joint 7.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	D1	Common Supported Gable	1	1	I65139940
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33

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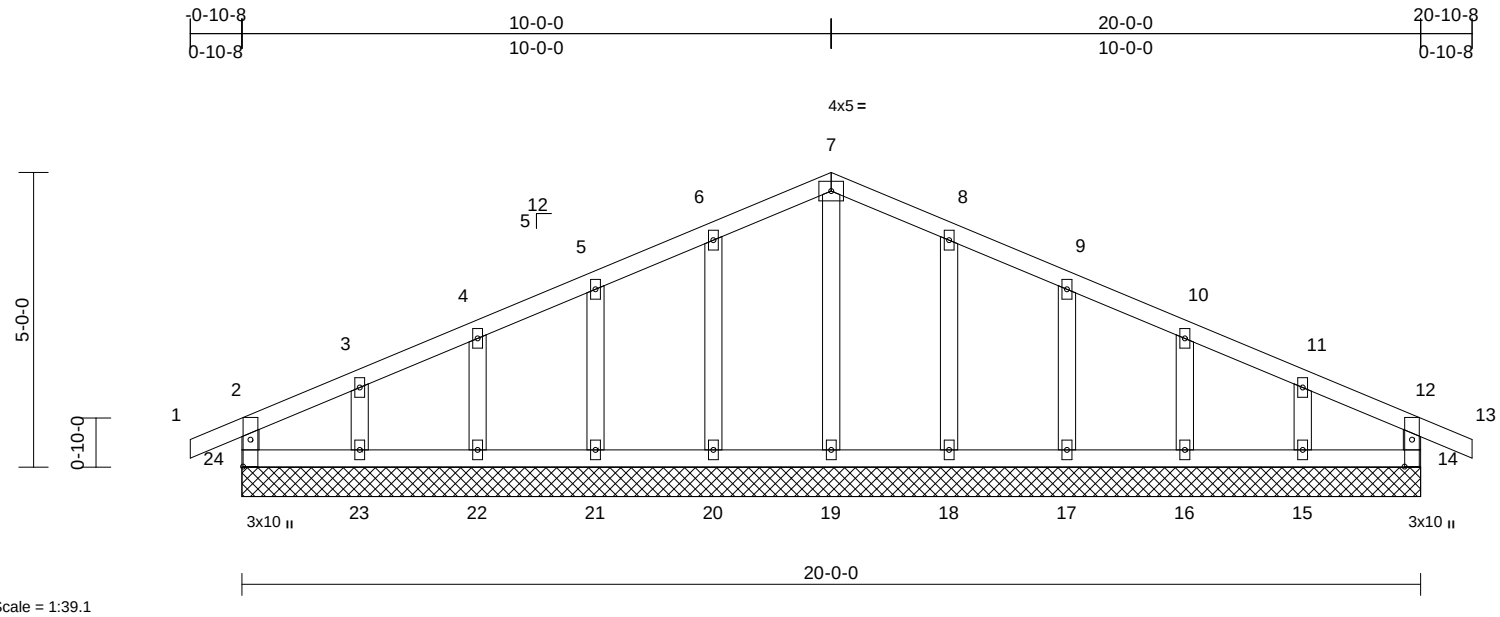

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Plate Offsets (X, Y): [14:0-5-8,0-1-8], [24:0-5-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 77 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.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

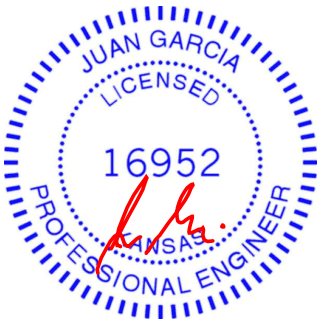
REACTIONS (size) 14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz 24=-60 (LC 9)
Max Uplift 14=-33 (LC 5), 15=-66 (LC 9), 16=-44 (LC 9), 17=-49 (LC 9), 18=-50 (LC 9), 20=-50 (LC 8), 21=-49 (LC 8), 22=-42 (LC 8), 23=-72 (LC 8), 24=-34 (LC 4)
Max Grav 14=160 (LC 22), 15=166 (LC 1), 16=184 (LC 22), 17=177 (LC 1), 18=191 (LC 22), 19=169 (LC 1), 20=191 (LC 21), 21=177 (LC 1), 22=184 (LC 21), 23=166 (LC 1), 24=160 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-24=-142/45, 1-2=0/27, 2-3=-57/52, 3-4=-34/65, 4-5=-26/87, 5-6=-25/108, 6-7=-29/128, 7-8=-29/122, 8-9=-25/95, 9-10=-26/74, 10-11=-24/53, 11-12=-46/41, 12-13=0/27, 12-14=-142/45
BOT CHORD 23-24=-12/50, 22-23=-12/50, 21-22=-12/50, 20-21=-12/50, 19-20=-12/50, 18-19=-12/50, 17-18=-12/50, 16-17=-12/50, 15-16=-12/50, 14-15=-12/50
WEBS 7-19=-129/0, 6-20=-151/74, 5-21=-137/72, 4-22=-144/69, 3-23=-126/84, 8-18=-151/74, 9-17=-137/72, 10-16=-144/70, 11-15=-126/81

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 24, 33 lb uplift at joint 14, 50 lb uplift at joint 20, 49 lb uplift at joint 21, 42 lb uplift at joint 22, 72 lb uplift at joint 23, 50 lb uplift at joint 18, 49 lb uplift at joint 17, 44 lb uplift at joint 16 and 66 lb uplift at joint 15.
12) 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



April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	D2	Common	5	1	I65139941
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33 Page: 1
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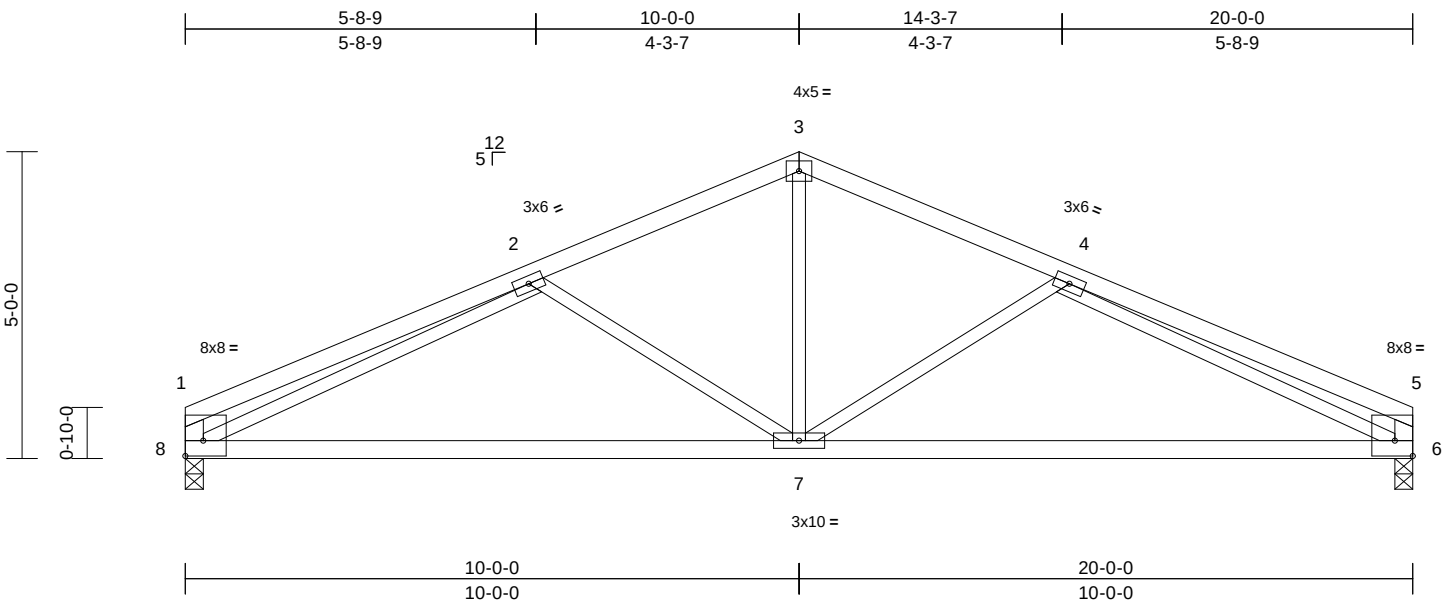

Scale = 1:37.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.19	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.38	6-7	>615	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	7	>999	240	Weight: 70 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 8-1,6-5:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=-52 (LC 9)
Max Uplift 6=-113 (LC 9), 8=-113 (LC 8)
Max Grav 6=887 (LC 1), 8=887 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-457/63, 2-3=-1132/133, 3-4=-1132/133, 4-5=-457/63, 1-8=-332/91, 5-6=-332/91
BOT CHORD 7-8=-203/1244, 6-7=-151/1244
WEBS 3-7=-18/552, 4-7=-348/209, 2-7=-348/209, 2-8=-1001/156, 4-6=-1001/157

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 8 and 113 lb uplift at joint 6.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	E1	Monopitch	3	1	I65139942
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:33 Page: 1
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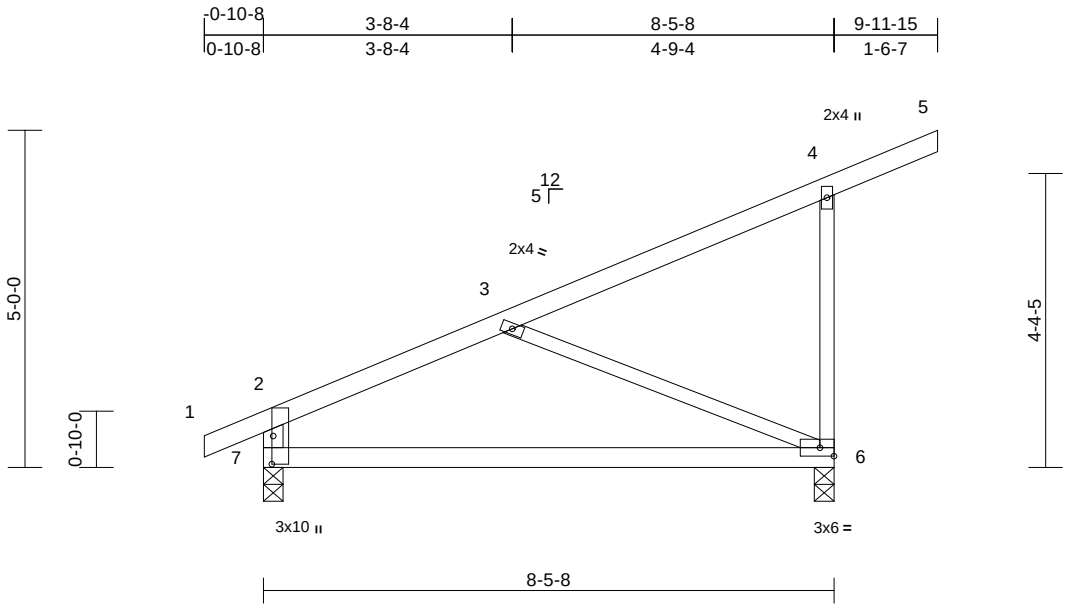

Scale = 1:34.2

Plate Offsets (X, Y): [7:0-5-0,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.17	6-7	>569	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.34	6-7	>291	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.01	6-7	>999	240	Weight: 31 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 7=0-3-8
Max Horiz 7=209 (LC 5)
Max Uplift 6=-142 (LC 8), 7=-57 (LC 8)
Max Grav 6=491 (LC 1), 7=434 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-413/84, 3-4=-136/54, 4-5=-44/0, 4-6=-287/123, 2-7=-343/107
BOT CHORD 6-7=-131/334
WEBS 3-6=-346/178

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 6 and 57 lb uplift at joint 7.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	G1	Hip Girder	1	2	I65139943
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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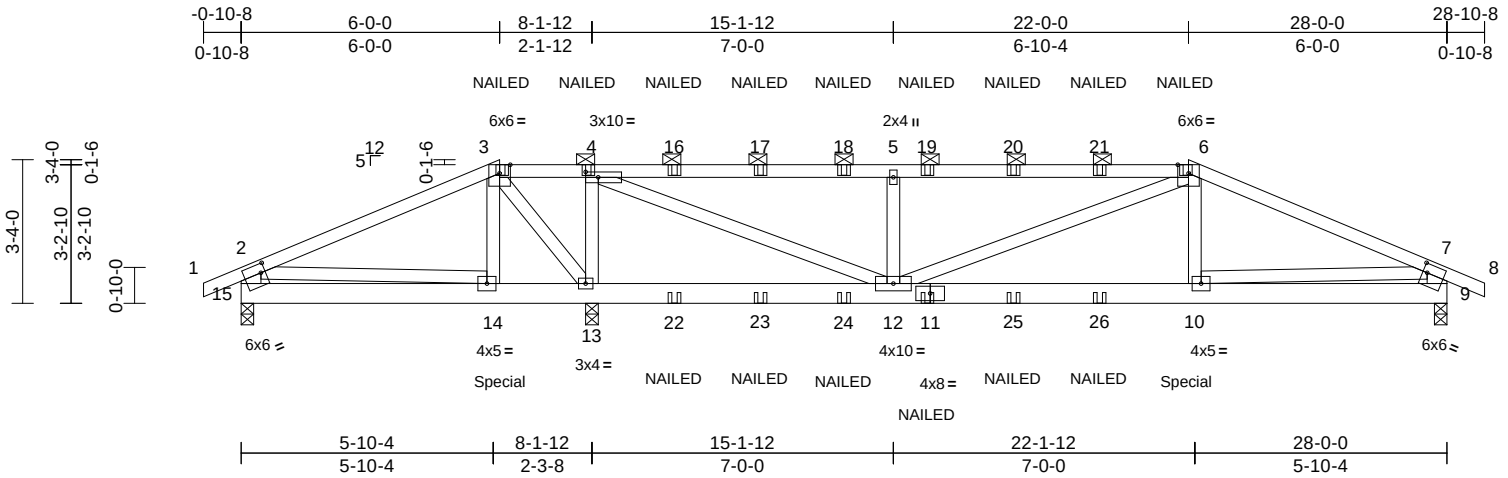


