

RE: B240137 - Lot 8 CB

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 8 Subdivision: Cobey Creek
Model: Palmetto - Farmhouse 1
Address: 3449 SE Corbin Dr
City: Lee's Summit State: MO

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

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

Design Code: IRC2012/TPI2007 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-10 [Wind Speed]: 115 mph Design Method: MWFRS (Envelope) ASCE 7-10 [Low Rise]
Roof Load: 45.0 psf Floor Load: N/A psf
Mean Roof Height (feet): 25 Exposure Category: C

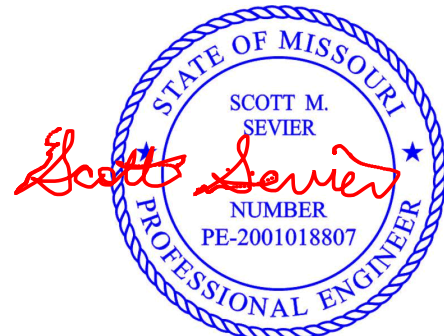
No.	Seal#	Truss Name	Date
1	I66588884	A1	7/2/24
2	I66588885	A2	7/2/24
3	I66588886	A3	7/2/24
4	I66588887	A4	7/2/24
5	I66588888	B1	7/2/24
6	I66588889	B2	7/2/24
7	I66588890	B3	7/2/24
8	I66588891	B4	7/2/24
9	I66588892	B5	7/2/24
10	I66588893	B6	7/2/24
11	I66588894	B7	7/2/24
12	I66588895	B8	7/2/24
13	I66588896	B9	7/2/24
14	I66588897	B10	7/2/24
15	I66588898	C1	7/2/24
16	I66588899	G1	7/2/24
17	I66588900	J1	7/2/24
18	I66588901	J2	7/2/24
19	I66588902	LAY1	7/2/24
20	I66588903	V1	7/2/24
21	I66588904	V2	7/2/24
22	I66588905	V3	7/2/24
23	I66588906	V4	7/2/24

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

Truss Design Engineer's Name: Sevier, Scott

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

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



July 2, 2024

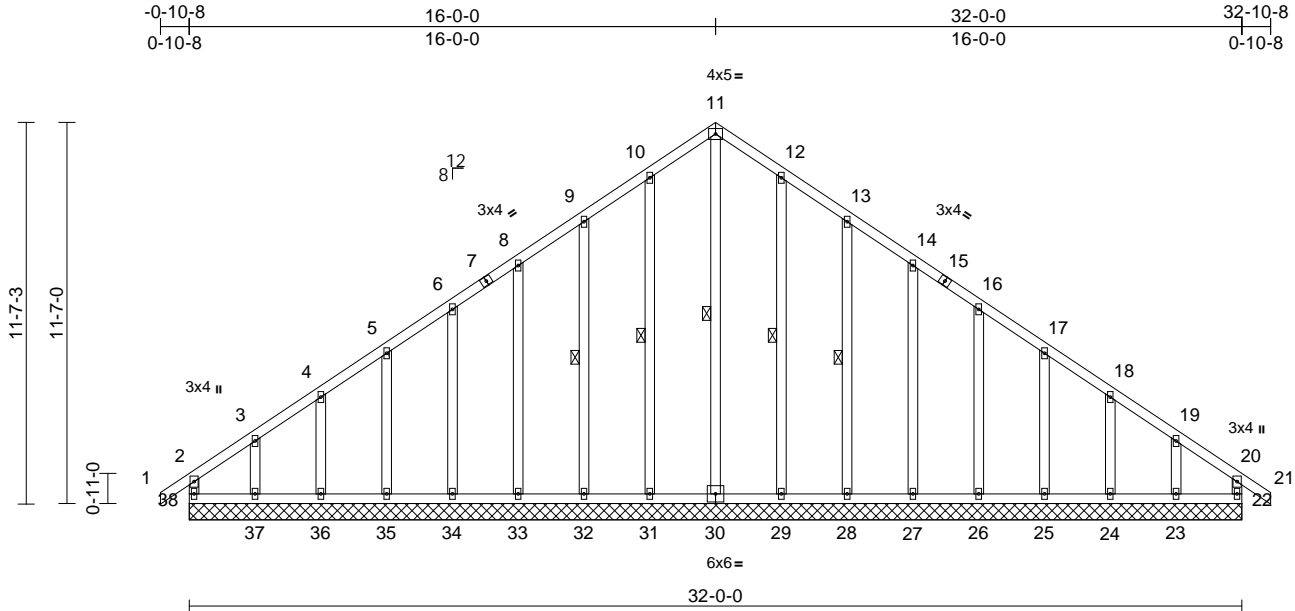
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 16658884 LEE'S SUMMIT, MISSOURI
B240137	A1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:22 Page: 1

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08/01/2024



Scale = 1:70

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
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	22	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R							
Weight: 188 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 11-30, 10-31, 9-32, 12-29, 13-28

REACTIONS (size)

22=32-0-0, 23=32-0-0, 24=32-0-0, 25=32-0-0, 26=32-0-0, 27=32-0-0, 28=32-0-0, 29=32-0-0, 30=32-0-0, 31=32-0-0, 32=32-0-0, 33=32-0-0, 34=32-0-0, 35=32-0-0, 36=32-0-0, 37=32-0-0, 38=32-0-0	
Max Horiz 38=320 (LC 7)	
Max Uplift 22=79 (LC 5), 23=156 (LC 9), 24=50 (LC 9), 25=75 (LC 9), 26=69 (LC 9), 27=69 (LC 9), 28=77 (LC 9), 29=56 (LC 9), 31=58 (LC 8), 32=76 (LC 8), 33=69 (LC 8), 34=69 (LC 8), 35=76 (LC 8), 36=46 (LC 8), 37=173 (LC 8), 38=140 (LC 4)	
Max Grav 22=208 (LC 15), 23=226 (LC 16), 24=184 (LC 1), 25=189 (LC 16), 26=186 (LC 16), 27=187 (LC 16), 28=187 (LC 16), 29=193 (LC 16), 30=311 (LC 9), 31=196 (LC 15), 32=185 (LC 15), 33=187 (LC 15), 34=186 (LC 15), 35=191 (LC 15), 36=184 (LC 1), 37=250 (LC 15), 38=255 (LC 16)	

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD

2-38=-210/118, 1-2=0/40, 2-3=-244/223, 3-4=-180/171, 4-5=-168/167, 5-6=-148/178, 6-8=-130/215, 8-9=-112/251, 9-10=-96/292, 10-11=-83/320, 11-12=-70/308, 12-13=-49/255, 13-14=-60/215, 14-16=-74/179, 16-17=-87/141, 17-18=-102/104, 18-19=-114/106, 19-20=-178/148, 20-21=0/40, 20-22=-172/69

BOT CHORD 37-38=-135/164, 36-37=-135/164, 35-36=-135/164, 34-35=-135/164, 33-34=-135/164, 32-33=-135/164, 31-32=-135/164, 29-31=-135/164, 28-29=-135/164, 27-28=-135/164, 26-27=-135/164, 25-26=-135/164, 24-25=-135/164, 23-24=-135/164, 22-23=-135/164

WEBS 11-30=-287/16, 10-31=-156/82, 9-32=-145/100, 8-33=-147/93, 6-34=-146/93, 5-35=-148/97, 4-36=-144/82, 3-37=-176/149, 12-29=-153/80, 13-28=-147/101, 14-27=-147/93, 16-26=-147/94, 17-25=-148/96, 18-24=-144/84, 19-23=-162/139

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 38, 79 lb uplift at joint 22, 58 lb uplift at joint 31, 76 lb uplift at joint 32, 69 lb uplift at joint 33, 69 lb uplift at joint 34, 76 lb uplift at joint 35, 46 lb uplift at joint 36, 173 lb uplift at joint 37, 56 lb uplift at joint 29, 77 lb uplift at joint 28, 69 lb uplift at joint 27, 69 lb uplift at joint 26, 75 lb uplift at joint 25, 50 lb uplift at joint 24 and 156 lb uplift at joint 23.

