RE: B240067
Lot 166 HT

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

Site Information:

Customer: Summit Homes Project Name: B240067
Lot/Block: 166 Model: Somerset - Tuscan
Address: 1632 SW Buckthorn Street Subdivision: Hawthorn 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 41 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I64780418	A1	4/10/2024	21	I64780438	D3	4/10/2024
2	I64780419	A2	4/10/2024	22	I64780439	E1	4/10/2024
3	I64780420	A3	4/10/2024	23	I64780440	V1	4/10/2024
4	I64780421	A4	4/10/2024	24	I64780441	V2	4/10/2024
5	I64780422	A5	4/10/2024	25	I64780442	V3	4/10/2024
6	I64780423	A6	4/10/2024	26	I64780443	V4	4/10/2024
7	I64780424	A7	4/10/2024	27	I64780444	V5	4/10/2024
8	I64780425	A8	4/10/2024	28	I64780445	V6	4/10/2024
9	I64780426	A9	4/10/2024	29	I64780446	V7	4/10/2024
10	I64780427	A10	4/10/2024	30	I64780447	V8	4/10/2024
11	I64780428	B1	4/10/2024	31	I64780448	V9	4/10/2024
12	I64780429	B2	4/10/2024	32	I64780449	V10	4/10/2024
13	I64780430	B3	4/10/2024	33	I64780450	V11	4/10/2024
14	I64780431	B4	4/10/2024	34	I64780451	V12	4/10/2024
15	I64780432	B5	4/10/2024	35	I64780452	V13	4/10/2024
16	I64780433	B6	4/10/2024	36	I64780453	V14	4/10/2024
17	I64780434	C1	4/10/2024	37	I64780454	V15	4/10/2024
18	I64780435	C2	4/10/2024	38	I64780455	V16	4/10/2024
19	I64780436	D1	4/10/2024	39	I64780456	V17	4/10/2024
20	I64780437	D2	4/10/2024	40	I64780457	V18	4/10/2024

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

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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

April 10, 2024
Sevier, Scott

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:40

RE: B240067 - Lot 166 HT

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

Site Information:

Project Customer: Summit Homes Project Name: B240067
Lot/Block: 166 Subdivision: Hawthorn Ridge
Address: 1632 SW Buckthorn Street
City, County: Lee's Summit State: MO

No.	Seal#	Truss Name	Date
41	I64780458	V19	4/10/2024

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:40

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A1	Common Supported Gable	2	1	Job Reference (optional)	I64780418

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:01 Page: 1
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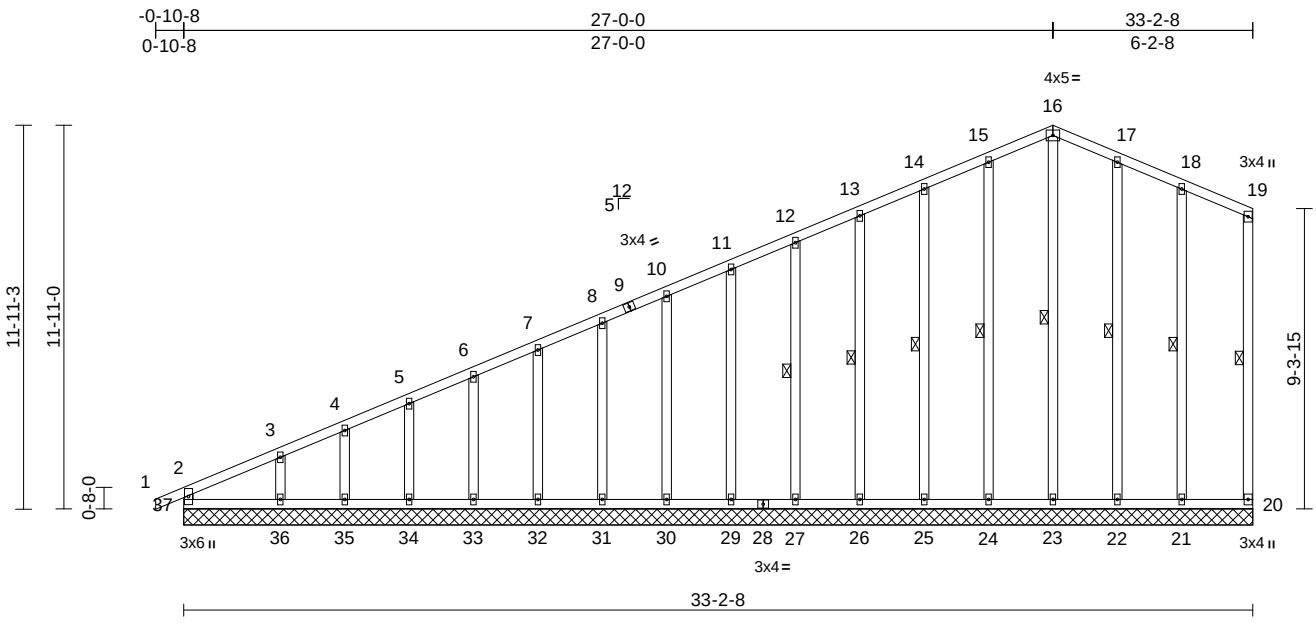

Scale = 1:71.6

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 208 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 19-20, 16-23, 15-24, 14-25, 13-26, 12-27, 17-22, 18-21

REACTIONS (size) 20=33-2-8, 21=33-2-8, 22=33-2-8, 23=33-2-8, 24=33-2-8, 25=33-2-8, 26=33-2-8, 27=33-2-8, 29=33-2-8, 30=33-2-8, 31=33-2-8, 32=33-2-8, 33=33-2-8, 34=33-2-8, 35=33-2-8, 36=33-2-8, 37=33-2-8
Max Horiz 37=398 (LC 5)
Max Uplift 20=-43 (LC 4), 21=-45 (LC 9), 22=-56 (LC 9), 23=-18 (LC 7), 24=-44 (LC 8), 25=-51 (LC 8), 26=-47 (LC 8), 27=-48 (LC 8), 29=-48 (LC 8), 30=-48 (LC 8), 31=-48 (LC 8), 32=-48 (LC 8), 33=-46 (LC 8), 34=-57 (LC 8), 35=-11 (LC 8), 36=-148 (LC 8)
Max Grav 20=88 (LC 16), 21=200 (LC 22), 22=185 (LC 22), 23=168 (LC 1), 24=189 (LC 21), 25=179 (LC 21), 26=180 (LC 1), 27=180 (LC 21), 29=180 (LC 1), 30=180 (LC 21), 31=180 (LC 1), 32=180 (LC 21), 33=179 (LC 1), 34=185 (LC 21), 35=159 (LC 1), 36=242 (LC 21), 37=245 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-37=-206/0, 1-2=0/27, 2-3=-332/45, 3-4=-279/35, 4-5=-262/35, 5-6=-237/31, 6-7=-216/28, 7-8=-202/27, 8-10=-188/27, 10-11=-174/39, 11-12=-161/65, 12-13=-147/92, 13-14=-133/118, 14-15=-120/146, 15-16=-105/170, 16-17=-104/171, 17-18=-118/145, 18-19=-163/140, 19-20=-124/106
BOT CHORD 36-37=-130/98, 35-36=-130/98, 34-35=-130/98, 33-34=-130/98, 32-33=-130/98, 31-32=-130/98, 30-31=-130/98, 29-30=-130/98, 27-29=-130/98, 26-27=-130/98, 25-26=-130/98, 24-25=-130/98, 23-24=-130/98, 22-23=-130/98, 21-22=-130/98, 20-21=-130/98
WEBS 16-23=-128/65, 15-24=-149/69, 14-25=-139/74, 13-26=-140/71, 12-27=-140/72, 11-29=-140/72, 10-30=-140/72, 8-31=-140/72, 7-32=-140/72, 6-33=-139/70, 5-34=-143/78, 4-35=-126/46, 3-36=-182/145, 17-22=-147/66, 18-21=-155/117

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SPF No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 20, 18 lb uplift at joint 23, 44 lb uplift at joint 24, 51 lb uplift at joint 25, 47 lb uplift at joint 26, 48 lb uplift at joint 27, 48 lb uplift at joint 29, 48 lb uplift at joint 30, 48 lb uplift at joint 31, 48 lb uplift at joint 32, 46 lb uplift at joint 33, 57 lb uplift at joint 34, 11 lb uplift at joint 35, 148 lb uplift at joint 36, 56 lb uplift at joint 22 and 45 lb uplift at joint 21.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
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06/03/2024 3:44:40

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A2	Roof Special	1	1	Job Reference (optional)	I64780419

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:02
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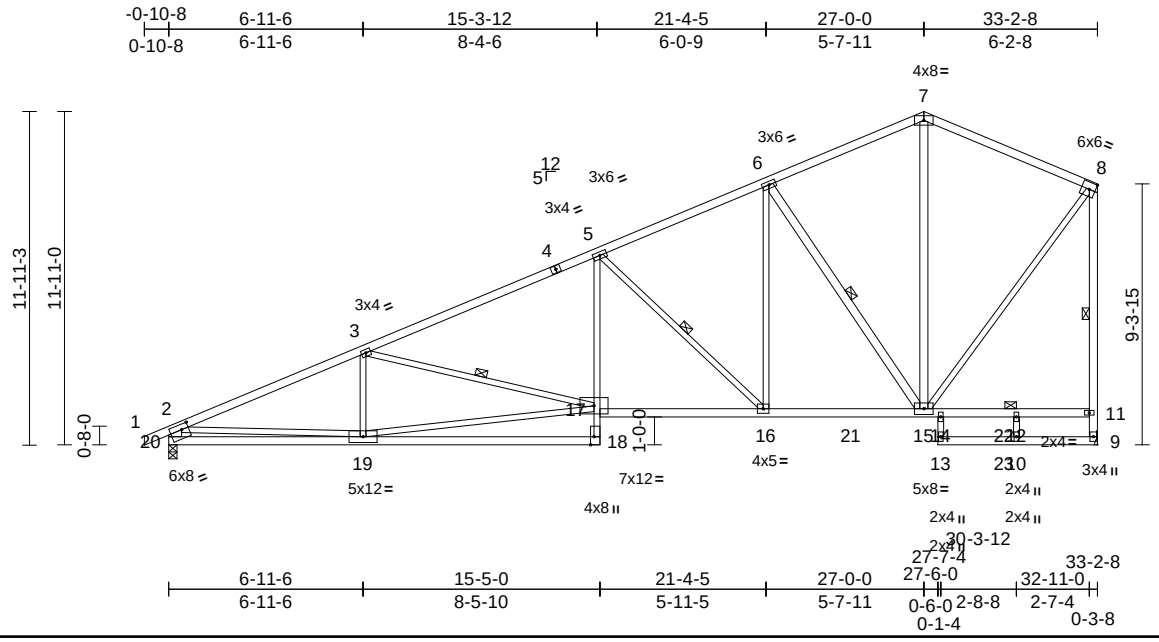

Scale = 1:82.4

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

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	0.76	Vert(LL)	-0.26	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.51	18-19	>769	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	16-17	>999	240	Weight: 168 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 18-5:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-6,15-7,9-8:2x4 SPF No.2, 20-2:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-3-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-2-14 oc bracing.
WEBS 1 Row at midpt 3-17, 5-16, 6-15, 8-9
JOINTS 1 Brace at Jt(s): 12

REACTIONS (size) 9= Mechanical, 20=0-3-8
Max Horiz 20=398 (LC 5)
Max Uplift 9=-219 (LC 8), 20=-251 (LC 8)
Max Grav 9=1715 (LC 2), 20=1609 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-2961/429, 3-5=-2606/430, 5-6=-1679/313, 6-7=-906/226, 7-8=-906/243, 2-20=-1499/282, 9-11=-1604/243, 8-11=-1501/267
BOT CHORD 19-20=-381/802, 18-19=-2/152, 17-18=0/155, 5-17=-44/715, 16-17=-406/2327, 15-16=-213/1482, 14-15=-151/115, 12-14=-151/115, 11-12=-151/115, 10-13=0/0, 9-10=0/0
WEBS 13-14=0/95, 3-19=-305/196, 17-19=-548/2534, 3-17=-367/141, 5-16=-1162/309, 6-16=-126/1002, 6-15=-1260/320, 7-15=-66/389, 8-15=-179/1262, 2-19=-178/1865, 10-12=0/77

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 20 and 219 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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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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DEVELOPMENT SERVICES
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06/03/2024 3:44:40

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A3	Roof Special	2	1	Job Reference (optional)	I64780420

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:02 Page: 1

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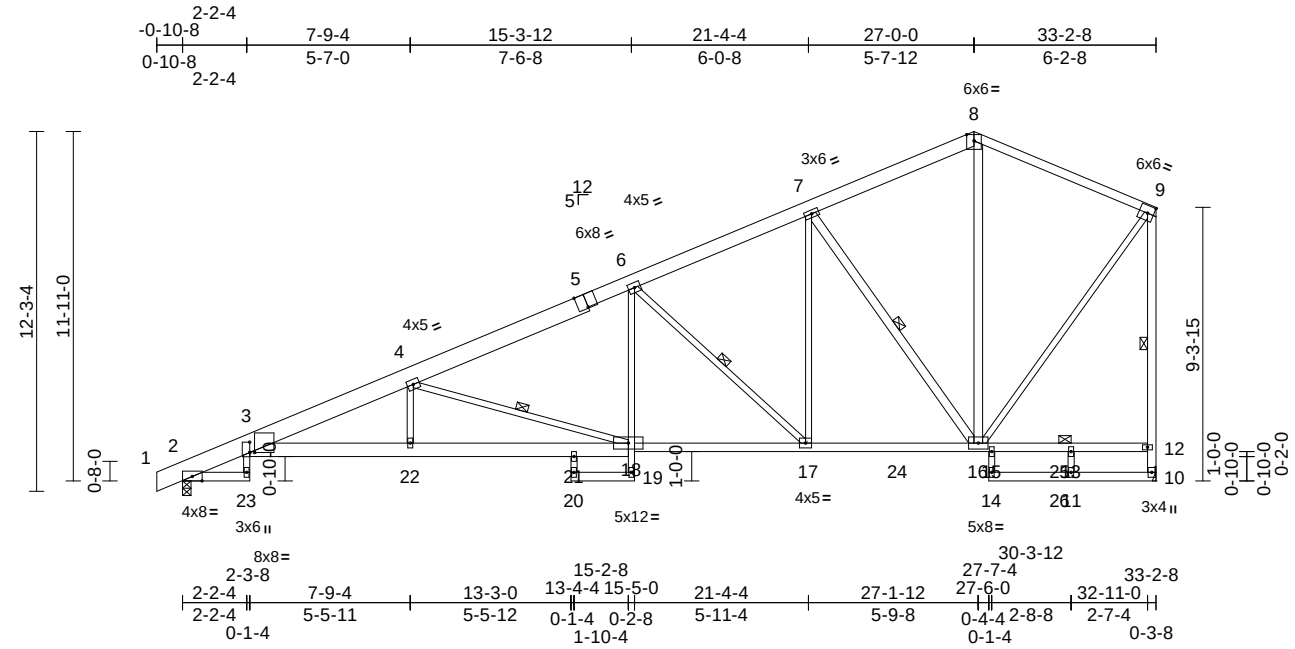

Scale = 1:78.6

Plate Offsets (X, Y): [3:0-1-14,0-0-0], [3:0-4-4,0-0-1], [5:0-4-0,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	0.76	Vert(LL)	-0.30	3-22	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.52	3-22	>753	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	3-22	>999	240	Weight: 213 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF No.2 *Except* 8-9:2x4 SPF No.2, 1-5:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-18:2x6 SP 2400F 2.0E, 19-6:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 16-7,16-8,10-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 4-18, 6-17, 7-16, 9-10

JOINTS 1 Brace at Jt(s): 13

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=308 (LC 5)
Max Uplift 2=-57 (LC 8), 10=-40 (LC 8)
Max Grav 2=1612 (LC 2), 10=1729 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-895/0, 3-4=-4035/156, 4-6=-2609/115, 6-7=-1712/109, 7-8=-908/108, 8-9=-903/118, 10-12=-1622/62, 9-12=-1522/83

BOT CHORD 2-23=0/22, 3-22=-234/3891, 21-22=-231/3888, 18-21=-231/3888, 19-20=0/0, 18-19=0/42, 6-18=0/740, 17-18=-97/2304, 16-17=-80/1522, 15-16=-127/96, 13-15=-127/96, 12-13=-127/96, 11-14=0/0, 10-11=0/0

WEBS 3-23=0/81, 20-21=0/37, 14-15=0/91, 4-22=0/224, 4-18=-1668/150, 6-17=-1067/111, 7-17=0/1006, 7-16=-1308/128, 8-16=-23/397, 9-16=-29/1286, 11-13=0/83

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 2 and 40 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:40

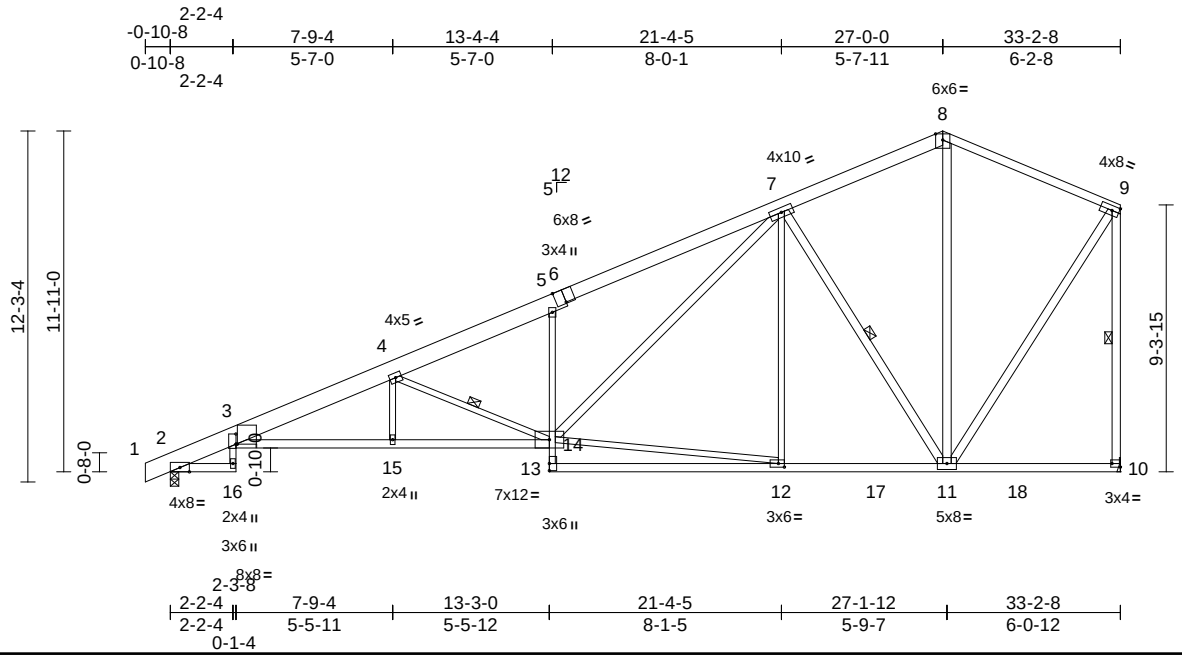
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	A4	Roof Special	2	1	I64780421
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:02

ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:80.5

Plate Offsets (X, Y): [3:0-0-9,0-0-0], [3:0-4-4,0-0-1], [6:0-4-0,Edge], [10:Edge,0-1-8], [12:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.30	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.57	12-13	>694	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.30	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	3-15	>999	240	Weight: 205 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF No.2 *Except* 8-9:2x4 SPF No.2, 1-6:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2 *Except* 3-14:2x4 SPF 2100F 1.8E, 5-13:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 14-7,11-7,11-8,11-9,10-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 4-14, 7-11, 9-10

REACTIONS (size) 2=0-3-8, 10= Mechanical
Max Horiz 2=308 (LC 5)
Max Uplift 2=-55 (LC 8), 10=-39 (LC 8)
Max Grav 2=1595 (LC 2), 10=1604 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-883/0, 3-4=-3833/143, 4-5=-2798/132, 5-7=-2777/229, 7-8=-813/116, 8-9=-802/125, 9-10=-1478/80

BOT CHORD 2-16=0/9, 3-15=-221/3719, 14-15=-218/3710, 13-14=0/149, 5-14=-412/149, 12-13=0/191, 11-12=-71/1339, 10-11=-107/82

WEBS 3-16=0/71, 4-15=-50/133, 4-14=-1334/102, 12-14=-91/1155, 7-14=-170/1661, 7-12=0/270, 7-11=-1248/129, 8-11=-37/336, 9-11=-17/1234

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2 and 39 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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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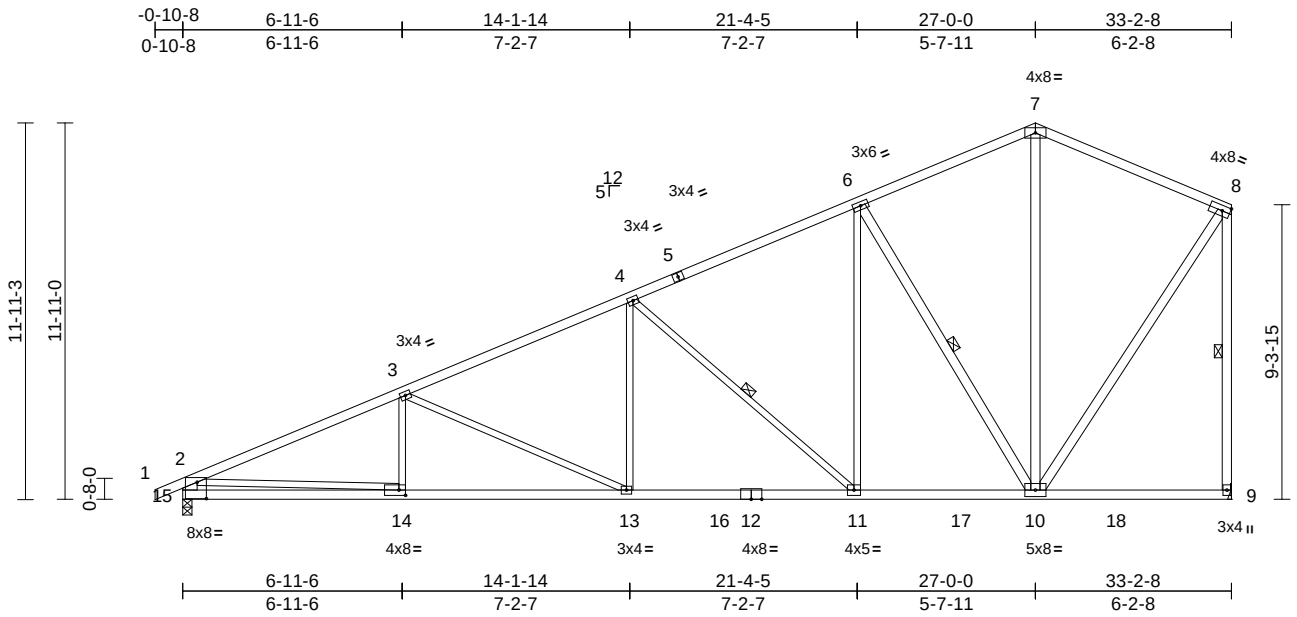
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:40

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A5	Common	1	1	Job Reference (optional)	I64780422

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:02 Page: 1
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73

Plate Offsets (X, Y): [14:0-2-8,0-2-0], [15:0-3-8,0-6-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.34	11-13	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	13-14	>999	240	Weight: 161 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8,9-8,10-6,10-7:2x4 SPF No.2, 15-2:2x6 SPF No.2

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

REACTIONS (size) 9= Mechanical, 15=0-3-8
Max Horiz 15=278 (LC 8)
Max Uplift 9=-59 (LC 8), 15=-34 (LC 8)
Max Grav 9=1621 (LC 2), 15=1624 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-2956/48, 3-4=-2353/53, 4-6=-1531/59, 6-7=-830/67, 7-8=-824/74, 2-15=-1503/72, 8-9=-1494/89
BOT CHORD 14-15=-313/848, 13-14=-264/2654, 11-13=-183/2103, 10-11=-102/1337, 9-10=-2/12
WEBS 8-10=-61/1243, 2-14=0/1810, 3-14=0/200, 3-13=-610/89, 4-13=0/553, 4-11=-1015/107, 6-11=0/927, 6-10=-1231/131, 7-10=0/342

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 15 and 59 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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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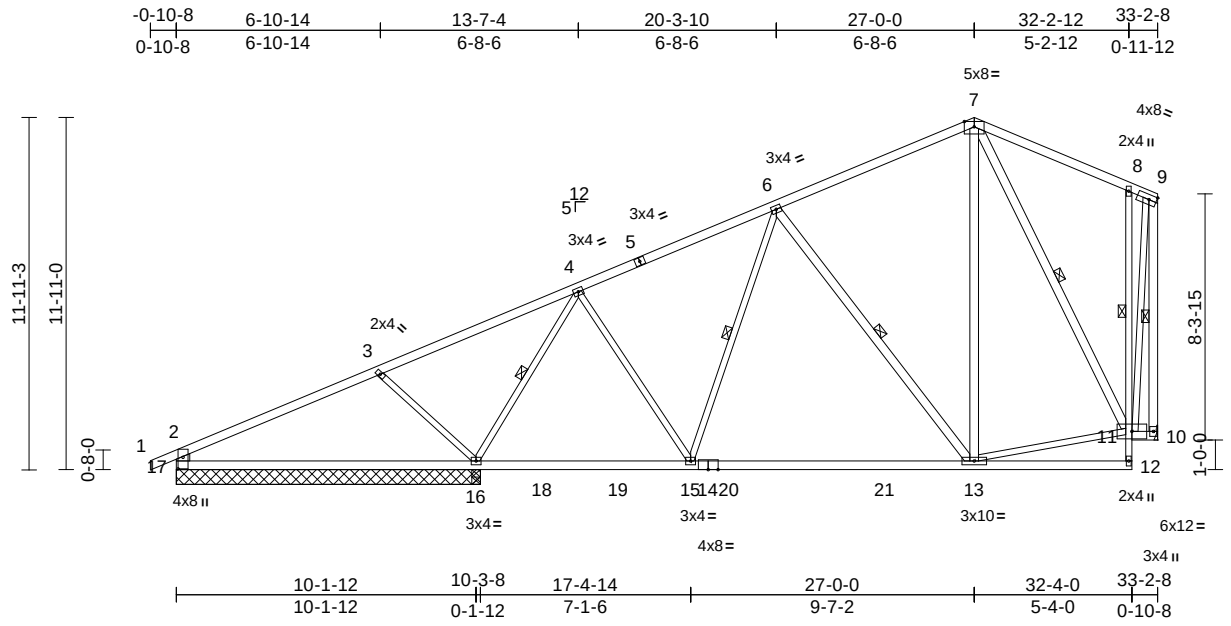
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A6	Roof Special	1	1	Job Reference (optional)	I64780423

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
ID:tY0Fwcbz3TZ2VanMOz?kmdzSVR4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78

Plate Offsets (X, Y): [17:0-4-11,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.32	13-15	>851	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.52	13-15	>530	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	13-15	>999	240	Weight: 168 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 17-14:2x4 SPF 2100F 1.8E, 12-8:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-6,13-7,11-7,10-9:2x4 SPF No.2, 17-2:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
1 Row at midpt 8-11
WEBS 1 Row at midpt 4-16, 6-15, 6-13, 7-11, 9-10

REACTIONS (size) 10= Mechanical, 16=10-3-8, 17=10-3-8
Max Horiz 17=382 (LC 5)
Max Uplift 10=-143 (LC 8), 16=-252 (LC 8), 17=-75 (LC 8)
Max Grav 10=1109 (LC 2), 16=1573 (LC 2), 17=540 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-478/74, 3-4=-185/95, 4-6=-914/183, 6-7=-586/172, 7-8=-219/154, 8-9=-208/131, 9-10=-910/211, 2-17=-439/135
BOT CHORD 16-17=-292/373, 15-16=-216/604, 13-15=-178/748, 12-13=-21/106, 11-12=0/57, 8-11=-347/244, 10-11=-114/87
WEBS 3-16=-501/254, 4-16=-1094/208, 4-15=0/338, 6-15=-47/214, 6-13=-489/229, 7-13=-84/665, 11-13=-92/371, 7-11=-816/101, 9-11=-159/896

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) Bearings are assumed to be: Joint 16 SPF 2100F 1.8E , Joint 10 SPF No.2 , Joint 16 SPF 2100F 1.8E .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 17, 143 lb uplift at joint 10 and 252 lb uplift at joint 16.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A7	Roof Special	3	1	Job Reference (optional)	I64780424

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
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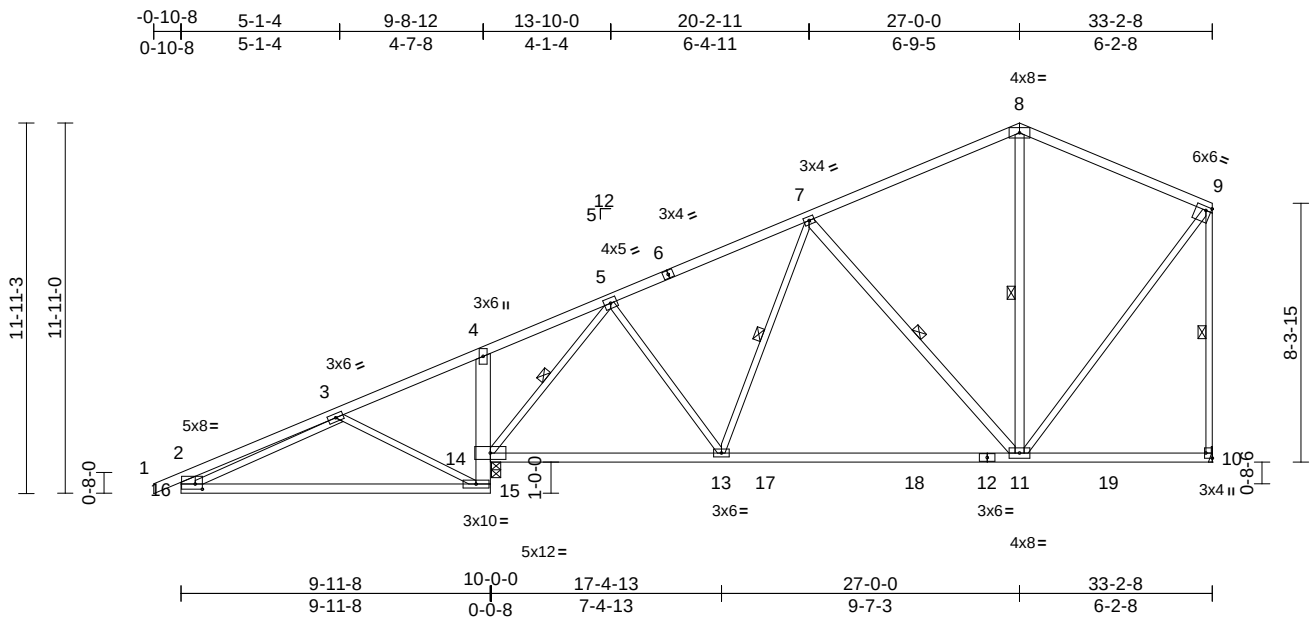

Scale = 1:74.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.25	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.53	15-16	>215	120		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.03	10-11	>999	240	Weight: 153 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 15-4:2x6 SP 2400F 2.0E, 12-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-8,7-11:2x4 SPF No.2, 16-2:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 8-11, 9-10, 5-14, 7-13, 7-11

REACTIONS (size) 10= Mechanical, 14=0-3-8
Max Horiz 14=298 (LC 5)
Max Uplift 10=-20 (LC 9), 14=-180 (LC 4)
Max Grav 10=956 (LC 2), 14=2269 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-333/84, 3-4=-208/1192, 4-5=-273/1531, 5-7=-567/49, 7-8=-525/85, 8-9=-509/100, 2-16=-301/69, 9-10=-855/45
BOT CHORD 15-16=-615/165, 14-15=-78/367, 4-14=-175/76, 13-14=-207/209, 11-13=-116/554, 10-11=-96/72
WEBS 3-15=-505/117, 8-11=-155/118, 3-16=-230/1004, 9-11=-24/661, 5-13=-14/770, 5-14=-2139/160, 7-13=-406/140, 7-11=-206/109

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Bearings are assumed to be: Joint 14 SPF 2100F 1.8E , Joint 10 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 180 lb uplift at joint 14 and 20 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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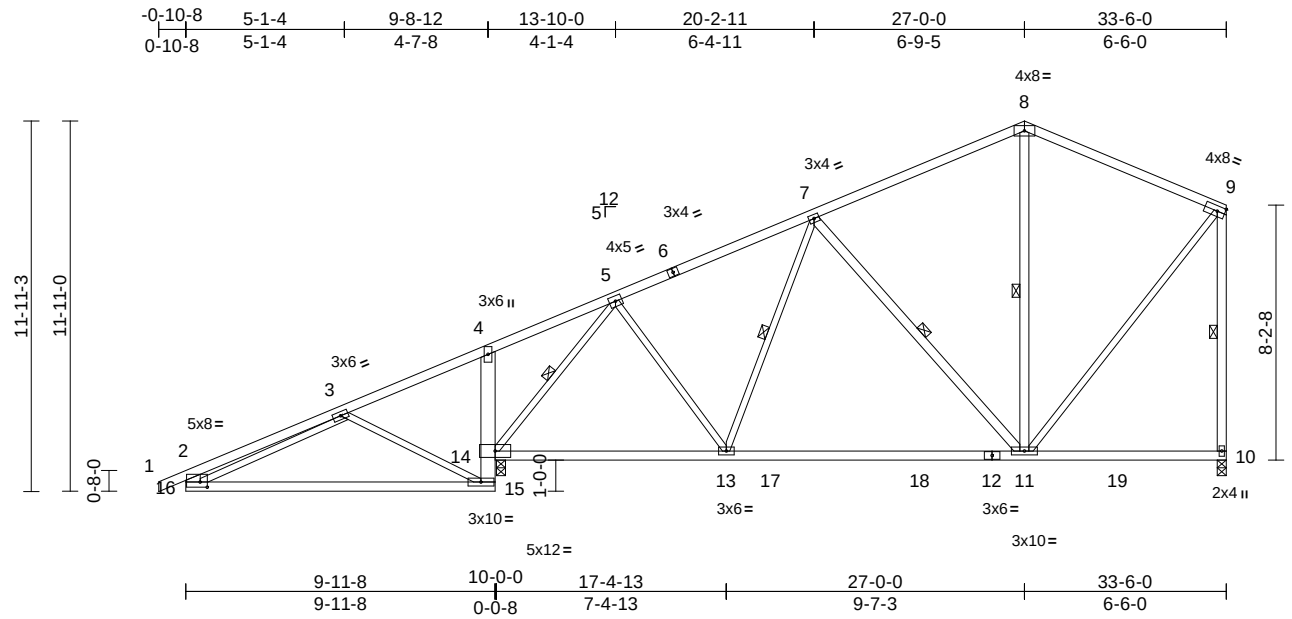
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	A8	Roof Special	4	1	I64780425
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:74.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.25	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.53	15-16	>215	120		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	-0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	11-13	>999	240	Weight: 156 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 15-4:2x6 SP 2400F 2.0E, 12-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2:2x6 SPF No.2, 10-9,11-8,7-11:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-10, 8-11, 5-14, 7-13, 7-11

REACTIONS (size) 10=0-3-8, 14=0-3-8
Max Horiz 14=376 (LC 5)
Max Uplift 10=-117 (LC 9), 14=-382 (LC 4)
Max Grav 10=971 (LC 2), 14=2279 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-333/104, 3-4=-311/1192, 4-5=-400/1531, 5-7=-547/102, 7-8=-538/150, 8-9=-523/172, 2-16=-301/105, 9-10=-860/140
BOT CHORD 15-16=-615/227, 14-15=-108/367, 4-14=-175/116, 13-14=-250/200, 11-13=-186/539, 10-11=-112/84
WEBS 8-11=-145/127, 9-11=-75/655, 5-13=-54/776, 5-14=-2152/342, 7-13=-411/176, 7-11=-202/175, 3-15=-505/214, 3-16=-309/1004

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) Bearings are assumed to be: Joint 14 SPF 2100F 1.8E , Joint 10 SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 10 and 382 lb uplift at joint 14.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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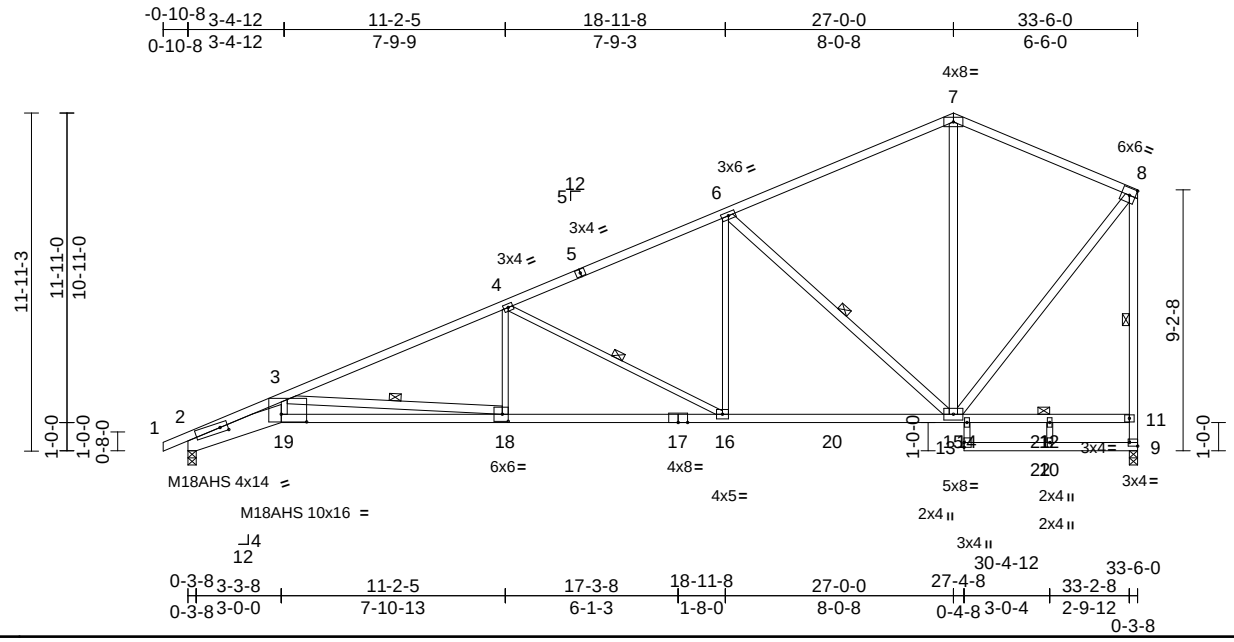
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	A9	Roof Special	2	1	Job Reference (optional)	I64780426