Scale = 1:53.5

Plate Offsets (X, Y): [4:0-3-8,0-1-8], [9:0-1-4,0-2-8], [15:0-1-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.06	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.12	10-12	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-12	>999	240	Weight: 260 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except* 15-2,9-7:2x6 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.): 3-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

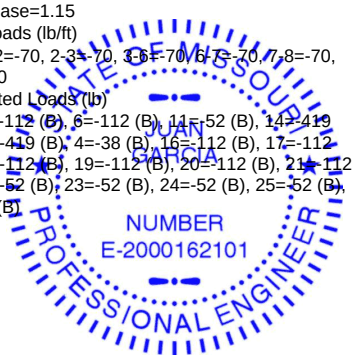
REACTIONS (size) 9=0-3-8, 13=0-3-8, 15=0-3-8
Max Horiz 15=31 (LC 8)
Max Uplift 9=-303 (LC 9), 13=-659 (LC 4), 15=-225 (LC 27)
Max Grav 9=1465 (LC 1), 13=3211 (LC 1), 15=110 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-145/715, 3-4=-232/1269, 4-5=-2065/489, 5-6=-2069/491, 6-7=-2566/537, 7-8=0/30, 2-15=-79/262, 7-9=-1392/322
BOT CHORD 14-15=-184/257, 13-14=-671/178, 12-13=-1272/315, 10-12=-443/2279, 9-10=-186/627
WEBS 3-14=-75/457, 6-10=0/503, 2-14=-817/232, 7-10=-332/1760, 4-13=-1988/543, 3-13=-1144/255, 6-12=-236/88, 5-12=-985/472, 4-12=-781/3595

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 15, 303 lb uplift at joint 9 and 659 lb uplift at joint 13.
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.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 419 lb down and 91 lb up at 6-0-0, and 419 lb down and 91 lb up at 21-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-6=-70, 6-7=-70, 7-8=-70, 9-15=-20
Concentrated Loads (lb)
Vert: 3=-112 (B), 6=-112 (B), 11=-52 (B), 14=-419 (B), 10=-419 (B), 4=-38 (B), 16=-112 (B), 17=-112 (B), 18=-112 (B), 19=-112 (B), 20=-112 (B), 21=-112 (B), 22=-52 (B), 23=-52 (B), 24=-52 (B), 25=-52 (B), 26=-52 (B)



April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	G2	Hip	1	1	I65139944
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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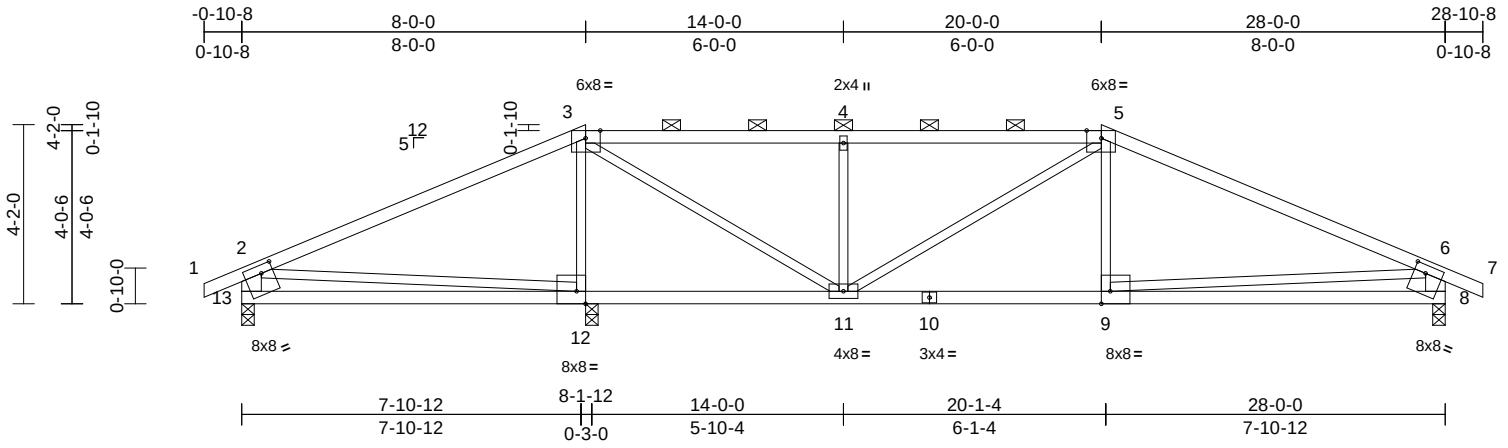
Page: 1



Scale = 1:53.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.09	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.18	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	9-11	>999	240	Weight: 101 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-2,8-6:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-1 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.

REACTIONS (size) 8=0-3-8, 12=0-3-8, 13=0-3-8
Max Horiz 13=-43 (LC 13)
Max Uplift 8=-134 (LC 9), 12=-153 (LC 4), 13=-134 (LC 8)
Max Grav 8=944 (LC 1), 12=1339 (LC 1), 13=359 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-36/258, 3-4=-967/238, 4-5=-967/238, 5-6=-1316/193, 6-7=0/30, 2-13=-295/178, 6-8=-872/179
BOT CHORD 12-13=-287/590, 11-12=-183/35, 9-11=-105/1106, 8-9=-247/718
WEBS 3-12=-1118/229, 3-11=-204/1279, 4-11=-481/194, 5-11=-199/38, 5-9=0/274, 2-12=-677/219, 6-9=0/569

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 13, 153 lb uplift at joint 12 and 134 lb uplift at joint 8.
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.

LOAD CASE(S) Standard

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	G3	Hip Girder	1	2	I65139945
					Job Reference (optional)

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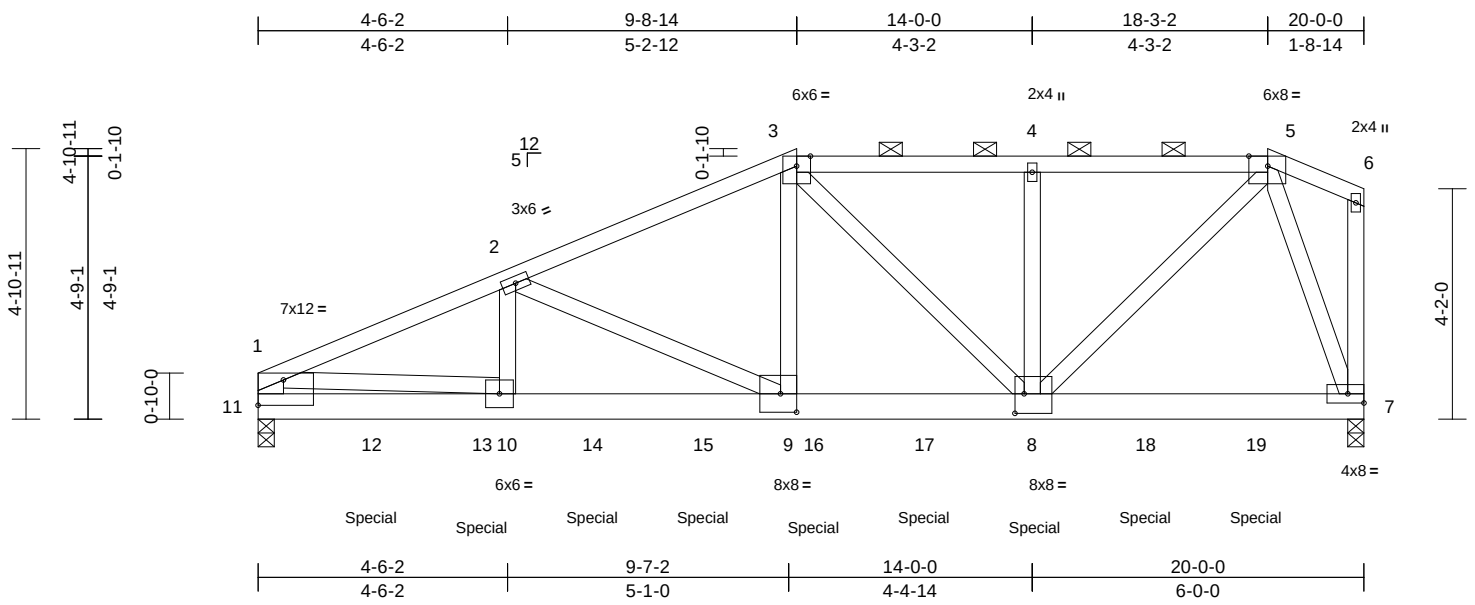


Scale = 1:41.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.21	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	9-10	>999	240	Weight: 231 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except* 11-1:2x6 SP 2400F 2.0E

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

REACTIONS (size) 7=0-3-8, (req. 0-3-9), 11=0-3-8, (req. 0-3-11)
Max Horiz 11=163 (LC 26)
Max Uplift 7=-489 (LC 5), 11=-567 (LC 8)
Max Grav 7=4580 (LC 1), 11=4704 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8073/957, 2-3=-6276/692, 3-4=-4888/555, 4-5=-4889/555, 5-6=-144/62, 1-11=-3936/493, 6-7=-114/34
BOT CHORD 10-11=-365/1999, 9-10=-933/7390, 8-9=-653/5661, 7-8=-198/1401
WEBS 2-10=-162/1272, 2-9=-1799/400, 3-9=-302/2871, 3-8=-1125/207, 4-8=-456/152, 5-7=-3949/473, 1-10=-606/5434, 5-8=-507/5041

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) WARNING: Required bearing size at joint(s) 11, 7 greater than input bearing size.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 567 lb uplift at joint 11 and 489 lb uplift at joint 7.
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.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 867 lb down and 125 lb up at 2-0-12, 867 lb down and 125 lb up at 4-0-12, 867 lb down and 125 lb up at 6-0-12, 867 lb down and 125 lb up at 8-0-12, 828 lb down and 39 lb up at 10-0-12, 926 lb down and 48 lb up at 12-0-12, 897 lb down and 70 lb up at 14-0-12, and 892 lb down and 78 lb up at 16-0-12, and 876 lb down and 81 lb up at 18-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

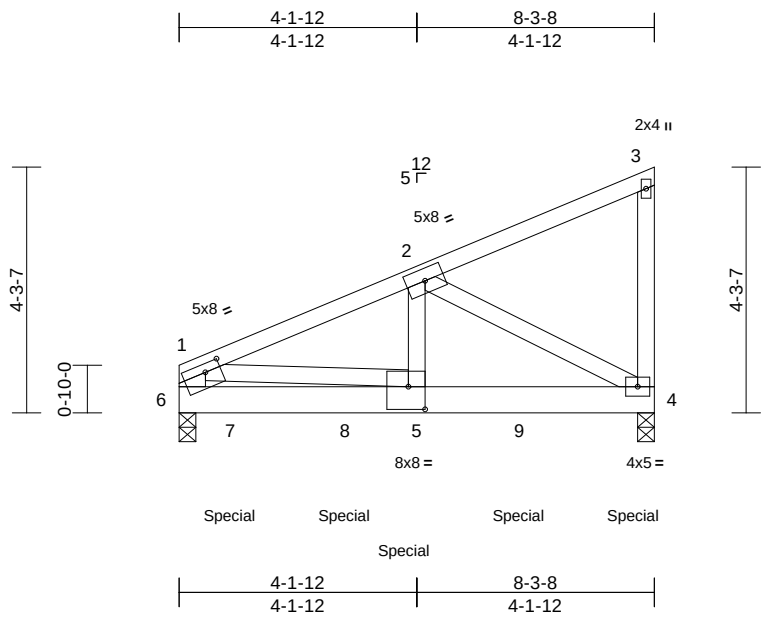
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 5-6=-70, 7-11=-20
Concentrated Loads (lb)
Vert: 8=-806 (B), 12=-867 (B), 13=-867 (B), 14=-867 (B), 15=-867 (B), 16=-828 (B), 17=-820 (B), 18=-809 (B), 19=-787 (B)

