



MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: B230083
Lot 113 H4

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

Pages or sheets covered by this seal: I58592455 thru I58592494

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



May 26, 2023

Sevier, Scott ,Engineer

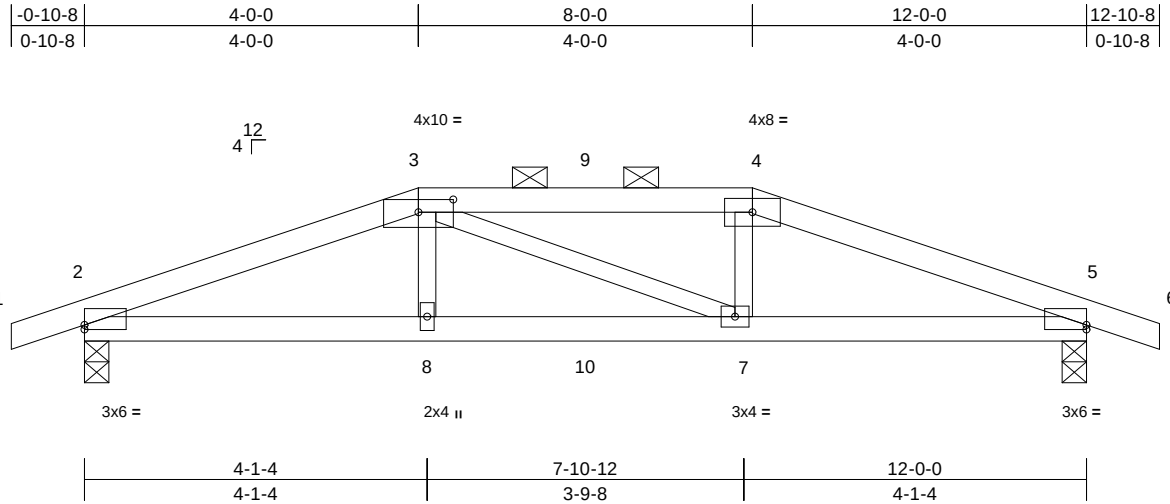
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592455
B230083	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:46
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Page: 1



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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.06	7-8	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.10	7-8	>999	240	
BCLL	0.0*	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.03	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	7-8	>999	240	
										Weight: 35 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-6 oc purlins, except 2-0-0 oc purlins (4-0-10 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-8-11 oc bracing.

REACTIONS

(size) 2=0-3-8, 5=0-3-8
Max Horiz 2=29 (LC 27)
Max Uplift 2=-232 (LC 4), 5=-232 (LC 5)
Max Grav 2=897 (LC 1), 5=897 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1822/421, 3-4=-1668/413, 4-5=-1823/421, 5-6=0/6
BOT CHORD 2-8=-369/1647, 7-8=-369/1667, 5-7=-350/1648

WEBS 3-8=0/314, 3-7=-75/77, 4-7=-6/323

NOTES

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

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 2 and 232 lb uplift at joint 5.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 83 lb down and 64 lb up at 4-0-0, and 83 lb down and 63 lb up at 6-0-0, and 83 lb down and 64 lb up at 8-0-0 on top chord, and 210 lb down and 50 lb up at 4-0-0, and 36 lb down at 6-0-0, and 210 lb down and 50 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-53 (F), 4=-53 (F), 8=-210 (F), 7=-210 (F), 9=-53 (F), 10=-18 (F)



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



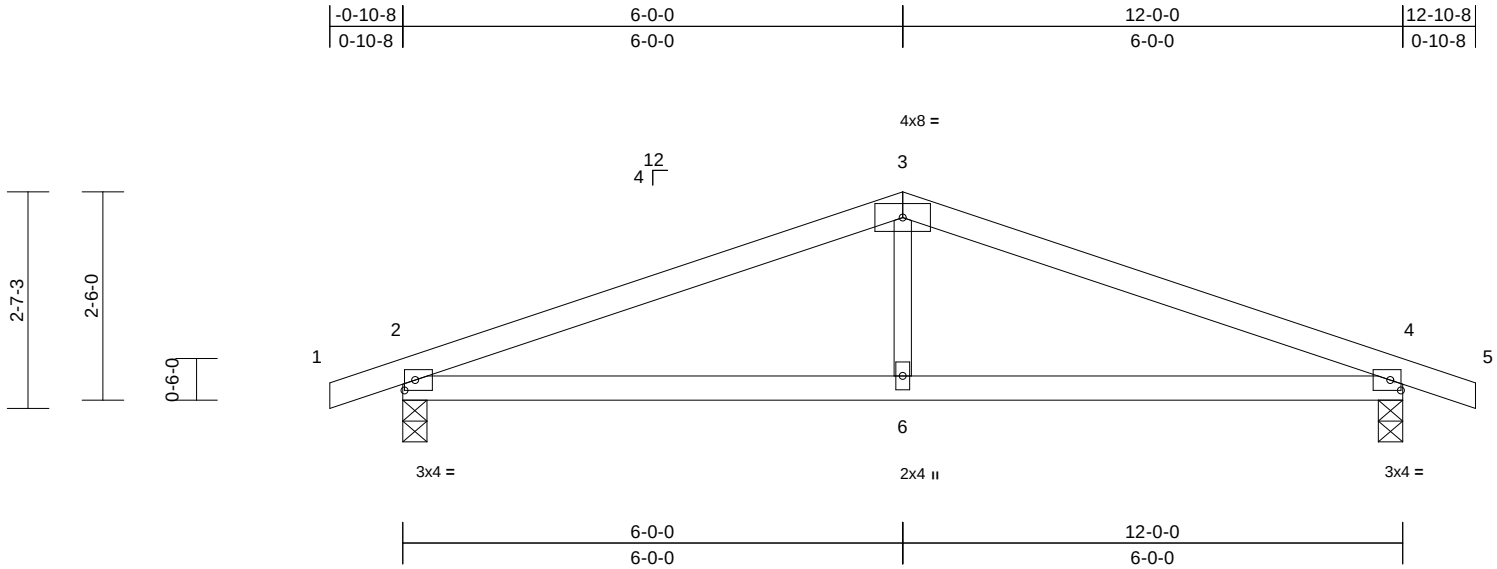
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592456
B230083	A2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:27.7

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

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	0.50	Vert(LL)	-0.03	4-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.08	4-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	2-6	>999	240	Weight: 32 lb	FT = 10%

LUMBER

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

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=-40 (LC 13)
Max Uplift 2=-121 (LC 4), 4=-121 (LC 5)
Max Grav 2=598 (LC 1), 4=598 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-914/107, 3-4=-914/107, 4-5=0/6

BOT CHORD 2-6=-57/791, 4-6=-57/791
WEBS 3-6=0/281

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 121 lb uplift at joint 4.



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

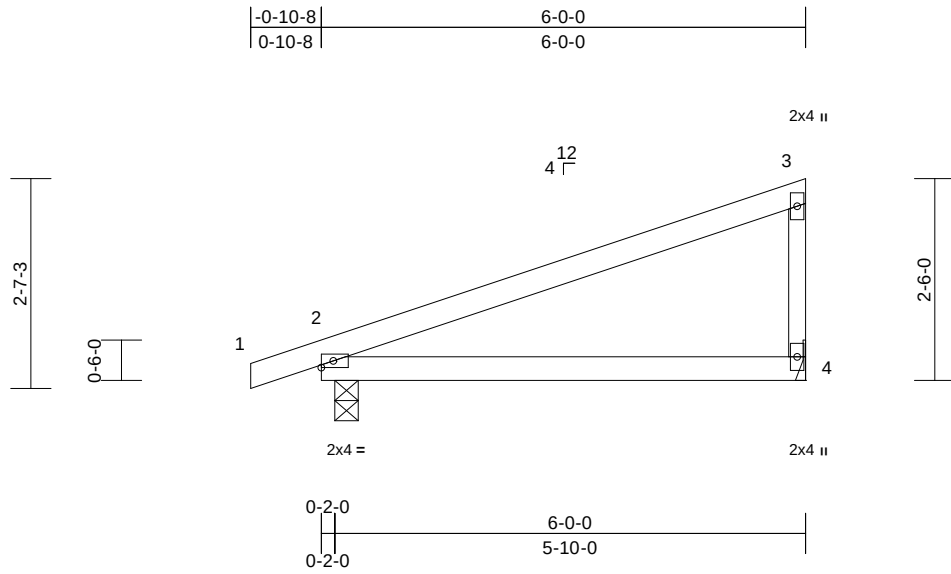
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	B1	Monopitch	9	1	Job Reference (optional)	I58592457

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:48

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Scale = 1:28.5

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	0.61	Vert(LL)	-0.07	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	2-4	>526	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=98 (LC 7)
Max Uplift 2=-88 (LC 4), 4=-55 (LC 8)
Max Grav 2=337 (LC 1), 4=252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-87/55, 3-4=-195/89
BOT CHORD 2-4=-31/23

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 4 and 88 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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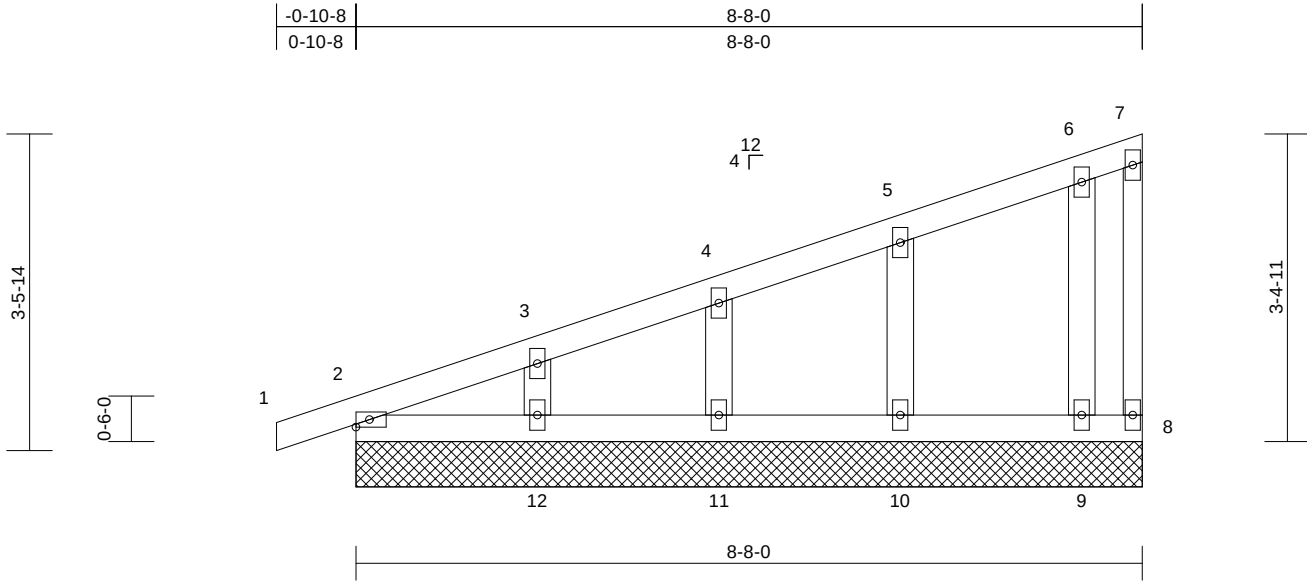
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592458
B230083	C1	Monopitch Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 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	0.11	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	0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 31 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	2=8-8-0, 8=8-8-0, 9=8-8-0, 10=8-8-0, 11=8-8-0, 12=8-8-0
Max Horiz	2=138 (LC 5)
Max Uplift	2=-27 (LC 4), 8=-17 (LC 7), 9=-30 (LC 4), 10=-46 (LC 8), 11=-43 (LC 4), 12=-51 (LC 8)
Max Grav	2=149 (LC 1), 8=10 (LC 4), 9=141 (LC 1), 10=189 (LC 1), 11=177 (LC 1), 12=183 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-113/27, 3-4=-85/22, 4-5=-72/23, 5-6=-61/20, 6-7=-49/35, 7-8=-12/13
BOT CHORD	2-12=-43/33, 11-12=-43/33, 10-11=-43/33, 9-10=-43/33, 8-9=-43/33
WEBS	3-12=-138/78, 4-11=-139/66, 5-10=-147/71, 6-9=-108/50

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 8, 27 lb uplift at joint 2, 51 lb uplift at joint 12, 43 lb uplift at joint 11, 46 lb uplift at joint 10 and 30 lb uplift at joint 9.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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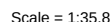
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Chesterfield, MO 63017

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LUMBER

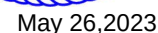
BRACING

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/6, 2-3=-148/57, 3-4=-88/47, 4-5=-26/31
BOT CHORD	2-6=-30/27, 5-6=-30/27
WEBS	3-6=-389/189

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 2 and 102 lb uplift at joint 6.
- 5) 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.

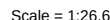
LOAD CASE(S) Standard



WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MHF/473 (rev. 5/19/2020) 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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LUMBER

BRACING

TOP CHORD 1-2=0/6, 2-3=-95/61, 3-4=-219/100
BOT CHORD 2-4=-34/26

NOTES

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May 26, 2023



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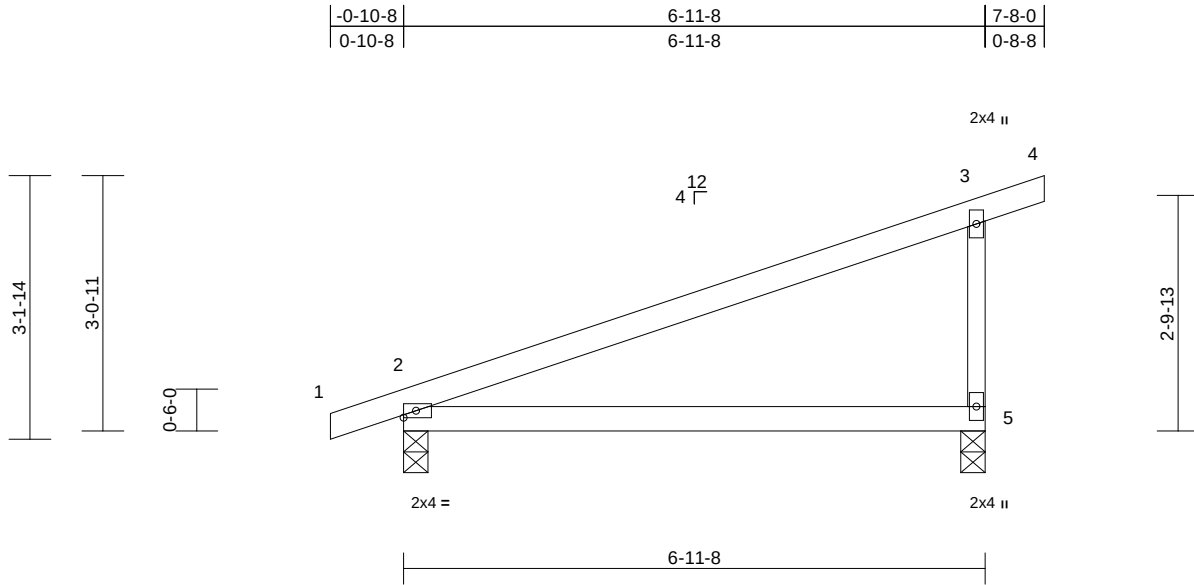
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592461
B230083	C4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:27.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.12	2-5	>663	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.24	2-5	>331	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-3-8
Max Horiz 2=124 (LC 5)
Max Uplift 2=-89 (LC 4), 5=-88 (LC 8)
Max Grav 2=375 (LC 1), 5=357 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-103/65, 3-4=-18/0,
3-5=-290/128

