MiTek®

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

RE: B240097 - Lot 194 HT

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 194 Subdivision: Hawthorn Ridge
Model: Charlotte - Tuscan - F12x16CGR
Address: 3224 SW Arboridge Cir
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 [Low Rise] Wind Speed: 115 mph
Design Method: MWFRS (Envelope) ASCE 7-16 [Low Rise]
Roof Load: 45.0 psf
Floor Load: N/A psf

Mean Roof Height (feet): 25
Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65280047	A1	5/2/24	35	I65280081	V9	5/2/24
2	I65280048	A2	5/2/24	36	I65280082	V10	5/2/24
3	I65280049	B1	5/2/24				
4	I65280050	B3	5/2/24				
5	I65280051	B4	5/2/24				
6	I65280052	B5	5/2/24				
7	I65280053	B6	5/2/24				
8	I65280054	B7	5/2/24				
9	I65280055	B8	5/2/24				
10	I65280056	B9	5/2/24				
11	I65280057	B10	5/2/24				
12	I65280058	B11	5/2/24				
13	I65280059	B12	5/2/24				
14	I65280060	B13	5/2/24				
15	I65280061	C1	5/2/24				
16	I65280062	C2	5/2/24				
17	I65280063	C3	5/2/24				
18	I65280064	C4	5/2/24				
19	I65280065	D1	5/2/24				
20	I65280066	E1	5/2/24				
21	I65280067	E2	5/2/24				
22	I65280068	E3	5/2/24				
23	I65280069	E4	5/2/24				
24	I65280070	J1	5/2/24				
25	I65280071	J2	5/2/24				
26	I65280072	J3	5/2/24				
27	I65280073	V1	5/2/24				
28	I65280074	V2	5/2/24				
29	I65280075	V3	5/2/24				
30	I65280076	V4	5/2/24				
31	I65280077	V5	5/2/24				
32	I65280078	V6	5/2/24				
33	I65280079	V7	5/2/24				
34	I65280080	V8	5/2/24				

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

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2025.

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.

May 2,2024
Sevier, Scott

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/05/2024 4:56:15

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	A1	Hip Girder	1	1	Job Reference (optional)	I65280047

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:10 Page: 1
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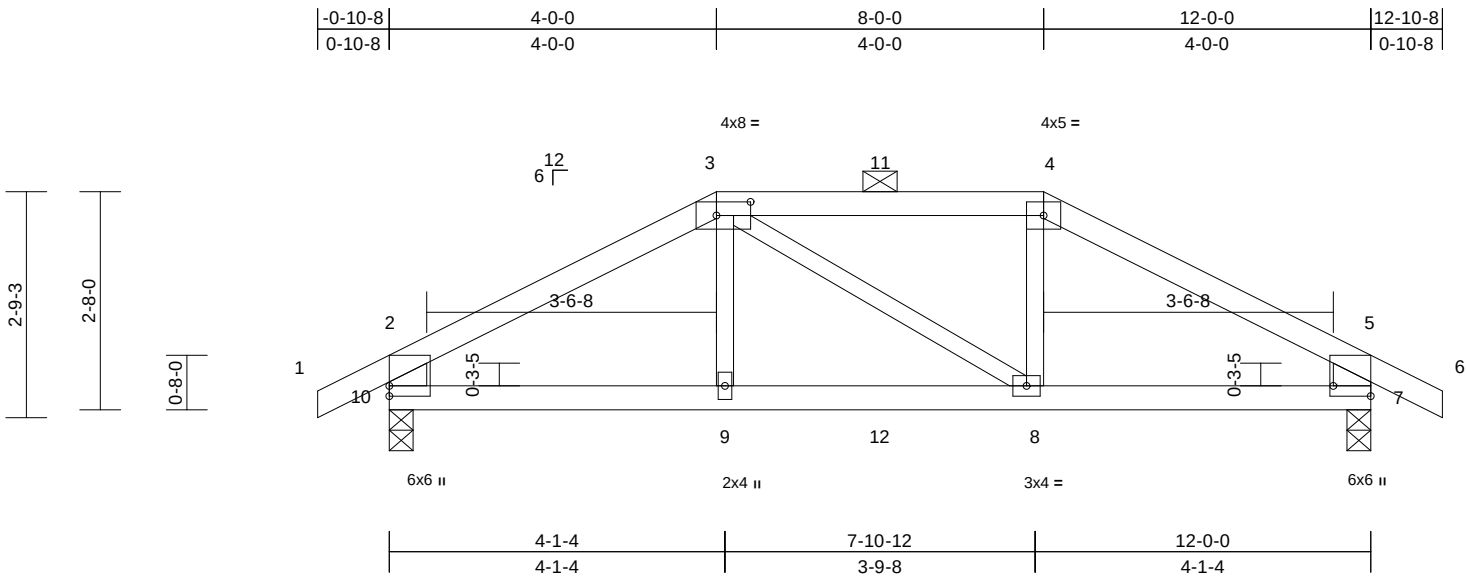

Scale = 1:28.2

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

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	0.71	Vert(LL)	-0.07	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.13	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	8-9	>999	240	Weight: 39 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x6 SP 2400F 2.0E

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

REACTIONS (size) 7=0-3-8, 10=0-3-8
Max Horiz 10=50 (LC 7)
Max Uplift 7=-201 (LC 9), 10=-201 (LC 8)
Max Grav 7=899 (LC 1), 10=899 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1231/277, 3-4=-1024/269, 4-5=-1232/276, 5-6=0/35, 2-10=-806/214, 5-7=-806/213
BOT CHORD 9-10=-219/1012, 8-9=-219/1023, 7-8=-196/1013
WEBS 3-9=0/271, 3-8=-50/52, 4-8=-5/279

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 201 lb uplift at joint 10 and 201 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 67 lb up at 4-0-0, and 86 lb down and 65 lb up at 6-0-0, and 79 lb down and 67 lb up at 8-0-0 on top chord, and 220 lb down and 57 lb up at 4-0-0, and 31 lb down at 6-0-0, and 220 lb down and 57 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 3=-46 (F), 4=-46 (F), 9=-220 (F), 8=-220 (F), 11=-46 (F), 12=-25 (F)

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	A2	Common	6	1	Job Reference (optional)	I65280048

Wheeler Lumber, Waverly, KS - 66871,

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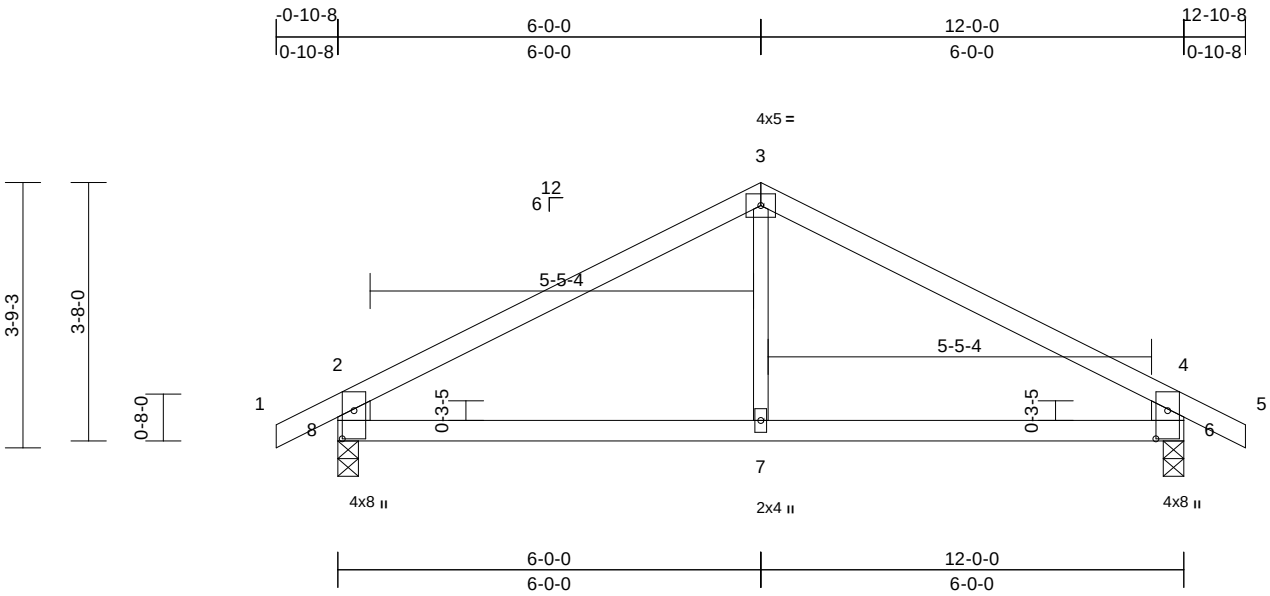

Scale = 1:32.7

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

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	0.42	Vert(LL)	-0.02	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	7-8	>999	240	Weight: 35 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except* 7-3:2x3 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) 6=0-3-8, 8=0-3-8
Max Horiz 8=62 (LC 7)
Max Uplift 6=-89 (LC 9), 8=-89 (LC 8)
Max Grav 6=597 (LC 1), 8=597 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-638/89, 3-4=-638/89, 4-5=0/35, 2-8=-544/131, 4-6=-544/131
BOT CHORD 7-8=-14/480, 6-7=-14/480
WEBS 3-7=0/246

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 89 lb uplift at joint 8 and 89 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B1	Common Supported Gable	1	1	Job Reference (optional)	I65280049

Wheeler Lumber, Waverly, KS - 66871,

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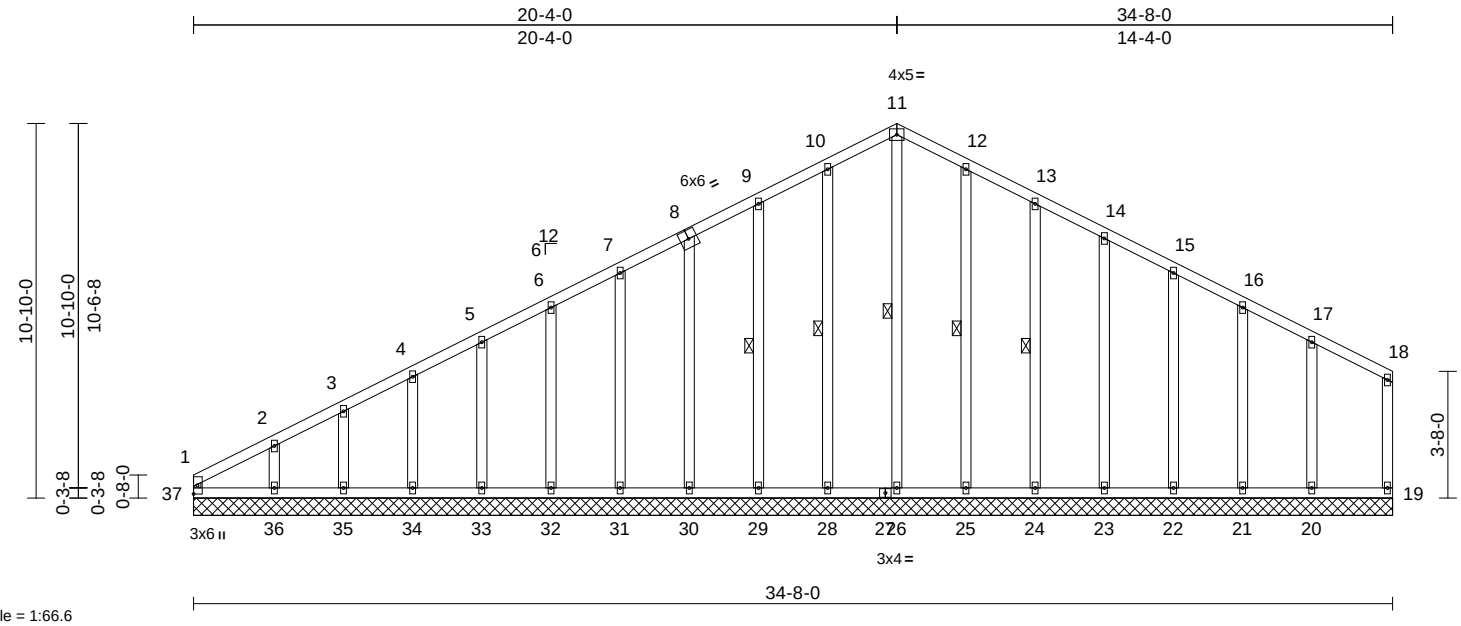

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 200 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-19:2x4 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 11-26, 10-28, 9-29, 12-25, 13-24

REACTIONS (size) 19=34-8-0, 20=34-8-0, 21=34-8-0, 22=34-8-0, 23=34-8-0, 24=34-8-0, 25=34-8-0, 26=34-8-0, 28=34-8-0, 29=34-8-0, 30=34-8-0, 31=34-8-0, 32=34-8-0, 33=34-8-0, 34=34-8-0, 35=34-8-0, 36=34-8-0, 37=34-8-0
Max Horiz 37=233 (LC 5)
Max Uplift 19=-24 (LC 8), 20=-72 (LC 9), 21=-50 (LC 9), 22=-55 (LC 9), 23=-53 (LC 9), 24=-59 (LC 9), 25=-45 (LC 9), 28=-48 (LC 8), 29=-60 (LC 8), 30=-54 (LC 8), 31=-51 (LC 8), 32=-55 (LC 8), 33=-53 (LC 8), 34=-59 (LC 8), 35=-32 (LC 8), 36=-129 (LC 8), 37=-57 (LC 4)
Max Grav 19=88 (LC 1), 20=207 (LC 22), 21=174 (LC 1), 22=181 (LC 22), 23=180 (LC 1), 24=179 (LC 22), 25=189 (LC 22), 26=219 (LC 18), 28=189 (LC 21), 29=183 (LC 21), 30=180 (LC 1), 31=175 (LC 1), 32=181 (LC 21), 33=179 (LC 1), 34=183 (LC 21), 35=169 (LC 1), 36=218 (LC 21), 37=159 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-37=-125/57, 1-2=-230/132, 2-3=-182/124, 3-4=-170/139, 4-5=-155/152, 5-6=-140/166, 6-7=-125/182, 7-9=-110/233, 9-10=-82/261, 10-11=-72/282, 11-12=-67/274, 12-13=-65/232, 13-14=-66/184, 14-15=-66/143, 15-16=-66/115, 16-17=-68/87, 17-18=-67/61, 18-19=-76/39
BOT CHORD 36-37=-50/41, 35-36=-50/41, 34-35=-50/41, 33-34=-50/41, 32-33=-50/41, 31-32=-50/41, 30-31=-50/41, 29-30=-51/41, 28-29=-51/41, 26-28=-51/41, 25-26=-51/41, 24-25=-51/41, 23-24=-51/41, 22-23=-51/41, 21-22=-51/41, 20-21=-51/41, 19-20=-51/41
WEBS 11-26=-193/24, 10-28=-149/72, 9-29=-143/84, 8-30=-140/78, 7-31=-135/75, 6-32=-141/79, 5-33=-139/77, 4-34=-142/81, 3-35=-133/66, 2-36=-167/122, 12-25=-149/69, 13-24=-139/83, 14-23=-140/77, 15-22=-141/79, 16-21=-135/73, 17-20=-161/100

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 57 lb uplift at joint 37, 24 lb uplift at joint 19, 48 lb uplift at joint 28, 60 lb uplift at joint 29, 54 lb uplift at joint 30, 51 lb uplift at joint 31, 55 lb uplift at joint 32, 53 lb uplift at joint 33, 59 lb uplift at joint 34, 32 lb uplift at joint 35, 129 lb uplift at joint 36, 45 lb uplift at joint 25, 59 lb uplift at joint 24, 53 lb uplift at joint 23, 55 lb uplift at joint 22, 50 lb uplift at joint 21 and 72 lb uplift at joint 20.
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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B3	Roof Special	4	1	Job Reference (optional)	I65280050

