MiTek®

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:46

RE: B240016
Lot 175 WO

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

Site Information:

Customer: Summit Homes Project Name: B240016
Lot/Block: 175 Model: Charleston - Modern Farmhouse
Address: 2087 NW O'Brien Rd Subdivision: Woodside Ridge
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
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 48 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I63738421	A1	2/21/2024	21	I63738441	E2	2/21/2024
2	I63738422	A2	2/21/2024	22	I63738442	F1	2/21/2024
3	I63738423	A3	2/21/2024	23	I63738443	F2	2/21/2024
4	I63738424	B1	2/21/2024	24	I63738444	F3	2/21/2024
5	I63738425	B2	2/21/2024	25	I63738445	J1	2/21/2024
6	I63738426	C1	2/21/2024	26	I63738446	J2	2/21/2024
7	I63738427	C2	2/21/2024	27	I63738447	J3	2/21/2024
8	I63738428	C3	2/21/2024	28	I63738448	J4	2/21/2024
9	I63738429	C4	2/21/2024	29	I63738449	J5	2/21/2024
10	I63738430	C5	2/21/2024	30	I63738450	J6	2/21/2024
11	I63738431	C6	2/21/2024	31	I63738451	J7	2/21/2024
12	I63738432	D1	2/21/2024	32	I63738452	J8	2/21/2024
13	I63738433	D2	2/21/2024	33	I63738453	J9	2/21/2024
14	I63738434	D3	2/21/2024	34	I63738454	J10	2/21/2024
15	I63738435	D4	2/21/2024	35	I63738455	J11	2/21/2024
16	I63738436	D5	2/21/2024	36	I63738456	K1	2/21/2024
17	I63738437	D6	2/21/2024	37	I63738457	K2	2/21/2024
18	I63738438	D7	2/21/2024	38	I63738458	K3	2/21/2024
19	I63738439	D8	2/21/2024	39	I63738459	LAY1	2/21/2024
20	I63738440	E1	2/21/2024	40	I63738460	R1	2/21/2024

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

Truss Design Engineer's Name: Nathan Fox

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

Missouri COA: 001193

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

February 21, 2024

Nathan Fox

RE: B240016 - Lot 175 WO

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

Site Information:

Project Customer: Summit Homes Project Name: B240016
Lot/Block: 175 Subdivision: Woodside Ridge
Address: 2087 NW O'Brien Rd
City, County: Lee's Summit State: MO

No.	Seal#	Truss Name	Date
41	I63738461	V1	2/21/2024
42	I63738462	V2	2/21/2024
43	I63738463	V3	2/21/2024
44	I63738464	V4	2/21/2024
45	I63738465	V5	2/21/2024
46	I63738466	V6	2/21/2024
47	I63738467	V7	2/21/2024
48	I63738468	V8	2/21/2024

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03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	A1	Hip Girder	1	1	Job Reference (optional)	I63738421

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:44
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Page: 1

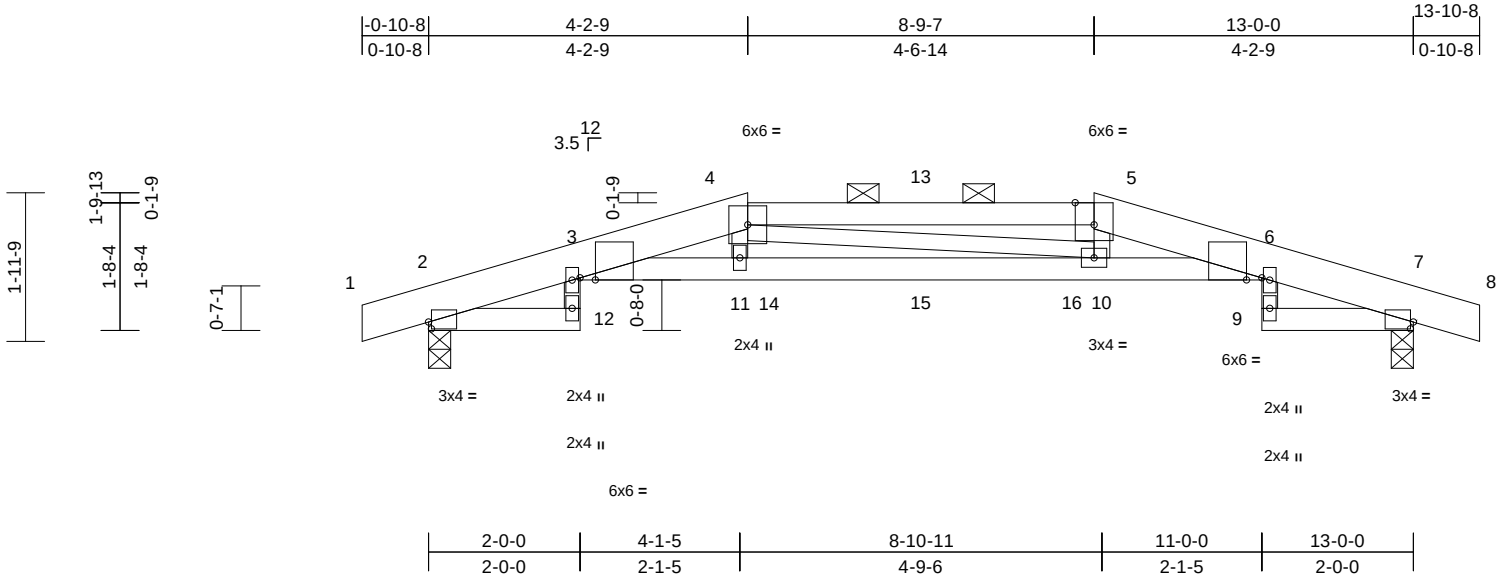

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Plate Offsets (X, Y): [2:0-0-7,0-1-1], [3:0-2-7,Edge], [5:0-3-0,Edge], [6:0-2-7,Edge], [7:0-0-7,0-1-1]

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	0.82	Vert(LL)	-0.23	10-11	>663	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.41	10-11	>376	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.22	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	10-11	>760	240	Weight: 50 lb	FT = 10%

LUMBER

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

BOT CHORD 2x4 SPF No.2 *Except* 12-3,6-9:2x3 SPF No.2, 3-6:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-3 oc purlins, except 2-0-0 oc purlins (2-5-10 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 8-3-0 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=-26 (LC 9)
Max Uplift 2=-251 (LC 4), 7=-247 (LC 5)
Max Grav 2=905 (LC 1), 7=893 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/4, 2-3=-350/105, 3-4=-3638/941, 4-5=-3462/892, 5-6=-3521/889, 6-7=-345/100, 7-8=0/4

BOT CHORD 2-12=-1/11, 3-12=0/59, 3-11=-912/3619, 10-11=-907/3584, 6-10=-841/3497, 6-9=0/58, 7-9=-1/11

WEBS 4-11=-41/243, 4-10=-247/85, 5-10=-53/282

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 251 lb uplift at joint 2 and 247 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) 71 lb down and 37 lb up at 4-2-9, and 71 lb down and 36 lb up at 6-6-0, and 71 lb down and 37 lb up at 8-9-7 on top chord, and 189 lb down and 76 lb up at 4-2-9, 33 lb down and 17 lb up at 4-6-0, 33 lb down and 17 lb up at 6-6-0, and 33 lb down and 17 lb up at 8-6-0, and 189 lb down and 76 lb up at 8-9-7 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: 1-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-8=-70, 2-12=-20, 3-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-12 (B), 5=-12 (B), 11=-189 (B), 13=-12 (B), 14=-33 (B), 15=-33 (B), 16=-222 (B)

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	A2	Roof Special	2	1	Job Reference (optional)	I63738422

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:46

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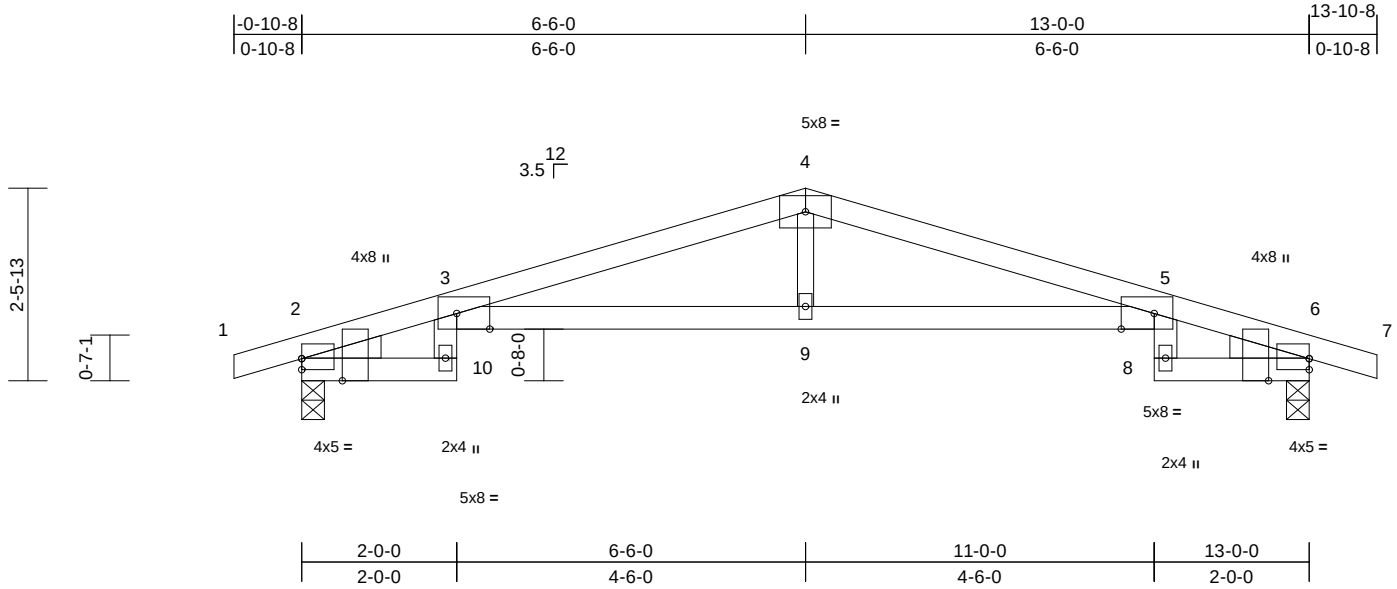

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Plate Offsets (X, Y): [2:Edge,0-1-11], [2:0-3-7,Edge], [3:0-5-2,Edge], [5:0-5-2,Edge], [6:Edge,0-1-11], [6:0-3-7,Edge]

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	0.93	Vert(LL)	-0.31	3-9	>495	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.56	3-9	>272	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.46	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	3-9	>680	240	Weight: 37 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=38 (LC 8)
Max Uplift 2=-127 (LC 4), 6=-127 (LC 5)
Max Grav 2=643 (LC 1), 6=643 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2/0, 2-3=-310/58, 3-4=-1489/155, 4-5=-1489/166, 5-6=-310/52, 6-7=-2/0
BOT CHORD 2-10=-3/30, 3-10=-4/109, 3-9=-116/1429, 5-9=-116/1429, 5-8=0/109, 6-8=-1/30
WEBS 4-9=0/256

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 127 lb uplift at joint 2 and 127 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	A3	Roof Special	2	1	Job Reference (optional)	I63738423

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:47

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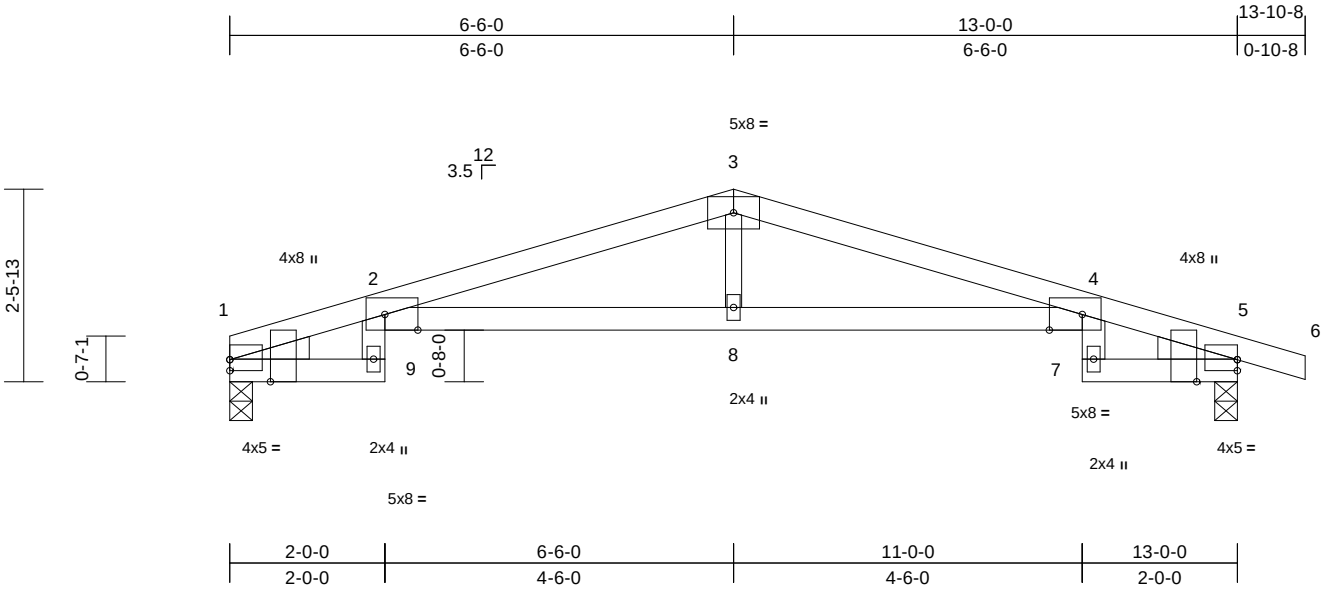

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Plate Offsets (X, Y): [1:Edge,0-1-11], [1:0-3-7,Edge], [2:0-5-2,Edge], [4:0-5-2,Edge], [5:Edge,0-1-11], [5:0-3-7,Edge]

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	0.97	Vert(LL)	-0.32	2-8	>476	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.58	2-8	>264	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.48	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	2-8	>641	240	Weight: 36 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=39 (LC 8)
Max Uplift 1=-82 (LC 4), 5=-127 (LC 5)
Max Grav 1=569 (LC 1), 5=646 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-302/58, 2-3=-1505/164, 3-4=-1506/175, 4-5=-311/52, 5-6=-2/0
BOT CHORD 1-9=-3/27, 2-9=-4/100, 2-8=-125/1445, 4-8=-126/1445, 4-7=0/109, 5-7=-1/30
WEBS 3-8=0/257

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 127 lb uplift at joint 5 and 82 lb uplift at joint 1.
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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	B1	MONOPITCH	7	1	I63738424
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:47

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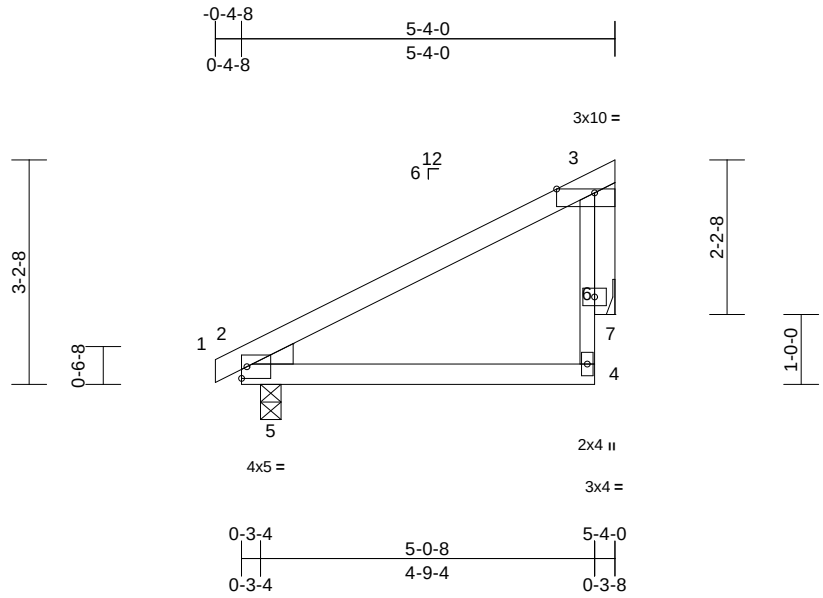

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Plate Offsets (X, Y): [3:0-6-8,Edge]

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	0.23	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	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
WEDGE	Left: 2x4 SP No.3

BRACING

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

REACTIONS (size) 5=0-3-8, 7= Mechanical
Max Horiz 5=92 (LC 8)
Max Uplift 5=-28 (LC 8), 7=-63 (LC 8)
Max Grav 5=286 (LC 1), 7=185 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-3/0, 2-3=-180/0, 4-6=0/94, 3-6=-151/125
BOT CHORD	2-5=0/101, 4-5=-26/87
WEBS	3-7=-52/11

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 28 lb uplift at joint 5 and 63 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 21,2024

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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
03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	B2	Monopitch	6	1	I63738425
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:47 Page: 1
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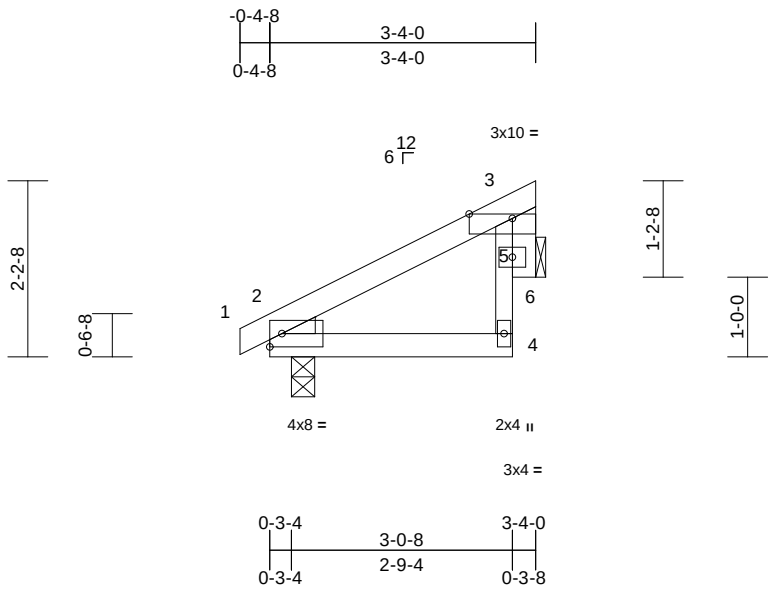

Scale = 1:28.9

Plate Offsets (X, Y): [3:0-6-8,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	0.11	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	2-4	>999	240	Weight: 11 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
WEDGE Left: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical
Max Horiz 2=56 (LC 5)
Max Uplift 2=-22 (LC 8), 6=-37 (LC 8)
Max Grav 2=179 (LC 1), 6=109 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3/0, 2-3=-118/0, 4-5=0/60, 3-5=-69/54
BOT CHORD 2-4=-20/59
WEBS 3-6=-22/0