LOAD CASE(S) Standard

July 2, 2024

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

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

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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB
B240137	A2	Common	6	1	Job Reference (optional)

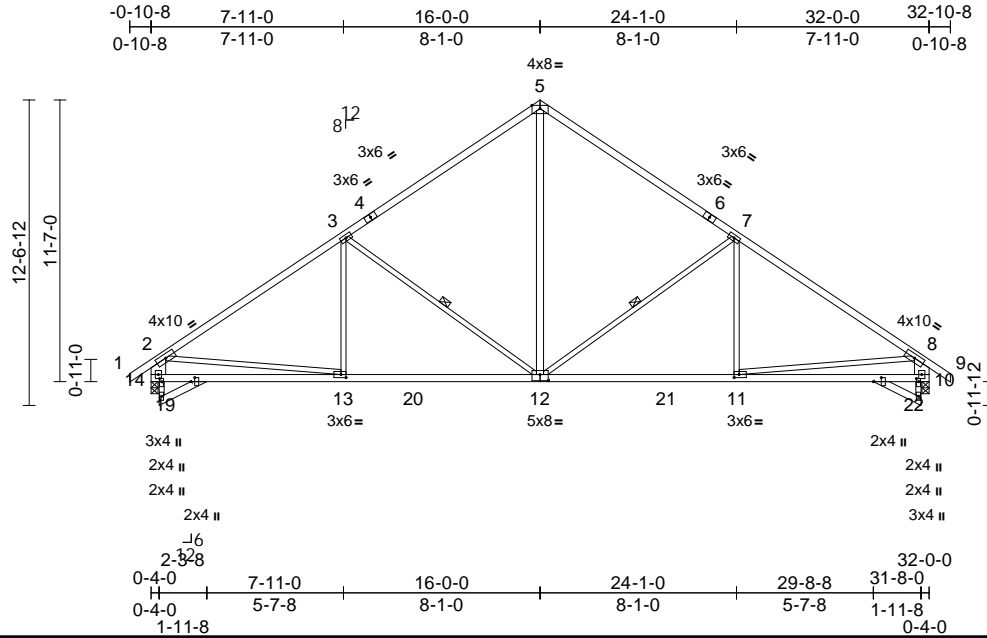
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588885
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

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08/01/2024



Scale = 1:94.8

Plate Offsets (X, Y): [10:0-1-8,0-1-0], [11:0-2-8,0-1-8], [12:0-4-0,0-3-0], [13:0-2-8,0-1-8], [14:0-1-8,0-1-0], [16:0-2-0,0-1-15], [17:0-2-0,0-3-15]

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	0.90	Vert(LL)	-0.14	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.26	12-13	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	12-13	>999	240	Weight: 143 lb	FT = 10%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 7-12, 3-12

REACTIONS	(size)	10=0-3-8, 14=0-3-8
	Max Horiz	14=-324 (LC 6)
	Max Uplift	10=-187 (LC 9), 14=-187 (LC 8)
	Max Grav	10=1623 (LC 16), 14=1623 (LC 15)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/46, 2-3=-2043/227, 3-5=-1481/277, 5-7=-1481/277, 7-8=-2044/227, 8-9=0/46, 2-14=-1507/228, 8-10=-1506/228
BOT CHORD	13-14=-327/717, 11-13=-226/1798, 10-11=-163/485
WEBS	5-12=-108/1022, 7-12=-733/281, 7-11=0/294, 3-12=-733/282, 3-13=0/294, 2-13=0/1199, 8-11=0/1210

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * 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.

- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 14 and 187 lb uplift at joint 10.

LOAD CASE(S) Standard

July 2, 2024

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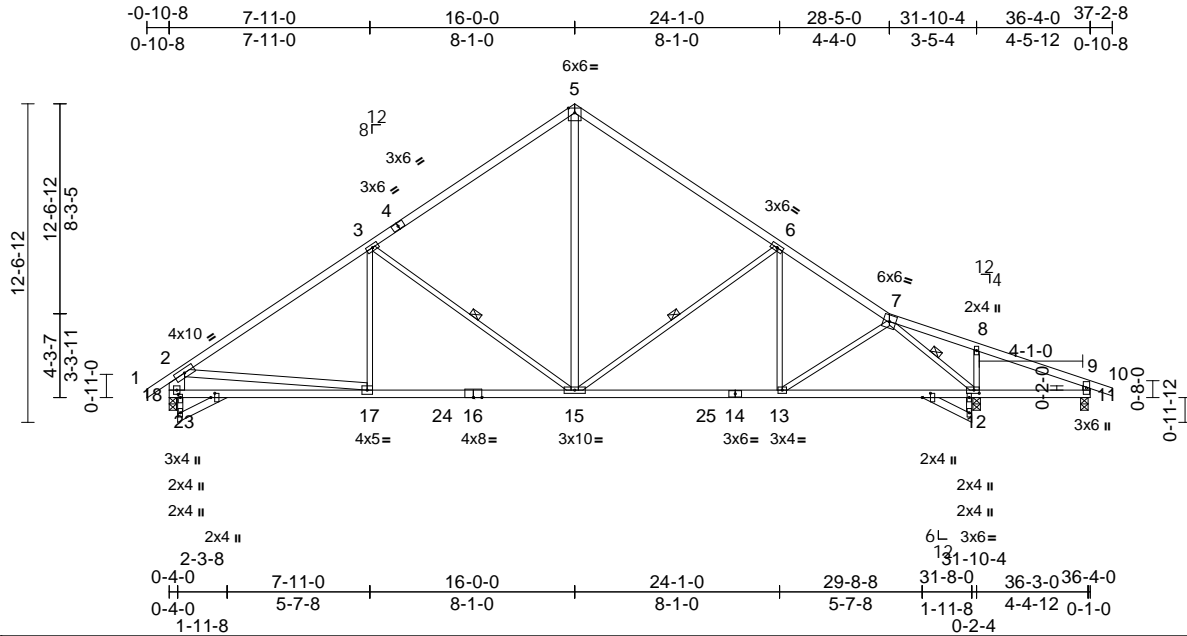
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB
B240137	A3	Roof Special	3	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588886
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:22 Page: 1
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08/01/2024



Scale = 1:90.9

Plate Offsets (X, Y): [12:0-2-8,0-1-8], [18:0-1-8,0-1-0], [20:0-2-0,0-1-15], [21:0-2-0,0-3-15]

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)	-0.15	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.26	13-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	13-15	>999	240	Weight: 155 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-5,17-2,11-9:2x4
SPF No.2, 18-2:2x8 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 11-12.

WEBS 1 Row at midpt 3-15, 6-15, 7-12

REACTIONS (size) 11=0-3-8, 12=0-3-8, 18=0-3-8
Max Horiz 18=331 (LC 6)
Max Uplift 11=126 (LC 5), 12=196 (LC 9), 18=188 (LC 8)
Max Grav 11=147 (LC 22), 12=1903 (LC 2), 18=1605 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-2015/228, 3-5=-1434/280, 5-6=-1449/277, 6-7=-1805/243, 7-8=0/349, 8-9=-6/361, 9-10=0/23, 2-18=-1490/229, 9-11=-138/141
BOT CHORD 17-18=-335/700, 15-17=-233/1780, 13-15=-58/1535, 12-13=-110/1280, 11-12=-277/27
WEBS 3-17=0/295, 3-15=-736/281, 5-15=-107/986, 6-15=-629/277, 6-13=0/244, 8-12=-368/158, 2-17=0/1192, 7-13=0/316, 7-12=-2058/171

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 188 lb uplift at joint 18, 196 lb uplift at joint 12 and 126 lb uplift at joint 11.

