



MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Re: 230872
Lot 17 TCR

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: I63476752 thru I63476869

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

Missouri COA: Engineering 001193



February 8, 2024

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.

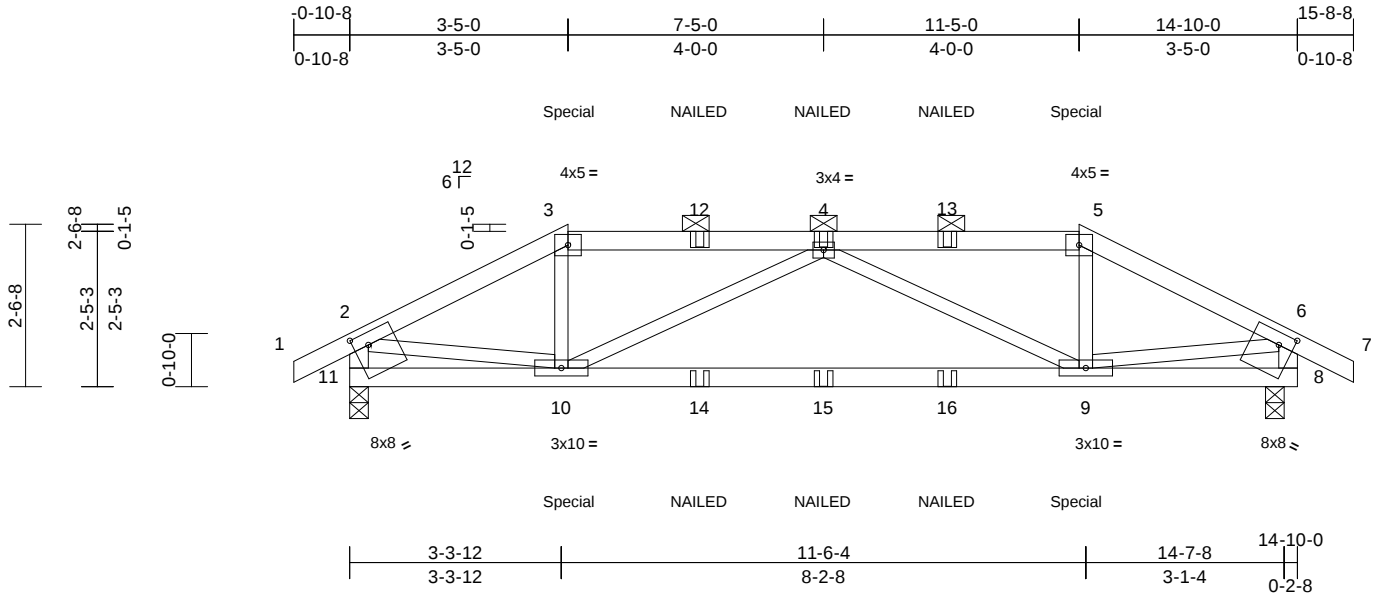
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	A1	Hip Girder	3	1	Job Reference (optional)	I63476752

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:08

Page: 1

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Scale = 1:36.1

Plate Offsets (X, Y): [8:0-2-12,0-2-4], [11:0-2-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.14	9-10	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.29	9-10	>597	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.02	8	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	9-10	>999	240		
BCDL	10.0										Weight: 53 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 11-2,8-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-13 max.): 3-5.
 BOT CHORD Rigid ceiling directly applied or 9-1-3 oc bracing.

REACTIONS

(size) 8=0-3-8, 11=0-3-8
 Max Horiz 11=-50 (LC 10)
 Max Uplift 8=-195 (LC 13), 11=-195 (LC 12)
 Max Grav 8=973 (LC 47), 11=973 (LC 45)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-1422/248, 3-4=-1239/237, 4-5=-1239/237, 5-6=-1422/248, 6-7=0/40, 2-11=-982/187, 6-8=-982/186
 BOT CHORD 10-11=-78/145, 9-10=-403/1663, 8-9=-62/130
 WEBS 3-10=0/341, 5-9=0/340, 2-10=-174/1241, 6-9=-177/1242, 4-10=-512/231, 4-9=-512/231

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 11 and 195 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 184 lb down and 134 lb up at 3-5-0, and 184 lb down and 134 lb up at 11-5-0 on top chord, and 61 lb down at 3-5-0, and 61 lb down at 11-4-4 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-51, 2-3=-51, 3-5=-61, 5-6=-51, 6-7=-51, 8-11=-20
 Concentrated Loads (lb)

Vert: 3=-119 (F), 5=-119 (F), 10=-41 (F), 9=-41 (F), 4=-46 (F), 12=-46 (F), 13=-46 (F), 14=-17 (F), 15=-17 (F), 16=-17 (F)



February 8, 2024

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

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

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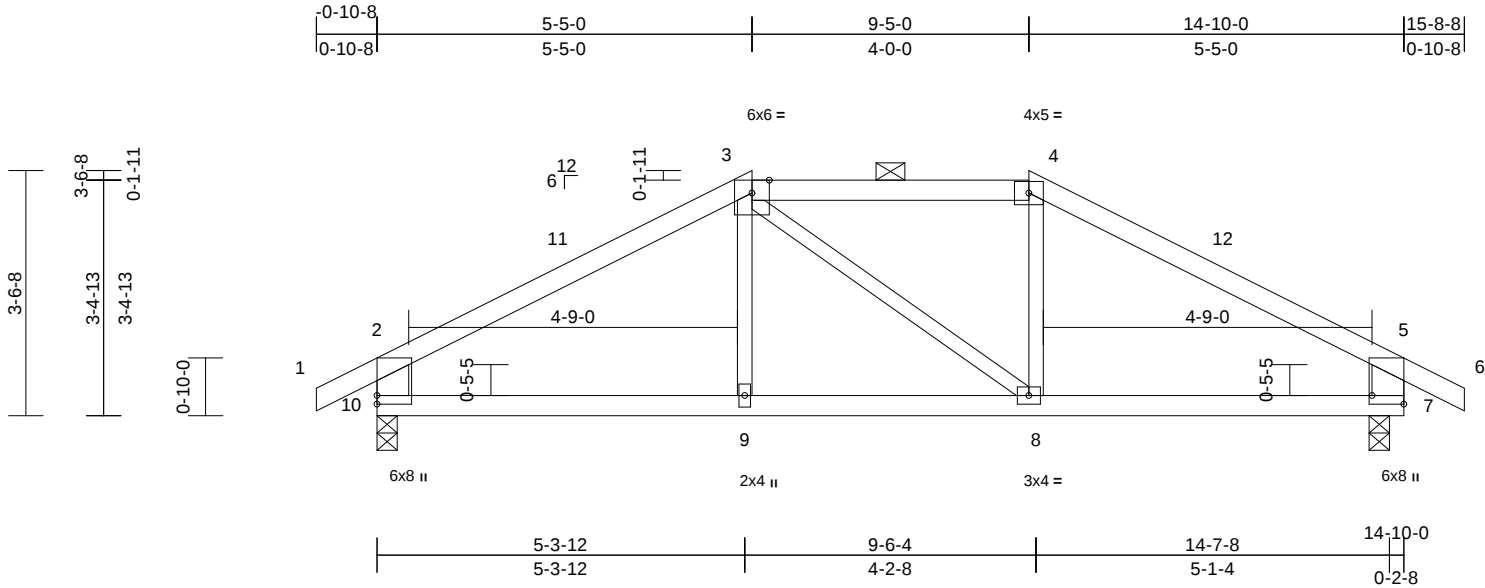
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476753
230872	A2	Hip	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:11

Page: 1

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Scale = 1:33.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.07	8-9	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.13	8-9	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	8-9	>999	240		
BCDL	10.0										Weight: 48 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 7=0-3-8, 10=0-3-8
 Max Horiz 10=64 (LC 11)
 Max Uplift 7=-89 (LC 13), 10=-89 (LC 12)
 Max Grav 7=752 (LC 37), 10=752 (LC 37)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/43, 2-3=-869/71, 3-4=-695/104, 4-5=-869/70, 5-6=0/43, 2-10=-684/128, 5-7=-685/128
 BOT CHORD 9-10=-39/699, 8-9=-41/694, 7-8=-7/699
 WEBS 3-9=0/168, 3-8=-96/97, 4-8=0/177

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 10 and 89 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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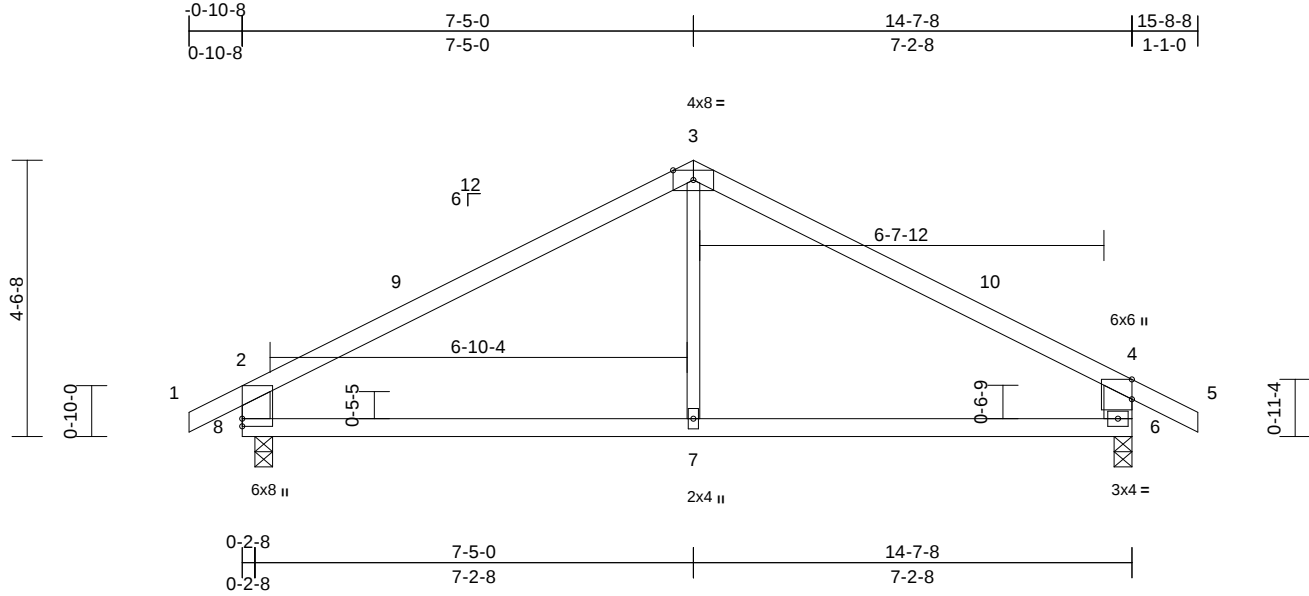
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 Chesterfield, MO 63017
 314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	A3	Common	3	1	Job Reference (optional)	I63476754

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:11
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Page: 1



Scale = 1:37.9

Plate Offsets (X, Y): [4:0-3-15,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	0.71	Vert(LL)	-0.08	7-8	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.16	7-8	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	7-8	>999	240		
BCDL	10.0										Weight: 43 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-13 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=80 (LC 11)
Max Uplift 6=-108 (LC 13), 8=-104 (LC 12)
Max Grav 6=732 (LC 3), 8=718 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-773/109, 3-4=-774/112, 4-5=0/41, 2-8=-647/157, 4-6=-660/158
BOT CHORD 7-8=-18/603, 6-7=-18/603
WEBS 3-7=0/297

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 8 and 108 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



February 8, 2024

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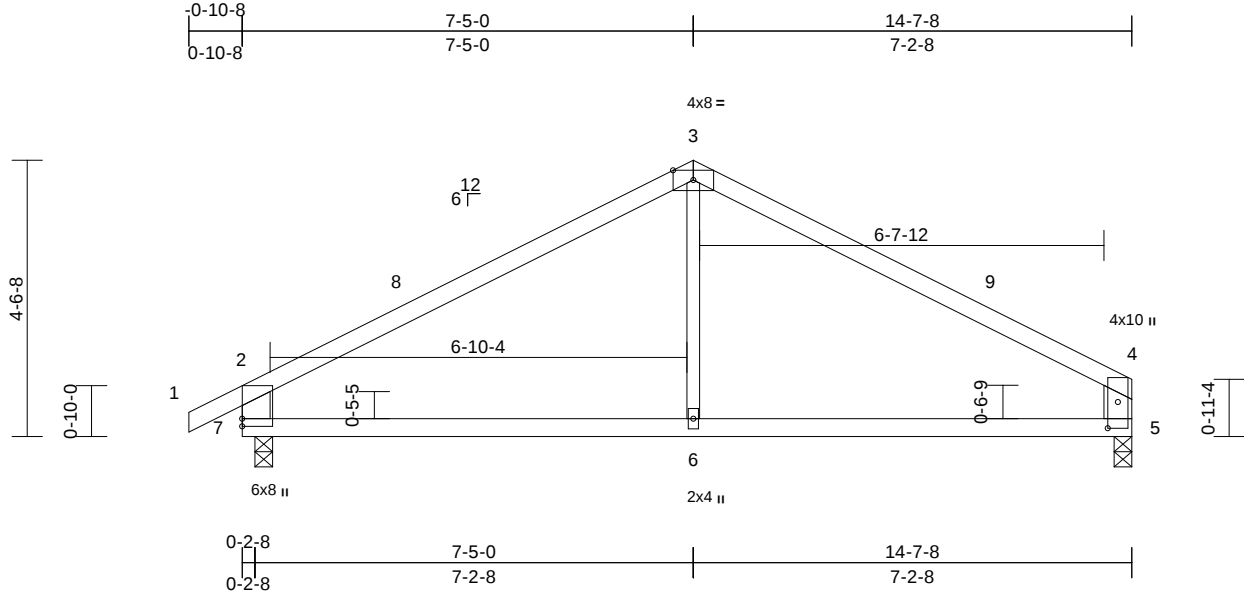
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476755
230872	A4	Common	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:37.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.09	6-7	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.18	6-7	>957	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	6-7	>999	240		
BCDL	10.0										Weight: 42 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size) 5=0-3-8, 7=0-3-8
Max Horiz 7=84 (LC 9)
Max Uplift 5=-77 (LC 13), 7=-104 (LC 12)
Max Grav 5=653 (LC 3), 7=721 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-775/109, 3-4=-769/110,
2-7=-646/156, 4-5=-551/124
BOT CHORD 6-7=-29/600, 5-6=-29/600
WEBS 3-6=0/288

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 7 and 77 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.

LOAD CASE(S) Standard



February 8, 2024

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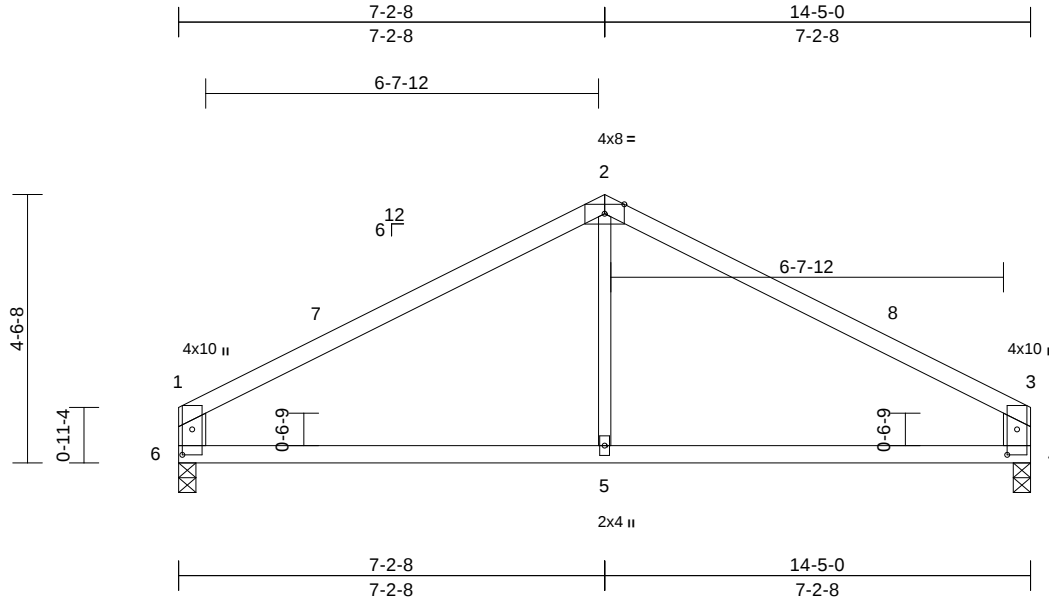
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476756
230872	A5	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:12
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Page: 1



Scale = 1:39

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.08	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.15	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	4	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	5-6	>999	240		
BCDL	10.0										Weight: 40 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 4=0-3-8, 6=0-3-8
Max Horiz 6=-73 (LC 8)
Max Uplift 4=-76 (LC 13), 6=-76 (LC 12)
Max Grav 4=646 (LC 3), 6=646 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-745/107, 2-3=-745/107, 1-6=-540/123, 3-4=-540/123
BOT CHORD 5-6=-26/579, 4-5=-26/579
WEBS 2-5=0/271

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 6 and 76 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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

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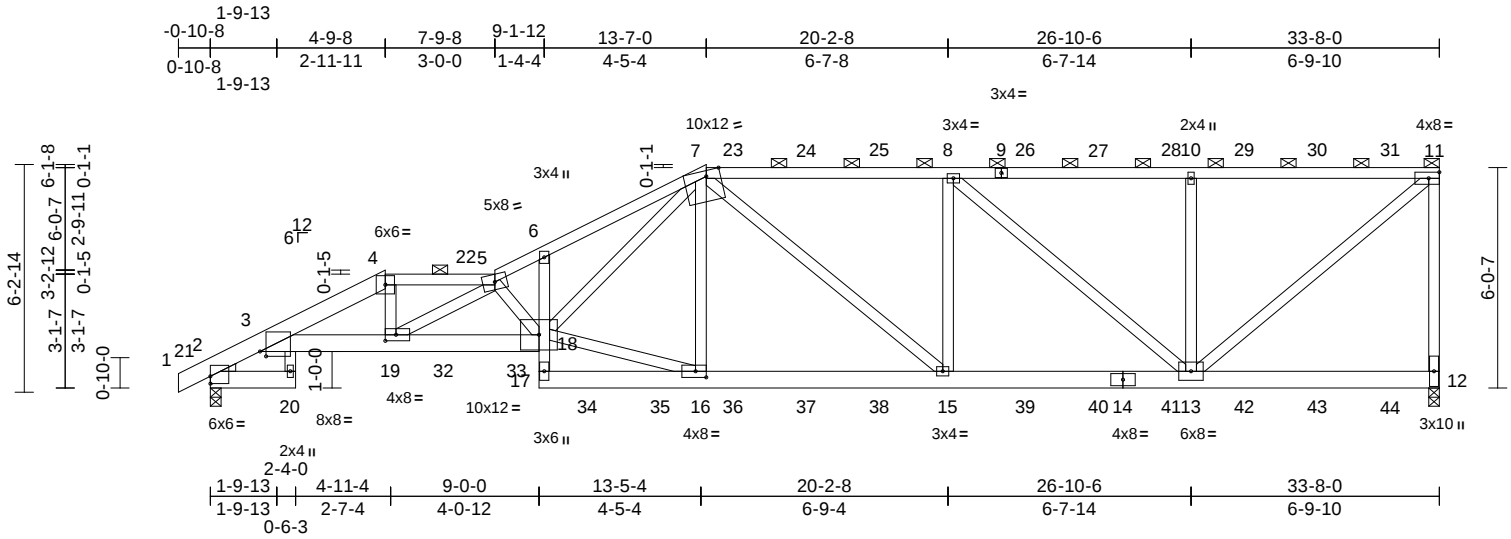
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	B1	Roof Special Girder	1	2	Job Reference (optional)	I63476757

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed Feb 07 11:10:45

Page: 1

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Scale = 1:63.1

Plate Offsets (X, Y): [2:Edge,0-2-7], [3:0-2-0,0-1-10], [7:0-4-9,Edge], [16:0-3-8,0-2-0], [19:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.27	17	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.46	17	>865	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.21	12	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.29	17	>999	240		
BCDL	10.0										Weight: 382 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x6 SP 2400F 2.0E
BOT CHORD 2x6 SPF No.2 *Except* 3-18:2x6 SP 2400F 2.0E, 6-17:2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-3 max.): 4-5, 7-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-20.

REACTIONS (lb/size) 2=2495/0-3-8, 12=2124/0-3-8
Max Horiz 2=237 (LC 9)
Max Uplift 2=-929 (LC 12), 12=-1028 (LC 9)
Max Grav 2=3028 (LC 29), 12=2925 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-21=0/5, 2-21=0/8, 2-3=-2019/546, 3-4=-8015/2603, 4-22=-7612/2512, 5-22=-7609/2512, 5-6=-8931/2970, 6-7=-8633/2951, 7-23=-4363/1476, 23-24=-4365/1476, 24-25=-4365/1477, 8-25=-4367/1477, 8-9=-2954/1028, 9-26=-2954/1028, 26-27=-2954/1028, 27-28=-2954/1028, 10-28=-2954/1028, 10-29=-2954/1028, 29-30=-2954/1028, 30-31=-2954/1028, 11-31=-2954/1028, 11-12=-2737/1026

BOT CHORD 2-20=-193/45, 3-19=-2447/7422, 19-32=-3292/9874, 32-33=-3292/9874, 18-33=-3292/9874, 17-18=-96/265, 6-18=-159/445, 17-34=-339/961, 34-35=-339/961, 16-35=-339/961, 16-36=-1522/4347, 36-37=-1522/4347, 37-38=-1522/4347, 15-38=-1522/4347, 15-39=-1548/4276, 39-40=-1548/4276, 14-40=-1548/4276, 14-41=-1548/4276, 13-41=-1548/4276, 13-42=-67/58, 42-43=-67/58, 43-44=-67/58, 12-44=-67/58
WEBS 3-20=-69/292, 4-19=-843/2751, 5-19=-2711/915, 5-18=-3329/1116, 16-18=-1213/3471, 7-18=-1706/4950, 7-16=-324/184, 7-15=-371/147, 8-15=-2/586, 8-13=-1854/638, 10-13=-757/472, 11-13=-1307/3759

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- 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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.



February 8, 2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	B1	Roof Special Girder	1	2	I63476757
					Job Reference (optional)

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1028 lb uplift at joint 12 and 929 lb uplift at joint 2.
- 13) 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 127 lb down and 92 lb up at 14-4-0, 131 lb down and 92 lb up at 16-4-0, 131 lb down and 92 lb up at 18-4-0, 131 lb down and 92 lb up at 20-4-0, 131 lb down and 92 lb up at 22-4-0, 131 lb down and 92 lb up at 24-4-0, 131 lb down and 92 lb up at 26-4-0, 131 lb down and 92 lb up at 28-4-0, and 131 lb down and 92 lb up at 30-4-0, and 131 lb down and 92 lb up at 32-4-0 on top chord, and 519 lb down and 171 lb up at 4-9-8, 187 lb down and 66 lb up at 6-4-12, 187 lb down and 83 lb up at 8-4-12, 197 lb down and 105 lb up at 10-4-0, 255 lb down and 131 lb up at 12-4-0, 63 lb down and 17 lb up at 14-4-0, 63 lb down and 17 lb up at 16-4-0, 63 lb down and 17 lb up at 18-4-0, 63 lb down and 17 lb up at 20-4-0, 63 lb down and 17 lb up at 22-4-0, 63 lb down and 17 lb up at 24-4-0, 63 lb down and 17 lb up at 26-4-0, 63 lb down and 17 lb up at 28-4-0, and 63 lb down and 17 lb up at 30-4-0, and 63 lb down and 17 lb up at 32-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (lb/ft)
- Vert: 1-4=-51, 4-5=-61, 5-7=-51, 7-11=-61, 2-20=-20, 3-18=-20, 12-17=-20
- Concentrated Loads (lb)
- Vert: 19=-492 (F), 15=-33 (F), 8=-43 (F), 23=-44 (F), 24=-43 (F), 25=-43 (F), 26=-43 (F), 27=-43 (F), 28=-43 (F), 29=-43 (F), 30=-43 (F), 31=-43 (F), 32=-162 (F), 33=-153 (F), 34=-183 (F), 35=-209 (F), 36=-33 (F), 37=-33 (F), 38=-33 (F), 39=-33 (F), 40=-33 (F), 41=-33 (F), 42=-33 (F), 43=-33 (F), 44=-33 (F)

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

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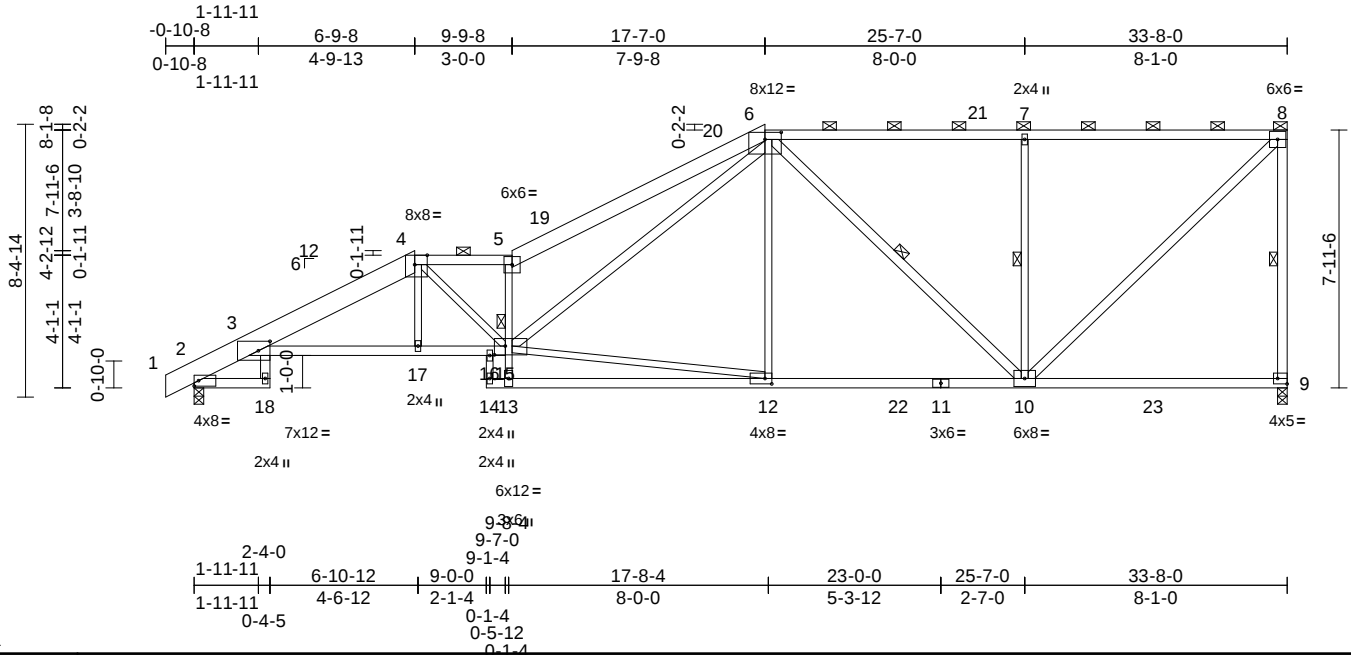
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	B2	Roof Special	1	1	Job Reference (optional)	I63476758

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:15

Page: 1

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Scale = 1:71

Plate Offsets (X, Y): [3:0-4-5,0-3-8], [4:0-4-10,Edge], [6:0-6-0,0-2-10], [9:Edge,0-2-0], [12:0-2-8,0-2-0], [15:0-4-0,0-3-4]

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	0.71	Vert(LL)	-0.42	12-13	>943	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.68	12-13	>589	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.29	9	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	15	>999	240		
BCDL	10.0										Weight: 181 lb	FT = 10%

LUMBER

TOP CHORD	2x8 SP 2400F 2.0E *Except* 4-5:2x4 SPF No.2, 5-6:2x6 SP 2400F 2.0E, 6-8:2x4 SP 2100F 1.8E
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-18:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 8-9,18-3,6-10,8-10,6-15:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-2-5 oc purlins, except end verticals, and 2-0-0 oc purlins (2-5-2 max.): 4-5, 6-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-18.
WEBS	1 Row at midpt 8-9, 5-13, 6-10, 7-10

REACTIONS

(size)	2=0-3-8, 9=0-3-8
Max Horiz	2=320 (LC 9)
Max Uplift	2=-211 (LC 12), 9=-243 (LC 9)
Max Grav	2=1917 (LC 3), 9=1940 (LC 47)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/8, 2-3=-1197/65, 3-4=-3907/413, 4-5=-4464/483, 5-6=-5204/678, 6-7=-1574/197, 7-8=-1574/197, 8-9=-1726/276
BOT CHORD	2-18=-40/0, 3-17=-447/3623, 16-17=-445/3627, 15-16=-445/3627, 13-14=0/0, 12-13=0/139, 10-12=-292/2089, 9-10=-106/80
WEBS	3-18=0/81, 14-16=-300/0, 4-17=0/199, 4-15=-60/1176, 6-12=-21/371, 13-15=0/563, 5-15=-2442/445, 6-10=-791/136, 8-10=-272/2151, 7-10=-807/273, 6-15=-525/3280, 12-15=-301/1962

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 9 and 211 lb uplift at joint 2.
- 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.