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 22 lb uplift at joint 2 and 37 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

February 21,2024

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MiTek®
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LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	C1	GABLE	1	1	Job Reference (optional)	I63738426

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:47

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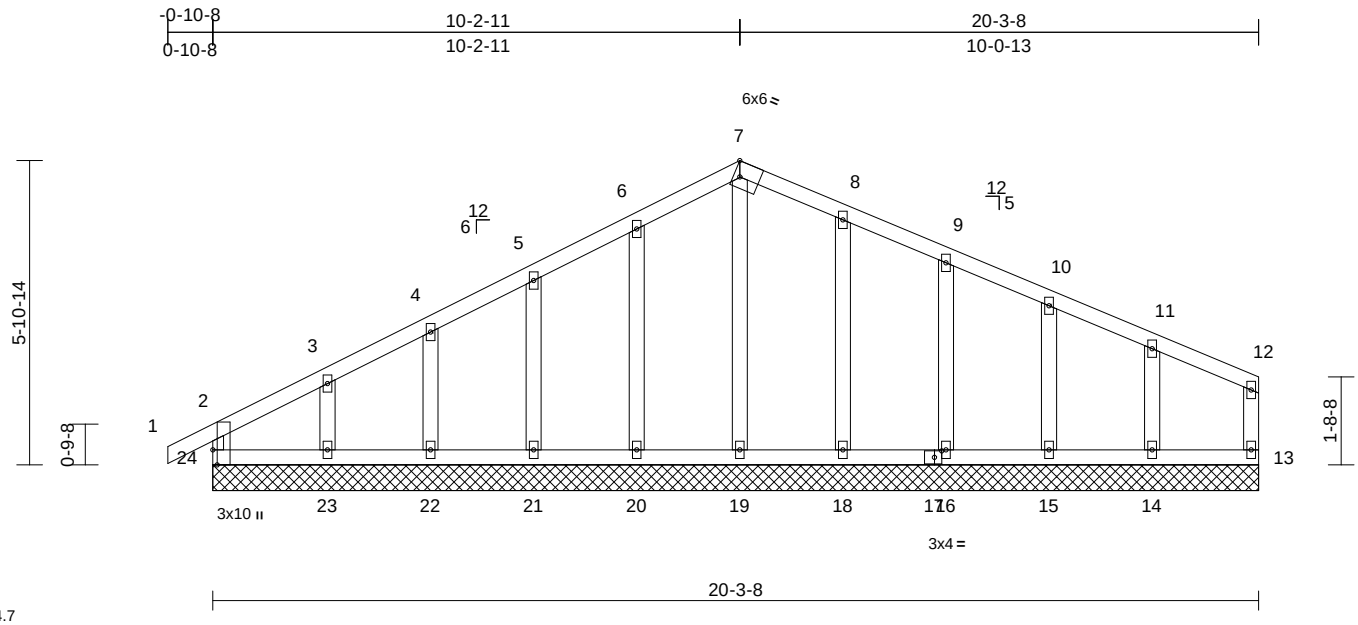

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Plate Offsets (X, Y): [7:Edge,0-3-8], [17:0-1-11,0-1-8], [24:0-3-8,Edge]

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	0.08	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	0.07	Horz(CT)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 86 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-13:2x4 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.

REACTIONS (size) 13=20-3-8, 14=20-3-8, 15=20-3-8, 16=20-3-8, 18=20-3-8, 19=20-3-8, 20=20-3-8, 21=20-3-8, 22=20-3-8, 23=20-3-8, 24=20-3-8
Max Horiz 24=91 (LC 8)
Max Uplift 13=-19 (LC 8), 14=-64 (LC 9), 15=-44 (LC 9), 16=-50 (LC 9), 18=-48 (LC 9), 20=-56 (LC 8), 21=-57 (LC 8), 22=-43 (LC 8), 23=-94 (LC 8), 24=-53 (LC 4)
Max Grav 13=77 (LC 1), 14=190 (LC 22), 15=178 (LC 22), 16=179 (LC 1), 18=190 (LC 22), 19=168 (LC 18), 20=191 (LC 21), 21=179 (LC 1), 22=179 (LC 1), 23=185 (LC 21), 24=170 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-24=-151/56, 1-2=0/31, 2-3=-98/78, 3-4=-63/84, 4-5=-41/106, 5-6=-38/133, 6-7=-42/157, 7-8=-37/147, 8-9=-34/110, 9-10=-34/80, 10-11=-35/59, 11-12=-40/39, 12-13=-60/25
BOT CHORD 23-24=-18/29, 22-23=-18/29, 21-22=-18/29, 20-21=-18/29, 19-20=-18/29, 18-19=-18/29, 16-18=-18/29, 15-16=-18/29, 14-15=-18/29, 13-14=-18/29
WEBS 7-19=-128/0, 6-20=-151/80, 5-21=-138/80, 4-22=-141/71, 3-23=-140/103, 8-18=-151/72, 9-16=-139/73, 10-15=-139/69, 11-14=-148/84

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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 53 lb uplift at joint 24, 19 lb uplift at joint 13, 56 lb uplift at joint 20, 57 lb uplift at joint 21, 43 lb uplift at joint 22, 94 lb uplift at joint 23, 48 lb uplift at joint 18, 50 lb uplift at joint 16, 44 lb uplift at joint 15 and 64 lb uplift at joint 14.
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

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of 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)

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LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	C2	Roof Special	1	1	Job Reference (optional)	I63738427

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:48

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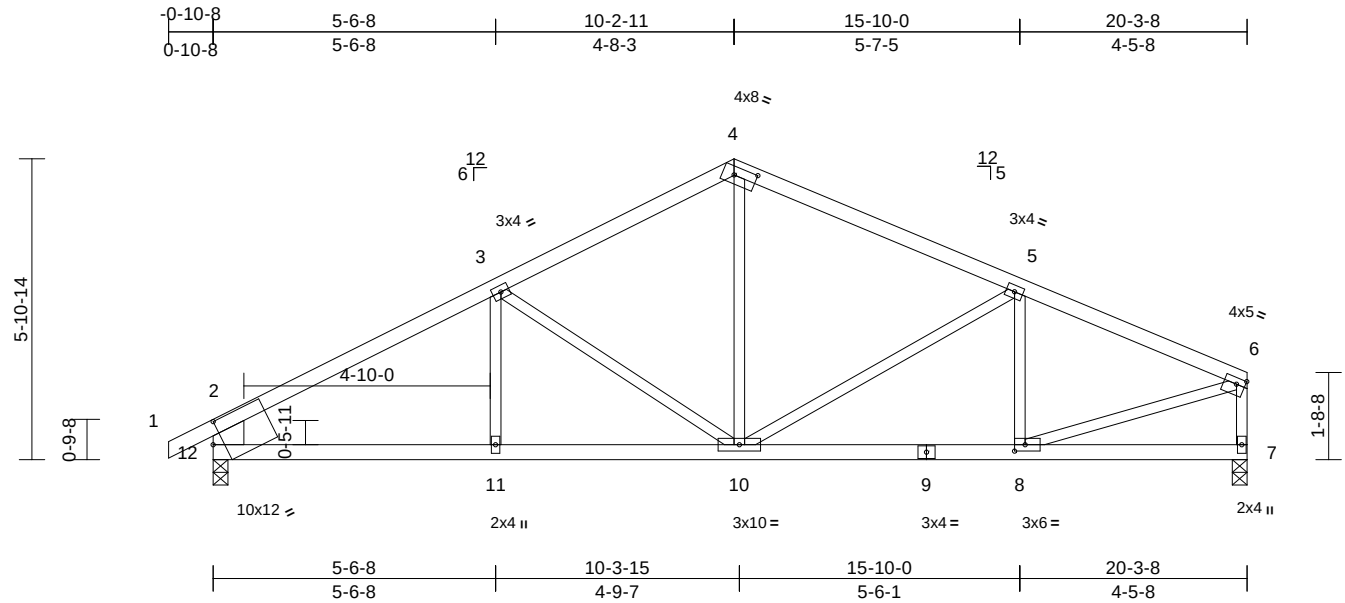

Scale = 1:45.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.09	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.17	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 75 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-2:2x8 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

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

REACTIONS (size) 7=0-3-8, 12=0-3-8

Max Horiz 12=-90 (LC 6)

Max Uplift 7=-112 (LC 9), 12=-137 (LC 8)

Max Grav 7=892 (LC 1), 12=980 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-1285/161, 3-4=-965/158, 4-5=-974/155, 5-6=-1121/147, 2-12=-874/167, 6-7=-850/131

BOT CHORD 11-12=-156/1041, 10-11=-156/1041, 8-10=-118/992, 7-8=-17/38

WEBS 3-11=0/152, 3-10=-327/150, 4-10=-26/388, 5-10=-269/127, 5-8=-226/101, 6-8=-106/1005

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 137 lb uplift at joint 12 and 112 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 21,2024

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03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	C3	Roof Special Girder	1	1	Job Reference (optional)	I63738428

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:49 Page: 1
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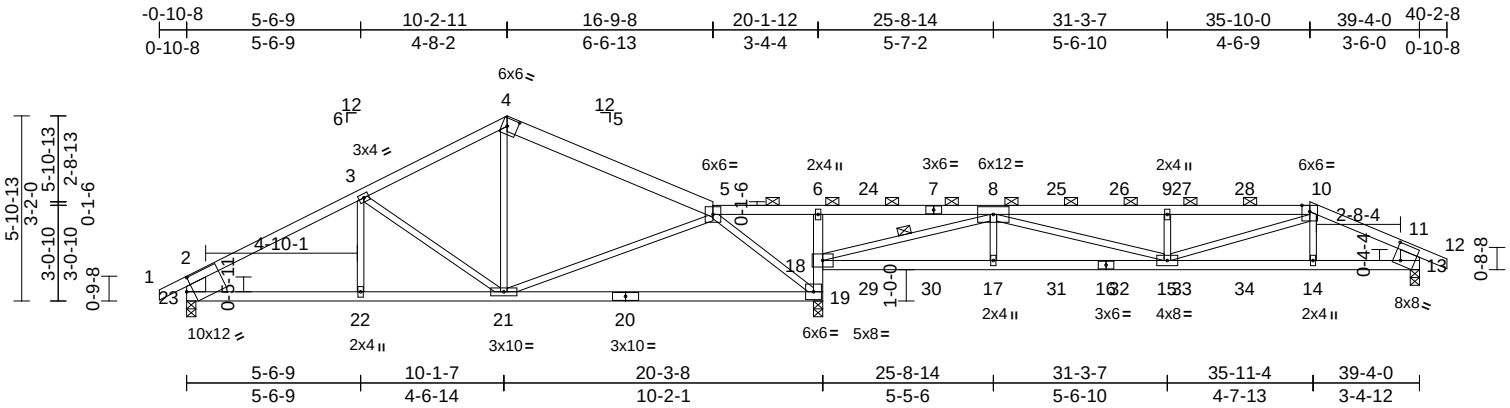

Scale = 1:73.5

Plate Offsets (X, Y): [4:0-3-15,0-3-0], [13:0-2-13,0-6-6], [23:0-2-7,0-4-14]

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)	-0.22	19-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.45	19-21	>526	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.02	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	15-17	>999	240	Weight: 141 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x6 SPF No.2, 10-12:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 23-20,20-19:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 23-2,13-11:2x8 SP 2400F 2.0E

BRACING

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

BOT CHORD Rigid ceiling directly applied or 9-0-13 oc bracing.

WEBS 1 Row at midpt 8-18

REACTIONS (size) 13=0-3-8, 19=0-3-8, 23=0-3-8
Max Horiz 23=100 (LC 27)
Max Uplift 13=-246 (LC 9), 19=-388 (LC 9), 23=-158 (LC 27)
Max Grav 13=1096 (LC 22), 19=2123 (LC 1), 23=901 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-1133/203, 3-4=-864/174, 4-5=-841/179, 5-6=-79/443, 6-8=-106/634, 8-9=-2657/624, 9-10=-2657/624, 10-11=-1696/374, 11-12=0/32, 2-23=-790/189, 11-13=-951/237

BOT CHORD 22-23=-203/913, 21-22=-203/913, 19-21=-220/402, 18-19=-1342/324, 6-18=-432/175, 17-18=-416/1989, 15-17=-416/1989, 14-15=-301/1484, 13-14=-295/1483

WEBS 3-22=-20/71, 3-21=-293/170, 4-21=-35/343, 5-21=-19/399, 5-19=-1096/196, 8-17=0/281, 8-15=-162/720, 9-15=-484/227, 10-15=-292/1257, 10-14=-15/124, 8-18=-2704/604

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 158 lb uplift at joint 23, 246 lb uplift at joint 13 and 388 lb uplift at joint 19.
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) 83 lb down and 56 lb up at 21-9-4, 83 lb down and 56 lb up at 23-9-4, 83 lb down and 56 lb up at 25-9-4, 83 lb down and 56 lb up at 27-9-4, 83 lb down and 56 lb up at 29-9-4, 83 lb down and 56 lb up at 31-9-4, and 83 lb down and 56 lb up at 33-9-4, and 195 lb down and 126 lb up at 35-10-0 on top chord, and 23 lb down at 21-9-4, 23 lb down at 23-9-4, 23 lb down at 25-9-4, 23 lb down at 27-9-4, 23 lb down at 29-9-4, 23 lb down at 31-9-4, and 23 lb down at 33-9-4, and 56 lb down at 35-9-4 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, 2-4=-70, 4-5=-70, 5-10=-70, 10-11=-70, 11-12=-70, 19-23=-20, 13-18=-20
Concentrated Loads (lb)
Vert: 7=-33 (F), 10=-74 (F), 8=-33 (F), 17=-17 (F), 14=-40 (F), 24=-33 (F), 25=-33 (F), 26=-33 (F), 27=-33 (F), 28=-33 (F), 29=-17 (F), 30=-17 (F), 31=-17 (F), 32=-17 (F), 33=-17 (F), 34=-17 (F)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	C4	Roof Special	1	1	I63738429
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:49 Page: 1
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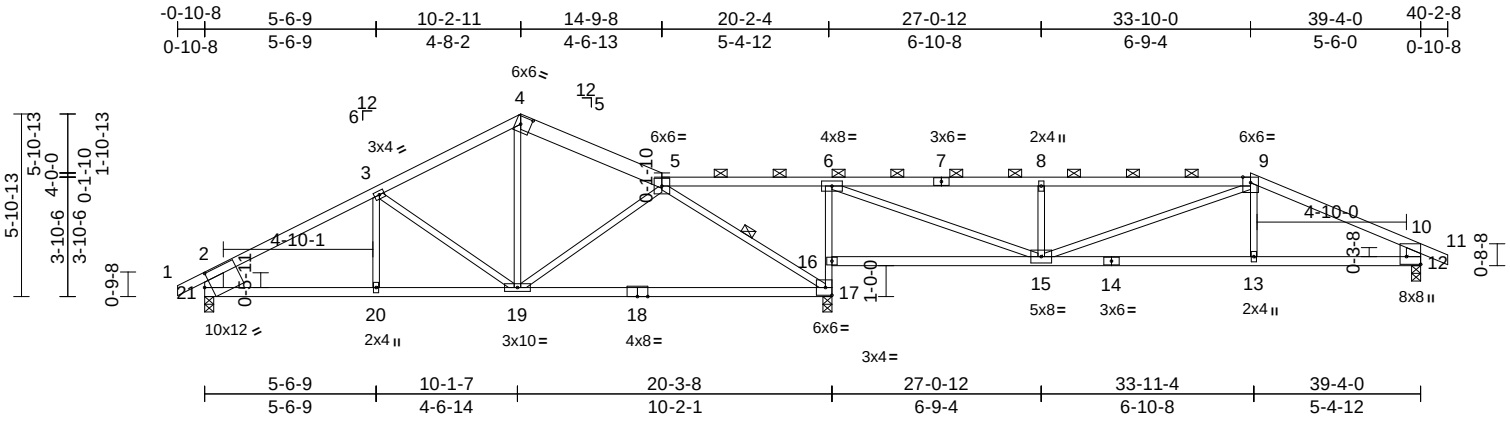

Scale = 1:74.5

Plate Offsets (X, Y): [4:0-3-15,0-3-0], [12:Edge,0-5-8], [21:0-2-7,0-4-14]

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)	-0.23	17-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.49	17-19	>492	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.02	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	13-15	>999	240	Weight: 139 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-6:2x3 SPF No.2, 14-12,14-16:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 21-2:2x8 SP 2400F 2.0E, 12-10:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-5 max.): 5-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 5-17

REACTIONS (size) 12=0-3-8, 17=0-3-8, 21=0-3-8
Max Horiz 21=101 (LC 8)
Max Uplift 12=-176 (LC 9), 17=-286 (LC 9), 21=-136 (LC 8)
Max Grav 12=890 (LC 22), 17=1830 (LC 1), 21=936 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1195/165, 3-4=-932/127, 4-5=-896/141, 5-6=0/154, 6-8=-1393/304, 8-9=-1396/305, 9-10=-1349/252, 10-11=0/30, 2-21=-820/170, 10-12=-802/201
BOT CHORD 20-21=-170/967, 19-20=-170/967, 17-19=-70/777, 16-17=-1128/258, 6-16=-1055/291, 15-16=-187/67, 13-15=-170/1159, 12-13=-167/1162
WEBS 3-20=-28/63, 3-19=-279/169, 4-19=-14/413, 5-19=-84/141, 5-17=-1117/151, 6-15=-296/1662, 8-15=-526/215, 9-15=-72/251, 9-13=0/211

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) Bearings are assumed to be: Joint 21 SPF 2100F 1.8E , Joint 17 SPF 2100F 1.8E , Joint 12 SPF No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 21, 176 lb uplift at joint 12 and 286 lb uplift at joint 17.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 21,2024

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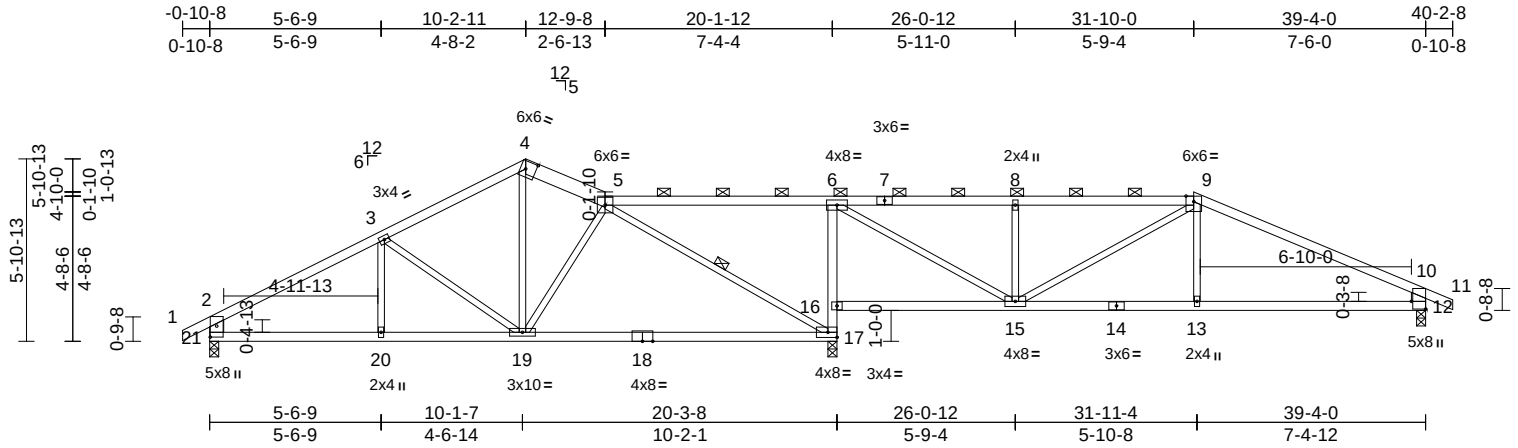
03/18/2024 4:46:46