Wheeler Lumber, Waverly, KS - 66871,

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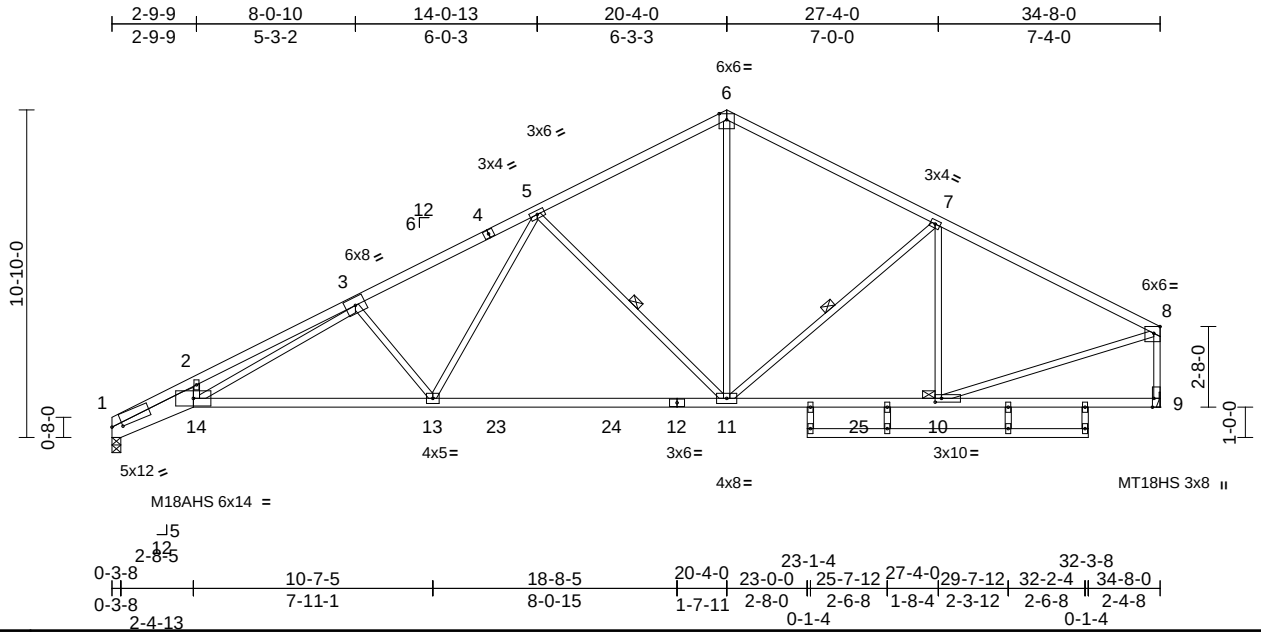

Scale = 1:76.2

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

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	1.00	Vert(LL)	-0.42	13-14	>974	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.77	13-14	>537	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.29	9	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	13-14	>999	240	Weight: 152 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-14:2x8 SP 2400F 2.0E, 15-16:2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11, 7-11
JOINTS 1 Brace at Jt(s): 10

REACTIONS (size) 1=0-3-8, 9= Mechanical
Max Horiz 1=178 (LC 5)
Max Uplift 1=-28 (LC 8), 9=-3 (LC 9)
Max Grav 1=1635 (LC 2), 9=1645 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6665/257, 2-3=-6081/324, 3-5=-3054/104, 5-6=-1750/90, 6-7=-1768/104, 7-8=-1921/35, 8-9=-1530/40
BOT CHORD 1-14=-342/6030, 13-14=-140/3135, 11-13=-46/2201, 10-11=0/1647, 9-10=-16/62
WEBS 2-14=0/789, 6-11=-8/1142, 5-11=-984/148, 5-13=-3/1066, 3-13=-715/149, 3-14=-223/2795, 7-10=-353/78, 7-11=-333/115, 8-10=0/1672

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) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 MT20 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) Bearing at joint(s) 1 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 28 lb uplift at joint 1 and 3 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B4	Roof Special	1	1	Job Reference (optional)	I65280051

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:12 Page: 1
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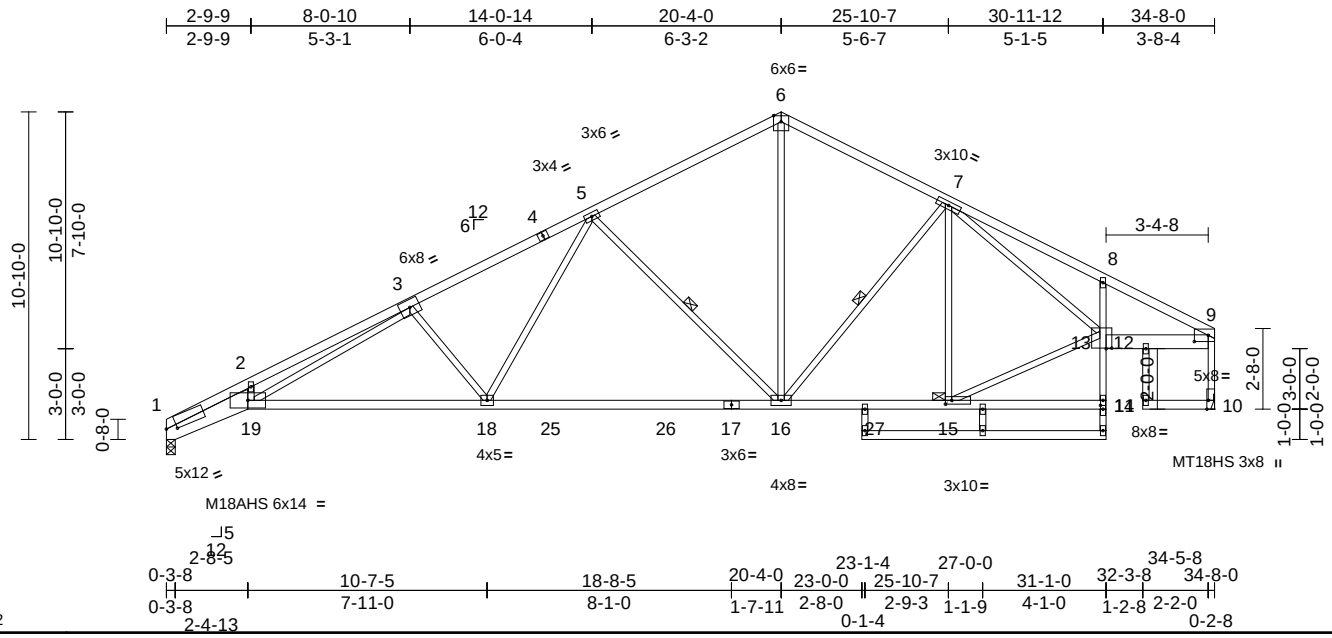

Scale = 1:76.2

Plate Offsets (X, Y): [1:0-4-3,0-1-5], [9:0-5-8,0-2-8], [10:0-3-8,Edge], [13:0-2-4,0-0-4], [14:0-1-8,0-1-0], [15:0-2-8,0-1-8]

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	1.00	Vert(LL)	-0.44	16-18	>932	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.78	18-19	>532	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.41	10	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	18-19	>999	240	Weight: 163 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 1-19:2x8 SP 2400F 2.0E, 19-17:2x4 SPF 2100F 1.8E, 14-8,12-11:2x3 SPF No.2, 13-9:2x6 SPF No.2

WEBS 2x3 SPF No.2

BRACING

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

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

WEBS 1 Row at midpt 7-16, 5-16

JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 1=0-3-8, 10= Mechanical
Max Horiz 1=178 (LC 5)
Max Uplift 1=-28 (LC 8), 10=-3 (LC 9)
Max Grav 1=1636 (LC 2), 10=1673 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-6670/258, 2-3=-6086/325, 3-5=-3060/104, 5-6=-1750/91, 6-7=-1741/107, 7-8=-2816/103, 8-9=-2788/27, 9-10=-1635/19

BOT CHORD 1-19=-343/6034, 18-19=-139/3140, 16-18=-46/2205, 15-16=0/1633, 14-15=0/88, 13-14=0/95, 8-13=-291/104, 12-13=-11/2451, 9-12=-4/2467, 11-12=0/43, 10-11=-16/13

WEBS 2-19=0/790, 6-16=-13/1171, 7-16=-334/106, 7-15=-493/45, 13-15=0/1669, 7-13=-70/1133, 5-16=-990/148, 5-18=-1/1071, 3-18=-714/149, 3-19=-225/2792

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) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 MT20 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) Bearing at joint(s) 1 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 3 lb uplift at joint 10 and 28 lb uplift at joint 1.
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
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

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
06/05/2024 4:56:15

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B5	Roof Special	4	1	Job Reference (optional)	I65280052

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:12 Page: 1

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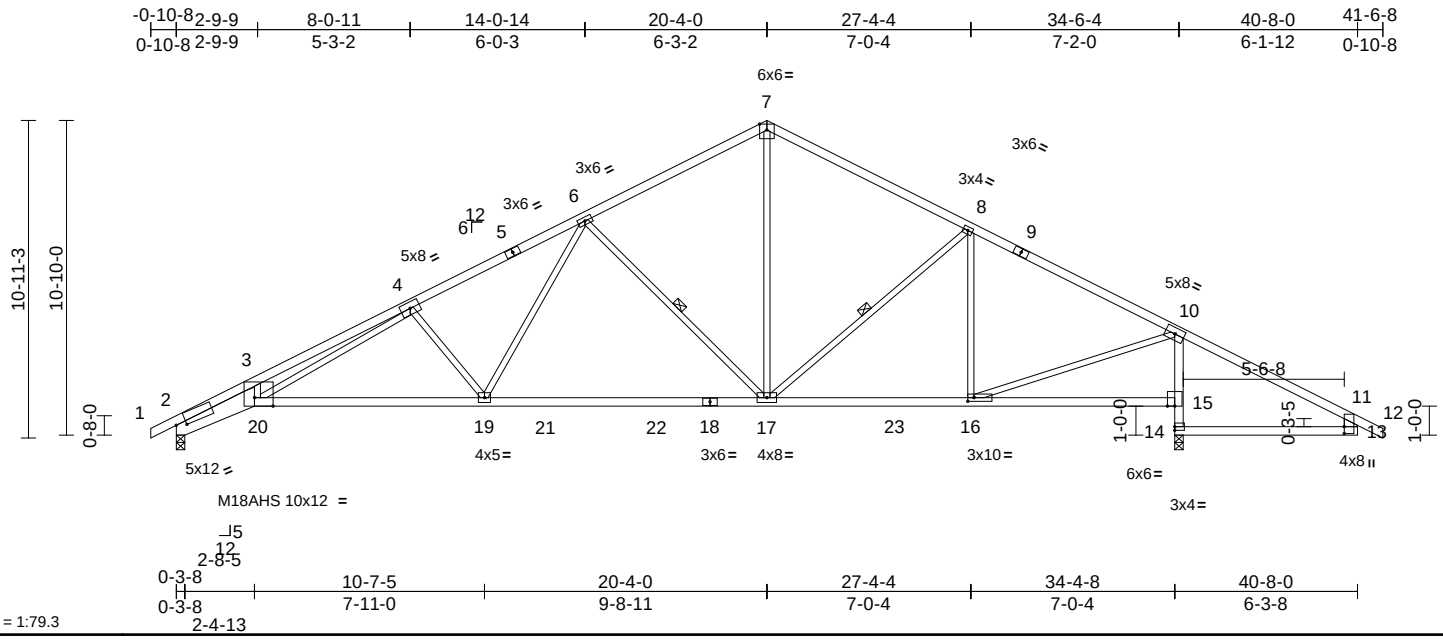

Scale = 1:79.3

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [13:0-2-13,Edge], [16:0-2-8,0-1-8], [20:0-7-11,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	0.94	Vert(LL)	-0.41	17-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.74	19-20	>560	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.23	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	19-20	>999	240	Weight: 158 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5,9-12:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-20:2x8 SP 2400F 2.0E, 10-14,18-15:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 13-11:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-10-13 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 8-17, 6-17

REACTIONS (size) 2=0-3-8, 14=0-3-8
Max Horiz 2=181 (LC 12)
Max Uplift 2=-233 (LC 8), 14=-295 (LC 9)
Max Grav 2=1633 (LC 2), 14=2312 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-6275/997, 3-4=-5703/1030, 4-6=-2895/434, 6-7=-1603/275, 7-8=-1617/298, 8-10=-1612/208, 10-11=-114/674, 11-12=0/35, 11-13=-24/115

BOT CHORD 2-20=-1038/5703, 19-20=-483/2962, 17-19=-255/2063, 16-17=-40/1357, 15-16=-664/214, 14-15=-2202/326, 10-15=-2071/361, 13-14=-482/150

WEBS 3-20=0/773, 7-17=-123/999, 8-17=-115/157, 8-16=-521/135, 10-16=-137/2112, 6-17=-950/312, 6-19=-119/1038, 4-19=-700/277, 4-20=-576/2637

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, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 14 SPF 2100F 1.8E .
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 295 lb uplift at joint 14 and 233 lb uplift at joint 2.
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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B6	Roof Special	3	1	Job Reference (optional)	I65280053

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:12
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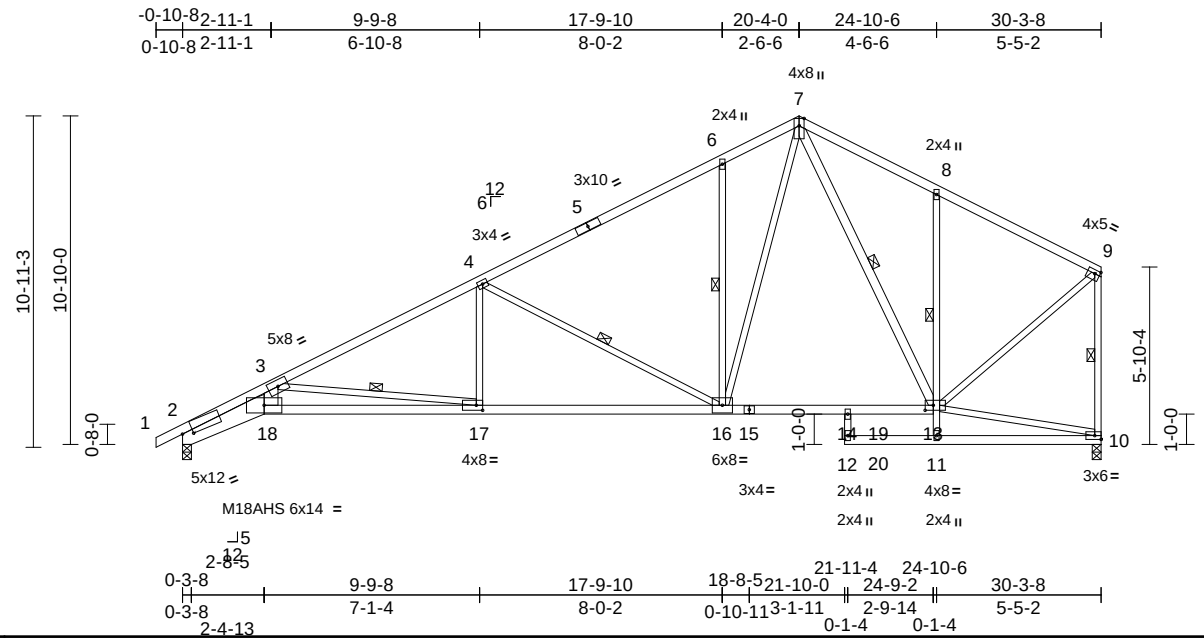

Scale = 1:76

Plate Offsets (X, Y): [2:0-4-3,0-1-5], [9:0-2-0,0-1-8], [13:0-3-4,0-2-0], [17:0-2-8,0-2-0]

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	0.92	Vert(LL)	-0.37	17-18	>976	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.65	17-18	>555	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	17-18	>999	240	Weight: 148 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 15-18:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 18-3:2x6 SPF No.2, 13-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-11-2 oc bracing: 17-18.
WEBS 1 Row at midpt 9-10, 8-11, 7-13, 6-16, 4-16, 3-17

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=299 (LC 7)
Max Uplift 2=-214 (LC 8), 10=-140 (LC 8)
Max Grav 2=1483 (LC 2), 10=1477 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-6111/1077, 3-4=-2665/387, 4-6=-1616/256, 6-7=-1567/383, 7-8=-1132/249, 8-9=-1110/186, 9-10=-1407/163
BOT CHORD 2-18=-1152/5591, 17-18=-980/4573, 16-17=-399/2375, 14-16=-66/1052, 13-14=-66/1052, 11-12=0/0, 10-11=0/31
WEBS 12-14=0/13, 3-18=-346/2199, 11-13=0/270, 8-13=-409/236, 7-13=-315/51, 9-13=-91/1240, 4-17=0/523, 6-16=-449/257, 7-16=-322/1250, 4-16=-1135/323, 10-13=-92/53, 3-17=-2213/584