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81.3

Plate Offsets (X, Y): [2:0-3-4,0-2-0], [9:Edge,0-1-8], [18:0-2-8,0-3-0], [19:0-10-12,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.52	18-19	>772	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.92	18-19	>434	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.36	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.41	18-19	>982	240	Weight: 166 lb	FT = 10%

LUMBER

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

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

WEBS 2x4 SPF No.2 *Except* 19-3,4-18,6-16,16-4,10-12:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-13 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 8-9, 4-16, 3-18, 6-15

JOINTS 1 Brace at Jt(s): 12

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=412 (LC 8)
Max Uplift 2=-230 (LC 8), 9=-240 (LC 8)
Max Grav 2=1629 (LC 2), 9=1744 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/9, 2-3=-7339/1501, 3-4=-3356/496, 4-6=-2124/312, 6-7=-996/169, 7-8=-965/195, 9-11=-1641/260, 8-11=-1537/269

BOT CHORD 2-19=-1781/6778, 18-19=-1645/6161, 16-18=-721/3056, 15-16=-413/1879, 14-15=-7/16, 12-14=-94/16, 11-12=-94/16, 13-14=0/96, 10-13=-1/102, 9-10=-1/102

WEBS 3-19=-436/2157, 4-18=0/584, 6-16=-61/918, 4-16=-1326/347, 7-15=0/356, 3-18=-3119/927, 6-15=-1418/369, 8-15=-221/1309, 10-12=0/100

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 9 SPF No.2 .
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 230 lb uplift at joint 2 and 240 lb uplift at joint 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

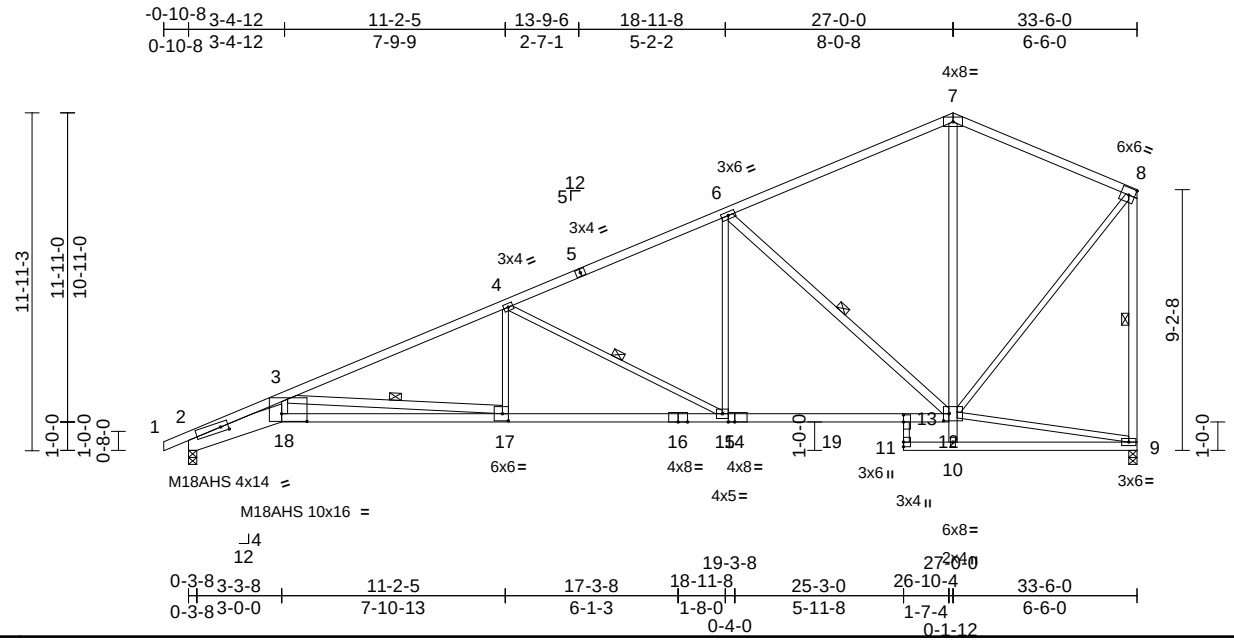
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	A10	Roof Special	3	1	I64780427 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03 Page: 1
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81.4

Plate Offsets (X, Y): [2:0-3-4,0-2-0], [12:0-2-4,0-3-0], [13:0-3-0,Edge], [14:0-2-12,Edge], [17:0-2-8,0-3-0], [18:0-10-12,0-3-4]

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	0.79	Vert(LL)	-0.51	17-18	>774	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.92	17-18	>435	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.37	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.41	17-18	>975	240	Weight: 163 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 2-18:2x8 SP 2400F 2.0E, 18-16:2x4 SPF 2400F 2.0E, 13-11:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-8,7-10,17-3,12-6,0-0:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-9, 3-17, 6-12, 4-15

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=412 (LC 8)
Max Uplift 2=-230 (LC 8), 9=-240 (LC 8)
Max Grav 2=1622 (LC 2), 9=1588 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-7300/1502, 3-4=-3334/495, 4-6=-2100/314, 6-7=-998/168, 7-8=-961/195, 8-9=-1512/266
BOT CHORD 2-18=-1783/6741, 17-18=-1646/6128, 15-17=-721/3036, 13-15=-415/1856, 12-13=-378/1989, 11-13=-139/0, 10-11=-163/0, 9-10=-100/0
WEBS 3-18=-437/2145, 4-17=0/587, 6-15=-68/903, 10-12=0/365, 7-12=0/355, 3-17=-3106/929, 6-12=-1396/374, 8-12=-220/1292, 4-15=-1329/344, 9-12=0/108

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SPF No.2 .
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 230 lb uplift at joint 2 and 240 lb uplift at joint 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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DEVELOPMENT SERVICES
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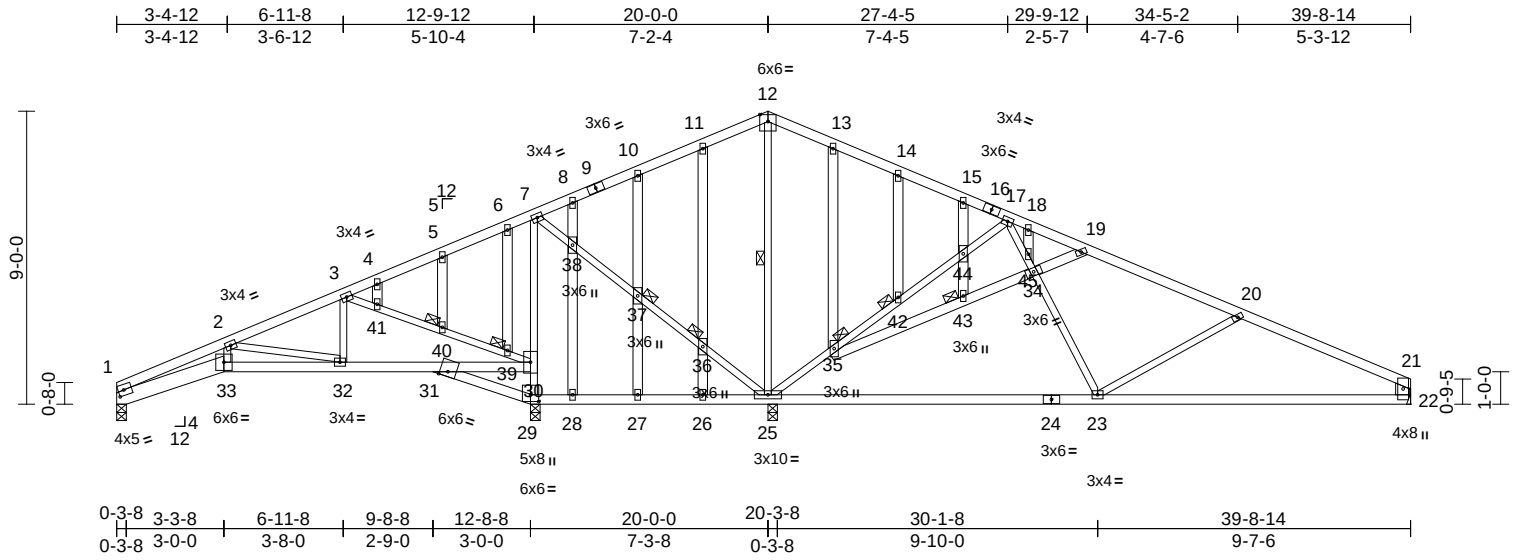
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	B1	Roof Special Structural Gable	1	1	Job Reference (optional)	I64780428

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:70.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.15	23-25	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.30	22-23	>770	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.03	29	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	26-27	>999	240	Weight: 202 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-33:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 22-21:2x6 SPF No.2, 19-34,34-35:2x4 SPF No.2
OTHERS 2x4 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 6-0-0 oc bracing.
WEBS 1 Row at midpt 12-25
JOINTS 1 Brace at Jt(s): 35, 36, 37, 39, 40, 42, 43

REACTIONS (size) 1=0-3-8, 22= Mechanical, 25=0-3-8, 29=0-3-8
Max Horiz 1=154 (LC 12)
Max Uplift 1=-44 (LC 8), 22=-87 (LC 9), 25=-431 (LC 9), 29=-198 (LC 8)
Max Grav 1=354 (LC 21), 22=535 (LC 22), 25=2123 (LC 1), 29=992 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1137/289, 2-3=-219/187, 3-4=-71/524, 4-5=-72/590, 5-6=-54/629, 6-7=-48/658, 7-8=-54/783, 8-10=-56/867, 10-11=-31/895, 11-12=-26/915, 12-13=-31/902, 13-14=-70/919, 14-15=-86/868, 15-17=-90/803, 17-18=-145/350, 18-19=-179/189, 19-20=-379/70, 20-21=-712/160, 21-22=-444/133

BOT CHORD 1-33=-388/1008, 32-33=-351/896, 31-32=-157/179, 30-31=-181/645, 29-31=-577/97, 28-29=-523/87, 27-28=-523/87, 26-27=-523/87, 25-26=-523/87, 23-25=-37/118, 22-23=-102/587

WEBS 2-33=-92/400, 29-30=-741/214, 7-30=-528/275, 7-38=-477/303, 37-38=-470/298, 36-37=-479/298, 25-36=-479/304, 12-25=-917/110, 20-23=-350/187, 3-32=0/200, 25-35=-1116/367, 35-42=-655/147, 42-44=-644/136, 17-44=-689/150, 17-45=0/384, 34-45=0/526, 23-34=0/519, 3-41=-638/185, 40-41=-622/179, 39-40=-638/188, 30-39=-636/183, 2-32=-733/265, 19-34=-480/226, 35-43=-354/179, 34-43=-341/174, 11-36=-109/17, 26-36=-114/9, 10-37=-67/68, 27-37=-30/59, 8-38=-27/90, 28-38=-15/58, 6-39=-19/17, 5-40=-52/25, 4-41=-17/45, 13-35=-197/78, 14-42=-20/19, 15-44=-8/42, 43-44=-34/14, 18-45=-168/398

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearings are assumed to be: Joint 1 SPF No.2 , Joint 29 SPF No.2 , Joint 25 SPF No.2 , Joint 22 SPF No.2 .
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1, 198 lb uplift at joint 29, 87 lb uplift at joint 22 and 431 lb uplift at joint 25.
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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

April 10,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	B2	Roof Special	3	1	I64780429
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:03
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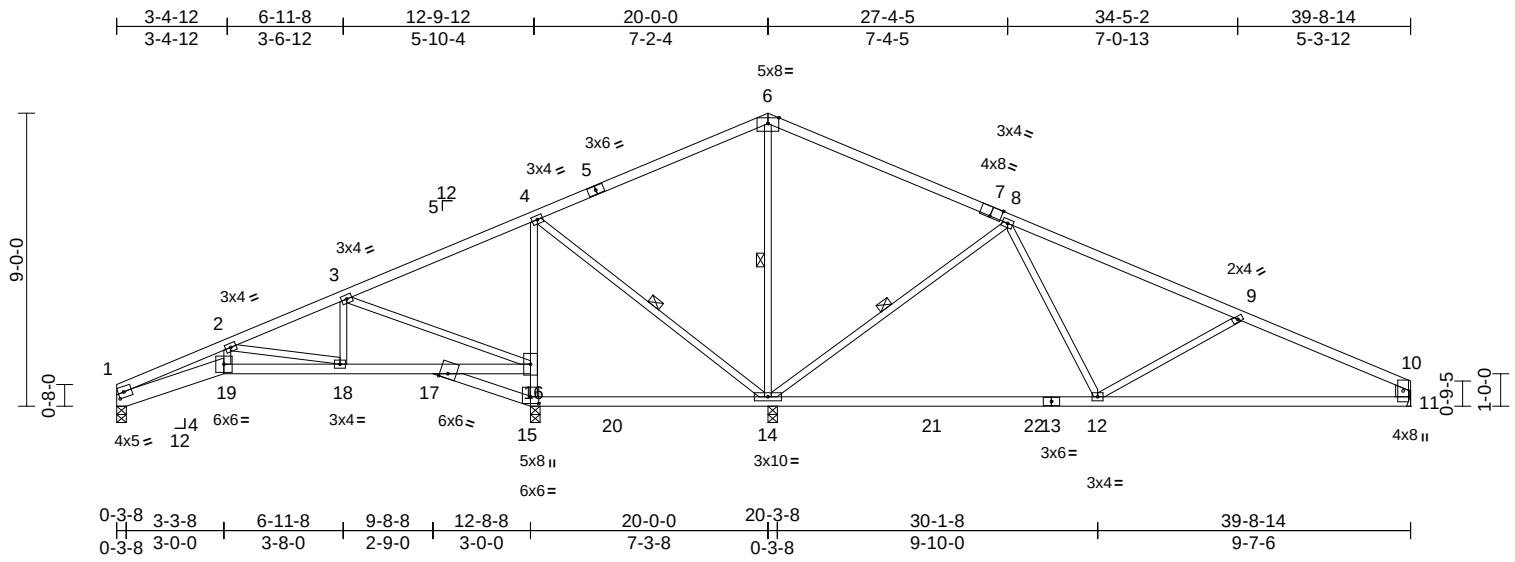
Page: 1



Scale = 1:70.8

Plate Offsets (X, Y): [1:0-2-0,0-2-0], [7:0-4-0,Edge], [15:0-3-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.27	12-14	>866	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.44	12-14	>537	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.02	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	18-19	>999	240	Weight: 146 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-19:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 6-14, 8-14

REACTIONS (size) 1=0-3-8, 11= Mechanical, 14=0-3-8, 15=0-3-8
Max Horiz 1=154 (LC 12)
Max Uplift 1=-38 (LC 8), 11=-78 (LC 9), 14=-460 (LC 9), 15=-204 (LC 8)
Max Grav 1=345 (LC 21), 11=545 (LC 24), 14=2211 (LC 2), 15=1060 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1096/264, 2-3=-188/198, 3-4=-84/749, 4-6=-75/991, 6-8=-98/991, 8-9=-378/46, 9-10=-711/158, 10-11=-424/123
BOT CHORD 1-19=-365/971, 18-19=-331/863, 17-18=-167/149, 16-17=-173/646, 15-17=-680/107, 14-15=-607/93, 12-14=-65/101, 11-12=-104/601
WEBS 2-19=-84/399, 2-18=-731/264, 15-16=-776/286, 4-16=-579/352, 4-14=-512/319, 6-14=-1153/184, 8-14=-996/305, 8-12=0/648, 9-12=-463/242, 3-16=-633/170, 3-18=0/207

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) Bearings are assumed to be: Joint 1 SPF No.2 , Joint 15 SPF No.2 , Joint 14 SPF No.2 , Joint 11 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 204 lb uplift at joint 15, 460 lb uplift at joint 14 and 78 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
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PROFESSIONAL ENGINEER

April 10,2024

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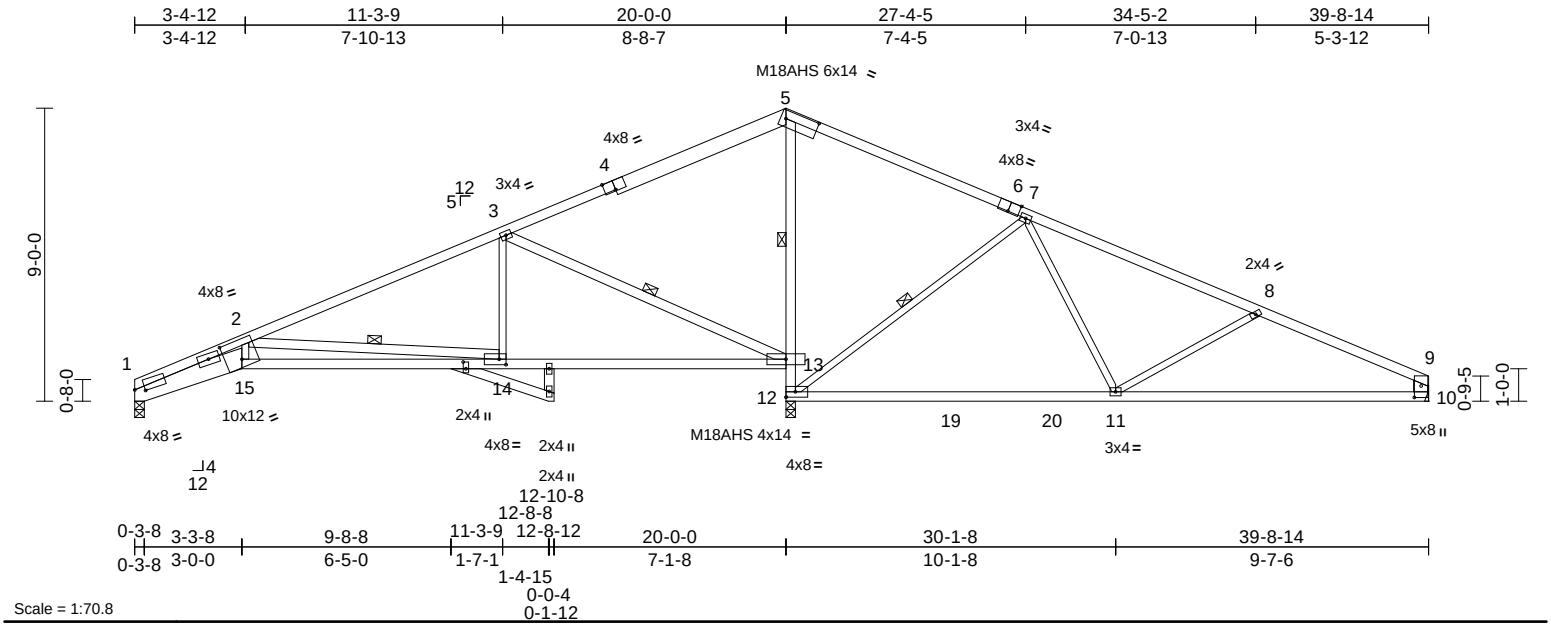
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:41

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	B3	Roof Special	2	1	Job Reference (optional)	I64780430

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04 Page: 1
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70.8

Plate Offsets (X, Y): [1:0-3-11,0-1-7], [4:0-4-0,Edge], [5:1-0-1,0-3-0], [6:0-4-0,Edge], [10:0-4-4,0-2-8], [14:0-2-8,0-2-0], [15:0-6-0,0-7-2], [16:0-2-8,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.31	11-12	>753	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.54	11-12	>433	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	-0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	14-15	>999	240	Weight: 160 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-5:2x6 SPF No.2, 1-4:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-15:2x8 SP 2400F 2.0E, 16-17:2x4 SPF No.2, 12-10:2x4 SPF 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 17-18,14-2,13-3:2x4 SPF No.2, 10-9:2x6 SP 2400F 2.0E

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, Except:
6-0-0 oc bracing: 11-12.