LOAD CASE(S) Standard



July 2,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB
B240137	A4	Monopitch Structural Gable	1	1	Job Reference (optional)

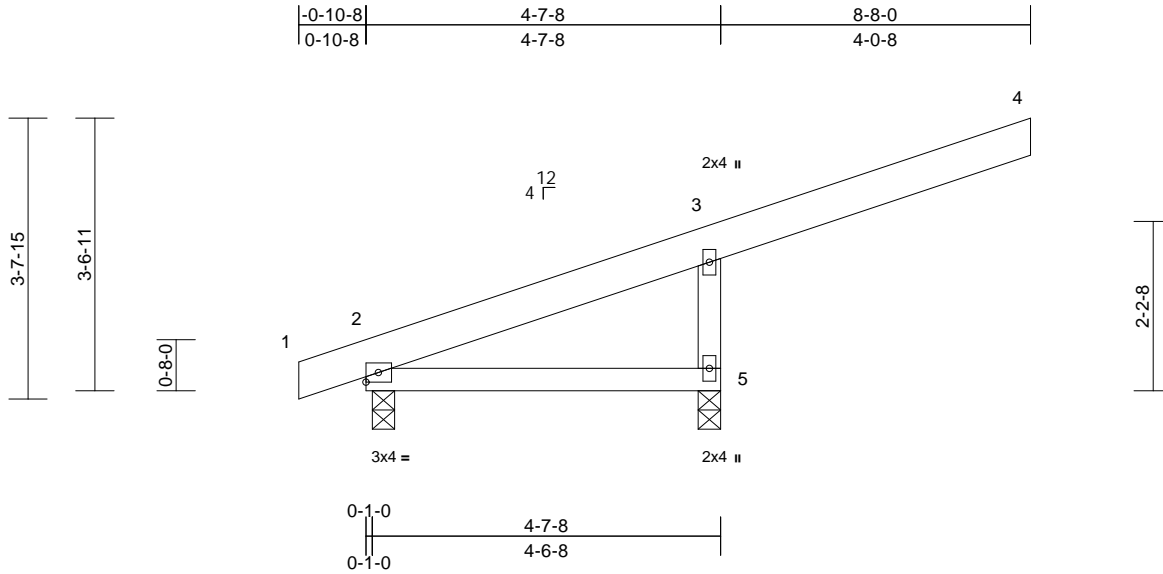
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588887
LEE'S SUMMIT, MISSOURI

08/01/2024



Scale = 1:30

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	0.57	Vert(LL)	-0.02	2-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.04	2-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 25 lb	FT = 10%

LUMBER

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or
4-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 2=0-3-8, 5=0-3-8

Max Horiz 2=137 (LC 5)
Max Uplift 2=-4 (LC 4), 5=-239 (LC 5)
Max Grav 2=133 (LC 1), 5=621 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/1, 2-3=-139/108, 3-4=-93/0,
3-5=-578/265
BOT CHORD 2-5=-25/19

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone;
cantilever left and right exposed; end vertical left and
right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 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 239 lb uplift at joint
5 and 4 lb uplift at joint 2.



July 2, 2024

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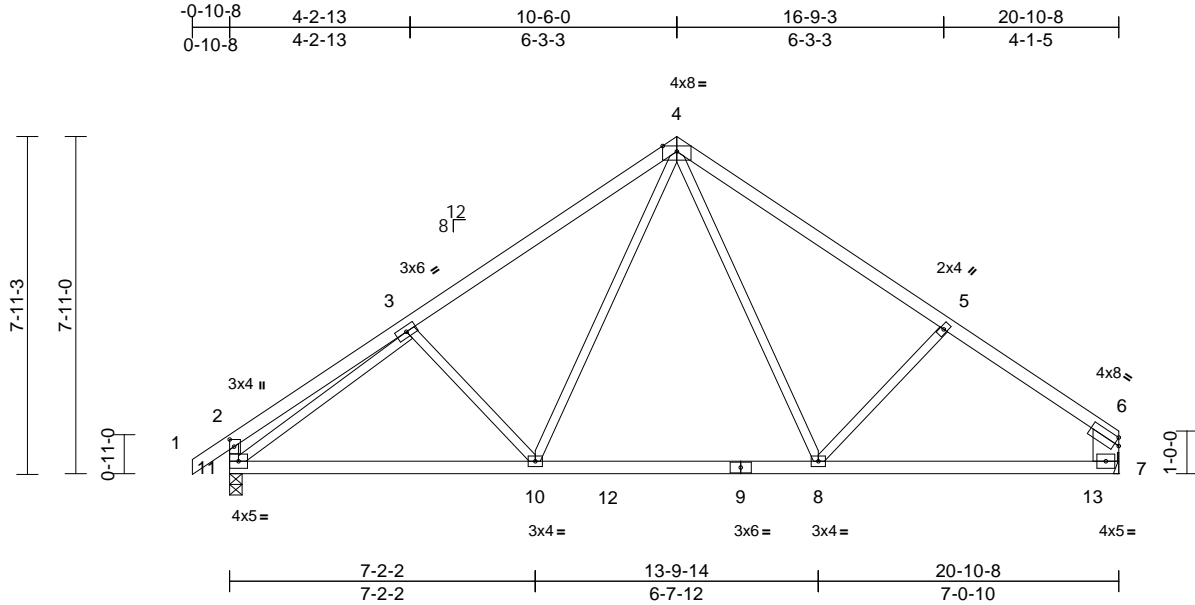


Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 166588891 LEE'S SUMMIT, MISSOURI
B240137	B4	Common	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:24
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08/01/2024



Scale = 1:54.1									
Plate Offsets (X, Y): [2:0-2-0,0-1-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.18 8-10	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.29 8-10	>848	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03 7	n/a	n/a
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.09 8-10	>999	240
							Weight: 81 lb	FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-6:2x8 SP 2400F 2.0E

- 6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 11 and 102 lb uplift at joint 7.
LOAD CASE(S) Standard

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

REACTIONS (size) 7= Mechanical, 11=0-3-8
Max Horiz 11=221 (LC 5)
Max Uplift 7=-102 (LC 9), 11=-127 (LC 8)
Max Grav 7=998 (LC 16), 11=1070 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-295/48, 3-4=-1152/193, 4-5=-1069/181, 5-6=-1219/172, 2-11=-306/77, 6-7=-842/130
BOT CHORD 10-11=-204/1122, 8-10=-13/745, 7-8=-102/888
WEBS 4-8=-75/384, 5-8=-234/221, 4-10=-92/529, 3-10=-260/229, 3-11=-1028/137

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



July 2,2024

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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MiTek®

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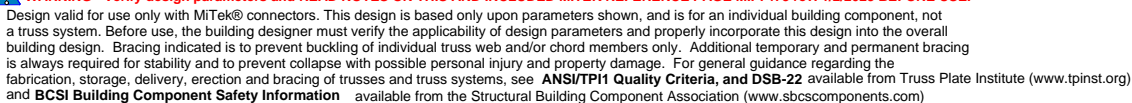
Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 03:12:25 Page: 1

ID:b4Dc_gRoQCrCA5UkqxTyFBzvy1l-RfC?PsB70Hq3NSgPqnL8w3ulTXbGhWrCDoi7J4zJC?f

Scale = 1:58.2

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	0.36	Vert(LL)	-0.15	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.32	13-14	>768	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	13-14	>999	240	Weight: 89 lb	FT = 10%

- 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.