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, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 10 SPF No.2 .
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 2 and 140 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B7	Roof Special	1	1	Job Reference (optional)	I65280054

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:12 Page: 1
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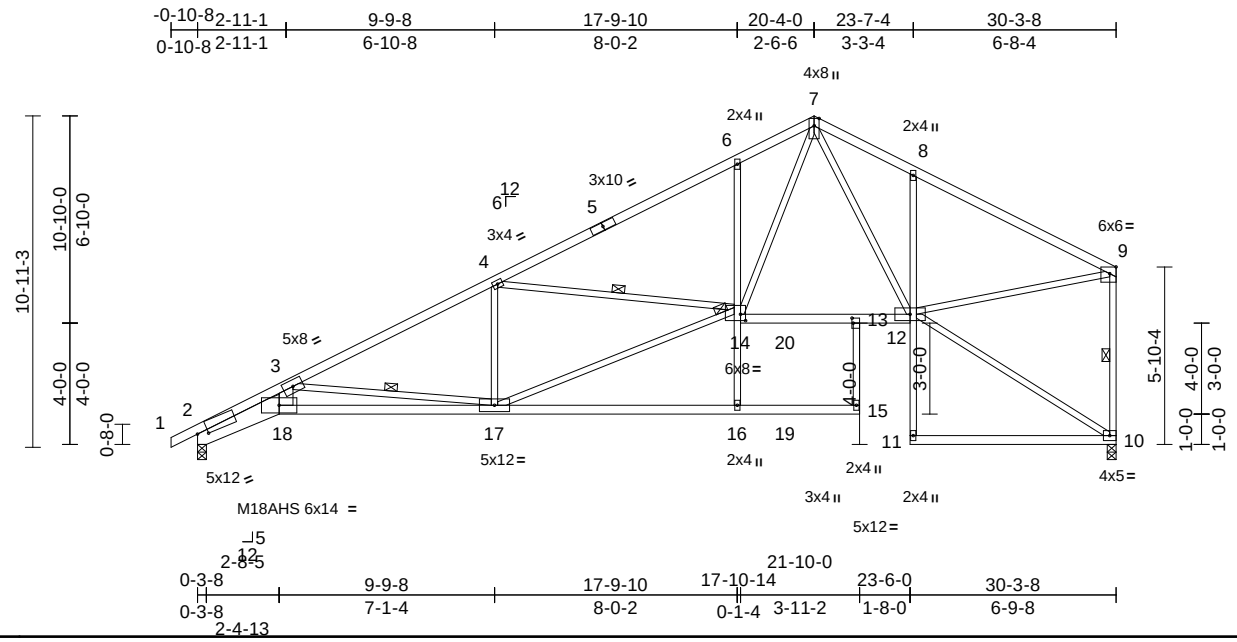

Scale = 1:76

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

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	0.93	Vert(LL)	-0.39	17-18	>935	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.68	17-18	>533	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.43	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.28	17-18	>999	240	Weight: 151 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x3 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 18-15:2x4 SPF 2100F 1.8E, 14-12,11-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-3:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
7-11-0 oc bracing: 17-18.
WEBS 1 Row at midpt 9-10, 3-17, 4-14
JOINTS 1 Brace at Jt(s): 14

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=299 (LC 7)
Max Uplift 2=-214 (LC 8), 10=-140 (LC 8)
Max Grav 2=1491 (LC 2), 10=1474 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-6143/1079, 3-4=-2693/386, 4-6=-2443/325, 6-7=-2394/451, 7-8=-1885/324, 8-9=-1869/228, 9-10=-1365/192
BOT CHORD 2-18=-1154/5620, 17-18=-981/4599, 16-17=-1/42, 15-16=-4/29, 13-15=0/68, 13-14=-94/1508, 12-13=-96/1537, 11-12=0/132, 8-12=-448/257, 10-11=0/10
WEBS 3-18=-347/2203, 7-12=-202/368, 9-12=-145/1651, 4-17=-399/177, 3-17=-2214/586, 14-16=0/288, 6-14=-449/261, 7-14=-370/1677, 14-17=-423/2513, 4-14=-409/225, 10-12=-92/67

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, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 10 SPF No.2 .
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 10 and 214 lb uplift at joint 2.
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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B8	Common	1	1	Job Reference (optional)	I65280055

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:12 Page: 1
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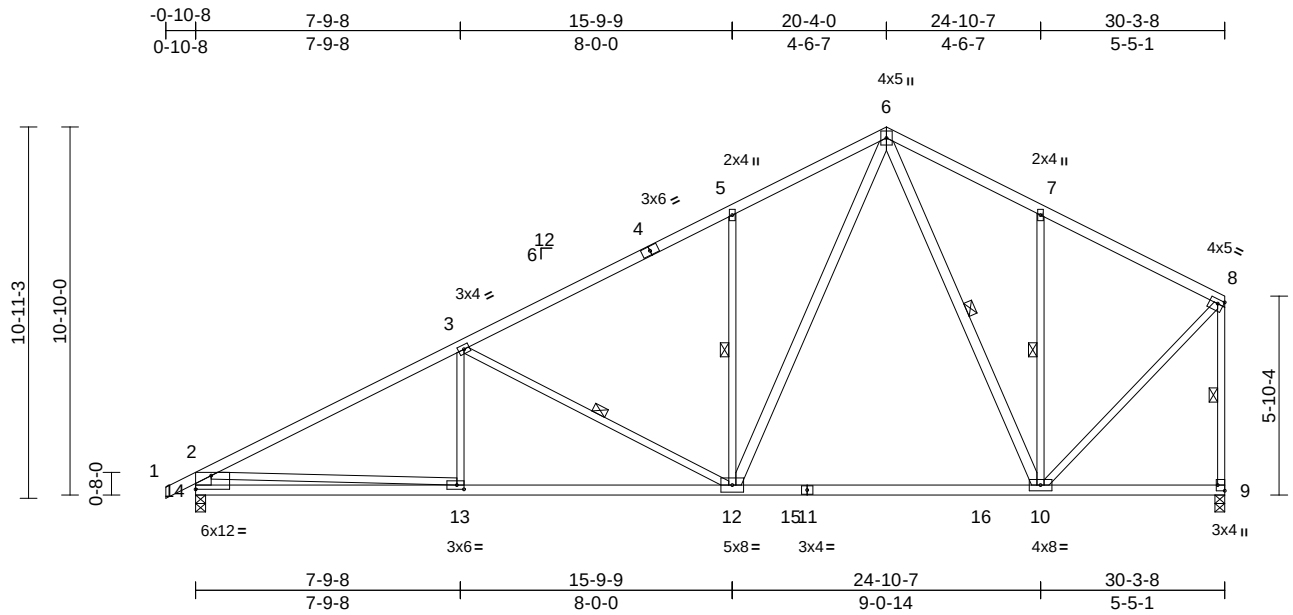

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Plate Offsets (X, Y): [8:0-2-0,0-1-8], [9:Edge,0-2-8], [13:0-2-8,0-1-8], [14:Edge,0-4-13]

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	0.70	Vert(LL)	-0.30	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.48	10-12	>756	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	12-13	>999	240	Weight: 140 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-6,12-6:2x4 SPF No.2, 14-2:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-9, 5-12, 6-10, 7-10, 3-12

REACTIONS (size) 9=0-3-8, 14=0-3-8
Max Horiz 14=305 (LC 5)
Max Uplift 9=-140 (LC 8), 14=-215 (LC 8)
Max Grav 9=1441 (LC 2), 14=1478 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2318/313, 3-5=-1635/254, 5-6=-1608/399, 6-7=-986/243, 7-8=-960/179, 8-9=-1394/165, 2-14=-1352/257
BOT CHORD 13-14=-392/879, 12-13=-373/2012, 10-12=-65/923, 9-10=-77/59
WEBS 8-10=-87/1181, 3-13=0/264, 5-12=-490/270, 6-10=-332/73, 7-10=-412/236, 3-12=-710/248, 6-12=-305/1193, 2-13=0/1182

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, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 215 lb uplift at joint 14 and 140 lb uplift at joint 9.
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
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B9	Roof Special	1	1	Job Reference (optional)	I65280056

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed May 01 15:22:50 Page: 1

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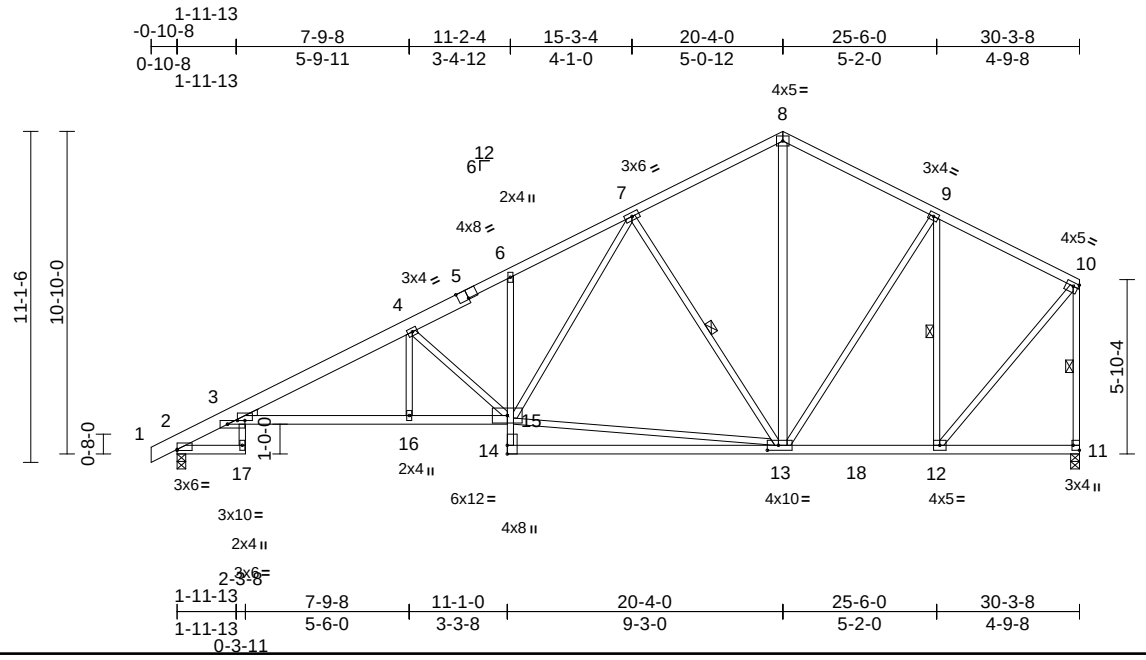


Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-0-7], [3:0-7-0,0-1-8], [3:0-4-0,0-1-8], [5:0-4-0,Edge], [10:0-2-0,0-1-8], [11:Edge,0-2-8], [13:0-4-8,0-2-0]

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	0.83	Vert(LL)	-0.31	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.62	13-14	>578	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.32	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	17	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-15:2x4 SPF 2100F 1.8E, 6-14:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 13-8:2x4 SPF No.2

WEDGE Left: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-17.

WEBS 1 Row at midpt 10-11, 9-12, 7-13

REACTIONS (lb/size) 2=1436/0-3-8, 11=1351/0-3-8
Max Horiz 2=300 (LC 5)
Max Uplift 2=-207 (LC 8), 11=-141 (LC 8)
Max Grav 2=1477 (LC 2), 11=1422 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-918/32, 3-4=-2998/443, 4-5=-2338/376, 5-6=-2279/390, 6-7=-2197/440, 7-8=-1104/240, 8-9=-1100/258, 9-10=-860/175, 10-11=-1348/173

BOT CHORD 2-17=-40/0, 3-16=-514/2793, 15-16=-514/2792, 14-15=0/168, 6-15=0/95, 13-14=0/238, 13-18=-101/736, 12-18=-101/736, 11-12=-77/60

WEBS 3-17=0/81, 4-15=-1113/277, 7-15=-236/1097, 10-12=-98/1137, 13-15=-216/1190, 9-12=-744/129, 8-13=-118/655, 9-13=-29/378, 4-16=0/283, 7-13=-913/319

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, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 2 and 141 lb uplift at joint 11.
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

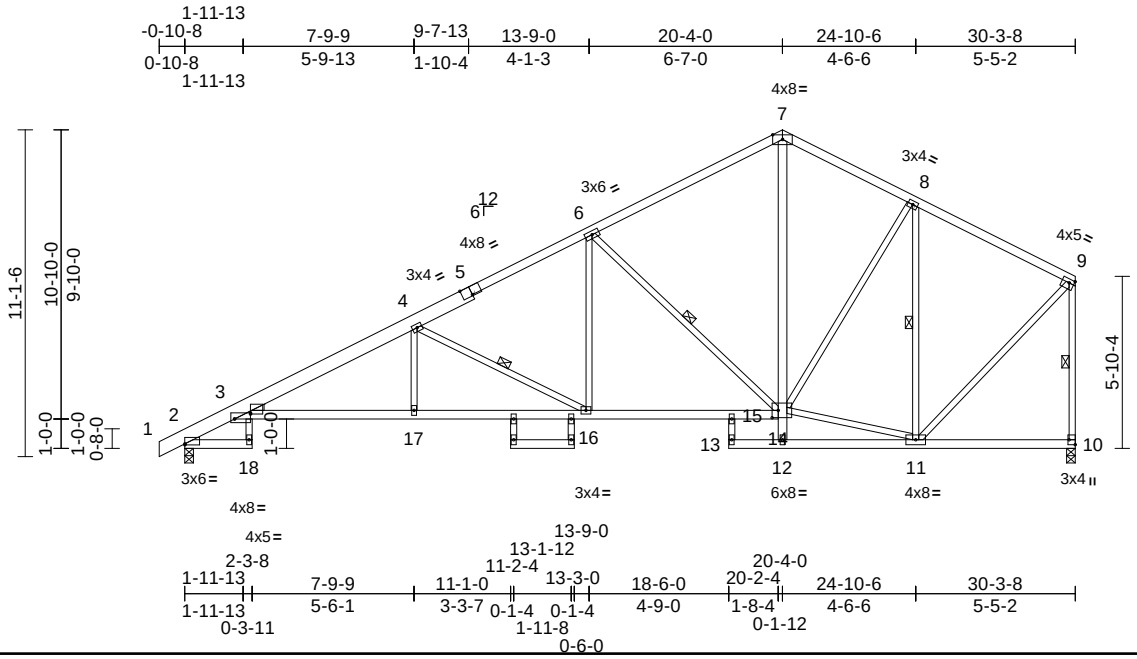
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B10	Roof Special	1	1	Job Reference (optional)	I65280057

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed May 01 15:23:04 Page: 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-N4SRQwvBv_lFnsfZP7xb3V?mT4QwfcR7dGMGN2zKqRM



Scale = 1:78.4

Plate Offsets (X, Y): [2:Edge,0-0-7], [3:0-6-8,0-2-8], [3:0-6-8,0-2-0], [5:0-4-0,Edge], [9:0-2-0,0-1-8], [10:Edge,0-2-8], [14:0-2-8,0-3-0]

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	0.78	Vert(LL)	-0.26	3-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.50	3-17	>728	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.32	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	3-17	>999	240	Weight: 155 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-14:2x4 SPF 2100F 1.8E, 15-13:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-7:2x4 SPF No.2

WEDGE Left: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 4-16, 6-14, 8-11, 9-10

REACTIONS (lb/size) 2=1436/0-3-8, 10=1351/0-3-8
Max Horiz 2=300 (LC 5)
Max Uplift 2=-207 (LC 8), 10=-141 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-790/32, 3-4=-2849/433, 4-5=-1974/299, 5-6=-1906/326, 6-7=-1190/237, 7-8=-1145/268, 8-9=-885/184, 9-10=-1303/174

BOT CHORD 2-18=-34/0, 3-17=-503/2590, 16-17=-503/2590, 15-16=-242/1652, 14-15=-218/1654, 13-15=-34/0, 12-13=-57/0, 11-12=-24/30, 10-11=-76/60

WEBS 3-18=0/70, 4-16=-1063/295, 6-14=-953/291, 11-14=-75/731, 8-14=-46/444, 12-14=0/196, 7-14=-97/598, 8-11=-822/147, 9-11=-93/1063, 4-17=0/279, 6-16=-62/613