BOT CHORD 2-5=-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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 5 and 89 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

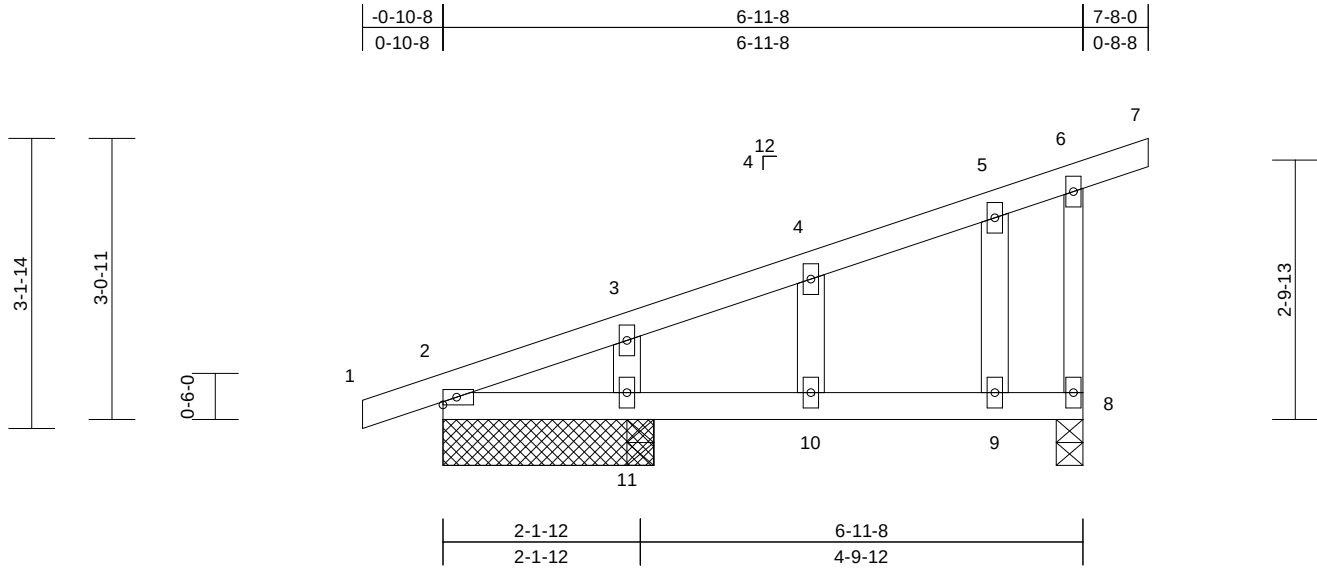
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592462
B230083	C5	Monopitch Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:49

Page: 1

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Scale = 1:25

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.02	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 25 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	2=2-3-8, 8=0-3-8, 11=2-3-8
Max Horiz	2=124 (LC 5)
Max Uplift	2=-17 (LC 4), 8=-60 (LC 8), 11=-99 (LC 8)
Max Grav	2=91 (LC 1), 8=250 (LC 1), 11=395 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-102/16, 3-4=-101/0, 4-5=-69/0, 5-6=-45/12, 6-7=-18/0, 6-8=-164/52
BOT CHORD	2-11=-29/23, 10-11=-29/23, 9-10=-29/23, 8-9=-29/23
WEBS	3-11=-240/98, 4-10=-55/48, 5-9=-30/27

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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 8, 17 lb uplift at joint 2 and 99 lb uplift at joint 11.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



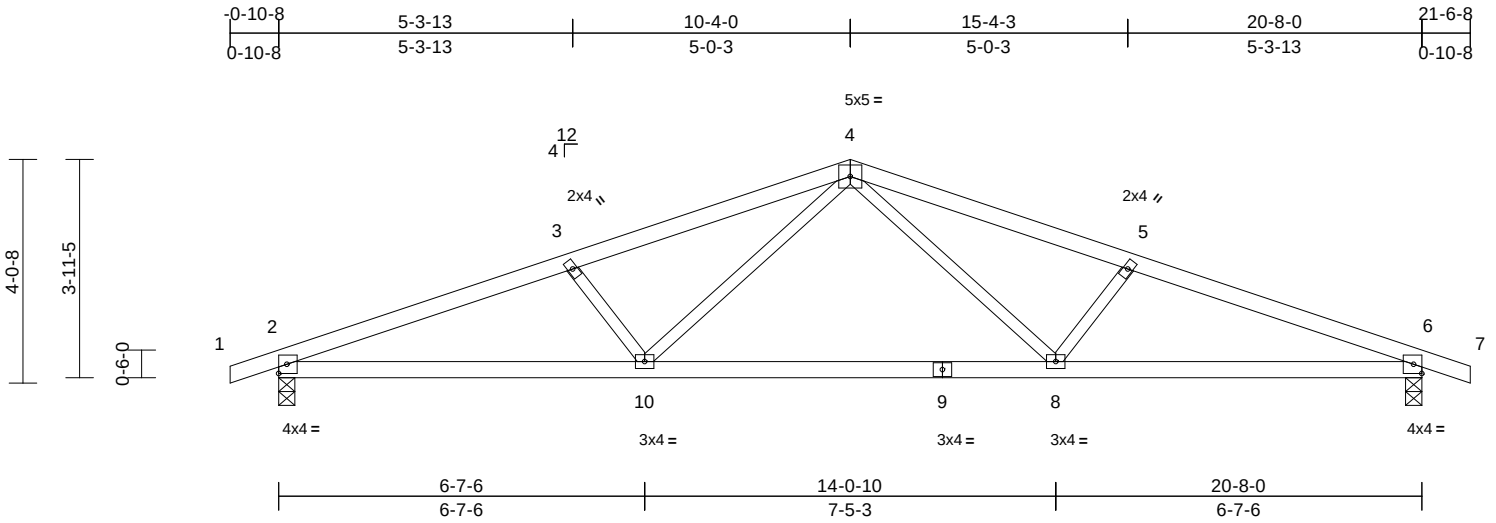
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592463
B230083	D1	Common	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:41.7

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	0.34	Vert(LL)	-0.10	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	8-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	8-10	>999	240	Weight: 62 lb	FT = 10%

LUMBER

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

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6=0-3-8
Max Horiz 2=66 (LC 12)
Max Uplift 2=-178 (LC 4), 6=-178 (LC 5)
Max Grav 2=988 (LC 1), 6=988 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2045/297, 3-4=-1836/268, 4-5=-1836/268, 5-6=-2045/297, 6-7=0/6
BOT CHORD 2-10=-275/1859, 8-10=-118/1278, 6-8=-225/1859
WEBS 4-8=-84/598, 5-8=-327/179, 4-10=-83/598, 3-10=-327/179

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 2 and 178 lb uplift at joint 6.



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

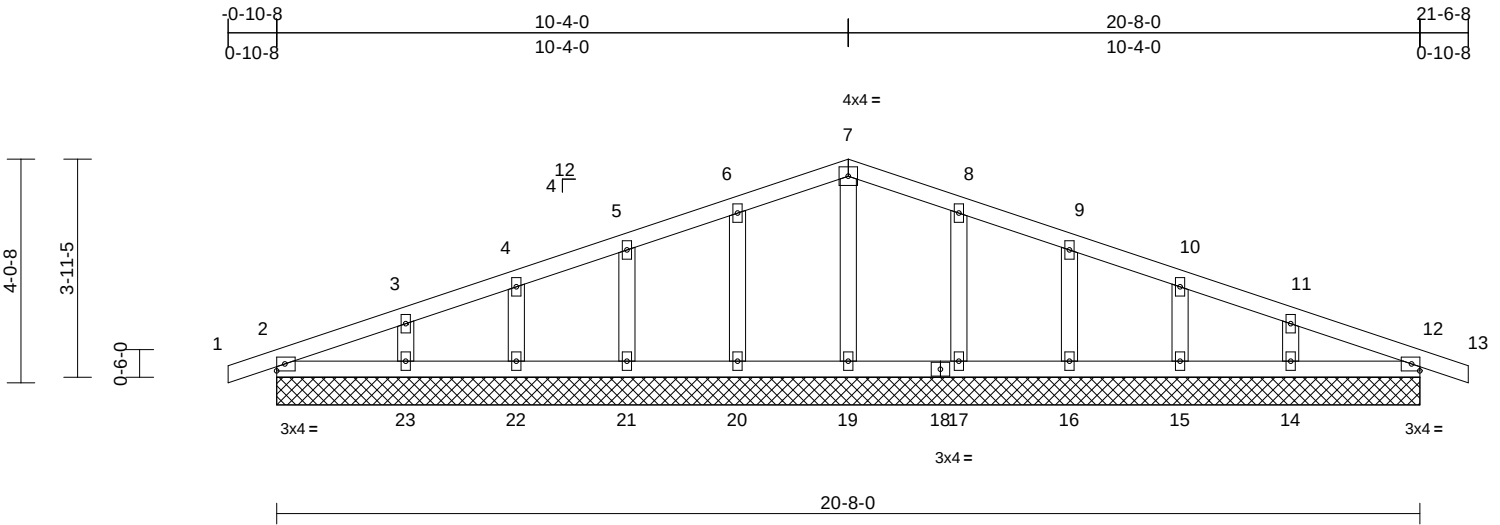
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592464
B230083	D2	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:50

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 70 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	2=20-8-0, 12=20-8-0, 14=20-8-0, 15=20-8-0, 16=20-8-0, 17=20-8-0, 19=20-8-0, 20=20-8-0, 21=20-8-0, 22=20-8-0, 23=20-8-0
Max Horiz	2=66 (LC 8)
Max Uplift	2=-40 (LC 4), 12=-49 (LC 5), 14=-52 (LC 9), 15=-42 (LC 5), 16=-43 (LC 9), 17=-46 (LC 9), 20=-47 (LC 8), 21=-42 (LC 8), 22=-42 (LC 4), 23=-55 (LC 8)
Max Grav	2=163 (LC 1), 12=163 (LC 1), 14=207 (LC 22), 15=173 (LC 22), 16=180 (LC 1), 17=191 (LC 22), 19=162 (LC 1), 20=191 (LC 21), 21=180 (LC 1), 22=173 (LC 21), 23=207 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-73/47, 3-4=-47/52, 4-5=-31/67, 5-6=-29/84, 6-7=-32/102, 7-8=-32/98, 8-9=-29/68, 9-10=-29/40, 10-11=-31/22, 11-12=-50/27, 12-13=0/6
BOT CHORD	2-23=-3/53, 22-23=-3/53, 21-22=-3/53, 20-21=-3/53, 19-20=-3/53, 17-19=-3/53, 16-17=-3/53, 15-16=-3/53, 14-15=-3/53, 12-14=-3/53
WEBS	7-19=-122/0, 6-20=-151/71, 5-21=-139/67, 4-22=-136/65, 3-23=-156/81, 8-17=-151/70, 9-16=-139/67, 10-15=-136/65, 11-14=-156/78

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2, 47 lb uplift at joint 20, 42 lb uplift at joint 21, 42 lb uplift at joint 22, 55 lb uplift at joint 23, 46 lb uplift at joint 17, 43 lb uplift at joint 16, 42 lb uplift at joint 15, 52 lb uplift at joint 14 and 49 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

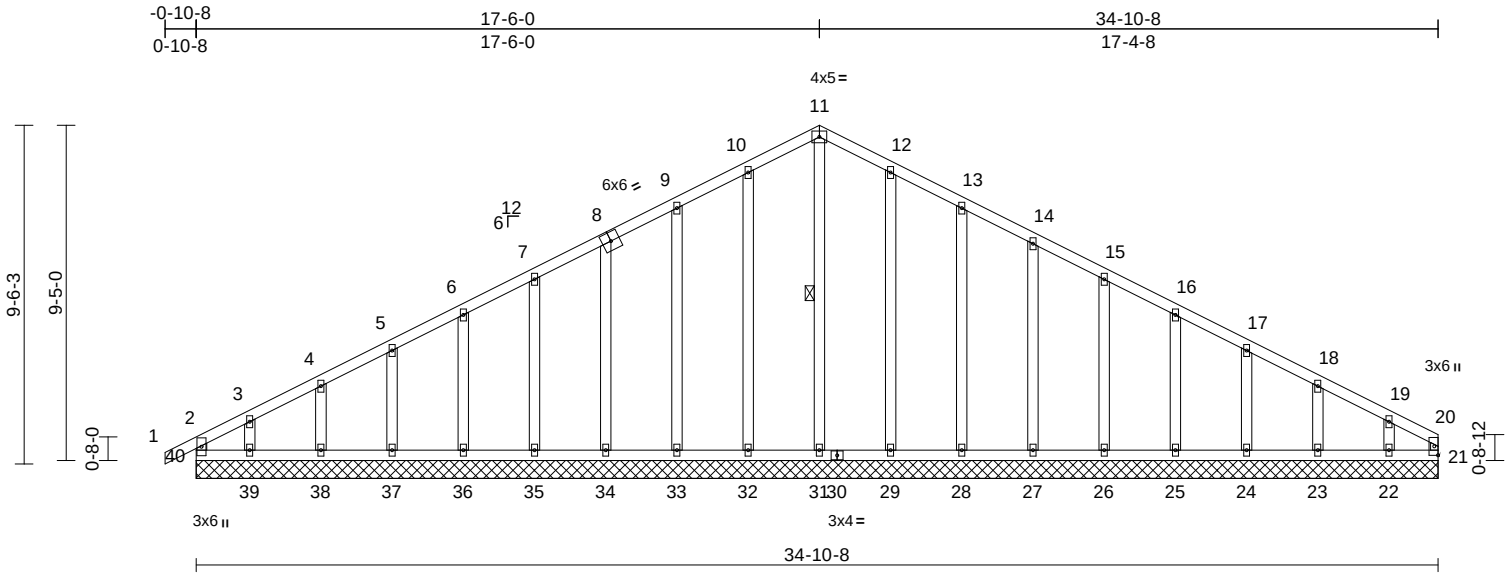
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592465
B230083	E1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:50

Page: 1

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Scale = 1:64.7

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	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	21	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 176 lb FT = 10%											

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 20-21:2x3 SPF No.2
OTHERS	2x4 SPF No.2