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	G4	Monopitch Girder	1	2	I65139946
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:34 Page: 1

ID:BAIOWzILIPprf5eA1excASzNVrK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.08	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.02	5-6	>999	240	Weight: 90 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except* 6-1:2x6 SPF No.2

BRACING

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

REACTIONS (size) 4=0-3-8, (req. 0-4-2), 6=0-3-8, (req. 0-4-0)
Max Horiz 6=165 (LC 5)
Max Uplift 4=-175 (LC 8), 6=-135 (LC 8)
Max Grav 4=5289 (LC 15), 6=5107 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5770/158, 2-3=-89/40, 3-4=-127/43, 1-6=-3035/115
BOT CHORD 5-6=-162/15, 4-5=-175/5233
WEBS 2-5=-41/4853, 2-4=-5959/235, 1-5=-115/5353

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) WARNING: Required bearing size at joint(s) 4, 6 greater than input bearing size.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 4 and 135 lb uplift at joint 6.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2037 lb down and 36 lb up at 0-10-12, 2033 lb down and 38 lb up at 2-10-12, 2033 lb down and 38 lb up at 3-11-4, and 2033 lb down and 38 lb up at 5-11-4, and 1845 lb down and 28 lb up at 8-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

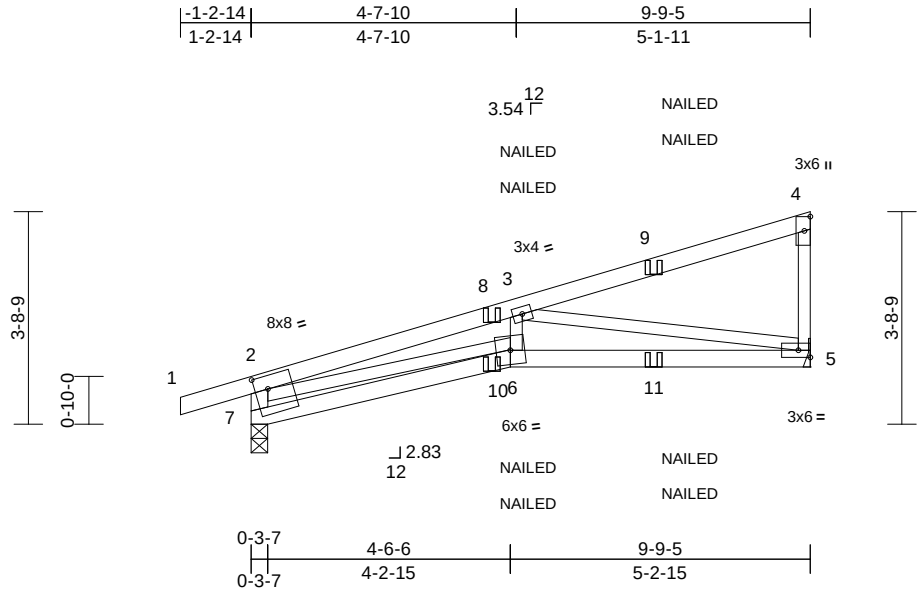
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 4=-1845 (F), 5=-1837 (F), 7=-1840 (F), 8=-1837 (F), 9=-1837 (F)

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J1	Diagonal Hip Girder	1	1	I65139947
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1

ID:?ZIMXg1MuezcxqpwEfN9kHzNXbI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.08	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.15	5-6	>744	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	6	>999	240	Weight: 35 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-7 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-7
Max Horiz 7=138 (LC 5)
Max Uplift 5=-130 (LC 8), 7=-147 (LC 4)
Max Grav 5=535 (LC 1), 7=578 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-571/184, 1-2=0/27, 2-3=-1565/360, 3-4=-151/32, 4-5=-199/94
BOT CHORD 6-7=-148/237, 5-6=-417/1425
WEBS 2-6=-286/1238, 3-6=0/337, 3-5=-1395/404

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 5 and 147 lb uplift at joint 7.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-97 (F=-48, B=-48), 10=-5 (F=-3, B=-3), 11=-56 (F=-28, B=-28)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
ARKANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J2	Jack-Open	2	1	I65139948
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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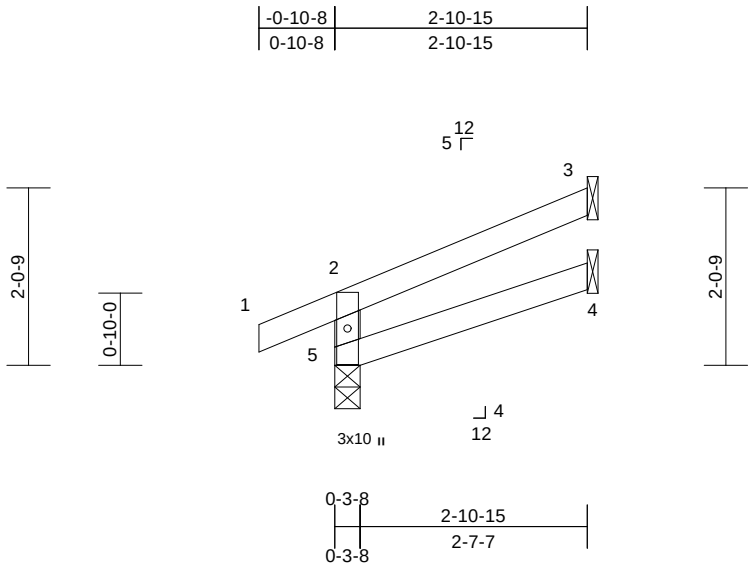

Scale = 1:26.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=53 (LC 5)
Max Uplift 3=-45 (LC 8), 5=-29 (LC 8)
Max Grav 3=80 (LC 1), 4=50 (LC 3), 5=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-181/56, 1-2=0/27, 2-3=-46/23
BOT CHORD 4-5=-18/12

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 5 and 45 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/31/2025 5:03:44

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J3	Jack-Open	2	1	I65139949
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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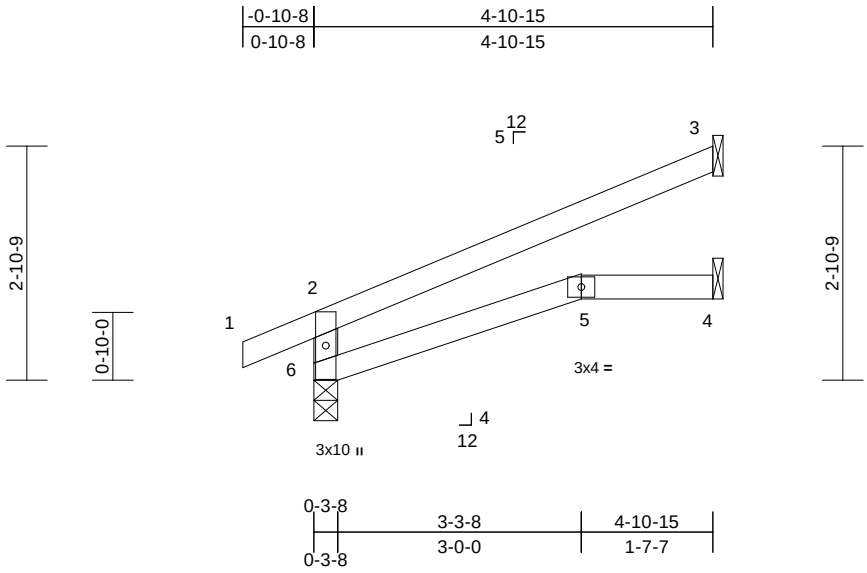

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240	Weight: 14 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 6=0-3-8
Max Horiz 6=86 (LC 8)
Max Uplift 3=-77 (LC 8), 6=-37 (LC 8)
Max Grav 3=147 (LC 1), 4=88 (LC 3), 6=291 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-253/82, 1-2=0/27, 2-3=-78/44
BOT CHORD 5-6=-31/6, 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 6 and 77 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J4	Jack-Closed	11	1	I65139950
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35

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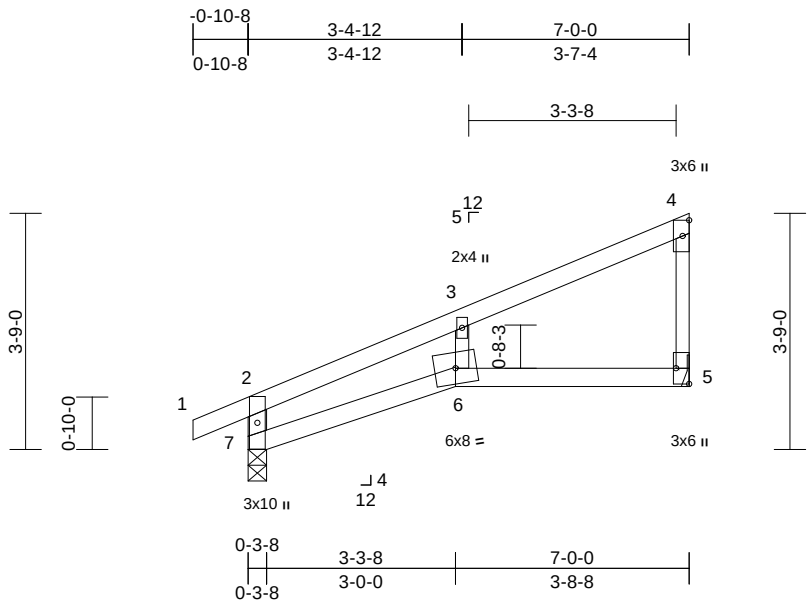

Scale = 1:36.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.15	6	>536	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.27	6	>302	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.11	6	>737	240	Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=107 (LC 5)
Max Uplift 5=-26 (LC 8), 7=-14 (LC 8)
Max Grav 5=298 (LC 1), 7=381 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-324/26, 1-2=0/27, 2-3=-175/0, 3-4=-101/17, 4-5=-190/36
BOT CHORD 6-7=-27/82, 5-6=-24/87
WEBS 3-6=-31/83

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 7 and 26 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

April 25,2024

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

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J5	Jack-Closed	1	1	I65139951
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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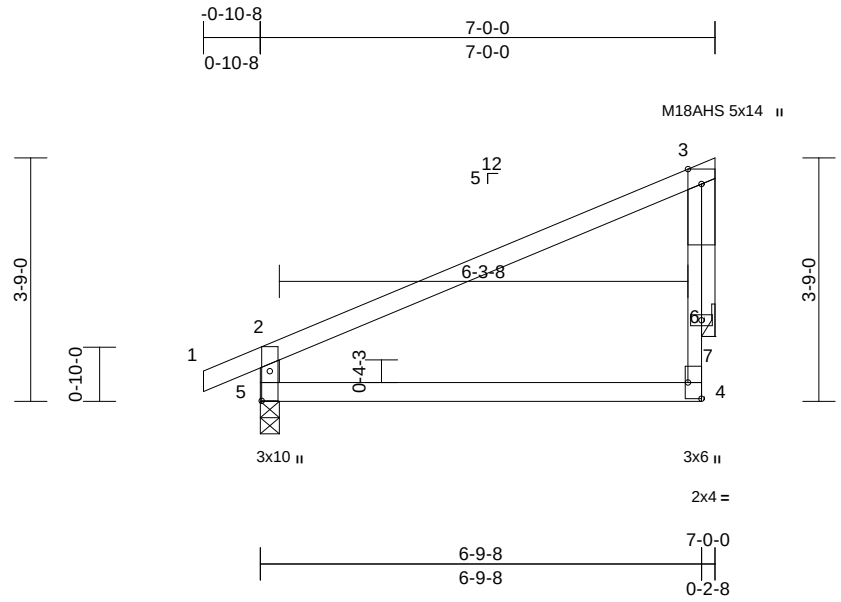

Scale = 1:35.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	4-5	>999	360	M18AHS	142/136
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.11	4-5	>752	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 22 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 3-4:2x3 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) 5=0-3-8, 7= Mechanical
Max Horiz 5=85 (LC 5)
Max Uplift 5=-4 (LC 8), 7=-35 (LC 8)
Max Grav 5=380 (LC 1), 7=280 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-338/56, 1-2=0/27, 2-3=-211/0, 4-6=0/137, 3-6=-256/137
BOT CHORD 4-5=-18/118
WEBS 3-7=-96/60