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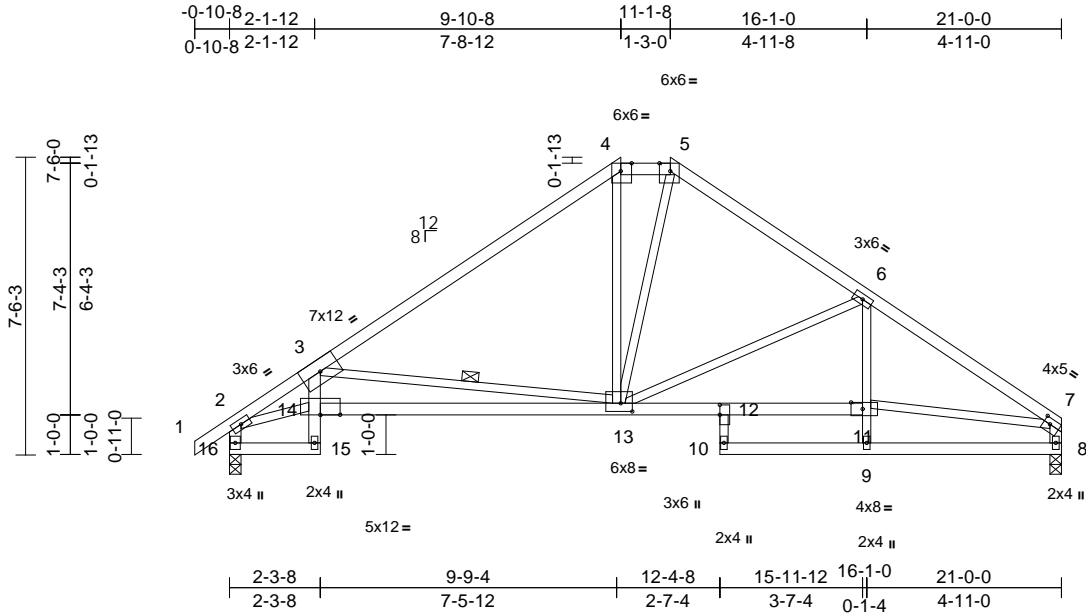
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB
B240137	B6	Hip	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:28
ID:b4Dc_gRoQCrCA5UkqxTyFBzvy1I-RfC?PsB70Hq3NSgPqnL8w3uITXbGhWrCDoin342067

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588893
LEE'S SUMMIT, MISSOURI

08/01/2024



Scale = 1:58.2

Plate Offsets (X, Y): [4:0-3-5,Edge], [5:0-3-5,Edge], [7:Edge,0-1-12], [11:0-3-8,0-2-0], [12:0-3-0,Edge], [13:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.12	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.26	13-14	>957	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.07	13-14	>999	240	Weight: 91 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 12-10:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,8-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-11 max.): 4-5.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-1-12 oc bracing: 13-14.

WEBS 1 Row at midpt 3-13

REACTIONS (size) 8=0-3-8, 16=0-3-8
Max Horiz 16=206 (LC 5)
Max Uplift 8=-102 (LC 9), 16=-125 (LC 8)
Max Grav 8=930 (LC 1), 16=1005 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-1919/314, 3-4=-1152/132, 4-5=-831/179, 5-6=-1009/161,

BOT CHORD 6-7=-1508/153, 2-16=-954/139, 7-8=-874/129, 15-16=-93/174, 14-15=-26/38, 3-14=0/317, 13-14=-513/2009, 12-13=-68/1197, 11-12=-49/1066, 10-12=0/67, 9-10=-19/131, 8-9=-20/156

WEBS 3-13=-1228/499, 4-13=-22/286, 5-13=-129/428, 6-13=-504/195, 9-11=0/174, 6-11=0/217, 2-14=-280/1470, 7-11=-48/1031

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- Provide adequate drainage to prevent water ponding.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 16 and 102 lb uplift at joint 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



July 2,2024

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

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

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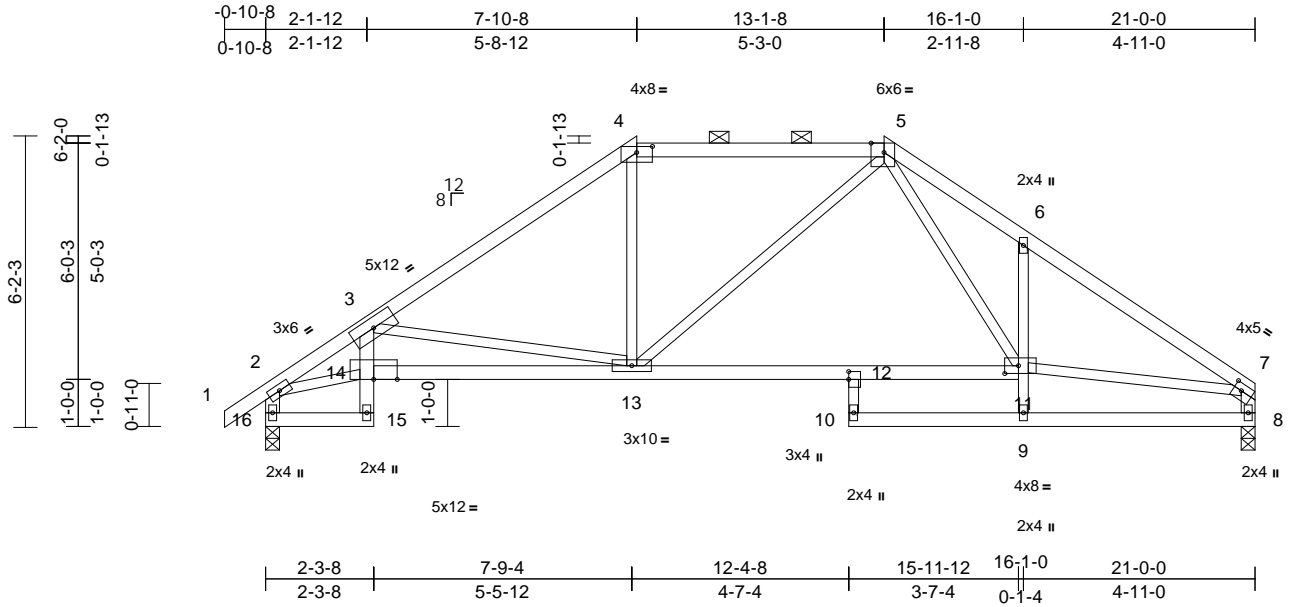
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	B7	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:22 Page: 1
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RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	B9	Hip	1	1		