LOAD CASE(S) Standard



February 8, 2024

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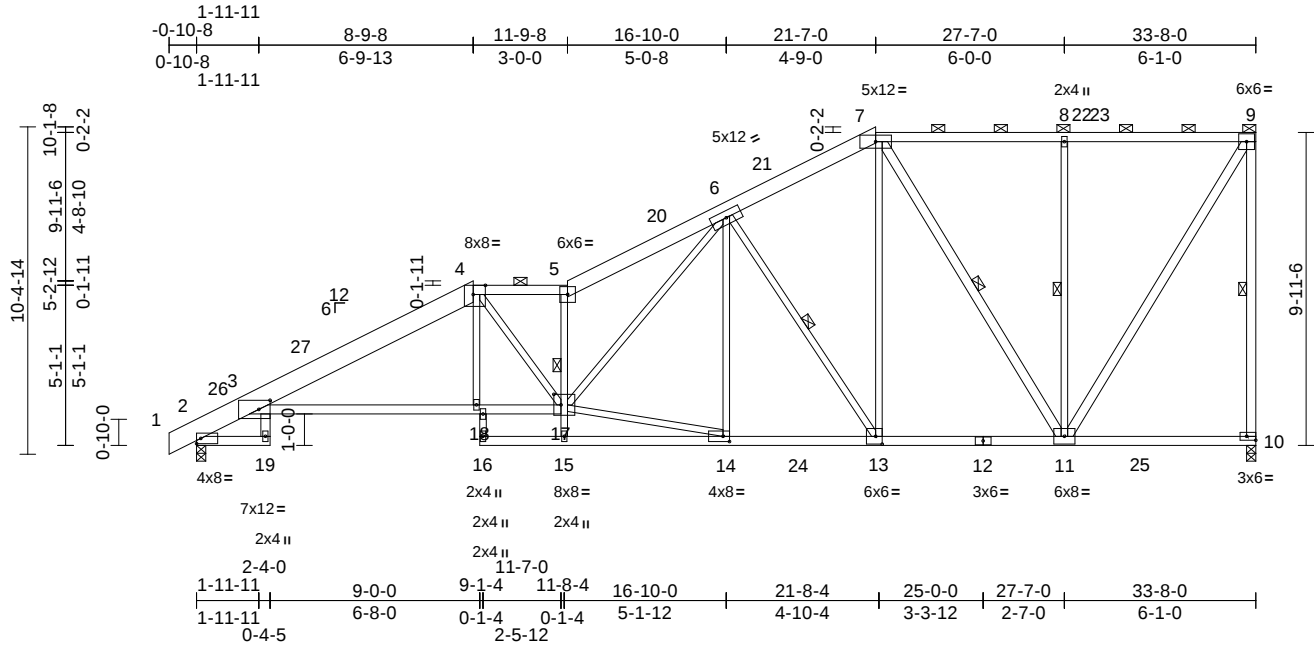
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476759
230872	B3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:16

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Scale = 1:73.2

Plate Offsets (X, Y): [3:0-4-5,0-3-8], [4:0-4-10,Edge], [10:Edge,0-1-8], [13:0-2-8,0-3-0], [14:0-2-8,0-2-0], [17:0-2-12,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.40	3-18	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.63	3-18	>638	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.33	10	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	17	>999	240		
BCDL	10.0										Weight: 199 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 5-7:2x6 SPF No.2, 4-1:2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 3-17:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 9-10:2x4 SPF 2100F 1.8E, 19-3,11-7,11-9:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-3-14 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-10 max.): 4-5, 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	6-0-0 oc bracing: 2-19, 1 Row at midpt 9-10, 5-15, 6-13, 7-11, 8-11

REACTIONS

(size)	2=0-3-8, 10=0-3-8
Max Horiz	2=403 (LC 11)
Max Uplift	2=-231 (LC 12), 10=-228 (LC 9)
Max Grav	2=1988 (LC 48), 10=1908 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	4-5=-3691/467, 5-6=-4262/603, 6-7=-1745/266, 7-8=-999/182, 8-9=-998/181, 9-10=-1748/244, 1-2=0/8, 2-3=-1285/51, 3-4=-3615/412
BOT CHORD	2-19=-40/0, 3-18=-462/3296, 17-18=-458/3306, 15-16=0/6, 14-15=-1/80, 13-14=-272/2179, 11-13=-238/1519, 10-11=-136/103
WEBS	3-19=0/81, 16-18=0/58, 15-17=0/239, 5-17=-1946/339, 6-17=-407/2512, 6-13=-1294/281, 7-13=-166/1375, 7-11=-1034/166, 8-11=-608/215, 9-11=-219/1884, 4-17=-37/636, 4-18=0/408, 6-14=-200/113, 14-17=-278/2137

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 10 and 231 lb uplift at joint 2.
- 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.

LOAD CASE(S) Standard



February 8, 2024

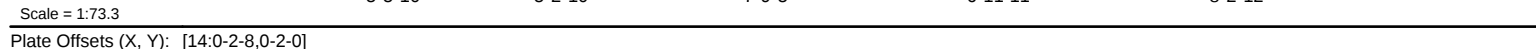
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

MiTek®

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:17 Page: 1
ID:mW24BAzK4zfM0tYsahmDxWY6jcs-RfC?PsB70Hg3NSaPanL8w3uITXbGKWrCdoi7J4zJC?f



LUMBER		2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
TOP CHORD	2x4 SPF No.2	Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 12-9:2x4 SPF 2400F 2.0E	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
WEBS	2x3 SPF No.2 *Except* 10-5,10-6,10-7,9-7:2x4 SPF No.2, 9-8:2x4 SPF 2100F 1.8E, 15-1:2x6 SPF No.2	3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
BRACING		4) Unbalanced snow loads have been considered for this design.
TOP CHORD	Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-2 max.): 3-4, 6-7.	5) Provide adequate drainage to prevent water ponding.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
WEBS	1 Row at midpt 4-11, 5-10, 6-10, 7-10, 8-9	7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
WEBS	2 Rows at 1/3 pts 7-9	8) All bearings are assumed to be SPF No.2 .
REACTIONS	(size) 9=0-3-8, 15=0-3-8	9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 221 lb uplift at joint 15 and 198 lb uplift at joint 9.
	Max Horiz 15=456 (LC 9)	10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
	Max Uplift 9=-198 (LC 12), 15=-221 (LC 12)	11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
FORCES	Max Grav 9=1911 (LC 3), 15=1942 (LC 50)	LOAD CASE(S) Standard
	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-3070/365, 2-3=-2774/357, 3-4=-2395/355, 4-5=-2281/314, 5-6=-1269/236, 6-7=-1032/263, 7-8=-219/164, 8-9=-215/117, 1-15=-1788/249	
BOT CHORD	14-15=-426/525, 13-14=-481/2675, 11-13=-376/2601, 10-11=-235/2003, 9-10=-138/366	
WEBS	2-14=-161/90, 2-13=-336/145, 3-13=-33/940, 4-11=-967/226, 5-11=-84/1172, 5-10=-1507/329, 6-10=-61/259, 7-10=-233/1610, 7-9=-1667/265, 1-14=-218/2241, 4-13=-446/40	

WARNING – verify design parameters and READ NOTES on this and INCLUDED INTER REFERENCE PAGE MH-7475 (rev. 12/2023) BEFORE USE. Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbscomponents.com).

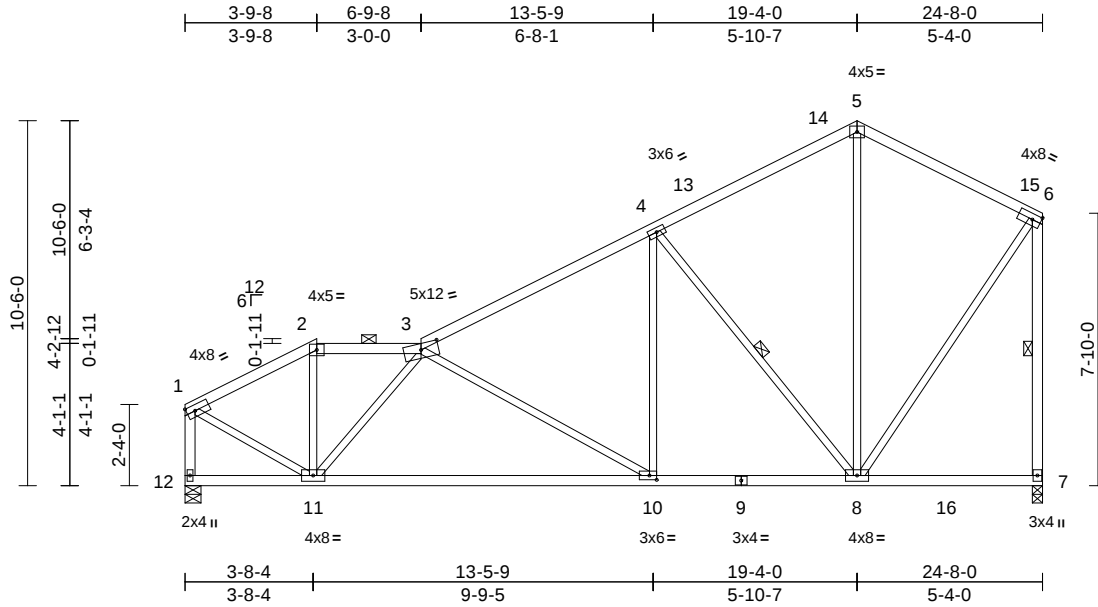
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476761
230872	C1	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:17
ID:Aen3yqQYMKJ6yZtZUywwxKy6jch-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:66.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.32	10-11	>915	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.50	10-11	>583	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.03	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240		
BCDL	10.0										Weight: 114 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 9-7:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 7-6,12-1:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-1 max.): 2-3.
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 6-7, 4-8

REACTIONS

(size)	7=0-3-8, 12=0-5-8
Max Horiz	12=342 (LC 11)
Max Uplift	7=-160 (LC 12), 12=-159 (LC 12)
Max Grav	7=1370 (LC 3), 12=1355 (LC 46)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-1335/135, 2-3=-1139/150, 3-4=-1492/190, 4-5=-741/175, 5-6=-693/197, 6-7=-1225/197, 1-12=-1360/153
BOT CHORD	11-12=-333/144, 10-11=-297/1667, 8-10=-142/1264, 7-8=-104/81
WEBS	2-11=0/418, 6-8=-101/976, 1-11=-88/1320, 5-8=-61/378, 4-8=-1101/248, 4-10=0/719, 3-10=-510/184, 3-11=-843/160

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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 12 and 160 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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

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

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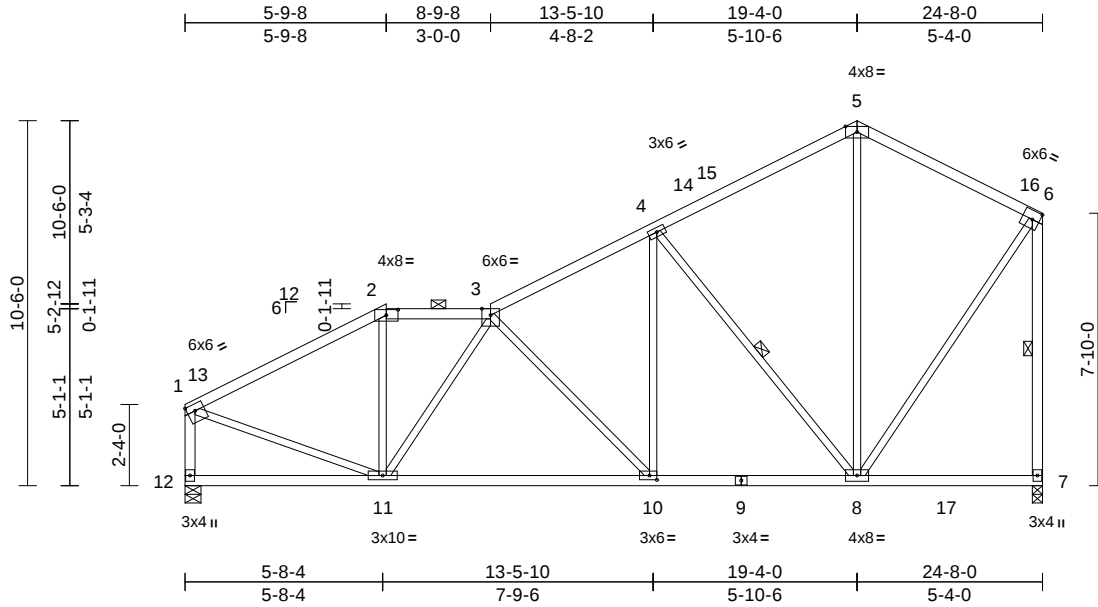
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476762
230872	C2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:18
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Page: 1



Scale = 1:66.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.17	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.28	10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.03	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240		
BCDL	10.0											
Weight: 117 lb											FT = 10%	

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-6,12-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-5 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 6-7, 4-8

REACTIONS (size) 7=0-3-8, 12=0-5-8

Max Horiz 12=342 (LC 9)

Max Uplift 7=-160 (LC 12), 12=-159 (LC 12)

Max Grav 7=1370 (LC 3), 12=1370 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1485/176, 2-3=-1246/202, 3-4=-1403/202, 4-5=-744/171, 5-6=-696/197, 6-7=-1231/196, 1-12=-1261/182

BOT CHORD 11-12=-328/179, 10-11=-243/1524,

8-10=-142/1222, 7-8=-105/81

WEBS 2-11=0/395, 3-11=-523/64, 6-8=-101/983, 1-11=-84/1258, 5-8=-50/349, 4-8=-1036/244, 4-10=-25/730, 3-10=-481/156

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 12 and 160 lb uplift at joint 7.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

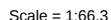
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

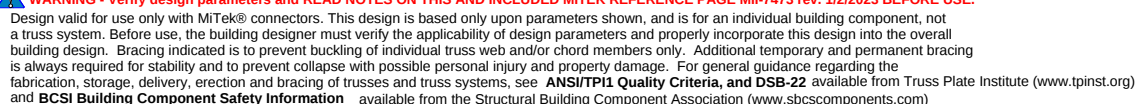
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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:18 Page: 1
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LOAD CASE(S) Standard



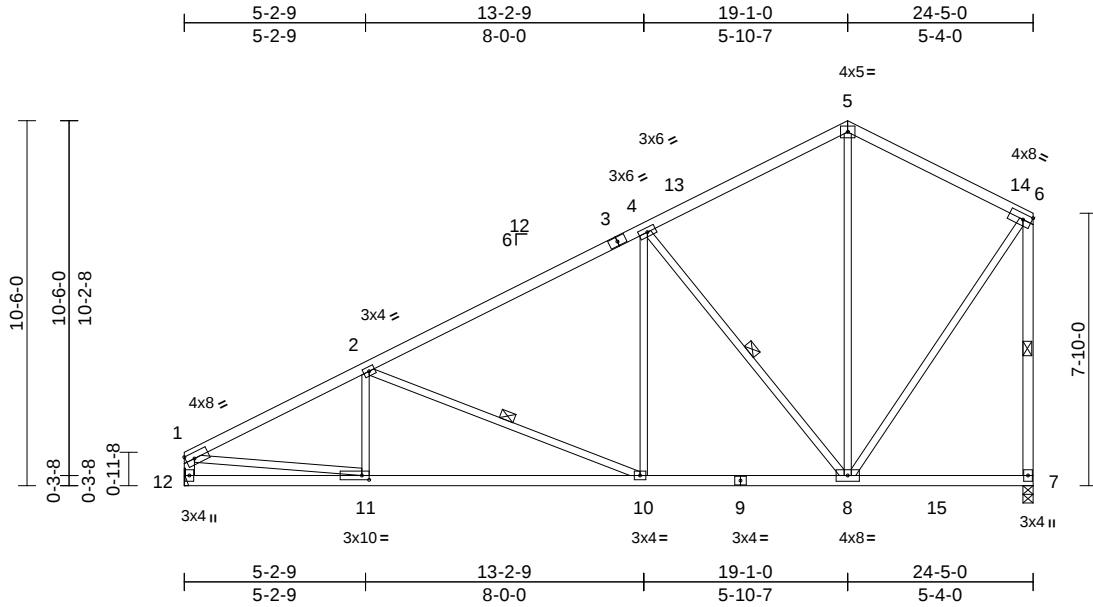
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476764
230872	C4	Common	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:19
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Page: 1



Scale = 1:66.3

Plate Offsets (X, Y): [11:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.20	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.34	10-11	>863	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.04	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	10-11	>999	240		
BCDL	10.0										Weight: 110 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-6,12-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 6-7, 4-8, 2-10

REACTIONS (size) 7=0-3-8, 12= Mechanical
Max Horiz 12=347 (LC 9)
Max Uplift 7=-162 (LC 12), 12=-152 (LC 12)
Max Grav 7=1359 (LC 3), 12=1316 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2013/240, 2-4=-1415/198,
4-5=-723/178, 5-6=-689/198, 6-7=-1219/198,
1-12=-1215/171

BOT CHORD 11-12=-326/256, 10-11=-338/1796,
8-10=-150/1212, 7-8=-105/81

WEBS 6-8=-102/981, 1-11=-147/1597, 5-8=-66/329,
4-8=-993/265, 2-11=-54/255, 2-10=-631/205,
4-10=0/657

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 12 and 162 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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

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

MiTek®

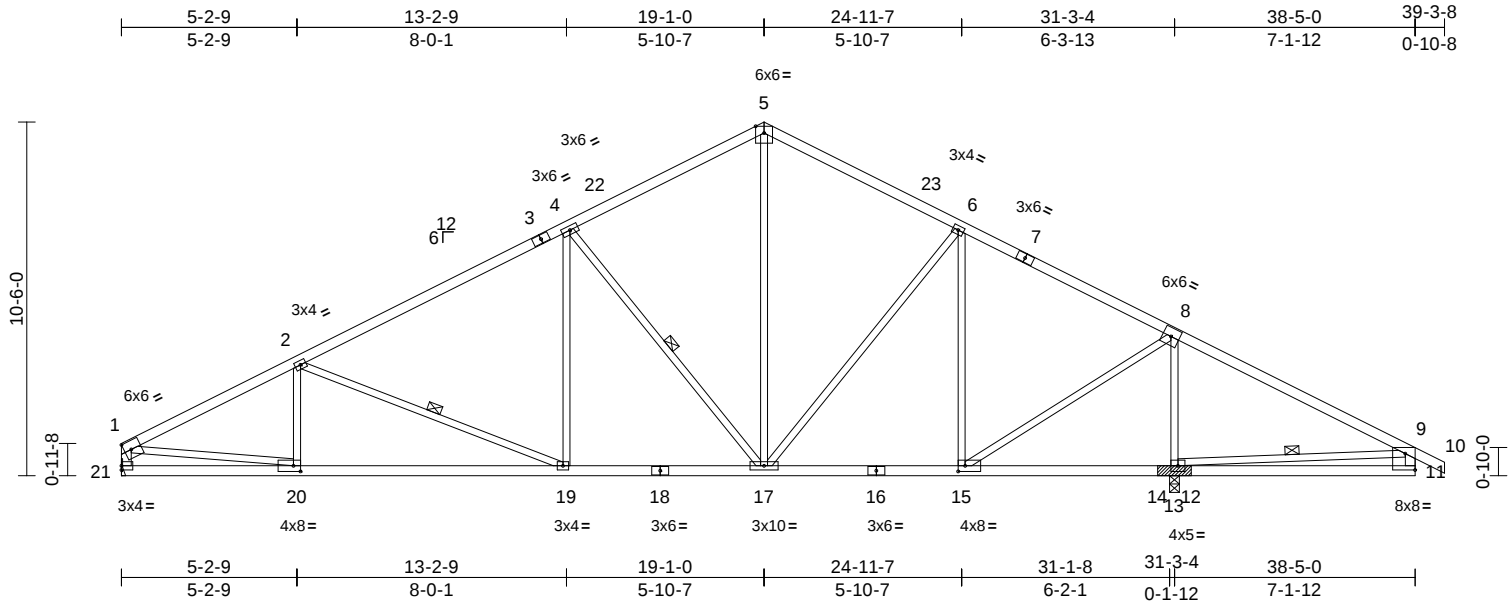
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476765
230872	C5	Common	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:19
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Page: 1



Scale = 1:68.4

Plate Offsets (X, Y): [11:Edge,0-5-13], [15:0-2-8,0-2-0], [20:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.25	19-20	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.40	19-20	>927	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	13	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	19-20	>999	240		
BCDL	10.0										Weight: 158 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 21-1,11-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 9-13, 4-17, 2-19

REACTIONS (size) 13=(0-3-8 + bearing block), (req. 0-4-2), 21= Mechanical
Max Horiz 21=-167 (LC 13)
Max Uplift 13=-291 (LC 13), 21=-190 (LC 12)
Max Grav 13=2631 (LC 3), 21=1606 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2516/307, 2-4=-1999/275, 4-5=-1316/256, 5-6=-1308/275, 6-8=-1103/189, 8-9=-138/798, 9-10=0/32, 1-21=-1502/209, 9-11=-28/184
BOT CHORD 20-21=-166/307, 19-20=-366/2261, 17-19=-186/1749, 15-17=-14/939, 13-15=-629/186, 11-13=-131/335
WEBS 1-20=-202/2022, 9-13=-968/318, 5-17=-130/810, 8-13=-2172/346, 4-17=-969/262, 2-20=-103/204, 2-19=-559/194, 4-19=0/635, 6-17=-41/337, 6-15=-717/118, 8-15=-81/1831

NOTES

- 2x4 SPF No.2 bearing block 12" long at jt. 13 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 21 and 291 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8,2024

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

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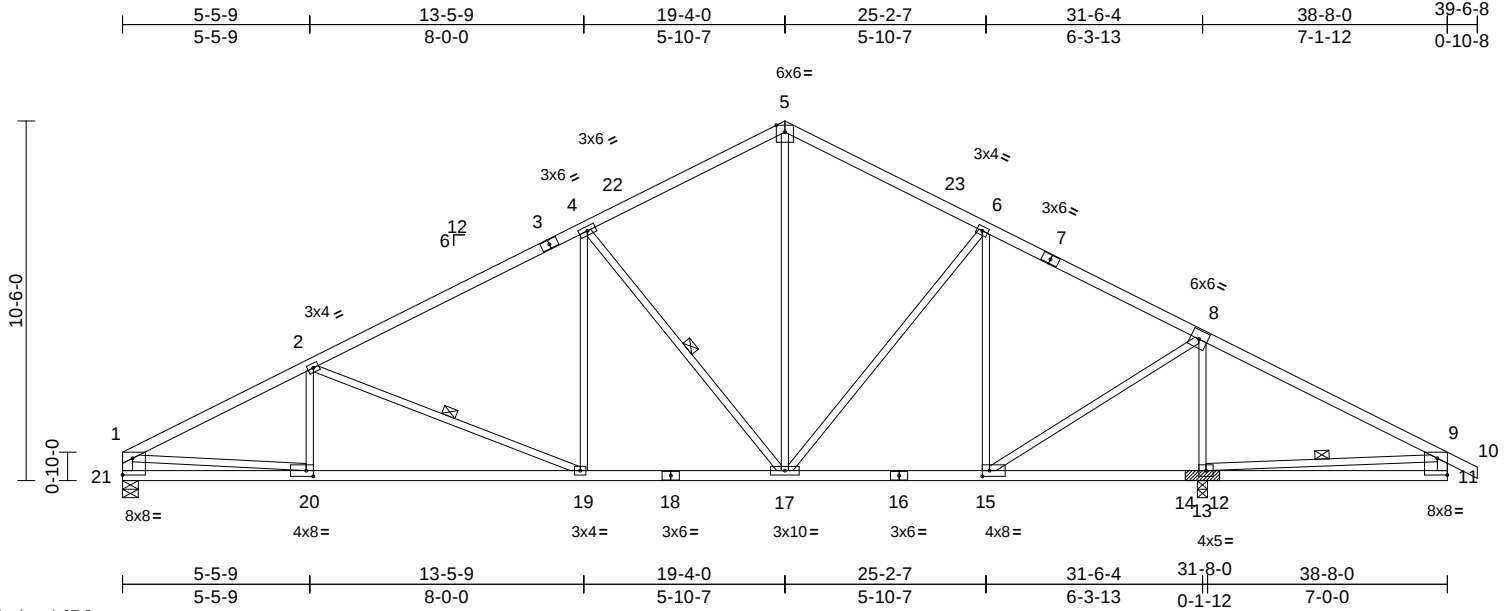
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476766
230872	C6	Common	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:20
ID:6UrzEu1TVVhe7eRPcELOeay6jcn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:67.2

Plate Offsets (X, Y): [11:Edge,0-5-13], [15:0-2-8,0-2-0], [20:0-2-8,0-2-0], [21:Edge,0-5-13]

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	0.69	Vert(LL)	-0.26	19-20	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.42	19-20	>903	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.05	13	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	19-20	>999	240		
BCDL	10.0											
											Weight: 159 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 21-1,11-9:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 9-13, 4-17, 2-19

REACTIONS (size) 13=(0-3-8 + bearing block), (req. 0-4-2), 21=0-5-8
Max Horiz 21=-167 (LC 13)
Max Uplift 13=-291 (LC 13), 21=-192 (LC 12)
Max Grav 13=2642 (LC 3), 21=1618 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2633/321, 2-4=-2031/280,
4-5=-1330/258, 5-6=-1322/277,
6-8=-1113/190, 8-9=-138/798, 9-10=0/32,
1-21=-1504/213, 9-11=-28/184
BOT CHORD 20-21=-184/400, 19-20=-380/2359,
17-19=-190/1777, 15-17=-15/948,
13-15=-629/186, 11-13=-131/335
WEBS 1-20=-196/2018, 9-13=-967/318,
5-17=-132/822, 6-17=-41/342,
6-15=-723/118, 8-15=-83/1842,
8-13=-2183/346, 4-17=-992/265,
2-20=-55/254, 2-19=-634/205, 4-19=0/654

NOTES

- 2x4 SPF No.2 bearing block 12" long at jt. 13 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 192 lb uplift at joint 21 and 291 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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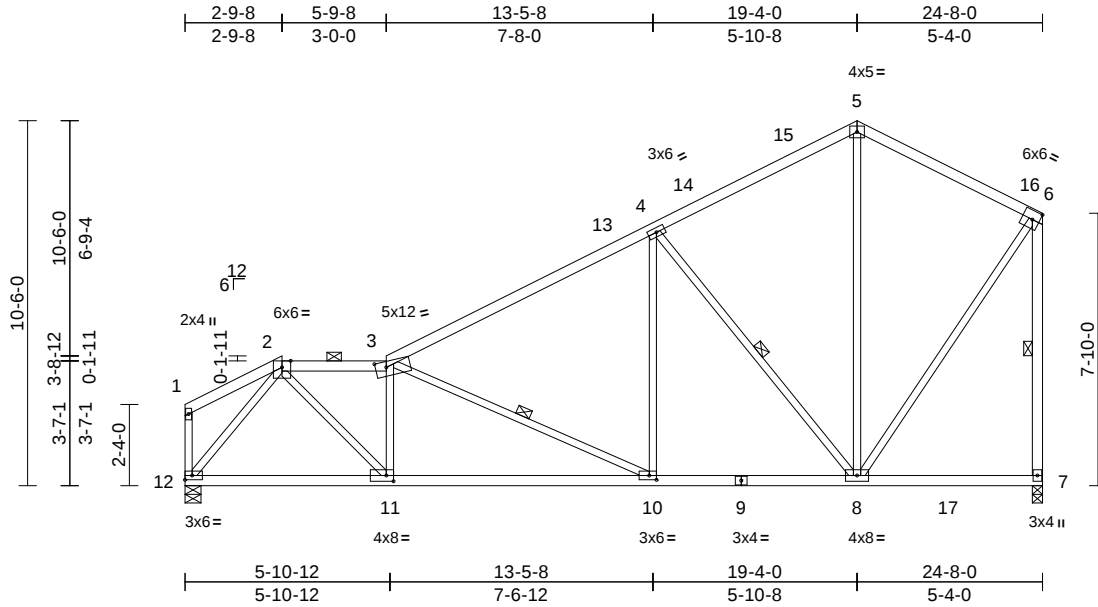
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476767
230872	C7	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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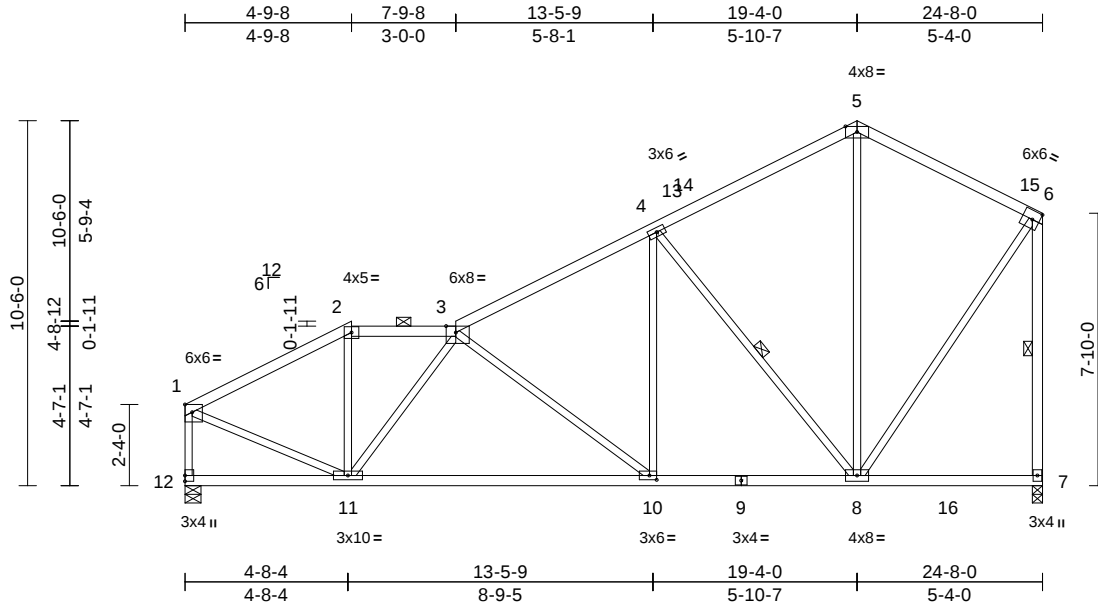


Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476768
230872	C8	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:21
ID:bDTCasSQfHgp1c8A5UcZyy6jcE-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:66.3

Plate Offsets (X, Y): [1:Edge,0-2-11], [3:0-3-6,Edge], [10:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.27	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.43	10-11	>676	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.04	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	10-11	>999	240		
BCDL	10.0											
Weight: 115 lb											FT = 10%	

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-13 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 6-7, 4-8

REACTIONS (size) 7=0-3-8, 12=0-5-8
Max Horiz 12=342 (LC 9)
Max Uplift 7=-160 (LC 12), 12=-159 (LC 12)
Max Grav 7=1372 (LC 3), 12=1368 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1440/161, 2-3=-1221/183, 3-4=-1463/197, 4-5=-748/173, 5-6=-696/197, 6-7=-1230/197, 1-12=-1305/170
BOT CHORD 11-12=-328/146, 10-11=-271/1610, 8-10=-141/1250, 7-8=-104/81
WEBS 2-11=0/412, 6-8=-102/987, 1-11=-97/1316, 5-8=-55/357, 4-8=-1071/246, 4-10=-7/726, 3-10=-499/170, 3-11=-670/107

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 12 and 160 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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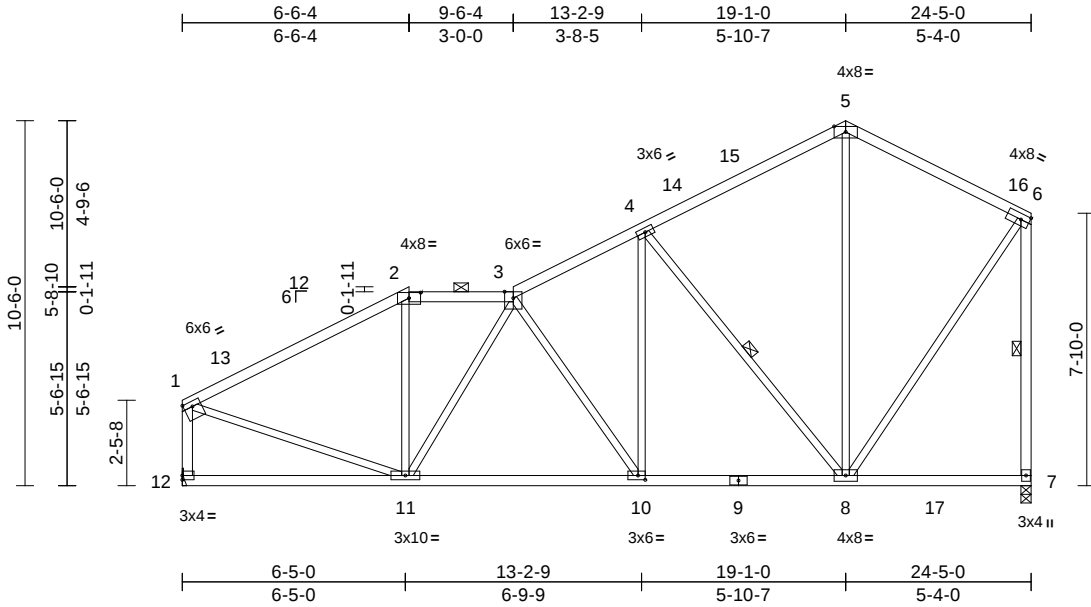
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476769
230872	C9	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:66.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.11	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.18	10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.03	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	10-11	>999	240		
BCDL	10.0										Weight: 117 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-6,12-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-8 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-8, 6-7

REACTIONS

(size) 7=0-3-8, 12= Mechanical
Max Horiz 12=342 (LC 9)
Max Uplift 7=-157 (LC 12), 12=-157 (LC 12)
Max Grav 7=1359 (LC 3), 12=1361 (LC 46)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1457/178, 2-3=-1213/210, 3-4=-1346/204, 4-5=-735/169, 5-6=-692/195, 6-7=-1223/193, 1-12=-1222/187
BOT CHORD 11-12=-326/202, 10-11=-211/1409, 8-10=-143/1184, 7-8=-105/81
WEBS 2-11=0/356, 3-11=-414/28, 4-8=-989/241, 5-8=-46/339, 6-8=-99/974, 1-11=-73/1192, 3-10=-446/138, 4-10=-36/714

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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 12 and 157 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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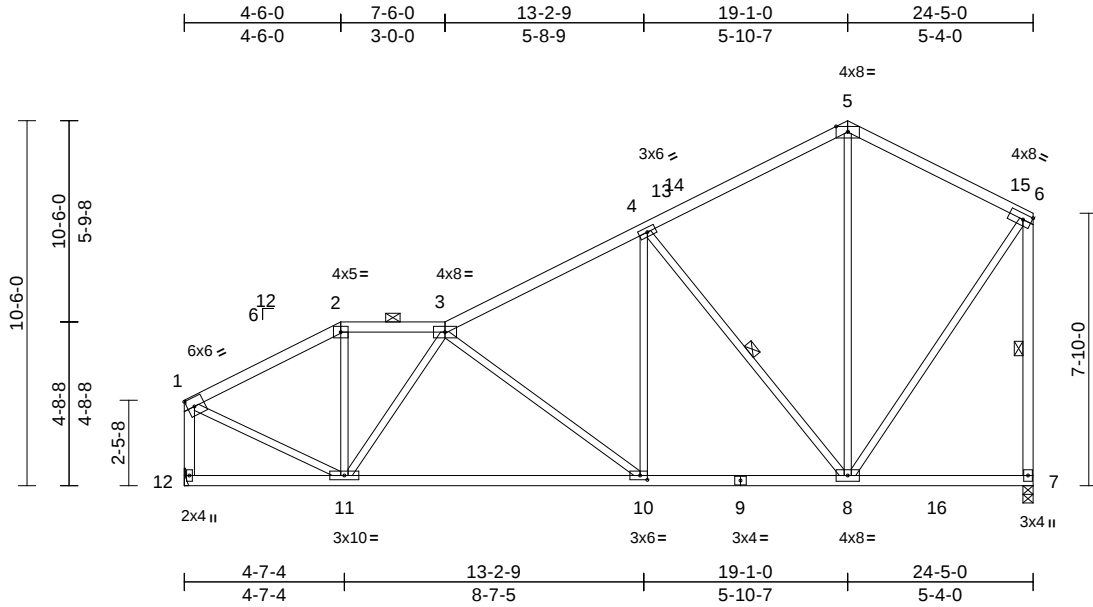
Job 230872	Truss C10	Truss Type Roof Special	Qty 2	Ply 1	Lot 17 TCR Job Reference (optional)	I63476770
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Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:21

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Scale = 1:66.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.25	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.40	10-11	>726	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.03	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	10-11	>999	240		
BCDL	10.0										Weight: 115 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-6,12-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-13 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 6-7, 4-8

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

Max Horiz 12=342 (LC 11)

Max Uplift 7=-157 (LC 12), 12=-157 (LC 12)

Max Grav 7=1359 (LC 3), 12=1350 (LC 46)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1357/154, 2-3=-1159/171, 3-4=-1430/193, 4-5=-742/171, 5-6=-689/196, 6-7=-1217/194, 1-12=-1290/168

BOT CHORD 11-12=-327/149, 10-11=-258/1532, 8-10=-143/1229, 7-8=-104/81

WEBS 2-11=0/405, 6-8=-99/977, 1-11=-92/1245, 5-8=-53/351, 4-8=-1045/242, 4-10=-1/682, 3-10=-433/158, 3-11=-679/113

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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 157 lb uplift at joint 12 and 157 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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

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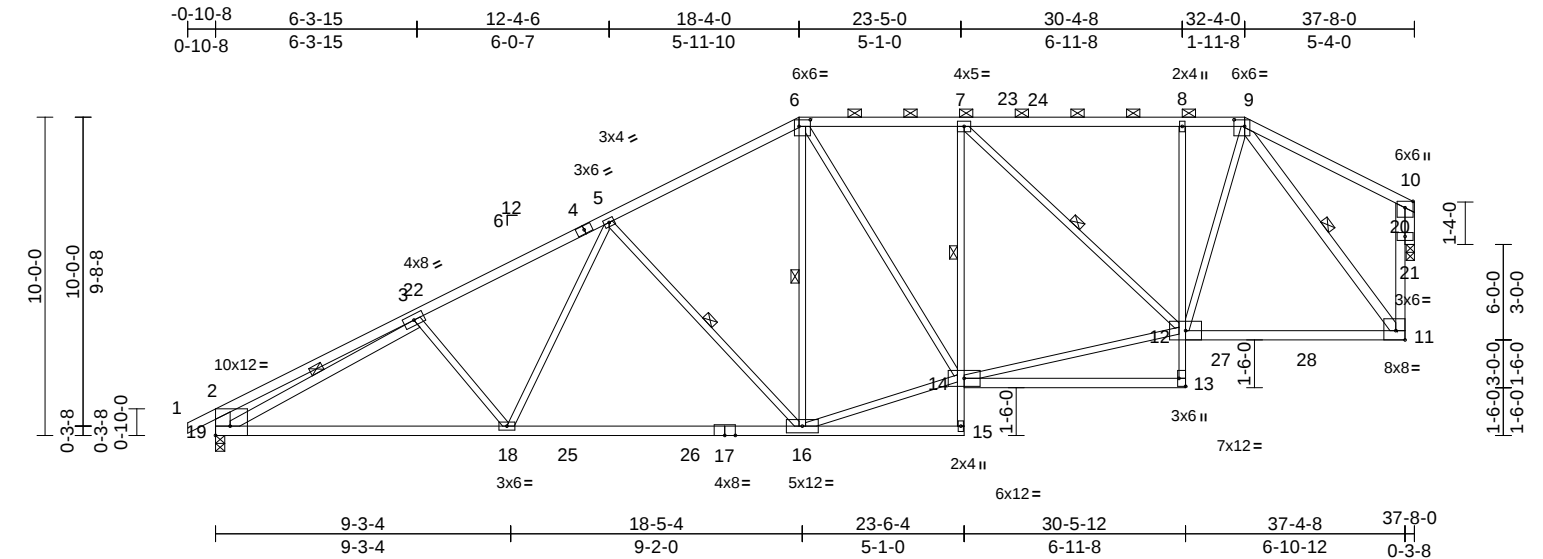
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	63476771
230872	D1	Piggyback Base	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:22

Page: 1

ID:WFYq9TSMCIESMGmBo9U8iSy6jdX-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f



Scale = 1:72.4									
Plate Offsets (X, Y): [2:Edge,0-3-8], [6:0-4-4,0-2-8], [9:0-4-0,0-2-8], [11:Edge,0-3-8], [13:Edge,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.39	16-18	>999
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.58	16-18	>770
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.16	21	n/a
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	16-18	>999
BCDL	10.0								
									PLATES MT20
									GRIP 197/144
									Weight: 182 lb FT = 10%

LUMBER		
TOP CHORD	2x4 SPF No.2	
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 15-7,13-8:2x3 SPF No.2, 14-13,12-11:2x4 SPF No.2	
WEBS	2x3 SPF No.2 *Except* 11-10:2x4 SPF 2100F 1.8E, 11-9,19-3:2x4 SPF No.2, 19-2:2x6 SPF No.2	
OTHERS	2x4 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-12 max.): 6-9.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.	
1 Row at midpt	7-14	
WEBS	1 Row at midpt 6-16, 7-12, 9-11, 3-19, 5-16	
REACTIONS (size)		19=0-3-8, 21=0-3-2
Max Horiz		19=218 (LC 9)
Max Uplift		19=22 (LC 12)
Max Grav		19=2112 (LC 3), 21=2027 (LC 3)
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/35, 2-3=-850/92, 3-5=-3198/49, 5-6=-2329/59, 6-7=-2221/62, 7-8=-1802/45, 8-9=-1806/43, 9-10=-290/55, 11-20=0/1799, 10-20=0/1799, 2-19=-603/94	
BOT CHORD	18-19=-155/2842, 16-18=-87/2521, 15-16=-62/5, 14-15=0/72, 7-14=-307/295, 13-14=0/44, 12-13=0/207, 8-12=-486/98, 11-12=-42/1360	

- WEBS** 6-16=-23/542, 14-16=-40/2135, 6-14=-65/549, 12-14=-76/2233, 7-12=-621/35, 9-12=-49/1627, 9-11=-1977/44, 3-19=-2538/0, 3-18=-187/134, 5-18=0/662, 5-16=-887/133, 10-21=-2083/0
- 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
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 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, with BCDL = 10.0psf.
 - WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
 - All bearings are assumed to be SPF No.2 .
 - Bearing at joint(s) 21 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 22 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8,2024

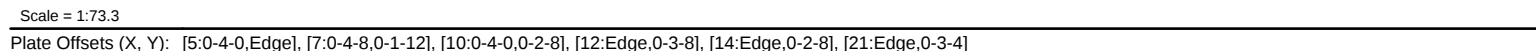
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:23 Page: 1
ID:dv36VxbQ3V WxwNTp6bmcGv6mwe-RfC?PsB70Hg3NSqPanL8w3uITxbGKWRcDoi7J4zJC?f



LUMBER				WEBS	3-21=0/151, 4-19=1244/105, 17-19=64/1859, 7-19=156/1754, 7-17=621/102, 15-17=44/2072, 7-15=61/574, 13-15=74/2209, 8-13=607/35, 10-13=48/1614, 10-12=1961/43, 4-20=0/387, 11-23=2070/0
TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E				
BOT CHORD	2x3 SPF No.2 *Except* 2-21:2x6 SPF No.2, 3-19:2x4 SPF 2100F 1.8E, 18-16,15-14,13-12:2x4 SPF No.2				
WEBS	2x3 SPF No.2 *Except* 21-3:2x6 SPF No.2, 19-7,12-10:2x4 SPF No.2, 12-11:2x4 SPF 2100F 1.8E			NOTES	1) Attached 14-0-0 scab 1 to 5, front face(s) 2x6 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-2-14 from end at joint 1, nail 2 row(s) at 4" o.c. for 3-5-2.
OTHERS	2x4 SPF No.2				2) Unbalanced roof live loads have been considered for this design.
LBR SCAB	1-5 SP 2400F 2.0E one side				3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
WEDGE	Left: 2x4 SPF No.2				4) TCELL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
BRACING					5) Unbalanced snow loads have been considered for this design.
TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-2 max.): 7-10.				6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-21,16-17.				7) Provide adequate drainage to prevent water ponding.
	8-15				8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
1 Row at midpt					9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
WEBS	1 Row at midpt 4-19, 7-17, 8-13, 10-12				10) WARNING: Required bearing size at joint(s) 23 greater than input bearing size.
REACTIONS	(size) 2=0-3-8, 23=0-3-2 Max Horiz 2=211 (LC 9) Max Uplift 2=-12 (LC 12) Max Grav 2=2115 (LC 3), 23=2013 (LC 3)				11) All bearings are assumed to be SPF No.2 .
FORCES	(lb) - Maximum Compression/Maximum Tension				
TOP CHORD	1-2=0/6, 2-3=-1297/0, 3-4=-4328/58, 4-6=-3376/66, 6-7=-3335/158, 7-8=-2197/60, 8-9=-1788/44, 9-10=-1792/42, 10-11=-289/55, 12-22=0/1786, 11-22=0/1786				
BOT CHORD	2-21=-99/0, 3-20=-166/3967, 19-20=-166/3966, 18-19=0/159, 6-19=-443/131, 17-18=0/141, 16-17=-38/13, 15-16=0/113, 8-15=-303/289, 14-15=0/44, 13-14=0/208, 9-13=-487/98, 12-13=-41/1350				



WARNING – verify design parameters and related notes on this and included sister REFERENCE PAGE MP-7473 rev. 12/2023 BEFORE USE.

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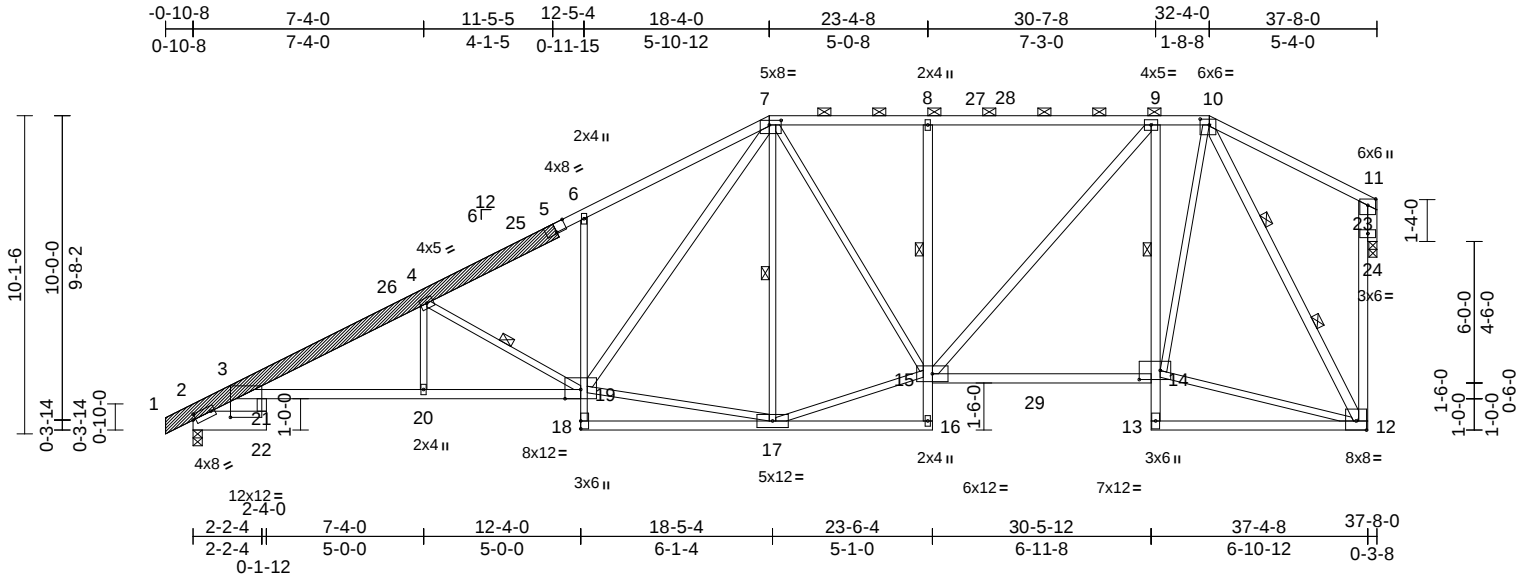
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476773
230872	D3	Piggyback Base	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:23
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Page: 1



Scale = 1:73.3															
Plate Offsets (X, Y): [2:0-1-0,0-2-0], [5:0-4-0,Edge], [7:0-4-8,0-1-12], [10:0-3-8,0-2-4], [14:0-8-0,0-3-8], [22:0-7-7,0-2-6]															
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		0.99	Vert(LL)	-0.39	14-15	>999	360	MT20	197/144
Snow (Pf/Pg)		20.4/20.0	Lumber DOL		1.15	BC		0.92	Vert(CT)	-0.61	14-15	>731	240		
TCDL		10.0	Rep Stress Incr		YES	WB		0.89	Horz(CT)	0.40	24	n/a	n/a		
BCLL		10.0*	Code		IRC2018/TPI2014	Matrix-S			Wind(LL)	0.13	6	>999	240		
BCDL		10.0												Weight: 260 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-22:2x8 SP 2400F 2.0E, 3-19:2x4 SPF 2100F 1.8E, 6-18:2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 22-21,19-7,15-9,12-10:2x4 SPF No.2, 12-11:2x4 SPF 2100F 1.8E
OTHERS	2x4 SPF No.2
LBR SCAB	1-5 SP 2400F 2.0E one side
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-5 max.): 7-10.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17 2-2-0 oc bracing: 14-15.
1 Row at midpt	8-15, 9-14
WEBS	1 Row at midpt 4-19, 7-17
WEBS	2 Rows at 1/3 pts 10-12
REACTIONS	
(size)	2=0-3-8, 24=0-3-2
Max Horiz	2=248 (LC 9)
Max Uplift	2=24 (LC 12)
Max Grav	2=2095 (LC 3), 24=2021 (LC 3)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/11, 2-3=-1339/0, 3-4=-4373/52, 4-6=-3389/61, 6-7=-3349/155, 7-8=-2221/61, 8-9=-2235/62, 9-10=-1436/32, 10-11=-199/88, 12-23=-8/1868, 11-23=-8/1868

BOT CHORD	2-22=0/0, 3-21=-161/3983, 20-21=-161/3983, 19-20=-161/3983, 18-19=0/161, 6-19=-444/135, 17-18=0/149, 16-17=-39/32, 15-16=0/116, 8-15=-591/113, 14-15=-83/1456, 13-14=0/195, 9-14=-1167/136, 12-13=-2/39
WEBS	21-22=-23/335, 4-19=-1252/96, 17-19=-96/1864, 7-19=-144/1754, 7-17=-620/116, 15-17=-76/2076, 7-15=-45/601, 9-15=-44/1194, 12-14=-70/1068, 10-14=-65/1814, 10-12=-2163/66, 4-20=0/434, 11-24=-2072/0

NOTES

- Attached 14-0-0 scab 1 to 5, front face(s) 2x6 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-3-0 from end at joint 1, nail 2 row(s) at 3" o.c. for 3-5-9.
- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 24 greater than input bearing size.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 24 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 24 lb uplift at joint 2.
- 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.

LOAD CASE(S) Standard



February 8, 2024

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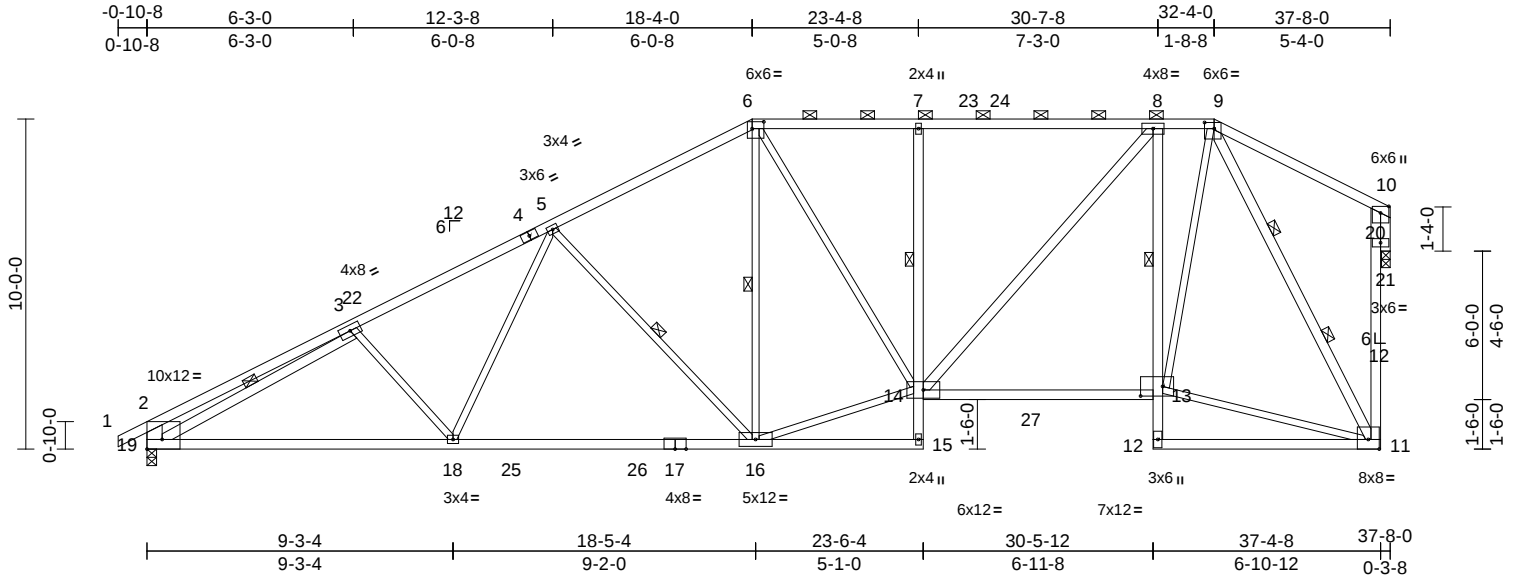
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	D4	Piggyback Base	2	1	Job Reference (optional)	I63476774

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:24

Page: 1

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Scale = 1:69.8

Plate Offsets (X, Y): [2:Edge,0-3-8], [6:0-4-4,0-2-8], [9:0-3-8,0-2-4], [13:0-8-0,0-3-8]

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	0.86	Vert(LL)	-0.40	16-18	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.59	16-18	>756	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.27	21	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	7-14	>999	240		
BCDL	10.0											
											Weight: 201 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 19-17,17-15:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 14-8,11-9,19-3:2x4 SPF No.2, 11-10:2x4 SPF 2100F 1.8E, 19-2:2x6 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-9-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-0 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt	7-14, 8-13
WEBS	1 Row at midpt 5-16, 6-16, 3-19
WEBS	2 Rows at 1/3 pts 9-11

REACTIONS	(size) 19=0-3-8, 21=0-3-2, (req. 0-3-3)
Max Horiz	19=255 (LC 9)
Max Uplift	19=24 (LC 12)
Max Grav	19=2121 (LC 3), 21=2035 (LC 3)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension
1-2=	0/35, 2-3=-846/87, 3-5=-3210/50, 5-6=-2346/62, 6-7=-2248/64, 7-8=-2261/64, 8-9=-1448/33, 9-10=-200/88, 11-20=-9/1882, 10-20=-9/1882, 2-19=-599/91
BOT CHORD	18-19=-151/2851, 16-18=-121/2545, 15-16=-69/22, 14-15=0/75, 7-14=-593/113, 13-14=-84/1468, 12-13=0/194, 8-13=-1181/137, 11-12=-2/39
WEBS	3-18=-182/133, 5-18=0/651, 5-16=-893/132, 6-16=-25/519, 14-16=-72/2147, 6-14=-48/570, 8-14=-46/1215, 11-13=-71/1076, 9-13=-67/1830, 9-11=-2181/67, 3-19=-2552/0, 10-21=-2086/0

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 21 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 24 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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

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

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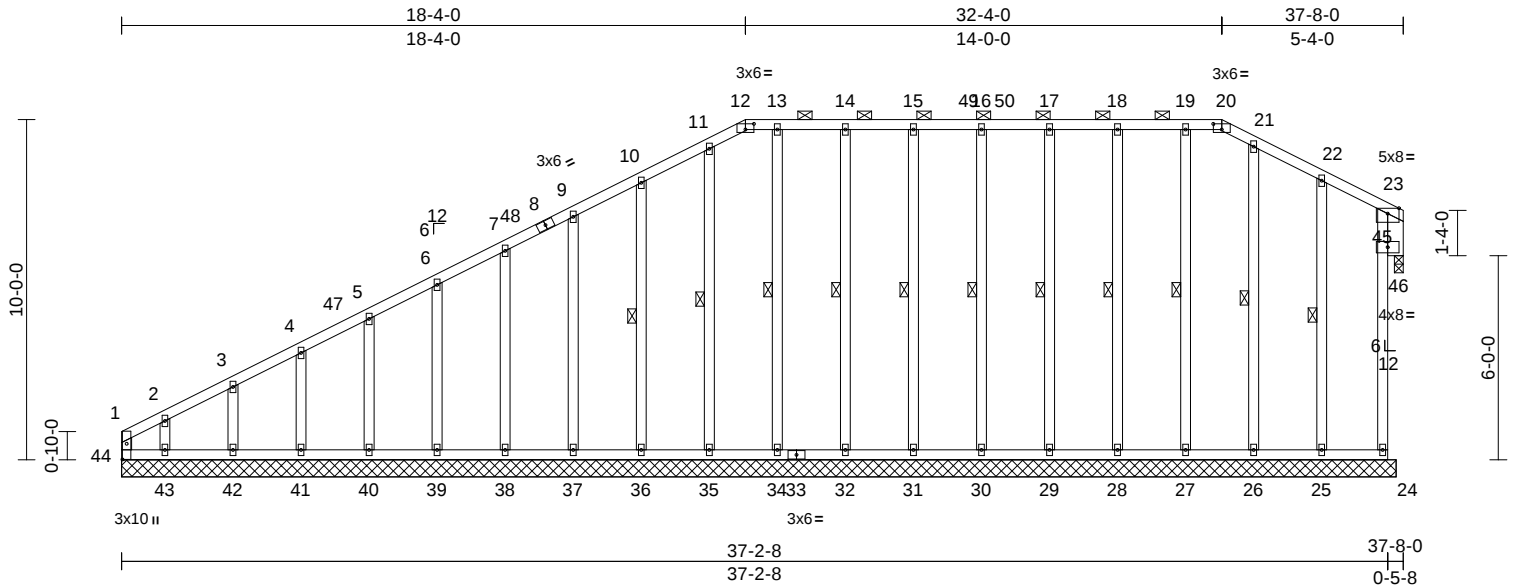
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	D5	Piggyback Base Supported Gable	2	1	Job Reference (optional)	I63476775

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:25

Page: 1

ID:HnRrrCYNKDEKKVJGgd008y6jdP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f



Scale = 1:67.7

Plate Offsets (X, Y): [12:0-3-0,0-2-0], [20:0-3-0,0-2-0], [44:0-5-9,0-1-8]