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) 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 4 lb uplift at joint 5 and 35 lb uplift at joint 7.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J6	Jack-Closed	3	1	I65139952
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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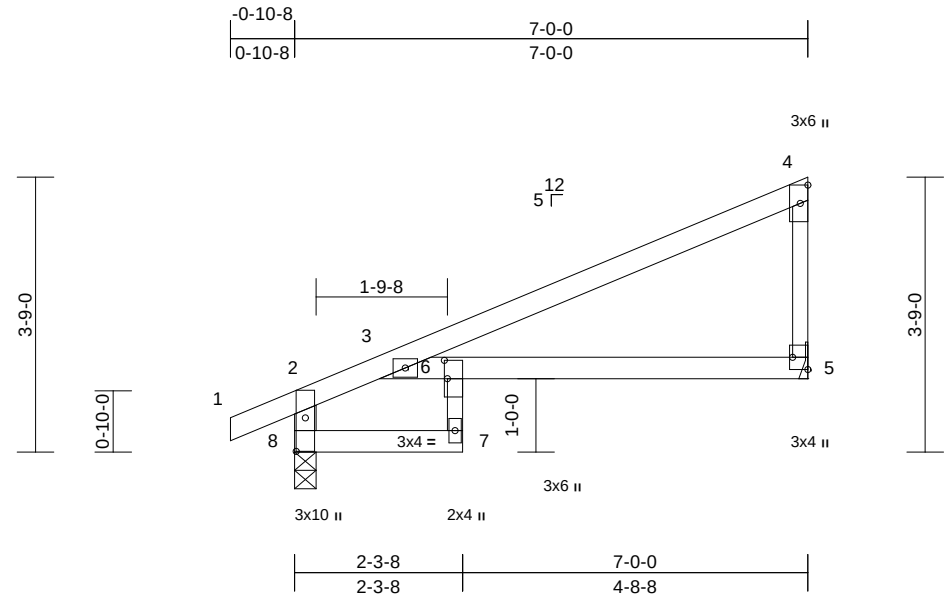

Scale = 1:31.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.10	5-6	>809	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.20	5-6	>399	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.07	5-6	>999	240	Weight: 22 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 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 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Horiz 8=106 (LC 5)
Max Uplift 5=-26 (LC 8), 8=-14 (LC 8)
Max Grav 5=298 (LC 1), 8=381 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-375/37, 1-2=0/27, 2-3=-233/11, 3-4=-131/12, 4-5=-187/45
BOT CHORD 7-8=-45/129, 6-7=-5/48, 3-6=-64/50, 5-6=-19/65

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 14 lb uplift at joint 8 and 26 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J7	Jack-Open	2	1	I65139953
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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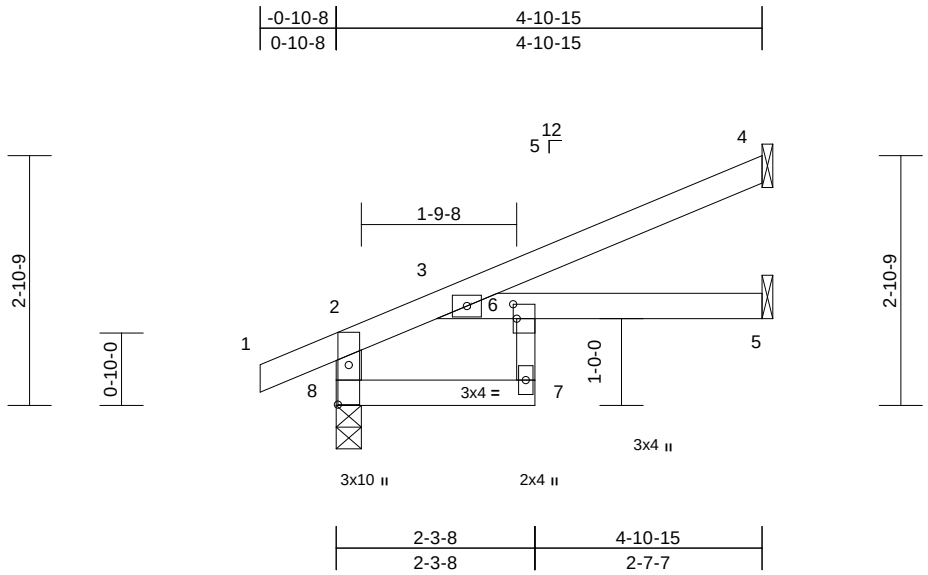

Scale = 1:26.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.03	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	5-6	>984	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240	Weight: 15 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=87 (LC 8)
Max Uplift 4=-61 (LC 8), 8=-30 (LC 8)
Max Grav 4=133 (LC 1), 5=97 (LC 3), 8=305 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-293/58, 1-2=0/27, 2-3=-153/0, 3-4=-49/41
BOT CHORD 7-8=-46/76, 6-7=-4/46, 3-6=-76/46, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 30 lb uplift at joint 8 and 61 lb uplift at joint 4.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J8	Jack-Open	2	1	I65139954
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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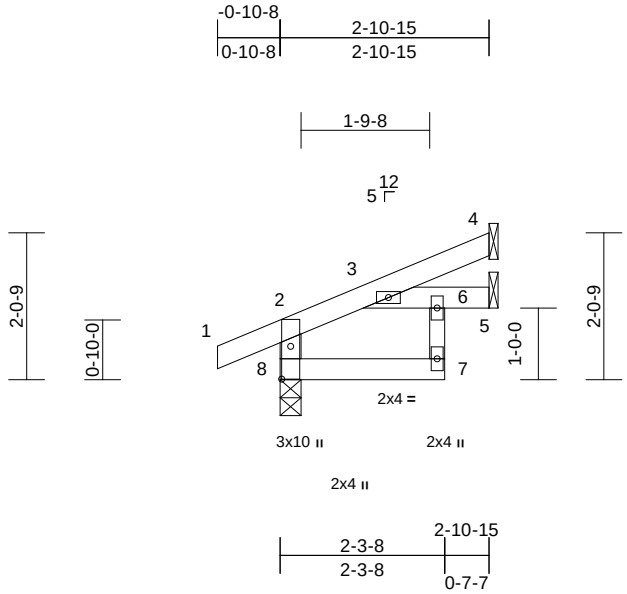

Scale = 1:32.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	3	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	3-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	3	>999	240	Weight: 10 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=53 (LC 8)
Max Uplift 4=-30 (LC 8), 5=-2 (LC 8), 8=-24 (LC 8)
Max Grav 4=66 (LC 1), 5=72 (LC 3), 8=216 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-196/45, 1-2=0/27, 2-3=-69/0, 3-4=-21/21
BOT CHORD 7-8=-16/25, 6-7=0/42, 3-6=-25/16, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 24 lb uplift at joint 8, 30 lb uplift at joint 4 and 2 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J9	Diagonal Hip Girder	1	1	I65139955 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:35 Page: 1
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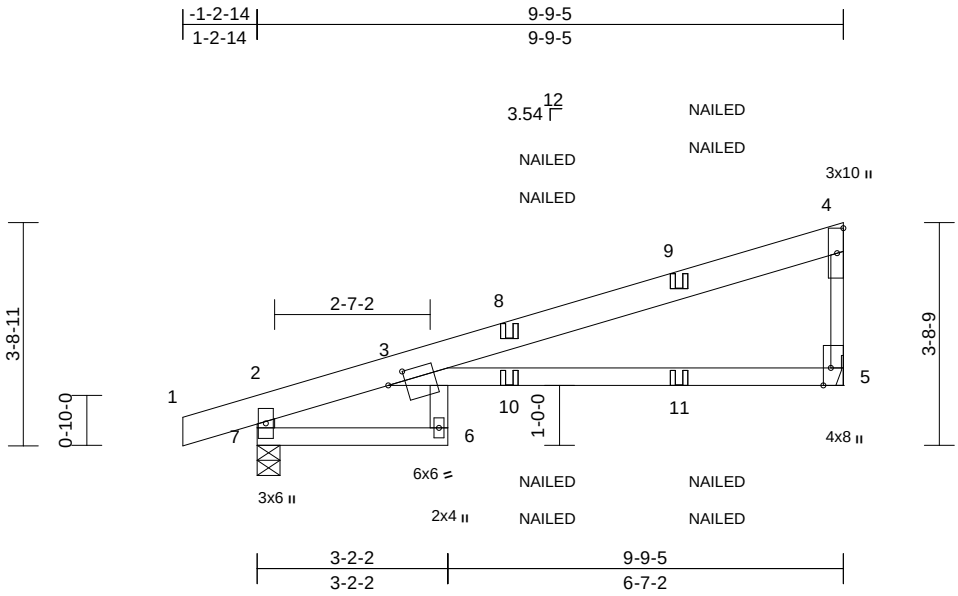

Scale = 1:38.4

Plate Offsets (X, Y): [3:0-3-7,0-1-14], [5:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.21	6	>552	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.44	3-5	>261	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.15	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.20	6	>558	240	Weight: 42 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 6-3:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 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 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-4-9
Max Horiz 7=134 (LC 5)
Max Uplift 5=-111 (LC 8), 7=-148 (LC 4)
Max Grav 5=568 (LC 1), 7=621 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-603/170, 1-2=0/27, 2-3=-187/16, 3-4=-184/25, 4-5=-397/156
BOT CHORD 6-7=-37/0, 3-6=0/76, 3-5=-26/108

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 148 lb uplift at joint 7 and 111 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.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 6-7=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 9=-68 (F=-34, B=-34), 10=-50 (F=-25, B=-25), 11=-99 (F=-49, B=-49)

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J10	Diagonal Hip Girder	2	1	I65139956
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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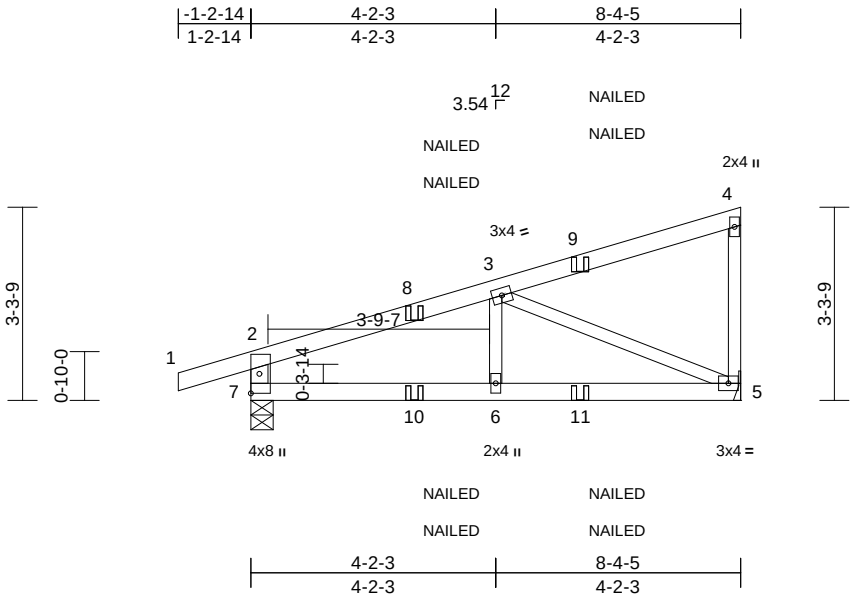

Scale = 1:39.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.03	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	5-6	>999	240	Weight: 28 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-4-9
Max Horiz 7=135 (LC 5)
Max Uplift 5=-97 (LC 8), 7=-131 (LC 4)
Max Grav 5=396 (LC 1), 7=487 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-417/144, 1-2=0/27, 2-3=-549/103, 3-4=-107/29, 4-5=-142/61
BOT CHORD 6-7=-131/462, 5-6=-131/462
WEBS 3-6=0/173, 3-5=-484/144

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 131 lb uplift at joint 7 and 97 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.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 9=-30 (F=-15, B=-15), 10=3 (F=1, B=1), 11=-29 (F=-15, B=-15)

April 25,2024

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

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J11	Jack-Open	4	1	I65139957 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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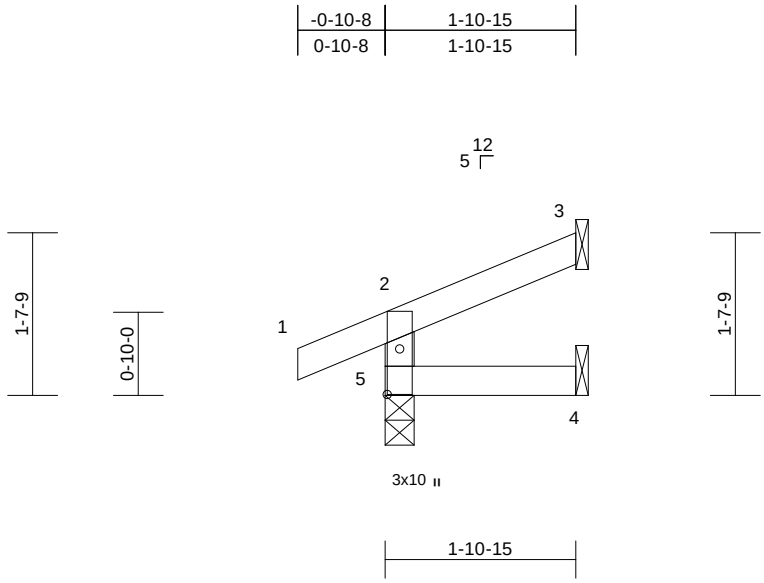