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 11-31

REACTIONS (size)	21=34-10-8, 22=34-10-8, 23=34-10-8, 24=34-10-8, 25=34-10-8, 26=34-10-8, 27=34-10-8, 28=34-10-8, 29=34-10-8, 31=34-10-8, 32=34-10-8, 33=34-10-8, 34=34-10-8, 35=34-10-8, 36=34-10-8, 37=34-10-8, 38=34-10-8, 39=34-10-8, 40=34-10-8
Max Horiz	40=156 (LC 8)
Max Uplift	22=108 (LC 9), 23=47 (LC 9), 24=56 (LC 9), 25=53 (LC 9), 26=54 (LC 9), 27=53 (LC 9), 28=58 (LC 9), 29=48 (LC 9), 32=51 (LC 8), 33=55 (LC 8), 34=53 (LC 8), 35=57 (LC 8), 36=53 (LC 8), 37=57 (LC 8), 38=44 (LC 8), 39=116 (LC 8), 40=48 (LC 4)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-40=-140/47, 1-2=0/32, 2-3=-198/80, 3-4=-144/84, 4-5=-107/97, 5-6=-78/123, 6-7=-65/149, 7-9=-55/201, 9-10=-38/227, 10-11=-42/250, 11-12=-42/242, 12-13=-39/199, 13-14=-39/152, 14-15=-39/118, 15-16=-39/92, 16-17=-39/66, 17-18=-61/44, 18-19=-86/36, 19-20=-137/29, 20-21=-68/3
BOT CHORD	39-40=-27/113, 38-39=-27/113, 37-38=-27/113, 36-37=-27/113, 35-36=-27/113, 34-35=-27/113, 33-34=-27/113, 32-33=-27/113, 31-32=-27/113, 29-31=-27/113, 28-29=-27/113, 27-28=-27/113, 26-27=-27/113, 25-26=-27/113, 24-25=-27/113, 23-24=-27/113, 22-23=-27/113, 21-22=-27/113
WEBS	11-31=-174/0, 10-32=-151/75, 9-33=-134/79, 8-34=-141/78, 7-35=-144/81, 6-36=-139/77, 5-37=-139/79, 4-38=-147/74, 3-39=-101/105, 12-29=-150/72, 13-28=-139/82, 14-27=-140/77, 15-26=-140/78, 16-25=-140/78, 17-24=-139/78, 18-23=-143/76, 19-22=-125/98

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



May 26, 2023

Continued on page 2

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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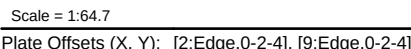
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4
B230083	E1	Common Supported Gable	1	1	I58592465
					Job Reference (optional)

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 40, 51 lb uplift at joint 32, 55 lb uplift at joint 33, 53 lb uplift at joint 34, 57 lb uplift at joint 35, 53 lb uplift at joint 36, 57 lb uplift at joint 37, 44 lb uplift at joint 38, 116 lb uplift at joint 39, 48 lb uplift at joint 29, 58 lb uplift at joint 28, 53 lb uplift at joint 27, 54 lb uplift at joint 26, 53 lb uplift at joint 25, 56 lb uplift at joint 24, 47 lb uplift at joint 23 and 108 lb uplift at joint 22.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Wheeler Lumber, Waverly, KS - 66871, Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:50 Page: 1
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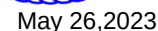
LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 12-10:2x4 SPF 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 15-2,10-9:2x6 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 1-4-12 oc bracing: 14-15.
WEBS	1 Row at midpt 7-13, 5-13, 3-15, 8-10
REACTIONS	(size) 10=0-2-0, 15=0-3-8 Max Horiz 15=156 (LC 12) Max Uplift 10=-192 (LC 9), 15=-218 (LC 8) Max Grav 10=1641 (LC 2), 15=1706 (LC 2)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/35, 2-3=-788/69, 3-5=-2579/307, 5-6=-1872/288, 6-7=-1872/288, 7-8=-2560/305, 8-9=-618/37, 2-15=-525/102, 9-10=-365/55
BOT CHORD	14-15=-426/2368, 13-14=-222/2015, 11-13=-101/2006, 10-11=-290/2333
WEBS	6-13=-167/1383, 7-13=-680/260, 7-11=-14/484, 8-11=-284/233, 5-13=-692/262, 5-14=-14/502, 3-14=-298/235, 3-15=-2004/318, 8-10=-2145/348

- 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) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 15 and 192 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/35, 2-3=-788/69, 3-5=-2579/307, 5-6=-1872/288, 6-7=-1872/288, 7-8=-2560/305, 8-9=-618/37, 2-15=-525/102, 9-10=-365/55
BOT CHORD	14-15=-426/2368, 13-14=-222/2015, 11-13=-101/2006, 10-11=-290/2333
WEBS	6-13=-167/1383, 7-13=-680/260, 7-11=-14/484, 8-11=-284/233, 5-13=-692/262, 5-14=-14/502, 3-14=-298/235, 3-15=-2004/318, 8-10=-2145/348

- 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

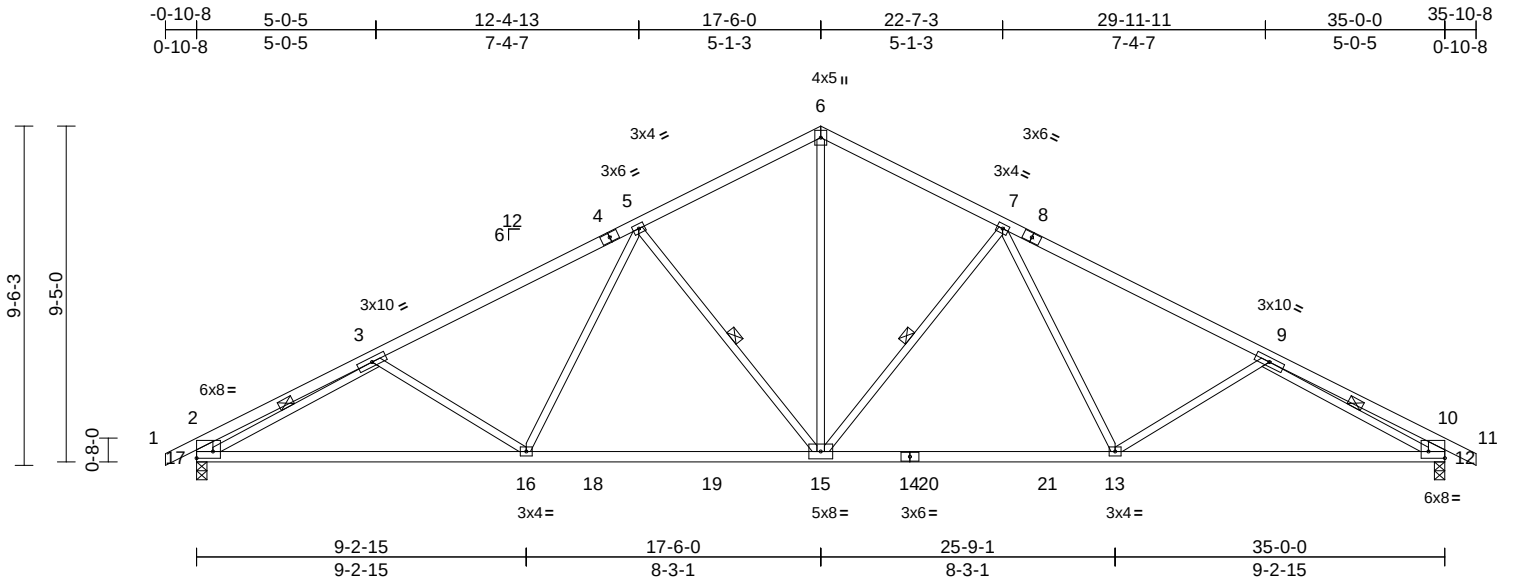


Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592467
B230083	E3	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:51
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:64.6									
Plate Offsets (X, Y): [2:Edge,0-2-4], [12:Edge,0-2-4]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.25 13-15	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.41 13-15	>999	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.12 12	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11 15-16	>999	240
					Weight: 136 lb FT = 10%				

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 17-2,12-10:2x6 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 7-15, 5-15, 3-17, 9-12
REACTIONS	
(size)	12=0-3-8, 17=0-3-8
Max Horiz	17=146 (LC 8)
Max Uplift	12=-219 (LC 9), 17=-219 (LC 8)
Max Grav	12=1711 (LC 2), 17=1711 (LC 2)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/35, 2-3=-787/67, 3-5=-2589/307, 5-6=-1884/288, 6-7=-1884/288, 7-9=-2589/308, 9-10=-787/66, 10-11=0/35, 2-17=-524/101, 10-12=-524/101
BOT CHORD	16-17=-418/2378, 15-16=-213/2025, 13-15=-92/2025, 12-13=-272/2376
WEBS	6-15=-167/1395, 7-15=-692/263, 7-13=-15/499, 9-13=-297/235, 5-15=-692/263, 5-16=-14/499, 3-16=-297/235, 3-17=-2015/322, 9-12=-2015/322

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 17 and 219 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



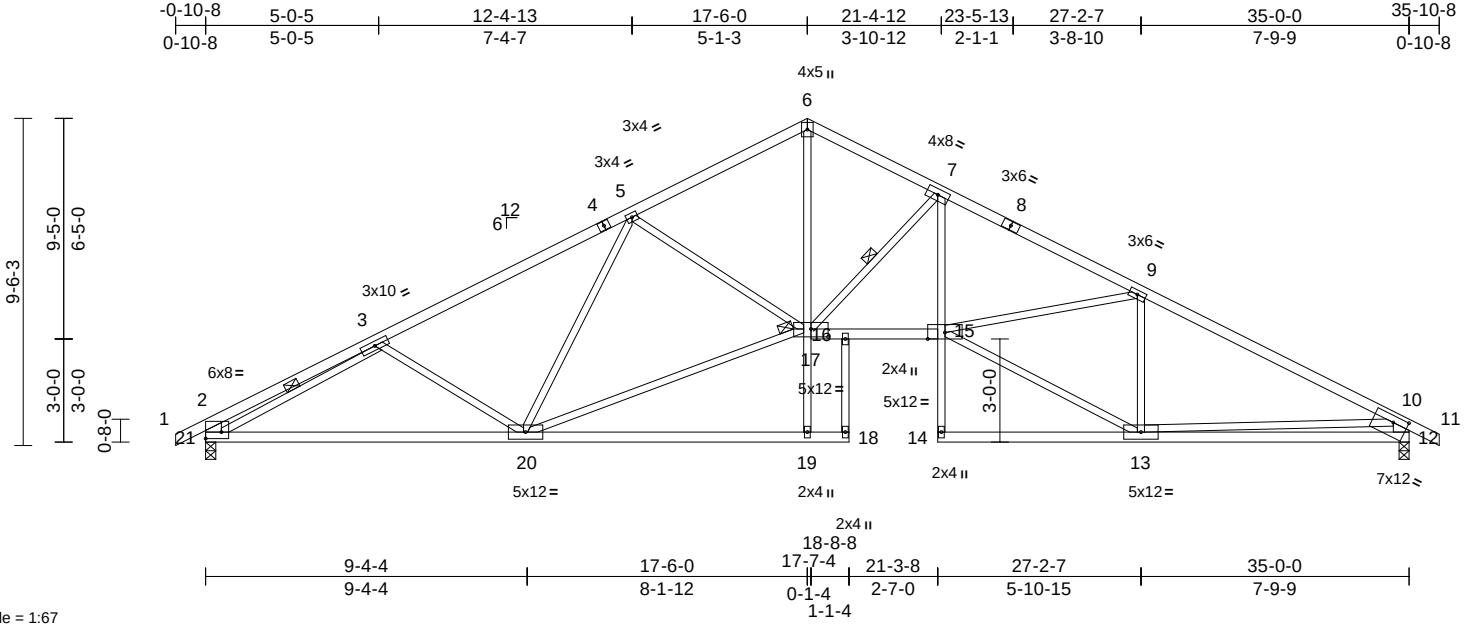
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592468
B230083	E4	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:51
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:67

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.27	14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.50	19-20	>836	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.29	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.17	15-16	>999	240	Weight: 154 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 18-16,7-14:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 21-2,12-10:2x6 SP DSS

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, Except: 8-10-14 oc bracing: 20-21 6-0-0 oc bracing: 16-18.
WEBS	1 Row at midpt 7-17, 3-21
JOINTS	1 Brace at Jt(s): 17

REACTIONS	(size) 12=0-3-8, 21=0-3-8 Max Horiz 21=146 (LC 12) Max Uplift 12=-219 (LC 9), 21=-219 (LC 8) Max Grav 12=1632 (LC 1), 21=1632 (LC 1)
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FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension 1-2=0/35, 2-3=-692/65, 3-5=-2403/305, 5-6=-2538/299, 6-7=-2544/320, 7-9=-3637/329, 9-10=-2613/312, 10-11=0/35, 2-21=-511/101, 10-12=-1554/262
BOT CHORD	20-21=-418/2270, 19-20=0/31, 18-19=-2/22, 16-18=-92/0, 16-17=-134/3136, 15-16=-137/3161, 14-15=0/91, 7-15=-80/1180, 13-14=0/27, 12-13=-259/943
WEBS	3-20=-301/236, 5-20=-547/93, 5-17=-273/218, 17-19=0/283, 6-17=-195/1941, 7-17=-1399/250, 13-15=-194/2495, 9-15=-42/957, 9-13=-1124/179, 3-21=-1999/323, 10-13=-9/1283, 17-20=-274/2390

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 219 lb uplift at joint 12 and 219 lb uplift at joint 21.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



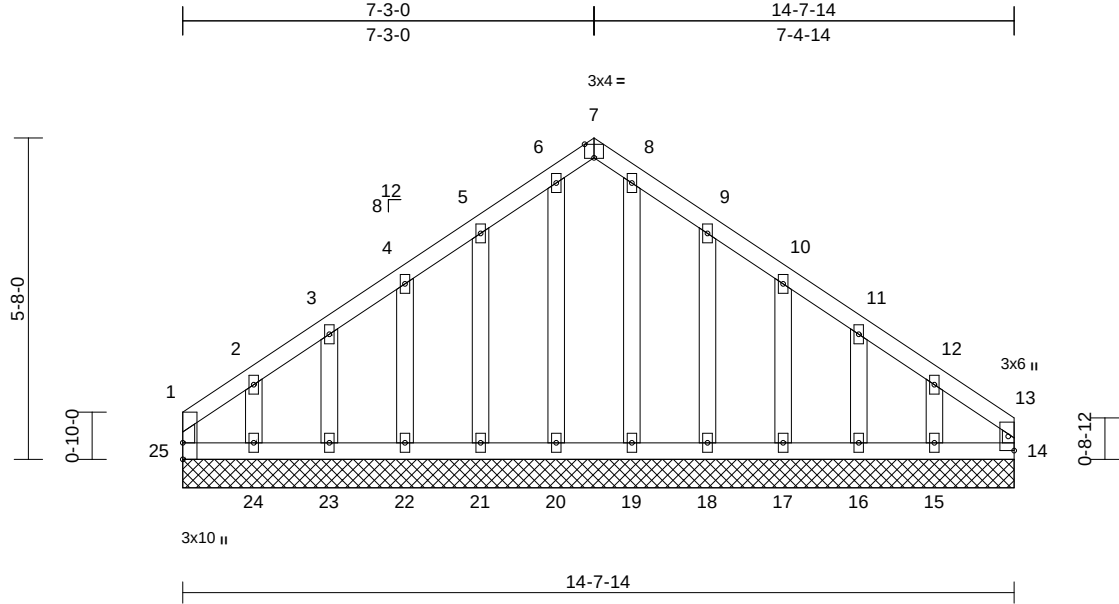
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592469
B230083	G1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:51
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?r

Page: 1



Scale = 1:40.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
										Weight: 71 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)	14=14-7-14, 15=14-7-14, 16=14-7-14, 17=14-7-14, 18=14-7-14, 19=14-7-14, 20=14-7-14, 21=14-7-14, 22=14-7-14, 23=14-7-14, 24=14-7-14, 25=14-7-14
	Max Horiz 25=-147 (LC 4)
Max Uplift	14=-41 (LC 5), 15=-95 (LC 9), 16=-35 (LC 9), 17=-48 (LC 9), 18=-63 (LC 9), 21=-63 (LC 8), 22=-48 (LC 8), 23=-35 (LC 8), 24=-103 (LC 8), 25=-59 (LC 4)
	Max Grav 14=95 (LC 15), 15=162 (LC 16), 16=118 (LC 1), 17=126 (LC 16), 18=127 (LC 16), 19=120 (LC 17), 20=121 (LC 18), 21=127 (LC 15), 22=126 (LC 15), 23=121 (LC 1), 24=163 (LC 15), 25=104 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-25=-76/44, 1-2=-101/87, 2-3=-76/62, 3-4=-69/72, 4-5=-59/96, 5-6=-51/129, 6-7=-37/100, 7-8=-34/98, 8-9=-45/126, 9-10=-54/94, 10-11=-64/69, 11-12=-72/55, 12-13=-92/79, 13-14=-72/34
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BOT CHORD	24-25=-71/84, 23-24=-71/84, 22-23=-71/84, 21-22=-71/84, 20-21=-71/84, 19-20=-71/84, 18-19=-71/84, 17-18=-71/84, 16-17=-71/84, 15-16=-71/84, 14-15=-71/84
WEBS	2-24=-115/89, 3-23=-95/58, 4-22=-98/62, 5-21=-100/79, 6-20=-95/0, 8-19=-93/0, 9-18=-101/80, 10-17=-98/62, 11-16=-94/57, 12-15=-118/88

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 25, 41 lb uplift at joint 14, 103 lb uplift at joint 24, 35 lb uplift at joint 23, 48 lb uplift at joint 22, 63 lb uplift at joint 21, 63 lb uplift at joint 18, 48 lb uplift at joint 17, 35 lb uplift at joint 16 and 95 lb uplift at joint 15.