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	C5	Roof Special	1	1	I63738430 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:50 Page: 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.5

Plate Offsets (X, Y): [4:0-3-15,0-3-0], [12:Edge,0-5-8], [21:0-4-5,0-2-8]

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	0.96	Vert(LL)	-0.24	17-19	>978	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.50	17-19	>473	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.02	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	19-20	>999	240	Weight: 168 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-5:2x6 SPF No.2
BOT CHORD 2x4 SP No.1 *Except* 17-6:2x4 SPF No.2, 14-12,14-16:2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 21-2,12-10:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-7-10 max.): 5-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 5-17

REACTIONS (size) 12=0-3-8, 17=0-3-8, 21=0-3-8
Max Horiz 21=101 (LC 8)
Max Uplift 12=-178 (LC 9), 17=-285 (LC 9), 21=-137 (LC 8)
Max Grav 12=870 (LC 22), 17=1886 (LC 1), 21=907 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-1172/170, 3-4=-880/132, 4-5=-830/153, 5-6=0/212, 6-8=-840/237, 8-9=-843/239, 9-10=-1210/243, 10-11=0/30, 2-21=-801/171, 10-12=-793/224
BOT CHORD 20-21=-176/948, 19-20=-176/948, 17-19=-66/759, 16-17=-1215/283, 6-16=-1147/314, 15-16=-293/78, 13-15=-139/1011, 12-13=-137/1015
WEBS 3-20=-7/80, 4-19=-57/436, 5-17=-1133/114, 6-15=-209/1265, 8-15=-413/169, 9-15=-221/35, 9-13=0/262, 3-19=-304/171, 5-19=-147/163

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) Bearings are assumed to be: Joint 21 SP No.1 , Joint 17 SP No.1 , Joint 12 SP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 21, 178 lb uplift at joint 12 and 285 lb uplift at joint 17.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	C6	Roof Special	1	1	I63738431
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:50 Page: 1
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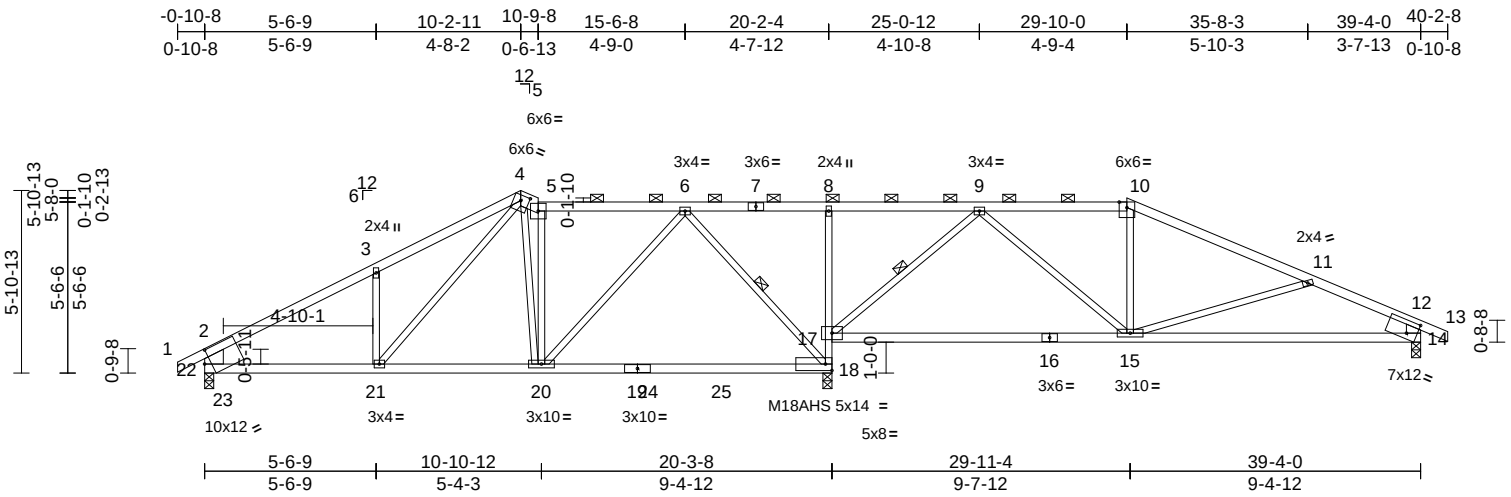

Scale = 1:74.5

Plate Offsets (X, Y): [4:0-3-3,0-2-2], [14:0-3-15,0-4-14], [22:0-2-7,0-4-14]

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	0.96	Vert(LL)	-0.25	18-20	>960	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.44	18-20	>539	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.45	Horz(CT)	-0.03	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	15-17	>999	240	Weight: 147 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 18-8:2x3 SPF No.2, 16-14,16-17:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 22-2:2x8 SP 2400F 2.0E, 14-12:2x6 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-2 max.): 5-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-17, 6-18

REACTIONS (size) 14=0-3-8, 18=0-3-8, 22=0-3-8
Max Horiz 22=101 (LC 8)
Max Uplift 14=-186 (LC 9), 18=-268 (LC 9), 22=-143 (LC 8)
Max Grav 14=887 (LC 24), 18=1934 (LC 2), 22=937 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1204/174, 3-4=-1141/289, 4-5=-884/179, 5-6=-828/151, 6-8=0/206, 8-9=0/219, 9-10=-938/246, 10-11=-1061/224, 11-12=-1309/344, 12-13=0/30, 2-22=-809/175, 12-14=-782/228
BOT CHORD 21-22=-178/998, 20-21=-54/789, 18-20=-53/452, 17-18=-1083/225, 8-17=-346/138, 15-17=-91/548, 14-15=-263/1124
WEBS 3-21=-282/202, 4-21=-194/391, 4-20=-93/459, 6-20=-15/570, 9-17=-976/205, 10-15=-29/156, 5-20=-438/146, 6-18=-950/141, 11-15=-266/190, 9-15=0/523

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearings are assumed to be: Joint 22 SPF 2100F 1.8E , Joint 18 SPF 2100F 1.8E , Joint 14 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 22, 186 lb uplift at joint 14 and 268 lb uplift at joint 18.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D1	GABLE	1	1	I63738432
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:50 Page: 1
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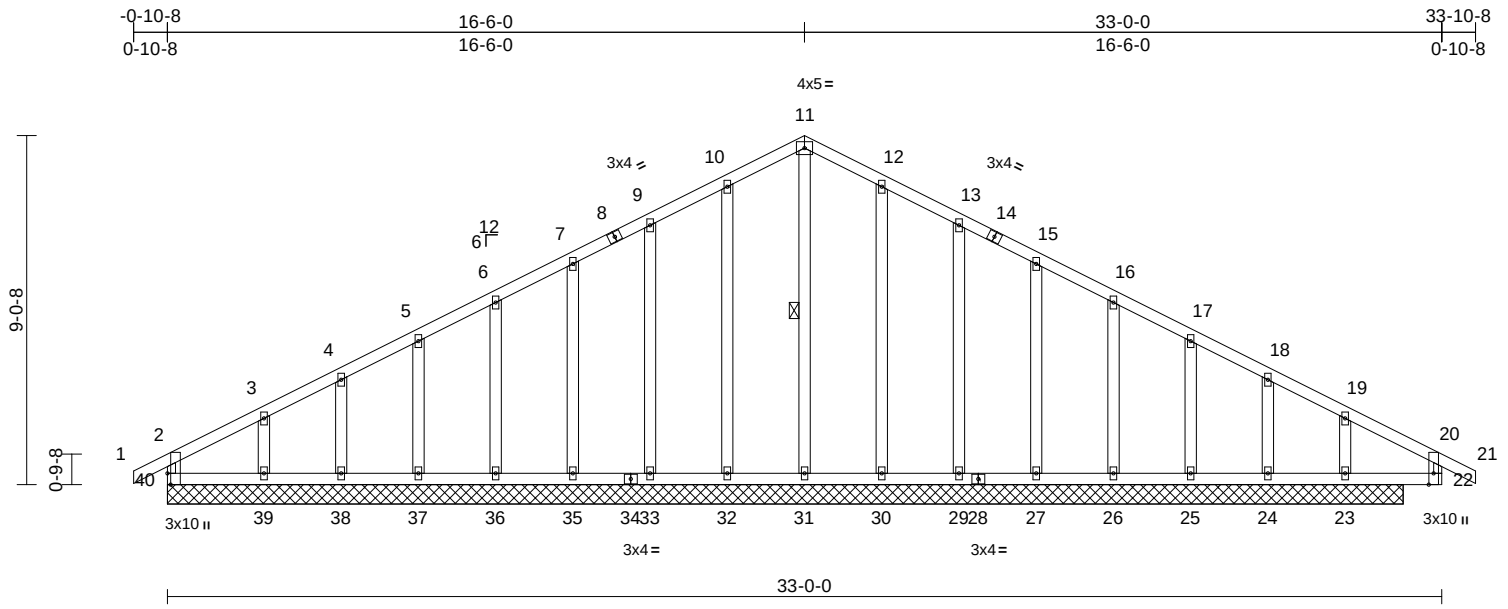

Scale = 1:59.7

Plate Offsets (X, Y): [40:0-3-8,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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	-0.01	23	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 164 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 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 11-31

REACTIONS (size) 23=32-0-0, 24=32-0-0, 25=32-0-0, 26=32-0-0, 27=32-0-0, 29=32-0-0, 30=32-0-0, 31=32-0-0, 32=32-0-0, 33=32-0-0, 35=32-0-0, 36=32-0-0, 37=32-0-0, 38=32-0-0, 39=32-0-0, 40=32-0-0
Max Horiz 40=-135 (LC 9)
Max Uplift 23=-74 (LC 9), 24=-56 (LC 9), 25=-53 (LC 9), 26=-54 (LC 9), 27=-53 (LC 9), 29=-58 (LC 9), 30=-47 (LC 9), 32=-51 (LC 8), 33=-57 (LC 8), 35=-54 (LC 8), 36=-53 (LC 8), 37=-59 (LC 8), 38=-34 (LC 8), 39=-120 (LC 8), 40=-67 (LC 4)
Max Grav 23=399 (LC 1), 24=59 (LC 16), 25=212 (LC 1), 26=172 (LC 22), 27=183 (LC 1), 29=175 (LC 1), 30=197 (LC 22), 31=332 (LC 18), 32=195 (LC 1), 33=177 (LC 21), 35=181 (LC 1), 36=179 (LC 21), 37=187 (LC 1), 38=166 (LC 21), 39=265 (LC 1), 40=131 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-40=-118/69, 1-2=0/31, 2-3=-154/235, 3-4=-88/222, 4-5=-52/238, 5-6=-23/246, 6-7=0/256, 7-9=0/265, 9-10=0/277, 10-11=0/277, 11-12=0/269, 12-13=0/255, 13-15=0/228, 15-16=0/205, 16-17=0/202, 17-18=0/208, 18-19=-13/181, 19-20=-68/230, 20-21=0/31, 20-22=-28/20
BOT CHORD 39-40=-153/86, 38-39=-153/86, 37-38=-153/86, 36-37=-153/86, 35-36=-153/86, 33-35=-153/86, 32-33=-153/86, 31-32=-153/86, 30-31=-153/86, 29-30=-153/86, 27-29=-153/86, 26-27=-153/86, 25-26=-153/86, 24-25=-153/86, 23-24=-153/86, 22-23=-153/86
WEBS 11-31=-292/0, 10-32=-155/75, 9-33=-137/81, 7-35=-141/78, 6-36=-140/77, 5-37=-143/81, 4-38=-132/65, 3-39=-188/122, 12-30=-157/71, 13-29=-135/82, 15-27=-141/77, 16-26=-137/78, 17-25=-154/78, 18-24=-80/76, 19-23=-251/98

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 40, 51 lb uplift at joint 32, 57 lb uplift at joint 33, 54 lb uplift at joint 35, 53 lb uplift at joint 36, 59 lb uplift at joint 37, 34 lb uplift at joint 38, 120 lb uplift at joint 39, 47 lb uplift at joint 30, 58 lb uplift at joint 29, 53 lb uplift at joint 27, 54 lb uplift at joint 26, 53 lb uplift at joint 25, 56 lb uplift at joint 24 and 74 lb uplift at joint 23.
11) Non Standard bearing condition. Review required.
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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D2	Common	7	1	I63738433
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:51

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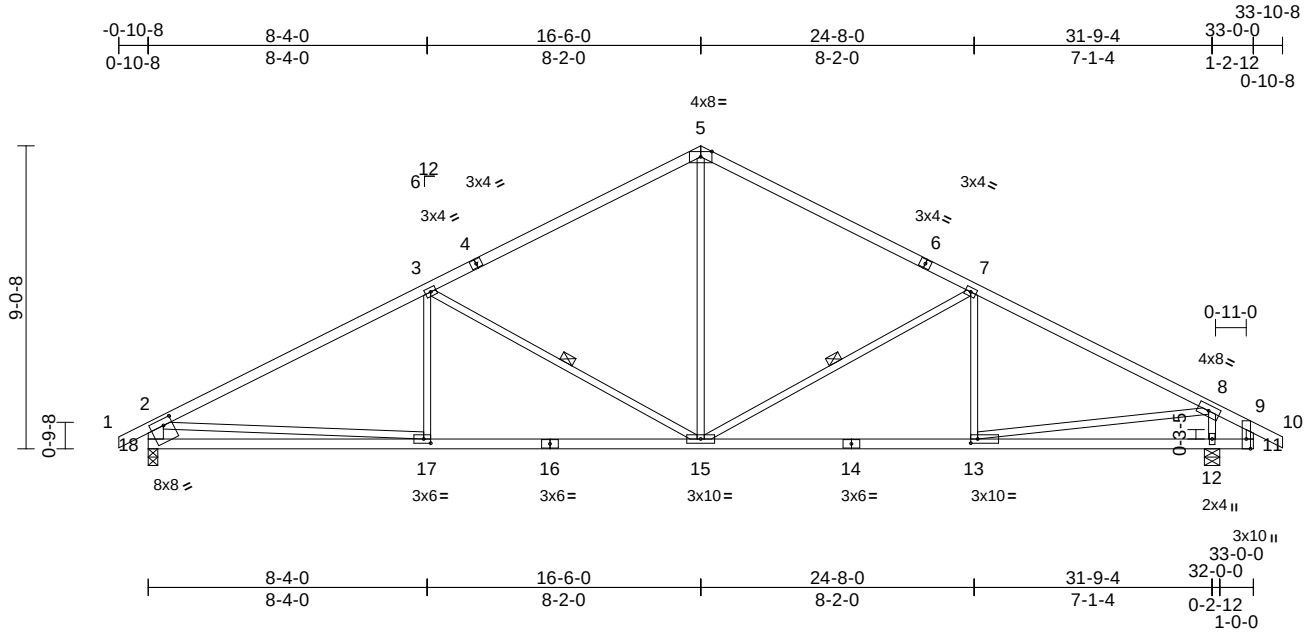

Scale = 1:68.8

Plate Offsets (X, Y): [13:0-2-8,0-1-8], [17:0-2-8,0-1-8], [18:0-3-4,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.11	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.26	13-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	15-17	>999	240	Weight: 125 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-2:2x6 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 3-15, 7-15

REACTIONS (size) 12=0-5-8, 18=0-3-8

Max Horiz 18=-134 (LC 13)

Max Uplift 12=-213 (LC 9), 18=-204 (LC 8)

Max Grav 12=1593 (LC 1), 18=1493 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-2285/286, 3-5=-1600/249, 5-7=-1599/256, 7-8=-2058/256, 8-9=-148/1, 9-10=0/31, 2-18=-1413/249, 9-11=-84/0

BOT CHORD 17-18=-329/724, 15-17=-281/1931, 13-15=-114/1750, 12-13=-10/144, 11-12=-10/144

WEBS 3-17=0/273, 3-15=-762/268, 5-15=-50/780, 7-15=-581/240, 7-13=-104/146, 8-13=-105/1625, 8-12=-1457/301, 2-17=0/1211

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 204 lb uplift at joint 18 and 213 lb uplift at joint 12.
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

February 21,2024

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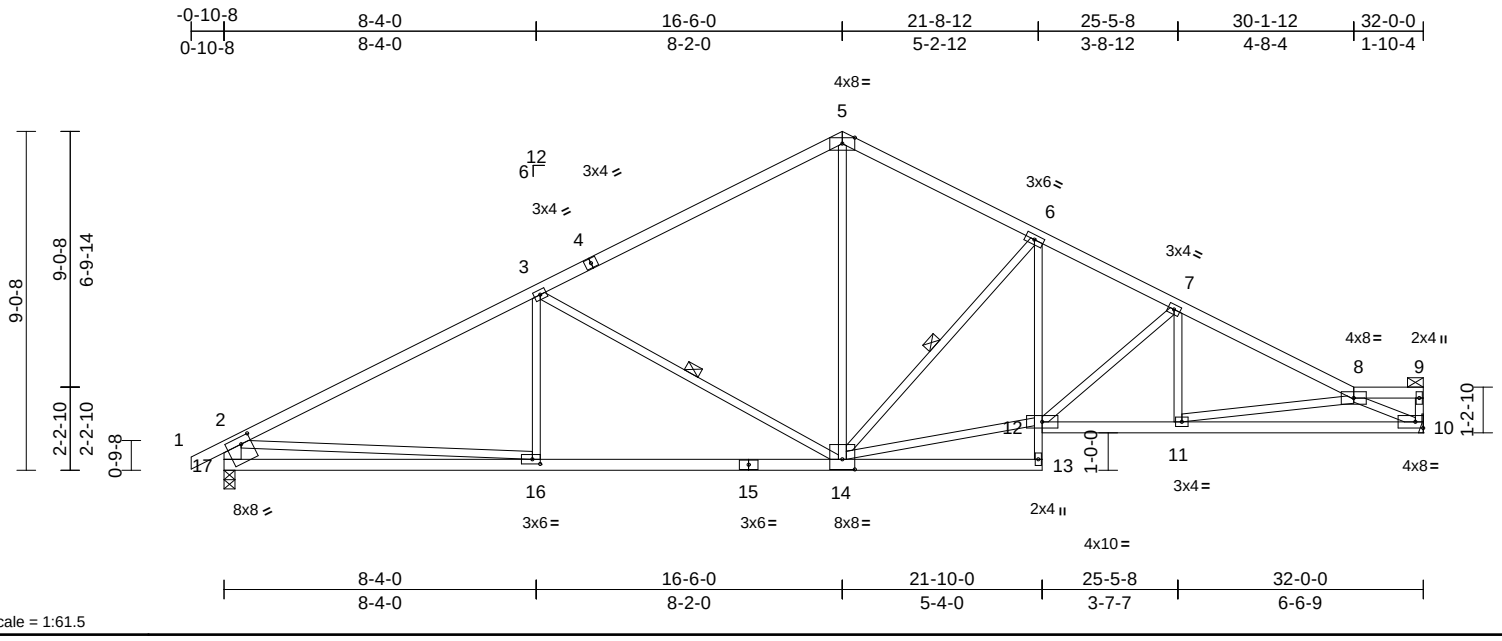
03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D3	Roof Special	5	1	I63738434
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:51 Page: 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:61.5