Scale = 1:23.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 6 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-15 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=41 (LC 5)
Max Uplift 3=-29 (LC 8), 5=-32 (LC 4)
Max Grav 3=44 (LC 1), 4=32 (LC 3), 5=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-150/47, 1-2=0/27, 2-3=-32/12
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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 32 lb uplift at joint 5 and 29 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J12	Jack-Open	4	1	I65139958 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36 Page: 1
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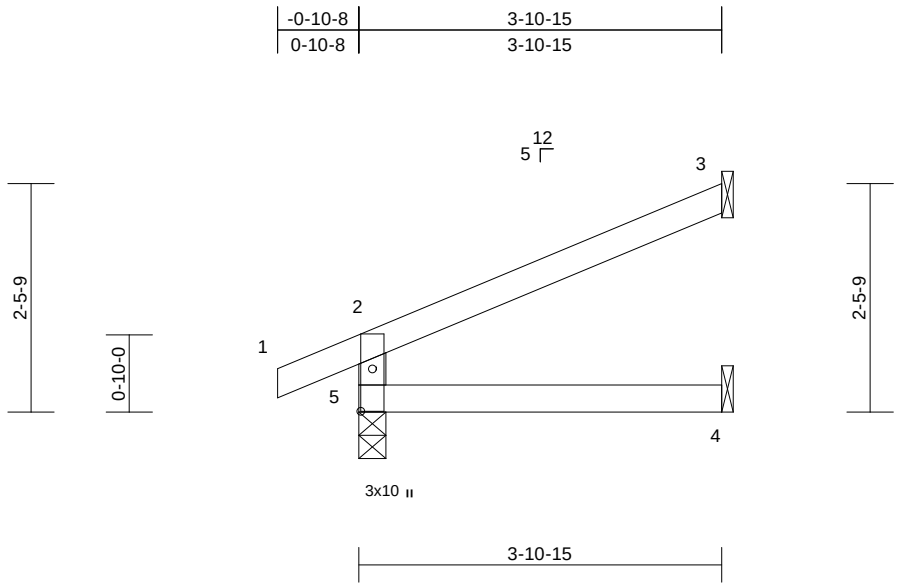


Scale = 1:24.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-15 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=70 (LC 8)
Max Uplift 3=-61 (LC 8), 5=-34 (LC 8)
Max Grav 3=114 (LC 1), 4=70 (LC 3), 5=248 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-217/69, 1-2=0/27, 2-3=-62/34
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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 34 lb uplift at joint 5 and 61 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

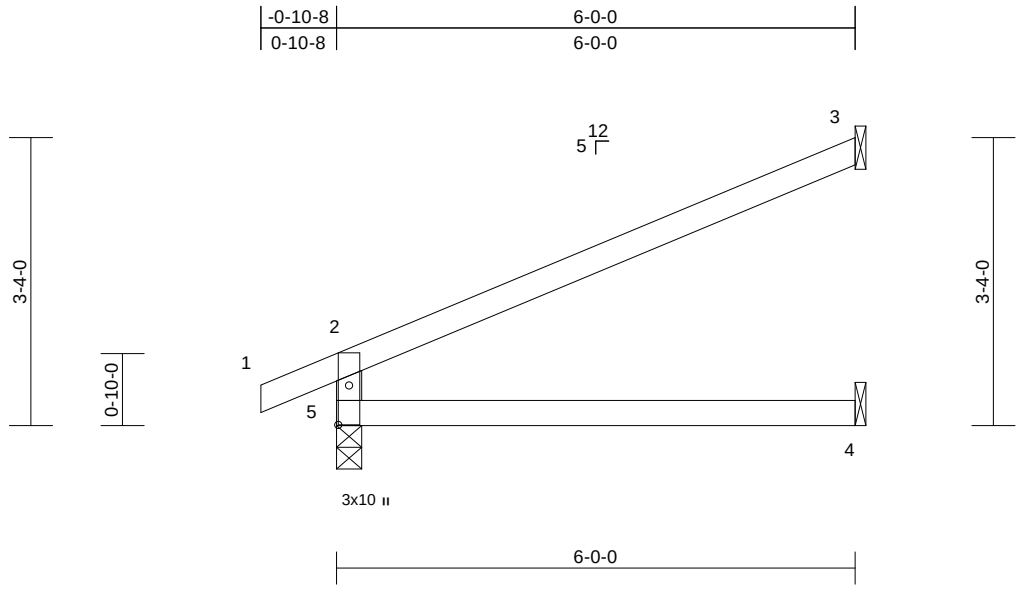
April 25,2024

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

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	J13	Jack-Open	9	1	I65139959
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36 Page: 1
ID:KbKxyASevKEp7ml2H?X5EkzX46r-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:26.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.12	4-5	>593	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.05	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	4-5	>999	240	Weight: 16 lb	FT = 10%

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=105 (LC 8)
Max Uplift 3=-92 (LC 8), 5=-43 (LC 8)
Max Grav 3=182 (LC 1), 4=109 (LC 3), 5=338 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-295/98, 1-2=0/27, 2-3=-96/55
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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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 43 lb uplift at joint 5 and 92 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	LAY1	Lay-In Gable	2	1	I65139960 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36

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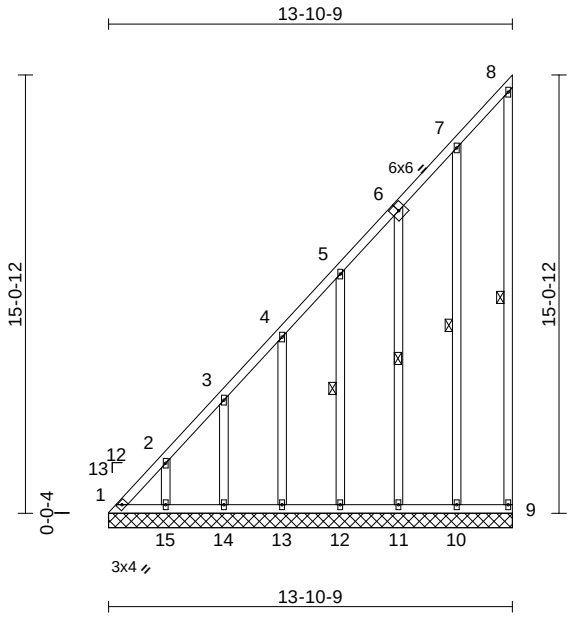

Scale = 1:79.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 103 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-9, 5-12, 6-11, 7-10

REACTIONS (size) 1=13-10-9, 9=13-10-9, 10=13-10-9, 11=13-10-9, 12=13-10-9, 13=13-10-9, 14=13-10-9, 15=13-10-9
Max Horiz 1=593 (LC 8)
Max Uplift 1=-195 (LC 6), 9=-48 (LC 8), 10=-133 (LC 8), 11=-131 (LC 8), 12=-122 (LC 8), 13=-131 (LC 8), 14=-129 (LC 8), 15=-131 (LC 8)
Max Grav 1=600 (LC 8), 9=73 (LC 15), 10=214 (LC 15), 11=206 (LC 15), 12=198 (LC 15), 13=207 (LC 15), 14=205 (LC 15), 15=208 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 8-9=-59/55, 1-2=-832/326, 2-3=-709/278, 3-4=-578/228, 4-5=-447/179, 5-7=-321/131, 7-8=-70/36
BOT CHORD 1-15=-2/2, 14-15=-2/2, 13-14=-2/2, 12-13=-2/2, 11-12=-2/2, 10-11=0/0, 9-10=0/0
WEBS 2-15=-163/148, 3-14=-166/155, 4-13=-166/155, 5-12=-158/146, 6-11=-166/155, 7-10=-173/160

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever 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) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 9, 195 lb uplift at joint 1, 131 lb uplift at joint 15, 129 lb uplift at joint 14, 131 lb uplift at joint 13, 122 lb uplift at joint 12, 131 lb uplift at joint 11 and 133 lb uplift at joint 10.
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
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	LAY2	Lay-In Gable	1	1	I65139961 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36 Page: 1
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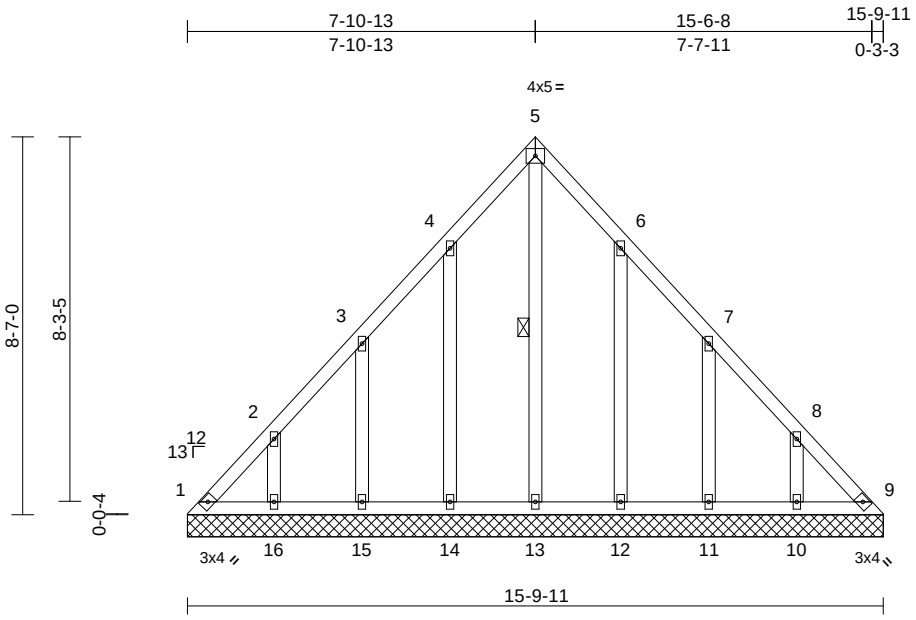

Scale = 1:52.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 78 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.
WEBS 1 Row at midpt 5-13

REACTIONS (size) 1=15-9-11, 9=15-9-11, 10=15-9-11, 11=15-9-11, 12=15-9-11, 13=15-9-11, 14=15-9-11, 15=15-9-11, 16=15-9-11
Max Horiz 1=-220 (LC 4)
Max Uplift 1=-94 (LC 6), 9=-58 (LC 7), 10=-130 (LC 9), 11=-132 (LC 9), 12=-127 (LC 9), 14=-129 (LC 8), 15=-132 (LC 8), 16=-131 (LC 8)
Max Grav 1=203 (LC 8), 9=179 (LC 9), 10=208 (LC 16), 11=205 (LC 16), 12=210 (LC 16), 13=196 (LC 9), 14=212 (LC 15), 15=204 (LC 15), 16=209 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-293/188, 2-3=-169/140, 3-4=-136/102, 4-5=-108/164, 5-6=-86/142, 6-7=-99/65, 7-8=-141/91, 8-9=-260/139
BOT CHORD 1-16=-96/203, 15-16=-96/203, 14-15=-96/203, 13-14=-96/203, 12-13=-96/203, 11-12=-96/203, 10-11=-96/203, 9-10=-96/203
WEBS 2-16=-163/149, 3-15=-165/157, 4-14=-173/152, 8-10=-163/149, 7-11=-166/158, 6-12=-171/150, 5-13=-173/21

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 1, 58 lb uplift at joint 9, 131 lb uplift at joint 16, 132 lb uplift at joint 15, 129 lb uplift at joint 14, 130 lb uplift at joint 10, 132 lb uplift at joint 11 and 127 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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	LAY3	Lay-In Gable	1	1	I65139962 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36 Page: 1
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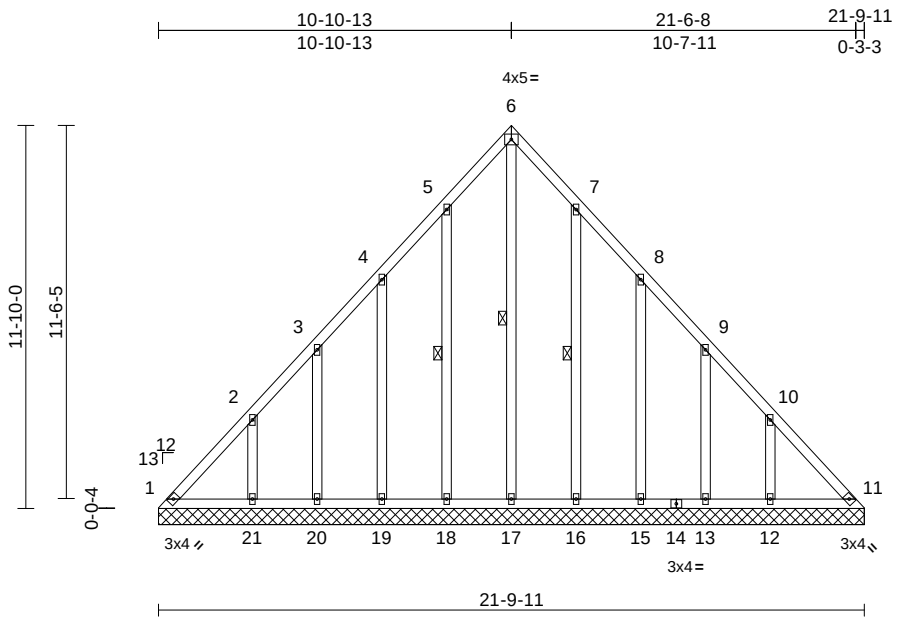