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	0.17	Vert(LL)	0.00	24-25	>999	240	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	24-25	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.03	46	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 245 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 *Except* 0-0,45-23:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals, and 2'-0" oc purlins (6'-0" max.): 12-20.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.
WEBS 1 Row at midpt

REACTIONS (size) 24=37-5-8, 25=37-5-8, 26=37-5-8, 27=37-5-8, 28=37-5-8, 29=37-5-8, 30=37-5-8, 31=37-5-8, 32=37-5-8, 34=37-5-8, 35=37-5-8, 36=37-5-8, 37=37-5-8, 38=37-5-8, 39=37-5-8, 40=37-5-8, 41=37-5-8, 42=37-5-8, 43=37-5-8, 44=37-5-8, 46=0-3-2

Max Horiz 44=309 (LC 9)
Max Uplift 24=270 (LC 17), 25=54 (LC 13), 26=31 (LC 13), 27=35 (LC 9), 28=41 (LC 8), 29=34 (LC 9), 30=34 (LC 8), 31=34 (LC 9), 32=43 (LC 8), 34=39 (LC 9), 35=22 (LC 9), 36=62 (LC 12), 37=53 (LC 12), 38=54 (LC 12), 39=54 (LC 12), 40=53 (LC 12), 41=59 (LC 12), 42=34 (LC 12), 43=222 (LC 12), 44=57 (LC 10), 46=250 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-44=-192/41, 1-2=-312/80, 2-3=-250/74, 3-4=-226/74, 4-5=-197/76, 5-6=-179/81, 6-7=-164/90, 7-9=-149/104, 9-10=-134/117, 10-11=-122/133, 11-12=-95/128, 12-13=-85/125, 13-14=-85/125, 14-15=-85/125, 15-16=-85/125, 16-17=-85/125, 17-18=-85/125, 18-19=-85/125, 19-20=-85/125, 20-21=-92/126, 21-22=-105/117, 22-23=-112/96, 24-45=-186/257, 23-45=-186/257
BOT CHORD 43-44=-81/61, 42-43=-81/61, 41-42=-81/61, 40-41=-81/61, 39-40=-81/61, 38-39=-81/61, 37-38=-81/61, 36-37=-81/61, 35-36=-81/61, 34-35=-81/61, 32-34=-81/61, 31-32=-81/61, 30-31=-81/61, 29-30=-81/61, 28-29=-81/61, 27-28=-81/61, 26-27=-81/61, 25-26=-81/61, 24-25=-81/61

WEBS 2-43=-122/149, 3-42=-144/71, 4-41=-139/80, 5-40=-162/78, 6-39=-177/78, 7-38=-174/78, 9-37=-175/77, 10-36=-177/86, 11-35=-164/46, 13-34=-161/63, 14-32=-177/67, 15-31=-175/58, 16-30=-175/58, 17-29=-175/58, 18-28=-177/65, 19-27=-165/60, 21-26=-161/51, 22-25=-179/99, 23-46=-350/269

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



February 8, 2024

Continued on page 2

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

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

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	D5	Piggyback Base Supported Gable	2	1	I63476775
					Job Reference (optional)

- 4) TCLK: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.
- 12) All bearings are assumed to be SPF No.2 .
- 13) Bearing at joint(s) 46 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 44, 270 lb uplift at joint 24, 222 lb uplift at joint 43, 34 lb uplift at joint 42, 59 lb uplift at joint 41, 53 lb uplift at joint 40, 54 lb uplift at joint 39, 54 lb uplift at joint 38, 53 lb uplift at joint 37, 62 lb uplift at joint 36, 22 lb uplift at joint 35, 39 lb uplift at joint 34, 43 lb uplift at joint 32, 34 lb uplift at joint 31, 34 lb uplift at joint 30, 34 lb uplift at joint 29, 41 lb uplift at joint 28, 35 lb uplift at joint 27, 31 lb uplift at joint 26, 54 lb uplift at joint 25 and 250 lb uplift at joint 46.
- 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

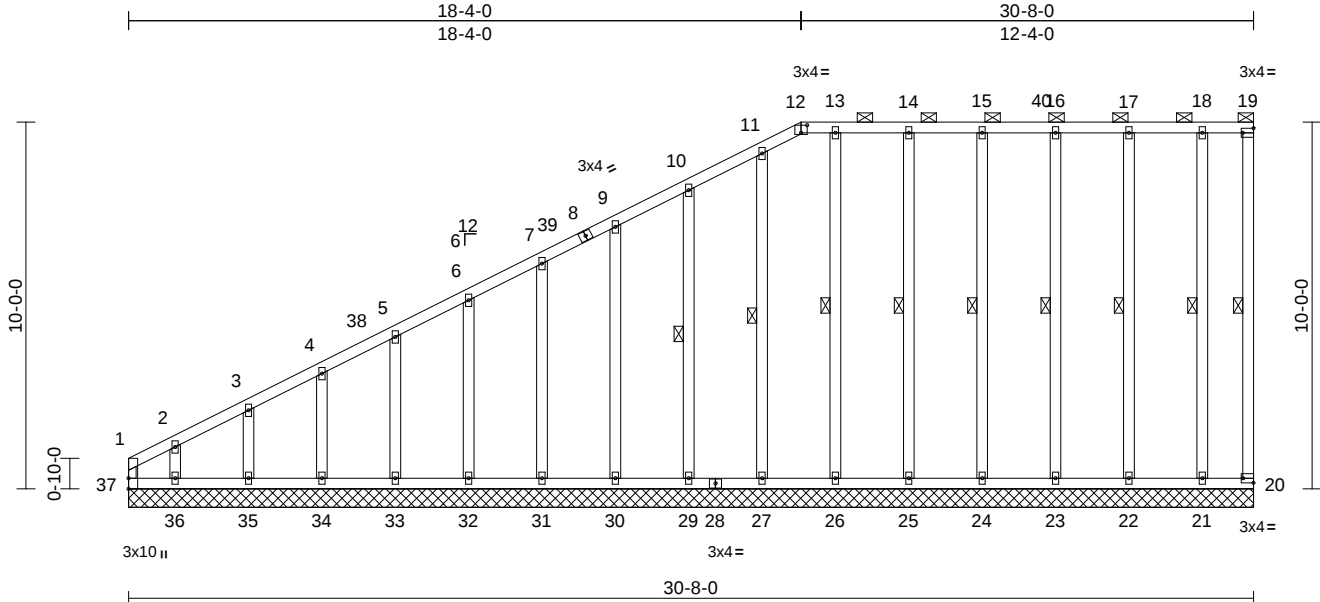
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476776
230872	E1	Piggyback Base Supported Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:26
ID:bgPLSD25gpPVko0bAytDnYgcm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:62.8									
Plate Offsets (X, Y): [12:0-2-0,0-2-8], [19:Edge,0-1-8], [20:Edge,0-1-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	PLATES
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	-	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	GRIP
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	-0.01	20	197/144
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R					
BCDL	10.0								
Weight: 199 lb FT = 10%									

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 19-20:2x4 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, and 2-0-0 oc purlins (6-0-0 max.): 12-19.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 19-20, 10-29, 11-27, 13-26, 14-25, 15-24, 16-23, 17-22, 18-21

REACTIONS (size) 20=30-8-0, 21=30-8-0, 22=30-8-0, 23=30-8-0, 24=30-8-0, 25=30-8-0, 26=30-8-0, 27=30-8-0, 29=30-8-0, 30=30-8-0, 31=30-8-0, 32=30-8-0, 33=30-8-0, 34=30-8-0, 35=30-8-0, 36=30-8-0, 37=30-8-0
Max Horiz 37=402 (LC 11)
Max Uplift 20=-23 (LC 9), 21=-52 (LC 8), 22=-47 (LC 9), 23=-39 (LC 8), 24=-35 (LC 9), 25=-42 (LC 8), 26=-59 (LC 9), 27=-38 (LC 9), 29=-61 (LC 12), 30=-53 (LC 12), 31=-54 (LC 12), 32=-54 (LC 12), 33=-53 (LC 12), 34=-60 (LC 12), 35=-32 (LC 12), 36=-226 (LC 12), 37=-39 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-37=-235/29, 1-2=-381/63, 2-3=-316/63, 3-4=-293/63, 4-5=-264/66, 5-6=-237/70, 6-7=-222/70, 7-9=-207/81, 9-10=-192/94, 10-11=-181/110, 11-12=-148/108, 12-13=-137/104, 13-14=-137/104, 14-15=-137/104, 15-16=-137/104, 16-17=-137/104, 17-18=-137/104, 18-19=-137/104, 19-20=-108/100, 20-21=-139/105, 21-22=-139/105, 22-23=-139/105, 23-24=-139/105, 24-25=-139/105, 25-26=-139/105, 26-27=-139/105, 27-28=-139/105, 28-29=-139/105, 29-30=-139/105, 30-31=-139/105, 31-32=-139/105, 32-33=-139/105, 33-34=-139/105, 34-35=-139/105, 35-36=-139/105, 36-37=-139/105, 37-38=-139/105
BOT CHORD 1-37=-123/153, 3-35=-144/70, 4-34=-139/80, 5-33=-162/78, 6-32=-177/78, 7-31=-174/78, 9-30=-175/77, 10-29=-177/85, 11-27=-165/62, 13-26=-161/83, 14-25=-177/66, 15-24=-175/58, 16-23=-174/58, 17-22=-182/63, 18-21=-150/133
WEBS

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 2-0-0 oc.



February 8, 2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	E1	Piggyback Base Supported Gable	2	1	I63476776
Job Reference (optional)					

- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * 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.
- 13) All bearings are assumed to be SPF No.2 .
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 37, 23 lb uplift at joint 20, 226 lb uplift at joint 36, 32 lb uplift at joint 35, 60 lb uplift at joint 34, 53 lb uplift at joint 33, 54 lb uplift at joint 32, 54 lb uplift at joint 31, 53 lb uplift at joint 30, 61 lb uplift at joint 29, 38 lb uplift at joint 27, 59 lb uplift at joint 26, 42 lb uplift at joint 25, 35 lb uplift at joint 24, 39 lb uplift at joint 23, 47 lb uplift at joint 22 and 52 lb uplift at joint 21.
- 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

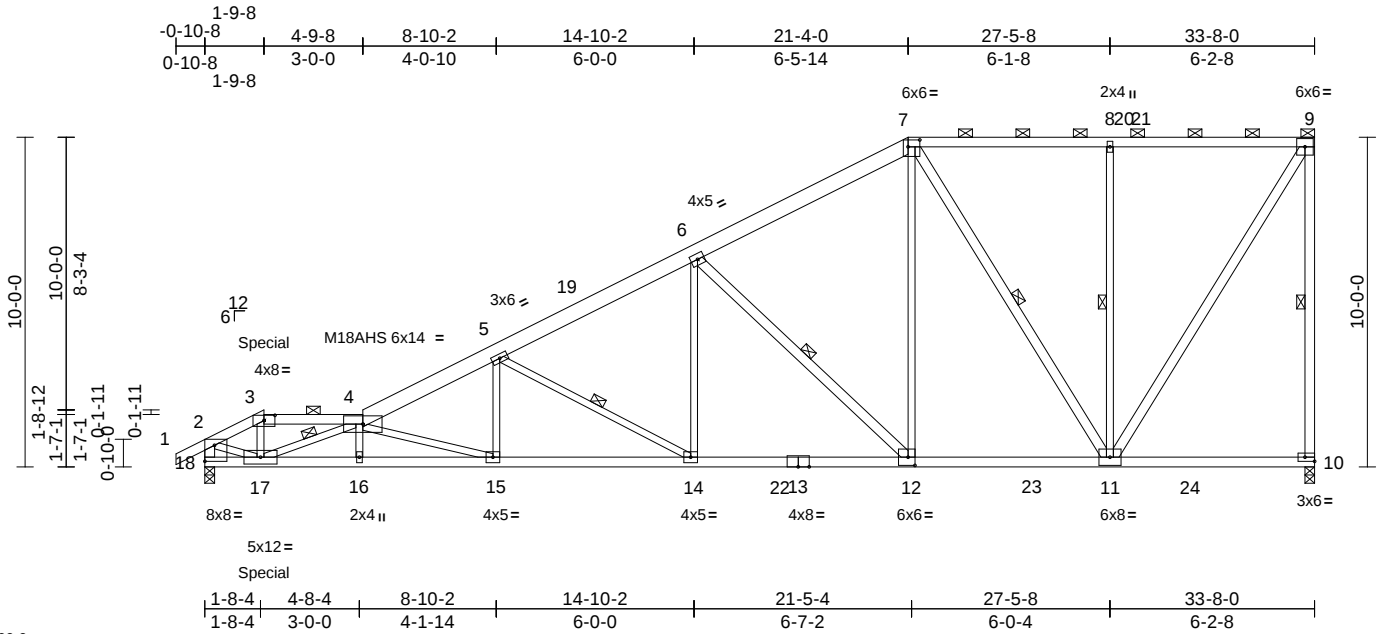
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476777
230872	E2	Piggyback Base Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:26
ID:t0K?wd8U0zHW4t2x4wVhZGy6jcfRfC?PsB70Hq3NSgPqnl8w3u1TXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:69.9									
Plate Offsets (X, Y): [3:0-4-0,0-1-15], [7:0-4-4,0-2-8], [10:Edge,0-1-8], [12:0-2-8,0-3-0], [18:Edge,0-5-13]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.30 15-16	>999	360
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.47 14-15	>851	240
TCDL	10.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.12 10	n/a	n/a
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16 15-16	>999	240
BCDL	10.0								
									PLATES GRIP
									MT20 197/144
									M18AHS 142/136
									Weight: 176 lb FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-7:2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 13-10:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-10:2x4 SPF 2100F 1.8E, 12-6,11-7,11-9,18-2:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-7 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-11 max.): 3-4, 7-9.
BOT CHORD Rigid ceiling directly applied or 9-1-3 oc bracing.
WEBS 1 Row at midpt 9-10, 5-14, 6-12, 7-11, 8-11, 4-17

REACTIONS (size) 10=0-3-8, 18=0-3-8
Max Horiz 18=413 (LC 60)
Max Uplift 10=233 (LC 9), 18=237 (LC 12)
Max Grav 10=1901 (LC 3), 18=1911 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-2377/274, 3-4=-2075/257, 4-5=-4150/450, 5-6=-2884/334, 6-7=-1798/252, 7-8=-1005/181, 8-9=-1004/181, 9-10=-1736/252, 2-18=-1894/244
BOT CHORD 17-18=-385/209, 16-17=-748/5431, 15-16=-752/5428, 14-15=-506/3684, 12-14=-297/2504, 11-12=-246/1535, 10-11=-137/103
WEBS 3-17=-94/873, 4-15=-1877/258, 5-15=-24/886, 5-14=-1352/244, 6-14=-40/1017, 6-12=-1446/302, 7-12=-131/1359, 7-11=-1066/167, 8-11=-611/217, 9-11=-226/1873, 2-17=-234/2144, 4-17=-3665/383, 4-16=-42/105

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 10 and 237 lb uplift at joint 18.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 121 lb down and 69 lb up at 1-9-8 on top chord, and 11 lb down and 8 lb up at 1-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- 14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 3-4=-61, 4-7=-51, 7-9=-61, 10-18=-20
Concentrated Loads (lb)
Vert: 17=1 (F)



February 8, 2024

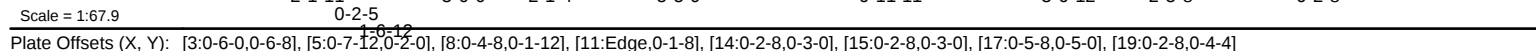
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:27 Page: 1
ID: aPSIKI9IYaYEJBCKCLXl2hy6jcd-RfC?PsB70Ha3NSaPanL8w3ulTXbGKWRCdoi7J4zJC?i



LUMBER		WEBS	3-20=0/81, 16-17=0/135, 6-17=-162/135, 4-19=-89/1369, 5-19=-2196/196, 5-17=-2561/370, 15-17=-283/2327, 7-17=-530/3217, 7-15=-226/140, 7-14=-1436/303, 8-14=-121/1324, 8-12=-1058/169, 9-12=-621/217, 10-12=-224/1871, 5-18=-386/97	12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
TOP CHORD	2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E, 5-8:2x4 SPF 2100F 1.8E			
BOT CHORD	2x4 SPF No.2 *Except* 3-17:2x6 SP 2400F 2.0E			LOAD CASE(S) Standard
WEBS	2x3 SPF No.2 *Except* 10-11:2x4 SPF 2100F 1.8E, 20-3-6-16,17-7,14-7,12-8,12-10:2x4 SPF No.2	NOTES		

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; and vertical left and right exposed; Lum DOL=1.60 plate grp DOL=1.60
- 2) TC LL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.0, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with any other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- 9) All bearings are assumed to be SPF No 2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 232 lb uplift at joint 11 and 230 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

LOAD CASE(S) Standard



February 8, 2024



WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 3/2/2023 BEFORE USE.
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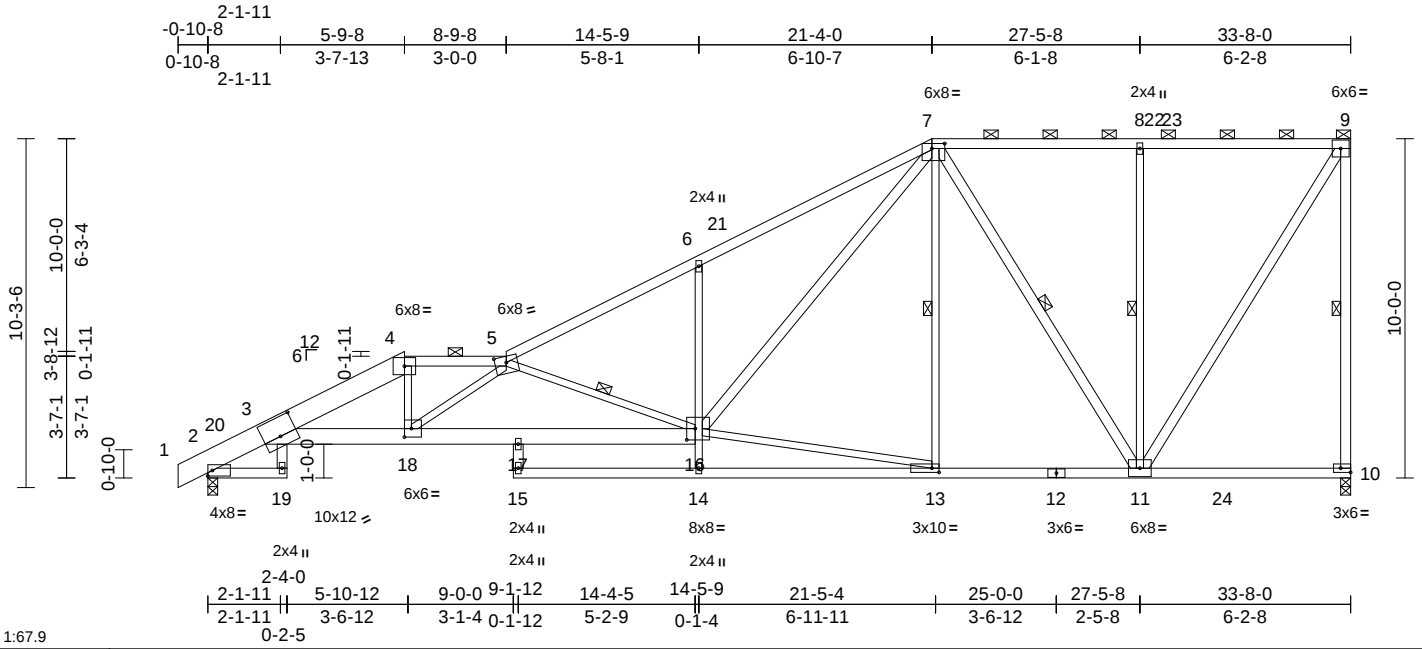
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476779
230872	E4	Piggyback Base	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:28

Page: 1

ID:lb07YeANJug4xLnWm22_buy6jcc-RfC?PsB70Hq3NSgPqnL8w3uITxbGKwRCDoi7J4zJC?f



Scale = 1:67.9

Plate Offsets (X, Y): [3:0-6-0,0-6-8], [5:0-4-0,0-2-3], [7:0-4-8,0-1-12], [10:Edge,0-1-8], [13:0-2-8,0-1-8], [16:0-3-0,0-4-0], [18:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.36	14-15	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.56	14-15	>721	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.26	10	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	14-15	>999	240		
BCDL	10.0											
											Weight: 202 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E, 5-7:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 3-16:2x6 SP 2400F 2.0E
WEBS	2x3 SPF No.2 *Except* 9-10:2x4 SPF 2100F 1.8E, 19-3,17-15,11-7,11-9,16-7:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-13 max.): 4-5, 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-19.
WEBS	1 Row at midpt 9-10, 5-16, 7-13, 7-11, 8-11

REACTIONS

(size)	2-0-3-8, 10-0-3-8
Max Horiz	2=406 (LC 11)
Max Uplift	2=-228 (LC 12), 10=-231 (LC 9)
Max Grav	2=1986 (LC 48), 10=1910 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/8, 2-3=-1285/55, 3-4=-4479/511, 4-5=-4209/531, 5-6=-3511/408, 6-7=-3564/579, 7-8=-1008/181, 8-9=-1008/181, 9-10=-1743/249
BOT CHORD	2-19=-40/0, 3-18=-596/4144, 17-18=-743/5200, 16-17=-743/5200, 14-15=0/0, 13-14=0/63, 11-13=-243/1542, 10-11=-137/103
WEBS	3-19=0/81, 15-17=0/117, 4-18=-38/1260, 5-18=-1267/185, 5-16=-2280/407, 14-16=0/415, 6-16=-627/287, 13-16=-251/1495, 7-13=-45/264, 7-11=-1064/170, 8-11=-620/217, 9-11=-223/1881, 7-16=-465/2563

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 10 and 228 lb uplift at joint 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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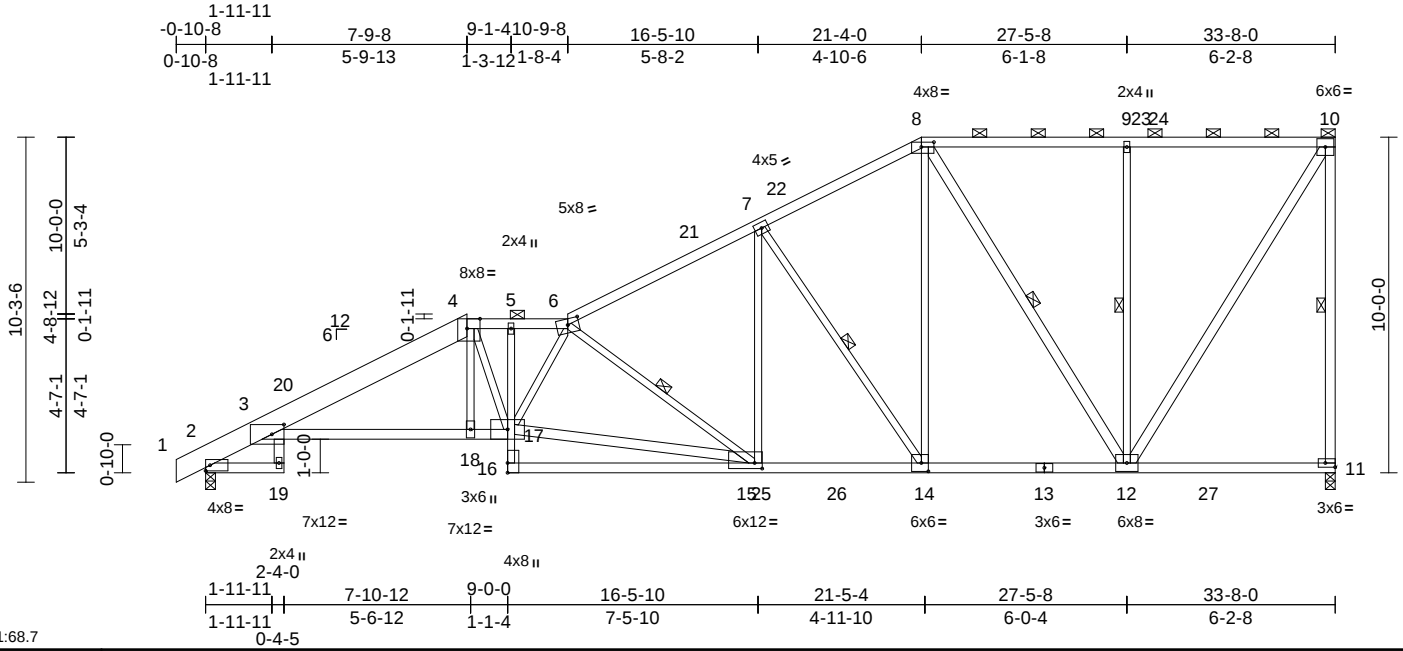
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	E5	Piggyback Base	2	1	Job Reference (optional)	163476780

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:28

Page: 1

ID: E_7uzKBdrVwoBewwIT4SgJy6jca-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:68.7

Plate Offsets (X, Y): [3:0-4-5,0-3-8], [4:0-4-10,Edge], [6:0-4-0,0-2-3], [8:0-4-8,0-1-12], [11:Edge,0-1-8], [14:0-2-8,0-3-0], [15:0-2-11,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.37	15-16	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.60	15-16	>670	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.29	11	n/a	n/a		
BCLL	10.0 *	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.18	16	>999	240		
BCDL	10.0										Weight: 190 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 3-17:2x4 SPF 2100F 1.8E, 5-16:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-11:2x4 SPF 2100F 1.8E, 19-3,15-17,12-8,12-10:2x4 SPF No.2

WEBS
3-19=0/81, 4-18=0/559, 4-17=-83/342, 15-17=-508/3299, 6-17=-218/48, 6-15=-1816/360, 7-15=-72/1032, 7-14=-1269/276, 8-14=-165/1354, 8-12=-1015/167, 9-12=-624/220, 10-12=-223/1877

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-1 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-5 max.): 4-6, 8-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-19.
WEBS 1 Row at midpt 10-11, 6-15, 7-14, 8-12, 9-12

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=406 (LC 11)
Max Uplift 2=-228 (LC 12), 11=-231 (LC 9)
Max Grav 2=1959 (LC 48), 11=1901 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-1268/52, 3-4=-3758/442, 4-5=-3589/477, 5-6=-3577/476, 6-7=-2568/311, 7-8=-1756/266, 8-9=-1005/181, 9-10=-1005/181, 10-11=-1737/248
BOT CHORD 2-19=-40/0, 3-18=-503/3455, 17-18=-500/3469, 16-17=0/198, 5-17=-47/243, 15-16=-10/371, 14-15=-277/2183, 12-14=-243/1520, 11-12=-137/103

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 11 and 228 lb uplift at joint 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 8, 2024

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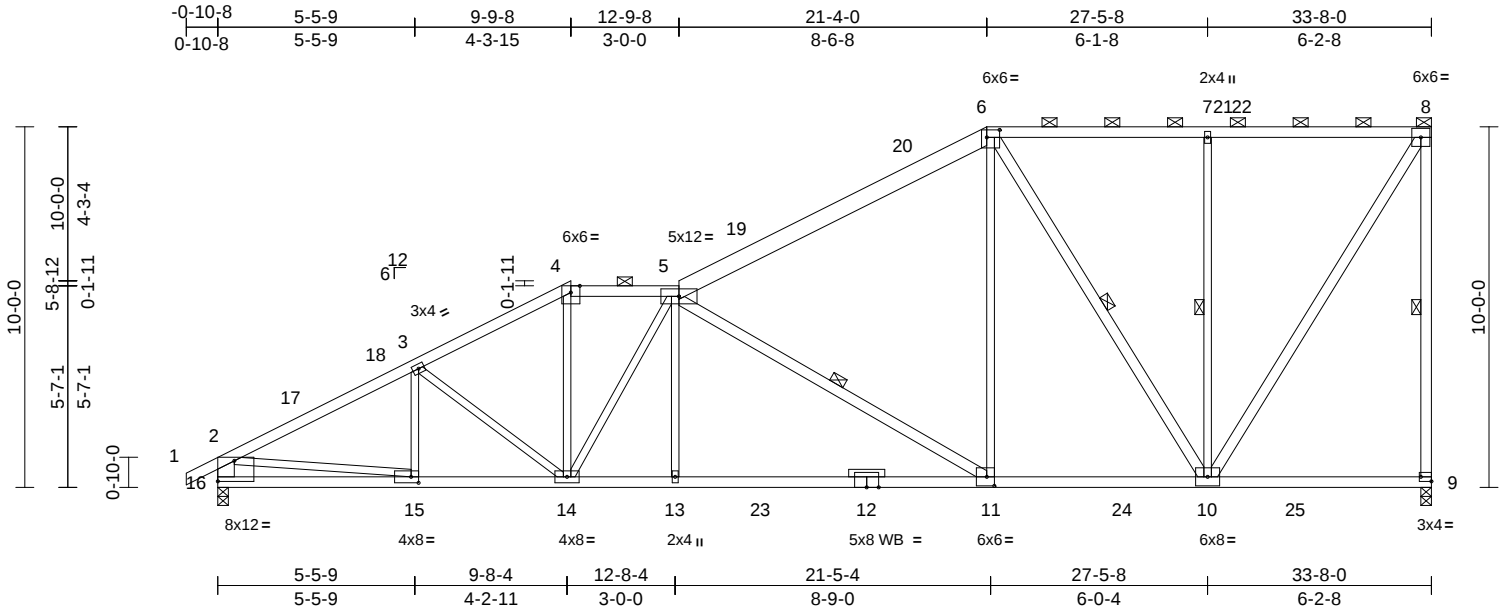
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	E6	Piggyback Base	2	1	Job Reference (optional)	I63476781