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



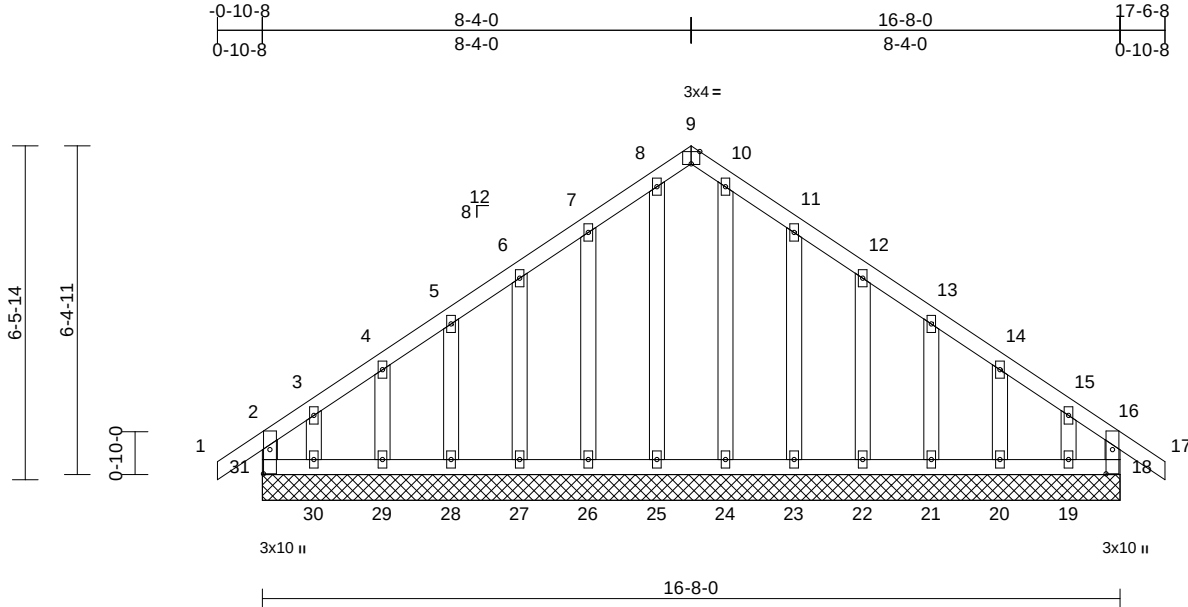
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592470
B230083	G2	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:52
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Page: 1



Scale = 1:44.8

Plate Offsets (X, Y): [9:0-2-0,Edge], [18:0-5-10,0-1-8], [31:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	18	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 89 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)	18=16-8-0, 19=16-8-0, 20=16-8-0, 21=16-8-0, 22=16-8-0, 23=16-8-0, 24=16-8-0, 25=16-8-0, 26=16-8-0, 27=16-8-0, 28=16-8-0, 29=16-8-0, 30=16-8-0, 31=16-8-0
Max Horiz	31=184 (LC 7)
Max Uplift	18=56 (LC 5), 19=114 (LC 9), 20=38 (LC 9), 21=49 (LC 9), 22=45 (LC 9), 23=65 (LC 9), 26=63 (LC 8), 27=45 (LC 8), 28=49 (LC 8), 29=36 (LC 8), 30=128 (LC 8), 31=98 (LC 4)
Max Grav	18=160 (LC 15), 19=117 (LC 7), 20=129 (LC 22), 21=124 (LC 16), 22=124 (LC 16), 23=127 (LC 16), 24=127 (LC 17), 25=136 (LC 18), 26=125 (LC 15), 27=124 (LC 15), 28=125 (LC 15), 29=129 (LC 21), 30=145 (LC 6), 31=194 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-31=-153/72, 1-2=0/40, 2-3=-140/123, 3-4=-94/94, 4-5=-83/83, 5-6=-71/91, 6-7=-58/115, 7-8=-49/149, 8-9=-36/113, 9-10=-32/109, 10-11=-29/130, 11-12=-31/98, 12-13=-40/73, 13-14=-50/51, 14-15=-61/64, 15-16=-114/80, 16-17=0/40, 16-18=-130/42

BOT CHORD	30-31=-81/104, 29-30=-81/104, 28-29=-81/104, 27-28=-81/104, 26-27=-81/104, 25-26=-81/104, 24-25=-81/104, 23-24=-81/104, 22-23=-81/104, 21-22=-81/104, 20-21=-81/104, 19-20=-81/104, 18-19=-81/104
WEBS	3-30=-84/91, 4-29=-101/60, 5-28=-97/63, 6-27=-98/62, 7-26=-98/79, 8-25=-109/6, 10-24=-101/0, 11-23=-101/81, 12-22=-98/62, 13-21=-97/63, 14-20=-102/61, 15-19=-73/84

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 31, 56 lb uplift at joint 18, 128 lb uplift at joint 30, 36 lb uplift at joint 29, 49 lb uplift at joint 28, 45 lb uplift at joint 27, 63 lb uplift at joint 26, 65 lb uplift at joint 23, 45 lb uplift at joint 22, 49 lb uplift at joint 21, 38 lb uplift at joint 20 and 114 lb uplift at joint 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



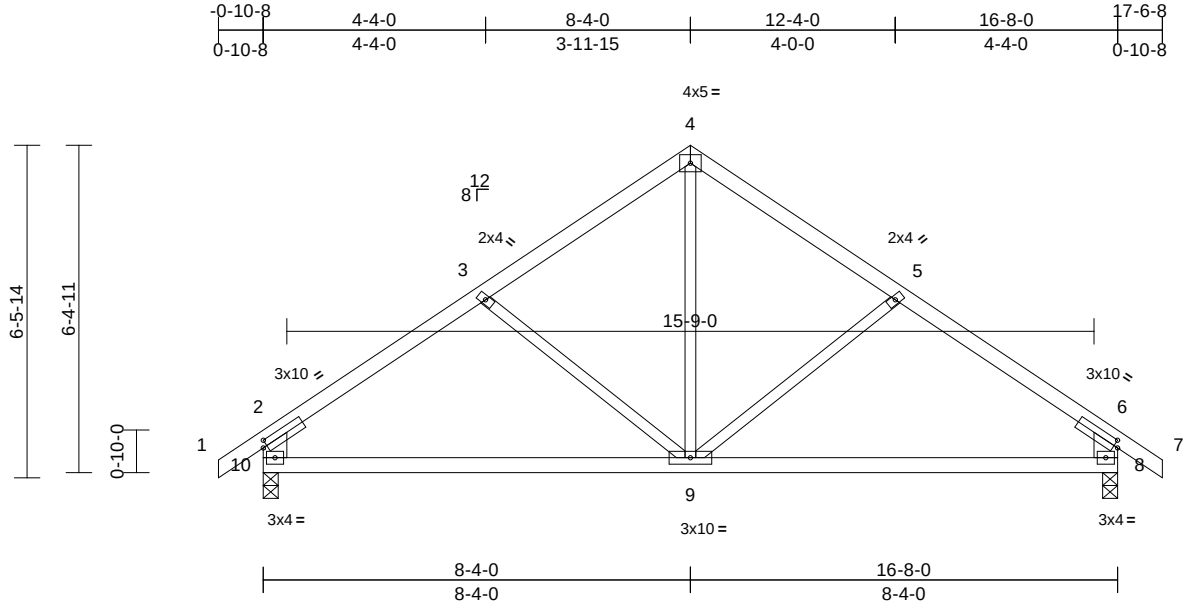
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B230083	Truss G3	Truss Type Common	Qty 1	Ply 1	Lot 113 H4 Job Reference (optional)	I58592471
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Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:52
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:45

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

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	0.59	Vert(LL)	-0.08	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.17	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	9	>999	240	Weight: 60 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 10-2,8-6:2x6 SP 2400F 2.0E

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-9 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=186 (LC 7)
	Max Uplift 8=-107 (LC 9), 10=-107 (LC 8)
	Max Grav 8=807 (LC 1), 10=807 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/43, 2-3=-883/132, 3-4=-663/129, 4-5=-663/129, 5-6=-883/132, 6-7=0/43, 2-10=-719/148, 6-8=-719/148
BOT CHORD	9-10=-114/667, 8-9=-29/633
WEBS	4-9=-39/388, 5-9=-200/175, 3-9=-200/175

NOTES

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

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 10 and 107 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



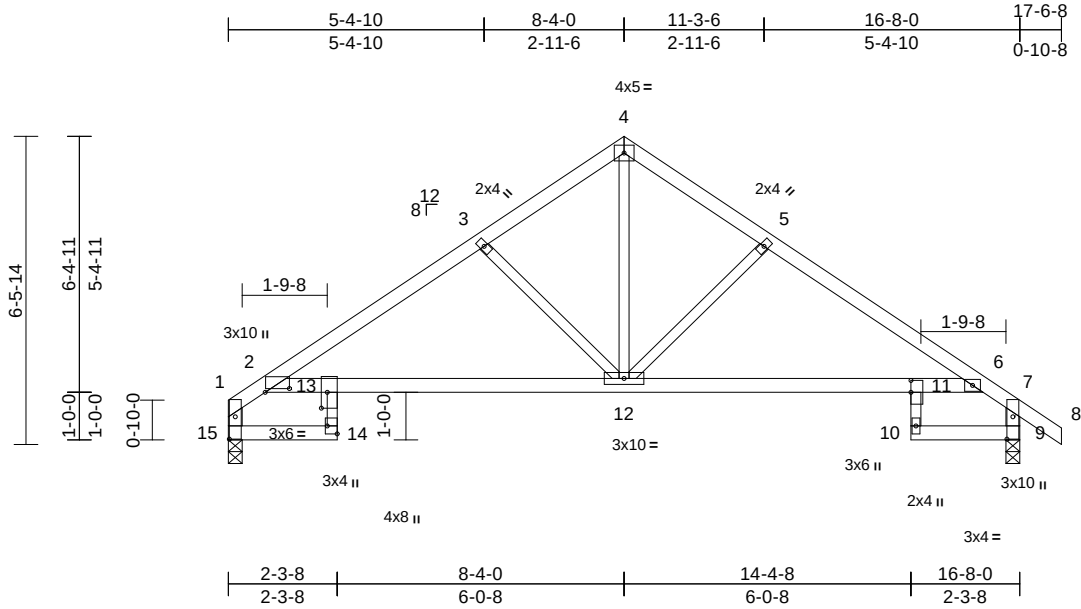
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	G4	Roof Special	1	1	Job Reference (optional)	I58592472

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:52
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Page: 1



Scale = 1:48.5

Plate Offsets (X, Y): [1:0-5-10,0-1-8], [2:0-6-2,0-0-15], [9:0-5-10,0-1-8], [11:0-3-0,Edge], [13:0-4-0,0-1-8], [14: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	0.56	Vert(LL)	-0.14	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.30	12-13	>645	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.26	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	12-13	>999	240	Weight: 59 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 4-8:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 14-13,11-10:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 15-1,9-7:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-4-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 11-12

REACTIONS (size)

9=0-3-8, 15=0-3-8
Max Horiz 15=-178 (LC 4)
Max Uplift 9=-106 (LC 9), 15=-82 (LC 8)
Max Grav 9=811 (LC 1), 15=735 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-538/108, 2-3=-1085/149, 3-4=-860/133, 4-5=-860/143, 5-6=-1086/136, 6-7=-514/96, 7-8=0/40, 1-15=-745/115, 7-9=-818/125
BOT CHORD	14-15=-70/208, 13-14=-15/71, 2-13=-42/709, 12-13=-112/903, 11-12=-29/882, 6-11=-7/740, 10-11=0/51, 9-10=-30/142
WEBS	4-12=-101/756, 3-12=-367/184, 5-12=-352/171

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 15 and 106 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



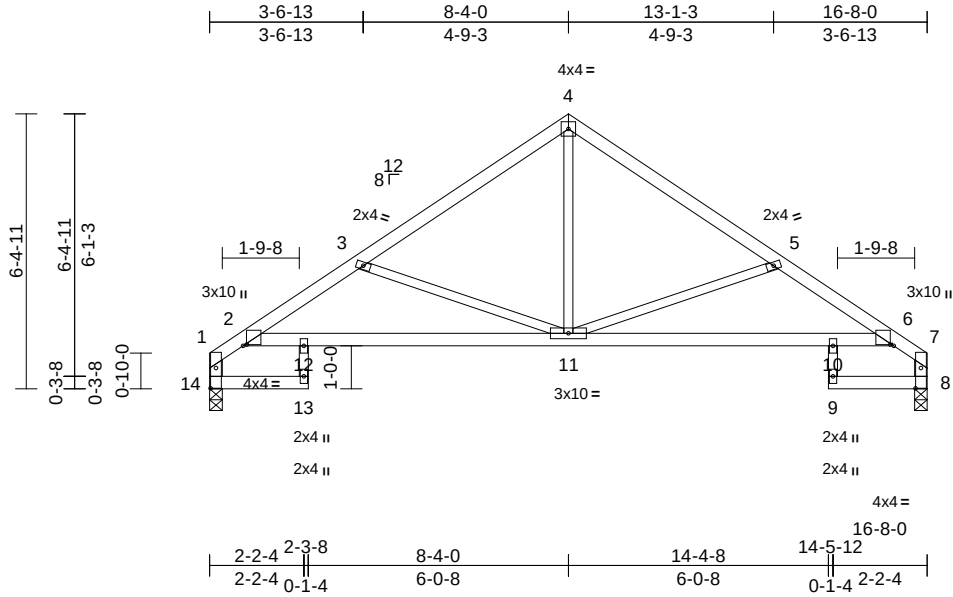
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	G5	Roof Special	4	1	Job Reference (optional)	I58592473