Plate Offsets (X, Y): [14:0-4-0,0-3-4], [16:0-2-8,0-1-8], [17:0-3-4,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.15	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.31	14-16	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	11-12	>999	240	Weight: 130 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 13-6:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 17-2:2x6 SPF No.2

BRACING

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

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

WEBS 1 Row at midpt 3-14, 6-14

REACTIONS (size) 10= Mechanical, 17=0-3-8

Max Horiz 17=135 (LC 5)

Max Uplift 10=-15 (LC 9), 17=-29 (LC 8)

Max Grav 10=1424 (LC 1), 17=1504 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/35, 2-3=-2310/46, 3-5=-1617/74, 5-6=-1548/84, 6-7=-2218/52, 7-8=-2610/22, 8-9=-87/0, 9-10=-77/9, 2-17=-1425/74

BOT CHORD 16-17=-187/715, 14-16=-61/1954, 13-14=0/103, 12-13=0/79, 6-12=0/720, 11-12=0/2293, 10-11=-72/2510

WEBS 3-16=0/281, 3-14=-765/125, 5-14=0/865, 12-14=0/1854, 6-14=-932/89, 7-12=-483/42, 7-11=0/265, 8-11=-248/89, 8-10=-2768/102, 2-16=0/1242

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 10 and 29 lb uplift at joint 17.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	D4	Common	3	1	Job Reference (optional)	I63738435

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:52 Page: 1
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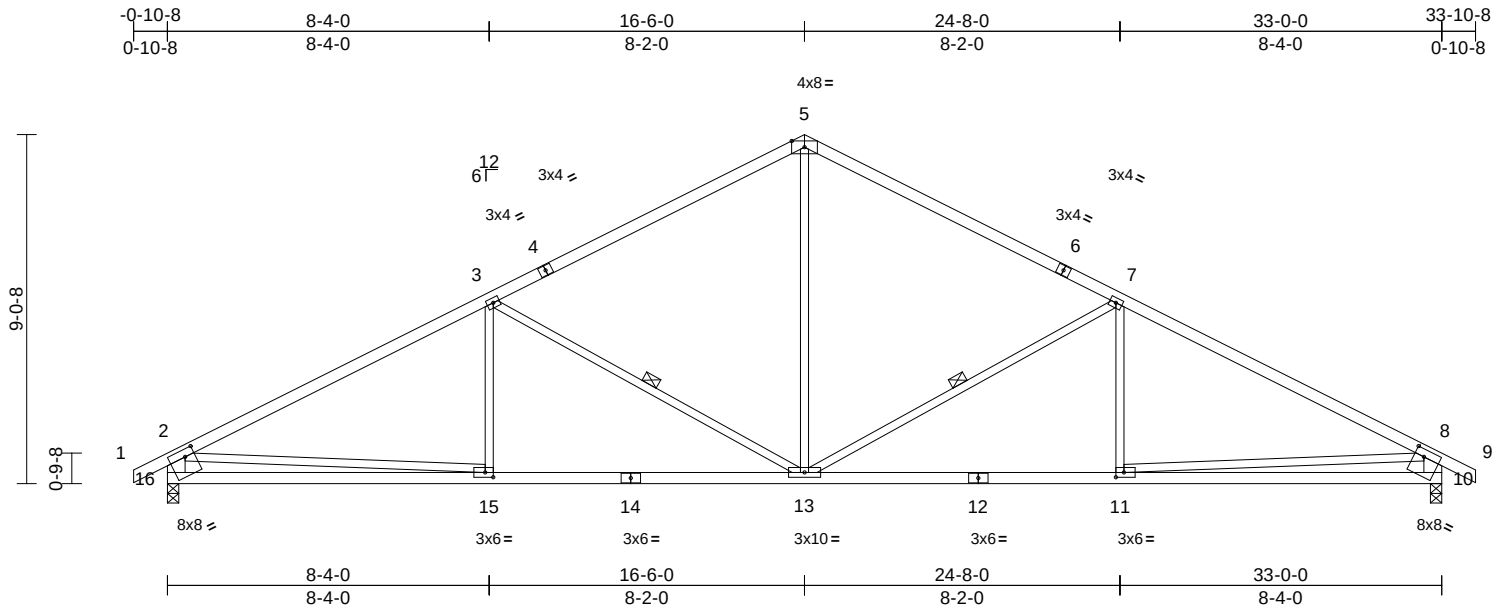

Scale = 1:59.7

Plate Offsets (X, Y): [10:0-3-0,0-2-4], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-3-0,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.12	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.27	13-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	13-15	>999	240	Weight: 125 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,10-8:2x6 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 7-13, 3-13

REACTIONS (size) 10=0-3-8, 16=0-3-8
Max Horiz 16=135 (LC 7)
Max Uplift 10=-207 (LC 9), 16=-207 (LC 8)
Max Grav 10=1542 (LC 1), 16=1542 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2380/291, 3-5=-1701/263, 5-7=-1701/263, 7-8=-2380/291, 8-9=0/35, 2-16=-1462/251, 8-10=-1462/251
BOT CHORD 15-16=-328/733, 13-15=-284/2016, 11-13=-151/2016, 10-11=-206/733
WEBS 5-13=-56/873, 7-13=-759/267, 7-11=0/271, 3-13=-759/267, 3-15=0/271, 2-15=-4/1287, 8-11=-14/1287

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 207 lb uplift at joint 16 and 207 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D5	Common	2	1	I63738436
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:52 Page: 1
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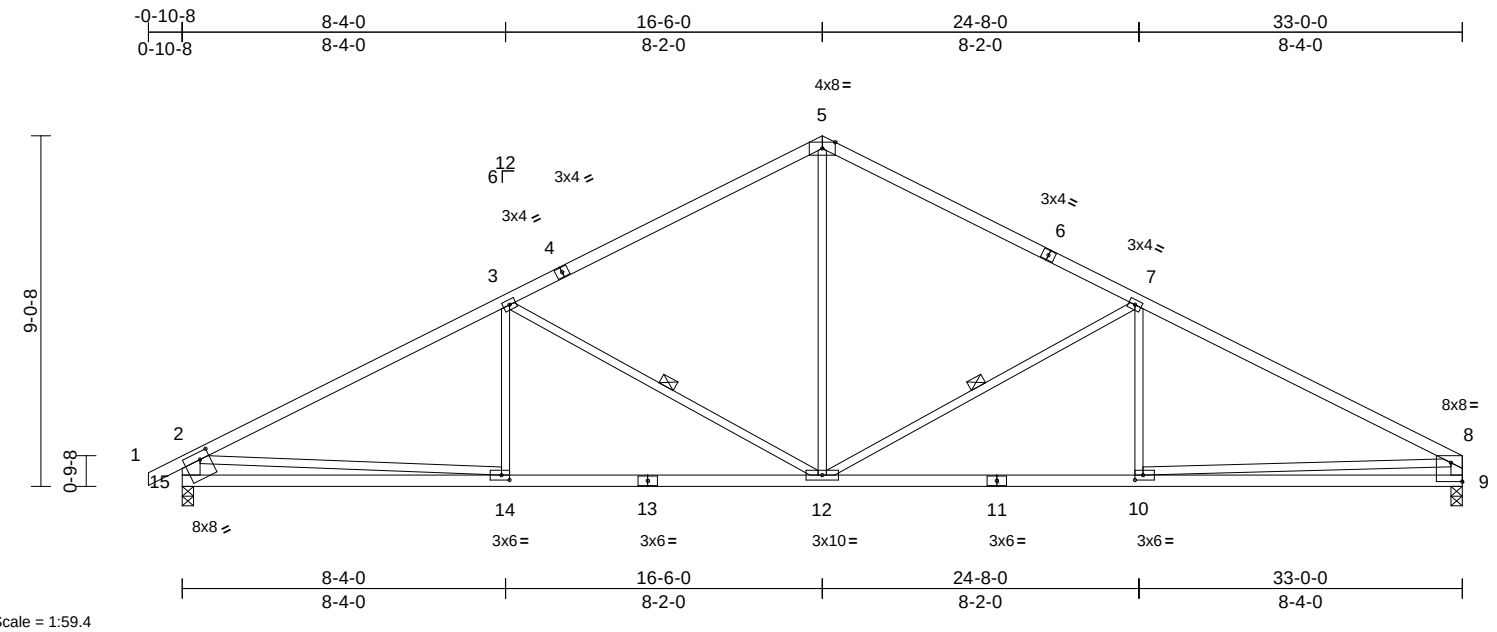

Scale = 1:59.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.12	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.27	10-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	10-12	>999	240	Weight: 124 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-5,6-5:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-2:2x6 SPF No.2, 9-8:2x4 SPF 2400F 2.0E

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

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=142 (LC 12)
Max Uplift 9=-182 (LC 9), 15=-207 (LC 8)
Max Grav 9=1467 (LC 1), 15=1547 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2394/294, 3-5=-1712/264, 5-7=-1714/264, 7-8=-2414/296, 2-15=-1467/251, 8-9=-1384/226
BOT CHORD 14-15=-321/728, 12-14=-297/2030, 10-12=-179/2057, 9-10=-119/584
WEBS 5-12=-64/895, 7-12=-794/279, 7-10=0/275, 3-12=-766/271, 3-14=0/272, 2-14=-12/1306, 8-10=-74/1477

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 207 lb uplift at joint 15 and 182 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

February 21,2024

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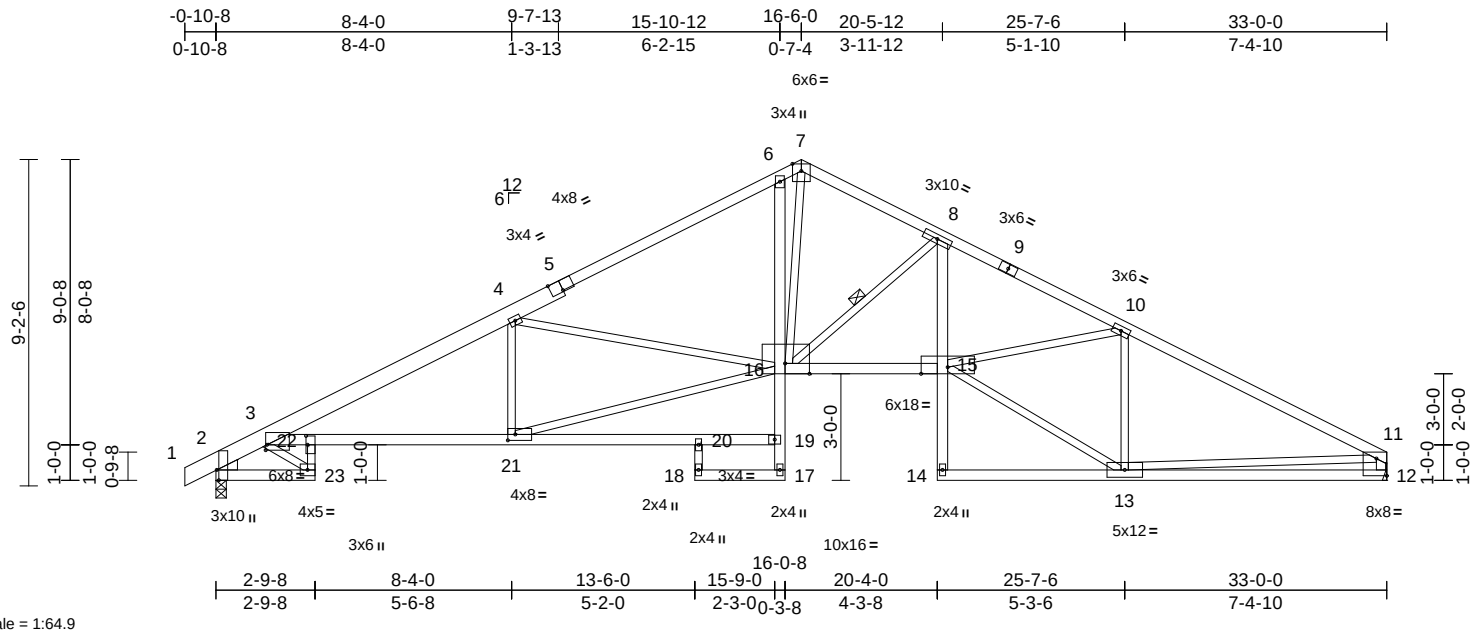
Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D6	Roof Special	2	1	I63738437 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:52 Page: 1

ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:64.9

Plate Offsets (X, Y): [2:0-3-8,Edge], [3:0-0-7,0-1-13], [5:0-4-0,Edge], [12:Edge,0-5-13], [16:0-8-4,Edge], [21:0-2-8,0-2-0], [22:0-3-0,0-0-8]

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	0.94	Vert(LL)	-0.31	21-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.57	21-22	>683	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.43	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	21-22	>999	240	Weight: 161 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* 23-22,20-18:2x3 SPF No.2, 3-19:2x4 SPF 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 12-11:2x4 SPF No.2

WEDGE Left: 2x4 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 17-18.

WEBS 1 Row at midpt 8-16

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=112 (LC 5)
Max Uplift 2=-28 (LC 8), 12=-17 (LC 9)
Max Grav 2=1544 (LC 1), 12=1471 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/3, 2-3=-1580/35, 3-4=-3046/68, 4-6=-2644/41, 6-7=-2414/111, 7-8=-2317/56, 8-10=-3581/0, 10-11=-2415/39, 11-12=-1392/57

BOT CHORD 2-23=-96/807, 22-23=-56/587, 3-22=-60/2623, 21-22=-66/2725, 20-21=0/88, 19-20=0/113, 18-20=0/29, 17-18=-26/0, 17-19=0/63, 16-19=0/134, 6-16=-196/198, 15-16=0/3129, 14-15=0/79, 8-15=0/1190, 13-14=0/33, 12-13=-43/535

WEBS 3-23=-871/112, 4-21=-434/106, 4-16=-637/149, 8-16=-1423/55, 7-16=-116/1795, 13-15=0/2374, 10-15=0/1073, 10-13=-1228/65, 11-13=0/1532, 16-21=-90/2745

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 17 lb uplift at joint 12.
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
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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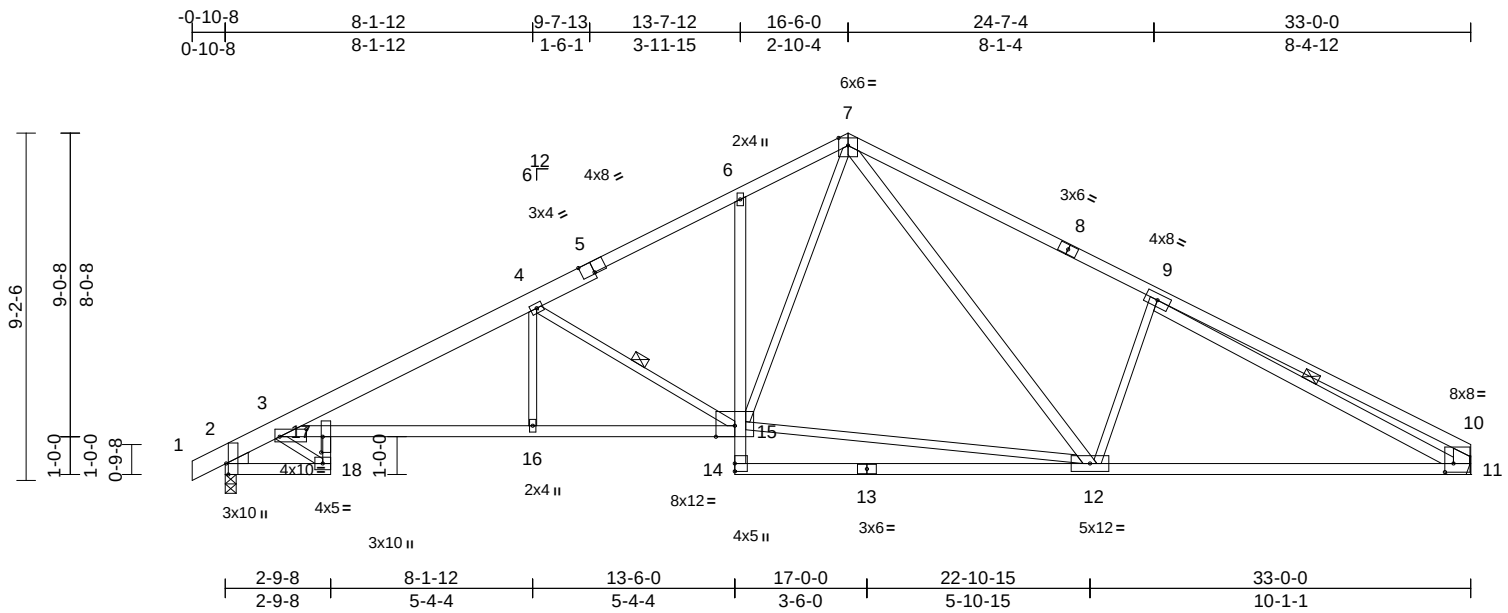
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D7	Roof Special	3	1	I63738438 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:53 Page: 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:61

Plate Offsets (X, Y): [2:0-3-8,Edge], [3:0-8-8,0-2-6], [5:0-4-0,Edge], [10:0-2-12,0-2-12], [17:0-5-0,0-0-8]

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	0.94	Vert(LL)	-0.30	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.57	16-17	>693	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.29	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	16-17	>999	240	Weight: 149 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 5-7:2x4 SPF No.2, 1-5:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 18-17:2x3 SPF No.2, 3-15:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 12-7,11-9:2x4 SPF No.2, 11-10:2x6 SPF No.2
WEDGE Left: 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-15, 9-11

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=113 (LC 7)
Max Uplift 2=-28 (LC 8), 11=-17 (LC 9)
Max Grav 2=1541 (LC 1), 11=1467 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-1716/48, 3-4=-3077/63, 4-6=-2184/64, 6-7=-2033/117, 7-9=-2232/124, 9-10=-756/94, 10-11=-543/88
BOT CHORD 2-18=-113/989, 17-18=-68/713, 3-17=-50/2621, 16-17=-60/2744, 15-16=-60/2744, 14-15=0/163, 6-15=-180/84, 12-14=0/230, 11-12=0/2025
WEBS 3-18=-1070/131, 4-16=0/394, 4-15=-1084/115, 12-15=0/1255, 7-15=-67/965, 7-12=-87/730, 9-12=-502/200, 9-11=-1673/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2 and 17 lb uplift at joint 11.
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
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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)