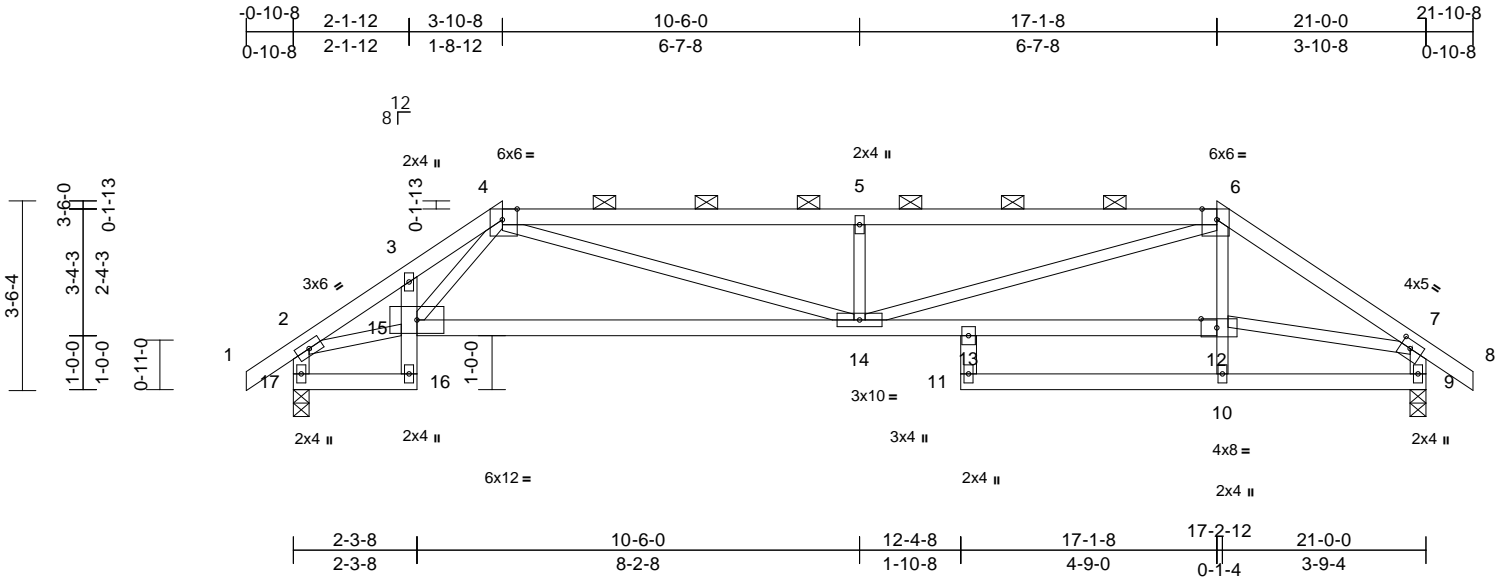
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:25 Page: 1

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RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
166588896
LEE'S SUMMIT, MISSOURI

08/01/2024



Scale = 1:42.7									
Plate Offsets (X, Y): [4:0-3-5,Edge], [6:0-3-4,Edge], [7:0-2-4,0-1-12], [12:0-3-8,0-2-0]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.17 14-15	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.38 14-15	>651	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.11 9	n/a	n/a
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.12 14-15	>999	240
						PLATES		GRIP	
						MT20		197/144	
						Weight: 83 lb		FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 17-2,9-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 17=0-3-8
Max Horiz 17=108 (LC 7)
Max Uplift 9=99 (LC 4), 17=99 (LC 5)
Max Grav 9=1003 (LC 1), 17=1003 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-1809/244, 3-4=-1842/259, 4-5=-2503/391, 5-6=-2503/391, 6-7=-1634/203, 7-8=0/40, 2-17=-979/122, 7-9=-959/116
BOT CHORD 16-17=-60/98, 15-16=0/43, 3-15=-112/108, 14-15=-267/1360, 13-14=-157/1316, 12-13=-176/1186, 11-13=0/92, 10-11=-2/130, 9-10=-4/152
WEBS 4-15=-9/441, 4-14=-235/1247, 5-14=-565/228, 6-14=-259/1283, 10-12=0/173, 6-12=0/233, 2-15=-192/1354, 7-12=-183/1161

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 17 and 99 lb uplift at joint 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

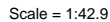


July 2,2024

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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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB
B240137	C1	Common Supported Gable	1	1	Job Reference (optional)

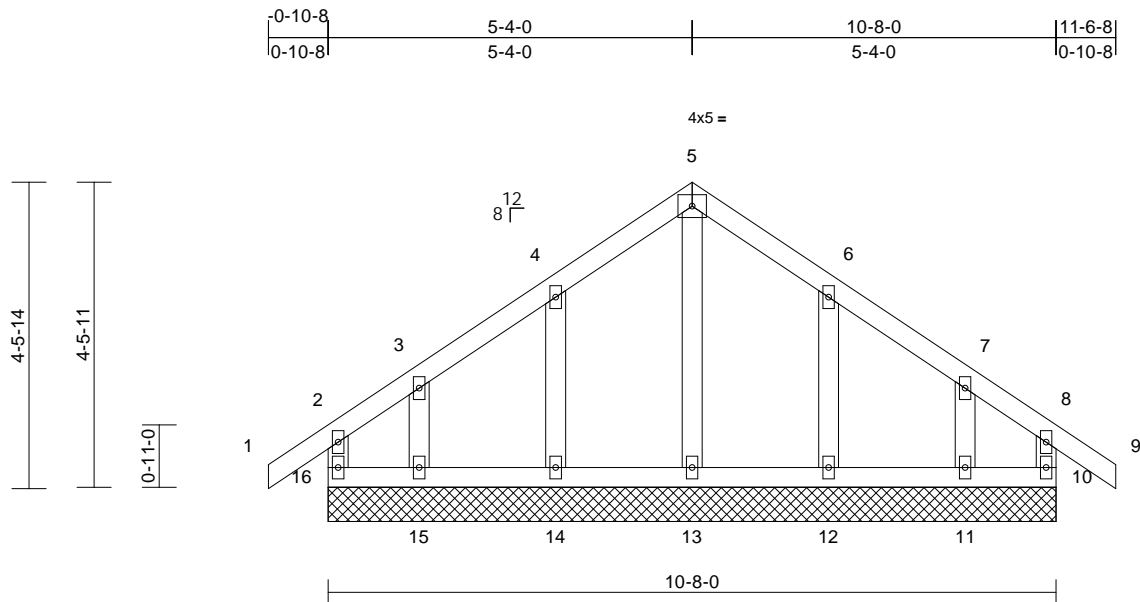
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588898
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:26 Page: 1

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08/01/2024



Scale = 1:33.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 44 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 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size)	10=10-8-0, 11=10-8-0, 12=10-8-0, 13=10-8-0, 14=10-8-0, 15=10-8-0, 16=10-8-0
Max Horiz	16=135 (LC 6)
Max Uplift	10=40 (LC 5), 11=82 (LC 9), 12=73 (LC 9), 14=72 (LC 8), 15=86 (LC 8), 16=58 (LC 4)
Max Grav	10=133 (LC 22), 11=161 (LC 16), 12=202 (LC 16), 13=176 (LC 1), 14=202 (LC 15), 15=170 (LC 15), 16=142 (LC 16)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-121/46, 1-2=0/40, 2-3=-75/77, 3-4=-53/82, 4-5=-45/114, 5-6=-37/108, 6-7=-39/77, 7-8=-54/59, 8-9=0/40, 8-10=-121/32
BOT CHORD	15-16=-64/66, 14-15=-64/66, 13-14=-64/66, 12-13=-64/66, 11-12=-64/66, 10-11=-64/66
WEBS	5-13=-137/0, 4-14=-162/99, 3-15=-120/90, 6-12=-163/100, 7-11=-116/88

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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

- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 16, 40 lb uplift at joint 10, 72 lb uplift at joint 14, 86 lb uplift at joint 15, 73 lb uplift at joint 12 and 82 lb uplift at joint 11.