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:53
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Page: 1



Scale = 1:53.5

Plate Offsets (X, Y): [1:0-5-10,0-1-8], [2:0-1-0,0-0-6], [6:0-1-0,0-0-6], [7:0-5-10,0-1-8]

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	0.47	Vert(LL)	-0.09	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.22	10-11	>905	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.22	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	11-12	>999	240	Weight: 60 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-1,8-7:2x4 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: 10-0-0 oc bracing: 10-11

REACTIONS (size) 8=0-3-8, 14=0-3-8

Max Horiz 14=-166 (LC 4)

Max Uplift 8=-82 (LC 9), 14=-82 (LC 8)

Max Grav 8=737 (LC 1), 14=737 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-422/107, 2-3=-1276/223, 3-4=-880/113, 4-5=-880/134, 5-6=-1276/188, 6-7=-390/51, 1-14=-740/114, 7-8=-740/103

BOT CHORD 13-14=0/0, 2-12=-236/1144, 11-12=-236/1144, 10-11=-121/1110, 6-10=-121/1110, 8-9=0/0

WEBS 12-13=-13/59, 9-10=0/47, 4-11=-22/551, 3-11=-544/252, 5-11=-504/227

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 14 and 82 lb uplift at joint 8.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



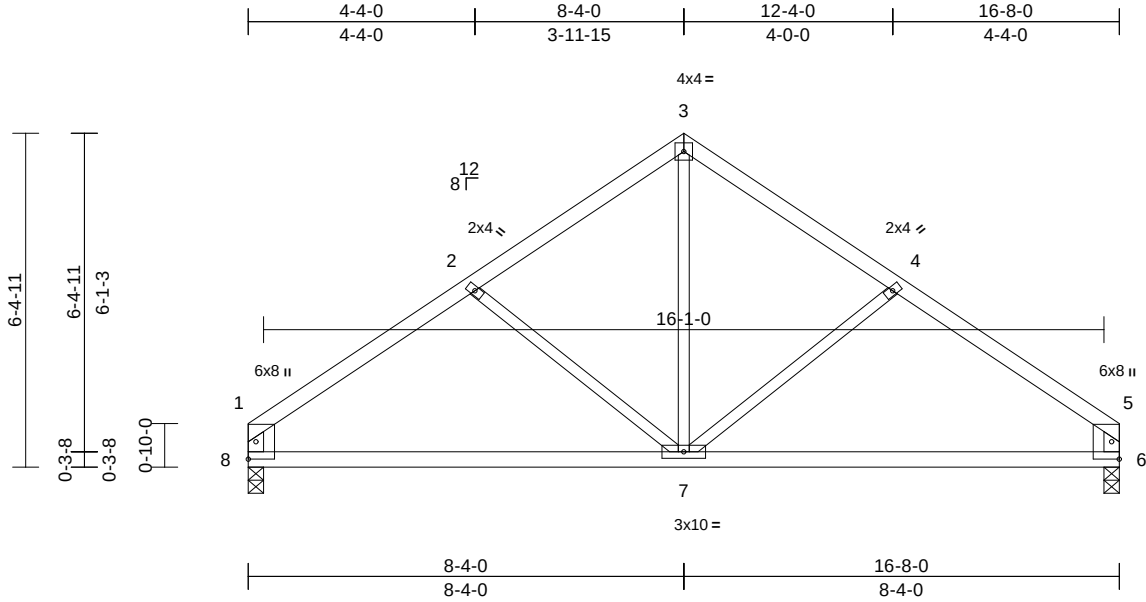
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592474
B230083	G6	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:53
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Page: 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	0.43	Vert(LL)	-0.09	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.18	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	7	>999	240	Weight: 56 lb	FT = 10%

LUMBER
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 8-1,6-5:2x4 SPF
 2400F 2.0E

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
 Max Horiz 8=-166 (LC 4)
 Max Uplift 6=-82 (LC 9), 8=-82 (LC 8)
 Max Grav 6=737 (LC 1), 8=737 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-914/135, 2-3=-698/130, 3-4=-698/130, 4-5=-914/135, 1-8=-641/122, 5-6=-641/122
 BOT CHORD 7-8=-132/690, 6-7=-57/671
 WEBS 3-7=-41/403, 4-7=-228/182, 2-7=-228/182

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 8 and 82 lb uplift at joint 6.



May 26, 2023

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

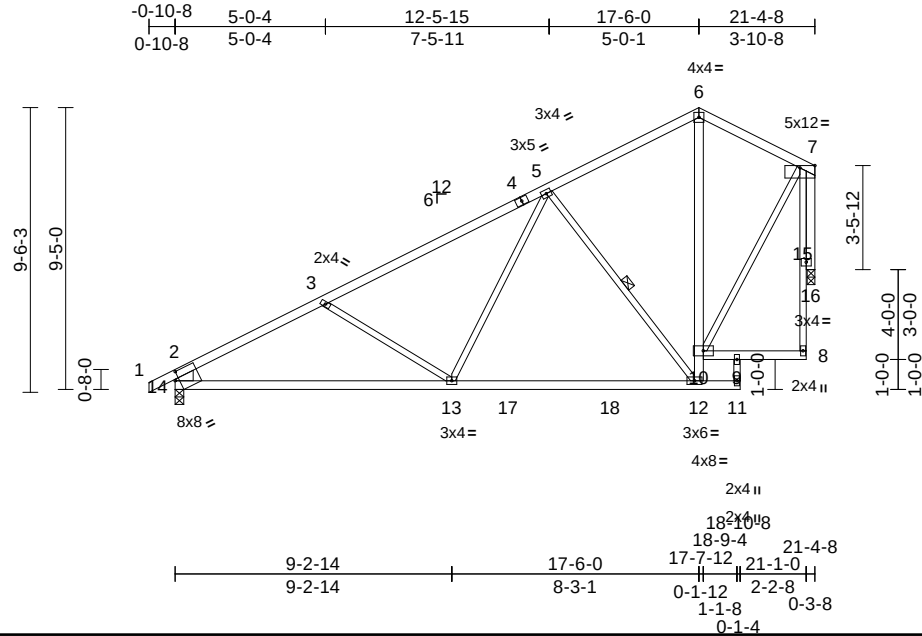
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	H1	Roof Special	2	1	Job Reference (optional)	I58592475

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:53

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Scale = 1:77

Plate Offsets (X, Y): [14:0-1-10,0-3-4]

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	0.87	Vert(LL)	-0.23	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.37	12-13	>672	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.26	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	12-13	>999	240	Weight: 96 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-6:2x4 SPF 2100F
	1.8E, 14-2:2x8 SP DSS
OTHERS	2x4 SPF No.2

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.
WEBS	1 Row at midpt 5-12

REACTIONS	(size) 14=0-3-8, 16=0-3-2
	Max Horiz 14=213 (LC 5)
	Max Uplift 14=-17 (LC 8), 16=-50 (LC 8)
	Max Grav 14=1066 (LC 13), 16=993 (LC 13)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-2=0/37, 2-3=-1513/58, 3-5=-1254/19,
	5-6=-496/50, 6-7=-488/59, 2-14=-927/64,
	8-15=0/36, 7-15=0/36
BOT CHORD	13-14=-180/1310, 12-13=-67/843, 11-12=0/0,
	9-10=-39/55, 8-9=-39/55
WEBS	9-11=-135/0, 3-13=-342/154, 5-13=0/542,
	5-12=-754/131, 10-12=-18/904, 6-10=-1/220,
	7-10=-34/776, 7-16=-995/51

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) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 14 and 50 lb uplift at joint 16.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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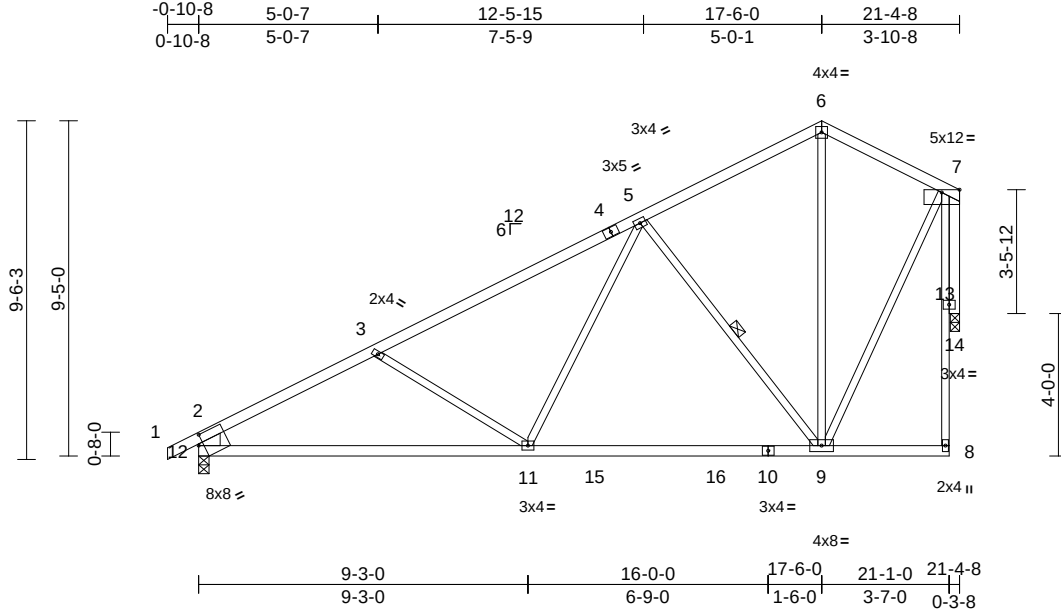
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	H2	Roof Special	3	1	Job Reference (optional)	I58592476

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:53
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Page: 1



Scale = 1:64.7

Plate Offsets (X, Y): [12:0-1-10,0-3-4]

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	0.86	Vert(LL)	-0.20	9-11	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.31	9-11	>801	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.19	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	9-11	>999	240	Weight: 93 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-2:2x8 SP DSS
OTHERS	2x4 SPF No.2

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.

WEBS 1 Row at midpt 5-9

REACTIONS	(size) 12=0-3-8, 14=0-3-2
	Max Horiz 12=226 (LC 5)
	Max Uplift 12=-17 (LC 8), 14=-50 (LC 8)
	Max Grav 12=1063 (LC 13), 14=976 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-3=-1507/58, 3-5=-1247/20, 5-6=-492/48, 6-7=-430/64, 2-12=-926/64, 8-13=0/33, 7-13=0/33
BOT CHORD	11-12=-165/1309, 9-11=-56/842, 8-9=-57/54
WEBS	3-11=-343/154, 5-11=0/540, 5-9=-747/131, 6-9=-8/181, 7-9=-30/789, 7-14=-979/51

NOTES

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

- Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 12 and 50 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



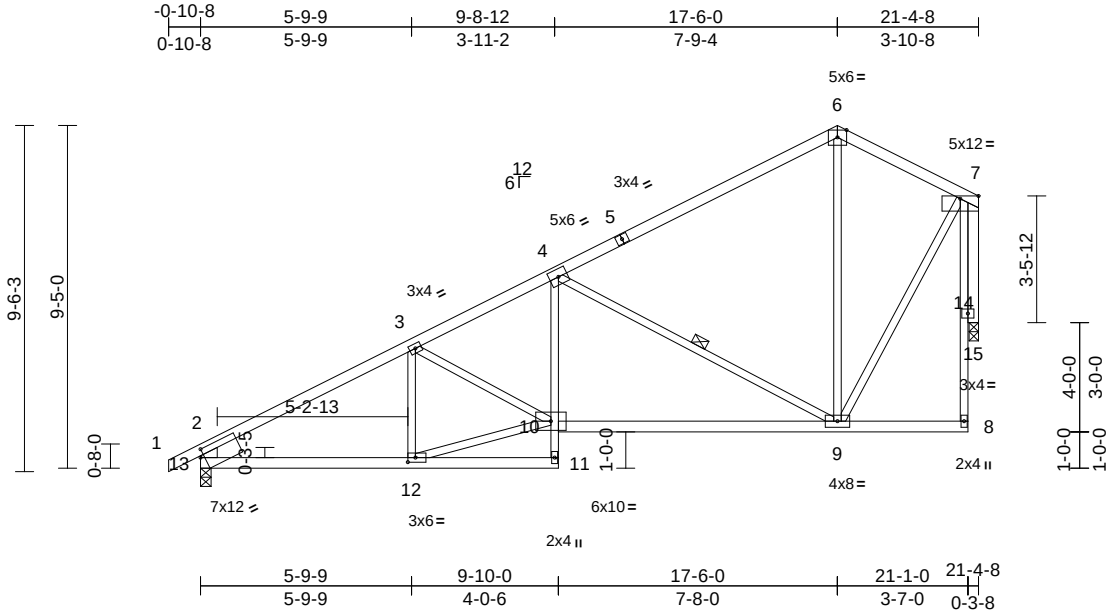
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592477
B230083	H3	Roof Special	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:54
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?i

Page: 1



Scale = 1:63.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.12	9-10	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.27	9-10	>937	240	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.13	15	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11	>999	240	Weight: 94 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 11-4:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 13-2:2x6 SP 2400F 2.0E
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-0-3 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.
WEBS	1 Row at midpt 4-9

REACTIONS	(size) 13=0-3-8, 15=0-3-2
	Max Horiz 13=268 (LC 8)
	Max Uplift 13=-139 (LC 8), 15=-174 (LC 8)
	Max Grav 13=1025 (LC 1), 15=920 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/35, 2-3=-1431/161, 3-4=-1389/229, 4-6=-568/84, 6-7=-454/123, 2-13=-936/175, 8-14=-4/21, 7-14=-4/21
BOT CHORD	12-13=-327/1170, 11-12=-46/37, 10-11=0/71, 4-10=-23/412, 9-10=-316/1251, 8-9=-52/50
WEBS	3-12=-239/134, 3-10=-1/68, 4-9=-981/322, 6-9=-36/142, 7-9=-149/729, 10-12=-290/1169, 7-15=-922/175

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 13 and 174 lb uplift at joint 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