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Chesterfield, MO 63017
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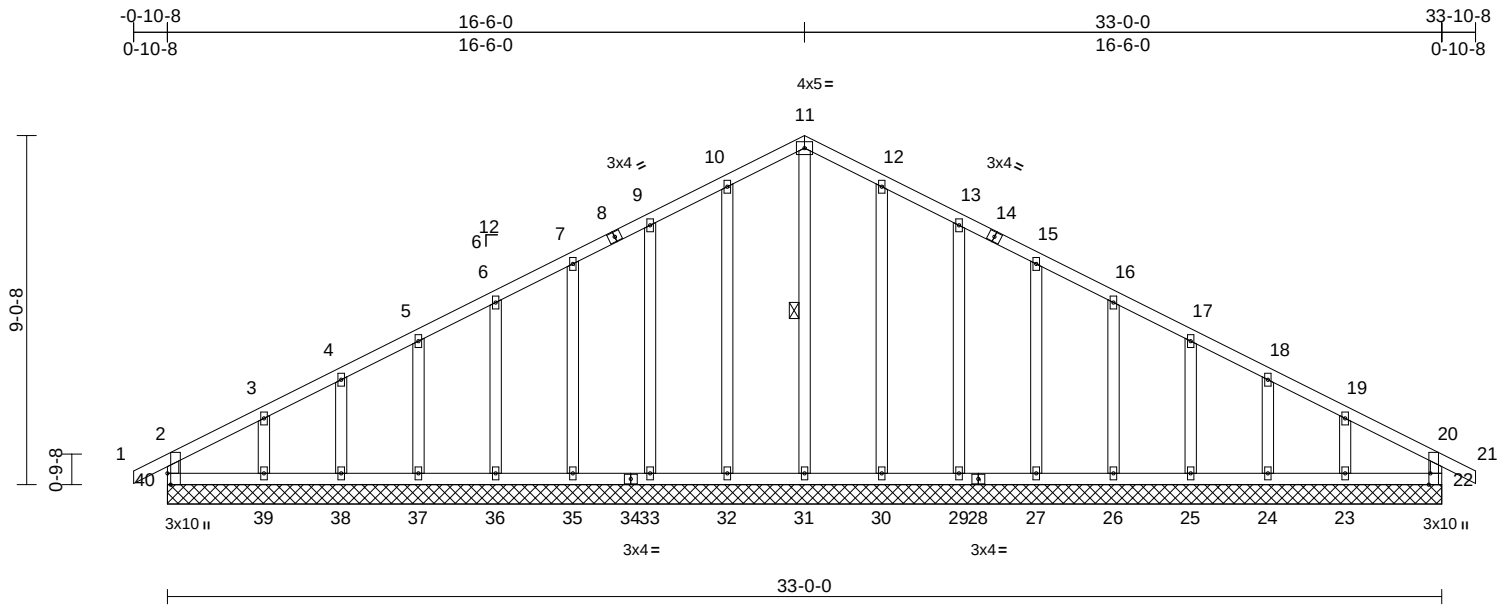
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	D8	GABLE	1	1	I63738439
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:53 Page: 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.7

Plate Offsets (X, Y): [22:0-3-8,Edge], [40:0-3-8,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	0.07	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	0.16	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 164 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 11-31

REACTIONS (size) 22=33-0-0, 23=33-0-0, 24=33-0-0, 25=33-0-0, 26=33-0-0, 27=33-0-0, 29=33-0-0, 30=33-0-0, 31=33-0-0, 32=33-0-0, 33=33-0-0, 35=33-0-0, 36=33-0-0, 37=33-0-0, 38=33-0-0, 39=33-0-0, 40=33-0-0
Max Horiz 40=-134 (LC 13)
Max Uplift 22=-17 (LC 5), 23=-103 (LC 9), 24=-39 (LC 9), 25=-58 (LC 9), 26=-53 (LC 9), 27=-53 (LC 9), 29=-58 (LC 9), 30=-49 (LC 9), 32=-50 (LC 8), 33=-57 (LC 8), 35=-54 (LC 8), 36=-53 (LC 8), 37=-59 (LC 8), 38=-35 (LC 8), 39=-116 (LC 8), 40=-42 (LC 9)
Max Grav 22=184 (LC 1), 23=199 (LC 22), 24=175 (LC 1), 25=181 (LC 22), 26=180 (LC 1), 27=180 (LC 1), 29=179 (LC 1), 30=190 (LC 22), 31=209 (LC 18), 32=190 (LC 21), 33=179 (LC 1), 35=180 (LC 1), 36=180 (LC 1), 37=181 (LC 21), 38=175 (LC 1), 39=199 (LC 21), 40=184 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-40=-163/51, 1-2=0/32, 2-3=-139/81, 3-4=-91/95, 4-5=-73/121, 5-6=-61/147, 6-7=-50/173, 7-9=-42/198, 9-10=-42/225, 10-11=-45/248, 11-12=-45/240, 12-13=-42/196, 13-15=-42/163, 15-16=-42/138, 16-17=-42/112, 17-18=-46/86, 18-19=-66/60, 19-20=-104/49, 20-21=0/32, 20-22=-163/30
BOT CHORD 39-40=-33/113, 38-39=-33/113, 37-38=-33/113, 36-37=-33/113, 35-36=-33/113, 33-35=-33/113, 32-33=-33/113, 31-32=-33/113, 30-31=-33/113, 29-30=-33/113, 27-29=-33/113, 26-27=-33/113, 25-26=-33/113, 24-25=-33/113, 23-24=-33/113, 22-23=-33/113
WEBS 11-31=-169/0, 10-32=-150/74, 9-33=-139/81, 7-35=-140/78, 6-36=-140/77, 5-37=-141/81, 4-38=-137/66, 3-39=-151/120, 12-30=-150/73, 13-29=-139/82, 15-27=-140/77, 16-26=-140/78, 17-25=-141/80, 18-24=-137/68, 19-23=-151/112

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 42 lb uplift at joint 40, 17 lb uplift at joint 22, 50 lb uplift at joint 32, 57 lb uplift at joint 33, 54 lb uplift at joint 35, 53 lb uplift at joint 36, 59 lb uplift at joint 37, 35 lb uplift at joint 38, 116 lb uplift at joint 39, 49 lb uplift at joint 30, 58 lb uplift at joint 29, 53 lb uplift at joint 27, 53 lb uplift at joint 26, 58 lb uplift at joint 25, 39 lb uplift at joint 24 and 103 lb uplift at joint 23.
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

February 21,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	E1	GABLE	1	1	Job Reference (optional)	I63738440

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:54
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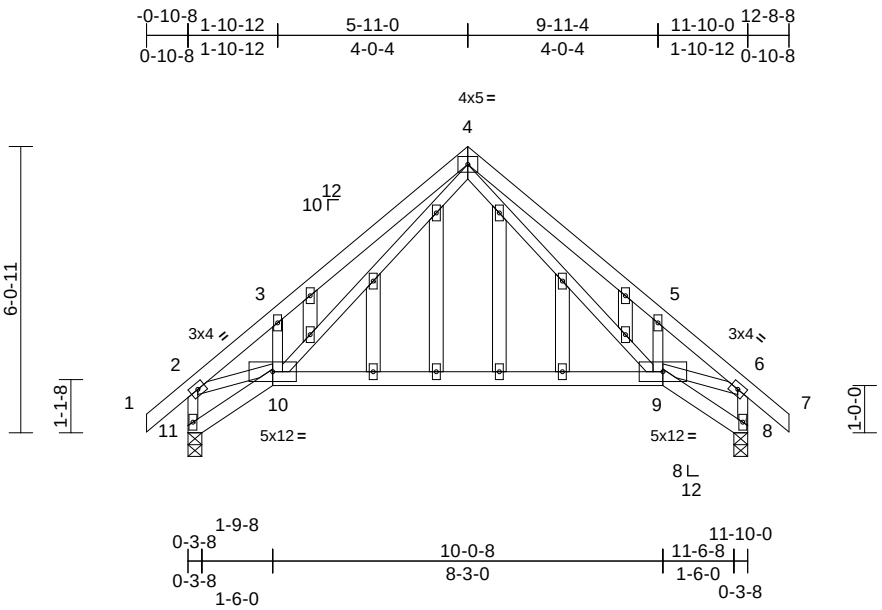

Scale = 1:48.7

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)	-0.15	9-10	>913	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.32	9-10	>441	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 66 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) 8=0-3-8, 11=0-3-8
Max Horiz 11=-185 (LC 6)
Max Uplift 8=-71 (LC 9), 11=-71 (LC 8)
Max Grav 8=592 (LC 1), 11=592 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-860/115, 3-4=-943/273, 4-5=-896/208, 5-6=-844/48, 6-7=0/44, 2-11=-602/98, 6-8=-597/58
BOT CHORD 10-11=-199/216, 9-10=-27/344, 8-9=-20/45
WEBS 4-9=-155/511, 5-9=-239/202, 4-10=-208/622, 3-10=-233/198, 2-10=-51/633, 6-9=-1/633

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 11 and 71 lb uplift at joint 8.
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

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	E2	Roof Special Girder	1	2	Job Reference (optional)	I63738441

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:54
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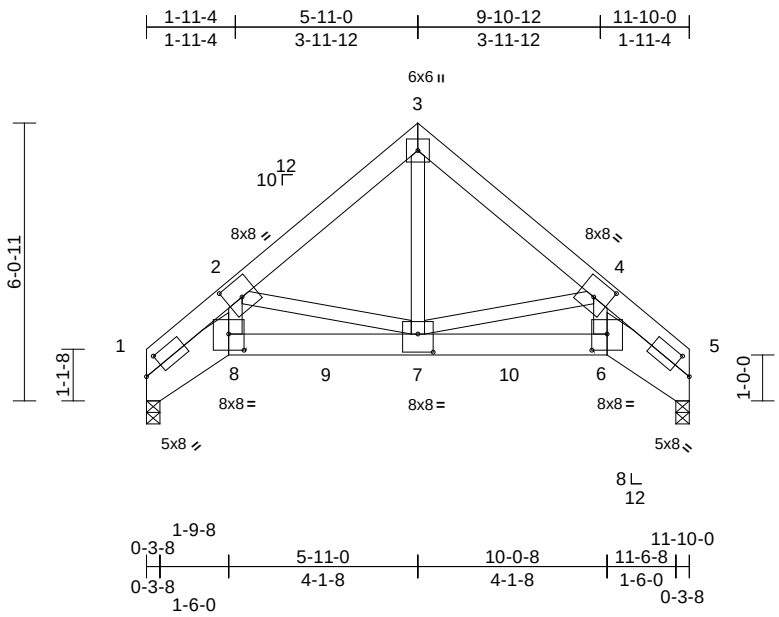

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Plate Offsets (X, Y): [1:0-4-13,0-3-0], [2:0-4-0,0-4-8], [4:0-4-0,0-4-8], [5:0-4-13,0-3-0], [6:0-4-0,0-4-4], [7:0-4-0,0-4-12], [8:0-4-0,0-4-4]

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	0.51	Vert(LL)	-0.07	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.12	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	7-8	>999	240	Weight: 167 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x10 SP 2400F 2.0E *Except* 8-6:2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-13 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=-141 (LC 6)
Max Uplift 1=-118 (LC 8), 5=-118 (LC 9)
Max Grav 1=4029 (LC 1), 5=4029 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9213/343, 2-3=-4195/157, 3-4=-4195/182, 4-5=-9213/243
BOT CHORD 1-8=-322/6649, 7-8=-267/5249, 6-7=-125/5249, 5-6=-151/6649
WEBS 3-7=-111/4769, 4-7=-2098/191, 4-6=-64/4960, 2-7=-2098/232, 2-8=-140/4960

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-2-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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) 5, 1 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 118 lb uplift at joint 5 and 118 lb uplift at joint 1.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1404 lb down and 27 lb up at 1-9-8, 1404 lb down and 27 lb up at 3-11-0, 1404 lb down and 27 lb up at 5-11-0, and 1404 lb down and 27 lb up at 7-11-0, and 1404 lb down and 27 lb up at 10-0-8 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 1-8=-20, 6-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 8=-1404 (B), 6=-1404 (B), 7=-1404 (B), 9=-1404 (B), 10=-1404 (B)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	F1	GABLE	1	1	I63738442
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:54
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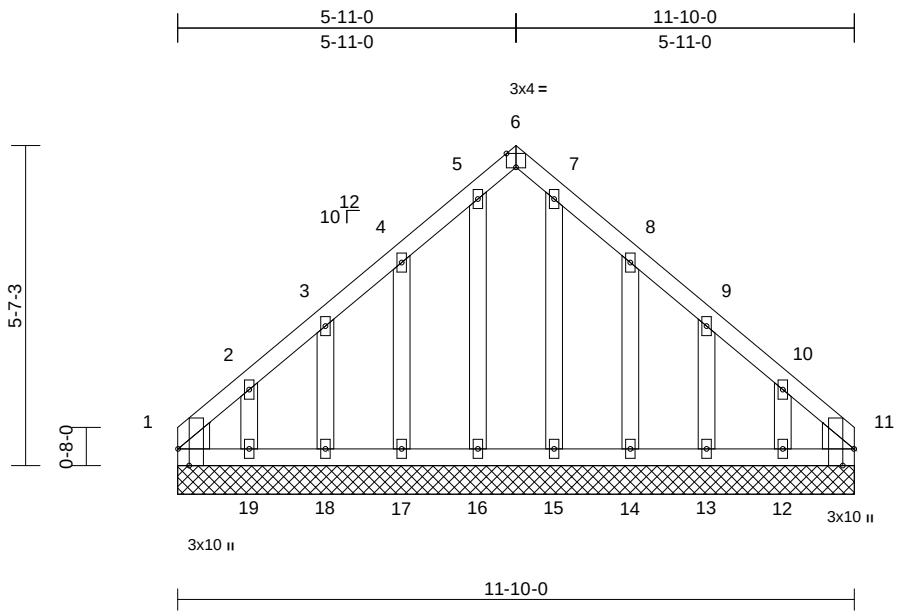

Scale = 1:40.3

Plate Offsets (X, Y): [1:0-3-8,Edge], [6:0-2-0,Edge], [11:0-3-8,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	0.04	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	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 59 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	Left: 2x6 SPF No.2 Right: 2x6 SPF No.2

BRACING

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

REACTIONS (size) 1=11-10-0, 11=11-10-0, 12=11-10-0, 13=11-10-0, 14=11-10-0, 15=11-10-0, 16=11-10-0, 17=11-10-0, 18=11-10-0, 19=11-10-0
Max Horiz 1=-137 (LC 4)
Max Uplift 1=-52 (LC 6), 11=-27 (LC 7), 12=-101 (LC 9), 13=-56 (LC 9), 14=-76 (LC 9), 16=-3 (LC 5), 17=-74 (LC 8), 18=-57 (LC 8), 19=-105 (LC 8)
Max Grav 1=130 (LC 8), 11=113 (LC 9), 12=148 (LC 16), 13=125 (LC 16), 14=134 (LC 16), 15=104 (LC 1), 16=116 (LC 15), 17=131 (LC 15), 18=125 (LC 15), 19=153 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-188/116, 2-3=-97/76, 3-4=-81/56, 4-5=-71/83, 5-6=-46/64, 6-7=-42/60, 7-8=-52/62, 8-9=-59/26, 9-10=-82/46, 10-11=-165/82
BOT CHORD	1-19=-57/134, 18-19=-57/134, 17-18=-57/134, 16-17=-57/134, 15-16=-57/134, 14-15=-57/134, 13-14=-57/134, 12-13=-57/134, 11-12=-57/134
WEBS	2-19=-119/116, 3-18=-100/74, 4-17=-104/89, 5-16=-89/19, 7-15=-78/0, 8-14=-107/92, 9-13=-100/74, 10-12=-115/112

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 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 19, 57 lb uplift at joint 18, 74 lb uplift at joint 17, 3 lb uplift at joint 16, 52 lb uplift at joint 1, 27 lb uplift at joint 11, 76 lb uplift at joint 14, 56 lb uplift at joint 13 and 101 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

February 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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03/18/2024 4:46:47

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	F2	COMMON	5	1	I63738443
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Tue Feb 20 10:01:00 Page: 1
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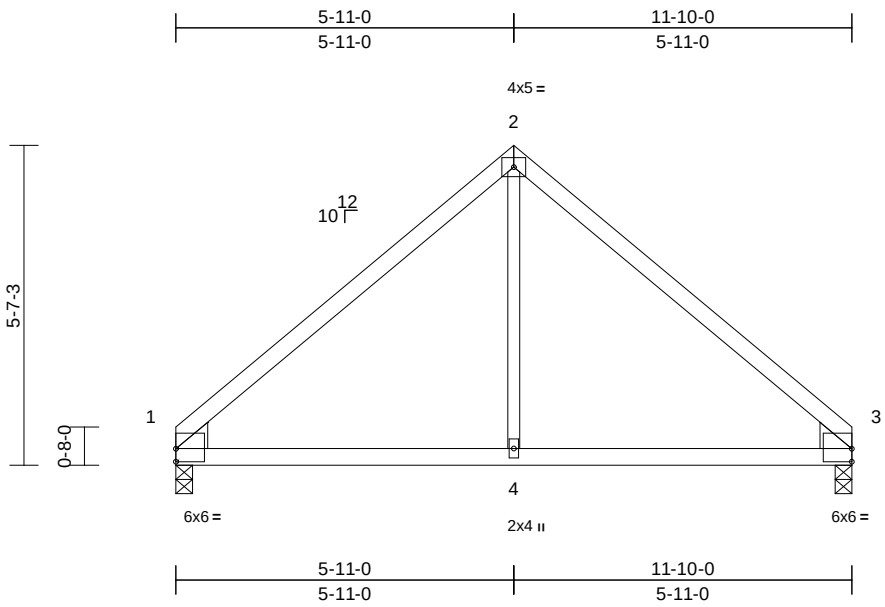

Scale = 1:40.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.03	3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	3-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	1-4	>999	240	Weight: 38 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x6 SPF No.2
Right: 2x6 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 (lb/size) 1=519/0-3-8, 3=519/0-3-8
Max Horiz 1=-137 (LC 4)
Max Uplift 1=-50 (LC 8), 3=-50 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-578/101, 2-3=-578/101
BOT CHORD 1-4=-1/341, 3-4=-1/341
WEBS 2-4=0/286

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 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1 and 50 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

February 21,2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of 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)

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	F3	COMMON GIRDER	1	**2**	Job Reference (optional)	I63738444