LOAD CASE(S) Standard

July 2, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	G1	Flat Girder	1	1		

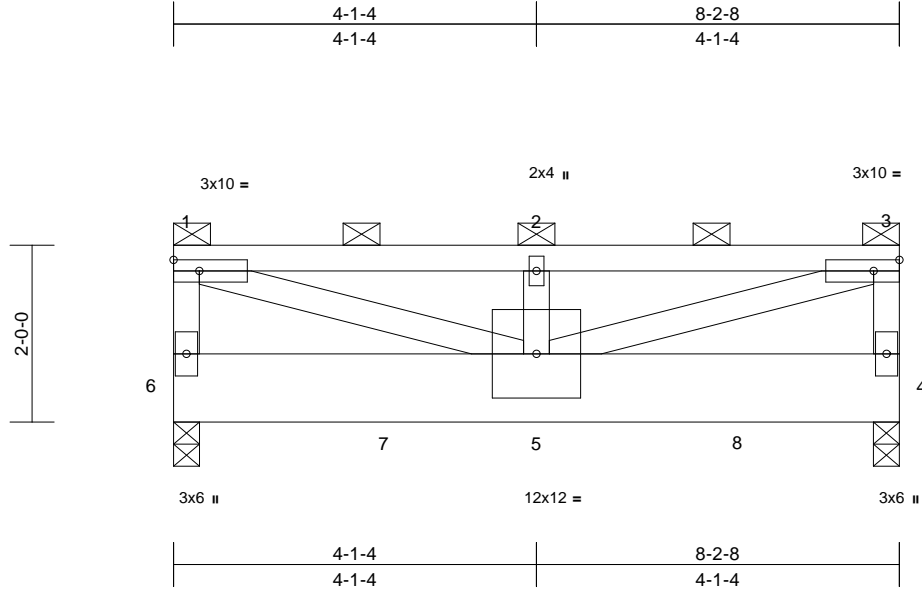
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:25 Page: 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588899
LEE'S SUMMIT, MISSOURI

08/01/2024



Scale = 1:26.1

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	0.41	Vert(LL)	-0.05	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.09	5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.03	5	>999	240	Weight: 53 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING

TOP CHORD 2-0-0 oc purlins (3-8-3 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=56 (LC 5)
Max Uplift 4=250 (LC 5), 6=345 (LC 4)
Max Grav 4=1809 (LC 15), 6=2556 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-6=-917/159, 1-2=-2225/294,
2-3=-2225/294, 3-4=-917/159

BOT CHORD 5-6=-49/44, 4-5=-21/16

WEBS 1-5=-327/2379, 2-5=-311/157, 3-5=-327/2379

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 SP 2400F 2.0E.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 345 lb uplift at joint 6 and 250 lb uplift at joint 4.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 912 lb down and 111 lb up at 0-1-12, 1010 lb down and 114 lb up at 2-4-8, and 1010 lb down and 114 lb up at 4-4-8, and 1010 lb down and 114 lb up at 6-4-8 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: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 6=-912 (F), 5=-899 (F), 7=-899 (F), 8=-899 (F)



July 2, 2024

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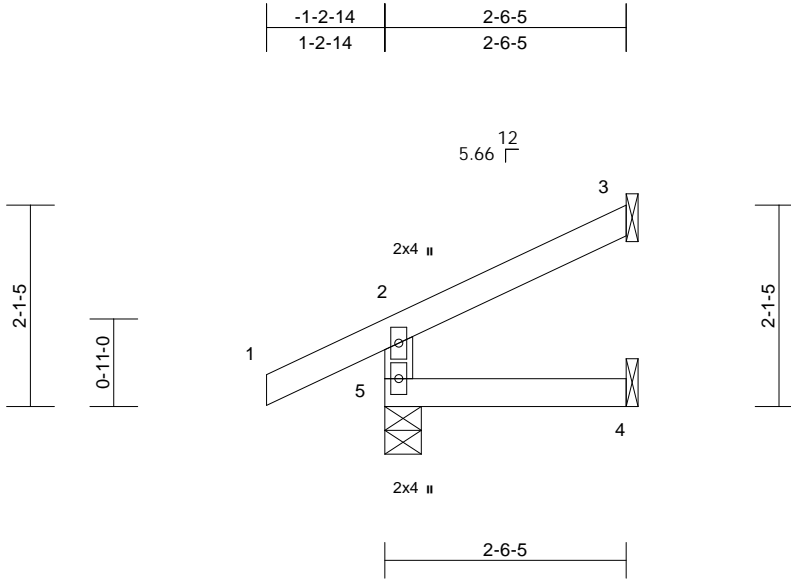
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	J1	Diagonal Hip Girder	2	1		

Wheeler Lumber, Waverly, KS - 66871,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588900
LEE'S SUMMIT, MISSOURI

08/01/2024



Scale = 1:24.1

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	0.15	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	240	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb
											FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-6-5 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=58 (LC 8)
Max Uplift 3=-40 (LC 8), 5=-35 (LC 8)
Max Grav 3=57 (LC 1), 4=42 (LC 3), 5=230
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-202/59, 1-2=0/41, 2-3=-47/18
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 35 lb uplift at joint
5 and 40 lb uplift at joint 3.

LOAD CASE(S) Standard



July 2, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	J2	Jack-Open	10	1		

Wheeler Lumber, Waverly, KS - 66871,

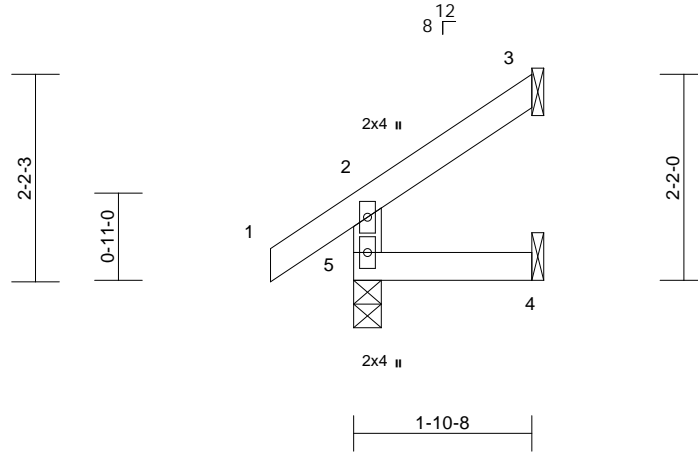
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588901
LEE'S SUMMIT, MISSOURI

08/01/2024

-0-10-8	1-10-8
0-10-8	1-10-8



Scale = 1:24.2

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	0.07	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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	IRC2021/TPI2014	Matrix-R							Weight: 7 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or
1-10-8 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=61 (LC 8)
Max Uplift 3=-41 (LC 8), 4=-4 (LC 8), 5=-7 (LC
8)
Max Grav 3=50 (LC 15), 4=31 (LC 3), 5=170
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-149/32, 1-2=0/40, 2-3=-49/22
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCCL=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 7 lb uplift at joint 5,
4 lb uplift at joint 4 and 41 lb uplift at joint 3.

LOAD CASE(S) Standard



July 2, 2024

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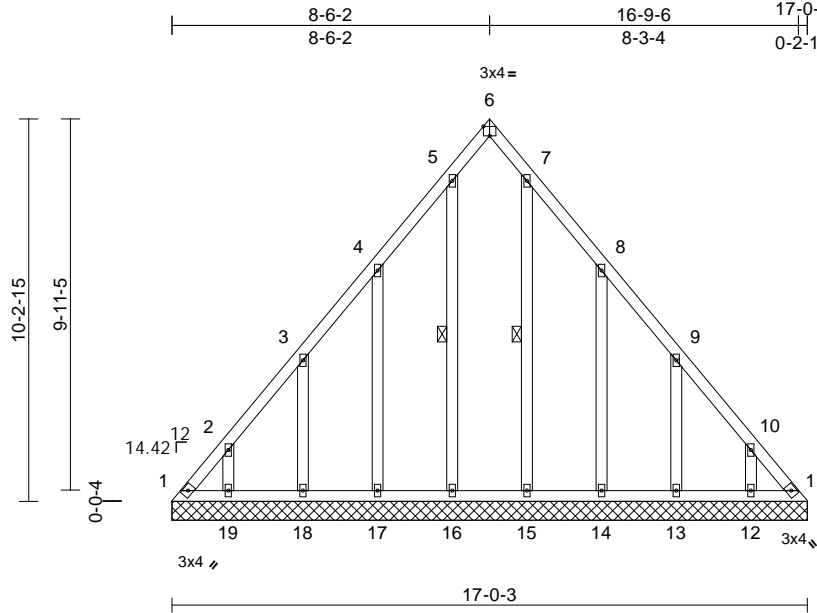
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Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	RELEASE FOR CONSTRUCTION
B240137	LAY1	Lay-In Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						166588902
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:26 Page: 1
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08/01/2024