1 Row at midpt 5-13

WEBS 1 Row at midpt 2-14, 3-13, 7-12

REACTIONS (size) 1=0-3-8, 10= Mechanical, 12=0-3-8
Max Horiz 1=90 (LC 10)
Max Uplift 1=-31 (LC 8), 10=-60 (LC 9)
Max Grav 1=712 (LC 21), 10=698 (LC 22), 12=2400 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-3157/269, 2-3=-853/77, 3-5=0/806, 5-7=0/763, 7-8=-726/118, 8-9=-1051/166, 9-10=-576/103

BOT CHORD 1-15=-319/2917, 14-15=-302/2625, 13-14=-53/708, 12-13=-1656/50, 5-13=-1029/40, 11-12=-121/332, 10-11=-117/899

WEBS 2-15=-22/1041, 2-14=-1931/250, 3-13=-1327/131, 7-12=-999/125, 7-11=0/671, 8-11=-443/136, 3-14=0/492

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 1 SP 2400F 2.0E , Joint 12 SPF 2400F 2.0E , Joint 10 SPF No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 60 lb uplift at joint 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Chesterfield, MO 63017
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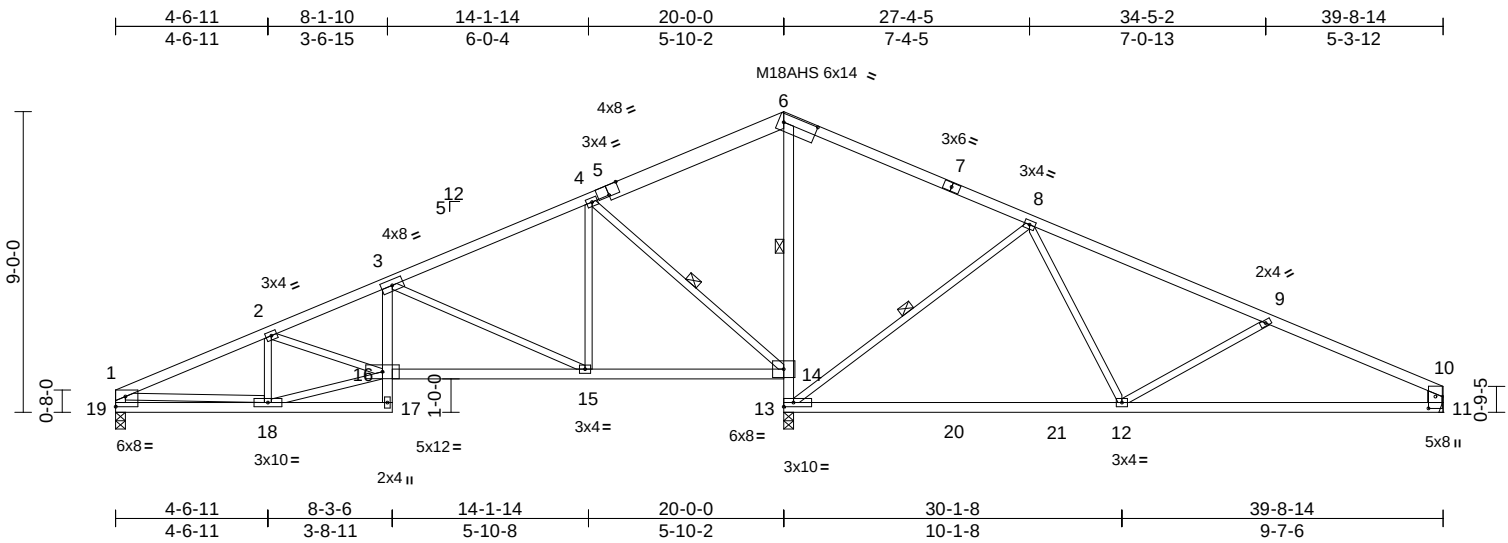
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	B4	Roof Special	1	1	Job Reference (optional)	I64780431

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:69

Plate Offsets (X, Y): [5:0-4-0,Edge], [6:1-0-1,0-3-0], [11:0-4-4,0-2-8], [19:Edge,0-3-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.31	12-13	>752	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.54	12-13	>430	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	-0.10	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	12-13	>999	240	Weight: 155 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 5-6:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 13-11:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 19-1:2x4 SPF No.2, 11-10:2x6 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15.
1 Row at midpt 6-14
WEBS 1 Row at midpt 4-14, 8-13

REACTIONS (size) 11= Mechanical, 13=0-3-8, 19=0-3-8
Max Horiz 19=77 (LC 8)
Max Uplift 11=-51 (LC 9), 19=-35 (LC 8)
Max Grav 11=765 (LC 22), 13=2200 (LC 2), 19=810 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1370/70, 2-3=-1435/115, 3-4=-597/85, 4-6=0/540, 6-8=0/534, 8-9=-873/97, 9-10=-1173/147, 1-19=-736/58, 10-11=-619/94
BOT CHORD 18-19=-94/354, 17-18=-21/98, 16-17=0/66, 3-16=0/449, 15-16=-113/1337, 14-15=-44/485, 13-14=-1473/41, 6-14=-765/5, 12-13=-13/466, 11-12=-100/1018
WEBS 1-18=-16/880, 4-15=0/601, 4-14=-1003/98, 8-12=0/640, 9-12=-418/138, 2-18=-327/83, 16-18=-92/1175, 8-13=-988/127, 2-16=-60/84, 3-15=-937/107

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 19 SPF No.2 , Joint 13 SPF 2400F 2.0E , Joint 11 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 35 lb uplift at joint 19 and 51 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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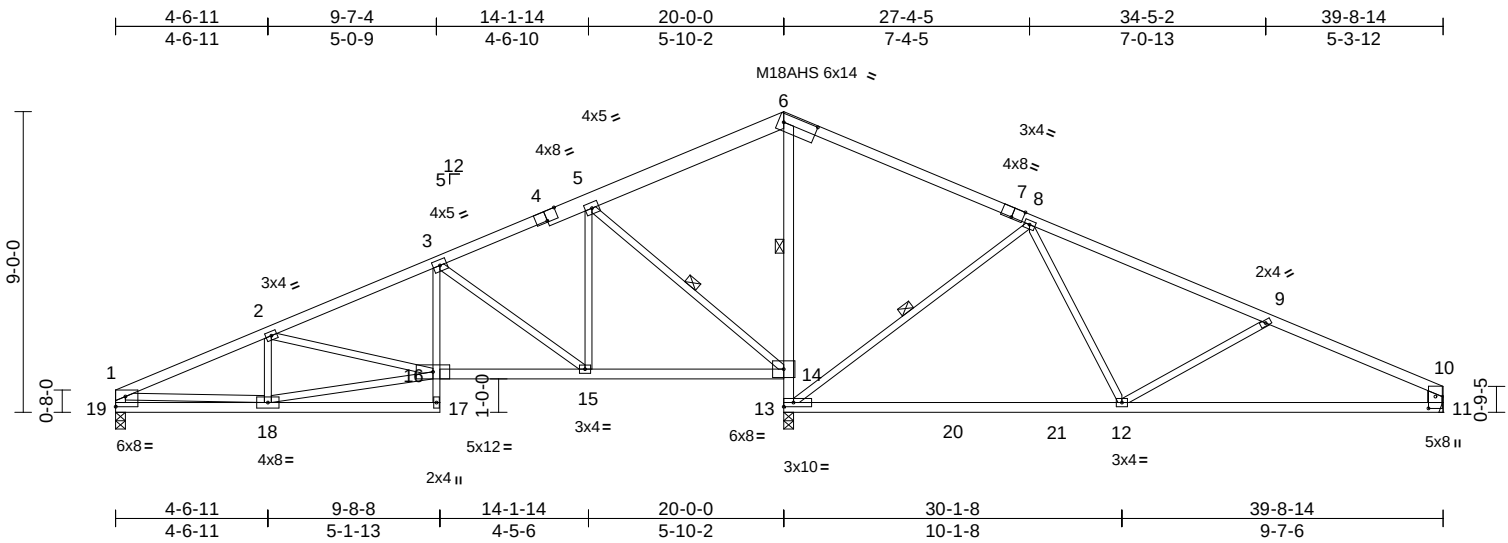
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	B5	Roof Special	3	1	I64780432 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:69

Plate Offsets (X, Y): [4:0-4-0,Edge], [6:1-0-1,0-3-0], [7:0-4-0,Edge], [11:0-4-4,0-2-8], [19:Edge,0-3-11]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.31	12-13	>751	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.54	12-13	>431	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.77	Horz(CT)	-0.10	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	12-13	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 17-3:2x3 SPF No.2, 13-11:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 19-1:2x4 SPF No.2, 11-10:2x6 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15.
1 Row at midpt 6-14
WEBS 1 Row at midpt 5-14, 8-13

REACTIONS (size) 11= Mechanical, 13=0-3-8, 19=0-3-8
Max Horiz 19=77 (LC 8)
Max Uplift 11=-50 (LC 9), 19=-35 (LC 8)
Max Grav 11=766 (LC 22), 13=2195 (LC 2), 19=813 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1405/73, 2-3=-1213/109, 3-5=-580/94, 5-6=0/540, 6-8=0/529, 8-9=-874/97, 9-10=-1175/146, 1-19=-742/56, 10-11=-619/94
BOT CHORD 18-19=-91/327, 17-18=0/78, 16-17=0/94, 3-16=0/418, 15-16=-85/1071, 14-15=-50/491, 13-14=-1468/40, 6-14=-772/5, 12-13=-13/467, 11-12=-99/1019
WEBS 2-16=-242/29, 3-15=-722/81, 5-15=0/622, 5-14=-991/100, 8-13=-987/127, 8-12=0/640, 9-12=-418/138, 1-18=-23/945, 2-18=-230/92, 16-18=-118/1198

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 19 SPF No.2 , Joint 13 SPF 2400F 2.0E , Joint 11 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 35 lb uplift at joint 19 and 50 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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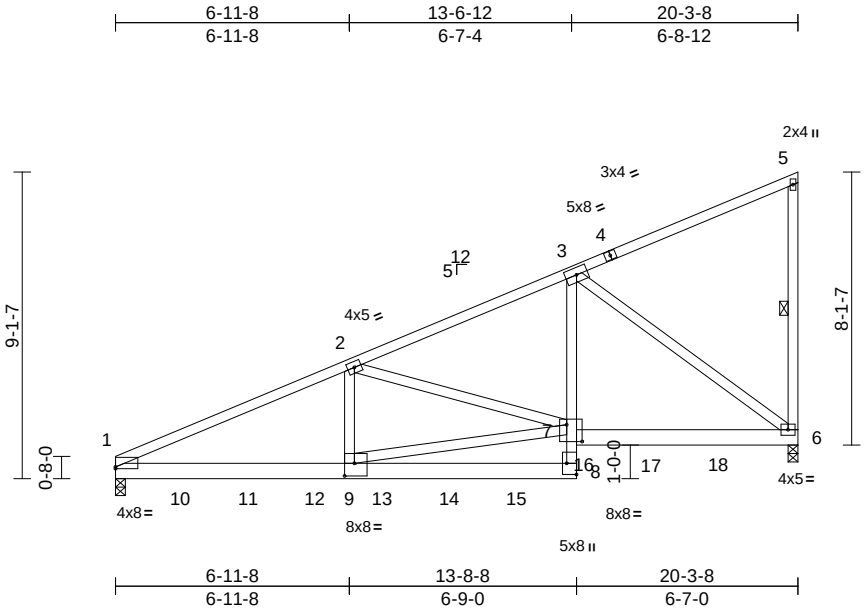
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	B6	Monopitch Girder	1	4	Job Reference (optional)	I64780433

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:68.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.14	1-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.24	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	1-9	>999	240	Weight: 443 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E *Except* 8-3:2x4 SPF No.2, 7-6:2x6 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=278 (LC 20)
Max Uplift 1=-452 (LC 8), 6=-389 (LC 8)
Max Grav 1=8429 (LC 16), 6=7698 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-15171/649, 2-3=-8383/442, 3-5=-214/59, 5-6=-180/52
BOT CHORD 1-9=-660/13598, 8-9=-44/902, 7-8=-29/1922, 3-7=-385/8539, 6-7=-437/7812
WEBS 2-9=-85/4563, 7-9=-636/12921, 2-7=-6279/279, 3-6=-9588/570

NOTES
1) 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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
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 389 lb uplift at joint 6 and 452 lb uplift at joint 1.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1798 lb down and 231 lb up at 1-11-4, 1812 lb down and 52 lb up at 3-11-4, 1812 lb down and 52 lb up at 5-11-4, 1688 lb down and 51 lb up at 7-11-4, 1688 lb down and 51 lb up at 9-11-4, 1710 lb down and 71 lb up at 11-11-4, 1161 lb down and 155 lb up at 13-11-4, 995 lb down and 32 lb up at 15-11-4, and 995 lb down and 32 lb up at 17-11-4, and 1003 lb down and 28 lb up at 20-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 1-8=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 6=-833 (B), 10=-1456 (B), 11=-1460 (B), 12=-1460 (B), 13=-1460 (B), 14=-1460 (B), 15=-1456 (B), 16=-1009 (B), 17=-825 (B), 18=-825 (B)

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

April 10,2024

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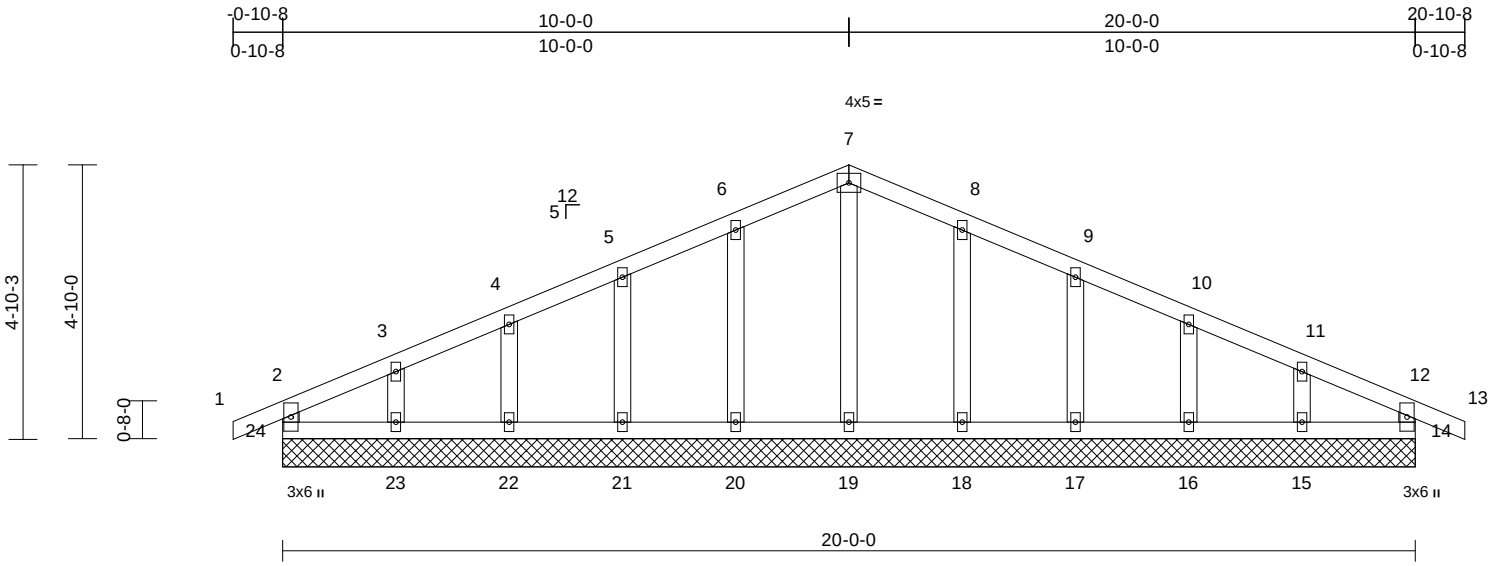
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	C1	Common Supported Gable	1	1	I64780434
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.7

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 75 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz 24=65 (LC 12)
Max Uplift 14=-31 (LC 5), 15=-60 (LC 9), 16=-45 (LC 9), 17=-49 (LC 9), 18=-50 (LC 9), 20=-51 (LC 8), 21=-49 (LC 8), 22=-43 (LC 8), 23=-67 (LC 8), 24=-31 (LC 4)
Max Grav 14=161 (LC 22), 15=165 (LC 1), 16=184 (LC 22), 17=177 (LC 1), 18=191 (LC 22), 19=168 (LC 1), 20=191 (LC 21), 21=177 (LC 1), 22=184 (LC 21), 23=165 (LC 1), 24=161 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-24=-142/42, 1-2=0/27, 2-3=-64/49, 3-4=-42/60, 4-5=-27/81, 5-6=-26/102, 6-7=-30/122, 7-8=-30/116, 8-9=-26/83, 9-10=-27/62, 10-11=-27/44, 11-12=-48/33, 12-13=0/27, 12-14=-142/43
BOT CHORD	23-24=-10/58, 22-23=-10/58, 21-22=-10/58, 20-21=-10/58, 19-20=-10/58, 18-19=-10/58, 17-18=-10/58, 16-17=-10/58, 15-16=-10/58, 14-15=-10/58
WEBS	7-19=-128/0, 6-20=-151/75, 5-21=-137/72, 4-22=-144/70, 3-23=-126/82, 8-18=-151/74, 9-17=-137/72, 10-16=-144/70, 11-15=-126/78