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:29

Page: 1

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Scale = 1:63.9

Plate Offsets (X, Y): [6:0-4-4,0-2-8], [9:Edge,0-1-8], [11:0-2-8,0-3-0], [15:0-2-8,0-2-0], [16:Edge,0-6-13]

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)	-0.32	11-13	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.51	11-13	>784	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.07	9	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	11-13	>999	240		
BCDL	10.0										Weight: 175 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 5-6:2x6 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 8-9:2x4 SPF 2100F 1.8E, 10-6,10-8,5-11:2x4 SPF No.2, 16-2:2x6 SPF No.2
OTHERS	2x3 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-11-9 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-13 max.): 4-5, 6-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 8-9, 6-10, 7-10, 5-11

REACTIONS

(size)	9=0-3-8, 16=0-3-8
Max Horiz	16=413 (LC 9)
Max Uplift	9=-231 (LC 9), 16=-237 (LC 12)
Max Grav	9=1892 (LC 3), 16=1942 (LC 48)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/43, 2-3=-2920/340, 3-4=-2680/353, 4-5=-2342/342, 5-6=-1821/227, 6-7=-996/181, 7-8=-994/181, 8-9=-1722/249, 2-16=-1798/264
BOT CHORD	15-16=-405/590, 14-15=-414/2526, 13-14=-344/2796, 11-13=-346/2788, 10-11=-242/1539, 9-10=-138/104
WEBS	3-14=-306/109, 4-14=-86/1001, 5-14=-904/36, 5-13=0/495, 6-11=-68/1220, 6-10=-1060/169, 7-10=-606/213, 8-10=-222/1855, 2-15=-136/2024, 5-11=-1504/315, 3-15=-123/112

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 9 and 237 lb uplift at joint 16.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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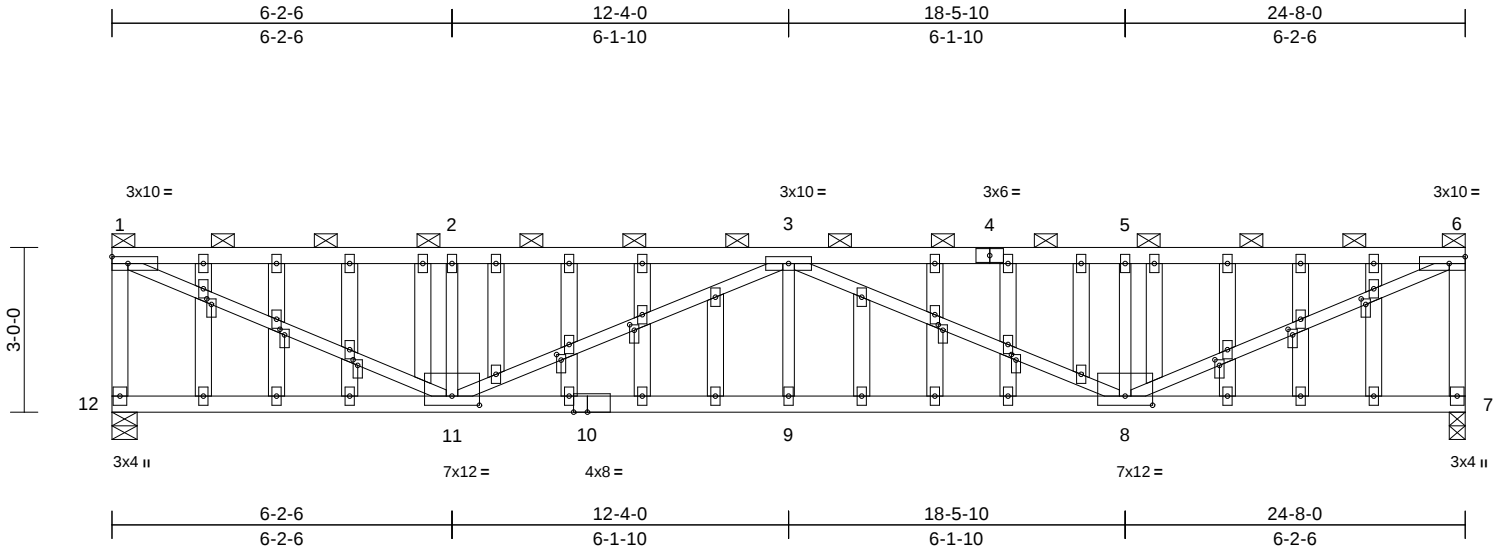
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476782
230872	G1	Flat	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:30

Page: 1

ID: S4f0E_H1fqNGlezcFKhqOwznrFY-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:42

[8:0-6-0,0-2-0], [10:0-3-0,Edge], [11:0-6-0,0-2-0], [15:0-1-3,0-1-0], [18:0-1-3,0-1-0], [25:0-1-4,0-1-0], [28:0-1-4,0-1-0], [31:0-1-4,0-1-0], [38:0-1-3,0-1-0], [41:0-1-3,0-1-0],
Plate Offsets (X, Y): [48:0-1-4,0-1-0], [51:0-1-4,0-1-0], [54:0-1-4,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.18	9-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.33	9-11	>886	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.05	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	9	>999	240		
BCDL	10.0											
											Weight: 129 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 12-1,6-7:2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	2-0-0 oc purlins (3-7-5 max.): 1-6, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-1-7 oc bracing.

REACTIONS

(size)	7=0-3-8, 12=0-5-8
Max Horiz	12=103 (LC 8)
Max Uplift	7=211 (LC 7), 12=211 (LC 6)
Max Grav	7=1127 (LC 3), 12=1127 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-12=-1036/239, 1-2=-1998/379, 2-3=-1998/379, 3-5=-1998/379, 5-6=-1998/379, 6-7=-1036/239
BOT CHORD	11-12=-84/90, 9-11=-525/2623, 8-9=-525/2623, 7-8=-33/54
WEBS	6-8=-401/2129, 2-11=-455/190, 1-11=-400/2129, 3-11=-684/140, 3-9=0/237, 3-8=-684/139, 5-8=-455/190

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 12 and 211 lb uplift at joint 7.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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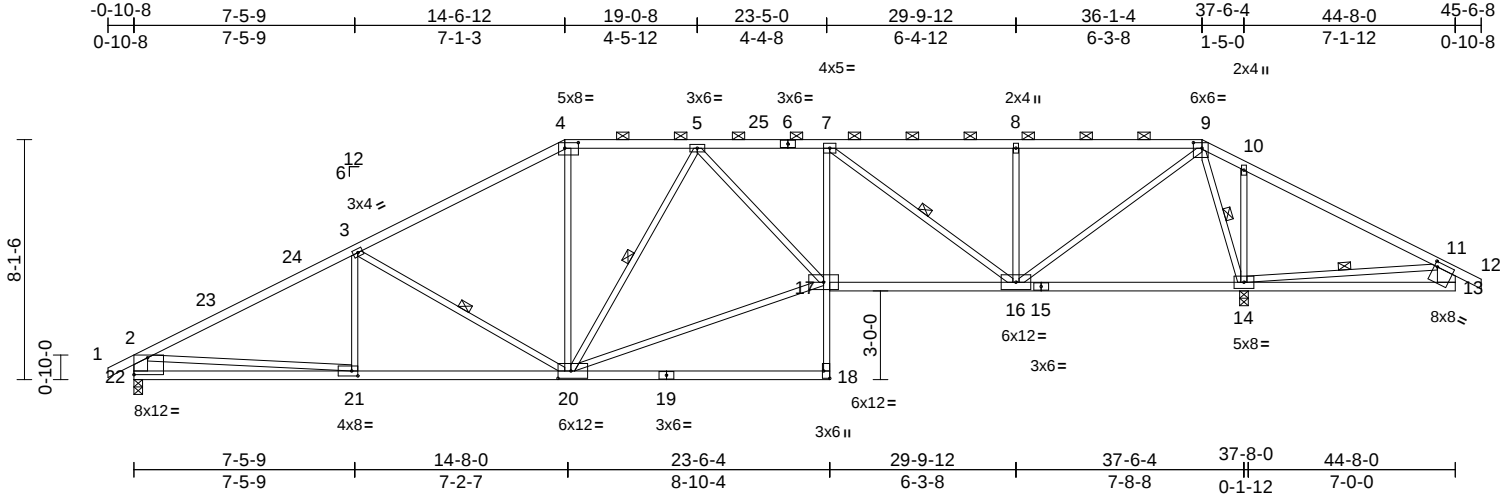
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	H1	Piggyback Base	1	1	Job Reference (optional)	163476783

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:30

Page: 1

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Scale = 1:77.9

Plate Offsets (X, Y): [4:0-5-8,0-2-4], [9:0-3-8,0-2-4], [13:0-1-4,0-2-0], [18:Edge,0-2-8], [20:0-5-4,0-3-0], [21:0-2-8,0-2-0], [22:Edge,0-6-13]

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	0.88	Vert(LL)	-0.34	18-20	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.65	18-20	>686	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.14	14	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.16	18	>999	240		
BCDL	10.0										Weight: 185 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except* 18-7:2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 22-2:2x6 SPF No.2,
 13-11:2x8 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 4-9.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 3-20, 5-20, 11-14, 9-14, 7-16

REACTIONS (size) 14=0-3-8, (req. 0-3-15), 22=0-3-8
 Max Horiz 22=184 (LC 12)
 Max Uplift 14=318 (LC 9), 22=197 (LC 12)
 Max Grav 14=2496 (LC 3), 22=1749 (LC 54)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/35, 2-3=-2748/275, 3-4=-2234/285,
 4-5=-1920/280, 5-7=-3026/478,
 7-8=-2130/332, 8-9=-2130/332,
 9-10=-577/701, 10-11=-145/908, 11-12=0/46,
 2-22=-1647/238, 11-13=-30/114
 BOT CHORD 21-22=-326/640, 20-21=-331/2372,
 18-20=0/39, 17-18=0/153, 7-17=0/508,
 16-17=-424/3040, 14-16=-336/342,
 13-14=-137/349
 WEBS 3-21=-23/176, 3-20=-709/236, 4-20=-17/660,
 5-20=-1254/250, 17-20=-367/2488,
 5-17=-121/971, 9-16=-344/2400,
 2-21=-78/1760, 11-14=-1045/333,
 9-14=-1905/338, 10-14=-572/242,
 8-16=-610/202, 7-16=-1245/184

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 22 and 318 lb uplift at joint 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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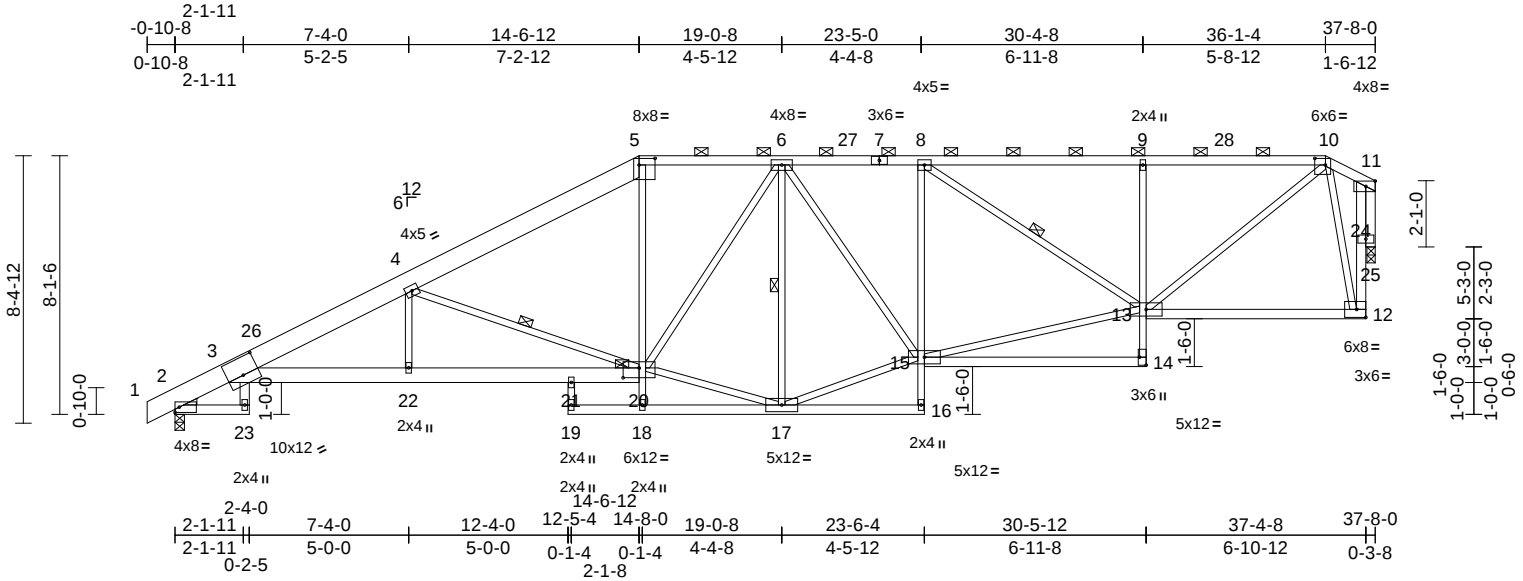
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	H2	Piggyback Base	2	1	Job Reference (optional)	163476784

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed Feb 07 11:13:10
ID:EAYcGuaerqU1ZpX6OFgU6Zy6jdN-HBeWYBeNB6dGpomuf9DLa_wVLXm62hq4rxKWbznYNO

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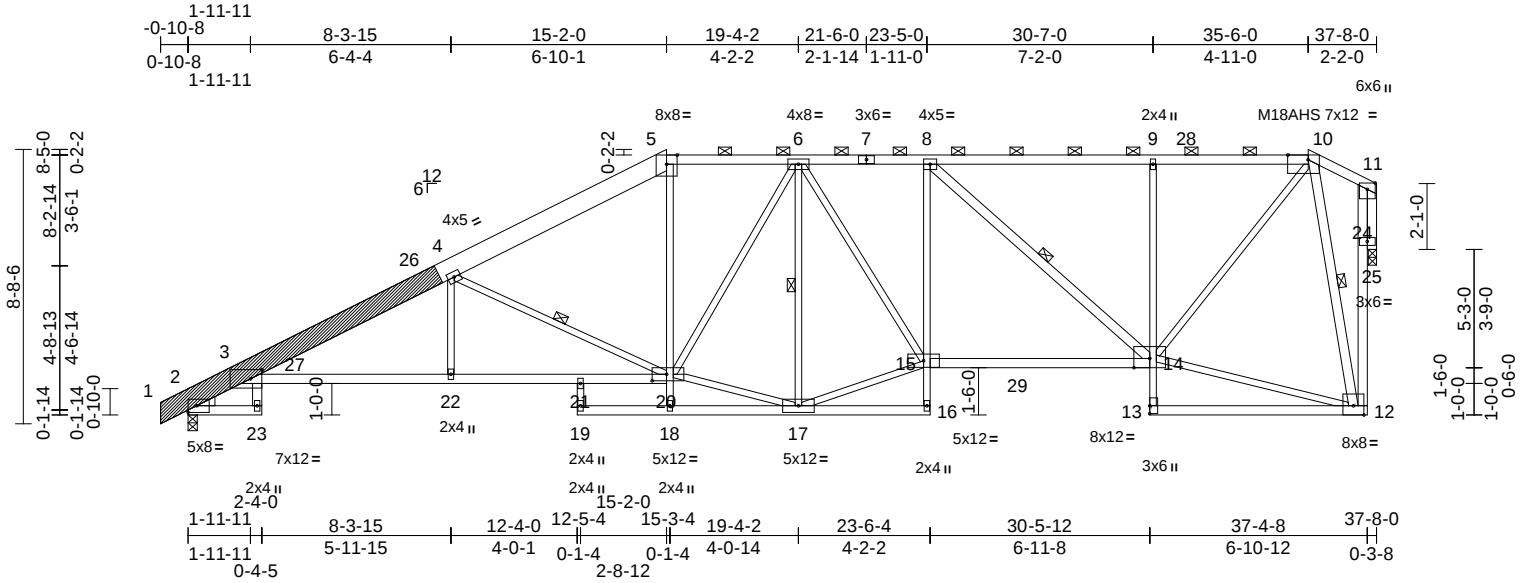


Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476785
230872	H3	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:32
ID:elEkuwW8lttQGfH3ODBjCy6jdK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:73

Plate Offsets (X, Y): [3:0-4-5,0-3-8], [10:0-7-12,Edge], [20:0-5-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.36	14-15	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.57	14-15	>785	240	M18AHS	142/136
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.35	25	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	20	>999	240		
BCDL	10.0											
											Weight: 255 lb	FT = 10%

LUMBER		
TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x8 SP 2400F 2.0E	
BOT CHORD	2x4 SPF No.2 *Except* 3-20,15-14:2x4 SPF 2100F 1.8E, 16-8,9-13:2x3 SPF No.2	
WEBS	2x3 SPF No.2 *Except* 23-3,14-8,12-10,12-11:2x4 SPF No.2	
OTHERS	2x4 SPF No.2	
LBR SCAB	1-4 SP 2400F 2.0E one side	
WEDGE	Left: 2x4 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-0-12 max.): 5-10.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt 4-20, 8-14, 10-12, 6-17	
REACTIONS		
(size)	2=0-3-8, 25=0-3-2, (req. 0-3-3)	
Max Horiz	2=281 (LC 9)	
Max Uplift	2=-188 (LC 12), 25=-247 (LC 9)	
Max Grav	2=2140 (LC 3), 25=2044 (LC 42)	
FORCES		
(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/6, 2-3=-1265/22, 3-4=-4250/353, 4-5=-3131/330, 5-6=-2705/317, 6-8=-2901/373, 8-9=-1931/248, 9-10=-1927/252, 10-11=-212/85, 12-24=-300/2009, 11-24=-301/2003	
BOT CHORD	2-23=-35/0, 3-22=-514/3909, 21-22=-512/3909, 20-21=-512/3909, 18-19=0/0, 17-18=0/44, 16-17=-39/23, 15-16=0/105, 8-15=0/645, 14-15=-455/2914, 13-14=0/185, 9-14=-643/204, 12-13=-7/13	

WEBS	
3-23=0/72, 19-21=0/35, 4-20=-1441/312, 18-20=0/273, 5-20=-44/1061, 6-15=-150/879, 8-14=-1359/170, 12-14=-135/526, 10-14=-326/2347, 10-12=-1988/367, 4-22=0/426, 6-17=-1273/270, 15-17=-375/2622, 17-20=-387/2473, 6-20=-116/638, 11-25=-2064/247	

NOTES

- Attached 10-0-0 scab 1 to 4, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-3-13 from end at joint 1, nail 2 row(s) at 7" o.c. for 3-9-2.
- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- WARNING: Required bearing size at joint(s) 25 greater than input bearing size.

- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 25 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 188 lb uplift at joint 2 and 247 lb uplift at joint 25.
- 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.

LOAD CASE(S) Standard



February 8, 2024

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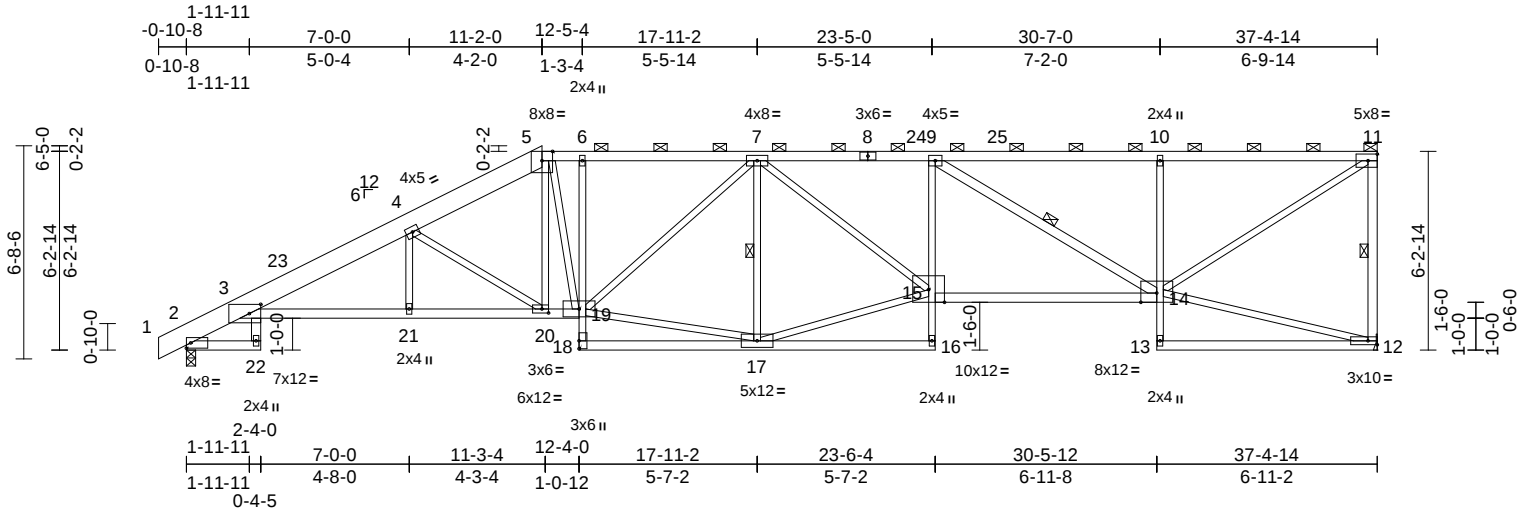
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	H4	Half Hip	1	1	Job Reference (optional)	I63476786

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:33

Page: 1

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Scale = 1:72.4

Plate Offsets (X, Y): [3:0-4-5,0-3-8], [20:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.33	14-15	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.60	14-15	>739	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.38	12	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.23	16	>999	240		
BCDL	10.0										Weight: 196 lb	FT = 10%

LUMBER		
TOP CHORD	2x4 SPF No.2 *Except* 1-5:2x8 SP 2400F 2.0E	
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-22,18-16:2x4 SPF No.2, 6-18,16-9,10-13:2x3 SPF No.2	
WEBS	2x3 SPF No.2 *Except* 11-12,22-3,14-9:2x4 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-11.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt 11-12, 7-17, 9-14	
REACTIONS (size) 2=0-3-8, 12= Mechanical		
	Max Horiz 2=249 (LC 11)	
	Max Uplift 2=-157 (LC 12), 12=-305 (LC 9)	
	Max Grav 2=1797 (LC 3), 12=1843 (LC 35)	
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=0/8, 2-3=-1085/93, 3-4=-3808/469, 4-5=-3102/455, 5-6=-2843/450, 6-7=-2841/451, 7-9=-3654/595, 9-10=-2326/372, 10-11=-2313/373, 11-12=-1770/353	
BOT CHORD	2-22=-29/0, 3-21=-631/3539, 20-21=-629/3538, 19-20=-513/2705, 18-19=0/99, 6-19=-370/130, 17-18=-27/231, 16-17=-19/48, 15-16=0/94, 9-15=0/484, 14-15=-697/3676, 13-14=0/133, 10-14=-659/226, 12-13=-5/17	

WEBS	
3-22=0/60, 7-19=-82/323, 7-17=-1175/324, 15-17=-522/2880, 7-15=-223/1096, 9-14=-1588/270, 12-14=-89/68, 11-14=-499/2748, 5-19=-194/756, 17-19=-500/2605, 4-21=0/180, 4-20=-1059/229, 5-20=-84/794	

- 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with any other live loads.
 - 6) Provide adequate drainage to prevent water ponding.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) All bearings are assumed to be SPF No.2 .
 - 10) Refer to girder(s) for truss to truss connections.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 12 and 157 lb uplift at joint 2.
 - 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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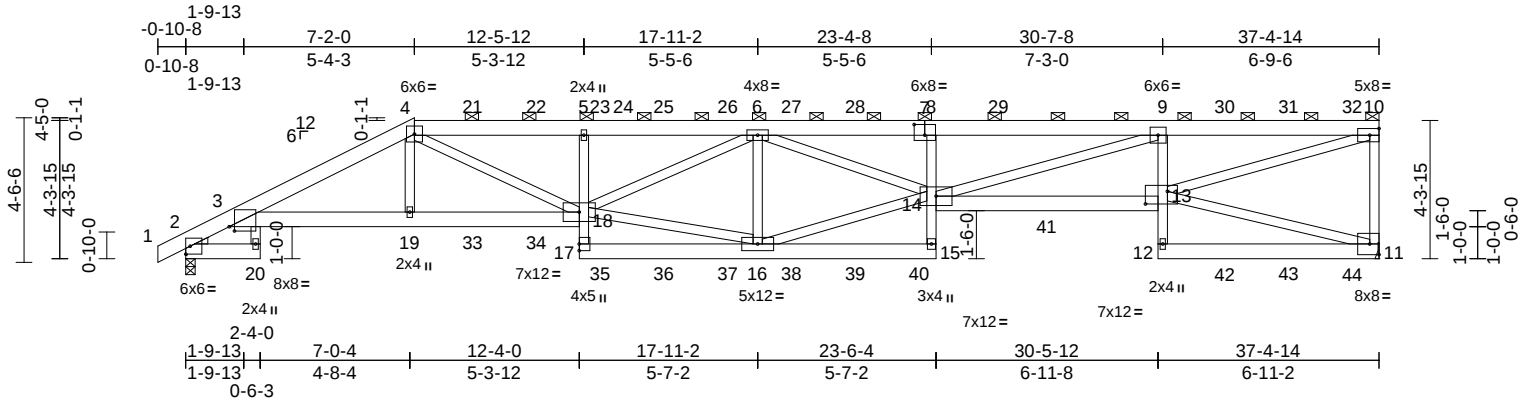
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	H5	Half Hip Girder	1	2	Job Reference (optional)	I63476787

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Wed Feb 07 11:13:38

Page: 1

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Scale = 1:72.2															
Plate Offsets (X, Y): [3:0-2:0,0-1-10], [7:0-4:0,0-4-0], [13:0-8:4,0-4-12]															
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		0.54	Vert(LL)	-0.34	15	>999	360	MT20	197/144
Snow (Pf/Pg)		20.4/20.0	Lumber DOL		1.15	BC		0.85	Vert(CT)	-0.60	15	>741	240		
TCDL		10.0	Rep Stress Incr		NO	WB		0.69	Horz(CT)	0.32	11	n/a	n/a		
BCLL		10.0*	Code		IRC2018/TPI2014	Matrix-S			Wind(LL)	0.43	15	>999	240		
BCDL		10.0												Weight: 444 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 1-4:2x6 SP 2400F 2.0E
BOT CHORD 2x6 SPF No.2 *Except* 5-17,15-8,9-12:2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-13 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-20
9-11-10 oc bracing: 13-14.

REACTIONS (lb/size) 2=1863/0-3-8, 11=1759/
Mechanical
Max Horiz 2=162 (LC 9)
Max Uplift 2=-839 (LC 9), 11=-930 (LC 9)
Max Grav 2=2436 (LC 29), 11=2380 (LC 43)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-1595/553, 3-4=-5727/2341, 4-21=-6902/2871, 21-22=-6903/2872, 5-22=-6905/2872, 5-23=-6823/2836, 23-24=-6823/2836, 24-25=-6823/2836, 25-26=-6823/2836, 6-26=-6823/2836, 6-27=-8295/3362, 27-28=-8295/3362, 7-28=-8295/3362, 7-8=-8295/3362, 8-29=-8437/3411, 9-29=-8437/3411, 9-30=-6007/2401, 30-31=-6007/2401, 31-32=-6007/2401, 10-32=-6007/2401, 10-11=-2181/937

BOT CHORD 2-20=-157/45, 3-19=-2244/5129, 19-33=-2234/5091, 33-34=-2234/5091, 18-34=-2234/5091, 17-18=-25/180, 5-18=-482/335, 17-35=-311/733, 35-36=-311/733, 36-37=-311/733, 16-37=-311/733, 16-38=-148/370, 38-39=-148/370, 39-40=-148/370, 15-40=-148/370, 14-15=-23/171, 8-14=-392/212, 14-41=-2531/6212, 13-41=-2534/6221, 12-13=0/155, 9-13=-1298/638, 12-42=-44/159, 42-43=-44/159, 43-44=-44/159, 11-44=-44/159
WEBS 3-20=-68/237, 4-19=-207/770, 4-18=-866/2104, 16-18=-2097/5071, 6-18=-596/1219, 6-16=-2201/1060, 14-16=-2308/5555, 6-14=-1148/2783, 9-14=-994/2480, 11-13=-149/67, 10-13=-2533/6234

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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) Unbalanced roof live loads have been considered for this design.

- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 8) Provide adequate drainage to prevent water ponding.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 8, 2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	H5	Half Hip Girder	1	2	I63476787
Job Reference (optional)					

- 10) * 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.
- 11) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 12) Refer to girder(s) for truss to truss connections.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 930 lb uplift at joint 11 and 839 lb uplift at joint 2.
- 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.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 124 lb down and 121 lb up at 7-2-0, 142 lb down and 121 lb up at 9-0-0, 142 lb down and 121 lb up at 11-0-0, 84 lb down and 66 lb up at 13-0-0, 84 lb down and 66 lb up at 15-0-0, 84 lb down and 66 lb up at 17-0-0, 84 lb down and 66 lb up at 19-0-0, 84 lb down and 66 lb up at 21-0-0, 84 lb down and 66 lb up at 23-0-0, 84 lb down and 66 lb up at 30-7-0, 84 lb down and 66 lb up at 32-7-0, and 84 lb down and 66 lb up at 34-7-0, and 84 lb down and 64 lb up at 36-7-0 on top chord, and 277 lb down and 170 lb up at 7-2-0, at 9-0-0, at 11-0-0, 27 lb down and 18 lb up at 13-0-0, 27 lb down and 18 lb up at 15-0-0, 27 lb down and 18 lb up at 17-0-0, 27 lb down and 18 lb up at 19-0-0, 27 lb down and 18 lb up at 21-0-0, 27 lb down and 18 lb up at 23-0-0, 128 lb down and 140 lb up at 27-0-0, 27 lb down and 18 lb up at 30-7-8, 27 lb down and 18 lb up at 32-7-0, and 27 lb down and 18 lb up at 34-7-0, and 33 lb down and 16 lb up at 36-7-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (lb/ft)
- Vert: 1-4=-51, 4-10=-61, 2-20=-20, 3-18=-20, 15-17=-20, 13-14=-20, 11-12=-20
- Concentrated Loads (lb)
- Vert: 4=-34 (B), 7=-6 (B), 9=-6 (B), 19=-242 (B), 13=-10 (B), 21=-30 (B), 22=-30 (B), 23=-6 (B), 25=-6 (B), 26=-6 (B), 27=-6 (B), 28=-6 (B), 30=-6 (B), 31=-6 (B), 32=-13 (B), 35=-10 (B), 36=-10 (B), 37=-10 (B), 38=-10 (B), 39=-10 (B), 40=-10 (B), 41=-112 (B), 42=-10 (B), 43=-10 (B), 44=-14 (B)

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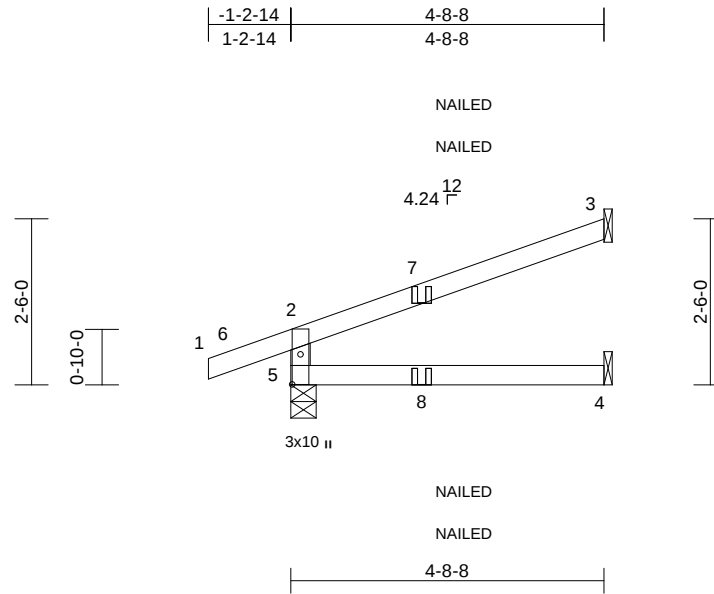
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J1	Diagonal Hip Girder	6	1		I63476788
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:34.6

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

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	0.36	Vert(LL)	-0.02	4-5	>999	360	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.05	4-5	>999	240	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	3	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	
BCDL	10.0										
										Weight: 13 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-9
Max Horiz 5=82 (LC 8)
Max Uplift 3=-68 (LC 12), 5=-92 (LC 8)
Max Grav 3=147 (LC 19), 4=84 (LC 7), 5=322 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-286/122, 1-2=0/32, 2-3=-82/38
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 5 and 68 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 8=2 (F=1, B=1)



February 8, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J2	Jack-Open	12	1	Job Reference (optional)	I63476789

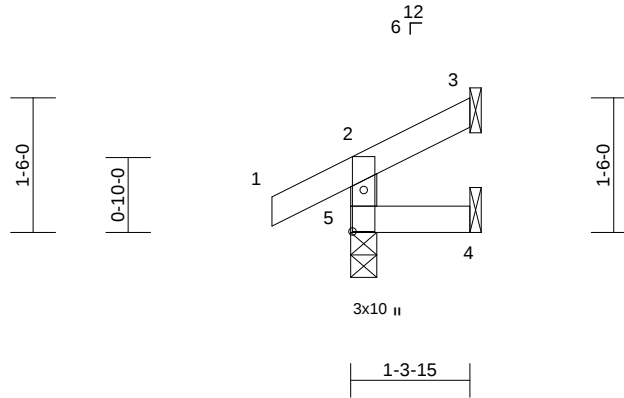
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-0-10-8	1-3-15
0-10-8	1-3-15



Scale = 1:25.6

Plate Offsets (X, Y): [5:0-5-9,0-1-8]

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 5 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=37 (LC 9)
Max Uplift 3=-20 (LC 12), 4=-1 (LC 9), 5=-22 (LC 12)
Max Grav 3=17 (LC 2), 4=20 (LC 7), 5=155 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-136/37, 1-2=0/32, 2-3=-29/5
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SPF No.2 .
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 5, 1 lb uplift at joint 4 and 20 lb uplift at joint 3.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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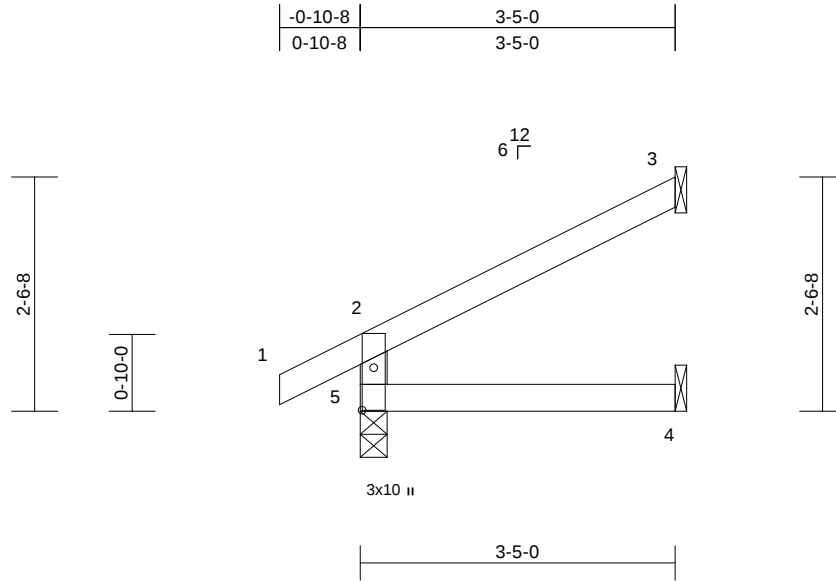
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476790
230872	J3	Jack-Open	15	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:25

Plate Offsets (X, Y): [5:0-5-9,0-1-8]

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	0.15	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240		
BCDL	10.0										Weight: 10 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 3-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=75 (LC 12)
Max Uplift 3=-58 (LC 12), 5=-24 (LC 12)
Max Grav 3=107 (LC 19), 4=60 (LC 7), 5=248 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-220/58, 1-2=0/35, 2-3=-63/37
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 5 and 58 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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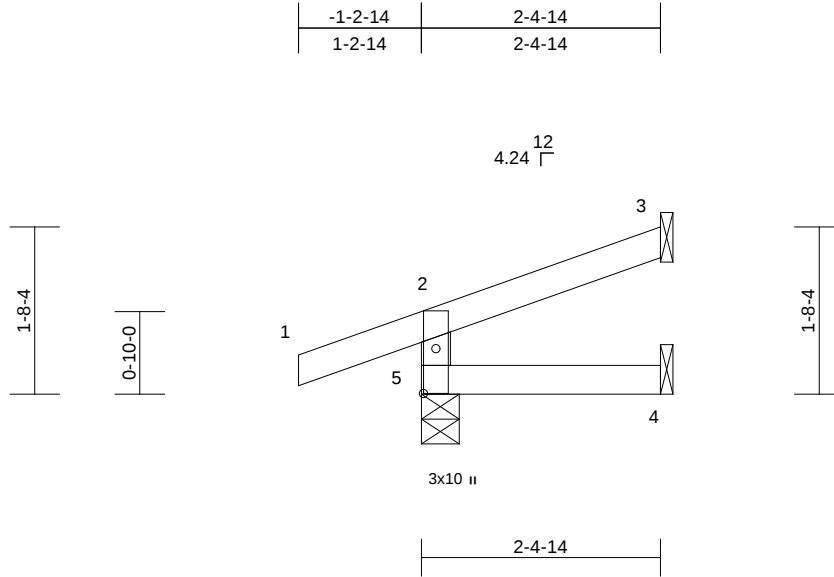
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J4	Diagonal Hip Girder	2	1		I63476791
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:37

Page: 1

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Scale = 1:23.2

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

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	0.15	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 8 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-9
Max Horiz 5=49 (LC 8)
Max Uplift 3=-31 (LC 12), 5=-79 (LC 8)
Max Grav 3=54 (LC 19), 4=39 (LC 7), 5=230 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-202/96, 1-2=0/33, 2-3=-34/13
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 5 and 31 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J5	Jack-Open	2	1	Job Reference (optional)	I63476792

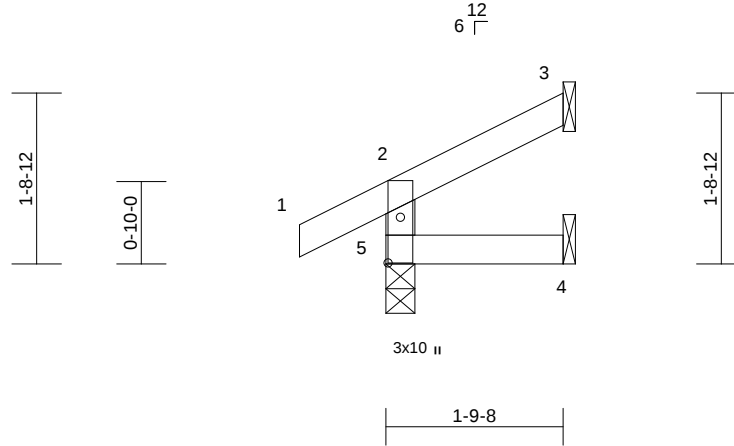
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:38

Page: 1

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-0-10-8	1-9-8
0-10-8	1-9-8



Scale = 1:23.3

Plate Offsets (X, Y): [5:0-5-9,0-1-8]

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 6 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=43 (LC 9)
Max Uplift 3=-30 (LC 12), 5=-22 (LC 12)
Max Grav 3=40 (LC 19), 4=29 (LC 7), 5=171 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-151/40, 1-2=0/33, 2-3=-35/13
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 5 and 30 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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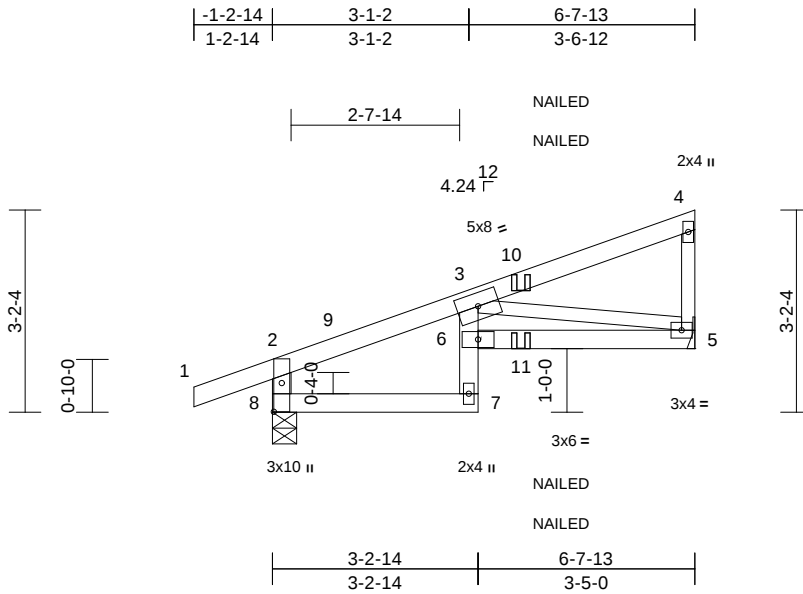
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J6	Diagonal Hip Girder	1	1	Job Reference (optional)	I63476793

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:36.3

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

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	0.33	Vert(LL)	-0.04	5-6	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.07	5-6	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.03	5	n/a	n/a		
BCLL	10.0 *	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	5-6	>999	240		
BCDL	10.0										Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-3:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 8-2:2x4 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) 5= Mechanical, 8=0-4-9
Max Horiz 8=118 (LC 9)
Max Uplift 5=-87 (LC 12), 8=-121 (LC 8)
Max Grav 5=335 (LC 5), 8=414 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-372/139, 1-2=0/32, 2-3=-379/70, 3-4=-99/20, 4-5=-121/47
BOT CHORD 7-8=-91/284, 6-7=0/52, 3-6=0/145, 5-6=-251/842

WEBS 3-5=-825/265

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 8 and 87 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-4=-51, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-3 (F=-1, B=-1), 11=-48 (F=-24, B=-24)



February 8, 2024

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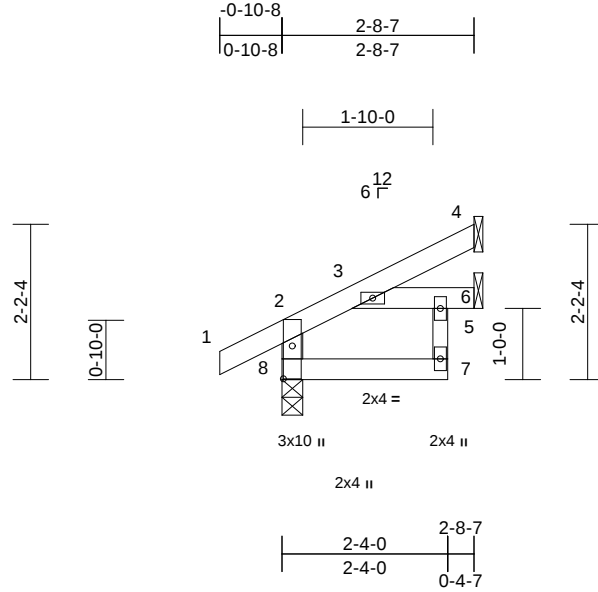
16023 Swingley Ridge Rd.
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J7	Jack-Open	2	1	Job Reference (optional)	I63476794

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:32.4

Plate Offsets (X, Y): [8:0-5-9,0-1-8]

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	0.08	Vert(LL)	0.00	3-6	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	3-6	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	3	>999	240		
BCDL	10.0										Weight: 10 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=60 (LC 12)
Max Uplift 4=-31 (LC 12), 5=-2 (LC 12), 8=-17 (LC 12)
Max Grav 4=65 (LC 19), 5=77 (LC 26), 8=221 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-201/38, 1-2=0/34, 2-3=-74/0, 3-4=-25/24
BOT CHORD 7-8=-16/26, 6-7=0/42, 3-6=-26/16, 5-6=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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SPF No.2 .
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 8, 31 lb uplift at joint 4 and 2 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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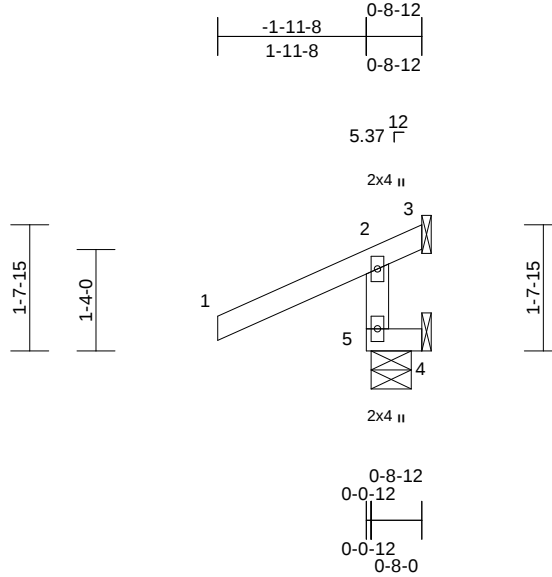
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J8	Diagonal Hip Girder	1	1	Job Reference (optional)	I63476795

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:39

Page: 1

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Scale = 1:30.3

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	0.31	Vert(LL)	0.00	5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	5	>999	240		
BCDL	10.0										Weight: 5 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 0-8-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	3= Mechanical, 4= Mechanical,
	5=0-6-5
Max Horiz	5=49 (LC 9)
Max Uplift	3=-209 (LC 19), 4=-39 (LC 19),
	5=-113 (LC 8)
Max Grav	3=68 (LC 8), 4=8 (LC 30), 5=448
	(LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/61, 2-3=-102/28, 2-5=-398/126
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SPF No.2 .
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 4, 209 lb uplift at joint 3 and 113 lb uplift at joint 5.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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

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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	J9	Jack-Closed Girder	1	1	Job Reference (optional)

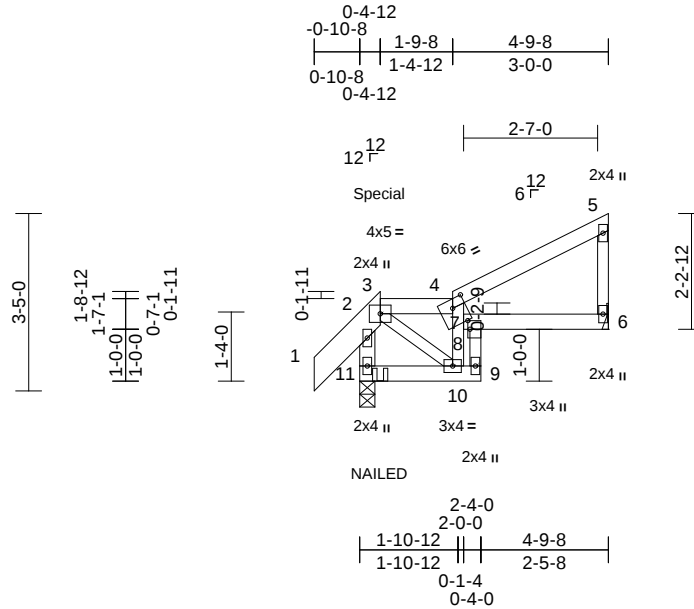
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Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:39

Page: 1

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Scale = 1:44.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.03	6-7	>999	360	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.05	6-7	>999	240	
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.02	6	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	9	>999	240	
BCDL	10.0										
										Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 9-7:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-2:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-8.

REACTIONS

(size) 6= Mechanical, 11=0-3-8
Max Horiz 11=114 (LC 9)
Max Uplift 6=-54 (LC 75), 11=-150 (LC 59)
Max Grav 6=219 (LC 45), 11=314 (LC 47)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/73, 2-3=-130/22, 3-4=-110/13, 4-5=-92/28, 5-6=-129/49, 2-11=-255/139
BOT CHORD 10-11=-85/55, 9-10=-32/86, 7-9=-113/290, 7-8=-50/39, 6-7=-22/43
WEBS 3-10=-13/128, 8-10=-350/122, 4-8=-118/51

NOTES

- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 6 and 150 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 285 lb up at 0-4-12 on top chord, and 5 lb down and 52 lb up at 0-1-12 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 3-4=-61, 4-5=-51, 9-11=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 11=18 (B), 2=58 (B)



February 8, 2024

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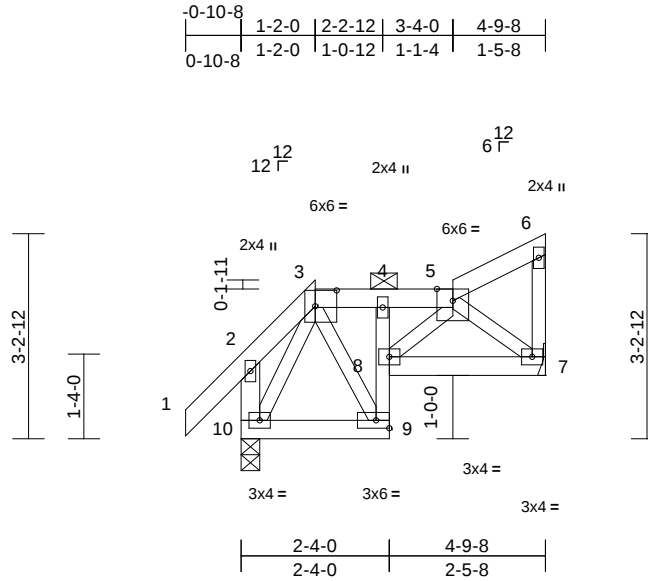
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476797
230872	J10	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:39

Page: 1

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Scale = 1:36.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	8	>999	360	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.01	7-8	>999	240	
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.02	7	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	9	>999	240	
BCDL	10.0										
										Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except* 9-4:2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 10-2:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7= Mechanical, 10=0-3-8
 Max Horiz 10=115 (LC 9)
 Max Uplift 7=-54 (LC 12), 10=-46 (LC 12)
 Max Grav 7=203 (LC 3), 10=307 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-10=-181/80, 1-2=0/74, 2-3=-67/55,
 3-4=-114/32, 4-5=-178/46, 5-6=-54/22,
 6-7=-54/18
 BOT CHORD 9-10=-64/93, 8-9=-52/43, 4-8=-24/71,
 7-8=-48/162
 WEBS 3-10=-197/27, 3-9=-29/88, 5-7=-206/75,
 5-8=-20/35

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.

- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 10 and 54 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

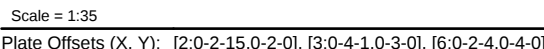
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:40 Page: 1
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LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 7-6:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 8-2:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Horiz 8=121 (LC 7)
Max Uplift 5=-71 (LC 7), 8=-30 (LC 10)
Max Grav 5=203 (LC 3), 8=284 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-262/57, 1-2=0/51, 2-3=-205/27,
3-4=-29/24, 4-5=-86/38
BOT CHORD 7-8=-51/38, 6-7=-12/48, 2-6=-22/111,
5-6=-73/136
WEBS 3-5=-160/71, 3-6=-2/97

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 8 and 71 lb uplift at joint 5.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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
TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.0, Lu=5.0-0-0
- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.



February 8, 2024



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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR
230872	J12	Jack-Closed	1	1	
					Job Reference (optional)

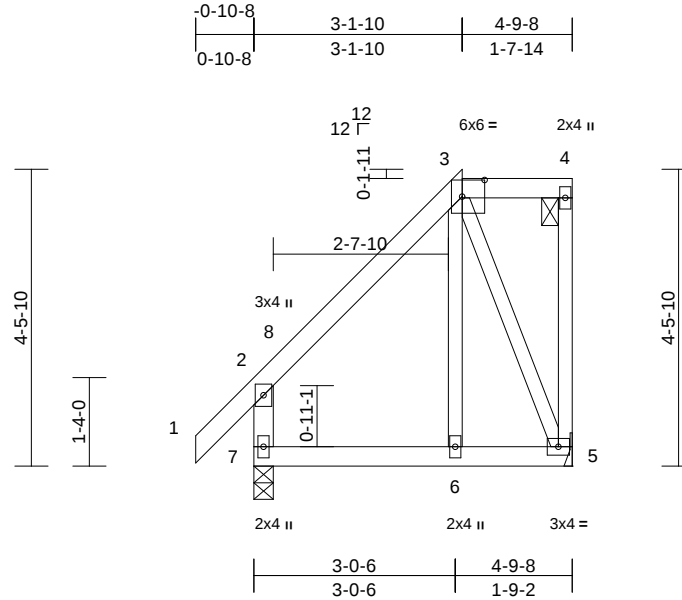
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Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:40

Page: 1

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Scale = 1:34.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 25 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
 Max Horiz 7=176 (LC 9)
 Max Uplift 5=-93 (LC 9), 7=-24 (LC 12)
 Max Grav 5=227 (LC 37), 7=376 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-339/68, 1-2=0/74, 2-3=-220/42,
 3-4=-58/45, 4-5=-77/43

BOT CHORD 6-7=-80/97, 5-6=-81/94

WEBS 3-6=-25/100, 3-5=-222/123

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 7 and 93 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.

LOAD CASE(S) Standard

February 8, 2024

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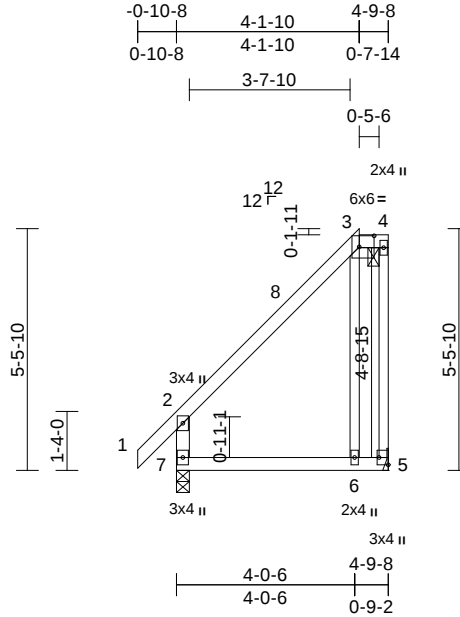
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476800
230872	J13	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:52.1

Plate Offsets (X, Y): [3:0-4-1,0-3-0], [5: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	0.33	Vert(LL)	-0.03	6-7	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.05	6-7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	6-7	>999	240		
BCDL	10.0										Weight: 23 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=216 (LC 11)
Max Uplift 5=-119 (LC 9), 7=-9 (LC 8)
Max Grav 5=290 (LC 38), 7=407 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-340/46, 1-2=0/74, 2-3=-242/118, 3-4=-69/64, 4-5=-98/34
BOT CHORD 6-7=-74/62, 5-6=-77/63
WEBS 3-6=-141/145

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 7 and 119 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.