Scale = 1:61.7

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

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	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.01	11	n/a	n/a	
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							
										Weight: 93 lb	FT = 10%

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 5-16, 7-15

REACTIONS (size)	1=17-0-3, 11=17-0-3, 12=17-0-3, 13=17-0-3, 14=17-0-3, 15=17-0-3, 16=17-0-3, 17=17-0-3, 18=17-0-3, 19=17-0-3
Max Horiz	1=-272 (LC 4)
Max Uplift	1=-158 (LC 6), 11=-140 (LC 7), 12=-137 (LC 9), 13=-150 (LC 9), 14=-177 (LC 9), 15=-33 (LC 9), 16=-48 (LC 8), 17=-174 (LC 8), 18=-150 (LC 8), 19=-137 (LC 8)
Max Grav	1=377 (LC 8), 11=366 (LC 9), 12=193 (LC 16), 13=218 (LC 16), 14=224 (LC 16), 15=167 (LC 16), 16=184 (LC 15), 17=220 (LC 15), 18=218 (LC 15), 19=193 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-499/245, 2-3=-370/195, 3-4=-217/132, 4-5=-119/69, 5-6=-67/53, 6-7=-66/47, 7-8=-99/43, 8-9=-202/109, 9-10=-355/171, 10-11=-484/221
BOT CHORD	1-19=-142/328, 18-19=-142/328, 17-18=-142/328, 16-17=-142/328, 15-16=-142/328, 14-15=-142/328, 13-14=-142/328, 12-13=-142/328, 11-12=-142/328

WEBS

2-19=-154/153, 3-18=-178/176, 4-17=-180/197, 5-16=-144/72, 7-15=-127/57, 8-14=-184/201, 9-13=-177/175, 10-12=-154/153

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 1, 140 lb uplift at joint 11, 137 lb uplift at joint 19, 150 lb uplift at joint 18, 174 lb uplift at joint 17, 48 lb uplift at joint 16, 33 lb uplift at joint 15, 177 lb uplift at joint 14, 150 lb uplift at joint 13 and 137 lb uplift at joint 12.

LOAD CASE(S) Standard



July 2,2024

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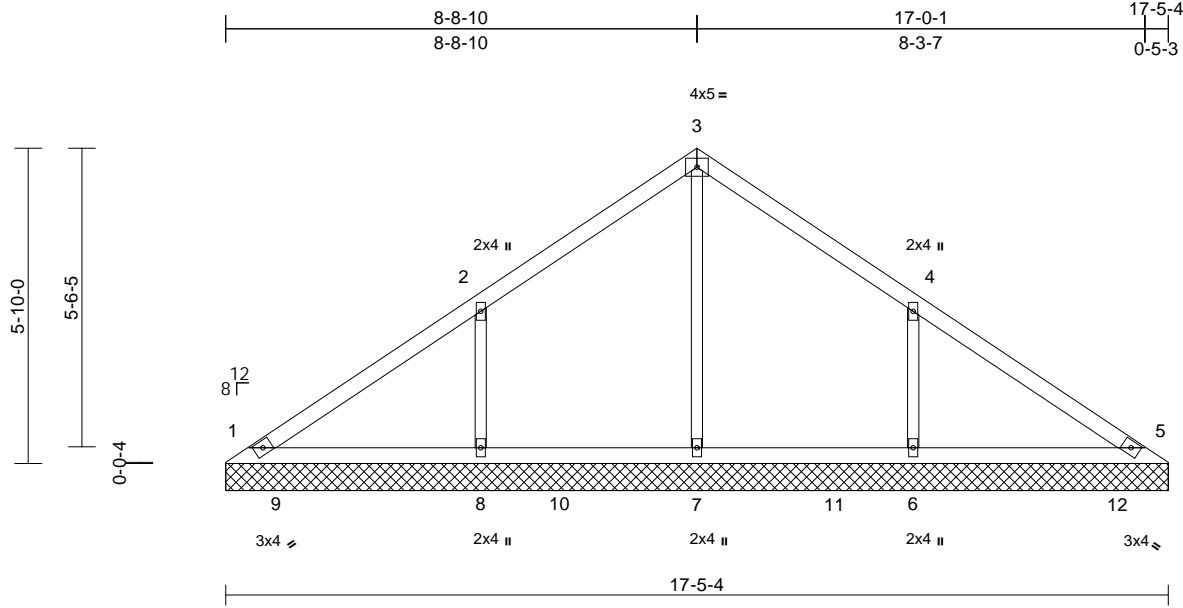
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	V1	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588903
LEE'S SUMMIT, MISSOURI

08/01/2024



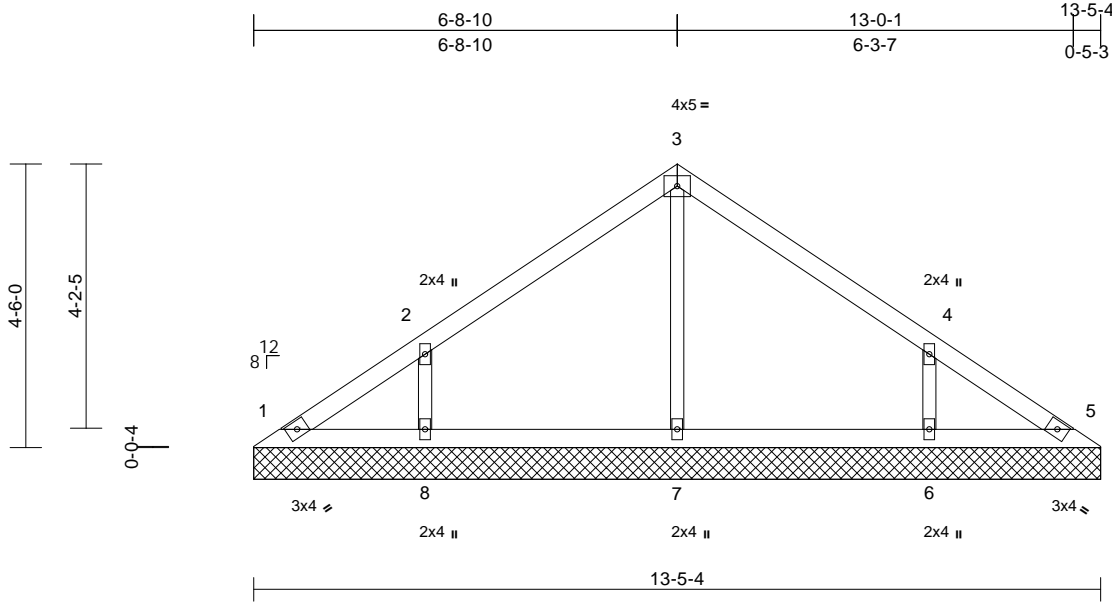
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	V2	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:22 Page: 1
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RELEASE FOR CONSTRUCTION
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08/01/2024