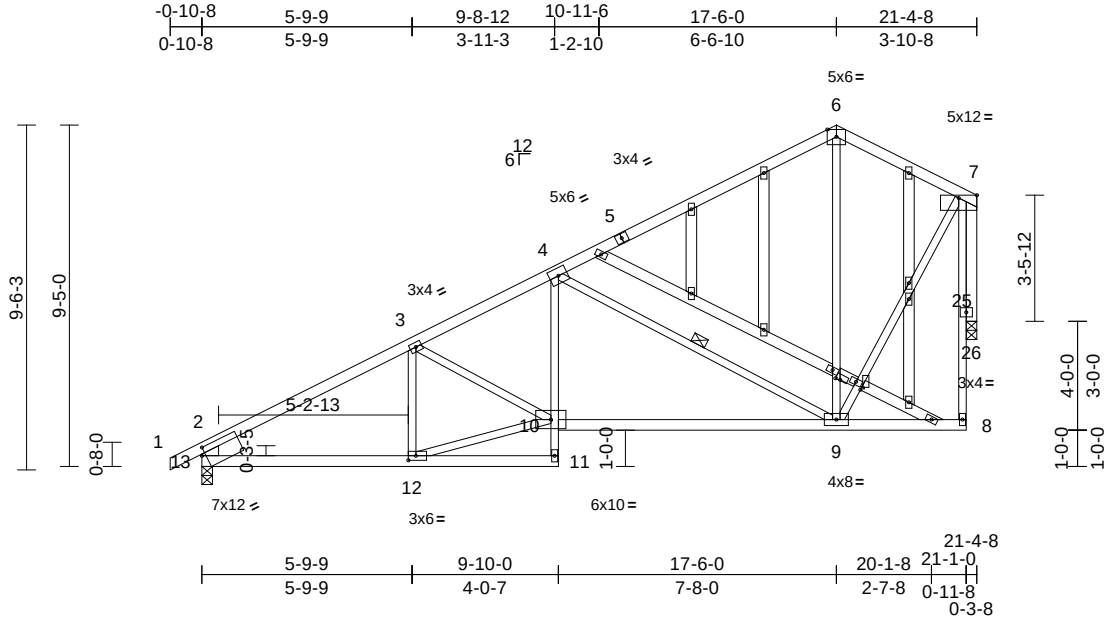
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	H4	Roof Special Structural Gable	1	1	Job Reference (optional)	I58592478

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:54
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCD0i7J4zJC?f

Page: 1



Scale = 1:63.6

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

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	0.78	Vert(LL)	-0.12	9-10	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.27	9-10	>939	240	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.13	26	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11	>999	240	Weight: 121 lb FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 11-4:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 13-2:2x6 SP 2400F 2.0E, 14-15,15-16,16-17:2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-0-3 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.
WEBS	1 Row at midpt 4-9

REACTIONS

(size)	13=0-3-8, 26=0-3-8
Max Horiz	13=268 (LC 8)
Max Uplift	13=138 (LC 8), 26=174 (LC 8)
Max Grav	13=1024 (LC 1), 26=921 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/35, 2-3=-1430/161, 3-4=-1387/229, 4-6=-566/84, 6-7=-452/123, 2-13=-936/174, 8-25=-4/21, 7-25=-4/21
BOT CHORD	12-13=-327/1169, 11-12=-46/37, 10-11=0/71, 4-10=-23/412, 9-10=-316/1249, 8-9=-52/50
WEBS	4-9=-981/322, 6-9=-37/141, 3-12=-239/134, 10-12=-290/1168, 3-10=-1/68, 7-9=-149/731, 7-26=-923/175

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 26 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 13 and 174 lb uplift at joint 26.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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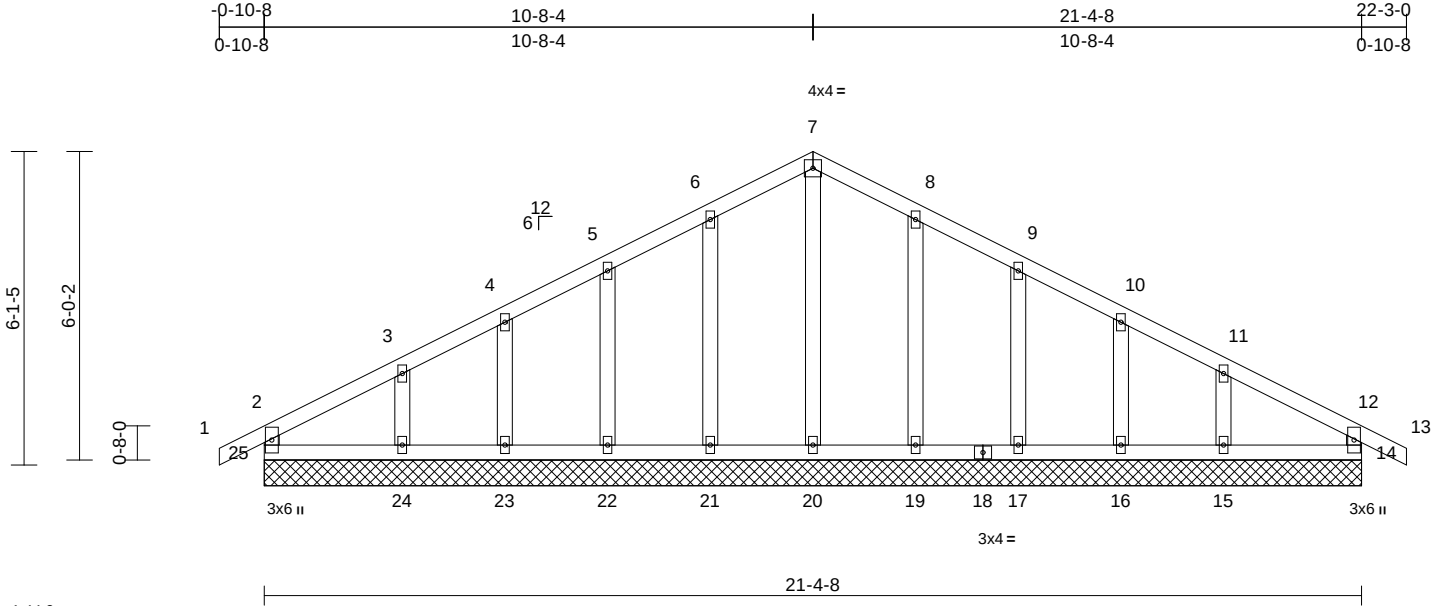
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592479
B230083	H5	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:54
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	14	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 88 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

WEBS
7-20=-129/0, 6-21=-150/79, 5-22=-140/81,
4-23=-134/69, 3-24=-161/108, 8-19=-150/78,
9-17=-140/81, 10-16=-134/70,
11-15=-161/104

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 25, 18 lb uplift at joint 14, 55 lb uplift at joint 21, 58 lb uplift at joint 22, 42 lb uplift at joint 23, 90 lb uplift at joint 24, 54 lb uplift at joint 19, 57 lb uplift at joint 17, 44 lb uplift at joint 16 and 84 lb uplift at joint 15.
- 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

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-25=-171/45, 1-2=0/32, 2-3=-98/59, 3-4=-65/86, 4-5=-54/112, 5-6=-48/138, 6-7=-51/162, 7-8=-51/155, 8-9=-48/115, 9-10=-48/88, 10-11=-51/63, 11-12=-79/40, 12-13=0/32, 12-14=-171/33
BOT CHORD 24-25=-17/74, 23-24=-17/74, 22-23=-17/74, 21-22=-17/74, 20-21=-17/74, 19-20=-17/74, 17-19=-17/74, 16-17=-17/74, 15-16=-17/74, 14-15=-17/74



May 26, 2023

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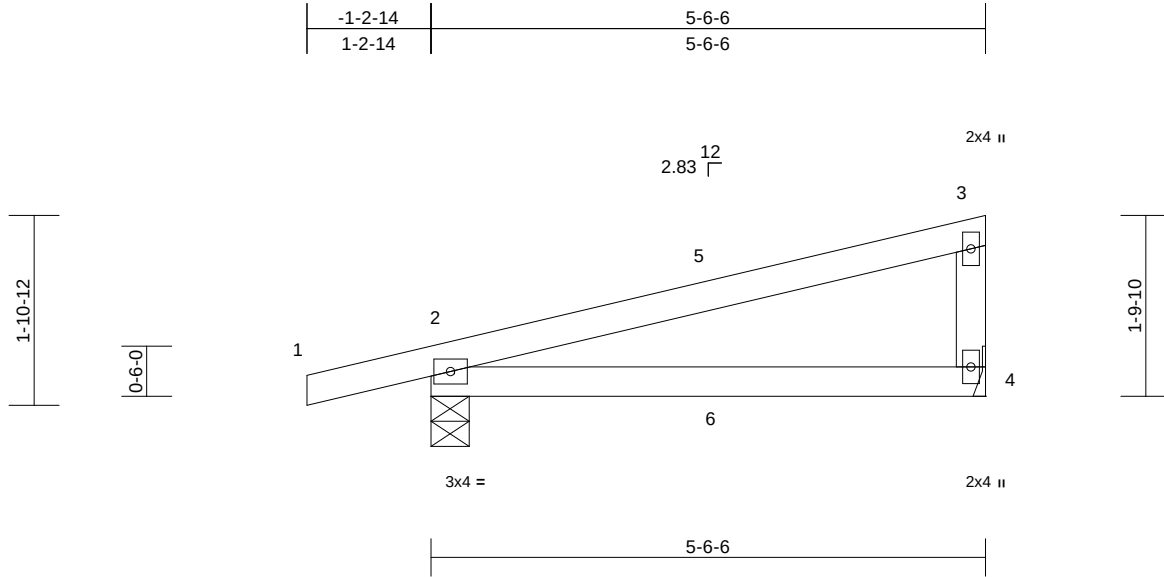
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592480
B230083	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:55
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Scale = 1:23

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.09	2-4	>713	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-4-9, 4= Mechanical
Max Horiz 2=65 (LC 5)
Max Uplift 2=-108 (LC 4), 4=-43 (LC 8)
Max Grav 2=347 (LC 1), 4=220 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-74/36, 3-4=-168/75
BOT CHORD 2-4=-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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 4 and 108 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 34 lb up at 2-9-8, and 67 lb down and 34 lb up at 2-9-8 on top chord, and 2 lb down at 2-9-8, and 2 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 2-4=-20



May 26, 2023

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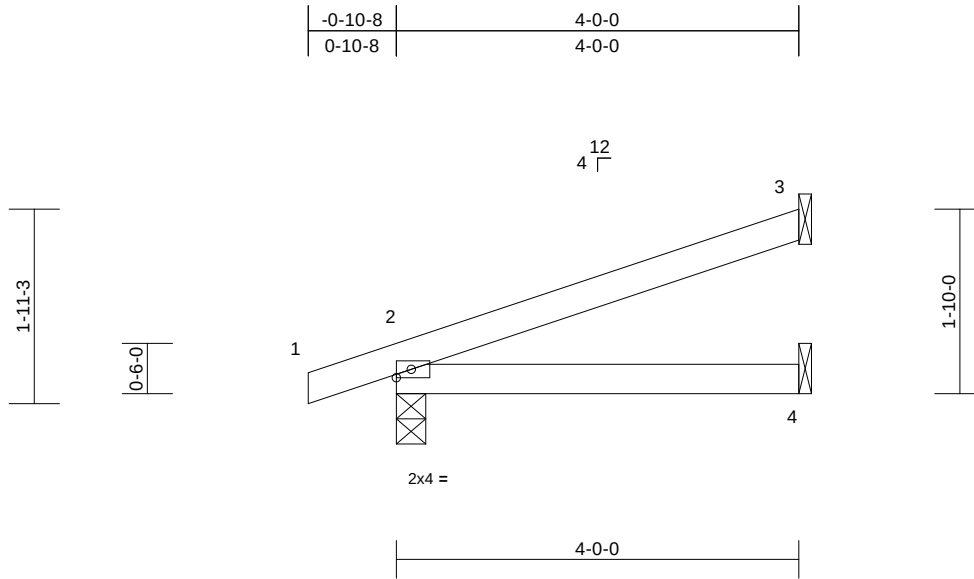
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592481
B230083	J2	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:55
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Page: 1



Scale = 1:22.9

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)	-0.01	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=67 (LC 4)
Max Uplift 2=-69 (LC 4), 3=-64 (LC 8)
Max Grav 2=252 (LC 1), 3=123 (LC 1), 4=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-60/36

BOT CHORD 2-4=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 3 and 69 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

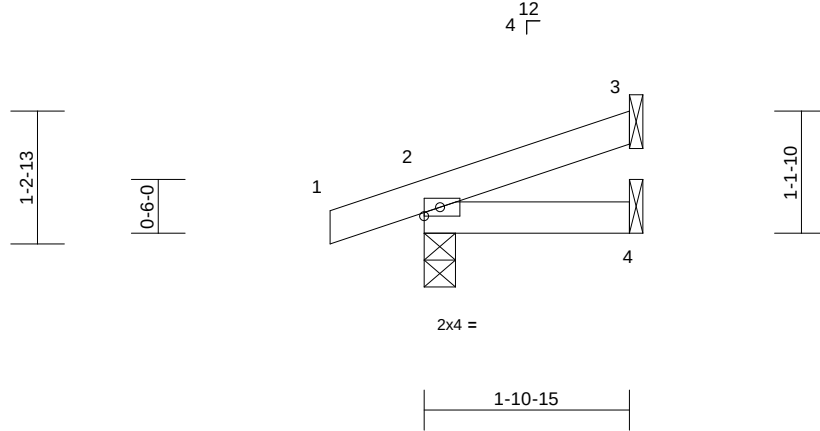
Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592482
B230083	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:55
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Page: 1

-0-10-8	1-10-15
0-10-8	1-10-15



Scale = 1:21.4

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

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=39 (LC 4)
Max Uplift 2=-56 (LC 4), 3=-29 (LC 8)
Max Grav 2=163 (LC 1), 3=50 (LC 1), 4=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-35/15

BOT CHORD 2-4=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2 and 29 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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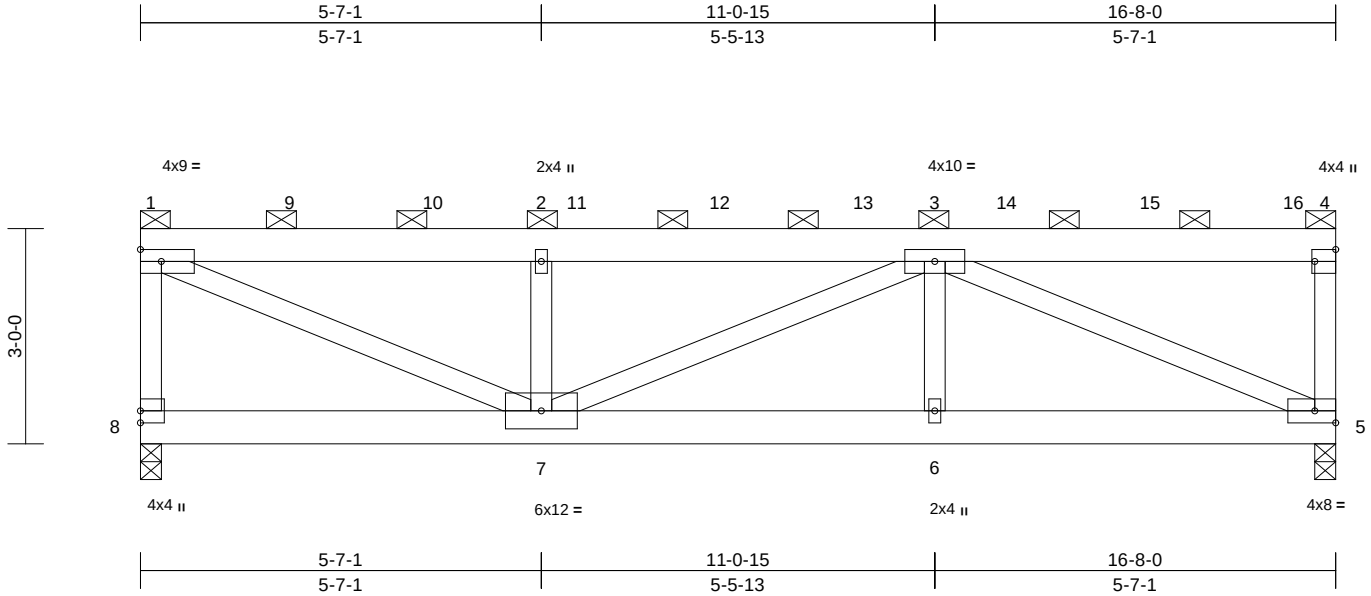
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	R1	Flat Girder	1	2	Job Reference (optional)	I58592483