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 31 lb uplift at joint 24, 31 lb uplift at joint 14, 51 lb uplift at joint 20, 49 lb uplift at joint 21, 43 lb uplift at joint 22, 67 lb uplift at joint 23, 50 lb uplift at joint 18, 49 lb uplift at joint 17, 45 lb uplift at joint 16 and 60 lb uplift at joint 15.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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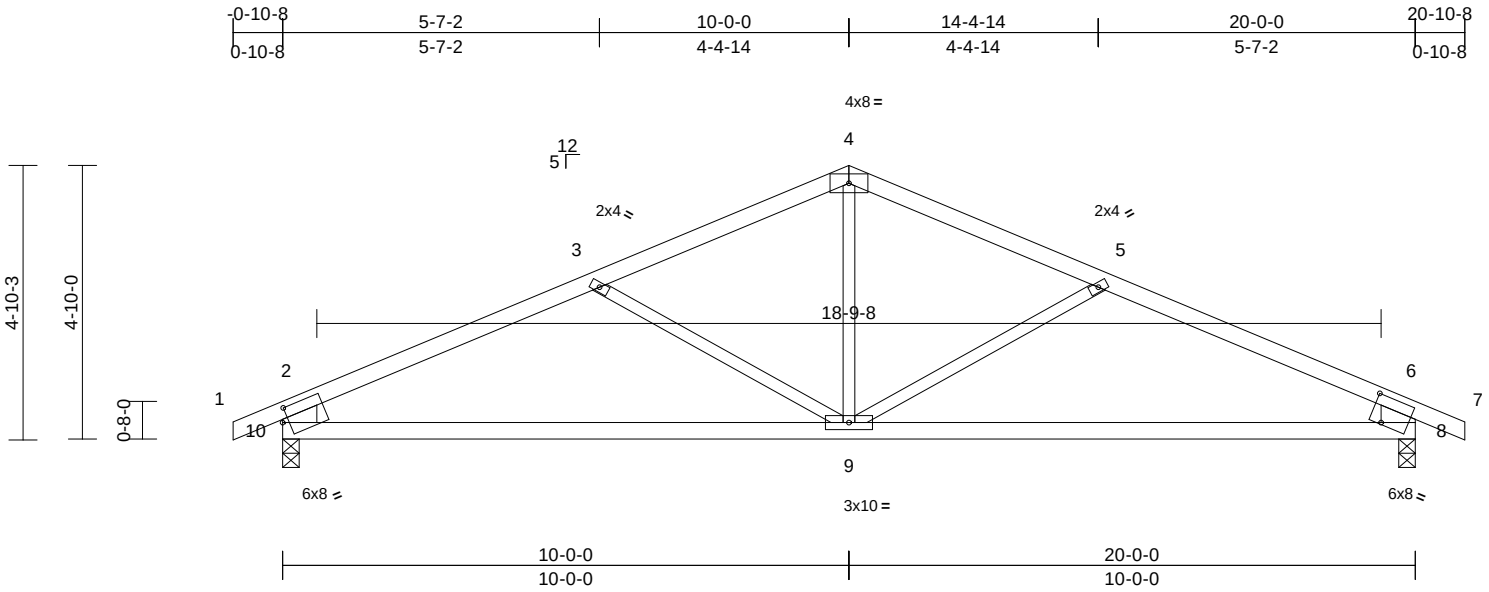
06/03/2024 3:44:42

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	C2	Common	1	1	I64780435 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.7

Plate Offsets (X, Y): [8:0-2-10,0-5-10], [10:0-1-5,0-2-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.17	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.36	9-10	>642	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	9	>999	240	Weight: 63 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,8-6:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 10=0-3-8
Max Horiz 10=63 (LC 12)
Max Uplift 8=-139 (LC 9), 10=-139 (LC 8)
Max Grav 8=955 (LC 1), 10=955 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-1412/213, 3-4=-1096/128, 4-5=-1096/128, 5-6=-1412/214, 6-7=0/32, 2-10=-854/187, 6-8=-854/187
BOT CHORD 9-10=-192/1208, 8-9=-129/1208
WEBS 4-9=0/473, 5-9=-317/199, 3-9=-317/199

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 139 lb uplift at joint 10 and 139 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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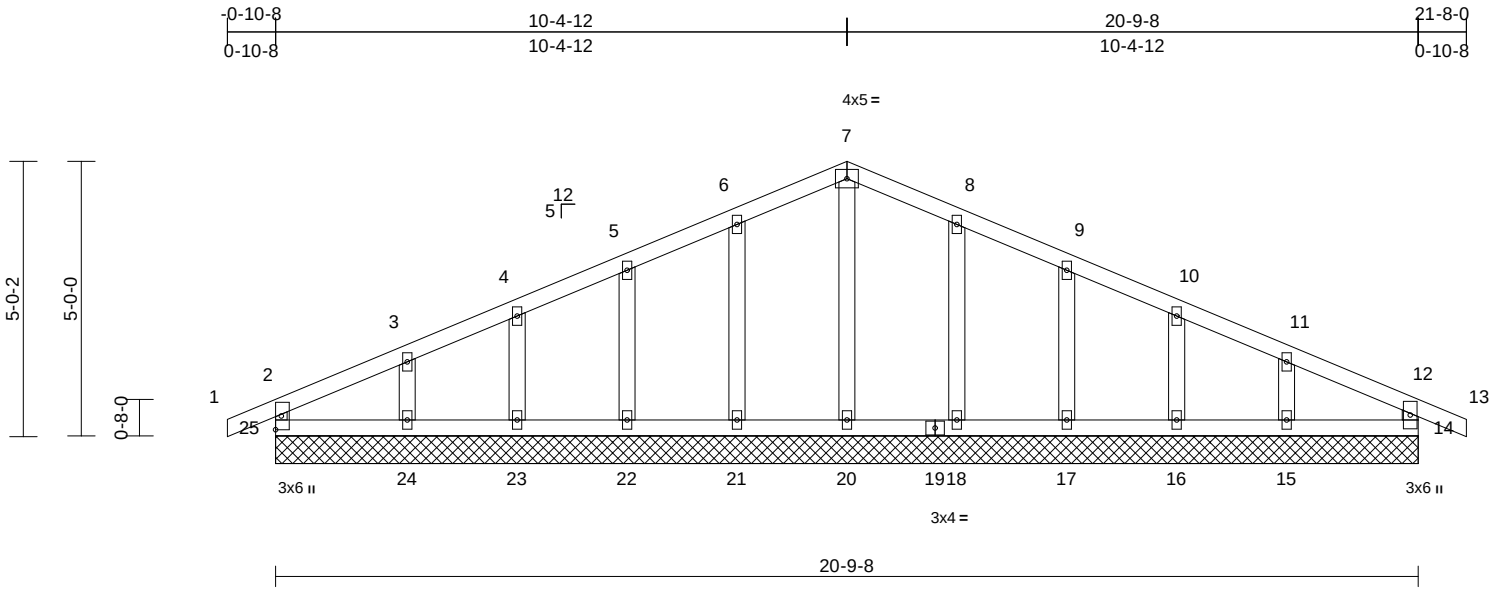
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	D1	Common Supported Gable	1	1	I64780436 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:04 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	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	0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 79 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-12:2x4 SPF 2400F 2.0E
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) 14=20-9-8, 15=20-9-8, 16=20-9-8, 17=20-9-8, 18=20-9-8, 20=20-9-8, 21=20-9-8, 22=20-9-8, 23=20-9-8, 24=20-9-8, 25=20-9-8
Max Horiz 25=69 (LC 8)
Max Uplift 14=-34 (LC 5), 15=-66 (LC 9), 16=-42 (LC 9), 17=-49 (LC 9), 18=-50 (LC 9), 21=-50 (LC 8), 22=-50 (LC 8), 23=-41 (LC 8), 24=-72 (LC 8), 25=-32 (LC 4)
Max Grav 14=178 (LC 1), 15=192 (LC 22), 16=177 (LC 1), 17=179 (LC 1), 18=191 (LC 22), 20=161 (LC 1), 21=191 (LC 21), 22=179 (LC 1), 23=176 (LC 21), 24=197 (LC 21), 25=175 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-155/46, 1-2=0/26, 2-3=-71/49, 3-4=-44/67, 4-5=-35/87, 5-6=-34/109, 6-7=-37/129, 7-8=-37/122, 8-9=-34/94, 9-10=-35/72, 10-11=-35/52, 11-12=-59/36, 12-13=0/27, 12-14=-157/47
BOT CHORD 24-25=-8/58, 23-24=-8/58, 22-23=-8/58, 21-22=-8/58, 20-21=-8/58, 18-20=-8/58, 17-18=-8/58, 16-17=-8/58, 15-16=-8/58, 14-15=-8/58
WEBS 7-20=-121/0, 6-21=-151/74, 5-22=-139/73, 4-23=-138/66, 3-24=-149/90, 8-18=-151/74, 9-17=-139/73, 10-16=-139/67, 11-15=-146/87

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 32 lb uplift at joint 25, 34 lb uplift at joint 14, 50 lb uplift at joint 21, 50 lb uplift at joint 22, 41 lb uplift at joint 23, 72 lb uplift at joint 24, 50 lb uplift at joint 18, 49 lb uplift at joint 17, 42 lb uplift at joint 16 and 66 lb uplift at joint 15.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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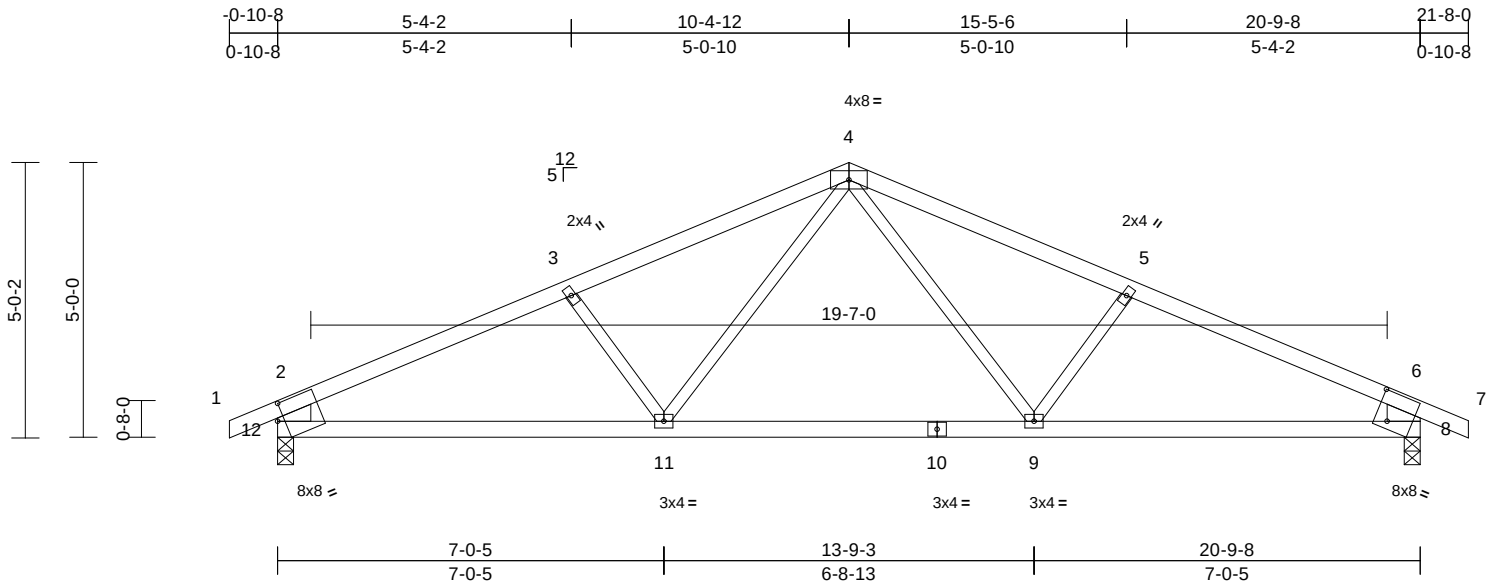
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	D2	Common	4	1	Job Reference (optional)	I64780437

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41.9

Plate Offsets (X, Y): [8:0-2-13,0-6-6], [12:0-1-8,0-3-9]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.16	9-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.30	9-11	>811	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	9-11	>999	240	Weight: 67 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x8 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) 8=0-3-8, 12=0-3-8
Max Horiz 12=66 (LC 12)
Max Uplift 8=-143 (LC 9), 12=-143 (LC 8)
Max Grav 8=991 (LC 1), 12=991 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-1526/209, 3-4=-1332/196, 4-5=-1332/196, 5-6=-1526/209, 6-7=0/32, 2-12=-900/177, 6-8=-900/177
BOT CHORD 11-12=-195/1312, 9-11=-54/975, 8-9=-129/1312
WEBS 4-9=-70/403, 5-9=-260/176, 4-11=-70/403, 3-11=-260/176

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 143 lb uplift at joint 12 and 143 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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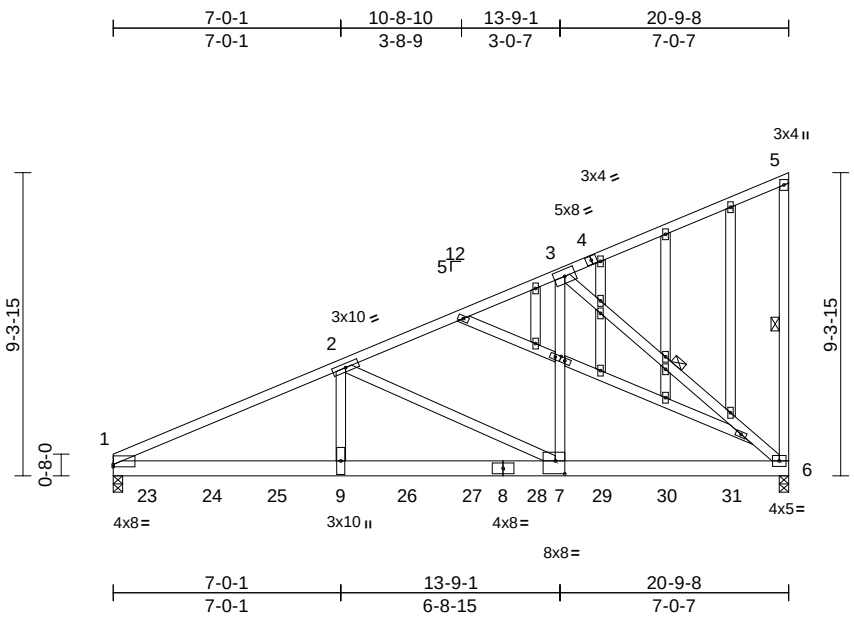
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	D3	GABLE	1	2	Job Reference (optional)	I64780438

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70.9

Plate Offsets (X, Y): [1:Edge,0-0-14], [7:0-3-8,0-4-12], [11:0-1-13,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.11	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.19	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	1-9	>999	240	Weight: 265 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

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

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=388 (LC 22)
Max Uplift 1=-561 (LC 8), 6=-545 (LC 8)
Max Grav 1=3988 (LC 18), 6=4293 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7229/905, 2-3=-4242/477, 3-5=-220/74, 5-6=-197/78
BOT CHORD 1-9=-931/6306, 7-9=-931/6306, 6-7=-447/3712
WEBS 2-9=-235/2323, 2-7=-2909/561, 3-7=-403/4435, 3-6=-4917/678

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 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) 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.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 545 lb uplift at joint 6 and 561 lb uplift at joint 1.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 516 lb down and 99 lb up at 1-0-12, 564 lb down and 90 lb up at 3-0-12, 564 lb down and 90 lb up at 5-0-12, 564 lb down and 90 lb up at 7-0-12, 734 lb down and 72 lb up at 9-0-12, 734 lb down and 72 lb up at 11-0-12, 806 lb down and 63 lb up at 13-0-12, 806 lb down and 62 lb up at 15-0-12, and 806 lb down and 62 lb up at 17-0-12, and 806 lb down and 62 lb up at 19-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) Studding applied to ply: 1(Front)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)
Vert: 1-5=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 9=-497 (B), 23=-516 (B), 24=-497 (B), 25=-497 (B), 26=-657 (B), 27=-657 (B), 28=-703 (B), 29=-703 (B), 30=-703 (B), 31=-703 (B)

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

April 10,2024

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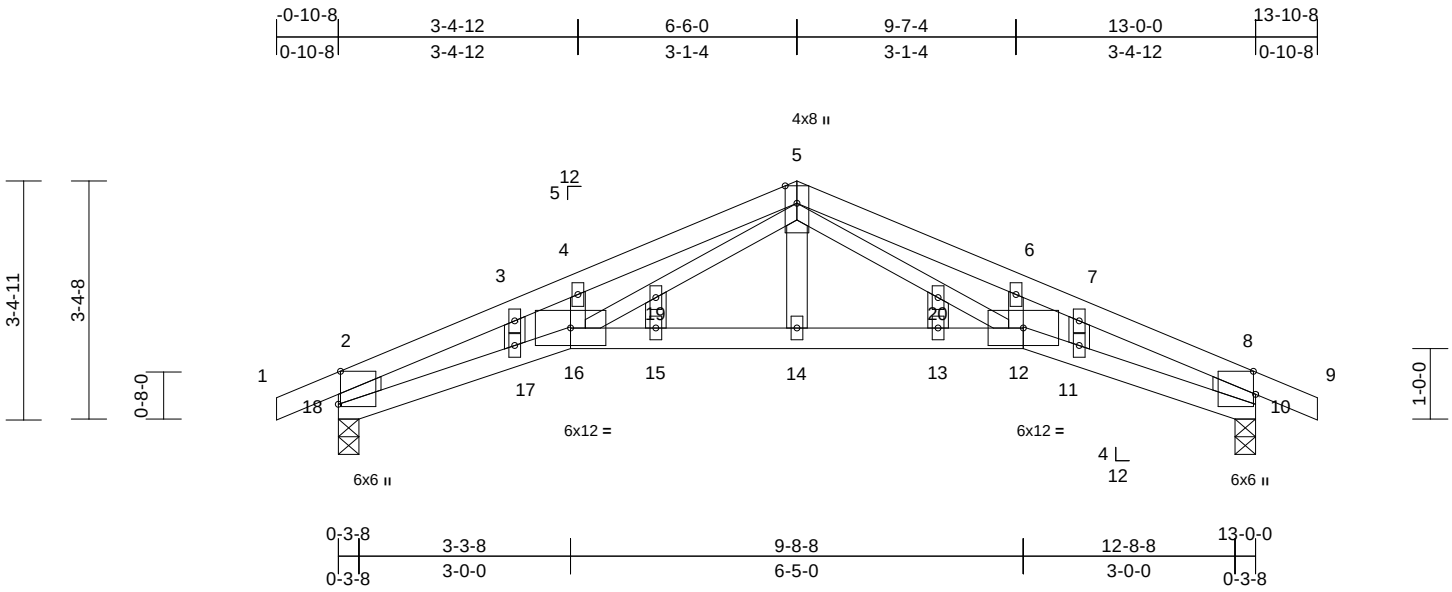
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	E1	GABLE	1	1	I64780439
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.7