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 2x4 MT20 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 crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 2 and 141 lb uplift at joint 10.
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
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B11	Roof Special	2	1	Job Reference (optional)	I65280058

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed May 01 15:23:16 Page: 1

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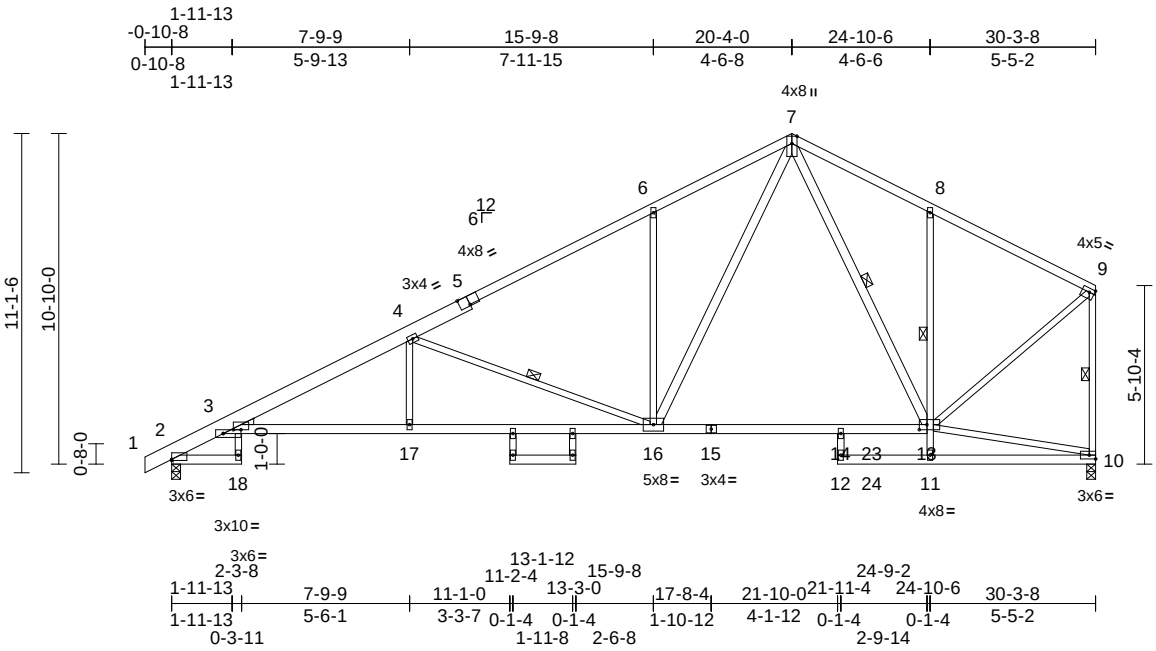

Scale = 1:75.5

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

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	0.85	Vert(LL)	-0.41	14-16	>890	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.63	14-16	>572	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.34	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	3-17	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-15:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 13-7,16-7:2x4 SPF No.2

WEDGE Left: 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-18.

WEBS 1 Row at midpt 4-16, 7-13, 8-11, 9-10

REACTIONS (lb/size) 2=1436/0-3-8, 10=1351/0-3-8
Max Horiz 2=300 (LC 5)
Max Uplift 2=-207 (LC 8), 10=-141 (LC 8)
Max Grav 2=1508 (LC 2), 10=1487 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-936/32, 3-4=-3062/469, 4-5=-1913/245, 5-6=-1855/280, 6-7=-1837/412, 7-8=-1152/245, 8-9=-1133/183, 9-10=-1436/158

BOT CHORD 2-18=-40/0, 3-17=-547/2849, 16-17=-546/2848, 15-16=-71/1051, 14-15=-71/1051, 14-23=-71/1051, 13-23=-71/1051, 12-24=0/0, 11-24=0/0, 10-11=0/38

WEBS 3-18=0/82, 12-14=-33/0, 4-16=-1330/406, 7-13=-302/70, 11-13=0/339, 8-13=-407/234, 9-13=-87/1269, 4-17=0/303, 6-16=-403/239, 7-16=-307/1302, 10-13=-95/52

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 2x4 MT20 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, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 2 and 141 lb uplift at joint 10.
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
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B12	Roof Special	1	1	Job Reference (optional)	I65280059

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:13
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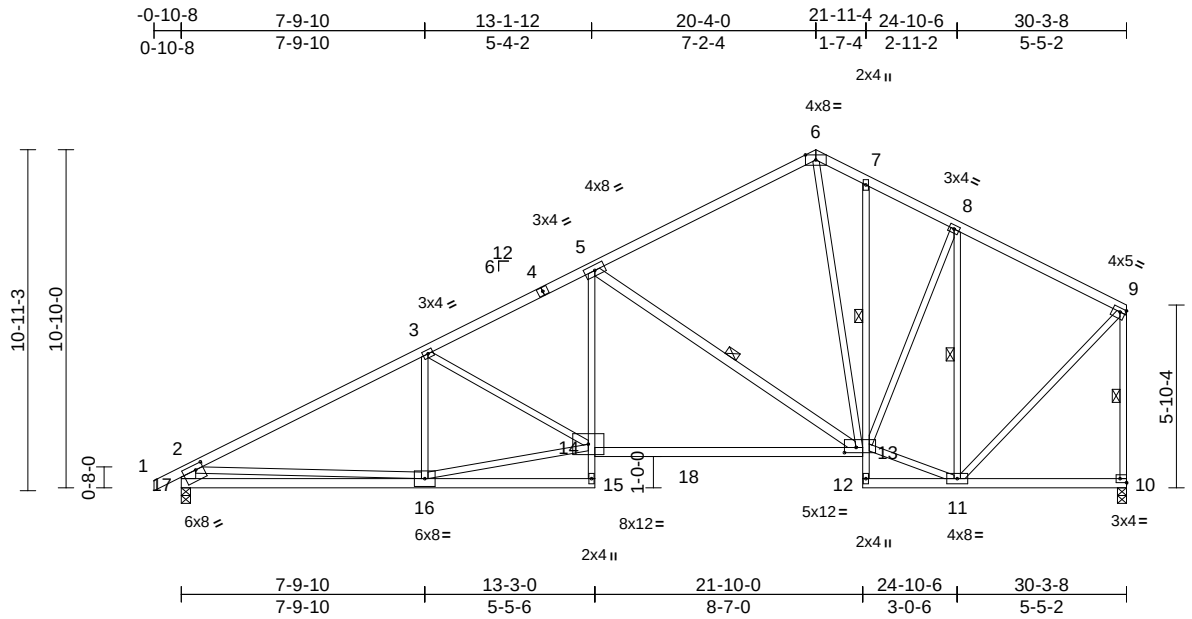

Scale = 1:73.8

Plate Offsets (X, Y): [9:0-2-0,0-1-8], [10:Edge,0-1-8], [13:0-4-8,0-2-0], [17:0-3-0,0-2-0]

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	0.77	Vert(LL)	-0.26	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.50	13-14	>715	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	13-14	>999	240	Weight: 151 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 15-5,7-12:2x3 SPF No.2, 14-13:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 13-5:2x4 SPF No.2, 17-2:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-13
WEBS 1 Row at midpt 5-13, 8-11, 9-10

REACTIONS (size) 10=0-3-8, 17=0-3-8
Max Horiz 17=305 (LC 5)
Max Uplift 10=-140 (LC 8), 17=-215 (LC 8)
Max Grav 10=1407 (LC 2), 17=1474 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2288/301, 3-5=-2148/342, 5-6=-1085/208, 6-7=-1064/239, 7-8=-1160/247, 8-9=-913/184, 9-10=-1327/174, 2-17=-1351/259
BOT CHORD 16-17=-451/977, 15-16=-71/20, 14-15=0/79, 5-14=-49/786, 13-14=-273/1910, 12-13=0/19, 7-13=-39/110, 11-12=-150/0, 10-11=-76/60
WEBS 3-16=-320/152, 14-16=-319/2052, 3-14=-151/100, 5-13=-1202/314, 6-13=-68/584, 11-13=-49/948, 8-13=-35/577, 8-11=-936/151, 9-11=-94/1115, 2-16=0/1046

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, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 215 lb uplift at joint 17 and 140 lb uplift at joint 10.
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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	B13	Common Supported Gable	1	1	Job Reference (optional)	I65280060

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:13 Page: 1
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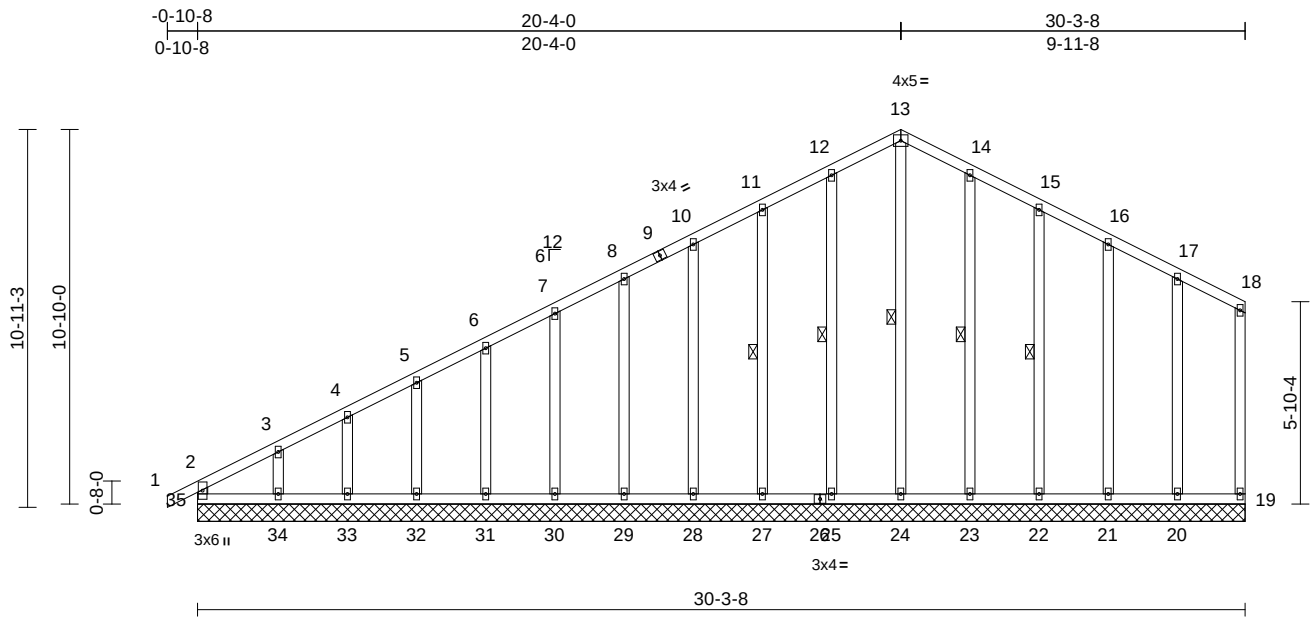

Scale = 1:66.6

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 182 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 13-24, 12-25, 11-27, 14-23, 15-22

REACTIONS (size) 19=30-3-8, 20=30-3-8, 21=30-3-8, 22=30-3-8, 23=30-3-8, 24=30-3-8, 25=30-3-8, 27=30-3-8, 28=30-3-8, 29=30-3-8, 30=30-3-8, 31=30-3-8, 32=30-3-8, 33=30-3-8, 34=30-3-8, 35=30-3-8
Max Horiz 35=305 (LC 5)
Max Uplift 19=-32 (LC 8), 20=-54 (LC 9), 21=-55 (LC 9), 22=-56 (LC 9), 23=-51 (LC 9), 24=-11 (LC 7), 25=-50 (LC 8), 27=-57 (LC 8), 28=-53 (LC 8), 29=-54 (LC 8), 30=-54 (LC 8), 31=-53 (LC 8), 32=-60 (LC 8), 33=-31 (LC 8), 34=-136 (LC 8), 35=-55 (LC 4)
Max Grav 19=83 (LC 16), 20=186 (LC 22), 21=180 (LC 1), 22=179 (LC 22), 23=189 (LC 22), 24=197 (LC 15), 25=189 (LC 21), 27=179 (LC 21), 28=180 (LC 1), 29=180 (LC 21), 30=180 (LC 1), 31=180 (LC 1), 32=181 (LC 21), 33=178 (LC 1), 34=189 (LC 21), 35=234 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-35=-198/59, 1-2=0/32, 2-3=-274/115, 3-4=-223/106, 4-5=-207/109, 5-6=-191/121, 6-7=-176/134, 7-8=-162/148, 8-10=-147/162, 10-11=-132/175, 11-12=-118/190, 12-13=-100/199, 13-14=-95/193, 14-15=-96/167, 15-16=-96/139, 16-17=-93/110, 17-18=-105/91, 18-19=-90/62
BOT CHORD 34-35=-81/62, 33-34=-81/62, 32-33=-81/62, 31-32=-81/62, 30-31=-81/62, 29-30=-81/62, 28-29=-81/62, 27-28=-81/62, 25-27=-81/62, 24-25=-81/62, 23-24=-81/62, 22-23=-81/62, 21-22=-81/62, 20-21=-81/62, 19-20=-81/62
WEBS 13-24=-157/51, 12-25=-149/74, 11-27=-139/81, 10-28=-140/77, 8-29=-140/78, 7-30=-140/78, 6-31=-140/77, 5-32=-140/81, 4-33=-139/64, 3-34=-144/129, 14-23=-149/74, 15-22=-139/81, 16-21=-140/75, 17-20=-144/96

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 55 lb uplift at joint 35, 32 lb uplift at joint 19, 11 lb uplift at joint 24, 50 lb uplift at joint 25, 57 lb uplift at joint 27, 53 lb uplift at joint 28, 54 lb uplift at joint 29, 54 lb uplift at joint 30, 53 lb uplift at joint 31, 60 lb uplift at joint 32, 31 lb uplift at joint 33, 136 lb uplift at joint 34, 51 lb uplift at joint 23, 56 lb uplift at joint 22, 55 lb uplift at joint 21 and 54 lb uplift at joint 20.
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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	C1	GABLE	1	1	Job Reference (optional)	I65280061

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:13 Page: 1
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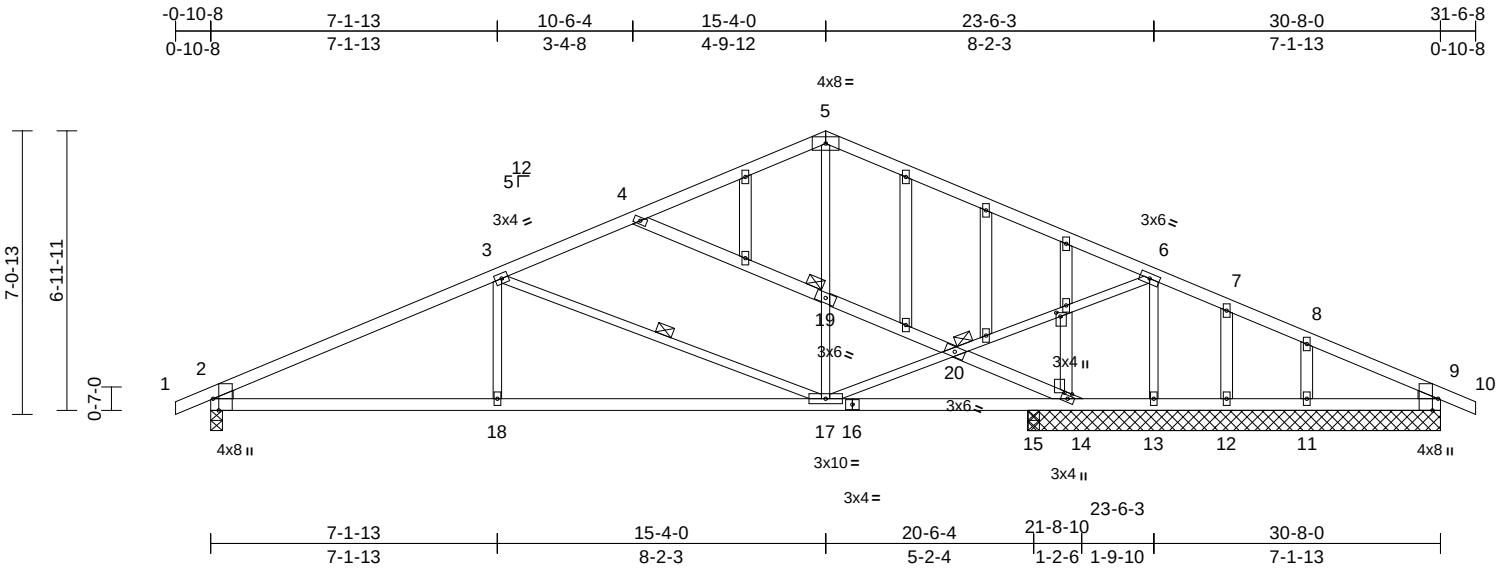