Scale = 1:71.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 127 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.
WEBS 1 Row at midpt 6-17, 5-18, 7-16

REACTIONS (size) 1=21-9-11, 11=21-9-11, 12=21-9-11, 13=21-9-11, 15=21-9-11, 16=21-9-11, 17=21-9-11, 18=21-9-11, 19=21-9-11, 20=21-9-11, 21=21-9-11
Max Horiz 1=-307 (LC 4)
Max Uplift 1=-121 (LC 6), 11=-70 (LC 7), 12=-176 (LC 9), 13=-114 (LC 9), 15=-139 (LC 9), 16=-121 (LC 9), 18=-124 (LC 8), 19=-137 (LC 8), 20=-114 (LC 8), 21=-176 (LC 8)
Max Grav 1=278 (LC 8), 11=245 (LC 9), 12=279 (LC 16), 13=182 (LC 16), 15=211 (LC 16), 16=211 (LC 16), 17=284 (LC 9), 18=214 (LC 15), 19=209 (LC 15), 20=182 (LC 15), 21=279 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-406/263, 2-3=-239/190, 3-4=-174/148, 4-5=-149/166, 5-6=-120/228, 6-7=-94/205, 7-8=-96/120, 8-9=-123/79, 9-10=-193/121, 10-11=-360/194
BOT CHORD 1-21=-136/289, 20-21=-136/289, 19-20=-136/289, 18-19=-136/289, 17-18=-136/289, 16-17=-136/289, 15-16=-136/289, 13-15=-136/289, 12-13=-136/289, 11-12=-136/289
WEBS 6-17=-260/38, 5-18=-175/148, 4-19=-167/161, 3-20=-150/139, 2-21=-214/196, 7-16=-171/145, 8-15=-169/162, 9-13=-150/139, 10-12=-215/196

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 1, 70 lb uplift at joint 11, 124 lb uplift at joint 18, 137 lb uplift at joint 19, 114 lb uplift at joint 20, 176 lb uplift at joint 21, 121 lb uplift at joint 16, 139 lb uplift at joint 15, 114 lb uplift at joint 13 and 176 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V1	Valley	1	1	I65139963
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:36 Page: 1
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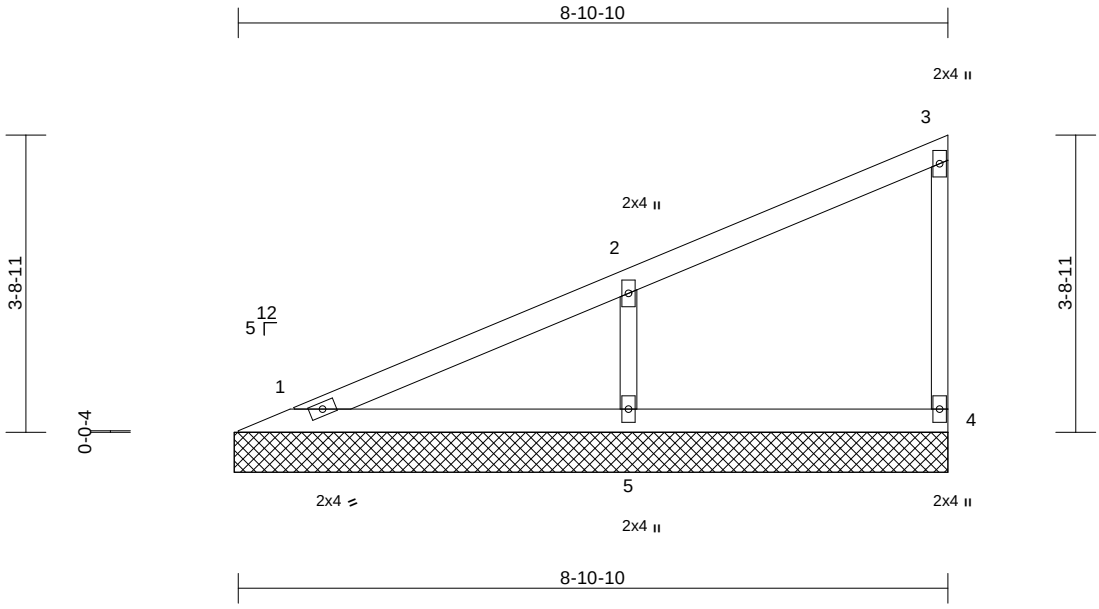

Scale = 1:28.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 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=8-11-4, 4=8-11-4, 5=8-11-4
Max Horiz 1=148 (LC 7)
Max Uplift 4=-23 (LC 5), 5=-121 (LC 8)
Max Grav 1=144 (LC 1), 4=128 (LC 1), 5=455 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-115/70, 2-3=-101/28, 3-4=-100/40
BOT CHORD 1-5=-48/36, 4-5=-48/36
WEBS 2-5=-353/181

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 4 and 121 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V2	Valley	1	1	I65139964
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:37 Page: 1
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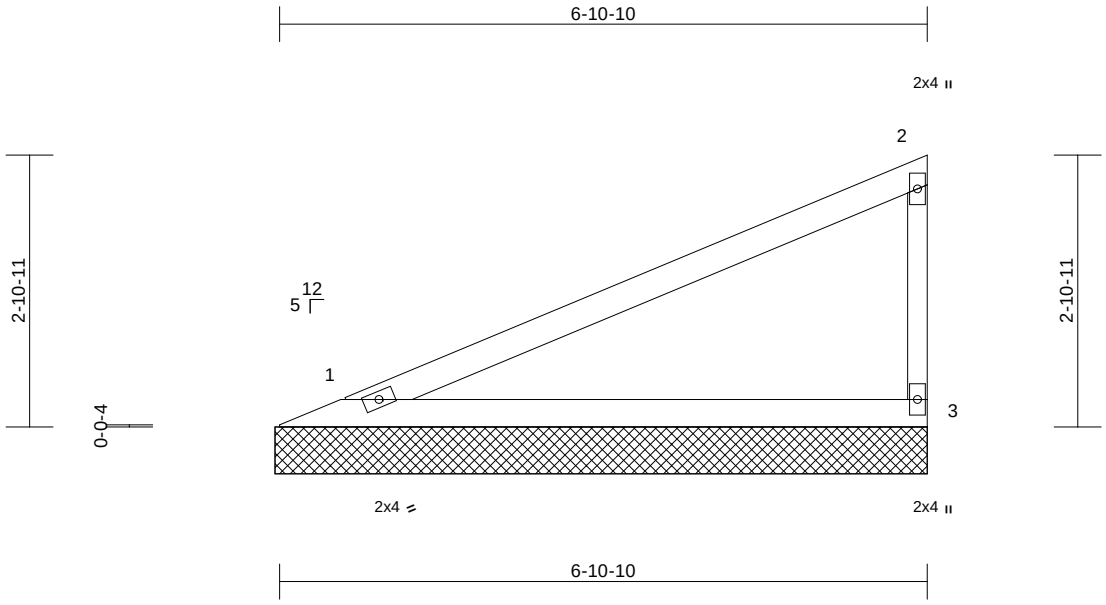

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 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 6-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=6-11-4, 3=6-11-4
Max Horiz 1=111 (LC 5)
Max Uplift 1=-40 (LC 8), 3=-62 (LC 8)
Max Grav 1=274 (LC 1), 3=274 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-99/66, 2-3=-213/99
BOT CHORD 1-3=-36/27

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1 and 62 lb uplift at joint 3.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V3	Valley	1	1	I65139965
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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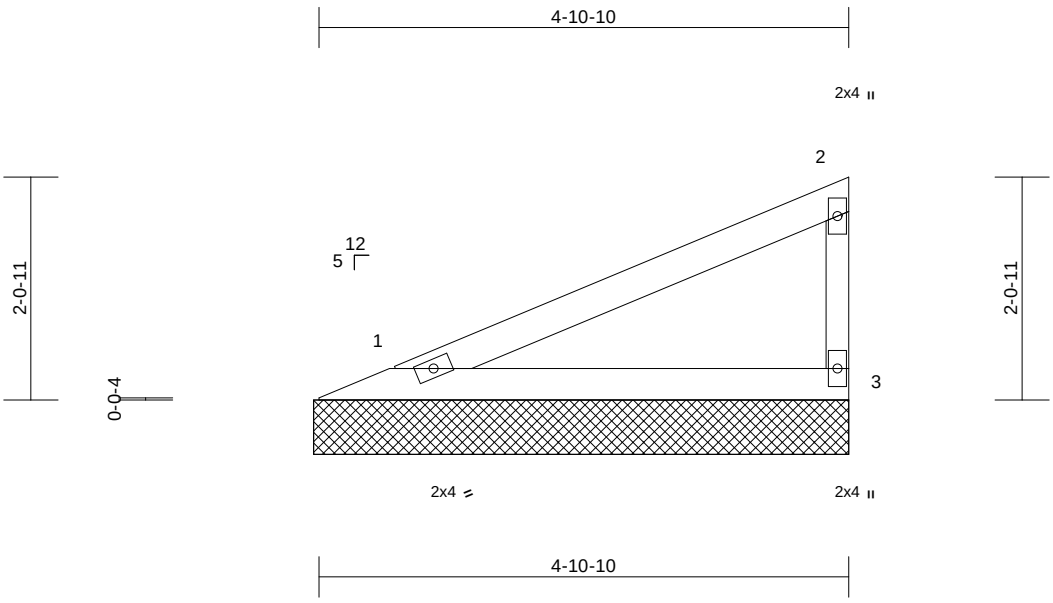

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							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 4-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

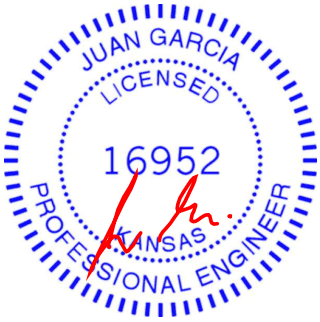
REACTIONS (size) 1=4-11-4, 3=4-11-4
Max Horiz 1=75 (LC 5)
Max Uplift 1=-27 (LC 8), 3=-42 (LC 8)
Max Grav 1=184 (LC 1), 3=184 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-67/44, 2-3=-143/66
BOT CHORD 1-3=-24/18

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 42 lb uplift at joint 3.
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



April 25,2024

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

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V4	Valley	1	1	I65139966
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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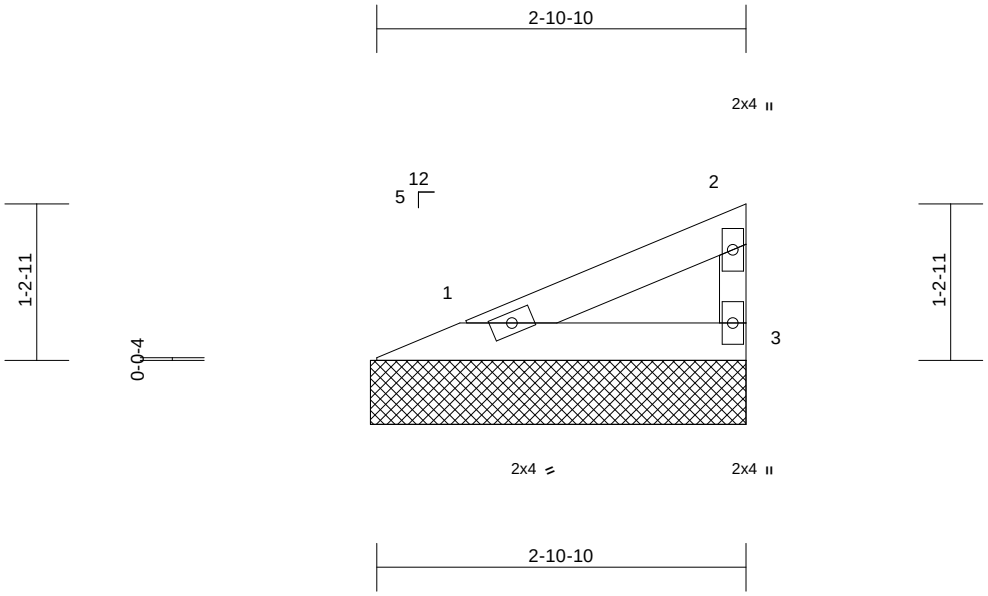

Scale = 1:18

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 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 2-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-11-4, 3=2-11-4
Max Horiz 1=38 (LC 5)
Max Uplift 1=-14 (LC 8), 3=-21 (LC 8)
Max Grav 1=94 (LC 1), 3=94 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-34/23, 2-3=-73/34
BOT CHORD 1-3=-12/9