LOAD CASE(S) Standard



February 8, 2024

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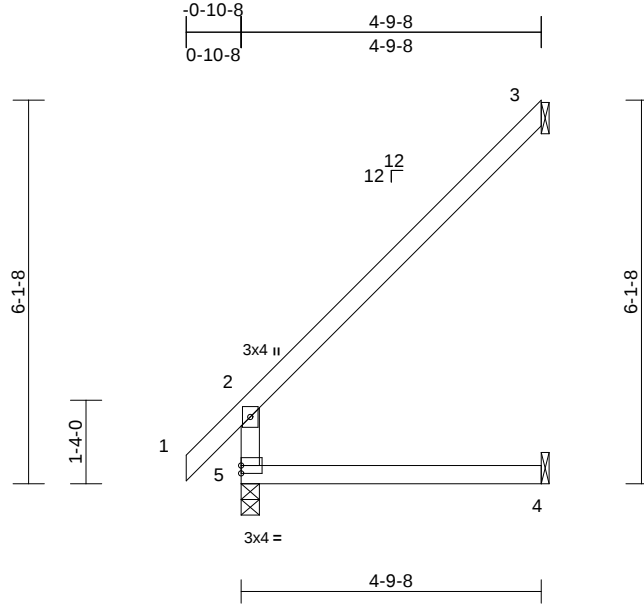
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J14	Jack-Open	10	1	Job Reference (optional)	I63476801

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:41

Page: 1

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Scale = 1:36.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.08	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.05	4-5	>999	240		
BCDL	10.0										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 4-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	3= Mechanical, 4= Mechanical,
		5=0-3-8
	Max Horiz	5=145 (LC 10)
	Max Uplift	3=-103 (LC 10), 4=-5 (LC 10)
	Max Grav	3=164 (LC 20), 4=98 (LC 20), 5=286 (LC 2)

FORCES	(lb) - Maximum Compression/Maximum Tension
---------------	--

TOP CHORD	2-5=-251/0, 1-2=0/51, 2-3=-141/97
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- 6) All bearings are assumed to be SPF No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 3 and 5 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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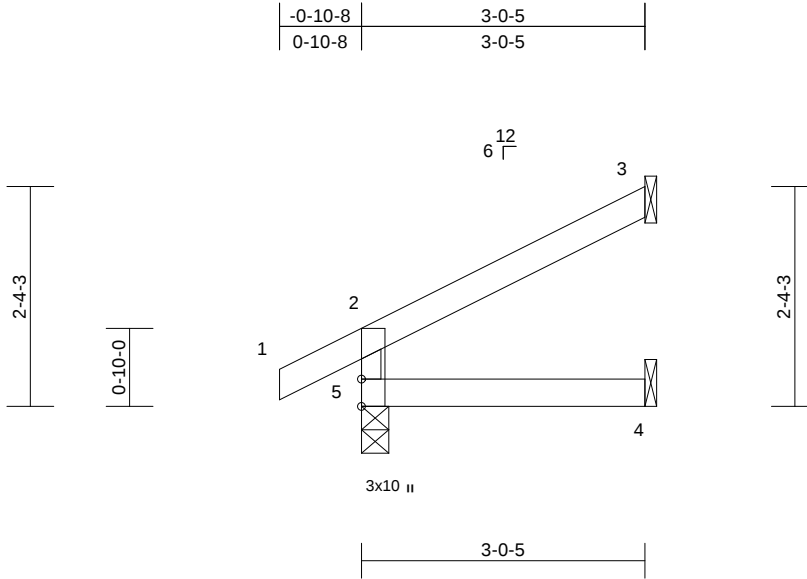
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J15	Jack-Open	1	1	Job Reference (optional)	I63476802

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:24.6

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	0.12	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 9 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 3-0-5 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	3= Mechanical, 4= Mechanical, 5=0-3-8
	Max Horiz	5=67 (LC 12)
	Max Uplift	3=-54 (LC 12), 5=-23 (LC 12)
	Max Grav	3=94 (LC 19), 4=55 (LC 7), 5=225 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-5=-198/51, 1-2=0/33, 2-3=-57/32
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SPF No.2 .
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 5 and 54 lb uplift at joint 3.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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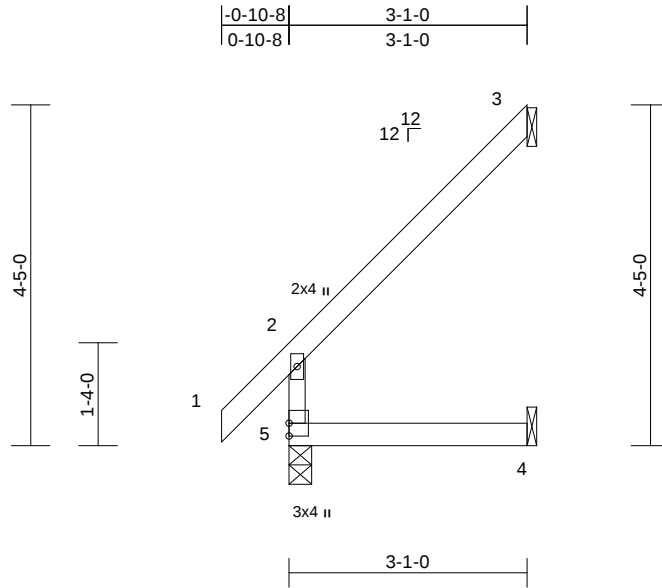
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J16	Jack-Open	10	1	Job Reference (optional)	I63476803

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:29.9

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	0.18	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240		
BCDL	10.0										Weight: 11 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 3-1-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	3= Mechanical, 4= Mechanical, 5=0-3-8
	Max Horiz	5=97 (LC 10)
	Max Uplift	3=-74 (LC 10), 4=-6 (LC 10)
	Max Grav	3=106 (LC 20), 4=62 (LC 20), 5=211 (LC 2)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	2-5=-184/0, 1-2=0/48, 2-3=-93/63
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- 6) All bearings are assumed to be SPF No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 3 and 6 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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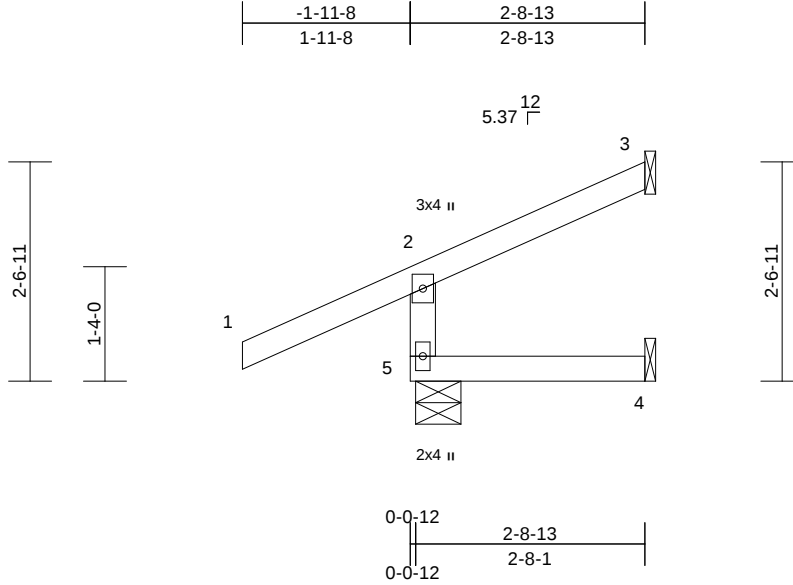
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J17	Diagonal Hip Girder	2	1	Job Reference (optional)	I63476804

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:26.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	4-5	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240		
BCDL	10.0										Weight: 10 lb	FT = 10%

LUMBER		
TOP CHORD	2x4	SPF No.2
BOT CHORD	2x4	SPF No.2
WEBS	2x4	SPF No.2
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-8-13 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS		
(size)	3=	Mechanical, 4= Mechanical, 5=0-6-5
Max Horiz	5=71	(LC 11)
Max Uplift	3=-58 (LC 16), 4=-9 (LC 30), 5=-63 (LC 16)	
Max Grav	3=26 (LC 8), 4=17 (LC 21), 5=284 (LC 19)	
FORCES		
(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	2-5=-261/85, 1-2=0/66, 2-3=-40/10	
BOT CHORD	4-5=0/0	

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SPF No.2 .
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 5, 58 lb uplift at joint 3 and 9 lb uplift at joint 4.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51
Trapezoidal Loads (lb/ft)
Vert: 2=-2 (F=24, B=24)-to-3=-35 (F=8, B=8), 5=0 (F=10, B=10)-to-4=-14 (F=3, B=3)



February 8, 2024

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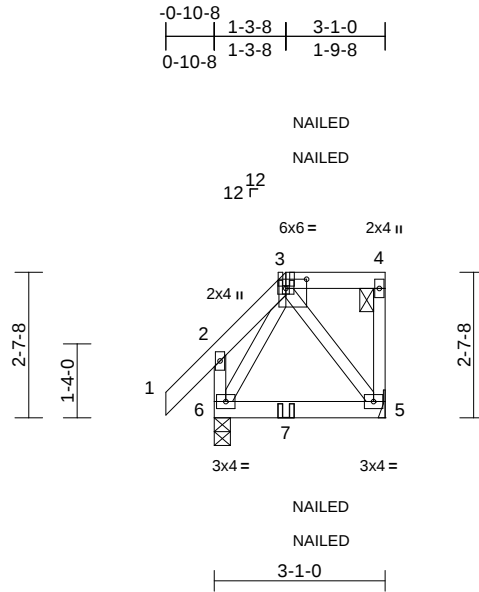
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476805
230872	J18	Half Hip Girder	1	1	Job Reference (optional)	

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Page: 1



Scale = 1:41.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	5-6	>999	360	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	5-6	>999	240	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	5	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.00	5-6	>999	240	
BCDL	10.0										
										Weight: 16 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 6=0-3-8
Max Horiz 6=109 (LC 9)
Max Uplift 5=-136 (LC 9), 6=-134 (LC 12)
Max Grav 5=156 (LC 37), 6=260 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/71, 2-3=-98/94, 3-4=-34/25,
4-5=-87/25, 2-6=-206/116

BOT CHORD 5-6=-97/56
WEBS 3-5=-59/130, 3-6=-145/139

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 5 and 134 lb uplift at joint 6.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 14) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 3-4=-61, 5-6=-20
Concentrated Loads (lb)
Vert: 3=45 (F=22, B=22), 7=7 (F=4, B=4)



February 8, 2024

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

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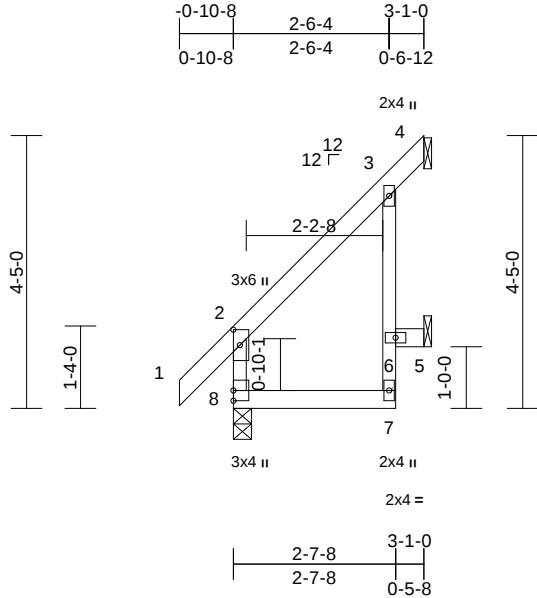
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476806
T230872	J19	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:43
ID:?U?QMnzQa7nXJ9nEPHa4iy45Yw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?i

Page: 1



Scale = 1:37.3

Plate Offsets (X, Y): [2:0-3-0,0-1-4]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.02	7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.02	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.07	4	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 14 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 3-1-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS	(size)	4= Mechanical, 5= Mechanical, 8=0-3-8
	Max Horiz	8=138 (LC 10)
	Max Uplift	4=-132 (LC 10)
	Max Grav	4=165 (LC 22), 5=10 (LC 5), 8=211 (LC 2)
FORCES		
	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-8=-189/0, 1-2=0/48, 2-3=-120/41, 3-4=-97/115	
BOT CHORD	7-8=0/0, 5-6=0/0	
WEBS	6-7=-21/56, 3-6=-18/65	

- 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) All bearings are assumed to be SPF No.2 .
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 4.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8,2024

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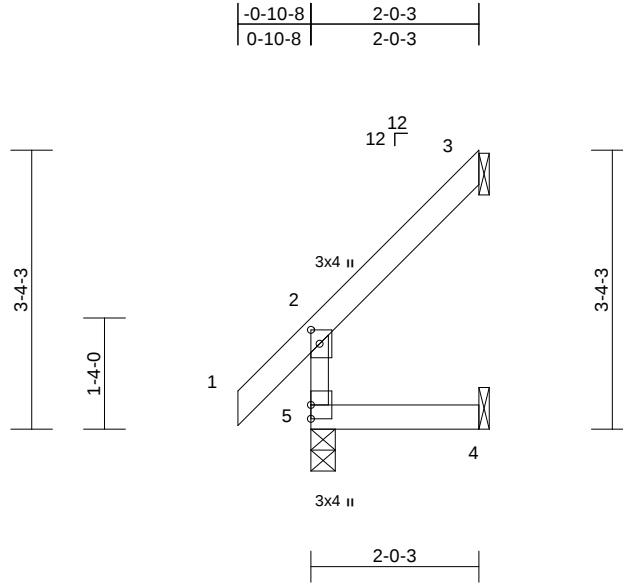
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476807
T230872	J20	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:43
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Page: 1



Scale = 1:27.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 8 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=94 (LC 10)
Max Uplift 3=-77 (LC 10), 4=-21 (LC 10)
Max Grav 3=66 (LC 22), 4=44 (LC 18), 5=170 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-150/0, 1-2=0/48, 2-3=-78/39
BOT CHORD 4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SPF No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 3 and 21 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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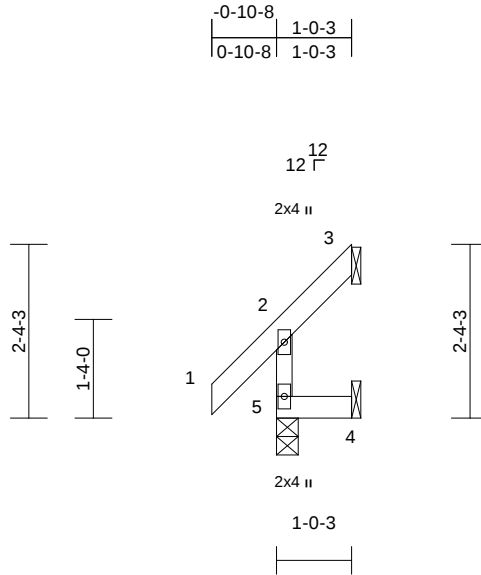
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	J21	Jack-Open	1	1	Job Reference (optional)	I63476808

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:43

Page: 1

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Scale = 1:31.1

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	0.10	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 5 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)	3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz	5=61 (LC 7)
Max Uplift	3=-41 (LC 10), 4=-30 (LC 10)
Max Grav	3=23 (LC 8), 4=33 (LC 8), 5=146 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension	
--	--

TOP CHORD	2-5=-133/7, 1-2=0/48, 2-3=-49/15
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00" tall by 2'-00"-00" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- 6) All bearings are assumed to be SPF No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 4 and 41 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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Page: 1

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

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 7-3:2x3 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 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8=0-6-5
 Max Horiz 8=167 (LC 9)
 Max Uplift 5=-143 (LC 9), 8=-140 (LC 12)
 Max Grav 5=314 (LC 26), 8=470 (LC 29)

FORCES

Tension

TOP CHORD 2-8=-387/145, 1-2=0/59, 2-3=-261/66,
3-4=-56/39, 4-5=-94/26

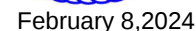
BOT CHORD 7-8=-195/114, 6-7=-34/113, 3-6=-144/107,
5-6=-41/45

WEBS 2-7=-22/124

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCCLD=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) TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.00; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SPF No.2 .
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 8 and 143 lb uplift at joint 5.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Ver: 1-2=-51, 2-4=-51, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Ver: 10=23(B), 12=-1 (F=-3, B=2), 13=0 (B)



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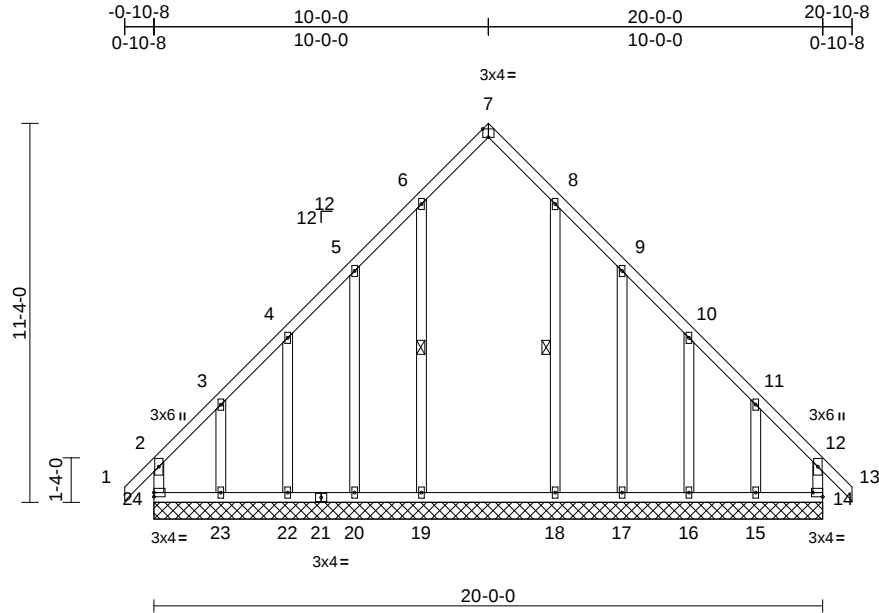
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476810
230872	K1	Common Supported Gable	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:68.9

Plate Offsets (X, Y): [7:0-2-0,Edge], [14:Edge,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	0.24	Vert(LL)	n/a	-	n/a	999	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	14	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R							
BCDL	10.0										
Weight: 113 lb FT = 10%											

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

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

WEBS 1 Row at midpt 8-18, 6-19

REACTIONS (size)
14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz 24=-327 (LC 8)
Max Uplift 14=-139 (LC 9), 15=-381 (LC 11), 16=-41 (LC 11), 17=-193 (LC 11), 20=-191 (LC 10), 22=-41 (LC 10), 23=-384 (LC 10), 24=-149 (LC 8)
Max Grav 14=421 (LC 25), 15=322 (LC 23), 16=257 (LC 23), 17=211 (LC 23), 18=397 (LC 23), 19=404 (LC 22), 20=209 (LC 22), 22=256 (LC 22), 23=326 (LC 22), 24=425 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 12-14=-311/101, 7-8=-131/100, 8-9=-129/122, 9-10=-163/86, 10-11=-211/118, 11-12=-420/204, 12-13=0/51, 1-2=0/51, 2-3=-425/214, 3-4=-215/126, 4-5=-169/94, 5-6=-137/127, 6-7=-131/102, 2-24=-313/110
BOT CHORD 23-24=-162/292, 22-23=-162/292, 20-22=-162/292, 19-20=-162/292, 18-19=-162/292, 17-18=-162/292, 16-17=-162/292, 15-16=-162/292, 14-15=-162/292

WEBS
8-18=-183/24, 9-17=-152/201, 10-16=-155/99, 11-15=-184/274, 6-19=-190/33, 5-20=-149/199, 4-22=-155/99, 3-23=-186/275

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 14, 149 lb uplift at joint 24, 193 lb uplift at joint 17, 41 lb uplift at joint 16, 381 lb uplift at joint 15, 191 lb uplift at joint 20, 41 lb uplift at joint 22 and 384 lb uplift at joint 23.

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

LOAD CASE(S) Standard



February 8, 2024

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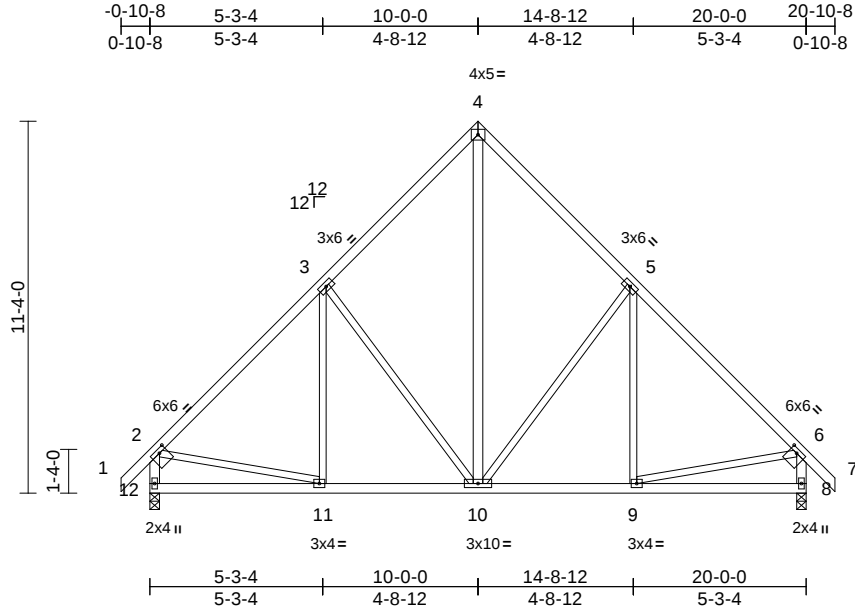
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	K2	Common	7	1	Job Reference (optional)	I63476811

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:44

Page: 1

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Scale = 1:70.2

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

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	0.29	Vert(LL)	-0.03	9-10	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.05	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.01	8	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	10-11	>999	240		
BCDL	10.0										Weight: 103 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 12-2,8-6,10-4:2x4 SPF No.2

BRACING

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

REACTIONS

(size) 8=0-3-8, 12=0-3-8
 Max Horiz 12=327 (LC 8)
 Max Uplift 8=93 (LC 11), 12=93 (LC 10)
 Max Grav 8=981 (LC 22), 12=981 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension

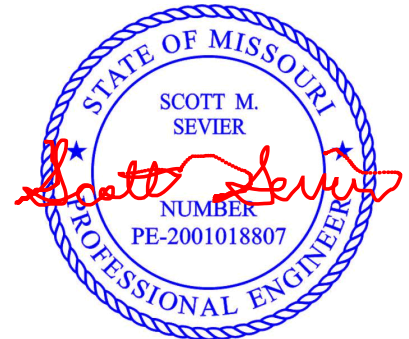
TOP CHORD 1-2=0/51, 2-3=-961/154, 3-4=-735/247, 4-5=-735/247, 5-6=-961/154, 6-7=0/51, 2-12=-908/120, 6-8=-908/120
 BOT CHORD 11-12=-314/386, 10-11=-107/760, 9-10=0/649, 8-9=-76/127
 WEBS 2-11=0/551, 6-9=0/556, 3-11=0/142, 5-9=0/142, 3-10=-371/245, 4-10=-211/606, 5-10=-371/245

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 12 and 93 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



February 8, 2024

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

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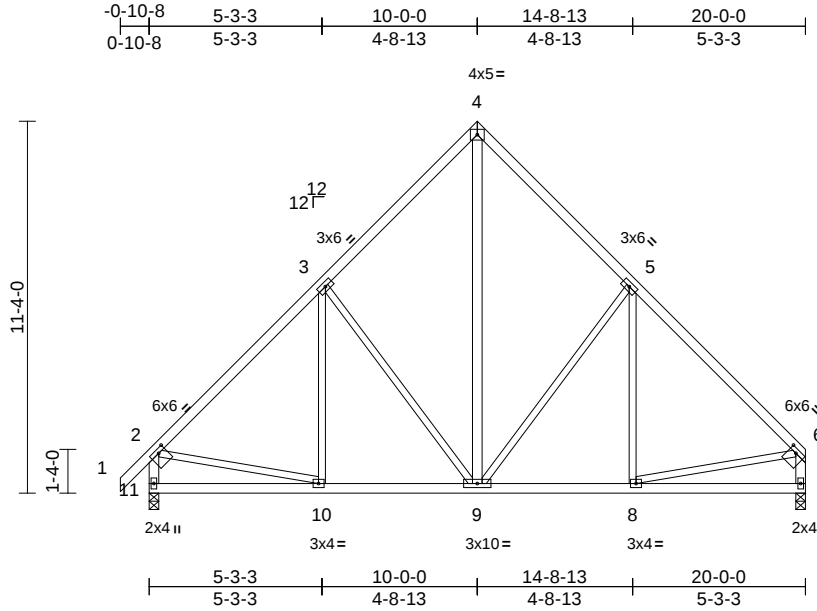
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	K3	Common	7	1	Job Reference (optional)	I63476812

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:45

Page: 1

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Scale = 1:70.2

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

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	0.32	Vert(LL)	-0.03	8-9	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.05	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.01	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	9-10	>999	240		
BCDL	10.0										Weight: 101 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 11-2,7-6,9-4:2x4 SPF No.2

BRACING

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

REACTIONS (size) 7=0-3-8, 11=0-3-8
 Max Horiz 11=318 (LC 7)
 Max Uplift 7=-88 (LC 10), 11=-93 (LC 10)
 Max Grav 7=934 (LC 22), 11=983 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/51, 2-3=-963/153, 3-4=-737/247, 4-5=-739/248, 5-6=-962/150, 2-11=-910/120, 6-7=-850/115
 BOT CHORD 10-11=-324/369, 9-10=-117/748, 8-9=-13/641, 7-8=-59/103
 WEBS 2-10=0/553, 6-8=-2/566, 3-10=0/142, 3-9=-371/245, 4-9=-213/612, 5-9=-379/247, 5-8=-4/140

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 11 and 88 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

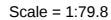
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:45 Page: 1
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.14	13	>999	360	MT20	197/144
Snow (P/I/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.25	13-14	>601	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.48	9	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	13	>697	240		
BCDL	10.0										Weight: 95 lb	FT = 10%

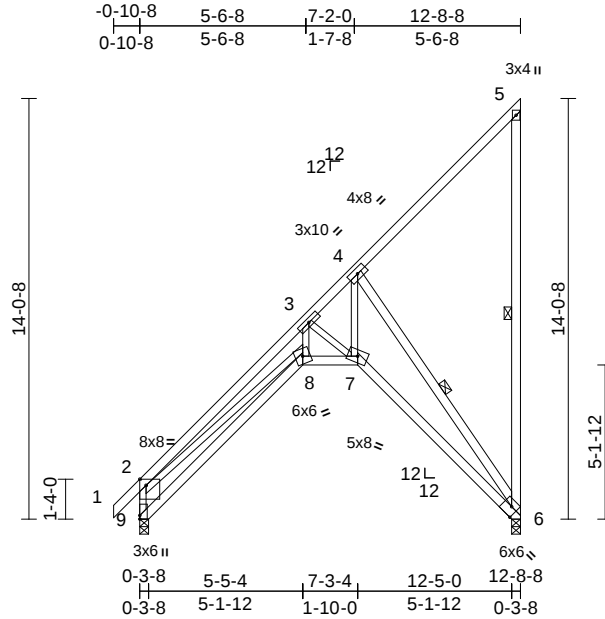
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476814
230872	L2	Monopitch	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:46

Page: 1

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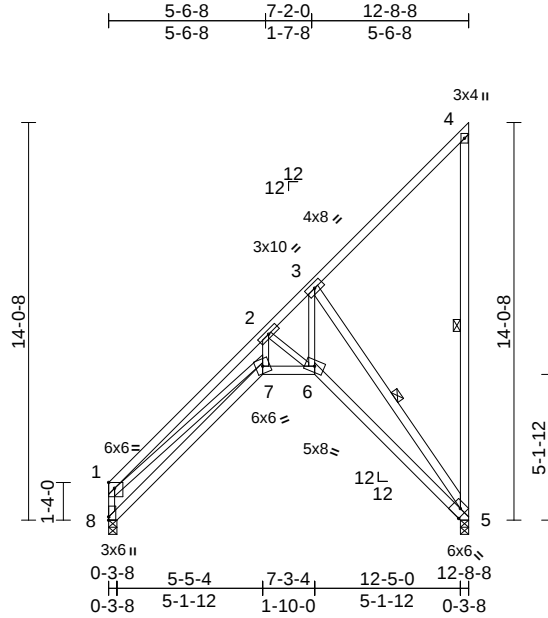
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476815
230872	L3	Monopitch	6	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:46

Page: 1

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Scale = 1:81.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.14	7	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.25	7-8	>593	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.48	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.21	7	>698	240		
BCDL	10.0											
											Weight: 78 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 4-5, 5-3:2x4 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 5-7-5 oc bracing.
WEBS 1 Row at midpt 4-5, 3-5

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Horiz 8=491 (LC 10)
Max Uplift 5=407 (LC 10)
Max Grav 5=728 (LC 21), 8=601 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-762/384, 1-2=-2523/1102, 2-3=-1014/309, 3-4=-199/127, 4-5=-185/162
BOT CHORD 7-8=-807/485, 6-7=-1093/1695, 5-6=-741/1279
WEBS 1-7=-751/1873, 2-7=-938/1505, 2-6=-1132/773, 3-6=-966/1730, 3-5=-1560/937

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) All bearings are assumed to be SPF No.2 .
 - 6) Bearing at joint(s) 8, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 407 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



February 8, 2024

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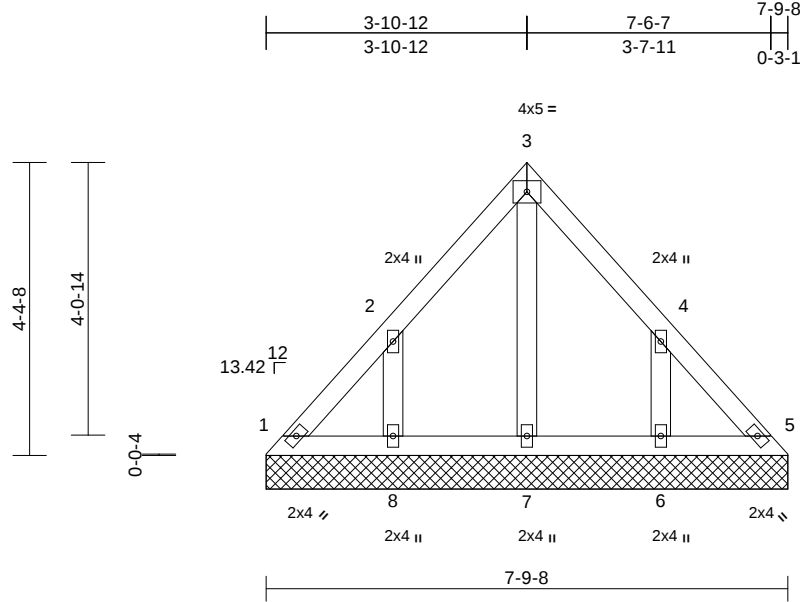
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	LAY1	Lay-In Gable	3	1	Job Reference (optional)	I63476816

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:46

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 10%
BCDL	10.0											

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) 1=7-9-8, 5=7-9-8, 6=7-9-8, 7=7-9-8, 8=7-9-8
Max Horiz 1=108 (LC 9)
Max Uplift 1=-27 (LC 6), 5=-10 (LC 7), 6=-154 (LC 11), 8=-154 (LC 10)
Max Grav 1=108 (LC 23), 5=100 (LC 24), 6=258 (LC 22), 7=152 (LC 24), 8=259 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-121/92, 2-3=-101/79, 3-4=-92/64, 4-5=-106/69
BOT CHORD 1-8=-45/94, 7-8=-45/94, 6-7=-45/94, 5-6=-45/94
WEBS 3-7=-82/0, 2-8=-189/178, 4-6=-189/178

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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 10 lb uplift at joint 5, 154 lb uplift at joint 8 and 154 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



February 8, 2024

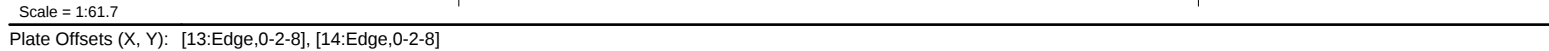
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

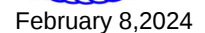
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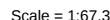
Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:47 Page: 1
ID:xY5XDhHaVSTRh7u_DEs7Vy6jdl-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWRcdol7J4zJC?Cf



LUMBER		TOP CHORD	1-2=-351/265, 2-3=-308/234, 3-4=-275/210, 4-5=-256/202, 5-6=-235/196, 6-8=-218/194, 8-9=-192/180, 9-10=-174/163, 10-11=-146/123, 11-12=-124/93, 12-13=-98/74, 13-14=-70/62	10) * This truss is 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.
TOP CHORD	2x4 SPF No.2			
BOT CHORD	2x4 SPF No.2	BOT CHORD	1-24=-98/75, 23-24=-98/75, 22-23=-98/75, 21-22=-98/75, 20-21=-98/75, 19-20=-98/75, 18-19=-98/75, 16-18=-98/75, 15-16=-98/75, 14-15=-98/75	11) All bearings are assumed to be SPF No.2 .
WEBS	2x3 SPF No.2			12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 14, 101 lb uplift at joint 1, 107 lb uplift at joint 18, 71 lb uplift at joint 19, 78 lb uplift at joint 20, 74 lb uplift at joint 21, 75 lb uplift at joint 22, 71 lb uplift at joint 23, 86 lb uplift at joint 24, 84 lb uplift at joint 16 and 70 lb uplift at joint 15.
OTHERS	2x4 SPF No.2	WEBS	9-18=-187/150, 8-19=-161/96, 6-20=-145/101, 5-21=-148/98, 4-22=-149/99, 3-23=-143/96, 2-24=-167/108, 10-16=-159/102, 11-15=-120/84	13) 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.
BRACING		NOTES		14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-13.		1) Unbalanced roof live loads have been considered for this design.	LOAD CASE(S) Standard
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.		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	
WEBS	1 Row at midpt 9-18, 8-19, 10-16		3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.	
REACTIONS	(size) 1=19-9-11, 14=19-9-11, 15=19-9-11, 16=19-9-11, 18=19-9-11, 19=19-9-11, 20=19-9-11, 21=19-9-11, 22=19-9-11, 23=19-9-11, 24=19-9-11		4) TCELL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0	
	Max Horiz 1=355 (LC 7)		5) Provide adequate drainage to prevent water ponding.	
	Max Uplift 1=-101 (LC 8), 14=-9 (LC 7), 15=-70 (LC 6), 16=-84 (LC 11), 18=-107 (LC 9), 19=-71 (LC 10), 20=-78 (LC 10), 21=-74 (LC 10), 22=-75 (LC 10), 23=-71 (LC 10), 24=-86 (LC 10)		6) All plates are 2x4 MT20 unless otherwise indicated.	
	Max Grav 1=201 (LC 22), 14=38 (LC 3), 15=230 (LC 22), 16=222 (LC 22), 18=244 (LC 21), 19=231 (LC 21), 20=215 (LC 21), 21=218 (LC 21), 22=220 (LC 21), 23=209 (LC 21), 24=252 (LC 21)		7) Gable requires continuous bottom chord bearing.	
FORCES	(lb) - Maximum Compression/Maximum Tension		8) Gable studs spaced at 2-0-0 oc.	
			9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	