Plate Offsets (X, Y): [10:0-3-15,Edge], [18:0-5-10,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	0.81	Vert(LL)	-0.13	13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.24	13	>630	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	15-16	>999	240	Weight: 47 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-2,10-8:2x8 SP 2400F 2.0E
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10=0-3-8, 18=0-3-8
Max Horiz 18=38 (LC 8)
Max Uplift 10=-99 (LC 9), 18=-98 (LC 8)
Max Grav 10=640 (LC 1), 18=640 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-1417/166, 3-4=-1316/175, 4-5=-1301/233, 5-6=-1301/202, 6-7=-1319/142, 7-8=-1422/132, 8-9=0/32, 2-18=-899/146, 8-10=-901/128
BOT CHORD 17-18=-155/1229, 16-17=-150/1202, 15-16=-33/902, 14-15=-33/902, 13-14=-32/907, 12-13=-32/907, 11-12=-81/1206, 10-11=-85/1234
WEBS 5-20=-139/414, 12-20=-134/384, 6-12=-71/92, 16-19=-145/384, 5-19=-153/421, 4-16=-78/86, 5-14=0/213, 15-19=-15/70, 3-17=0/102, 13-20=-9/60, 7-11=0/106

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) Bearing at joint(s) 18, 10 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 98 lb uplift at joint 18 and 99 lb uplift at joint 10.
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
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V1	Valley	1	1	I64780440
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05 Page: 1
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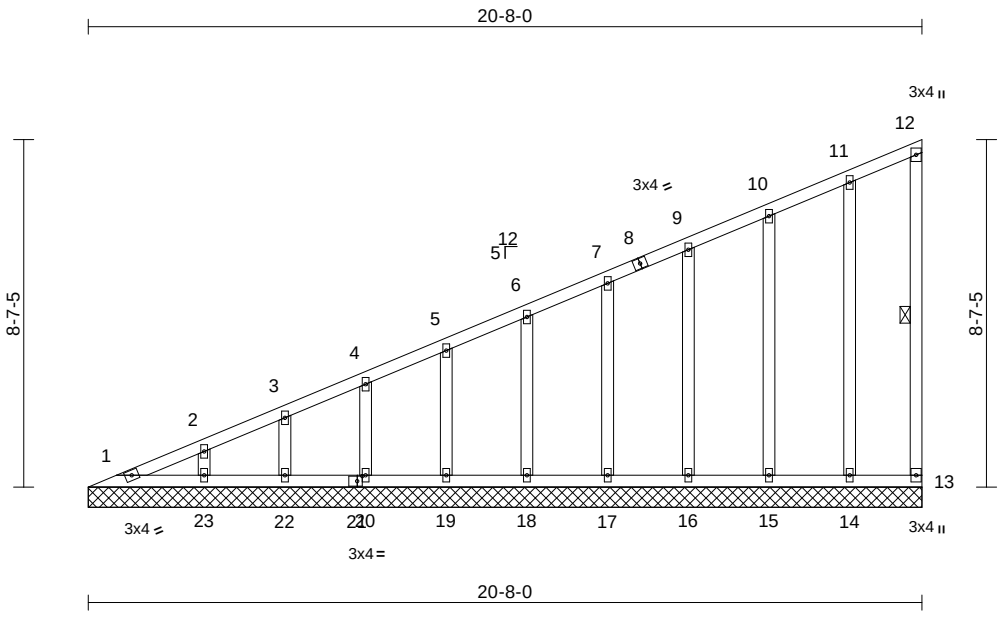

Scale = 1:57.1

Plate Offsets (X, Y): [21:0-1-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 98 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 12-13

REACTIONS (size) 1=20-8-0, 13=20-8-0, 14=20-8-0, 15=20-8-0, 16=20-8-0, 17=20-8-0, 18=20-8-0, 19=20-8-0, 20=20-8-0, 22=20-8-0, 23=20-8-0
Max Horiz 1=360 (LC 5)
Max Uplift 13=-40 (LC 7), 14=-51 (LC 8), 15=-44 (LC 8), 16=-50 (LC 8), 17=-47 (LC 8), 18=-48 (LC 8), 19=-48 (LC 8), 20=-48 (LC 8), 22=-45 (LC 8), 23=-57 (LC 8)
Max Grav 1=131 (LC 16), 13=59 (LC 1), 14=177 (LC 1), 15=182 (LC 1), 16=180 (LC 1), 17=180 (LC 1), 18=180 (LC 1), 19=179 (LC 1), 20=182 (LC 1), 22=171 (LC 1), 23=214 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-308/33, 2-3=-281/28, 3-4=-257/27, 4-5=-233/26, 5-6=-208/27, 6-7=-194/27, 7-9=-180/27, 9-10=-166/39, 10-11=-156/68, 11-12=-113/71, 12-13=-46/36
BOT CHORD 1-23=-117/89, 22-23=-117/89, 20-22=-117/89, 19-20=-117/89, 18-19=-117/89, 17-18=-117/89, 16-17=-117/89, 15-16=-117/89, 14-15=-117/89, 13-14=-117/89
WEBS 2-23=-161/81, 3-22=-134/69, 4-20=-141/72, 5-19=-140/72, 6-18=-140/72, 7-17=-140/72, 9-16=-140/70, 10-15=-142/81, 11-14=-137/83

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 13, 57 lb uplift at joint 23, 45 lb uplift at joint 22, 48 lb uplift at joint 20, 48 lb uplift at joint 19, 48 lb uplift at joint 18, 47 lb uplift at joint 17, 50 lb uplift at joint 16, 44 lb uplift at joint 15 and 51 lb uplift at joint 14.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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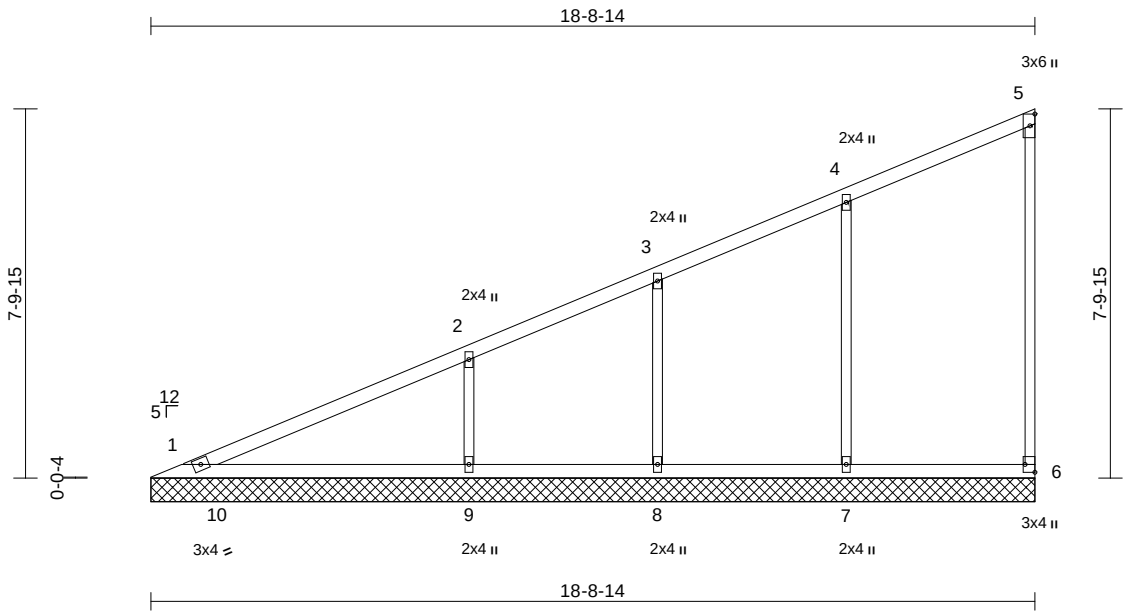
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V2	Valley	1	1	I64780441
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:48.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.00	6	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
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

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

REACTIONS (size) 1=18-8-14, 6=18-8-14, 7=18-8-14, 8=18-8-14, 9=18-8-14
Max Horiz 1=327 (LC 5)
Max Uplift 6=-38 (LC 5), 7=-110 (LC 8), 8=-74 (LC 8), 9=-149 (LC 8)
Max Grav 1=255 (LC 16), 6=165 (LC 2), 7=495 (LC 2), 8=315 (LC 2), 9=573 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-265/91, 2-3=-199/36, 3-4=-173/58, 4-5=-141/67, 5-6=-107/42
BOT CHORD	1-9=-106/80, 8-9=-106/80, 7-8=-106/80, 6-7=-106/80
WEBS	4-7=-320/142, 3-8=-223/122, 2-9=-421/209

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 6, 110 lb uplift at joint 7, 74 lb uplift at joint 8 and 149 lb uplift at joint 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V3	Valley	1	1	Job Reference (optional)	I64780442

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05 Page: 1
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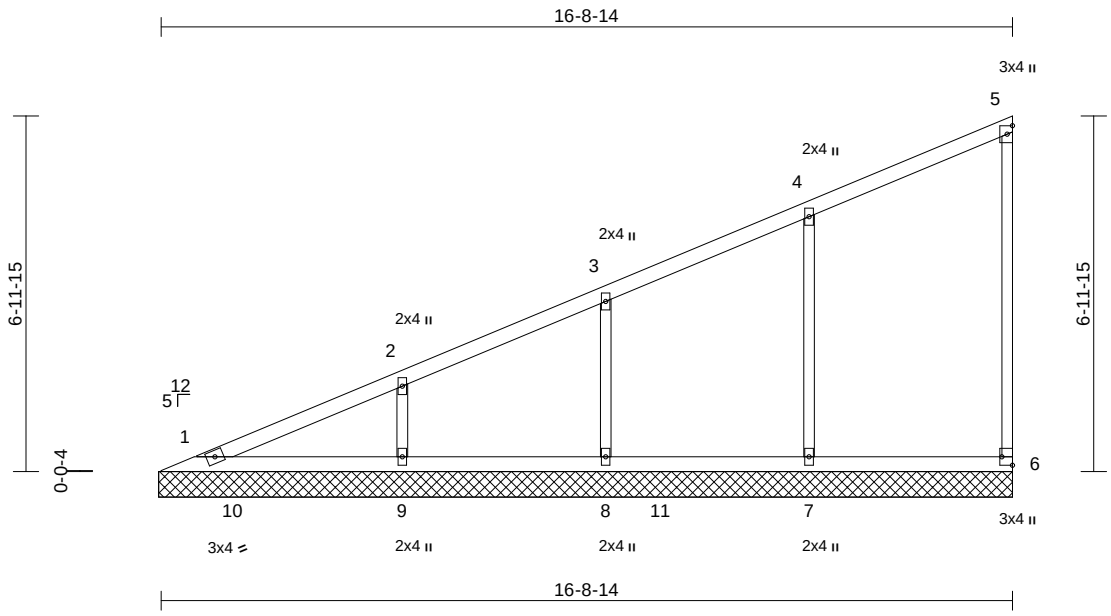

Scale = 1:45.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 10%

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

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

REACTIONS (size) 1=16-9-8, 6=16-9-8, 7=16-9-8, 8=16-9-8, 9=16-9-8
Max Horiz 1=290 (LC 5)
Max Uplift 6=-36 (LC 5), 7=-106 (LC 8), 8=-90 (LC 8), 9=-110 (LC 8)
Max Grav 1=179 (LC 16), 6=168 (LC 2), 7=477 (LC 2), 8=361 (LC 2), 9=420 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-241/62, 2-3=-189/49, 3-4=-160/54, 4-5=-133/59, 5-6=-109/43
BOT CHORD 1-9=-94/71, 8-9=-94/71, 7-8=-94/71, 6-7=-94/71
WEBS 4-7=-310/142, 3-8=-265/141, 2-9=-313/157

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 6, 106 lb uplift at joint 7, 90 lb uplift at joint 8 and 110 lb uplift at joint 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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

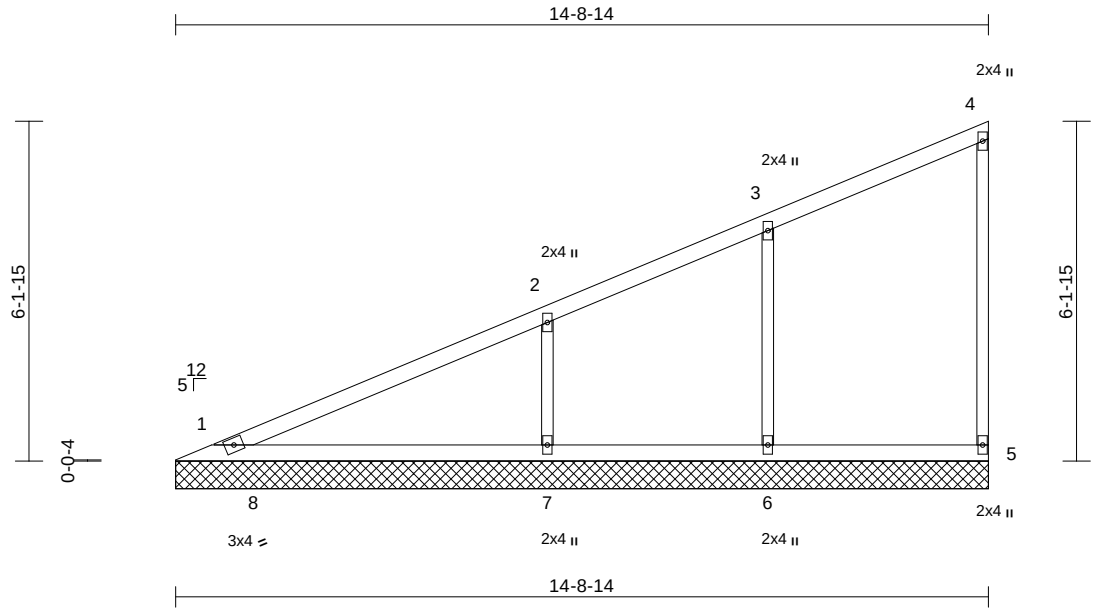
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:42

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V4	Valley	1	1	Job Reference (optional)	I64780443

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41.8

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	0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=14-8-14, 5=14-8-14, 6=14-8-14, 7=14-8-14
Max Horiz 1=254 (LC 5)
Max Uplift 5=-34 (LC 5), 6=-86 (LC 8), 7=-147 (LC 8)
Max Grav 1=241 (LC 16), 5=185 (LC 2), 6=369 (LC 2), 7=562 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-201/89, 2-3=-155/37, 3-4=-123/49, 4-5=-118/46
BOT CHORD	1-7=-82/62, 6-7=-82/62, 5-6=-82/62
WEBS	3-6=-258/122, 2-7=-414/209

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 5, 86 lb uplift at joint 6 and 147 lb uplift at joint 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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Chesterfield, MO 63017
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DEVELOPMENT SERVICES
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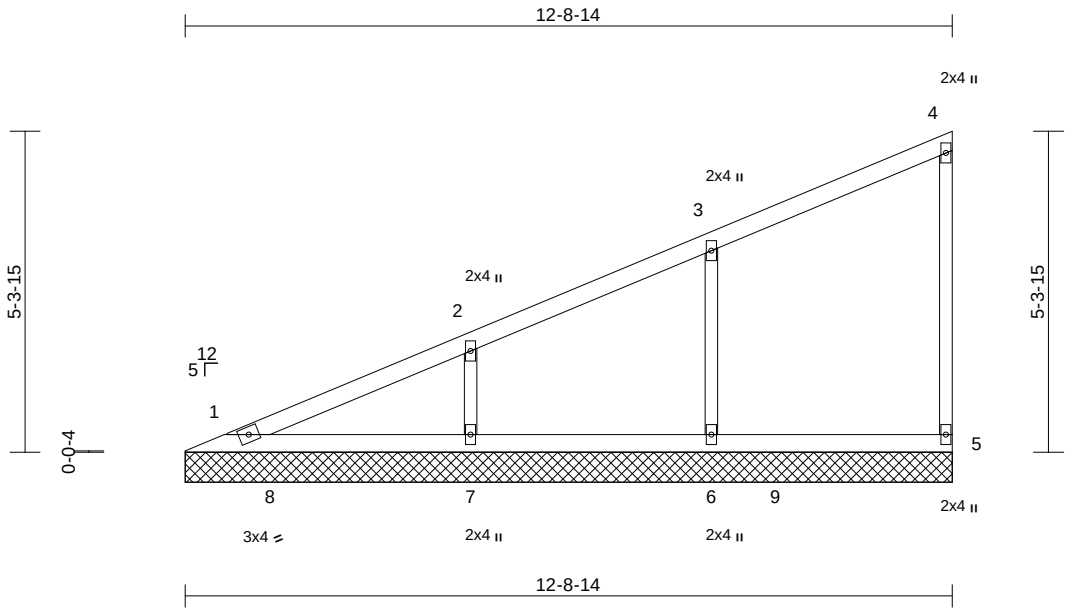
06/03/2024 3:44:42

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V5	Valley	1	1	Job Reference (optional)	I64780444

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:38.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	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	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 37 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=12-8-14, 5=12-8-14, 6=12-8-14, 7=12-8-14
Max Horiz 1=218 (LC 5)
Max Uplift 5=-30 (LC 5), 6=-101 (LC 8), 7=-107 (LC 8)
Max Grav 1=166 (LC 16), 5=173 (LC 2), 6=413 (LC 2), 7=408 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-176/59, 2-3=-137/49, 3-4=-117/42, 4-5=-111/44
BOT CHORD	1-7=-70/53, 6-7=-70/53, 5-6=-70/53
WEBS	3-6=-299/145, 2-7=-305/156