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 38 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=13-5-4, 5=13-5-4, 6=13-5-4, 7=13-5-4, 8=13-5-4
Max Horiz 1=109 (LC 5)
Max Uplift 1=-19 (LC 4), 6=-141 (LC 9), 8=-141 (LC 8)
Max Grav 1=102 (LC 16), 5=86 (LC 15), 6=354 (LC 16), 7=284 (LC 1), 8=354 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-117/83, 2-3=-144/100, 3-4=-140/77, 4-5=-91/46
BOT CHORD 1-8=-27/74, 7-8=-27/74, 6-7=-27/74, 5-6=-27/74
WEBS 3-7=-200/18, 2-8=-285/182, 4-6=-284/182

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - All bearings are assumed to be SPF No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1, 141 lb uplift at joint 8 and 141 lb uplift at joint 6.
- LOAD CASE(S)** Standard



July 2, 2024

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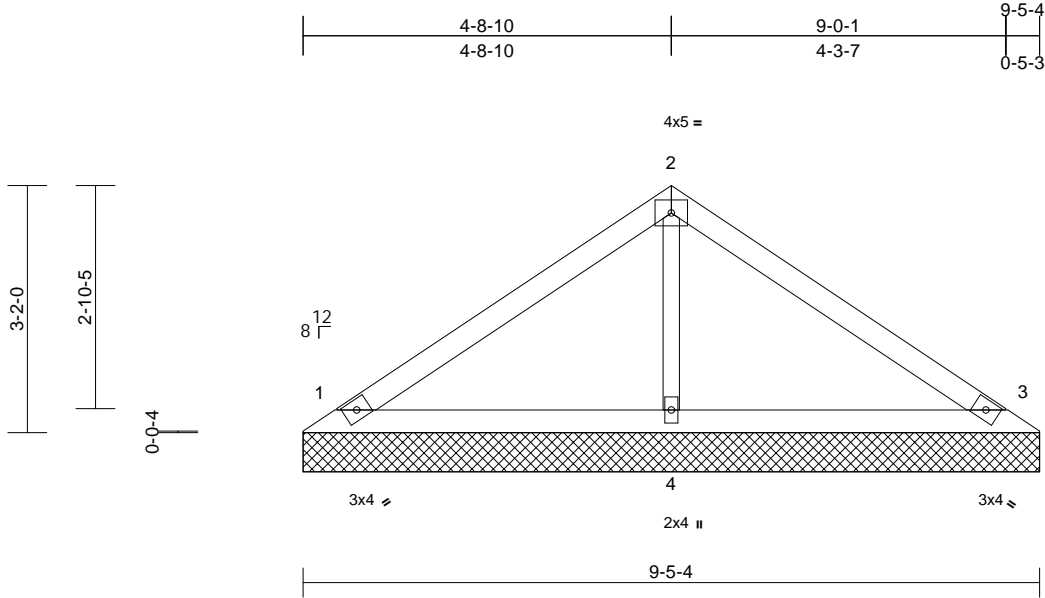
Job	Truss	Truss Type	Qty	Ply	Lot 8 CB	Job Reference (optional)
B240137	V3	Valley	1	1		

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
166588905
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jun 13 2024 Print: 8.730 S Jun 13 2024 MiTek Industries, Inc. Mon Jul 01 08:47:22 Page: 1
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08/01/2024



Scale = 1:29.5

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	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	IRC2021/TPI2014	Matrix-S							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=9-5-4, 3=9-5-4, 4=9-5-4
Max Horiz 1=74 (LC 6)
Max Uplift 1=37 (LC 8), 3=47 (LC 9), 4=14 (LC 8)
Max Grav 1=197 (LC 1), 3=197 (LC 1), 4=373 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=147/70, 2-3=147/53
BOT CHORD 1-4=14/68, 3-4=14/68
WEBS 2-4=243/62

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * 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.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1, 47 lb uplift at joint 3 and 14 lb uplift at joint 4.

LOAD CASE(S) Standard



July 2,2024

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

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

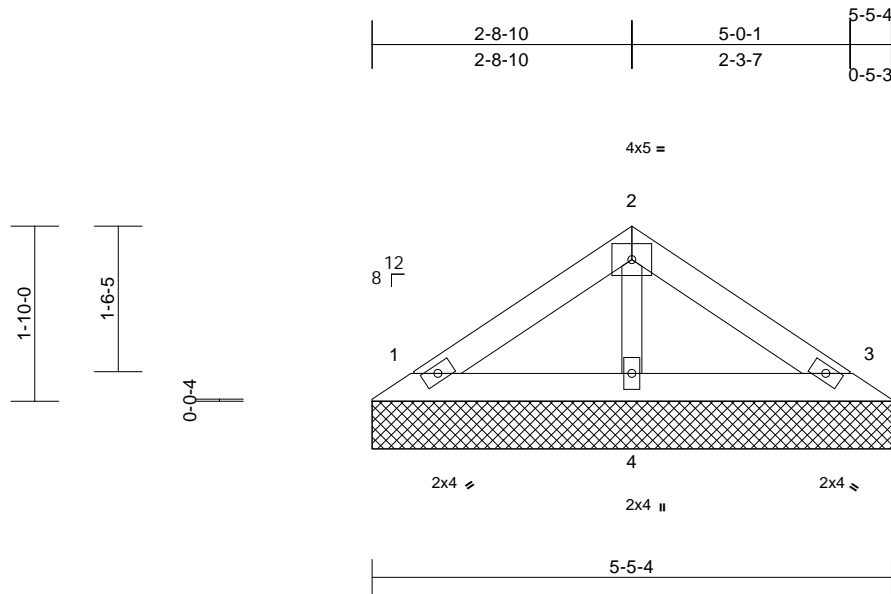
MiTek®

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08/01/2024

[illegible]

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

- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 30 lb uplift at joint 3.

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

REACTIONS (size) 1=5-5-4, 3=5-5-4, 4=5-5-4
 Max Horiz 1=-39 (LC 4)
 Max Uplift 1=-25 (LC 8), 3=-30 (LC 9)
 Max Grav 1=115 (LC 1), 3=115 (LC 1), 4=179 (LC 1)

TOP CHORD 1-2=-71/36, 2-3=-69/27
BOT CHORD 1-4=-8/33, 3-4=-8/33
WEBS 2-4=-122/31

- 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.



July 2, 2024



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER KNOT REFERENCE ASSEMBLY DRAWINGS 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.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

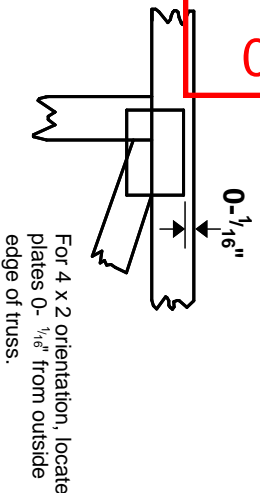
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Symbols

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.



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

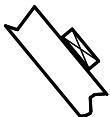
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

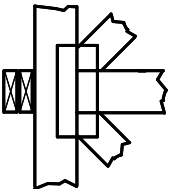
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

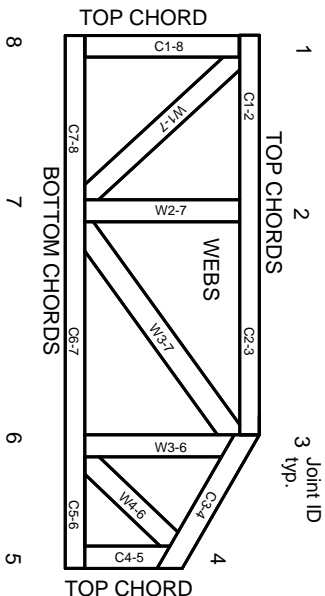


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:
ANSI/TP11: 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

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.