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:55 Page: 1
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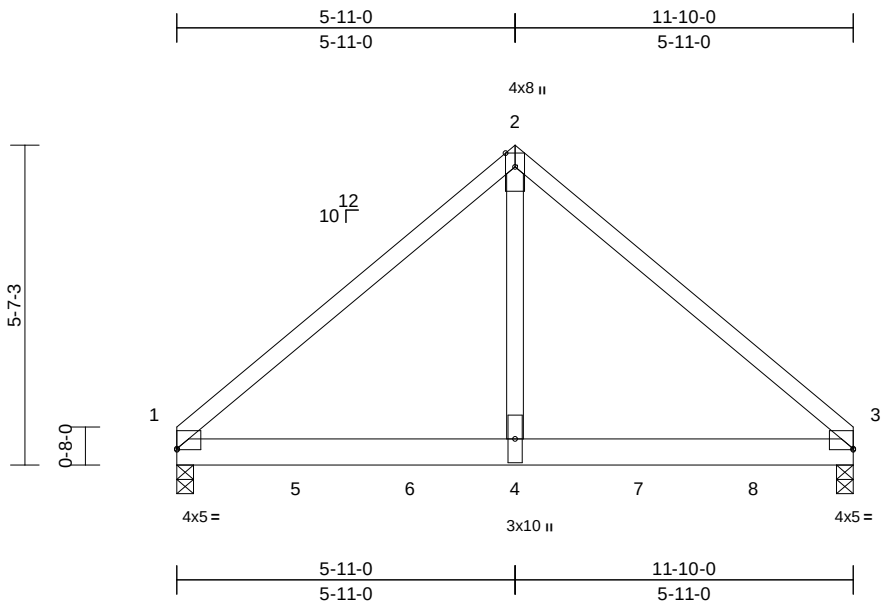

Scale = 1:40.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.08	1-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.14	1-4	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	1-4	>999	240	Weight: 102 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 3=0-3-8
Max Horiz 1=135 (LC 7)
Max Uplift 1=-260 (LC 8), 3=-153 (LC 9)
Max Grav 1=4057 (LC 1), 3=4224 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4333/236, 2-3=-4333/237
BOT CHORD 1-4=-103/3160, 3-4=-103/3160
WEBS 2-4=-130/5206

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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 260 lb uplift at joint 1 and 153 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.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1447 lb down and 194 lb up at 2-1-0, 1451 lb down and 29 lb up at 4-1-0, 1451 lb down and 29 lb up at 6-1-0, and 1447 lb down and 29 lb up at 8-1-0, and 1447 lb down and 29 lb up at 10-1-0 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: 1-2=-70, 2-3=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 4=-1451 (B), 5=-1447 (B), 6=-1451 (B), 7=-1447 (B), 8=-1447 (B)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of 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)

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J1	Diagonal Hip Girder	2	1	I63738445
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:55 Page: 1
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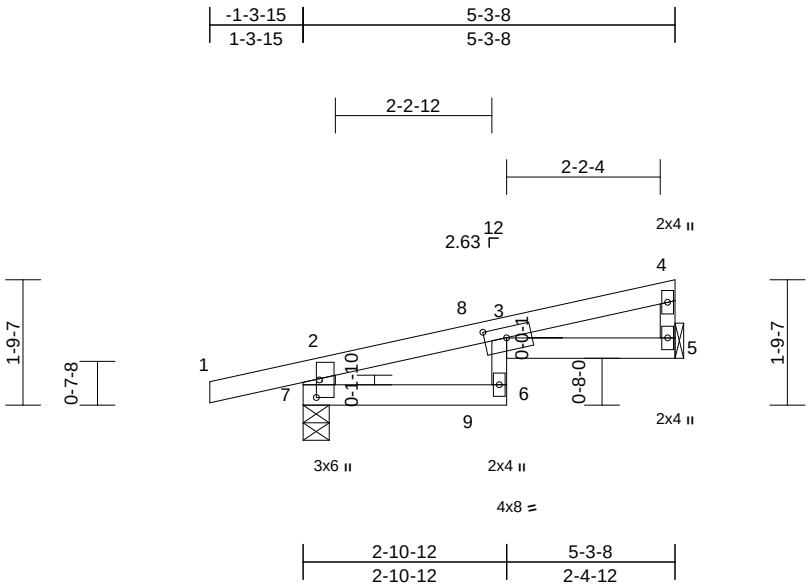

Scale = 1:32.8

Plate Offsets (X, Y): [3:0-3-12,0-1-13], [7:0-3-0,0-0-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.06	6	>927	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.11	6	>544	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.06	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	6	>926	240	Weight: 15 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 6-3:2x3 SPF No.2
WEBS 2x6 SPF No.2 *Except* 4-5:2x3 SPF No.2

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

REACTIONS (size) 5= Mechanical, 7=0-4-7
Max Horiz 7=56 (LC 5)
Max Uplift 5=-58 (LC 8), 7=-128 (LC 4)
Max Grav 5=219 (LC 1), 7=361 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-354/149, 1-2=0/23, 2-3=-86/0, 3-4=-85/20, 4-5=-149/55
BOT CHORD 6-7=-4/18, 3-6=-27/70, 3-5=-20/79

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 128 lb uplift at joint 7 and 58 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 33 lb up at 2-4-3 on top chord, and at 2-4-3, and 27 lb down and 32 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, 3-4=-70, 6-7=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 6=-25 (B)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J2	Jack-Open	3	1	I63738446
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:55 Page: 1
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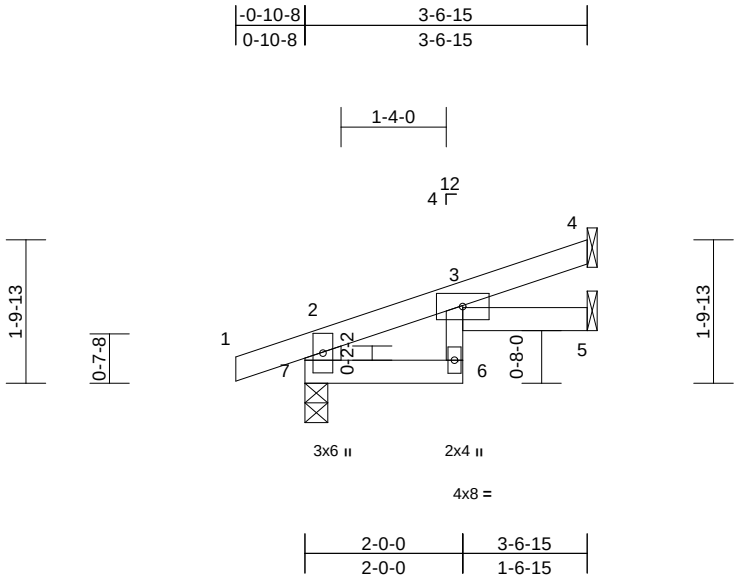

Scale = 1:29.2

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	0.18	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	6	>999	240	Weight: 10 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 6-3:2x3 SPF No.2
WEBS 2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 7=0-3-8
Max Horiz 7=58 (LC 4)
Max Uplift 4=-32 (LC 8), 5=-5 (LC 8), 7=-68 (LC 4)
Max Grav 4=82 (LC 1), 5=54 (LC 3), 7=238 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-233/87, 1-2=0/24, 2-3=-56/0, 3-4=-16/22
BOT CHORD 6-7=-4/10, 3-6=-4/44, 3-5=-9/4

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 68 lb uplift at joint 7, 32 lb uplift at joint 4 and 5 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

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/18/2024 4:46:48

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J3	Jack-Open	2	1	I63738447
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:55 Page: 1
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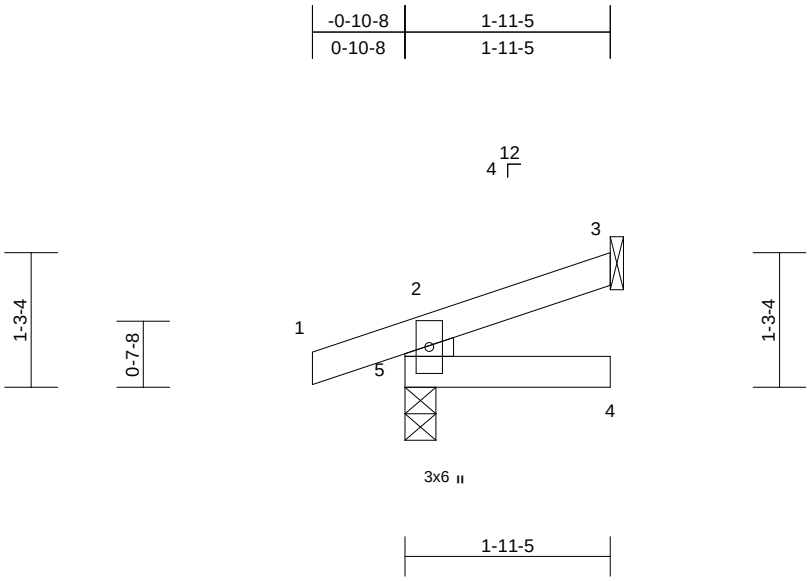

Scale = 1:21.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.01	4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.02	4	>819	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	>999	240	Weight: 6 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 5=0-3-8
Max Horiz 5=36 (LC 4)
Max Uplift 3=-16 (LC 8), 5=-65 (LC 4)
Max Grav 3=52 (LC 1), 5=179 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-145/86, 1-2=0/24, 2-3=-21/13
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 65 lb uplift at joint 5 and 16 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	J4	Jack-Closed Supported Gable	1	1	Job Reference (optional)	I63738448

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:56 Page: 1
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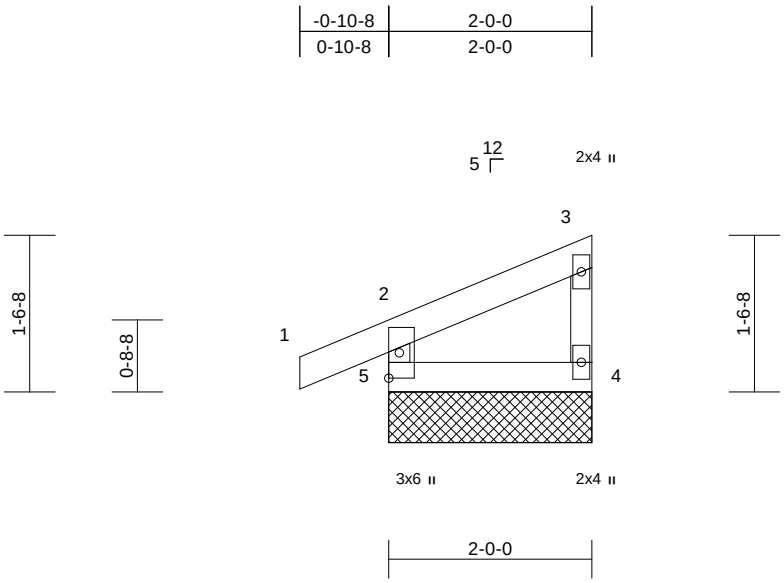

Scale = 1:22.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 7 lb	FT = 10%

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

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

REACTIONS (size) 4=2-0-0, 5=2-0-0
Max Horiz 5=58 (LC 5)
Max Uplift 4=-19 (LC 5), 5=-40 (LC 4)
Max Grav 4=62 (LC 1), 5=168 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-149/52, 1-2=0/26, 2-3=-43/9, 3-4=-45/24
BOT CHORD 4-5=-19/12

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 40 lb uplift at joint 5 and 19 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J5	Jack-Closed	5	1	I63738449
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:56
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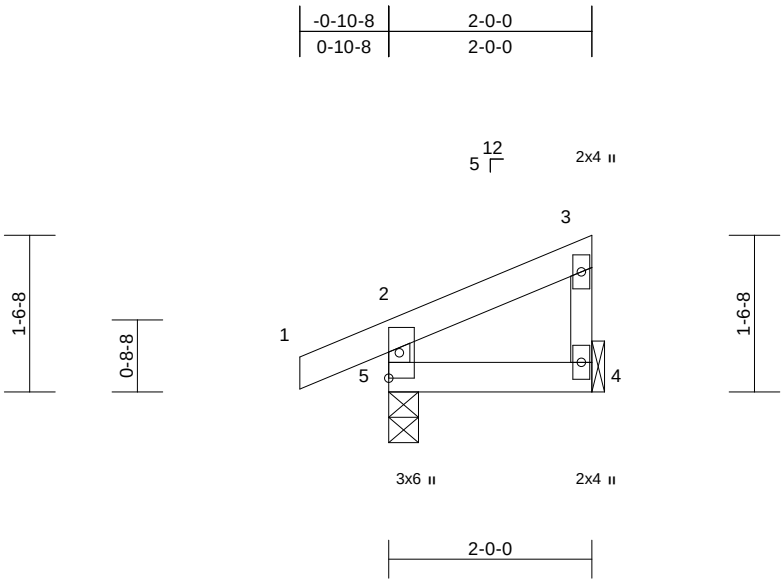

Scale = 1:22.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	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	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb	FT = 10%

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

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

REACTIONS (size) 4= Mechanical, 5=0-3-8
Max Horiz 5=58 (LC 5)
Max Uplift 4=-19 (LC 5), 5=-40 (LC 4)
Max Grav 4=62 (LC 1), 5=168 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-149/52, 1-2=0/26, 2-3=-43/9, 3-4=-45/24
BOT CHORD 4-5=-19/12

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5 and 19 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	J6	Jack-Open	2	1	Job Reference (optional)	I63738450

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:56 Page: 1
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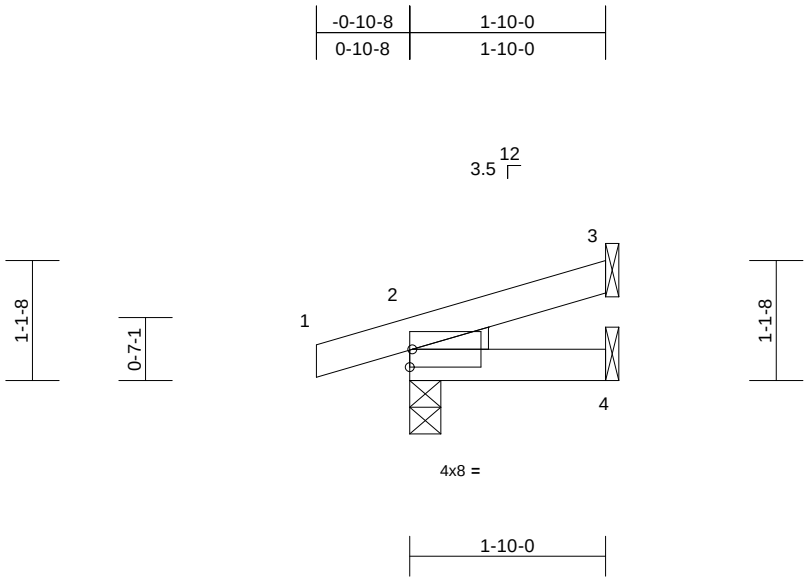

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=32 (LC 8)
Max Uplift 2=-55 (LC 4), 3=-28 (LC 8)
Max Grav 2=160 (LC 1), 3=47 (LC 1), 4=36 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2/0, 2-3=-34/14
BOT CHORD 2-4=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 55 lb uplift at joint 2 and 28 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

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	J7	Jack-Open	8	1	Job Reference (optional)	I63738451

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:56 Page: 1
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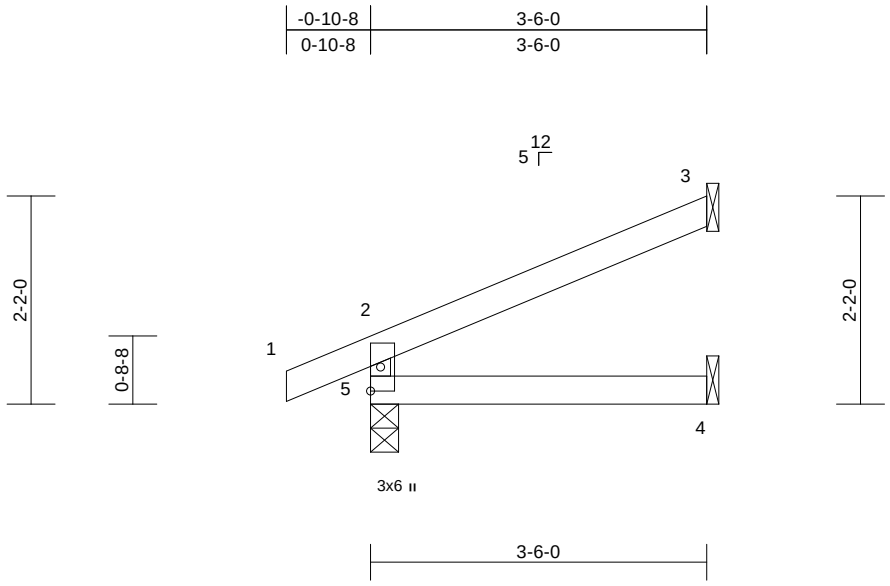

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	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: 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 3-6-0 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=65 (LC 8)
Max Uplift 3=-55 (LC 8), 5=-34 (LC 8)
Max Grav 3=103 (LC 1), 4=63 (LC 3), 5=229 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-199/64, 1-2=0/26, 2-3=-56/31
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5 and 55 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

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J8	Diagonal Hip Girder	1	1	I63738452
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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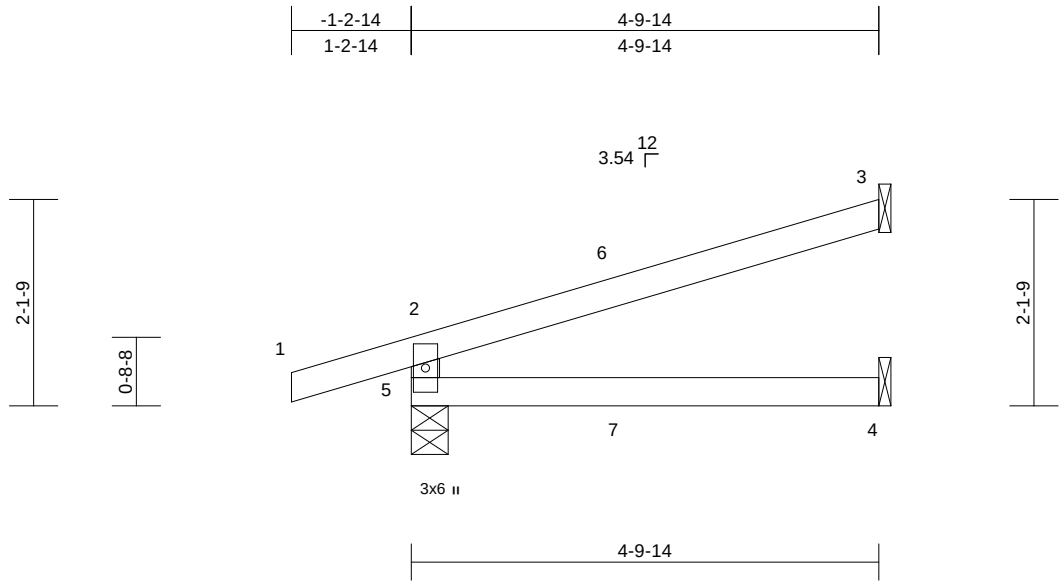

Scale = 1:23.8

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	0.35	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.05	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 13 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 4-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-9
Max Horiz 5=70 (LC 4)
Max Uplift 3=-64 (LC 8), 5=-92 (LC 4)
Max Grav 3=140 (LC 1), 4=86 (LC 3), 5=316 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-280/130, 1-2=0/27, 2-3=-70/30
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 92 lb uplift at joint 5 and 64 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.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 22 lb up at 2-1-0, and 66 lb down and 22 lb up at 2-1-0 on top chord, and 2 lb down and 2 lb up at 2-1-0, and 2 lb down and 2 lb up at 2-1-0 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=5 (F=2, B=2)