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 21 lb uplift at joint 3.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V5	Valley	1	1	I65139967
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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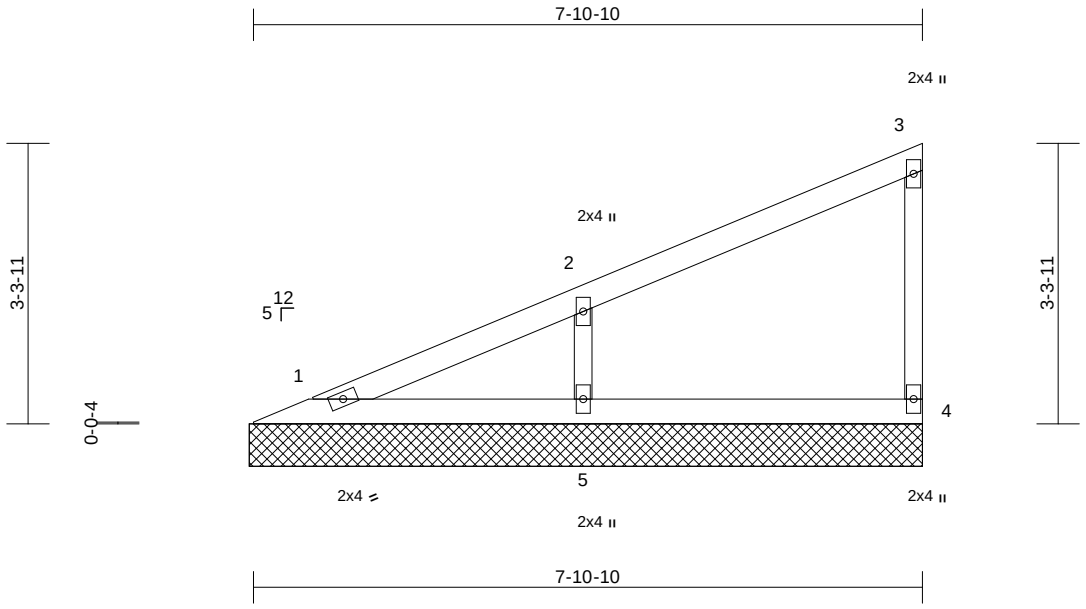

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 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=7-11-4, 4=7-11-4, 5=7-11-4
Max Horiz 1=129 (LC 5)
Max Uplift 4=-24 (LC 8), 5=-107 (LC 8)
Max Grav 1=98 (LC 1), 4=138 (LC 1), 5=401 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/57, 2-3=-94/31, 3-4=-108/43
BOT CHORD 1-5=-42/32, 4-5=-42/32
WEBS 2-5=-312/160

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 4 and 107 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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V6	Valley	1	1	I65139968
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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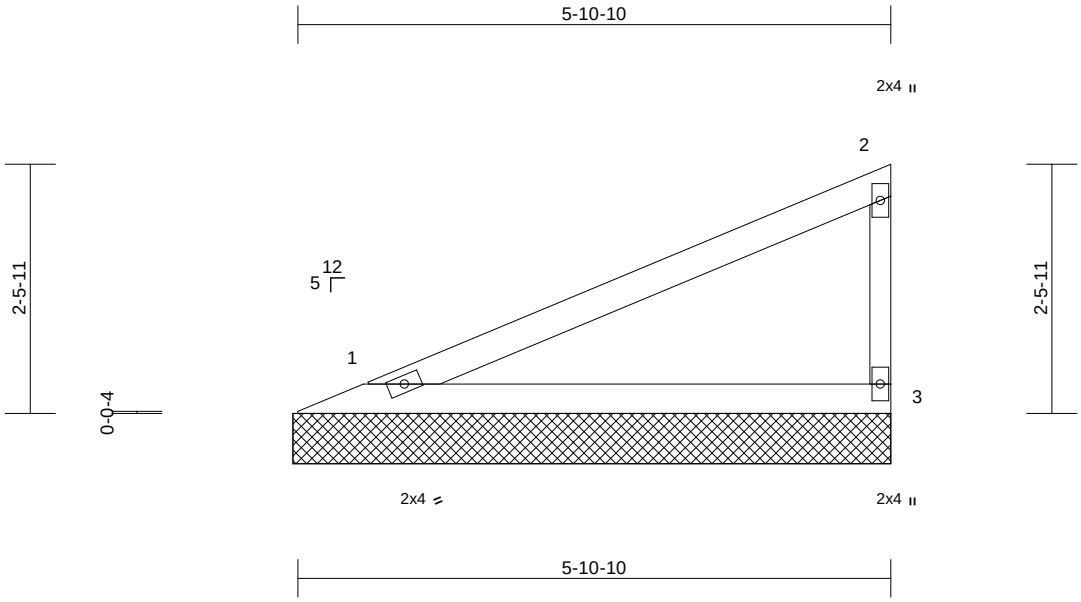

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 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 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-11-4, 3=5-11-4
Max Horiz 1=93 (LC 5)
Max Uplift 1=-33 (LC 8), 3=-52 (LC 8)
Max Grav 1=229 (LC 1), 3=229 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-83/55, 2-3=-178/82
BOT CHORD 1-3=-30/23

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1 and 52 lb uplift at joint 3.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V7	Valley	1	1	I65139969
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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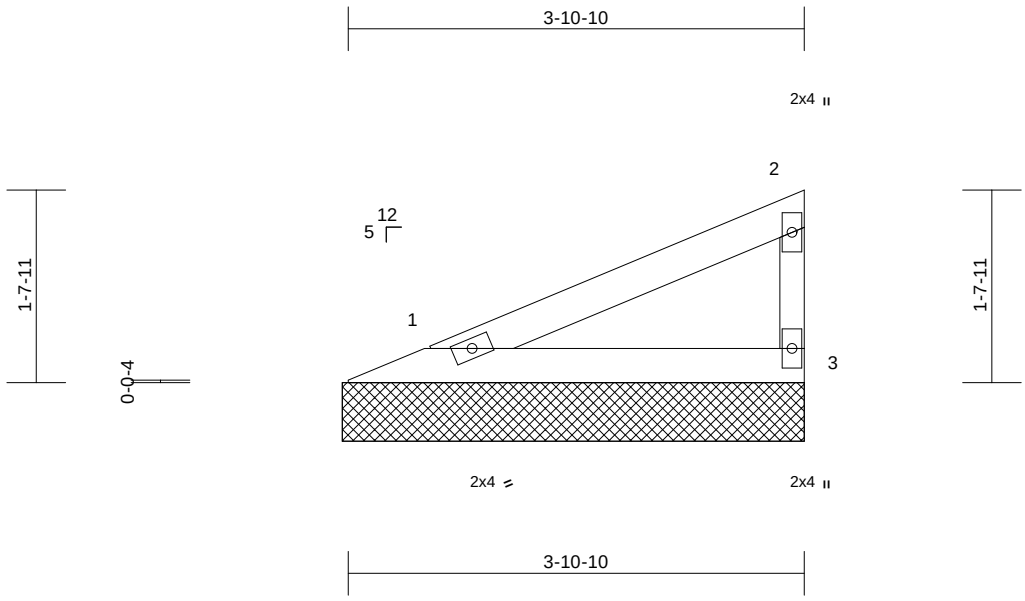


Scale = 1:19.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 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 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-11-4, 3=3-11-4
Max Horiz 1=57 (LC 5)
Max Uplift 1=-20 (LC 8), 3=-32 (LC 8)
Max Grav 1=139 (LC 1), 3=139 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-50/33, 2-3=-108/50
BOT CHORD 1-3=-18/14

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 32 lb uplift at joint 3.
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

STATE OF MISSOURI
JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED
16952
KANSAS
PROFESSIONAL ENGINEER

April 25,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

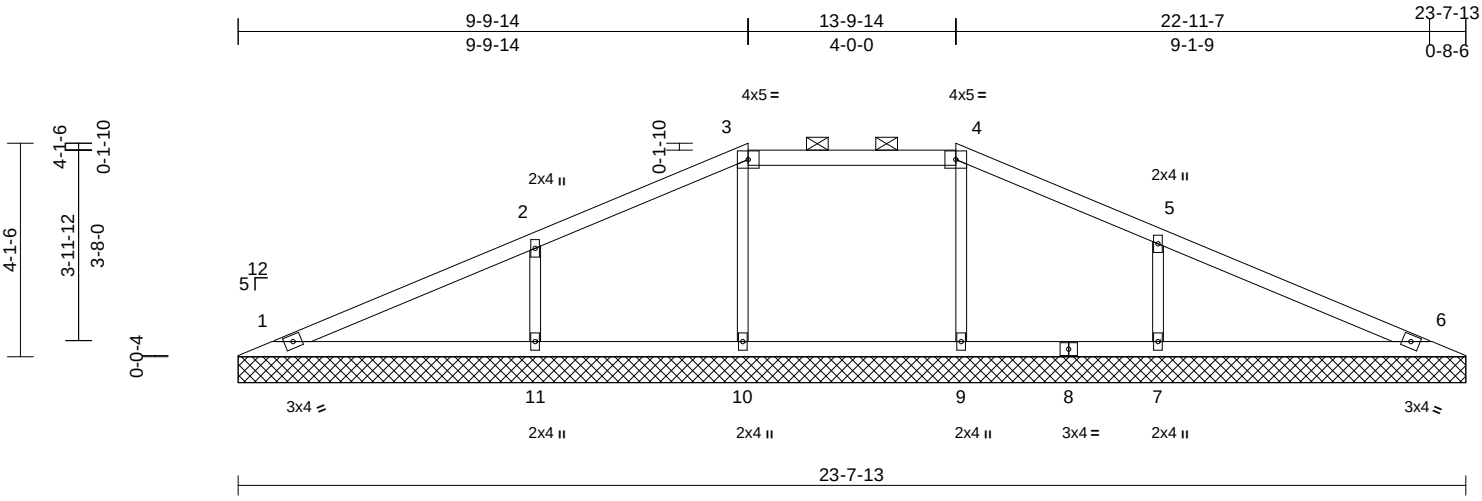
MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/31/2025 5:03:45

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V8	Valley	1	1	I65139970 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:37 Page: 1
ID:GjwGp2GESjMxqT69vMma7ZzX474-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 63 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=23-7-13, 6=23-7-13, 7=23-7-13, 9=23-7-13, 10=23-7-13, 11=23-7-13
Max Horiz 1=66 (LC 12)
Max Uplift 1=-12 (LC 8), 6=-27 (LC 9), 7=-139 (LC 9), 9=-15 (LC 5), 10=-18 (LC 4), 11=-138 (LC 8)
Max Grav 1=190 (LC 1), 6=199 (LC 1), 7=498 (LC 1), 9=307 (LC 22), 10=327 (LC 21), 11=490 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-89/77, 2-3=-86/98, 3-4=-27/99, 4-5=-86/87, 5-6=-69/63
BOT CHORD 1-11=-1/54, 10-11=-1/54, 9-10=0/54, 7-9=-2/55, 6-7=-2/55
WEBS 3-10=-253/66, 2-11=-374/191, 4-9=-240/60, 5-7=-378/192

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 27 lb uplift at joint 6, 18 lb uplift at joint 10, 138 lb uplift at joint 11, 15 lb uplift at joint 9 and 139 lb uplift at joint 7.
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

April 25,2024

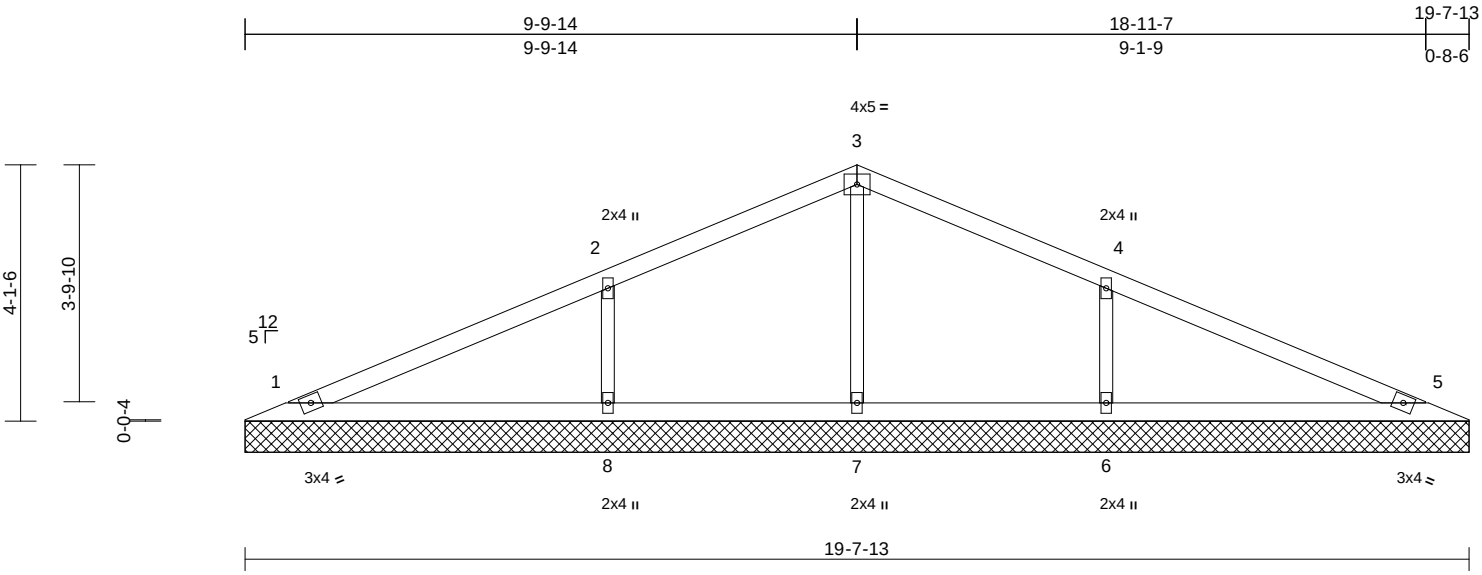
Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V9	Valley	1	1	I65139971
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:37