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 5, 101 lb uplift at joint 6 and 107 lb uplift at joint 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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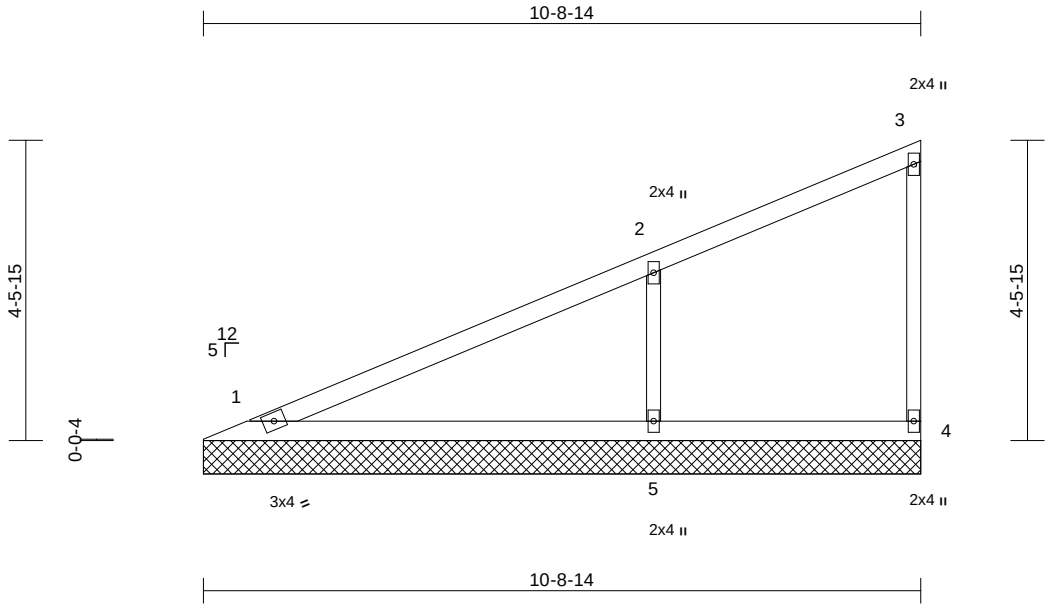
06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V6	Valley	1	1	Job Reference (optional)	I64780445

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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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	0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=10-8-14, 4=10-8-14, 5=10-8-14
Max Horiz 1=181 (LC 5)
Max Uplift 1=-5 (LC 8), 4=-23 (LC 5), 5=-154 (LC 8)
Max Grav 1=220 (LC 1), 4=95 (LC 1), 5=579 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-138/92, 2-3=-114/36, 3-4=-78/34
BOT CHORD 1-5=-59/45, 4-5=-59/45
WEBS 2-5=-436/213

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 23 lb uplift at joint 4 and 154 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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DEVELOPMENT SERVICES
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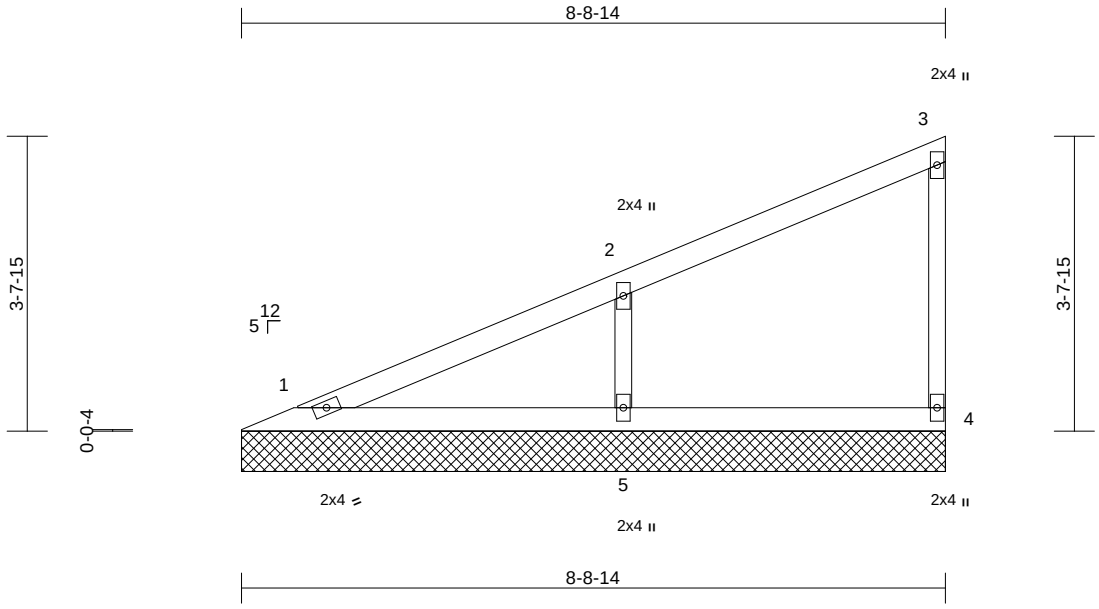
06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V7	Valley	1	1	Job Reference (optional)	I64780446

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:05
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=8-8-14, 4=8-8-14, 5=8-8-14
Max Horiz 1=145 (LC 5)
Max Uplift 4=-23 (LC 5), 5=-119 (LC 8)
Max Grav 1=138 (LC 1), 4=130 (LC 1), 5=446 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-114/68, 2-3=-100/28, 3-4=-101/40
BOT CHORD	1-5=-47/36, 4-5=-47/36
WEBS	2-5=-347/178

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 4 and 119 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V8	Valley	1	1	I64780447
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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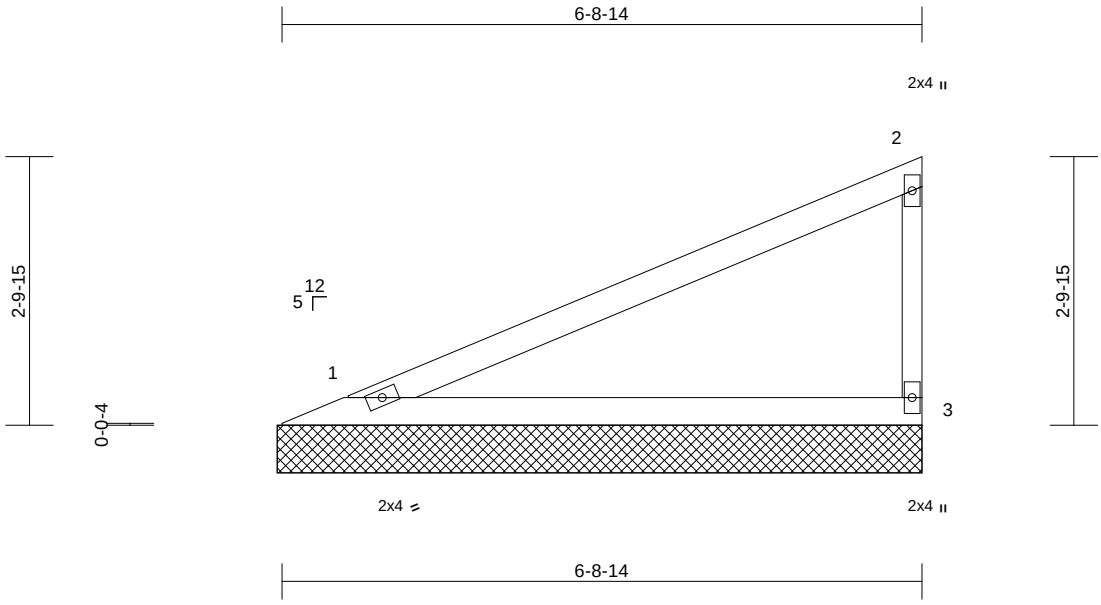

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=6-9-8, 3=6-9-8
Max Horiz 1=108 (LC 5)
Max Uplift 1=-39 (LC 8), 3=-61 (LC 8)
Max Grav 1=267 (LC 1), 3=267 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-97/64, 2-3=-208/96
BOT CHORD 1-3=-35/27

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1 and 61 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V9	Valley	1	1	Job Reference (optional)	I64780448

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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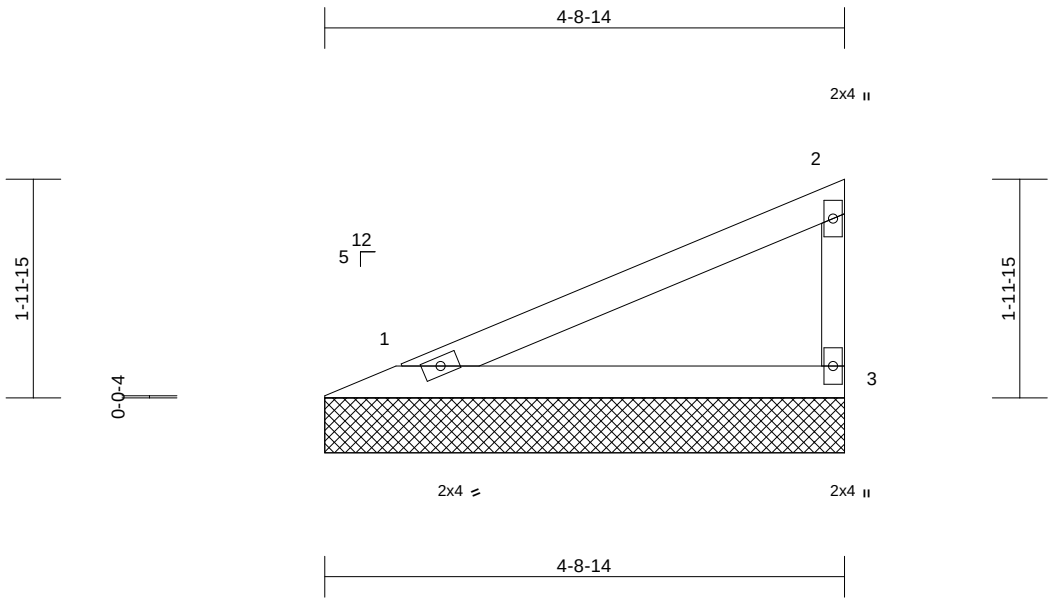

Scale = 1:21

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-8-14, 3=4-8-14
Max Horiz 1=72 (LC 5)
Max Uplift 1=-26 (LC 8), 3=-40 (LC 8)
Max Grav 1=177 (LC 1), 3=177 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-64/43, 2-3=-138/64
BOT CHORD 1-3=-23/18

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 40 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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

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DEVELOPMENT SERVICES
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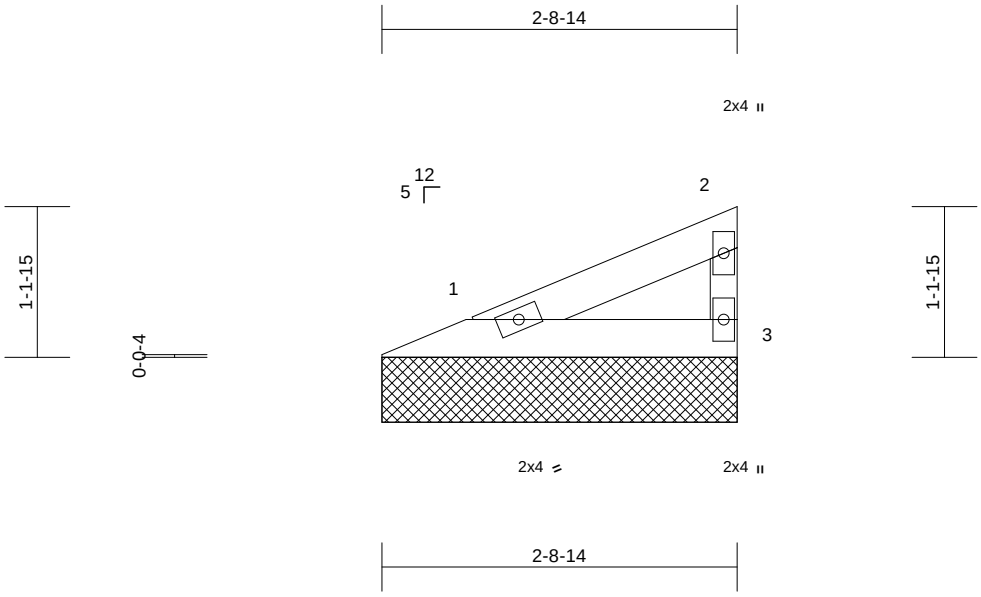
06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V10	Valley	1	1	I64780449
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06 Page: 1
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:17.8

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-8-14, 3=2-8-14
Max Horiz 1=36 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-20 (LC 8)
Max Grav 1=87 (LC 1), 3=87 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-32/21, 2-3=-68/31
BOT CHORD 1-3=-12/9

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 20 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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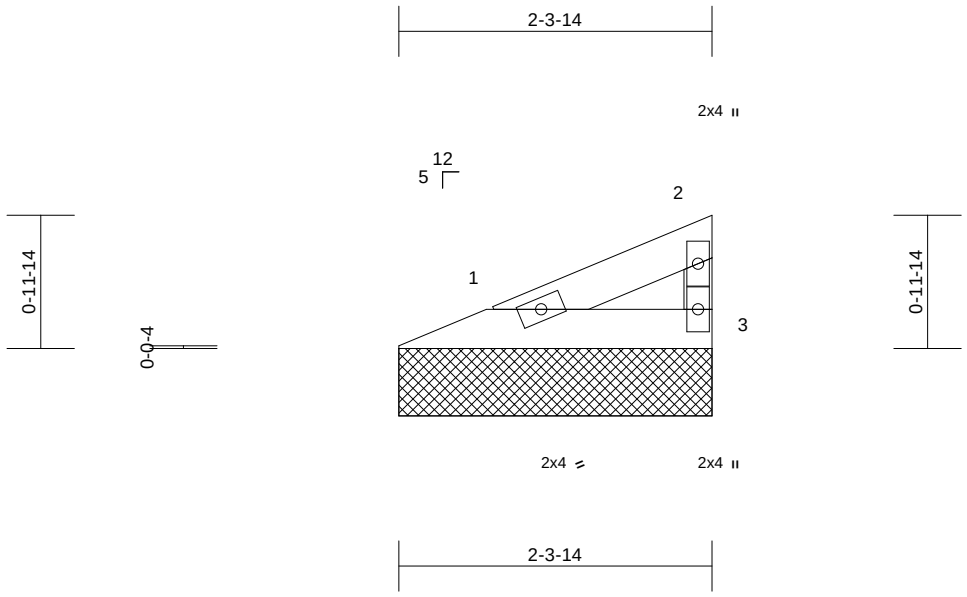
Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V11	Valley	1	1	Job Reference (optional)	I64780450

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:17.1

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	0.04	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-3-14, 3=2-3-14
Max Horiz 1=28 (LC 5)
Max Uplift 1=-10 (LC 8), 3=-16 (LC 8)
Max Grav 1=68 (LC 1), 3=68 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/17, 2-3=-53/25
BOT CHORD 1-3=-9/7

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 16 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V12	Valley	1	1	Job Reference (optional)	I64780451

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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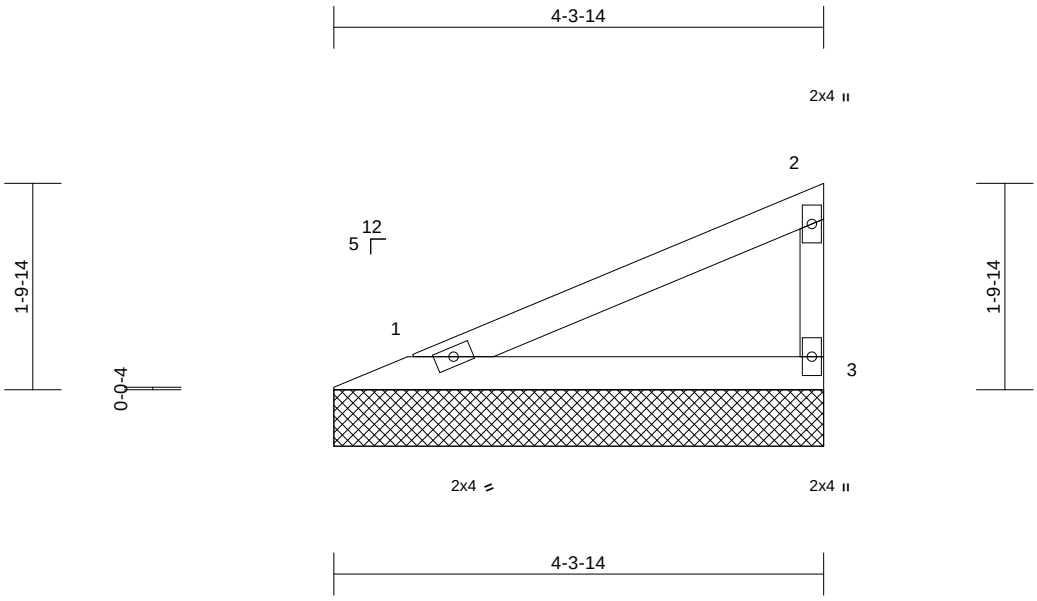

Scale = 1:20.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%

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

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

REACTIONS (size) 1=4-3-14, 3=4-3-14
Max Horiz 1=64 (LC 5)
Max Uplift 1=-23 (LC 8), 3=-36 (LC 8)
Max Grav 1=158 (LC 1), 3=158 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-58/38, 2-3=-123/57
BOT CHORD 1-3=-21/16

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 36 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V13	Valley	1	1	Job Reference (optional)	I64780452

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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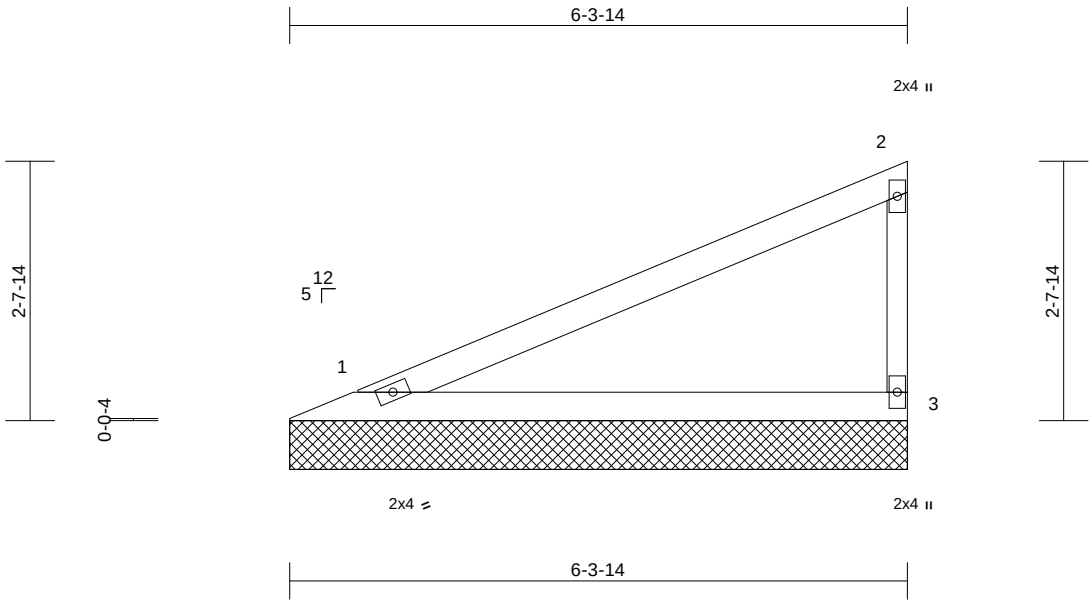

Scale = 1:23.6

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	0.60	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	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: 16 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=6-3-14, 3=6-3-14
Max Horiz 1=101 (LC 5)
Max Uplift 1=-36 (LC 8), 3=-56 (LC 8)
Max Grav 1=248 (LC 1), 3=248 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-90/60, 2-3=-193/90
BOT CHORD 1-3=-33/25