Scale = 1:57.5

Plate Offsets (X, Y): [2:0-3-8,Edge], [9:0-3-8,Edge], [28:0-0-8,0-2-4], [29:0-1-3,0-1-4]

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	0.88	Vert(LL)	-0.10	17-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.23	17-18	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.04	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	2-18	>999	240	Weight: 133 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 4-19,19-20,20-14:2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	Left: 2x3 SPF No.2 Right: 2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-18,17-18.
WEBS	1 Row at midpt 3-17
JOINTS	1 Brace at Jt(s): 19, 20

REACTIONS (size) 2=0-3-8, 9=10-3-8, 11=10-3-8, 12=10-3-8, 13=10-3-8, 15=0-3-8
Max Horiz 2=-119 (LC 13)
Max Uplift 2=-167 (LC 8), 9=-67 (LC 21), 11=-111 (LC 9), 12=-206 (LC 1), 13=-255 (LC 9)
Max Grav 2=1050 (LC 1), 9=156 (LC 22), 11=366 (LC 1), 12=134 (LC 9), 13=1426 (LC 1), 15=189 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-1779/236, 3-4=-997/172, 4-5=-700/143, 5-6=-762/114, 6-7=-56/388, 7-8=-49/305, 8-9=-94/332, 9-10=0/6
BOT CHORD	2-18=-250/1525, 17-18=-250/1525, 15-17=-62/58, 14-15=-62/58, 13-14=-281/96, 12-13=-281/96, 11-12=-281/96, 9-11=-281/96
WEBS	17-19=0/239, 5-19=0/238, 17-20=-55/874, 6-20=-56/890, 6-13=-1323/277, 3-17=-714/166, 3-18=0/343, 4-19=-333/153, 19-20=-336/152, 14-20=-354/154, 7-12=-114/218, 8-11=-288/143

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 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 167 lb uplift at joint 2, 255 lb uplift at joint 13, 67 lb uplift at joint 9, 206 lb uplift at joint 12 and 111 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.

LOAD CASE(S) Standard

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	C2	Common	4	1	Job Reference (optional)	I65280062

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:13
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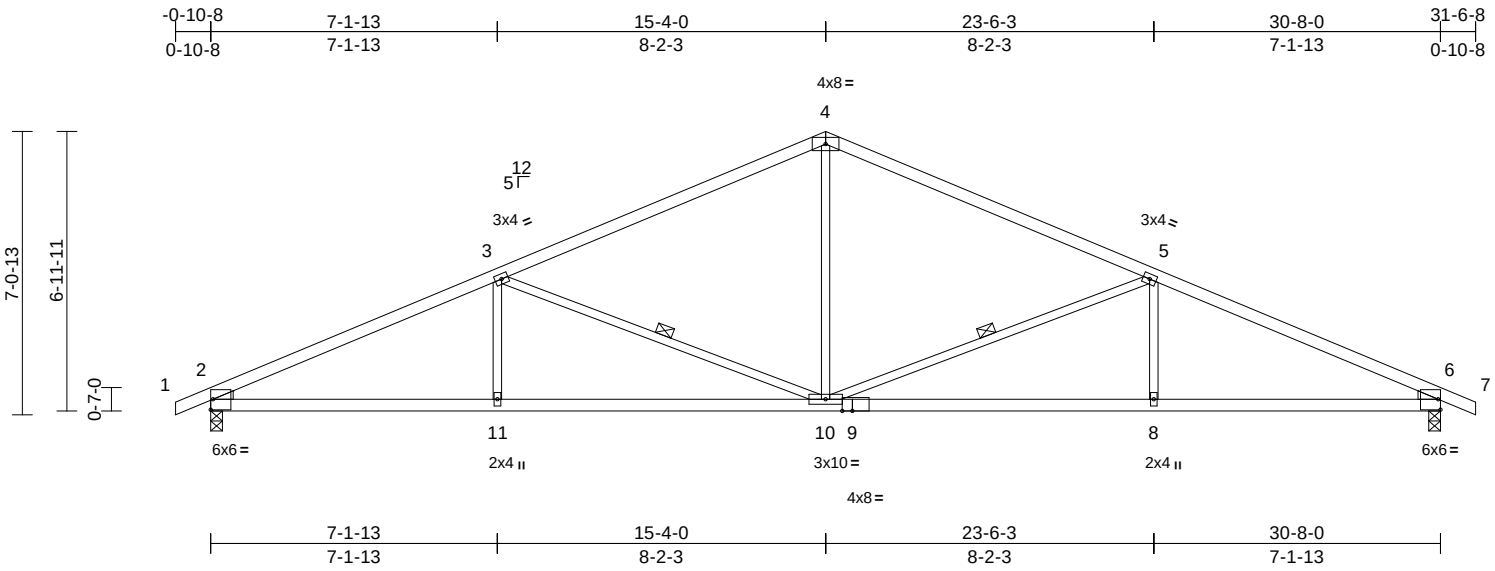

Scale = 1:57.5

Plate Offsets (X, Y): [2:Edge,0-3-2], [6:Edge,0-3-2], [9:0-3-0,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	0.62	Vert(LL)	-0.14	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.31	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	10-11	>999	240	Weight: 100 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
WEDGE	Left: 2x3 SPF No.2 Right: 2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-2-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 9-10-15 oc bracing.
WEBS	1 Row at midpt 5-10, 3-10

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-119 (LC 9)
Max Uplift 2=-199 (LC 8), 6=-199 (LC 9)
Max Grav 2=1438 (LC 1), 6=1438 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-2733/336, 3-4=-1854/242, 4-5=-1854/242, 5-6=-2733/337, 6-7=0/6
BOT CHORD	2-11=-347/2402, 10-11=-347/2402, 8-10=-229/2402, 6-8=-229/2402
WEBS	4-10=-14/807, 5-10=-910/279, 5-8=0/324, 3-10=-910/278, 3-11=0/324

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 199 lb uplift at joint 2 and 199 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	C3	Common	6	1	Job Reference (optional)	I65280063

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:13
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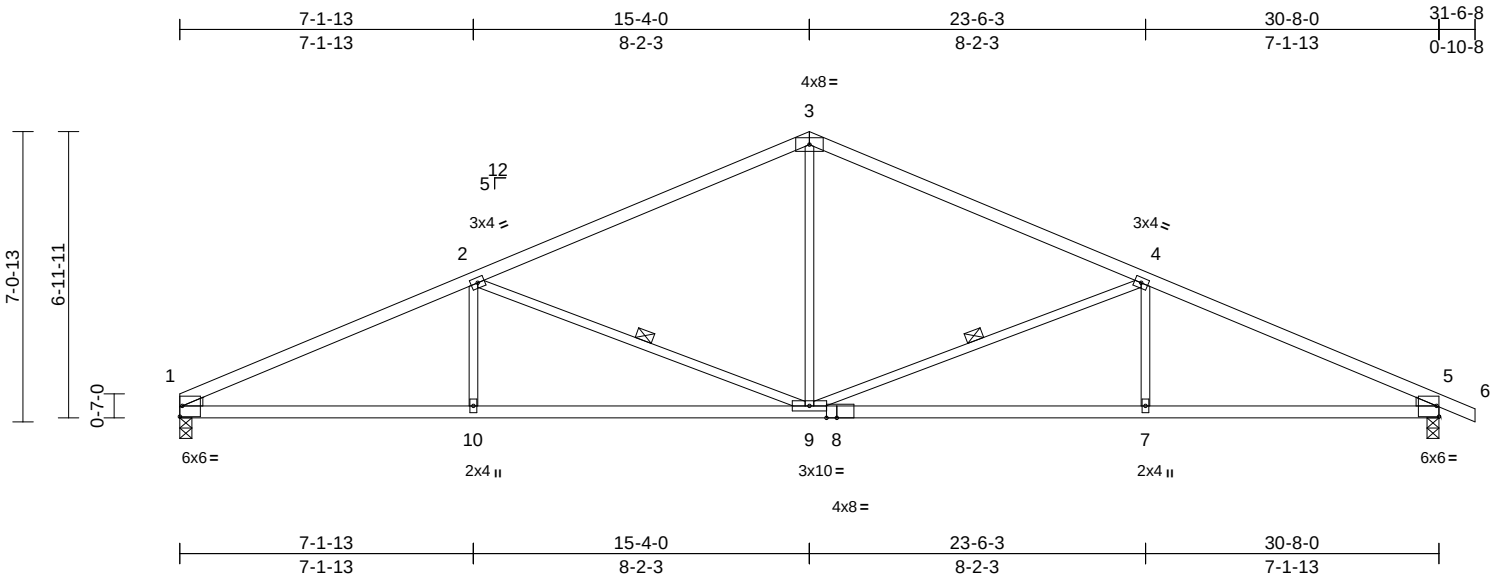

Scale = 1:56.1

Plate Offsets (X, Y): [1:Edge,0-3-2], [5:Edge,0-3-2], [8:0-3-0,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	0.62	Vert(LL)	-0.14	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.31	7-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	9-10	>999	240	Weight: 99 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
WEDGE	Left: 2x3 SPF No.2 Right: 2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-1-5 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 9-10-4 oc bracing.
WEBS	1 Row at midpt 4-9, 2-9

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-121 (LC 13)
Max Uplift 1=-175 (LC 8), 5=-199 (LC 9)
Max Grav 1=1366 (LC 1), 5=1440 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-2722/339, 2-3=-1858/242, 3-4=-1857/243, 4-5=-2736/337, 5-6=0/6
BOT CHORD	1-10=-351/2413, 9-10=-351/2413, 7-9=-229/2405, 5-7=-229/2405
WEBS	3-9=-15/810, 4-9=-910/279, 4-7=0/324, 2-9=-919/281, 2-10=0/326

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 175 lb uplift at joint 1 and 199 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	C4	Roof Special Supported Gable	1	1	Job Reference (optional)	I65280064

Wheeler Lumber, Waverly, KS - 66871,

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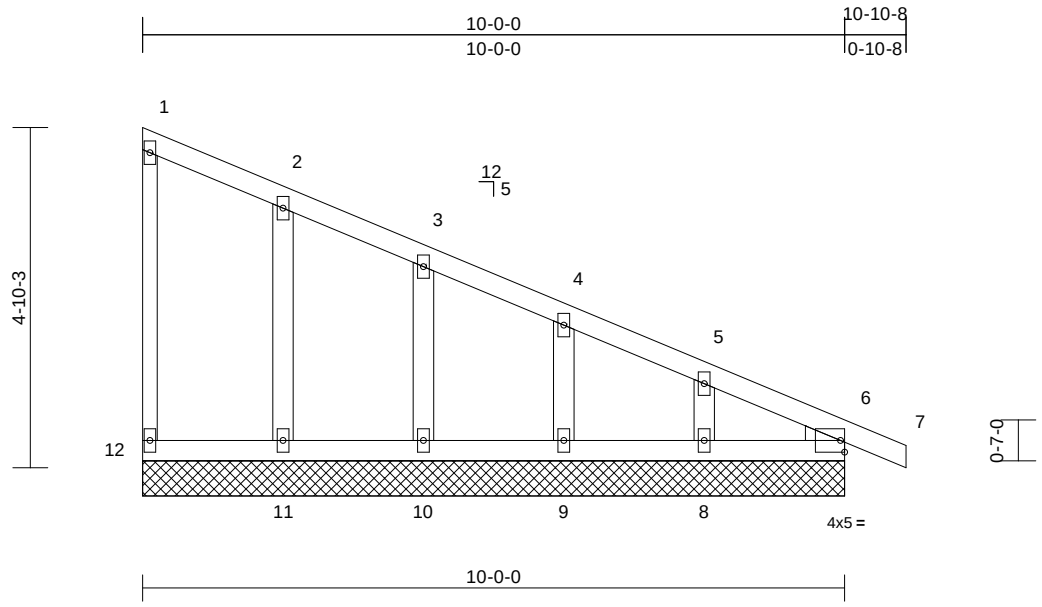

Scale = 1:32.8

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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 38 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 0-0:2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	Right: 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) 6=10-0-0, 8=10-0-0, 9=10-0-0, 10=10-0-0, 11=10-0-0, 12=10-0-0
Max Horiz 12=-194 (LC 4)
Max Uplift 6=-1 (LC 5), 8=-66 (LC 9), 9=-47 (LC 9), 10=-47 (LC 9), 11=-51 (LC 9), 12=-22 (LC 4)
Max Grav 6=150 (LC 15), 8=182 (LC 1), 9=180 (LC 1), 10=177 (LC 1), 11=194 (LC 1), 12=69 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-12=-53/22, 1-2=-75/40, 2-3=-97/27, 3-4=-109/26, 4-5=-128/26, 5-6=-166/33, 6-7=0/6
BOT CHORD	11-12=-14/157, 10-11=-14/157, 9-10=-14/157, 8-9=-14/157, 6-8=-14/157
WEBS	5-8=-139/91, 4-9=-141/70, 3-10=-138/74, 2-11=-151/62

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) 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 22 lb uplift at joint 12, 1 lb uplift at joint 6, 66 lb uplift at joint 8, 47 lb uplift at joint 9, 47 lb uplift at joint 10 and 51 lb uplift at joint 11.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6.
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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	D1	Common Supported Gable	1	1	Job Reference (optional)	I65280065

Wheeler Lumber, Waverly, KS - 66871,

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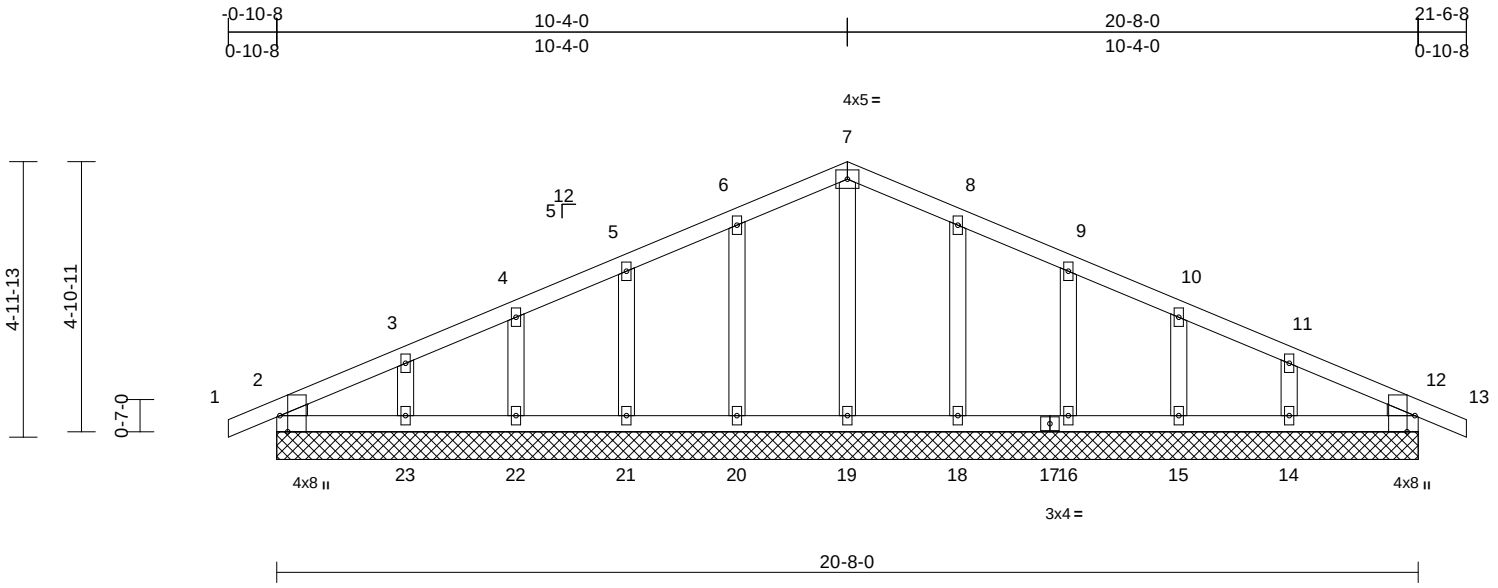