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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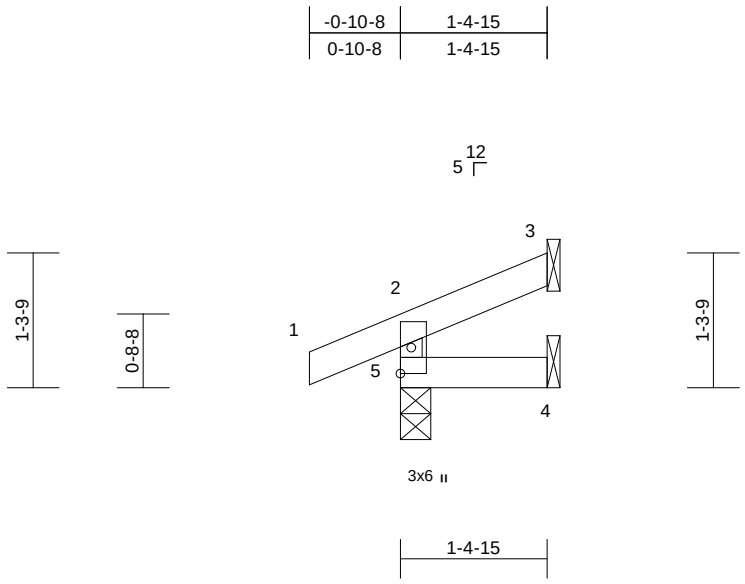
Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	J9	Jack-Open	2	1	I63738453
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:57 Page: 1
ID:Lek3CAANj_gYbKvtCQHtmQzKvNM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:22.2

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	0.06	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	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: 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 1-4-15 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=33 (LC 5)
Max Uplift 3=-19 (LC 8), 5=-34 (LC 4)
Max Grav 3=23 (LC 1), 4=24 (LC 3), 5=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-136/45, 1-2=0/26, 2-3=-26/6
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5 and 19 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
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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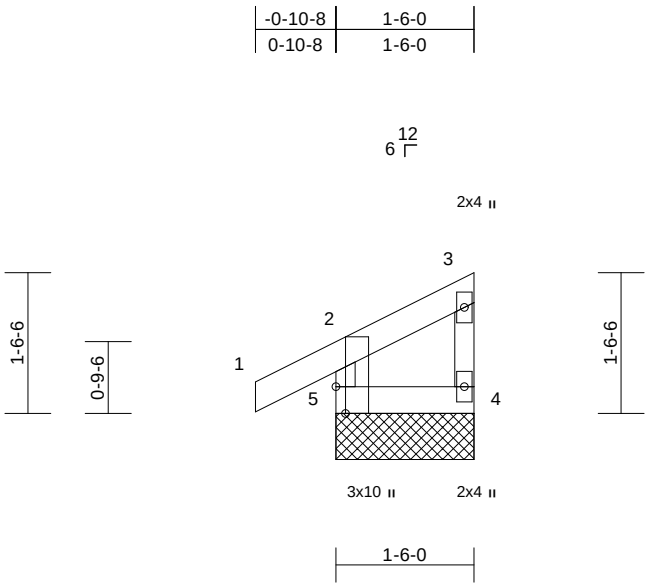
Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	J10	Jack-Closed Supported Gable	2	1	Job Reference (optional)	I63738454

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:57 Page: 1
ID:RpLzlAK6vN2turWrK?GHSPzjI0t-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							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 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4=1-6-0, 5=1-6-0
Max Horiz 5=56 (LC 5)
Max Uplift 4=-22 (LC 5), 5=-33 (LC 8)
Max Grav 4=36 (LC 15), 5=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-137/45, 1-2=0/31, 2-3=-38/13, 3-4=-23/20
BOT CHORD 4-5=-20/14

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 33 lb uplift at joint 5 and 22 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	J11	Jack-Closed	2	1	Job Reference (optional)	I63738455

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:57
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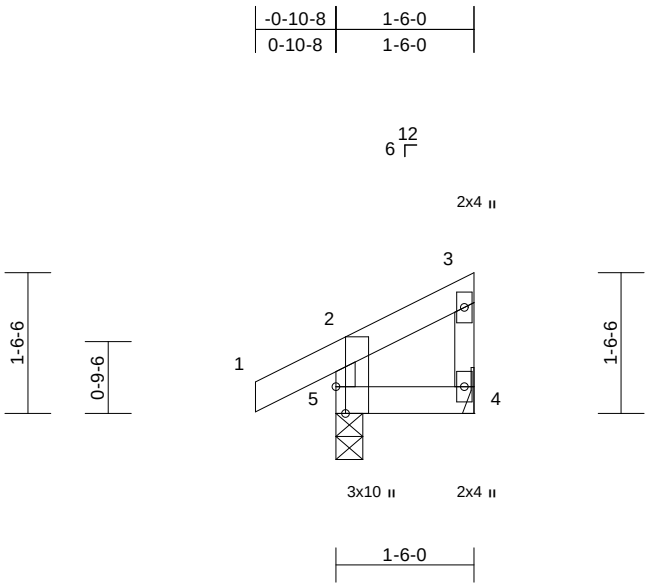

Scale = 1:25

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	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 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-3-8
Max Horiz 5=56 (LC 5)
Max Uplift 4=-22 (LC 5), 5=-33 (LC 8)
Max Grav 4=36 (LC 15), 5=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-137/45, 1-2=0/31, 2-3=-38/13, 3-4=-23/20
BOT CHORD 4-5=-20/14

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) 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 33 lb uplift at joint 5 and 22 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	K1	Monopitch Supported Gable	2	1	I63738456
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:57
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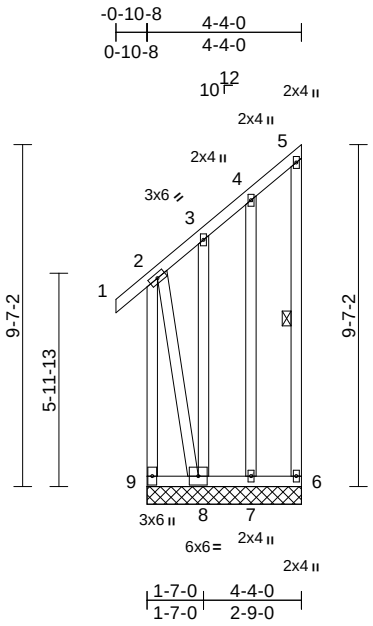

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 53 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 4-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6

REACTIONS (size) 6=4-4-0, 7=4-4-0, 8=4-4-0, 9=4-4-0
Max Horiz 9=-221 (LC 6)
Max Uplift 6=-23 (LC 8), 7=-77 (LC 8), 8=-614 (LC 5), 9=-508 (LC 6)
Max Grav 6=50 (LC 15), 7=145 (LC 15), 8=622 (LC 6), 9=655 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-648/519, 1-2=0/46, 2-3=-139/49, 3-4=-98/53, 4-5=-40/21, 5-6=-40/29
BOT CHORD 8-9=-155/139, 7-8=0/0, 6-7=0/0
WEBS 3-8=-76/45, 4-7=-117/94, 2-8=-575/641

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 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 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 508 lb uplift at joint 9, 23 lb uplift at joint 6, 614 lb uplift at joint 8 and 77 lb uplift at joint 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	K2	Monopitch	6	1	I63738457
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:57 Page: 1
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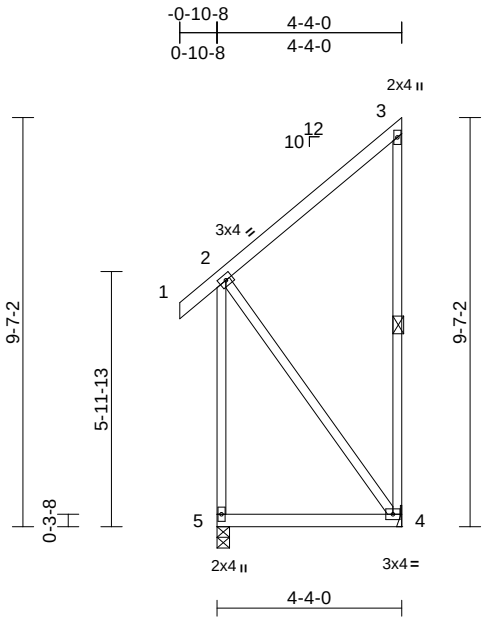

Scale = 1:54

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	0.47	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 30 lb	FT = 10%

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

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

REACTIONS (size) 4= Mechanical, 5=0-3-8
Max Horiz 5=-221 (LC 6)
Max Uplift 4=-266 (LC 8), 5=-69 (LC 6)
Max Grav 4=335 (LC 15), 5=287 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-110/80, 3-4=-149/112, 2-5=-246/111
BOT CHORD 4-5=-156/139
WEBS 2-4=-238/266

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 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 266 lb uplift at joint 4 and 69 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

February 21,2024

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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
03/18/2024 4:46:49

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	K3	Monopitch	4	1	I63738458
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:58 Page: 1
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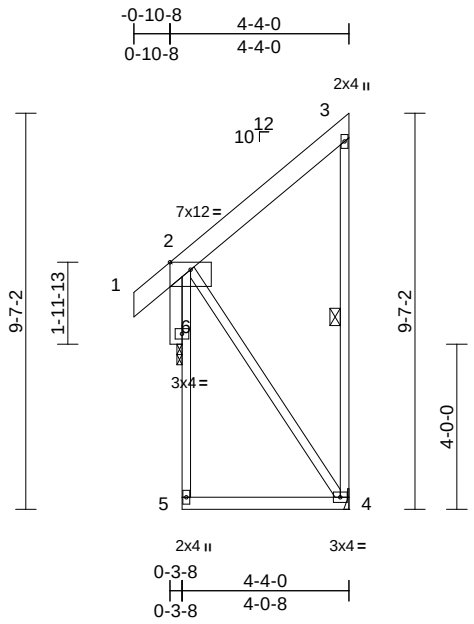

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.07	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.01	4-5	>999	240	Weight: 36 lb	FT = 10%

LUMBER
TOP CHORD 2x6 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 4-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-4

REACTIONS (size) 4= Mechanical, 6=0-1-8
Max Horiz 6=-222 (LC 6)
Max Uplift 4=-181 (LC 8)
Max Grav 4=159 (LC 15), 6=276 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/57, 2-3=-131/81, 3-4=-150/140, 5-6=0/78, 2-6=-237/0
BOT CHORD 4-5=-55/13
WEBS 2-4=-24/100

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 4.
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
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	LAY1	Lay-In Gable	1	1	I63738459
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:58
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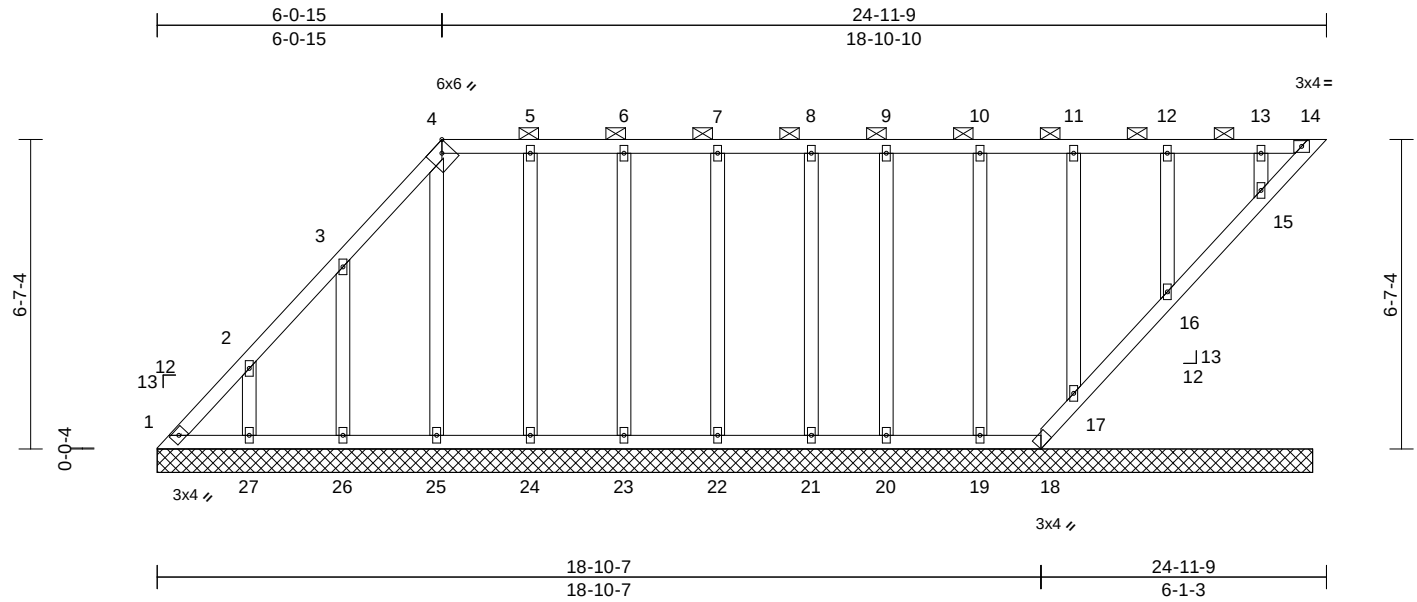
Page: 1



Scale = 1:49.2

Plate Offsets (X, Y): [4:0-2-9,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(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 127 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15.

REACTIONS (size) 1=24-8-0, 14=24-8-0, 15=24-8-0, 16=24-8-0, 17=24-8-0, 18=24-8-0, 19=24-8-0, 20=24-8-0, 21=24-8-0, 22=24-8-0, 23=24-8-0, 24=24-8-0, 25=24-8-0, 26=24-8-0, 27=24-8-0
Max Horiz 1=257 (LC 8)
Max Uplift 1=-42 (LC 6), 14=-40 (LC 8), 15=-30 (LC 4), 16=-34 (LC 5), 17=-39 (LC 5), 18=-12 (LC 15), 19=-36 (LC 4), 20=-29 (LC 5), 21=-30 (LC 5), 22=-34 (LC 4), 23=-34 (LC 5), 24=-38 (LC 4), 25=-26 (LC 8), 26=-147 (LC 8), 27=-127 (LC 8)
Max Grav 1=198 (LC 8), 14=39 (LC 1), 15=156 (LC 22), 16=187 (LC 1), 17=172 (LC 1), 18=48 (LC 8), 19=181 (LC 22), 20=160 (LC 1), 21=158 (LC 1), 22=184 (LC 22), 23=179 (LC 1), 24=185 (LC 22), 25=157 (LC 1), 26=223 (LC 15), 27=204 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-285/117, 2-3=-164/78, 3-4=-74/35, 4-5=-20/37, 5-6=-18/37, 6-7=-18/37, 7-8=-18/37, 8-9=-18/37, 9-10=-18/37, 10-11=-18/37, 11-12=-18/37, 12-13=-18/37, 13-14=-18/37
BOT CHORD 1-27=-37/17, 26-27=-37/17, 25-26=-37/17, 24-25=-37/18, 23-24=-37/18, 22-23=-37/18, 21-22=-37/18, 20-21=-37/18, 19-20=-37/18, 18-19=-37/18, 17-18=-58/39, 16-17=-63/43, 15-16=-65/41, 14-15=-62/29
WEBS 2-27=-158/145, 3-26=-184/172, 4-25=-117/49, 5-24=-145/62, 6-23=-139/58, 7-22=-143/59, 8-21=-123/51, 9-20=-124/51, 10-19=-143/59, 11-17=-138/57, 12-16=-144/59, 13-15=-121/50

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 0-0-0 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 42 lb uplift at joint 1, 40 lb uplift at joint 14, 12 lb uplift at joint 18, 127 lb uplift at joint 27, 147 lb uplift at joint 26, 26 lb uplift at joint 25, 38 lb uplift at joint 24, 34 lb uplift at joint 23, 34 lb uplift at joint 22, 30 lb uplift at joint 21, 29 lb uplift at joint 20, 36 lb uplift at joint 19, 39 lb uplift at joint 17, 34 lb uplift at joint 16 and 30 lb uplift at joint 15.
11) Non Standard bearing condition. Review required.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	R1	Flat Girder	1	1	Job Reference (optional)	I63738460

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:58 Page: 1
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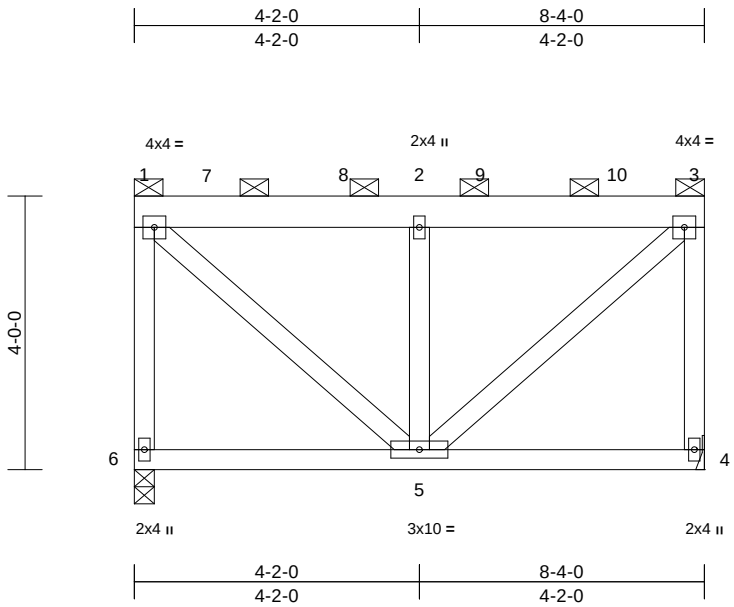

Scale = 1:33.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	5	>999	240	Weight: 47 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS (size) 4= Mechanical, 6=0-3-8
Max Horiz 6=-138 (LC 4)
Max Grav 4=764 (LC 1), 6=788 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-754/10, 1-2=-527/0, 2-3=-527/0, 3-4=-730/16
BOT CHORD 5-6=-121/108, 4-5=-51/39
WEBS 1-5=-11/710, 2-5=-857/12, 3-5=-11/710

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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-209, 8=-206, 9=-206, 10=-206

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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03/18/2024 4:46:49

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	V1	Valley	1	1	Job Reference (optional)	I63738461