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 1 and 56 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V14	Valley	1	1	I64780453
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06 ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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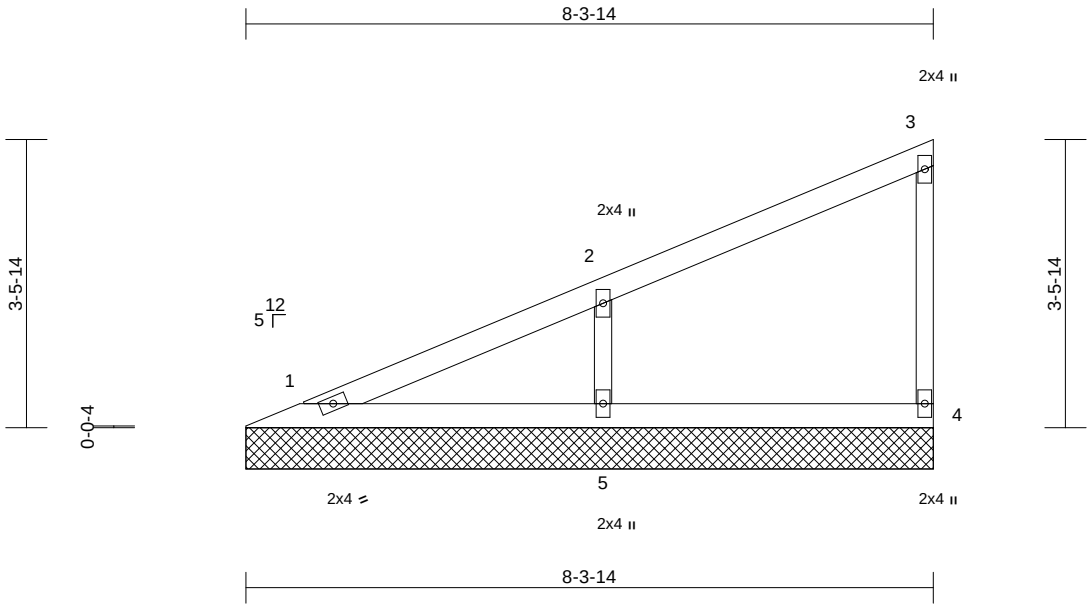

Scale = 1:27.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=8-3-14, 4=8-3-14, 5=8-3-14
Max Horiz 1=137 (LC 5)
Max Uplift 4=-23 (LC 8), 5=-112 (LC 8)
Max Grav 1=119 (LC 1), 4=135 (LC 1), 5=423 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-109/62, 2-3=-97/30, 3-4=-105/41
BOT CHORD	1-5=-45/34, 4-5=-45/34
WEBS	2-5=-329/169

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 4 and 112 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
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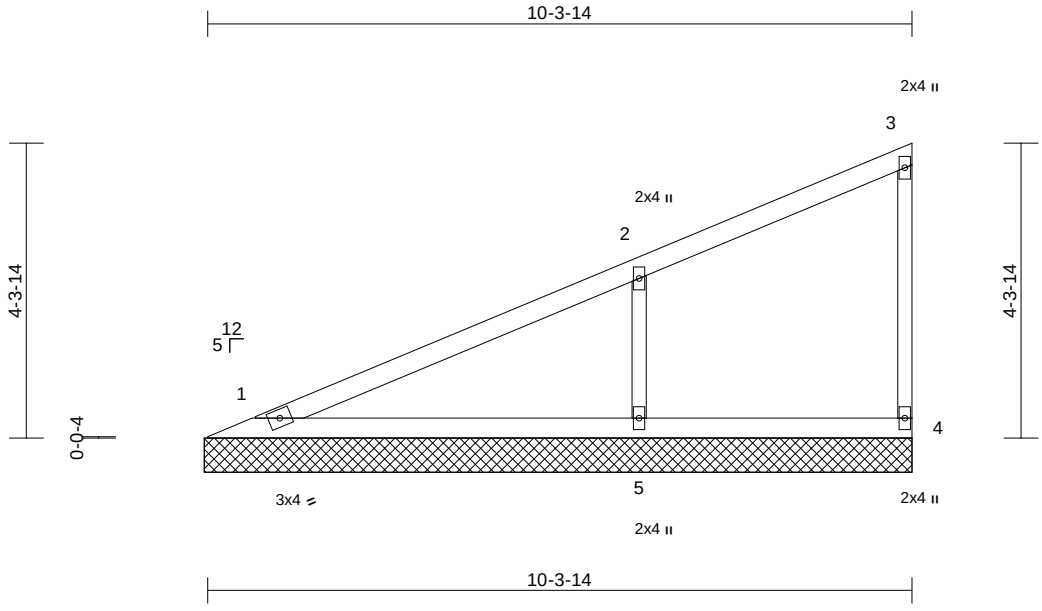
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V15	Valley	1	1	Job Reference (optional)	I64780454

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
ID:Hr0UIoyIgMOrZQ4rpiId7XzssyG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 28 lb	FT = 10%

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

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

REACTIONS (size) 1=10-4-8, 4=10-4-8, 5=10-4-8
Max Horiz 1=174 (LC 5)
Max Uplift 1=-3 (LC 8), 4=-23 (LC 5), 5=-145 (LC 8)
Max Grav 1=204 (LC 1), 4=105 (LC 1), 5=547 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-133/85, 2-3=-111/34, 3-4=-85/35
BOT CHORD 1-5=-56/43, 4-5=-56/43
WEBS 2-5=-413/202

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 23 lb uplift at joint 4 and 145 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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06/03/2024 3:44:43

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V16	Valley	1	1	I64780455
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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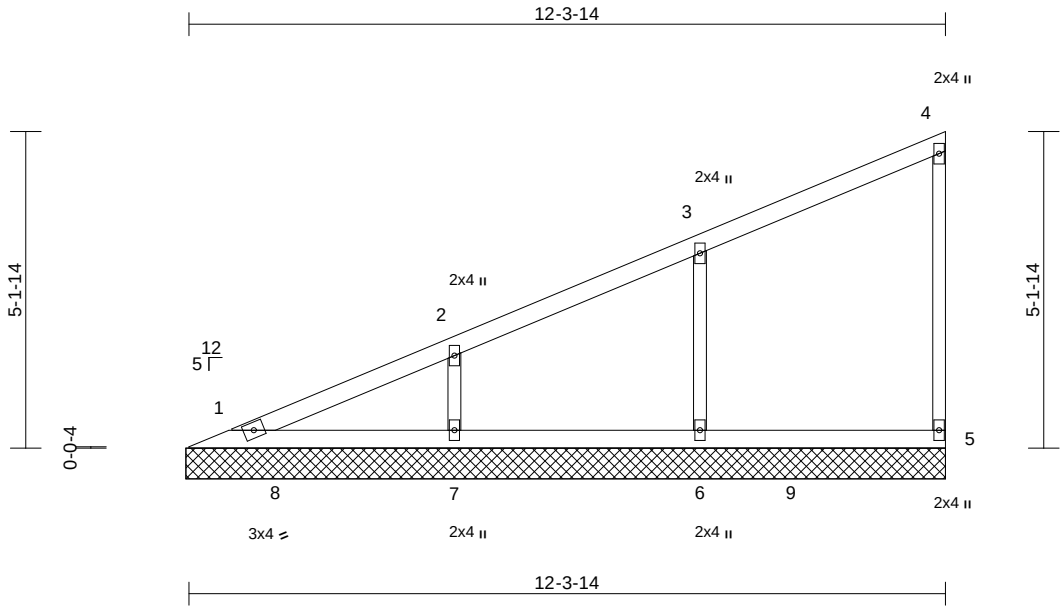

Scale = 1:37.5

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	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	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=12-4-8, 5=12-4-8, 6=12-4-8, 7=12-4-8
Max Horiz 1=210 (LC 5)
Max Uplift 5=-29 (LC 5), 6=-103 (LC 8), 7=-100 (LC 8)
Max Grav 1=149 (LC 16), 5=170 (LC 2), 6=415 (LC 2), 7=382 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-172/54, 2-3=-134/51, 3-4=-116/40, 4-5=-110/43
BOT CHORD	1-7=-68/51, 6-7=-68/51, 5-6=-68/51
WEBS	3-6=-304/148, 2-7=-286/147

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 5, 103 lb uplift at joint 6 and 100 lb uplift at joint 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V17	Valley	1	1	Job Reference (optional)	I64780456

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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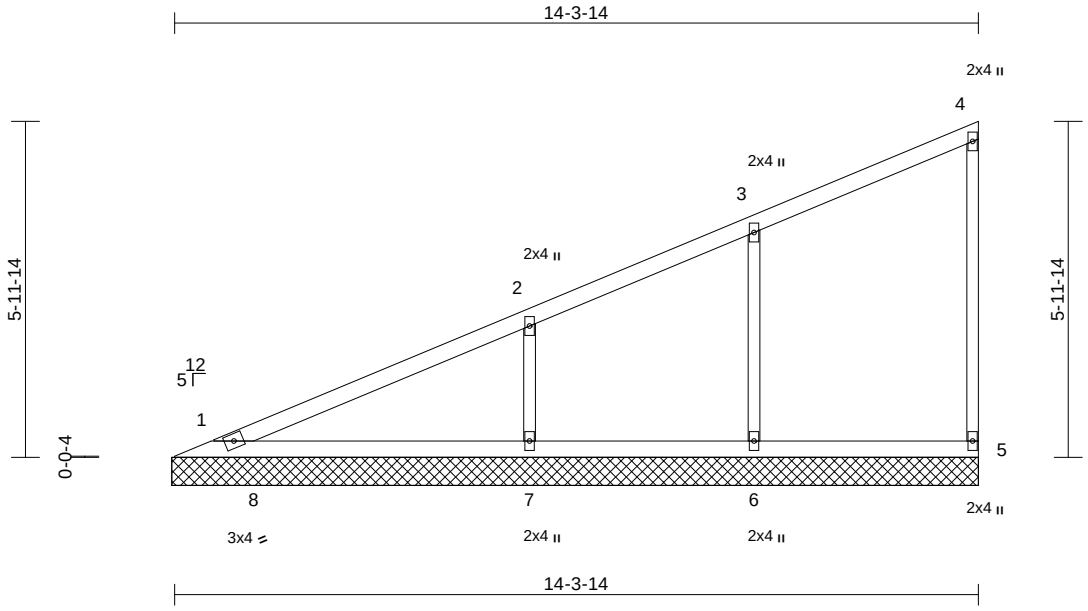

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=14-4-8, 5=14-4-8, 6=14-4-8, 7=14-4-8
Max Horiz 1=246 (LC 5)
Max Uplift 5=-33 (LC 5), 6=-90 (LC 8), 7=-138 (LC 8)
Max Grav 1=226 (LC 16), 5=182 (LC 2), 6=384 (LC 2), 7=527 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-196/82, 2-3=-151/40, 3-4=-122/48, 4-5=-116/46
BOT CHORD	1-7=-80/60, 6-7=-80/60, 5-6=-80/60
WEBS	3-6=-269/128, 2-7=-389/197

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 5, 90 lb uplift at joint 6 and 138 lb uplift at joint 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

April 10,2024

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06/03/2024 3:44:44

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT	
B240067	V18	Valley	1	1	Job Reference (optional)	I64780457

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06
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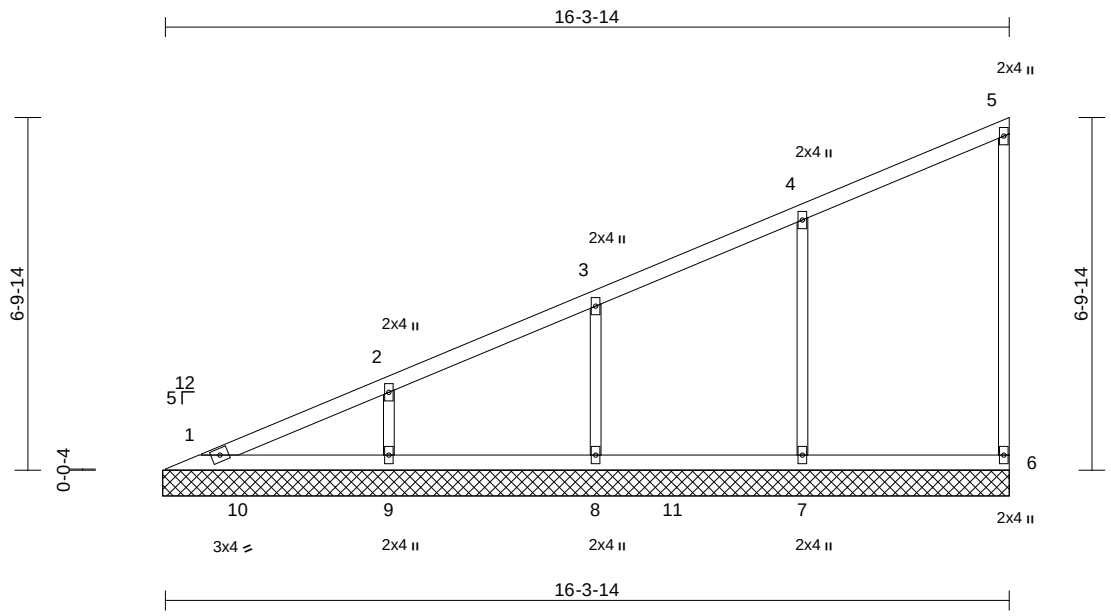
Page: 1



Scale = 1:44.6

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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=16-4-8, 6=16-4-8, 7=16-4-8, 8=16-4-8, 9=16-4-8
Max Horiz 1=283 (LC 5)
Max Uplift 6=-35 (LC 5), 7=-105 (LC 8), 8=-92 (LC 8), 9=-103 (LC 8)
Max Grav 1=162 (LC 16), 6=169 (LC 2), 7=473 (LC 2), 8=364 (LC 2), 9=394 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-236/56, 2-3=-187/50, 3-4=-158/54, 4-5=-131/57, 5-6=-110/43
BOT CHORD	1-9=-92/70, 8-9=-92/70, 7-8=-92/70, 6-7=-92/70
WEBS	4-7=-308/142, 3-8=-271/143, 2-9=-294/148

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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, with BCDL = 10.0psf.
8) All bearings are assumed to be SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 6, 105 lb uplift at joint 7, 92 lb uplift at joint 8 and 103 lb uplift at joint 9.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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06/03/2024 3:44:44

Job	Truss	Truss Type	Qty	Ply	Lot 166 HT
B240067	V19	Valley	1	1	I64780458
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Tue Apr 09 09:18:06 Page: 1
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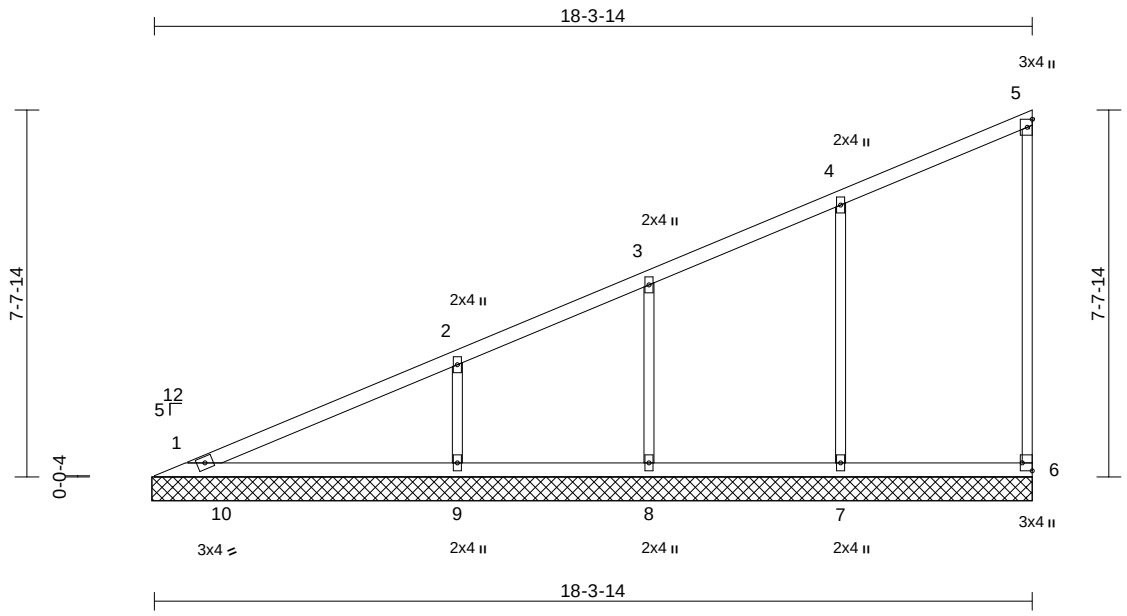

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Plate Offsets (X, Y): [6:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 58 lb	FT = 10%

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

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

REACTIONS (size) 1=18-4-8, 6=18-4-8, 7=18-4-8, 8=18-4-8, 9=18-4-8
Max Horiz 1=319 (LC 5)
Max Uplift 6=-38 (LC 5), 7=-109 (LC 8), 8=-78 (LC 8), 9=-140 (LC 8)
Max Grav 1=239 (LC 16), 6=165 (LC 2), 7=491 (LC 2), 8=330 (LC 2), 9=538 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-260/85, 2-3=-197/39, 3-4=-171/57, 4-5=-139/65, 5-6=-108/42
BOT CHORD 1-9=-104/79, 8-9=-104/79, 7-8=-104/79, 6-7=-104/79
WEBS 4-7=-318/142, 3-8=-234/127, 2-9=-396/197

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) All bearings are assumed to be SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 6, 109 lb uplift at joint 7, 78 lb uplift at joint 8 and 140 lb uplift at joint 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

April 10,2024

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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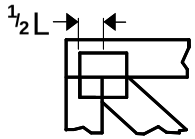
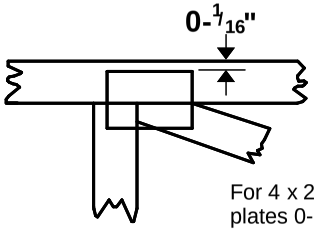
Symbols

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.

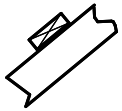
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

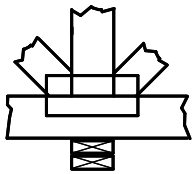
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

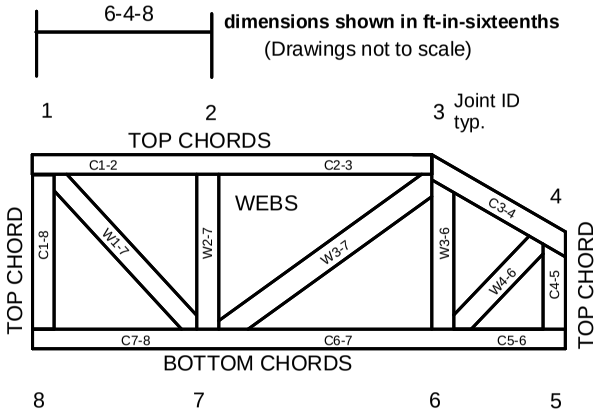


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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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MiTek Engineering Reference Sheet: MII-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/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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