ID:oWMuciFchQD4CJXzLeFLbMzX475-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 51 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=19-7-13, 5=19-7-13, 6=19-7-13, 7=19-7-13, 8=19-7-13
Max Horiz 1=67 (LC 12)
Max Uplift 1=-15 (LC 8), 5=-26 (LC 9), 6=-138 (LC 9), 8=-138 (LC 8)
Max Grav 1=193 (LC 1), 5=193 (LC 1), 6=508 (LC 22), 7=245 (LC 1), 8=508 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-87/79, 2-3=-90/100, 3-4=-90/90, 4-5=-67/66
BOT CHORD 1-8=-2/54, 7-8=-2/54, 6-7=-2/54, 5-6=-2/54
WEBS 3-7=-191/16, 2-8=-386/193, 4-6=-386/193

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 26 lb uplift at joint 5, 138 lb uplift at joint 8 and 138 lb uplift at joint 6.
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

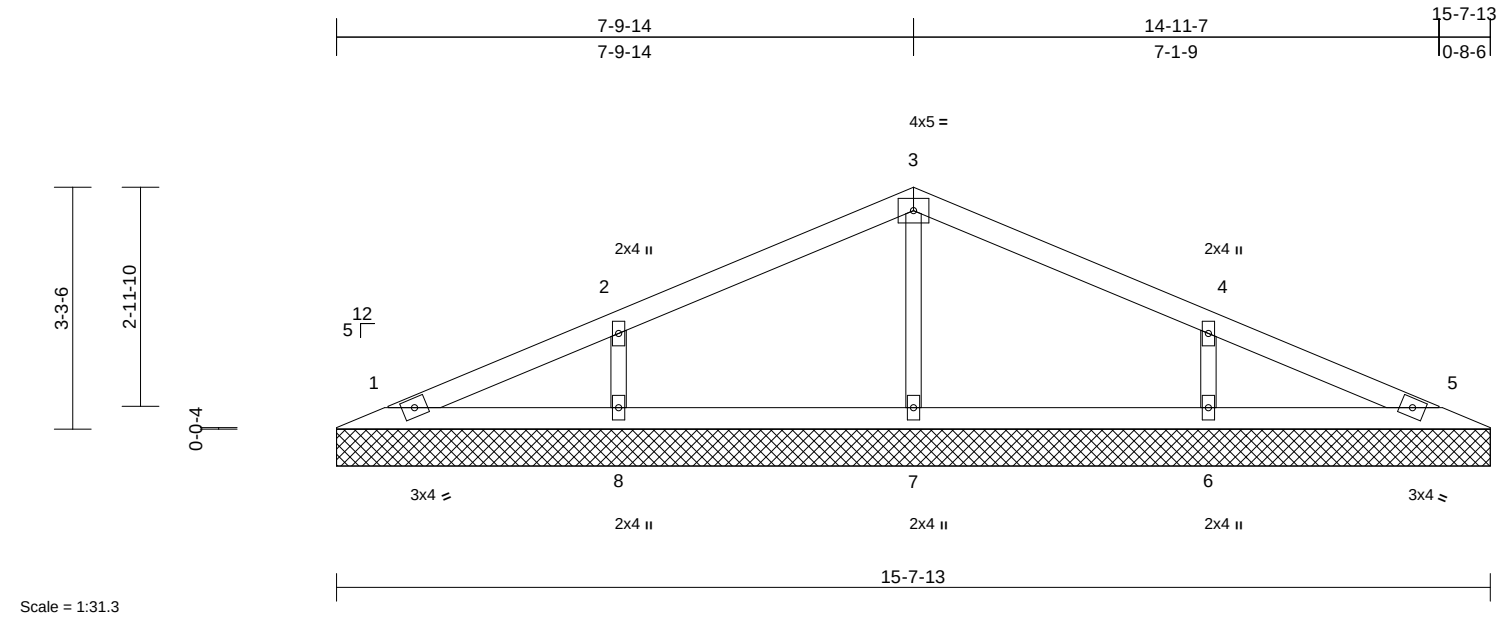
April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V10	Valley	1	1	I65139972
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:37

ID:oWMuciFchQD4CJXzLeFLbMzX475-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=15-7-13, 5=15-7-13, 6=15-7-13, 7=15-7-13, 8=15-7-13
Max Horiz 1=52 (LC 12)
Max Uplift 1=-10 (LC 9), 5=-9 (LC 9), 6=-107 (LC 9), 8=-107 (LC 8)
Max Grav 1=111 (LC 1), 5=111 (LC 1), 6=381 (LC 22), 7=313 (LC 1), 8=381 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-70/46, 2-3=-87/78, 3-4=-87/66, 4-5=-53/36
BOT CHORD 1-8=0/42, 7-8=0/42, 6-7=0/42, 5-6=0/42
WEBS 3-7=-234/42, 2-8=-298/150, 4-6=-298/150

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 9 lb uplift at joint 5, 107 lb uplift at joint 8 and 107 lb uplift at joint 6.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V11	Valley	1	1	I65139973 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:38 Page: 1
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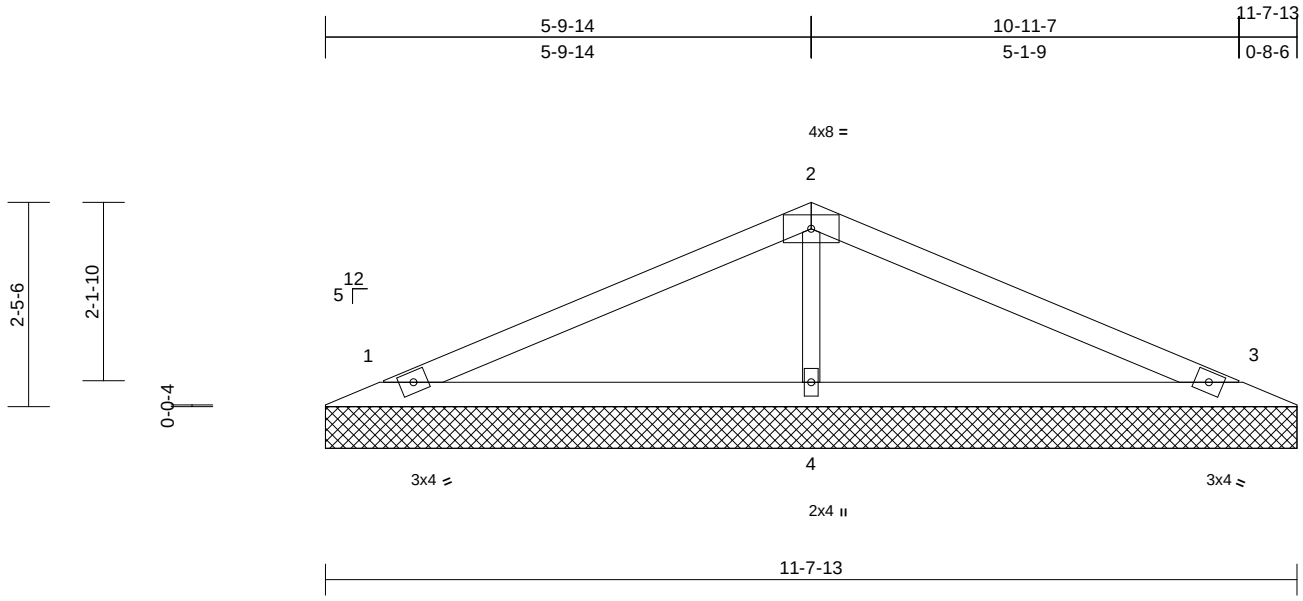

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 27 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=11-7-13, 3=11-7-13, 4=11-7-13
Max Horiz 1=-38 (LC 13)
Max Uplift 1=-44 (LC 8), 3=-50 (LC 9), 4=-32 (LC 8)
Max Grav 1=211 (LC 21), 3=211 (LC 22), 4=507 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-108/56, 2-3=-108/42
BOT CHORD 1-4=-2/43, 3-4=-2/43
WEBS 2-4=-353/93

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1, 50 lb uplift at joint 3 and 32 lb uplift at joint 4.
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

April 25,2024

Job	Truss	Truss Type	Qty	Ply	Avalon - Craftsman
Avalon - Craftsman	V12	Valley	1	1	I65139974
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Wed Apr 24 12:41:38

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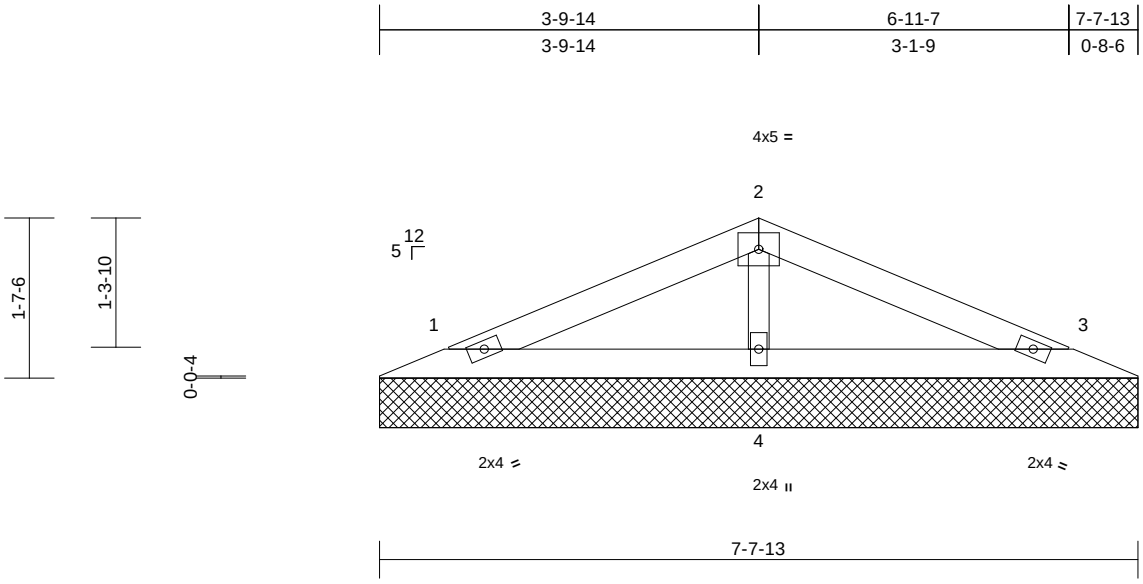

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=7-7-13, 3=7-7-13, 4=7-7-13
Max Horiz 1=-23 (LC 13)
Max Uplift 1=-33 (LC 8), 3=-37 (LC 9), 4=-7 (LC 8)
Max Grav 1=142 (LC 1), 3=142 (LC 1), 4=278 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-57/33, 2-3=-57/23
BOT CHORD 1-4=-1/24, 3-4=-1/24
WEBS 2-4=-200/54

NOTES

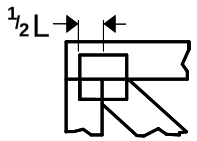
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1, 37 lb uplift at joint 3 and 7 lb uplift at joint 4.
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

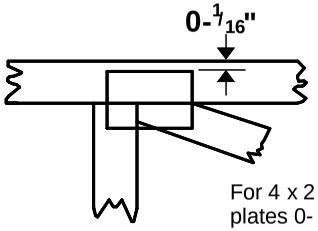
April 25,2024

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.

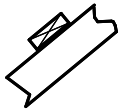
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

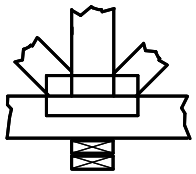
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

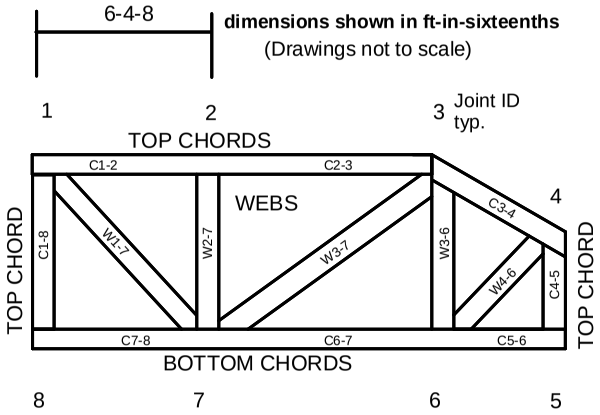


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.