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:58
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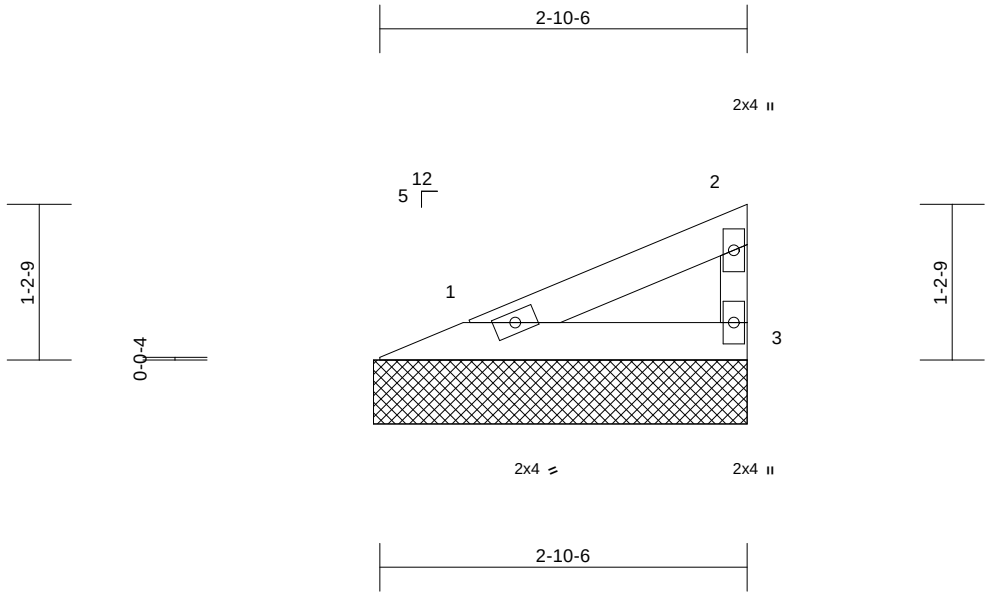

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00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

REACTIONS (size) 1=2-11-0, 3=2-11-0
Max Horiz 1=38 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-21 (LC 8)
Max Grav 1=93 (LC 1), 3=93 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-34/22, 2-3=-72/33
BOT CHORD 1-3=-12/9

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 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 13 lb uplift at joint 1 and 21 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

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03/18/2024 4:46:49

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	V2	Valley	1	1	Job Reference (optional)	I63738462

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:59

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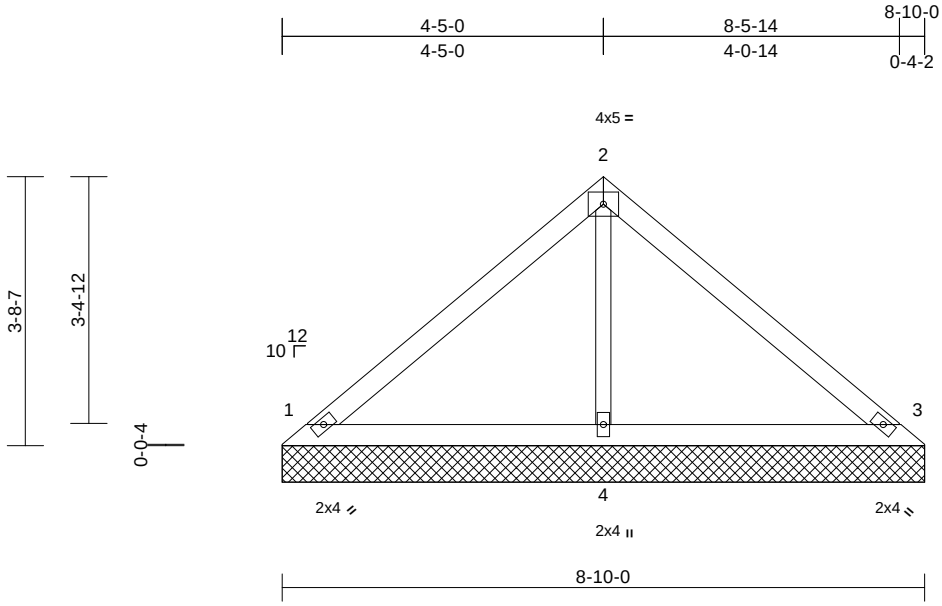

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 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=8-10-0, 3=8-10-0, 4=8-10-0
Max Horiz 1=-88 (LC 4)
Max Uplift 1=-45 (LC 8), 3=-56 (LC 9)
Max Grav 1=219 (LC 1), 3=219 (LC 1), 4=289 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-153/75, 2-3=-147/59
BOT CHORD 1-4=-20/72, 3-4=-20/72
WEBS 2-4=-188/45

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 45 lb uplift at joint 1 and 56 lb uplift at joint 3.
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

February 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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03/18/2024 4:46:49

Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	V3	Valley	1	1	Job Reference (optional)	I63738463

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:59

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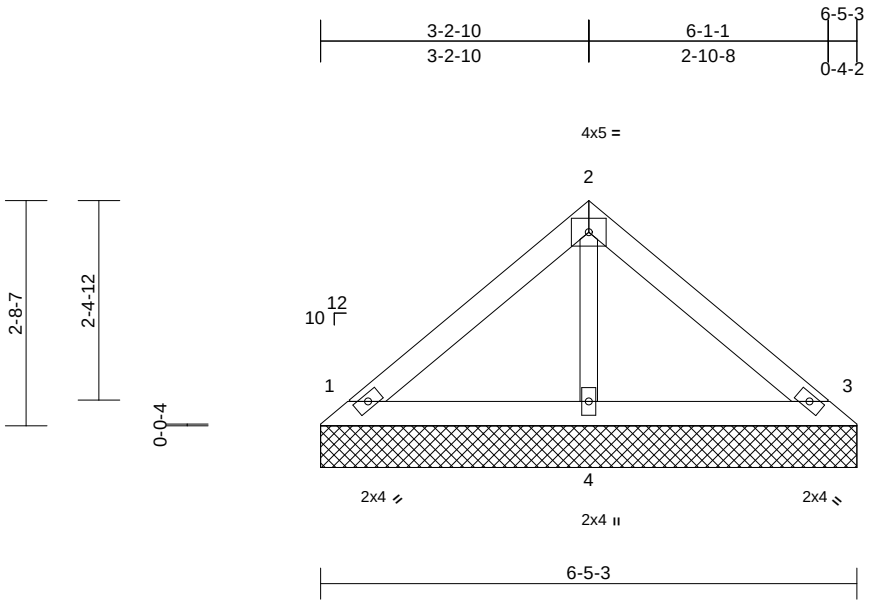

Scale = 1:27.6

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	0.15	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	0.03	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=6-5-3, 3=6-5-3, 4=6-5-3
Max Horiz 1=62 (LC 5)
Max Uplift 1=-32 (LC 8), 3=-39 (LC 9)
Max Grav 1=154 (LC 1), 3=154 (LC 1), 4=203 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-107/53, 2-3=-103/42
BOT CHORD 1-4=-14/51, 3-4=-14/51
WEBS 2-4=-132/32

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 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 32 lb uplift at joint 1 and 39 lb uplift at joint 3.
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
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO	
B240016	V4	Valley	1	1	Job Reference (optional)	I63738464

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:59 Page: 1
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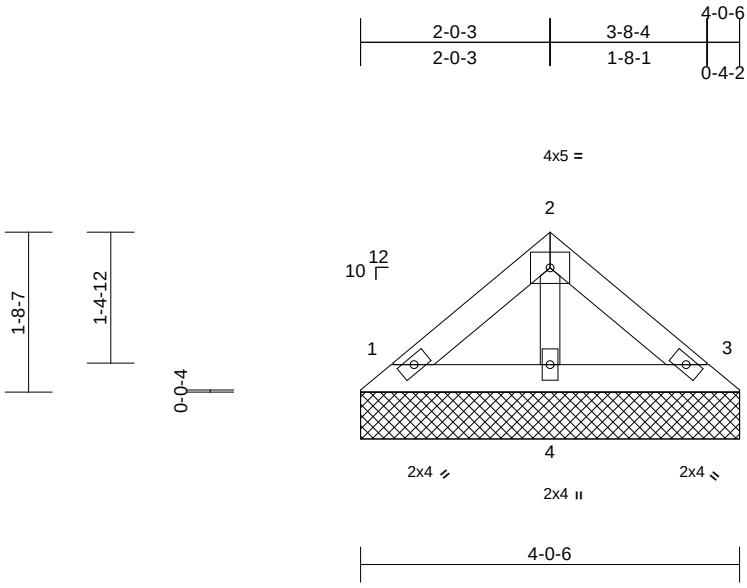

Scale = 1:24.5

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	0.04	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	0.01	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
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=4-0-6, 3=4-0-6, 4=4-0-6
Max Horiz 1=36 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-23 (LC 9)
Max Grav 1=89 (LC 1), 3=89 (LC 1), 4=117 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-62/31, 2-3=-59/24
BOT CHORD 1-4=-8/29, 3-4=-8/29
WEBS 2-4=-76/18

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 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 18 lb uplift at joint 1 and 23 lb uplift at joint 3.
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
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	V5	Valley	1	1	I63738465
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:51:59 Page: 1
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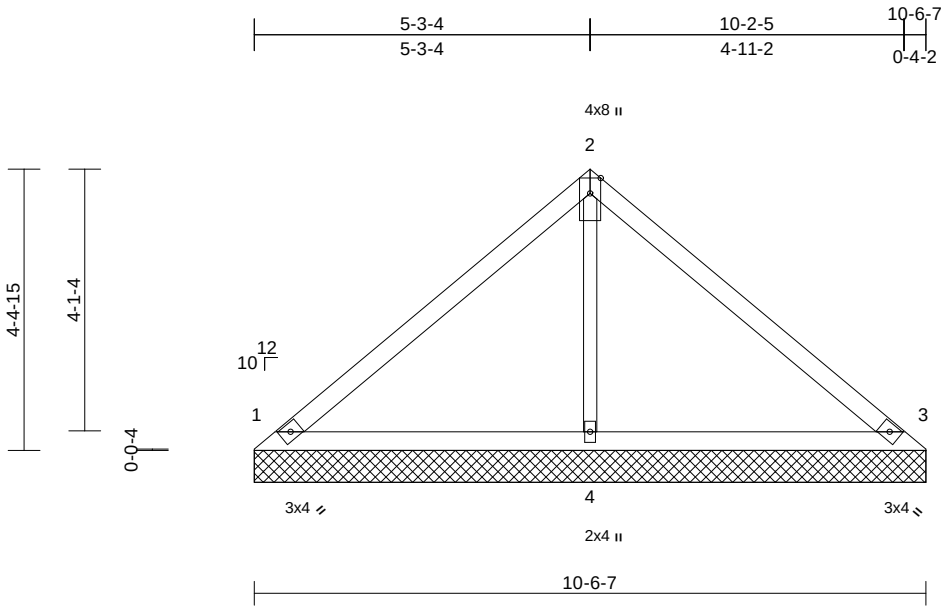

Scale = 1:36.1

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 30 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=10-6-7, 3=10-6-7, 4=10-6-7
Max Horiz 1=-106 (LC 6)
Max Uplift 1=-41 (LC 8), 3=-53 (LC 9), 4=-9 (LC 8)
Max Grav 1=245 (LC 1), 3=245 (LC 1), 4=390 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-203/94, 2-3=-202/75
BOT CHORD 1-4=-24/94, 3-4=-24/94
WEBS 2-4=-239/59

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 41 lb uplift at joint 1, 53 lb uplift at joint 3 and 9 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

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	V6	Valley	1	1	I63738466
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:52:00 Page: 1
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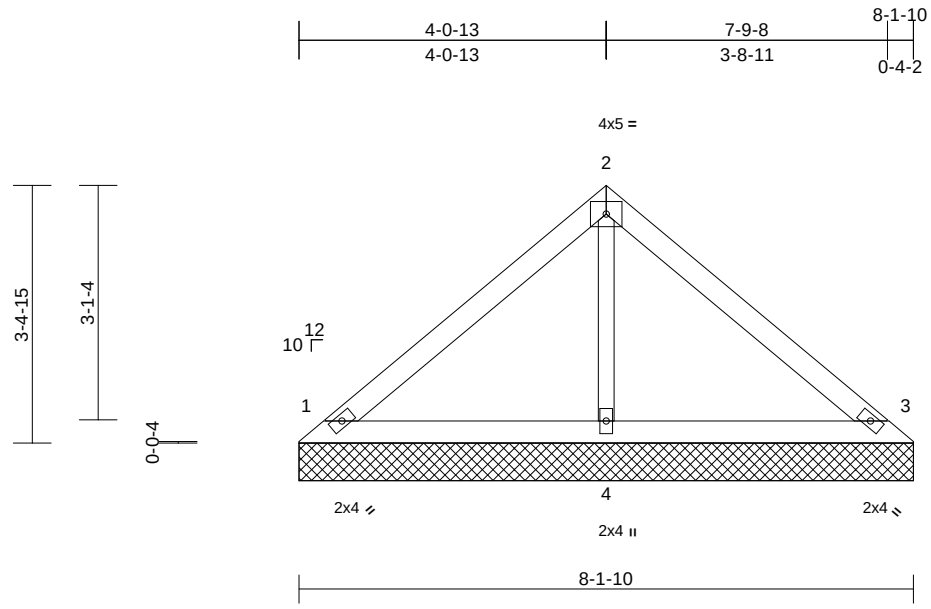

Scale = 1:30.5

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	0.26	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	0.05	Horiz(TL)	0.00	3	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
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=8-1-10, 3=8-1-10, 4=8-1-10
Max Horiz 1=-80 (LC 4)
Max Uplift 1=-41 (LC 8), 3=-51 (LC 9)
Max Grav 1=200 (LC 1), 3=200 (LC 1), 4=264 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-139/69, 2-3=-134/54
BOT CHORD 1-4=-18/66, 3-4=-18/66
WEBS 2-4=-172/41

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 41 lb uplift at joint 1 and 51 lb uplift at joint 3.
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
NATHANIEL FOX
NUMBER PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	V7	Valley	1	1	I63738467
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:52:00 Page: 1
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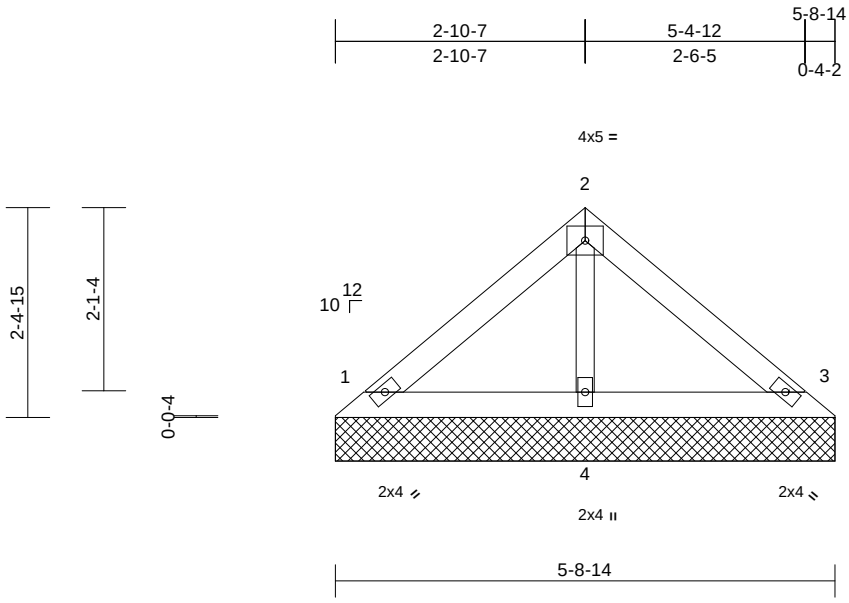

Scale = 1:26.5

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-8-14, 3=5-8-14, 4=5-8-14
Max Horiz 1=-54 (LC 4)
Max Uplift 1=-28 (LC 8), 3=-34 (LC 9)
Max Grav 1=135 (LC 1), 3=135 (LC 1), 4=178 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/47, 2-3=-90/37
BOT CHORD 1-4=-12/45, 3-4=-12/45
WEBS 2-4=-116/28

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 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 28 lb uplift at joint 1 and 34 lb uplift at joint 3.
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
NATHANIEL FOX
NUMBER
PE-2022042259
PROFESSIONAL ENGINEER

February 21,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 175 WO
B240016	V8	Valley	1	1	I63738468
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Feb 6 2024 Print: 8.730 S Feb 6 2024 MiTek Industries, Inc. Tue Feb 20 09:52:00 Page: 1
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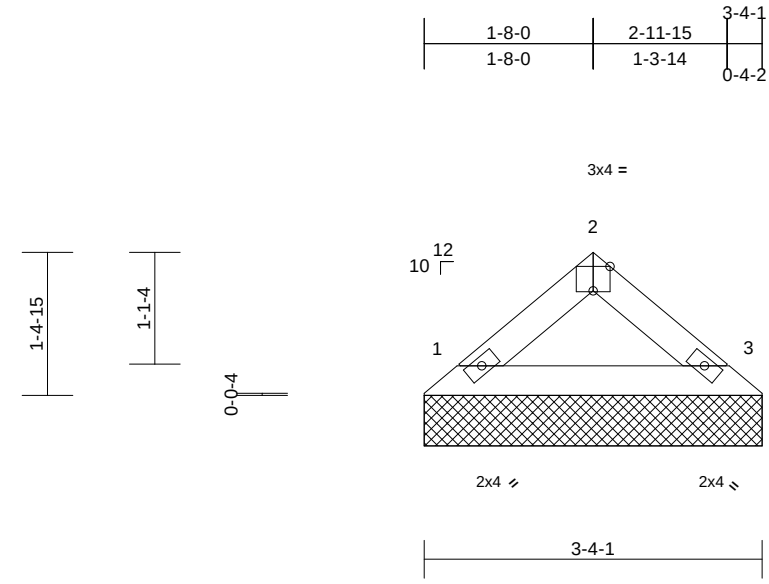

Scale = 1:22.8

Plate Offsets (X, Y): [2:0-2-0,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	0.03	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	0.00	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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-4-1, 3=3-4-1
Max Horiz 1=-28 (LC 6)
Max Uplift 1=-12 (LC 8), 3=-12 (LC 9)
Max Grav 1=116 (LC 1), 3=116 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/30, 2-3=-94/30
BOT CHORD 1-3=-8/55

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 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 12 lb uplift at joint 1 and 12 lb uplift at joint 3.
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

February 21,2024

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

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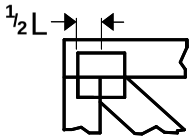
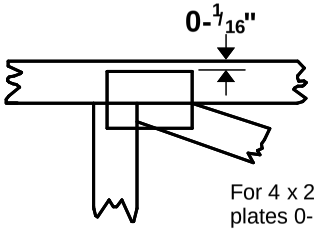
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

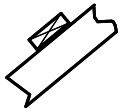
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

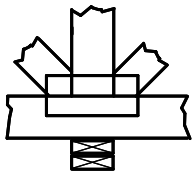
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

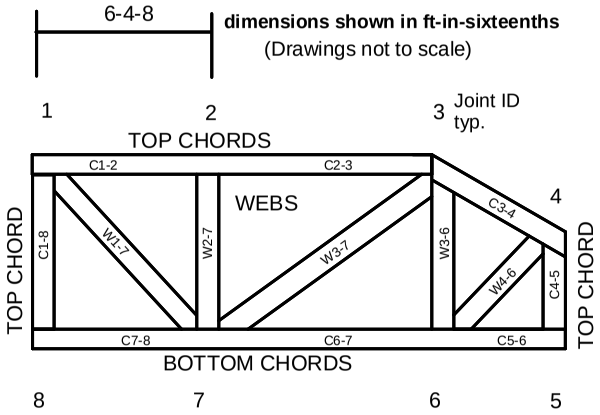


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.

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