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:55
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Scale = 1:32.1									
Plate Offsets (X, Y): [4:Edge,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.09 6-7	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.16 6-7	>999	240
BCLL	0.0*	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.03 5	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06 6-7	>999	240
							Weight: 213 lb FT = 10%		

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

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

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Horiz 8=97 (LC 5)
Max Uplift 5=-336 (LC 5), 8=-505 (LC 4)
Max Grav 5=4786 (LC 15), 8=3821 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-3696/518, 1-2=-6362/740, 2-3=-6362/740, 3-4=-215/39, 4-5=-1605/110
BOT CHORD 7-8=-97/206, 6-7=-568/6732, 5-6=-568/6732
WEBS 1-7=-791/6841, 2-7=-2816/510, 3-7=-492/0, 3-6=0/184, 3-5=-7212/590

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 4) Provide adequate drainage to prevent water ponding.
- 5) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 505 lb uplift at joint 8 and 336 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 850 lb down and 145 lb up at 2-1-0, 850 lb down and 145 lb up at 4-1-0, 850 lb down and 145 lb up at 6-1-0, 1011 lb down and 21 lb up at 8-1-0, 1011 lb down and 21 lb up at 10-1-0, 1011 lb down and 21 lb up at 12-1-0, and 1027 lb down and 22 lb up at 14-1-0, and 1037 lb down and 30 lb up at 16-1-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-850, 10=-850, 11=-850, 12=-846, 13=-846, 14=-846, 15=-846, 16=-866



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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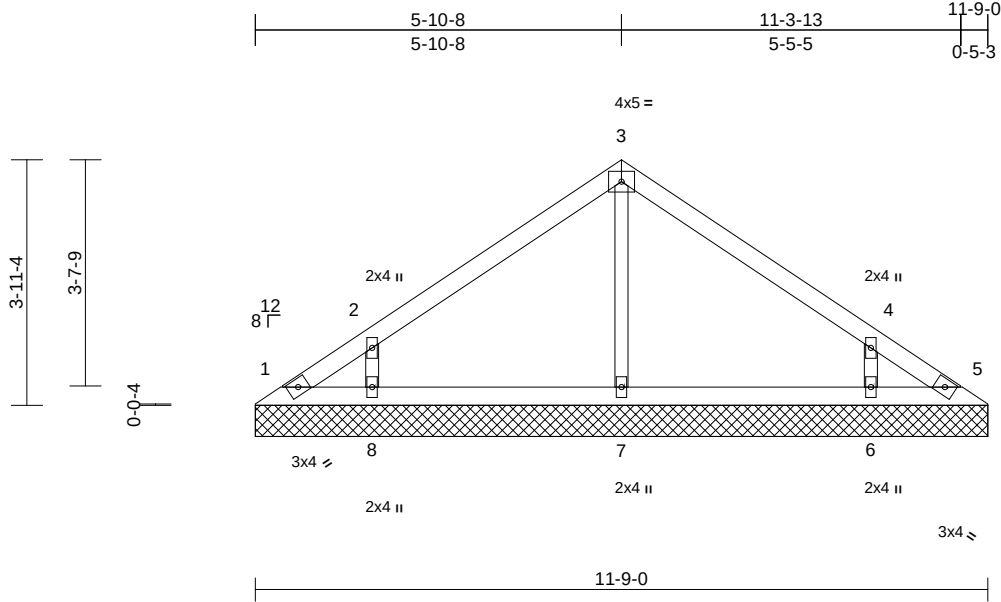
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	V1	Valley	1	1	Job Reference (optional)	I58592484

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:56
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Scale = 1:37

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 32 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=11-9-0, 5=11-9-0, 6=11-9-0, 7=11-9-0, 8=11-9-0
Max Horiz	1=-94 (LC 4)
Max Uplift	1=-42 (LC 6), 5=-24 (LC 7), 6=-139 (LC 9), 8=-140 (LC 8)
Max Grav	1=58 (LC 5), 5=46 (LC 9), 6=344 (LC 16), 7=284 (LC 1), 8=344 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-97/81, 2-3=-142/88, 3-4=-141/66, 4-5=-79/49
BOT CHORD	1-8=-21/68, 7-8=-21/68, 6-7=-21/68, 5-6=-21/68
WEBS	3-7=-199/28, 2-8=-284/184, 4-6=-284/184

NOTES

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

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 24 lb uplift at joint 5, 140 lb uplift at joint 8 and 139 lb uplift at joint 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



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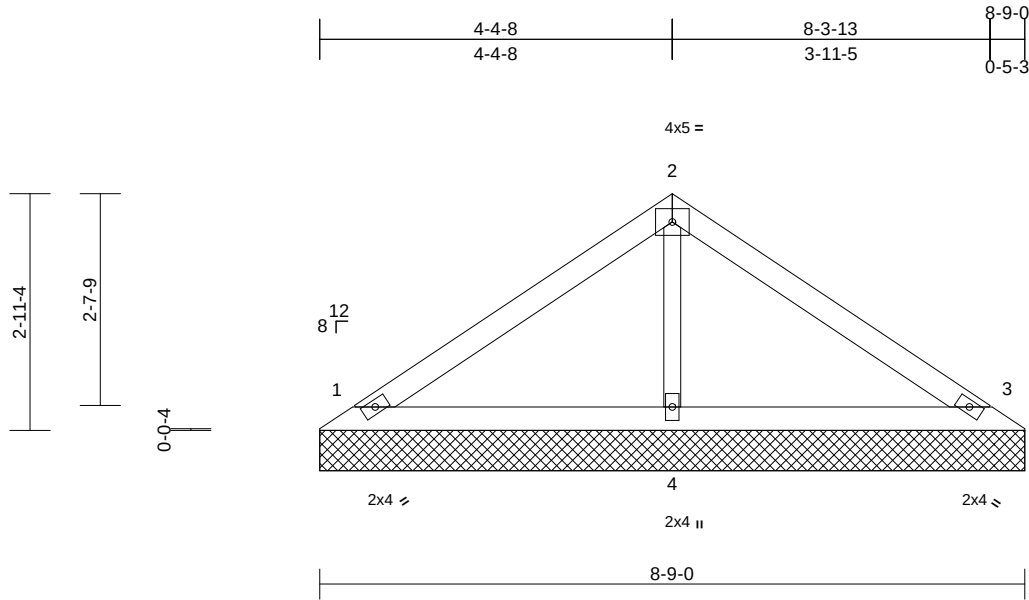
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	V2	Valley	1	1	Job Reference (optional)	I58592485

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:56
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Scale = 1:28.6

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	0.29	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	0.05	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 23 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=8-9-0, 3=8-9-0, 4=8-9-0
Max Horiz 1=-68 (LC 4)
Max Uplift 1=-44 (LC 8), 3=-52 (LC 9)
Max Grav 1=199 (LC 1), 3=199 (LC 1), 4=309 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-123/63, 2-3=-119/47
BOT CHORD 1-4=-14/58, 3-4=-14/58
WEBS 2-4=-211/53

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1 and 52 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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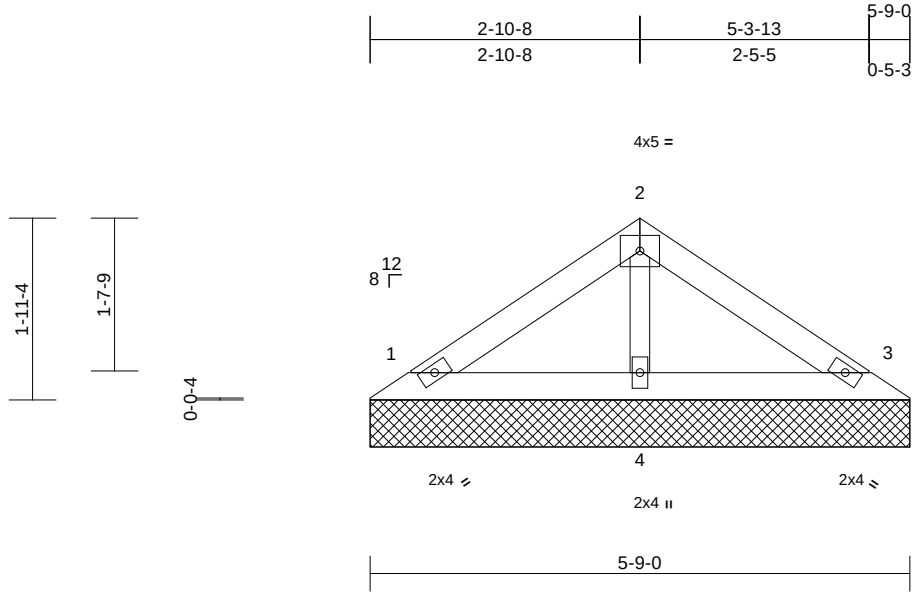
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592486
B230083	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:24.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 14 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-9-0, 3=5-9-0, 4=5-9-0
Max Horiz 1=-42 (LC 4)
Max Uplift 1=-27 (LC 8), 3=-32 (LC 9)
Max Grav 1=123 (LC 1), 3=123 (LC 1), 4=191 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-76/39, 2-3=-73/29
BOT CHORD 1-4=-9/36, 3-4=-9/36
WEBS 2-4=-130/33

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 32 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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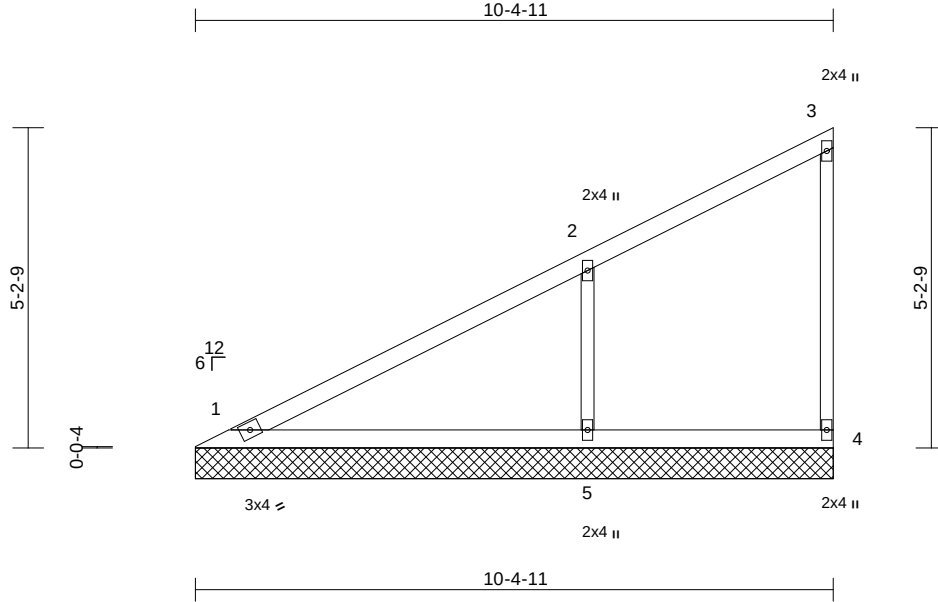
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	V4	Valley	1	1	Job Reference (optional)	I58592487

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



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	0.43	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	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=10-4-11, 4=10-4-11, 5=10-4-11
	Max Horiz	1=202 (LC 5)
	Max Uplift	4=-29 (LC 5), 5=-168 (LC 8)
	Max Grav	1=211 (LC 1), 4=101 (LC 1), 5=561 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-158/104, 2-3=-132/53, 3-4=-82/38
BOT CHORD	1-5=-69/52, 4-5=-69/52
WEBS	2-5=-422/223

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 4 and 168 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



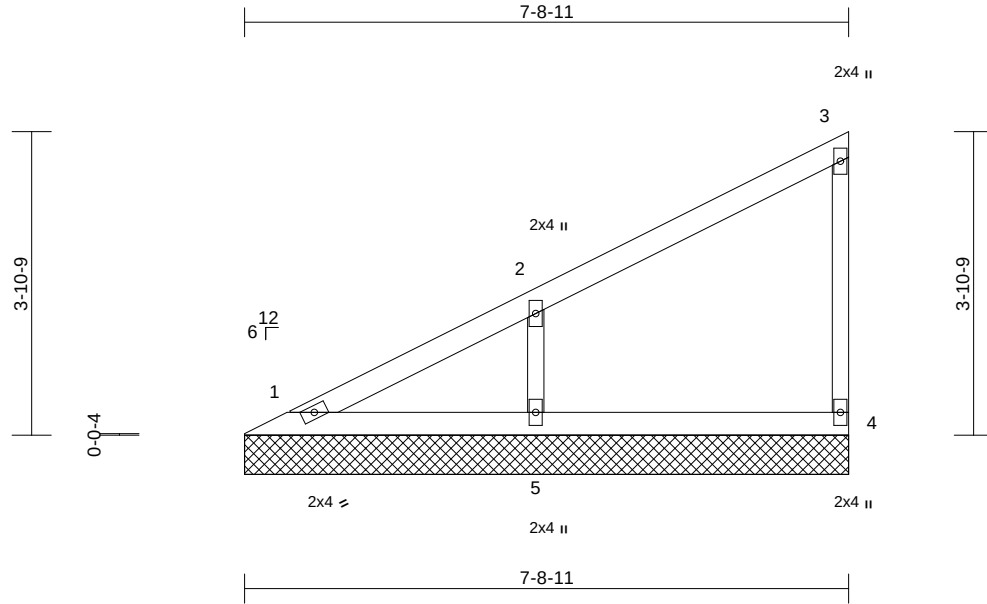
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	V5	Valley	1	1	Job Reference (optional)	I58592488

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:56
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Page: 1



Scale = 1:29.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	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=7-8-11, 4=7-8-11, 5=7-8-11
	Max Horiz	1=147 (LC 5)
	Max Uplift	4=-26 (LC 5), 5=-120 (LC 8)
	Max Grav	1=105 (LC 16), 4=139 (LC 1), 5=399 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-120/67, 2-3=-111/44, 3-4=-108/44
BOT CHORD	1-5=-50/38, 4-5=-50/38
WEBS	2-5=-310/173

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 120 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



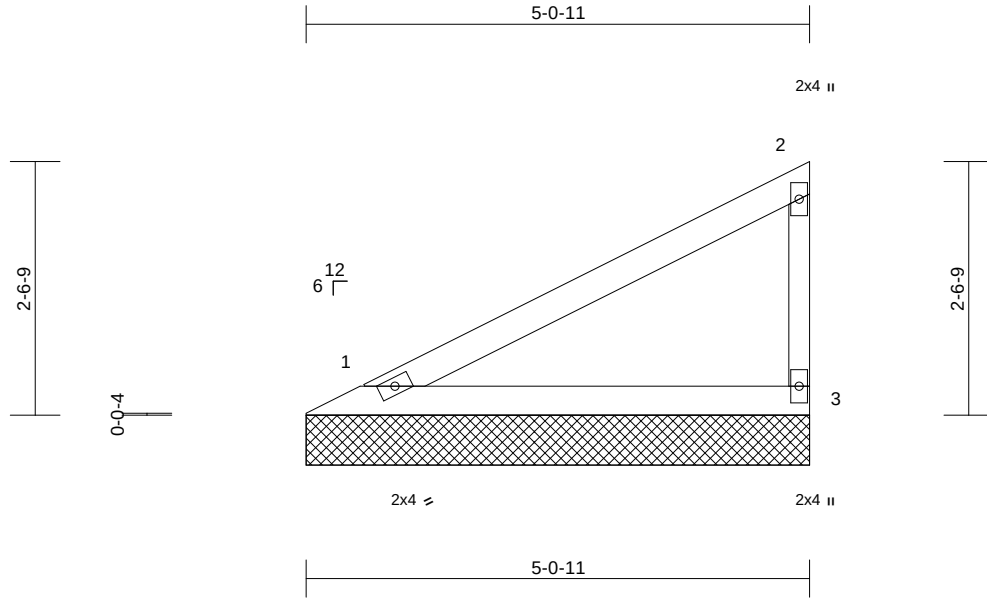
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592489
B230083	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:57
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Page: 1



Scale = 1:23.1

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	0.36	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb FT = 10%

LUMBER

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

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-0-11, 3=5-0-11
Max Horiz 1=91 (LC 5)
Max Uplift 1=-25 (LC 8), 3=-48 (LC 8)
Max Grav 1=196 (LC 1), 3=196 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-83/55, 2-3=-153/74
BOT CHORD 1-3=-31/24

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 48 lb uplift at joint 3.