Scale = 1:41.7

Plate Offsets (X, Y): [2:0-3-8,Edge], [12:0-3-8,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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	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
WEDGE	Left: 2x3 SPF No.2 Right: 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) 2=20-8-0, 12=20-8-0, 14=20-8-0, 15=20-8-0, 16=20-8-0, 18=20-8-0, 19=20-8-0, 20=20-8-0, 21=20-8-0, 22=20-8-0, 23=20-8-0
Max Horiz 2=82 (LC 12)
Max Uplift 2=-22 (LC 4), 12=-25 (LC 5), 14=-63 (LC 9), 15=-45 (LC 9), 16=-49 (LC 9), 18=-50 (LC 9), 20=-51 (LC 8), 21=-48 (LC 8), 22=-45 (LC 8), 23=-67 (LC 8)
Max Grav 2=166 (LC 1), 12=166 (LC 1), 14=206 (LC 22), 15=173 (LC 22), 16=180 (LC 1), 18=190 (LC 22), 19=159 (LC 1), 20=190 (LC 21), 21=180 (LC 1), 22=173 (LC 21), 23=206 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-96/55, 3-4=-60/61, 4-5=-40/81, 5-6=-38/103, 6-7=-40/123, 7-8=-40/116, 8-9=-38/79, 9-10=-38/45, 10-11=-39/25, 11-12=-68/32, 12-13=0/6
BOT CHORD	2-23=-5/71, 22-23=-5/71, 21-22=-5/71, 20-21=-5/71, 19-20=-5/71, 18-19=-5/71, 16-18=-5/71, 15-16=-5/71, 14-15=-5/71, 12-14=-5/71
WEBS	7-19=-119/0, 6-20=-151/75, 5-21=-139/72, 4-22=-136/68, 3-23=-156/92, 8-18=-151/74, 9-16=-139/73, 10-15=-136/68, 11-14=-156/88

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 22 lb uplift at joint 2, 51 lb uplift at joint 20, 48 lb uplift at joint 21, 45 lb uplift at joint 22, 67 lb uplift at joint 23, 50 lb uplift at joint 18, 49 lb uplift at joint 16, 45 lb uplift at joint 15, 63 lb uplift at joint 14 and 25 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	E1	Roof Special Structural Gable	1	1	Job Reference (optional)	I65280066

Wheeler Lumber, Waverly, KS - 66871,

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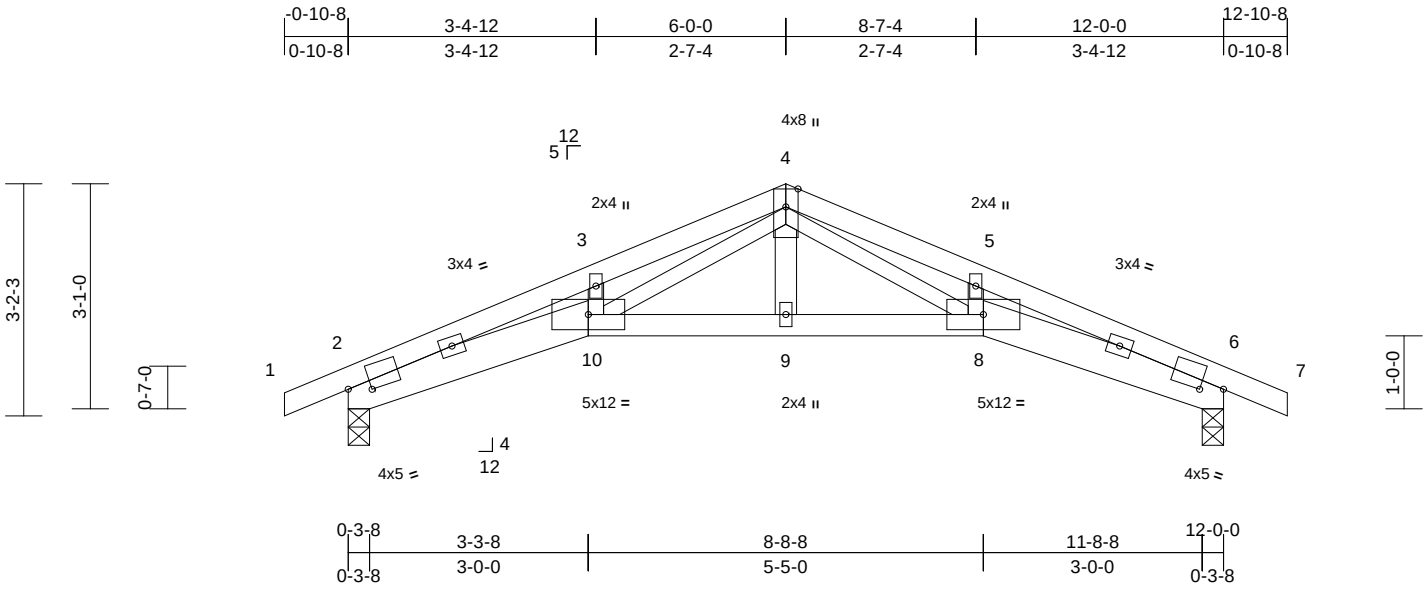


Scale = 1:31.6

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

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	0.44	Vert(LL)	-0.10	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.18	8-9	>772	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.13	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	9-10	>999	240	Weight: 43 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 10-8:2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=-50 (LC 9)
Max Uplift 2=-91 (LC 8), 6=-92 (LC 9)
Max Grav 2=598 (LC 1), 6=598 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-1905/223, 3-4=-1768/285, 4-5=-1760/222, 5-6=-1909/156, 6-7=0/9
BOT CHORD 2-10=-216/1715, 9-10=-46/941, 8-9=-46/946, 6-8=-101/1719
WEBS 4-8=-163/799, 5-8=0/138, 4-10=-200/814, 3-10=-7/122, 4-9=0/196

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) Gable studs spaced at 2-0-0 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) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2 and 92 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.

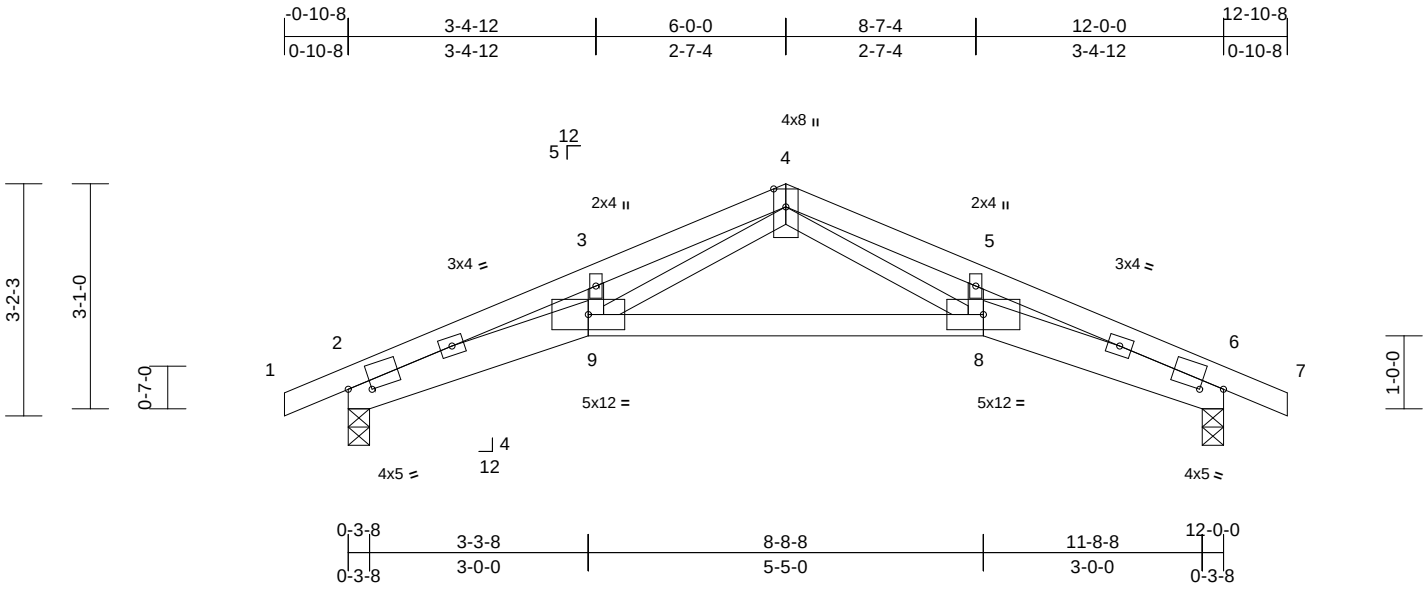
LOAD CASE(S) Standard

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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	E2	Roof Special	1	1	Job Reference (optional)	I65280067

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14 Page: 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.6

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

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	0.44	Vert(LL)	-0.13	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.27	8-9	>525	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.14	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 42 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 9-8:2x4 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=50 (LC 12)
Max Uplift 2=-91 (LC 8), 6=-91 (LC 9)
Max Grav 2=598 (LC 1), 6=598 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-2058/222, 3-4=-1901/285, 4-5=-1901/213, 5-6=-2058/142, 6-7=0/9
BOT CHORD 2-9=-214/1864, 8-9=-59/856, 6-8=-88/1864
WEBS 4-8=-138/1064, 5-8=0/158, 4-9=-184/1064, 3-9=0/158

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) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2 and 91 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	E3	Roof Special	3	1	Job Reference (optional)	I65280068

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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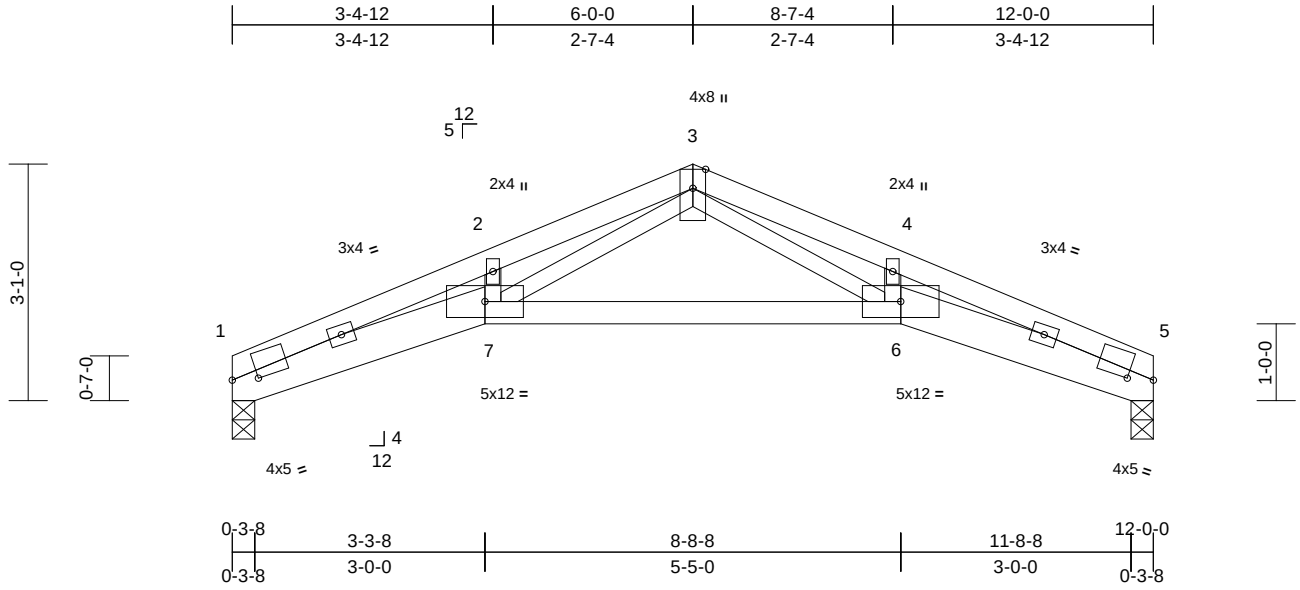

Scale = 1:30

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

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	0.37	Vert(LL)	-0.14	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.28	6-7	>507	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.15	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	6-7	>999	240	Weight: 40 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 7-6:2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-48 (LC 13)
Max Uplift 1=-67 (LC 8), 5=-67 (LC 9)
Max Grav 1=527 (LC 1), 5=527 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2125/244, 2-3=-1976/310, 3-4=-1976/241, 4-5=-2125/168
BOT CHORD 1-7=-239/1932, 6-7=-66/875, 5-6=-119/1932
WEBS 3-6=-160/1122, 4-6=0/151, 3-7=-204/1122, 2-7=0/151

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) Bearing at joint(s) 1, 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 67 lb uplift at joint 1 and 67 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

May 2,2024

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/05/2024 4:56:16

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	E4	Roof Special Girder	1	2	Job Reference (optional)	I65280069

Wheeler Lumber, Waverly, KS - 66871,

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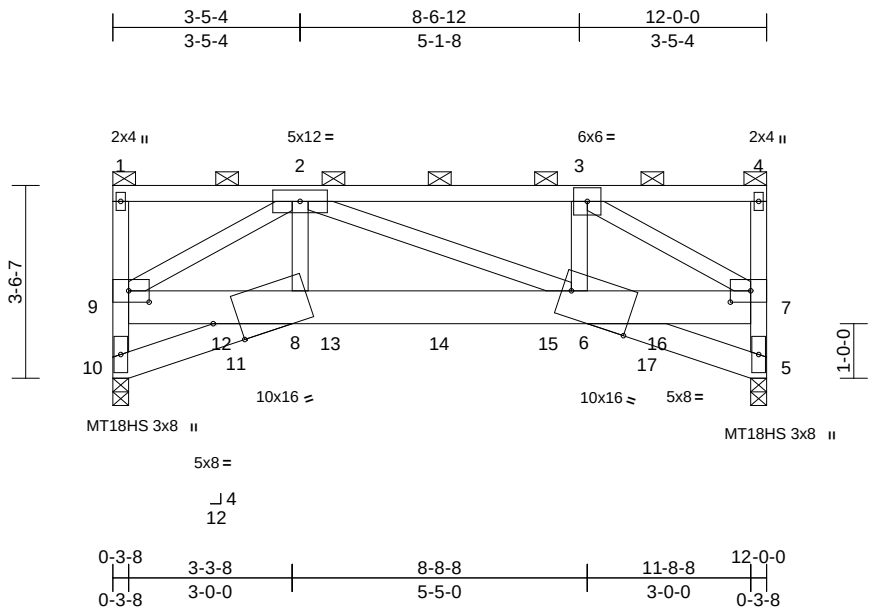

Scale = 1:42.3

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

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	0.45	Vert(LL)	-0.10	6-8	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.17	6-8	>819	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.08	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	6-8	>999	240	Weight: 170 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 9-7:2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins (4-6-8 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 8-10.