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



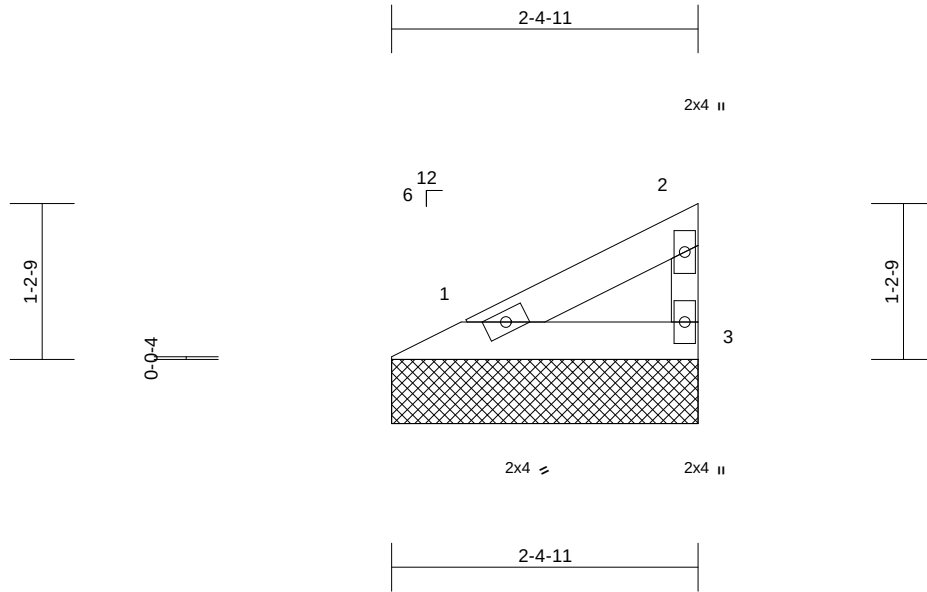
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592490
B230083	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:18

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	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

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-4-11, 3=2-4-11

Max Horiz 1=36 (LC 5)
Max Uplift 1=-10 (LC 8), 3=-19 (LC 8)
Max Grav 1=76 (LC 1), 3=76 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-32/21, 2-3=-59/29
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 19 lb uplift at joint 3.



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



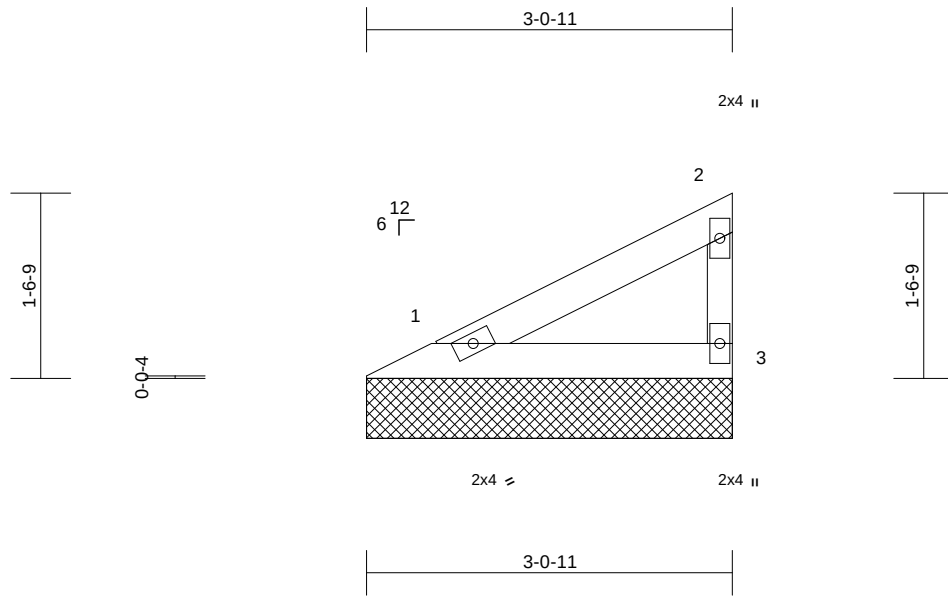
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592491
B230083	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:19.3

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 10%

LUMBER

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

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

BRACING

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

REACTIONS (size)

1=3-0-11, 3=3-0-11
Max Horiz 1=49 (LC 5)
Max Uplift 1=-14 (LC 8), 3=-26 (LC 8)
Max Grav 1=106 (LC 1), 3=106 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-45/30, 2-3=-83/40
BOT CHORD 1-3=-17/13

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 26 lb uplift at joint 3.



May 26, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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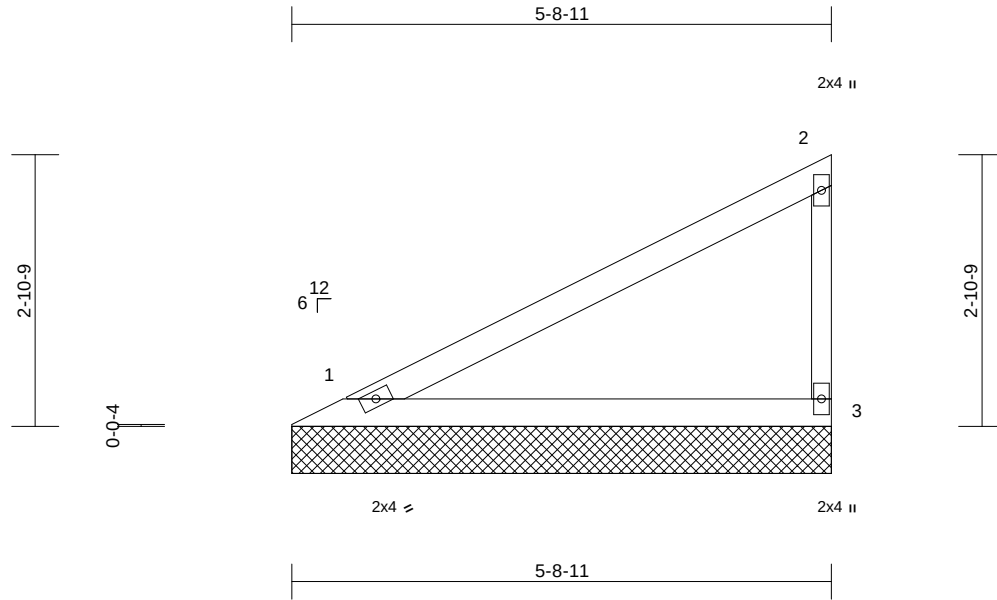
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592492
B230083	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 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	0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

LUMBER

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

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-8-11, 3=5-8-11
Max Horiz 1=105 (LC 5)
Max Uplift 1=-29 (LC 8), 3=-55 (LC 8)
Max Grav 1=226 (LC 1), 3=226 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-96/63, 2-3=-176/86
BOT CHORD 1-3=-36/27

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1 and 55 lb uplift at joint 3.



May 26, 2023

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



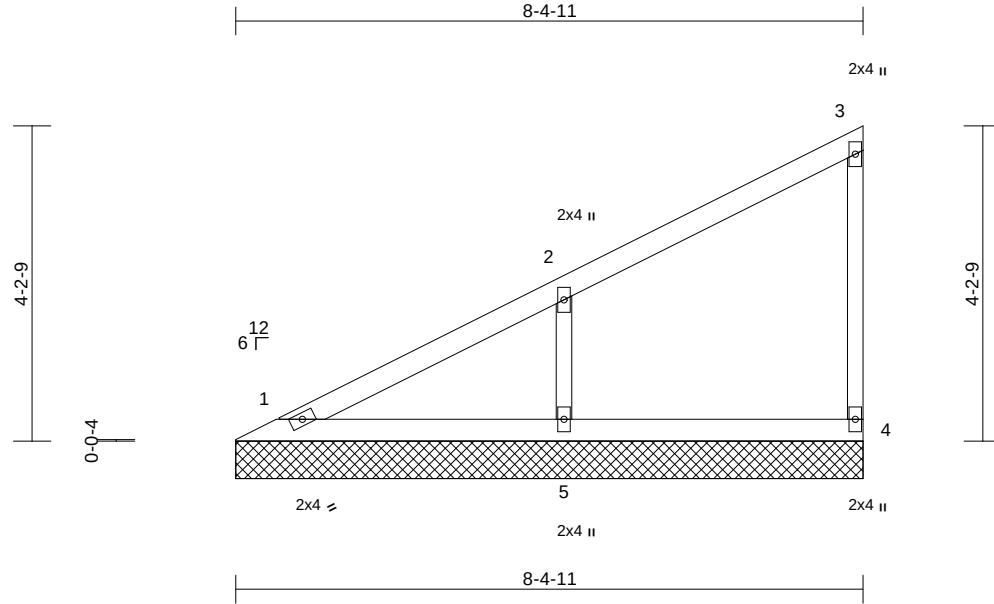
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	I58592493
B230083	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:30.8

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	0.24	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	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=8-4-11, 4=8-4-11, 5=8-4-11
	Max Horiz	1=160 (LC 5)
	Max Uplift	4=-27 (LC 5), 5=-130 (LC 8)
	Max Grav	1=132 (LC 16), 4=133 (LC 1), 5=433 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-129/76, 2-3=-116/44, 3-4=-103/44
BOT CHORD	1-5=-55/42, 4-5=-55/42
WEBS	2-5=-336/188

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 130 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



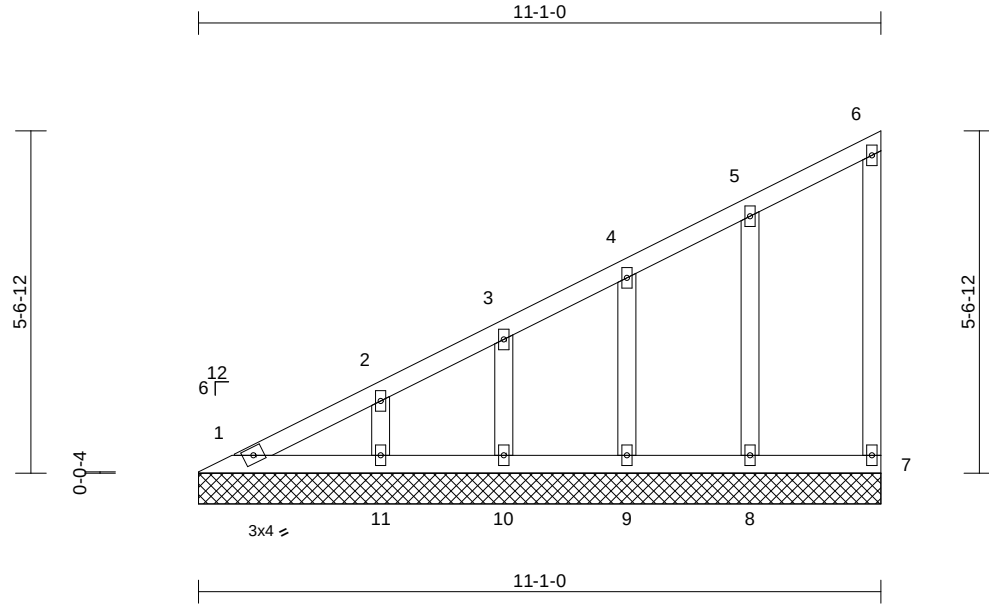
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 113 H4	
B230083	V11	Valley	1	1	Job Reference (optional)	I58592494

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Jan 6 2022 Print: 8.430 S Jan 6 2022 MiTek Industries, Inc. Fri May 26 08:47:57
ID:thmYsao0GwtsOZMi_NYE?LzOWgS-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.4

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	0.12	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	7	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 43 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.

REACTIONS

(size)	1=11-1-0, 7=11-1-0, 8=11-1-0, 9=11-1-0, 10=11-1-0, 11=11-1-0
Max Horiz	1=216 (LC 7)
Max Uplift	7=-29 (LC 5), 8=-58 (LC 8), 9=-54 (LC 8), 10=-50 (LC 8), 11=-69 (LC 8)
Max Grav	1=116 (LC 16), 7=74 (LC 1), 8=195 (LC 1), 9=180 (LC 1), 10=166 (LC 1), 11=229 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-183/54, 2-3=-150/42, 3-4=-127/45, 4-5=-115/49, 5-6=-90/54, 6-7=-58/26
BOT CHORD	1-11=-74/56, 10-11=-74/56, 9-10=-74/56, 8-9=-74/56, 7-8=-74/56
WEBS	2-11=-172/94, 3-10=-131/73, 4-9=-140/82, 5-8=-152/67

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 7, 69 lb uplift at joint 11, 50 lb uplift at joint 10, 54 lb uplift at joint 9 and 58 lb uplift at joint 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



May 26, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

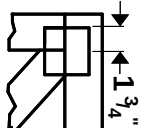
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



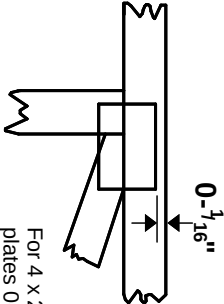
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

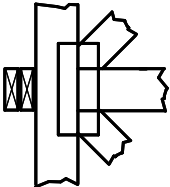
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



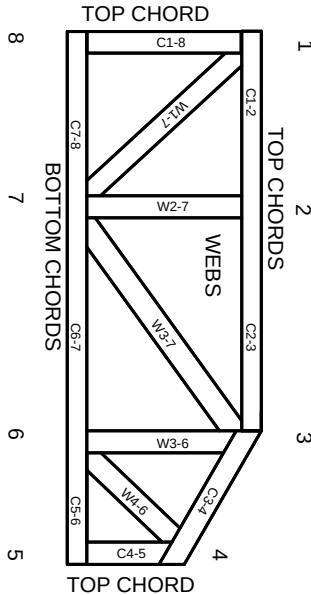
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



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 T or I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.