REACTIONS (size) 5=0-3-8, 10=0-3-8
Max Horiz 10=122 (LC 7)
Max Uplift 5=-152 (LC 5), 10=-152 (LC 4)
Max Grav 5=4674 (LC 15), 10=4664 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 9-10=-4426/178, 1-9=-115/34, 1-2=-195/27, 2-3=-6681/184, 3-4=-162/24, 5-7=-4678/171, 4-7=-126/34
BOT CHORD 8-10=-164/757, 8-9=-172/7314, 6-8=-278/5744, 6-7=-230/6588, 5-6=-12/133
WEBS 2-9=-8542/240, 2-8=-11/4386, 2-6=-28/1091, 3-6=0/4043, 3-7=-7749/227

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-2-0 oc, 2x8 - 2 rows staggered at 0-6-0 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Bearing at joint(s) 10, 5 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 152 lb uplift at joint 10 and 152 lb uplift at joint 5.
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) 1726 lb down and 15 lb up at 2-0-0, 1726 lb down and 15 lb up at 4-0-0, 1726 lb down and 15 lb up at 6-0-0, and 1754 lb down and 15 lb up at 8-0-0, and 1726 lb down and 15 lb up at 10-0-0 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: 1-4=-70, 8-10=-20, 6-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-1529 (B), 13=-1529 (B), 14=-1529 (B), 15=-1529 (B), 16=-1529 (B)

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	I65280070

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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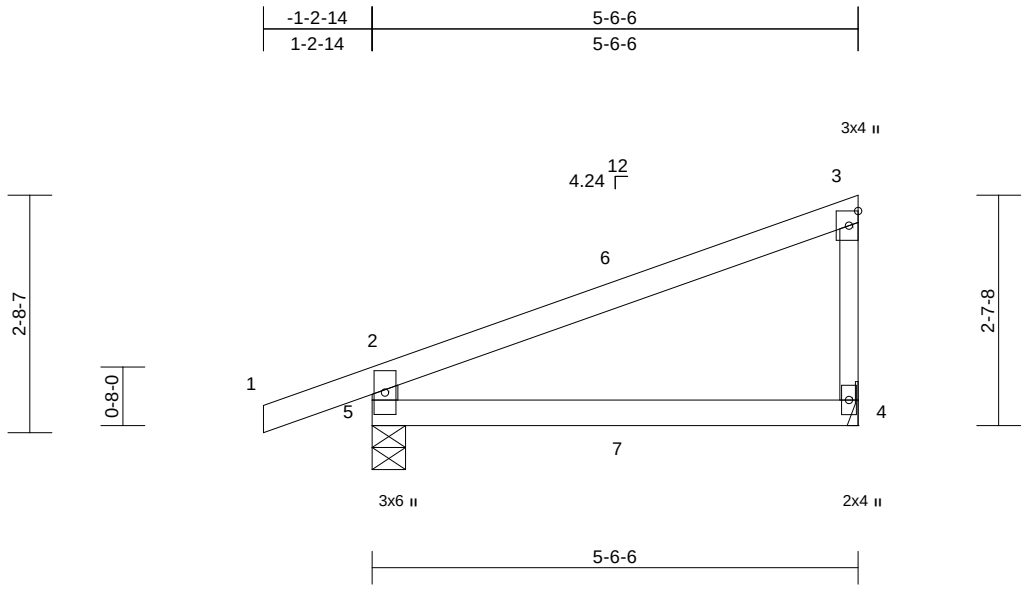

Scale = 1:26.2

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	0.41	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.07	4-5	>967	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	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 *Except* 3-4:2x3 SPF No.2

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

REACTIONS (size) 4= Mechanical, 5=0-4-9
Max Horiz 5=111 (LC 5)
Max Uplift 4=-50 (LC 8), 5=-101 (LC 4)
Max Grav 4=223 (LC 1), 5=346 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-306/140, 1-2=0/32, 2-3=-139/14, 3-4=-160/73
BOT CHORD 4-5=-26/45

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 101 lb uplift at joint 5 and 50 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.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 36 lb up at 2-9-8, and 69 lb down and 36 lb up at 2-9-8 on top chord, and 3 lb down and 2 lb up at 2-9-8, and 3 lb down and 2 lb up at 2-9-8 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
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, 4-5=-20
Concentrated Loads (lb)
Vert: 7=3 (F=2, B=2)

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT
B240097	J2	Jack-Open	3	1	I65280071
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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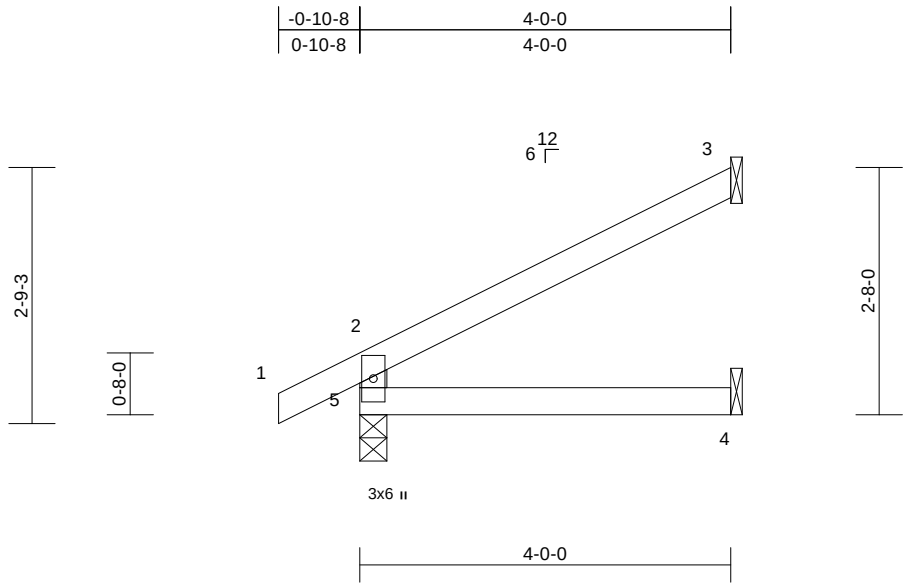

Scale = 1:24.8

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	0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	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 4-0-0 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=89 (LC 8)
Max Uplift 3=-66 (LC 8), 5=-30 (LC 8)
Max Grav 3=116 (LC 1), 4=71 (LC 3), 5=252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-221/67, 1-2=0/32, 2-3=-75/40
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 30 lb uplift at joint 5 and 66 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

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

May 2,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	J3	Jack-Open	4	1	Job Reference (optional)	I65280072

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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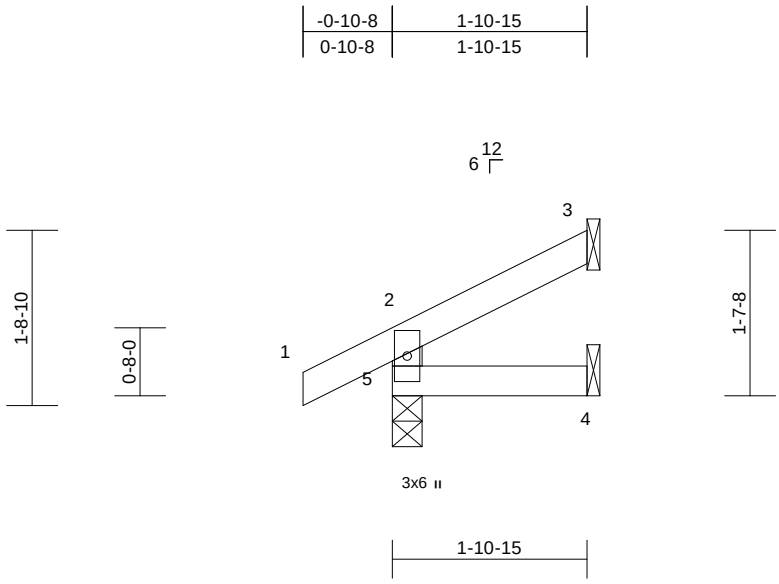

Scale = 1:22.6

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	0.07	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=48 (LC 8)
Max Uplift 3=-30 (LC 8), 5=-26 (LC 8)
Max Grav 3=44 (LC 1), 4=31 (LC 3), 5=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-150/44, 1-2=0/32, 2-3=-37/14
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 26 lb uplift at joint 5 and 30 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

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

May 2,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V1	Valley	1	1	Job Reference (optional)	I65280073

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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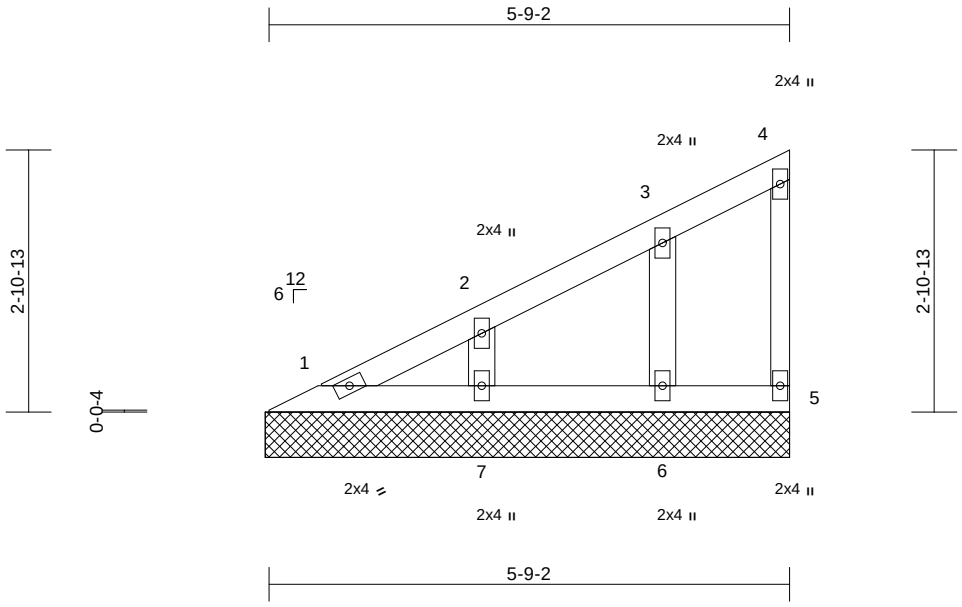

Scale = 1:25.5

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	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 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 5-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-9-10, 5=5-9-10, 6=5-9-10, 7=5-9-10
Max Horiz 1=106 (LC 7)
Max Uplift 5=-14 (LC 5), 6=-48 (LC 8), 7=-59 (LC 8)
Max Grav 1=70 (LC 16), 5=40 (LC 1), 6=162 (LC 1), 7=194 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-88/38, 2-3=-70/34, 3-4=-55/29, 4-5=-32/19
BOT CHORD 1-7=-36/27, 6-7=-36/27, 5-6=-36/27
WEBS 2-7=-151/84, 3-6=-125/70

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 2-0-0 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 5, 59 lb uplift at joint 7 and 48 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.

LOAD CASE(S) Standard

May 2,2024

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/05/2024 4:56:16

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V2	Valley	2	1	Job Reference (optional)	I65280074

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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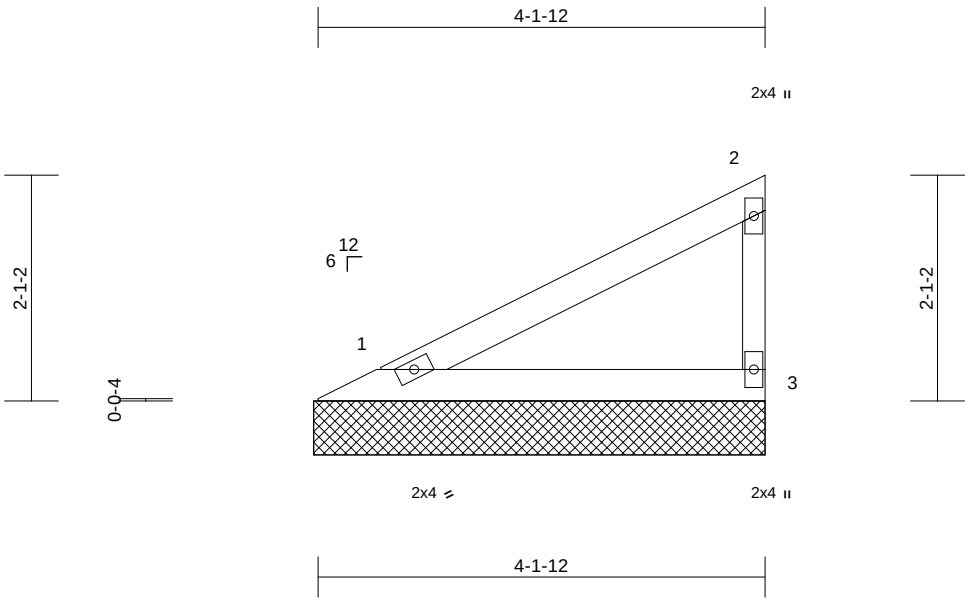

Scale = 1:21.4

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	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: 10 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 4-2-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-2-4, 3=4-2-4
Max Horiz 1=72 (LC 7)
Max Uplift 1=-20 (LC 8), 3=-38 (LC 8)
Max Grav 1=155 (LC 1), 3=155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-66/43, 2-3=-121/59
BOT CHORD 1-3=-25/19

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 38 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
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V3	Valley	2	1	Job Reference (optional)	I65280075

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:14
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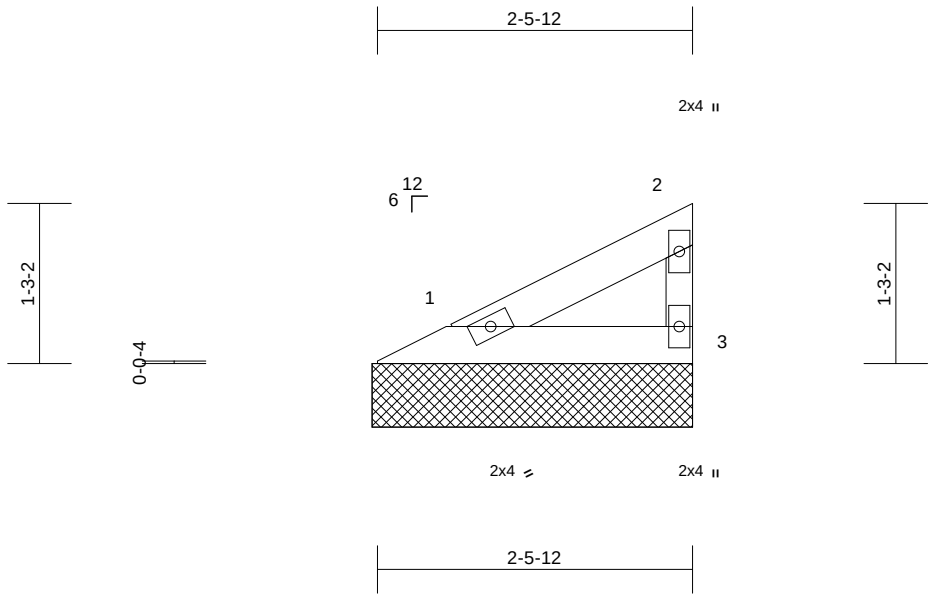

Scale = 1:18.1

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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: 6 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-6-4, 3=2-6-4
Max Horiz 1=37 (LC 5)
Max Uplift 1=-10 (LC 8), 3=-20 (LC 8)
Max Grav 1=80 (LC 1), 3=80 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-34/22, 2-3=-63/30
BOT CHORD 1-3=-13/10

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 10 lb uplift at joint 1 and 20 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V4	Valley	1	1	Job Reference (optional)	I65280076

Wheeler Lumber, Waverly, KS - 66871,

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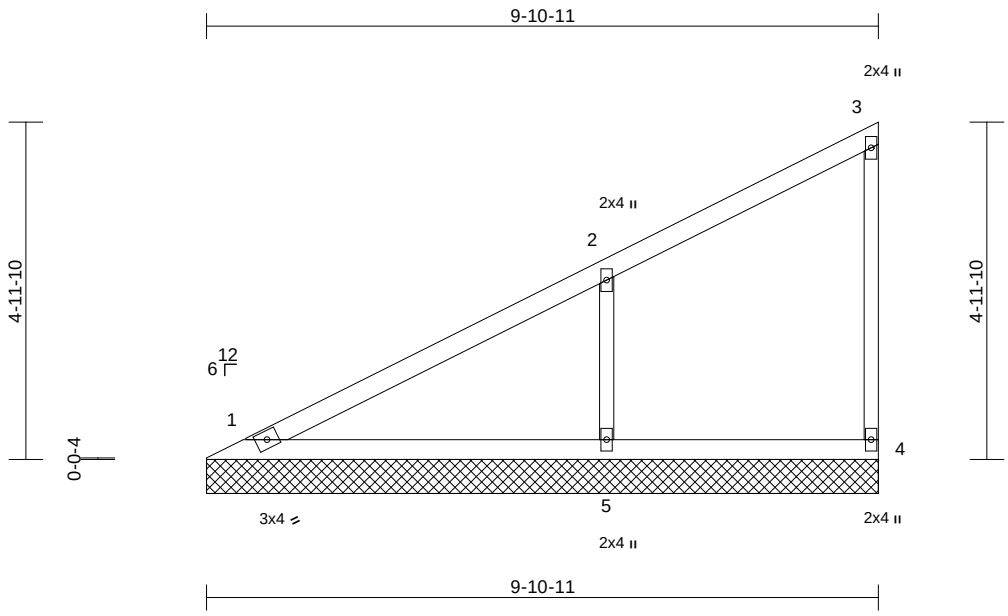

Scale = 1:33.9

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	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 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=9-10-11, 4=9-10-11, 5=9-10-11
Max Horiz 1=192 (LC 5)
Max Uplift 4=-28 (LC 5), 5=-157 (LC 8)
Max Grav 1=192 (LC 1), 4=112 (LC 1), 5=524 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/95, 2-3=-128/50, 3-4=-90/40
BOT CHORD 1-5=-65/50, 4-5=-65/50
WEBS 2-5=-396/209

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 28 lb uplift at joint 4 and 157 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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V5	Valley	1	1	Job Reference (optional)	I65280077

Wheeler Lumber, Waverly, KS - 66871,

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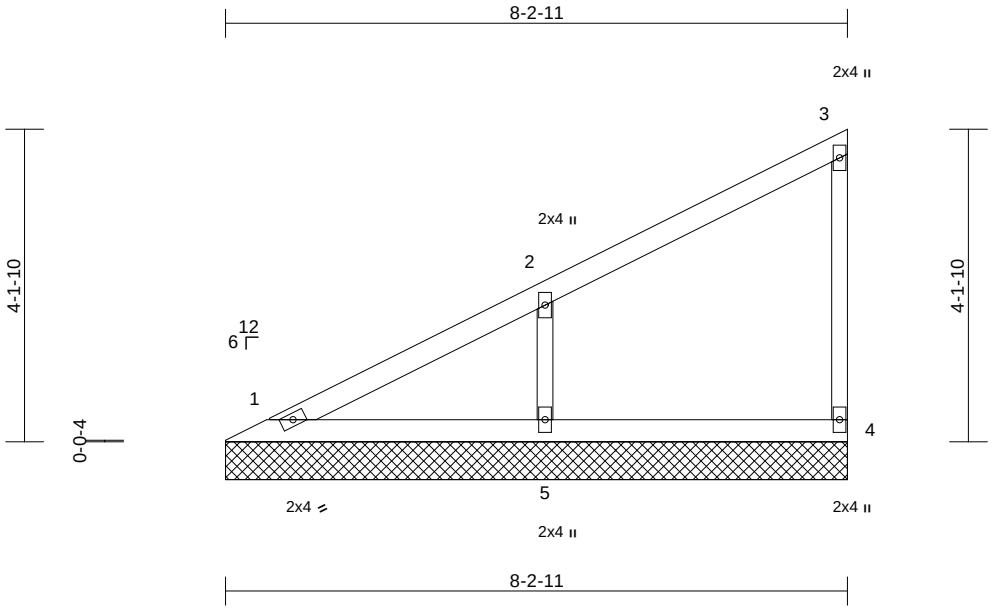

Scale = 1:30.5

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	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: 23 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=8-2-11, 4=8-2-11, 5=8-2-11
Max Horiz 1=157 (LC 5)
Max Uplift 4=-27 (LC 5), 5=-127 (LC 8)
Max Grav 1=126 (LC 16), 4=134 (LC 1), 5=424 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-127/74, 2-3=-115/44, 3-4=-105/44
BOT CHORD 1-5=-54/41, 4-5=-54/41
WEBS 2-5=-329/184

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 4 and 127 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V6	Valley	1	1	Job Reference (optional)	I65280078

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:15
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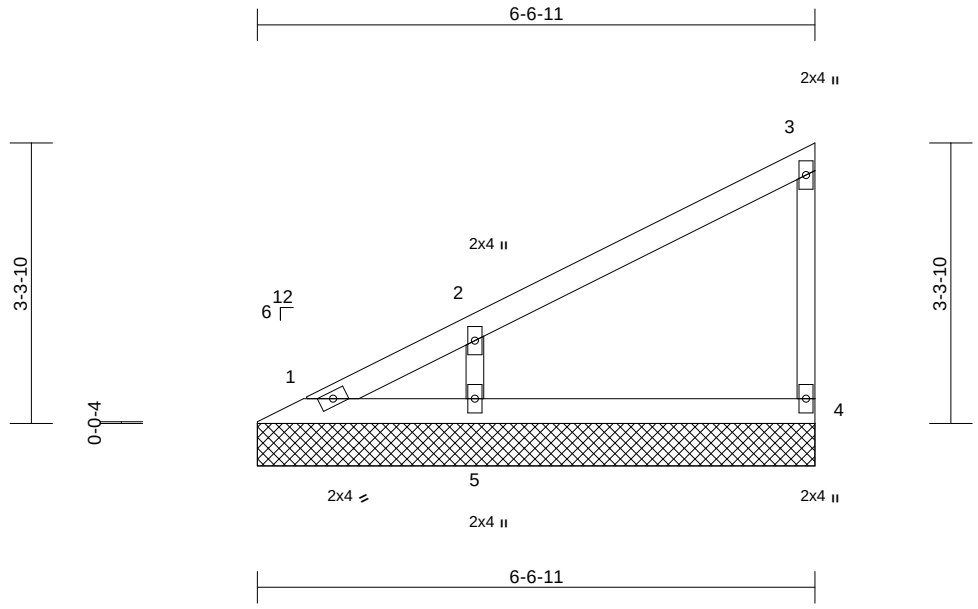

Scale = 1:27.1

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)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 10%

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

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

REACTIONS (size) 1=6-6-11, 4=6-6-11, 5=6-6-11
Max Horiz 1=122 (LC 5)
Max Uplift 4=-28 (LC 8), 5=-108 (LC 8)
Max Grav 1=48 (LC 16), 4=143 (LC 1), 5=361 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-106/55, 2-3=-103/43, 3-4=-111/47
BOT CHORD 1-5=-42/32, 4-5=-42/32
WEBS 2-5=-281/157

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 28 lb uplift at joint 4 and 108 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V7	Valley	1	1	Job Reference (optional)	I65280079

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:15
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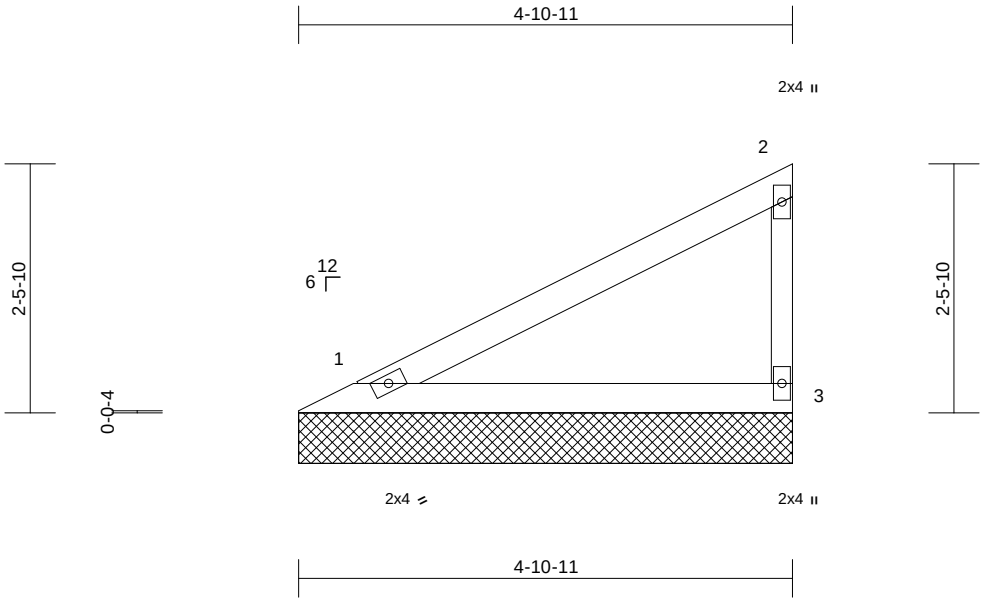

Scale = 1:22.8

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	0.33	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 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 4-11-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-10-11, 3=4-10-11
Max Horiz 1=88 (LC 5)
Max Uplift 1=-24 (LC 8), 3=-46 (LC 8)
Max Grav 1=189 (LC 1), 3=189 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-80/53, 2-3=-147/72
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 24 lb uplift at joint 1 and 46 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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

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

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V8	Valley	1	1	Job Reference (optional)	I65280080

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:15
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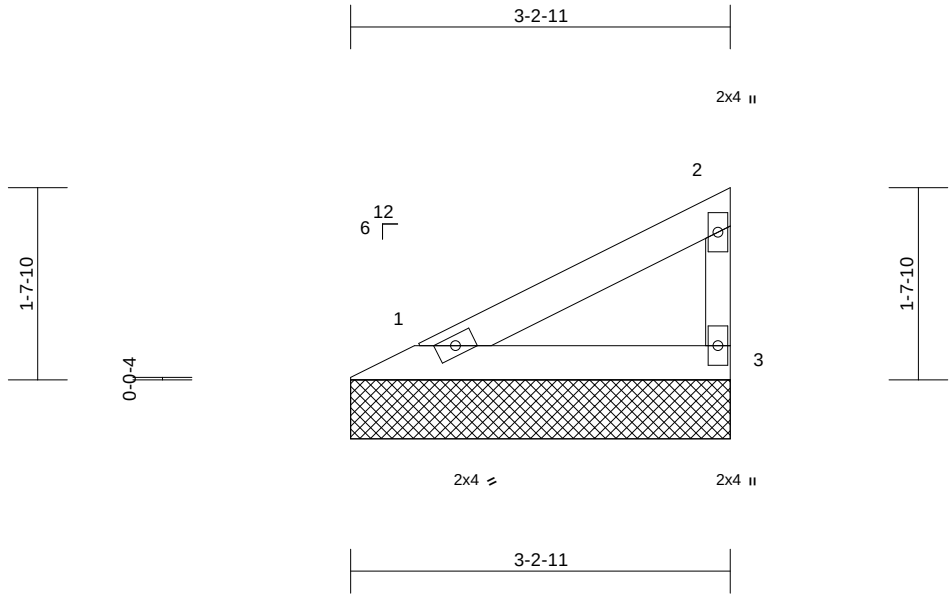

Scale = 1:19.6

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	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: 8 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 3-3-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-2-11, 3=3-2-11
Max Horiz 1=53 (LC 5)
Max Uplift 1=-15 (LC 8), 3=-28 (LC 8)
Max Grav 1=114 (LC 1), 3=114 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-48/32, 2-3=-89/43
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 15 lb uplift at joint 1 and 28 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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V9	Valley	1	1	Job Reference (optional)	I65280081

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:15
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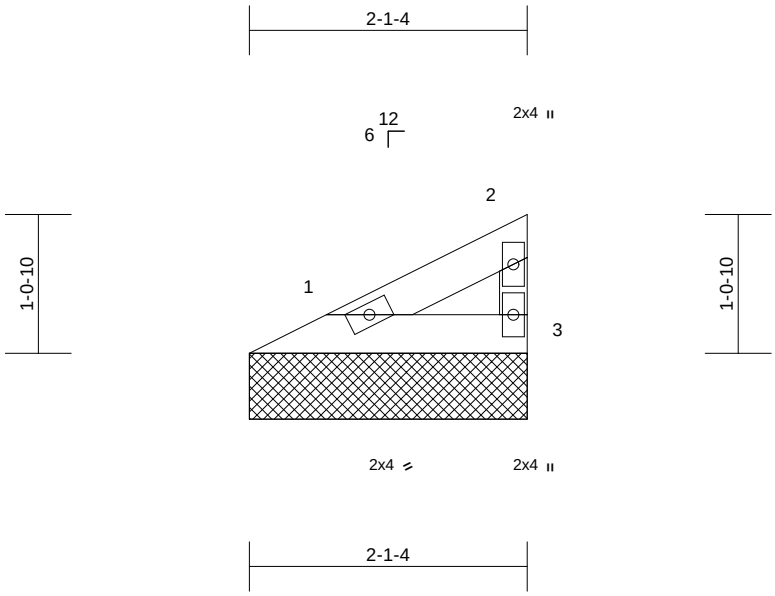

Scale = 1:17.5

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	0.03	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 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 2-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-1-4, 3=2-1-4
Max Horiz 1=29 (LC 5)
Max Uplift 1=-8 (LC 8), 3=-15 (LC 8)
Max Grav 1=62 (LC 1), 3=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-26/17, 2-3=-48/24
BOT CHORD 1-3=-10/7

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 8 lb uplift at joint 1 and 15 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

May 2,2024

Job	Truss	Truss Type	Qty	Ply	Lot 194 HT	
B240097	V10	Valley	1	1	Job Reference (optional)	I65280082

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Wed May 01 07:38:15 Page: 1
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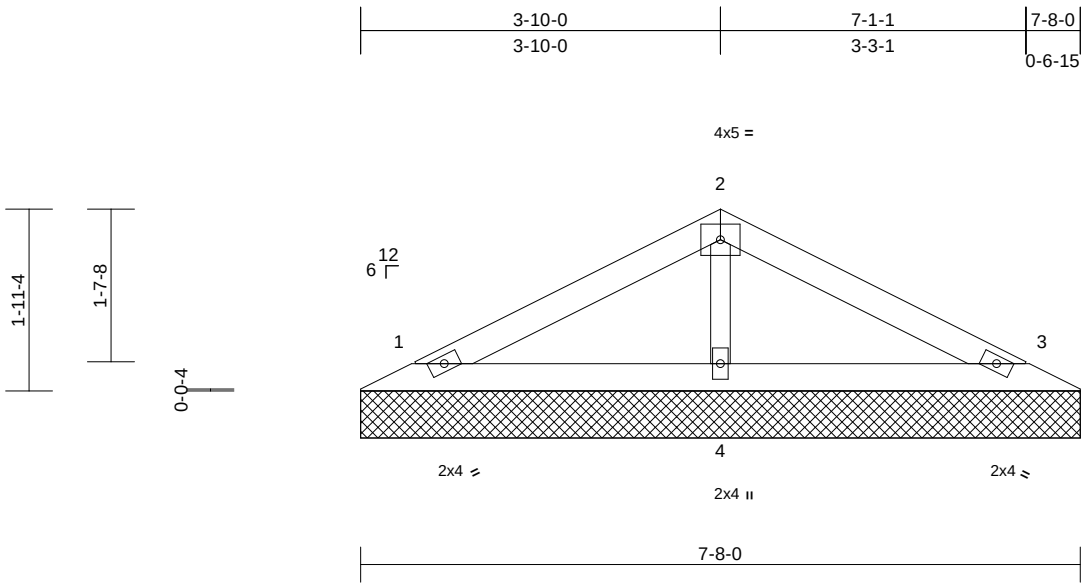


Scale = 1:24.5

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)	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	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 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=7-8-0, 3=7-8-0, 4=7-8-0
Max Horiz 1=-29 (LC 13)
Max Uplift 1=-35 (LC 8), 3=-40 (LC 9), 4=-4 (LC 8)
Max Grav 1=153 (LC 1), 3=153 (LC 1), 4=279 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-73/41, 2-3=-73/29
BOT CHORD 1-4=-1/32, 3-4=-1/32
WEBS 2-4=-198/52

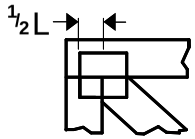
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber 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 35 lb uplift at joint 1, 40 lb uplift at joint 3 and 4 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

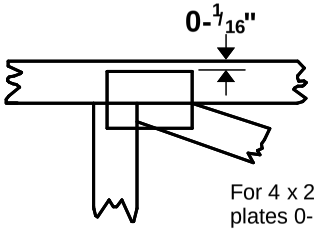
May 2,2024

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.

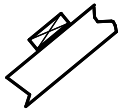
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

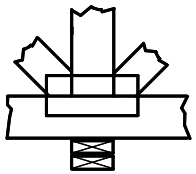
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

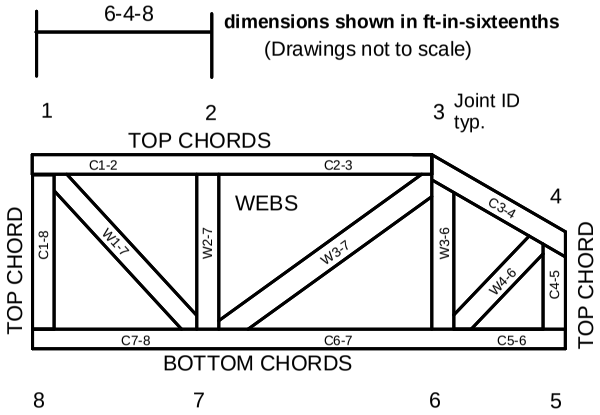


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.