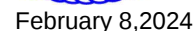
Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:47 Page: 1
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[illegible]

WEBS 2-17=-228/147, 3-16=-120/82,
4-15=-155/102, 5-14=-146/98, 6-13=-150/96,
7-12=-136/117. 8-11=-204/130

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDDL=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. TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0" oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 10, 90 lb uplift at joint 1, 119 lb uplift at joint 17, 59 lb uplift at joint 16, 78 lb uplift at joint 15, 72 lb uplift at joint 14, 80 lb uplift at joint 13, 63 lb uplift at joint 12 and 97 lb uplift at joint 11.
- 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



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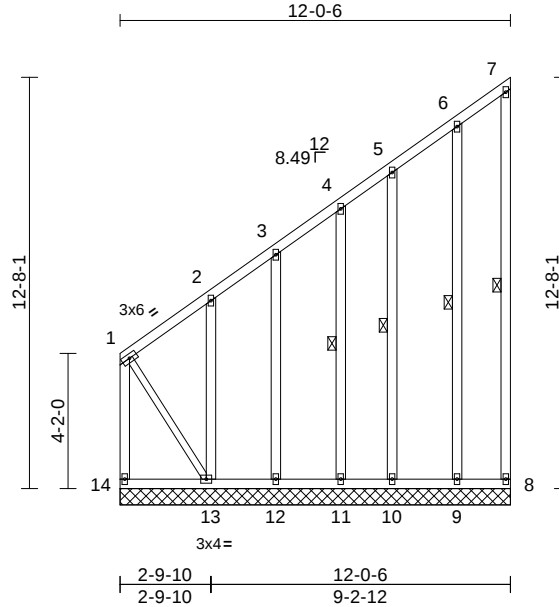
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	LAY4	Lay-In Gable	1	1	Job Reference (optional)	I63476819

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:47

Page: 1

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Scale = 1:71

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	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	8	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 100 lb FT = 10%											

LUMBER		
TOP CHORD	2x4 SPF 2100F 1.8E	
BOT CHORD	2x4 SPF 2400F 2.0E	
WEBS	2x4 SPF 2100F 1.8E *Except* 7-8:2x4 SPF No.2, 13-1:2x3 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 7-8, 6-9, 5-10, 4-11	
REACTIONS (size)		
	8=12-0-6, 9=12-0-6, 10=12-0-6, 11=12-0-6, 12=12-0-6, 13=12-0-6, 14=12-0-6	
Max Horiz	14=339 (LC 10)	
Max Uplift	8=-25 (LC 10), 9=-66 (LC 10), 10=-69 (LC 10), 11=-65 (LC 10), 12=-71 (LC 10), 13=-601 (LC 10), 14=-198 (LC 8)	
Max Grav	8=64 (LC 21), 9=208 (LC 21), 10=196 (LC 21), 11=194 (LC 21), 12=203 (LC 21), 13=429 (LC 21), 14=700 (LC 10)	
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-14=-683/220, 1-2=-380/151, 2-3=-289/111, 3-4=-221/90, 4-5=-157/67, 5-6=-94/56, 6-7=-42/20, 7-8=-44/30	
BOT CHORD	13-14=-338/124, 12-13=0/0, 11-12=0/0, 10-11=0/0, 9-10=0/0, 8-9=0/0	
WEBS	2-13=-193/128, 3-12=-139/94, 6-9=-139/92, 5-10=-135/90, 4-11=-131/87, 1-13=-221/604	
NOTES		

- 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 ; 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 14, 25 lb uplift at joint 8, 601 lb uplift at joint 13, 71 lb uplift at joint 12, 66 lb uplift at joint 9, 69 lb uplift at joint 10 and 65 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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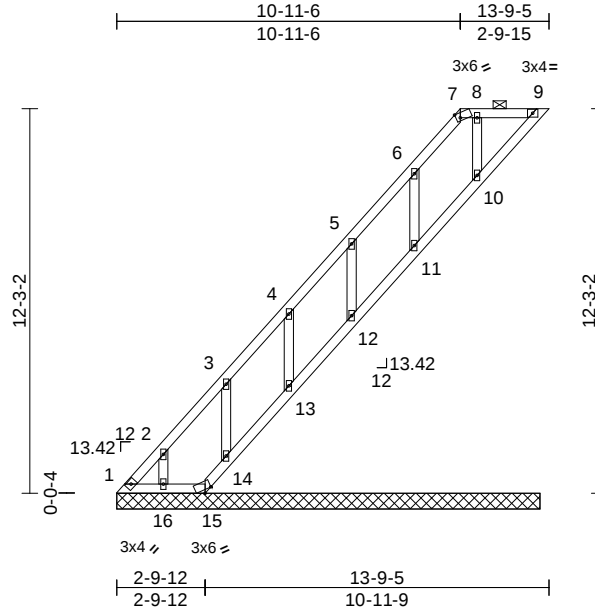
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	LAY5	Lay-In Gable	1	1	Job Reference (optional)	I63476820

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Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:48

Page: 1

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Scale = 1:73.4

Plate Offsets (X, Y): [7:0-1-9,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	-0.01	9	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 58 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS

(size) 1=13-5-13, 9=13-5-13, 10=13-5-13, 11=13-5-13, 12=13-5-13, 13=13-5-13, 14=13-5-13, 15=13-5-13, 16=13-5-13
Max Horiz 1=488 (LC 10)
Max Uplift 1=134 (LC 8), 9=120 (LC 10), 10=24 (LC 6), 11=113 (LC 10), 12=143 (LC 10), 13=132 (LC 10), 14=154 (LC 10), 15=40 (LC 8), 16=122 (LC 10)
Max Grav 1=409 (LC 10), 9=95 (LC 21), 10=218 (LC 23), 11=226 (LC 21), 12=241 (LC 21), 13=239 (LC 21), 14=232 (LC 21), 15=129 (LC 10), 16=203 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-556/219, 2-3=-444/177, 3-4=-303/123, 4-5=-169/79, 5-6=-64/41, 6-7=-81/108, 7-8=-42/101, 8-9=-42/101
BOT CHORD 1-16=-101/42, 15-16=-101/42, 14-15=-159/77, 13-14=-160/81, 12-13=-161/79, 11-12=-160/80, 10-11=-161/81, 9-10=-160/76

WEBS

2-16=-147/136, 3-14=-172/164, 4-13=-166/157, 5-12=-171/167, 6-11=-158/137, 8-10=-148/48

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 1, 120 lb uplift at joint 9, 40 lb uplift at joint 15, 122 lb uplift at joint 16, 154 lb uplift at joint 14, 132 lb uplift at joint 13, 143 lb uplift at joint 12, 113 lb uplift at joint 11 and 24 lb uplift at joint 10.
- Non Standard bearing condition. Review required.

- 13) 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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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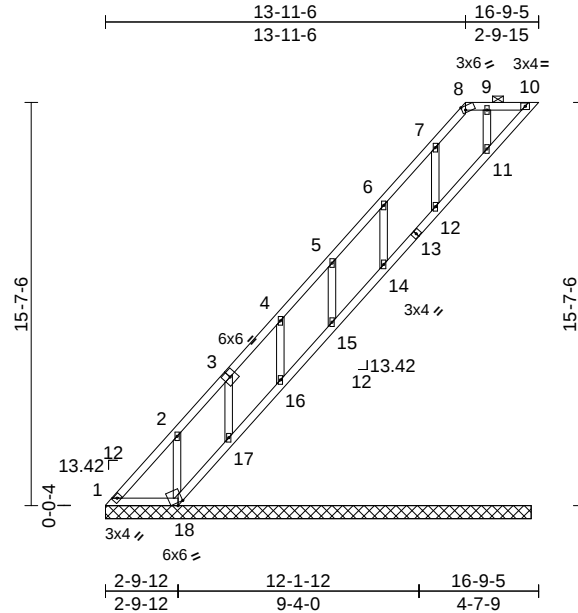
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	LAY6	Lay-In Gable	2	1	Job Reference (optional)	163476821

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:48

Page: 1

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Scale = 1:89.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	-0.01	10	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 73 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 8-10.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-14,10-11.

REACTIONS

(size)	1=16-5-13, 10=16-5-13, 11=16-5-13, 12=16-5-13, 14=16-5-13, 15=16-5-13, 16=16-5-13, 17=16-5-13, 18=16-5-13
Max Horiz	1=625 (LC 10)
Max Uplift	1=-133 (LC 8), 10=-150 (LC 10), 11=-30 (LC 6), 12=-75 (LC 10), 14=-152 (LC 10), 15=-130 (LC 10), 16=-142 (LC 10), 17=-125 (LC 10), 18=-34 (LC 10)
Max Grav	1=493 (LC 10), 10=94 (LC 21), 11=214 (LC 23), 12=214 (LC 21), 14=244 (LC 21), 15=235 (LC 21), 16=245 (LC 21), 17=224 (LC 21), 18=244 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-683/275, 2-4=-521/205, 4-5=-255/107, 5-6=-122/66, 6-7=-67/51, 7-8=-87/131, 8-9=-47/120, 9-10=-47/120
BOT CHORD	1-18=-126/52, 17-18=-191/92, 16-17=-189/88, 15-16=-189/88, 14-15=-189/88, 12-14=-188/88, 11-12=-189/88, 10-11=-186/79

WEBS

9-11=-144/53, 7-12=-144/100, 6-14=-174/176, 5-15=-165/155, 4-16=-175/166, 3-17=-151/146, 2-18=-206/190
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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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2.
- Bearing at joint(s) 10, 11, 12 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 150 lb uplift at joint 10, 133 lb uplift at joint 1, 30 lb uplift at joint 11, 75 lb uplift at joint 12, 152 lb uplift at joint 14, 130 lb uplift at joint 15, 142 lb uplift at joint 16, 125 lb uplift at joint 17 and 34 lb uplift at joint 18.
- Non Standard bearing condition. Review required.
- 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.

LOAD CASE(S) Standard



February 8, 2024

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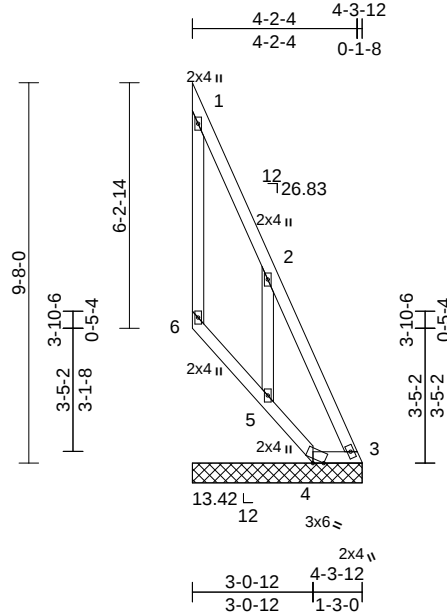
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	LAY7	Lay-In Gable	1	1	Job Reference (optional)	I63476822

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:58.6

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 29 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-3-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	3=4-3-12, 4=4-3-12, 5=4-3-12, 6=4-3-12
	Max Horiz	6=-290 (LC 6)
	Max Uplift	3=-339 (LC 9), 4=-351 (LC 11), 5=-531 (LC 11), 6=-74 (LC 9)
	Max Grav	3=487 (LC 11), 4=268 (LC 9), 5=432 (LC 22), 6=329 (LC 11)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-6=-174/201, 1-2=-248/181, 2-3=-561/445
BOT CHORD	5-6=-335/464, 4-5=-333/481, 3-4=-213/306
WEBS	2-5=-376/573

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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, with BCDL = 10.0psf.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 6, 339 lb uplift at joint 3, 351 lb uplift at joint 4 and 531 lb uplift at joint 5.
 - 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 5.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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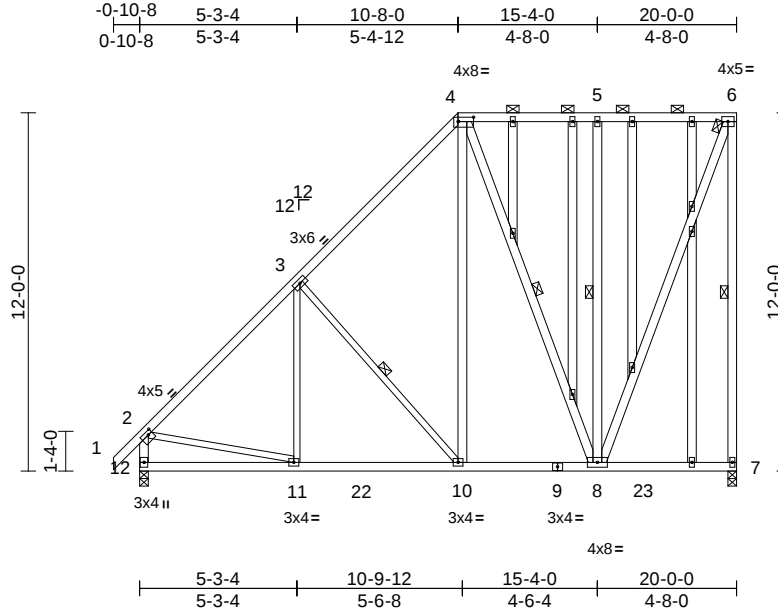
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	M1	Piggyback Base Structural Gable	2	1	Job Reference (optional)	I63476823

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:77.2

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

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	0.58	Vert(LL)	-0.06	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.10	10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.01	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	10-11	>999	240		
BCDL	10.0										Weight: 174 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 3-11,10-3,11-2:2x3 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-3-10 oc bracing: 11-12.
WEBS	1 Row at midpt 6-7, 3-10, 5-8, 4-8

REACTIONS

(size)	7=0-3-8, 12=0-3-8
Max Horiz	12=451 (LC 10)
Max Uplift	7=-197 (LC 7), 12=-11 (LC 10)
Max Grav	7=1139 (LC 3), 12=1170 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/51, 2-3=-1117/8, 3-4=-804/91, 4-5=-355/70, 5-6=-354/70, 6-7=-1015/219, 2-12=-1058/38
BOT CHORD	11-12=-507/269, 10-11=-327/803, 8-10=-148/502, 7-8=-1/4
WEBS	3-11=0/277, 3-10=-466/272, 4-10=-144/634, 6-8=-194/972, 2-11=0/651, 5-8=-363/164, 4-8=-447/212

NOTES

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

- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 7 and 11 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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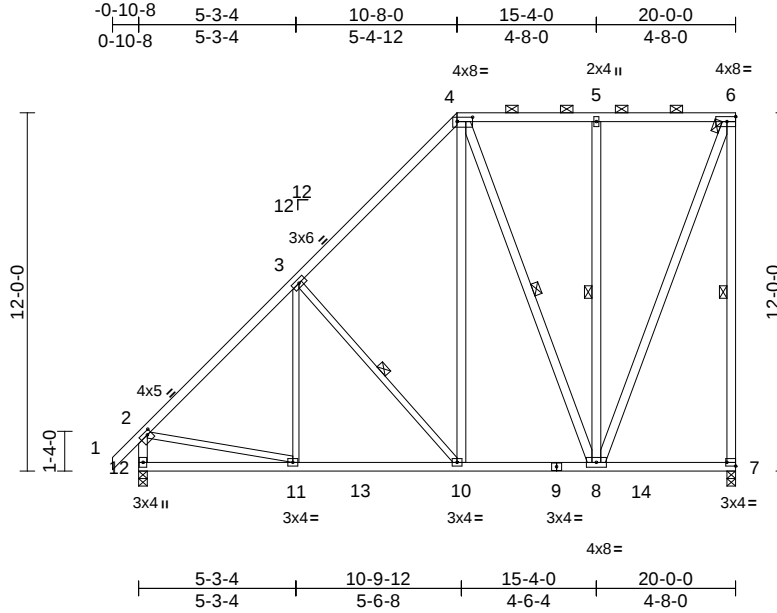
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	M2	Piggyback Base	6	1	Job Reference (optional)	I63476824

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:77.2

Plate Offsets (X, Y): [2:0-1-12,0-1-8], [4:0-6-4,0-1-12], [7:Edge,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	0.44	Vert(LL)	-0.06	10-11	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.09	10-11	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	-0.01	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.03	7-8	>999	240		
BCDL	10.0										Weight: 136 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except* 6-7:2x4 SPF 2400F
 2.0E, 3-11,10-3,11-2:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
 5-4-3 oc purlins, except end verticals, and
 2-0-0 oc purlins (6-0-0 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
 bracing, Except:
 8-5-13 oc bracing: 11-12.
 WEBS 1 Row at midpt 6-7, 3-10, 5-8, 4-8

REACTIONS

(size) 7=0-3-8, 12=0-3-8
 Max Horiz 12=483 (LC 7)
 Max Uplift 7=-255 (LC 7), 12=-80 (LC 10)
 Max Grav 7=1139 (LC 3), 12=1163 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-2=0/51, 2-3=-1143/89, 3-4=-834/179,
 4-5=-405/160, 5-6=-404/160, 6-7=-1015/251,
 2-12=-1051/107
 BOT CHORD 11-12=-485/359, 10-11=-318/868,
 8-10=-238/565, 7-8=-166/126
 WEBS 3-11=0/277, 3-10=-469/263, 4-10=-128/639,
 6-8=-239/970, 2-11=-6/681, 5-8=-361/179,
 4-8=-475/146

NOTES

- 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum
 DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C;
 Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

- This truss has been designed for greater of min roof live
 load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on
 overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to
 bearing plate capable of withstanding 255 lb uplift at joint
 7 and 80 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.
- Graphical purlin representation does not depict the size
 or the orientation of the purlin along the top and/or
 bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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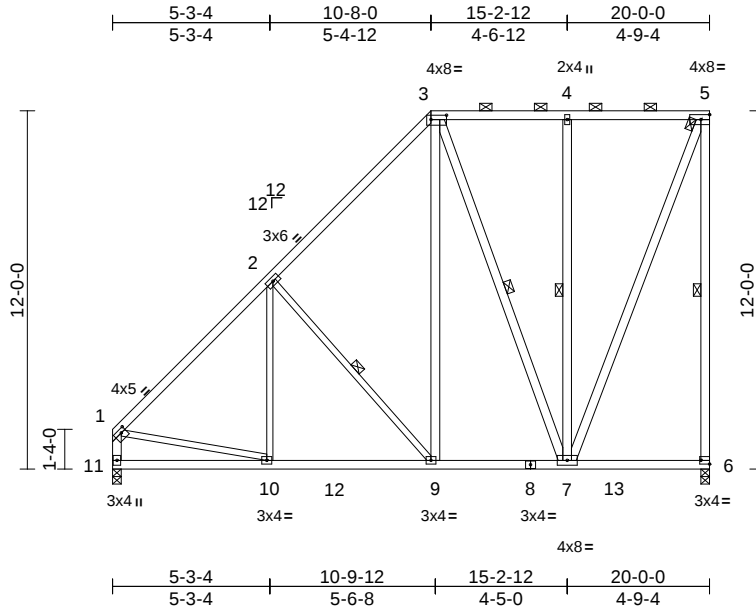
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	M3	Piggyback Base	14	1	Job Reference (optional)	I63476825

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1



Scale = 1:77.2

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-6-4,0-1-12], [6:Edge,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	0.44	Vert(LL)	-0.06	9-10	>999	360	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.09	9-10	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.01	6	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.03	6-7	>999	240		
BCDL	10.0										Weight: 134 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 5-6:2x4 SPF 2400F
2.0E, 2-10,9-2,10-1:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
5-3-8 oc purlins, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing, Except:
8-8-5 oc bracing: 10-11.
WEBS 1 Row at midpt 5-6, 2-9, 4-7, 3-7

REACTIONS

(size) 6=0-3-8, 11=0-3-8
Max Horiz 11=465 (LC 9)
Max Uplift 6=255 (LC 7), 11=57 (LC 10)
Max Grav 6=1141 (LC 3), 11=1116 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=-1145/82, 2-3=-836/180, 3-4=-410/161,
4-5=-409/161, 5-6=-1013/252, 1-11=-1004/83
BOT CHORD 10-11=-462/339, 9-10=-318/874,
7-9=-238/566, 6-7=-166/126
WEBS 2-10=0/276, 2-9=-477/265, 3-9=-130/641,
5-7=-238/967, 1-10=-4/690, 4-7=-361/179,
3-7=-467/144

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum
DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C;
Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SPF No.2 .
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 255 lb uplift at joint
6 and 57 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.
- 9) Graphical purlin representation does not depict the size
or the orientation of the purlin along the top and/or
bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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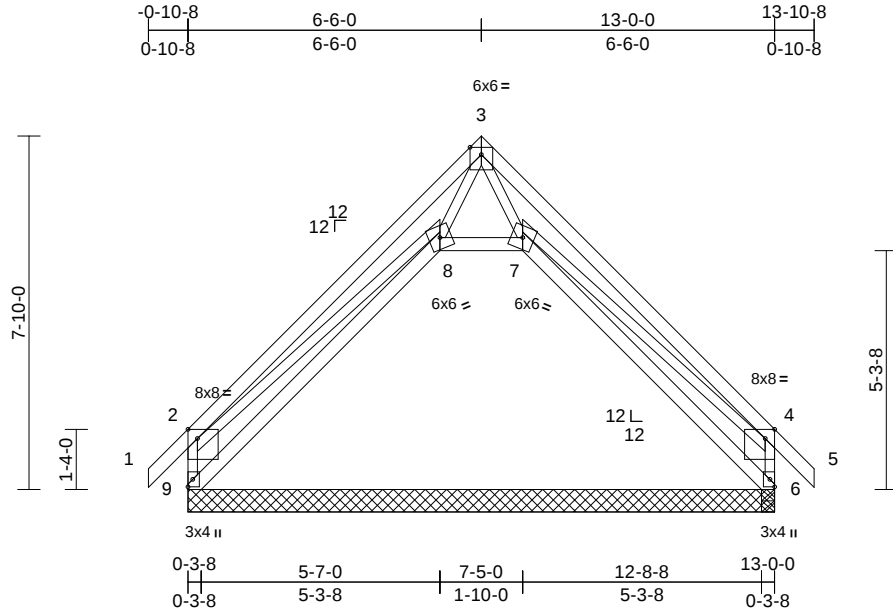
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476826
230872	N1	Roof Special	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:50

Page: 1

ID:HWvQGOLjk_5knuaSnmq1qZy6jdg-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:51.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.04	6-7	>999	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.09	6-7	>755	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	6	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.01	6-7	>999	240		
BCDL	10.0										Weight: 62 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 9-2-14 oc bracing.

REACTIONS

(size) 6=13-0-0, 7=13-0-0, 8=13-0-0, 9=13-0-0
Max Horiz 9=-239 (LC 8)
Max Uplift 6=-202 (LC 11), 7=-71 (LC 7), 9=-193 (LC 11)
Max Grav 6=425 (LC 23), 7=449 (LC 22), 8=366 (LC 22), 9=422 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-9=-505/362, 1-2=0/48, 2-3=-272/170, 3-4=-272/173, 4-5=0/48, 4-6=-511/364
BOT CHORD 8-9=-398/572, 7-8=-82/201, 6-7=-205/327
WEBS 3-7=-227/119, 4-7=-205/232, 3-8=-222/112, 2-8=-204/231

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 9, 202 lb uplift at joint 6 and 71 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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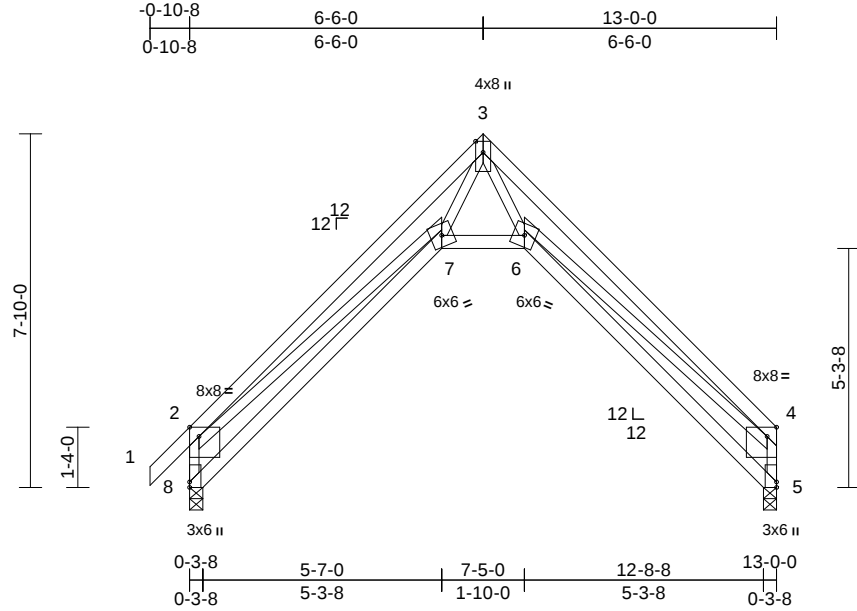
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	N2	Roof Special	4	1	Job Reference (optional)	I63476827

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:51

Page: 1

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Scale = 1:51

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.18	6-7	>875	360	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.31	6-7	>492	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.63	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	6-7	>999	240		
BCDL	10.0										Weight: 60 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-2-3 oc bracing.

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Horiz 8=230 (LC 7)
Max Uplift 5=-61 (LC 10), 8=-64 (LC 11)
Max Grav 5=611 (LC 22), 8=659 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-923/309, 1-2=0/48, 2-3=-2536/172,
3-4=-2558/215, 4-5=-657/156
BOT CHORD 7-8=-404/590, 6-7=-138/1130, 5-6=-135/281
WEBS 3-6=-83/1611, 4-6=-253/2031,
3-7=-195/1702, 2-7=0/1762

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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06'-00 tall by 2'-00'-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 8, 5 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 64 lb uplift at joint 8 and 61 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.

LOAD CASE(S) Standard



February 8, 2024

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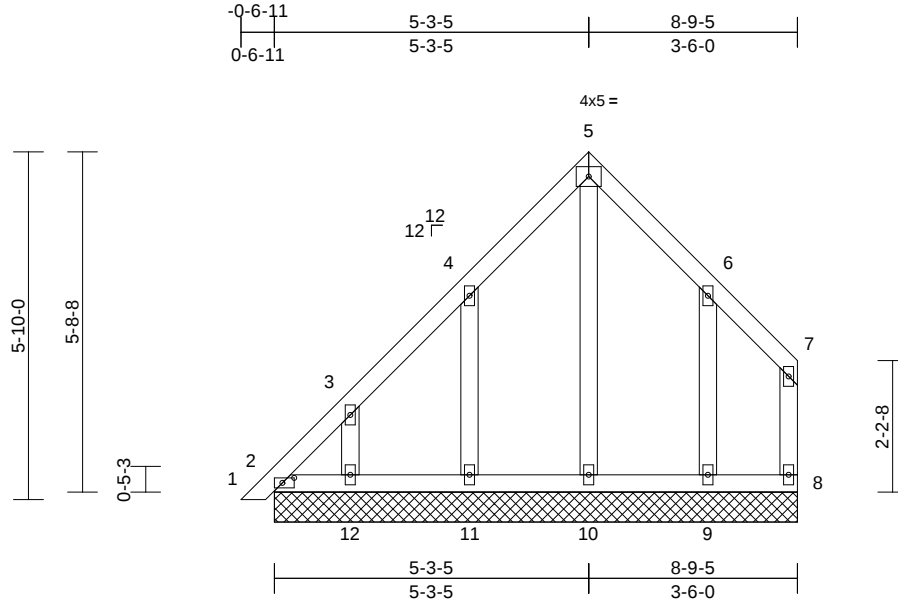
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P1	Piggyback	2	1	Job Reference (optional)	I63476828

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:51
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Page: 1



Scale = 1:38.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	8	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 42 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)	2=8-9-5, 8=8-9-5, 9=8-9-5, 10=8-9-5, 11=8-9-5, 12=8-9-5
	Max Horiz	2=172 (LC 7)
	Max Uplift	2=-109 (LC 6), 8=-32 (LC 6), 9=-122 (LC 11), 10=-75 (LC 9), 11=-133 (LC 10), 12=-107 (LC 10)
	Max Grav	2=160 (LC 23), 8=71 (LC 23), 9=233 (LC 23), 10=238 (LC 22), 11=255 (LC 22), 12=204 (LC 22)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/15, 2-3=-206/186, 3-4=-173/163, 4-5=-141/152, 5-6=-117/131, 6-7=-54/55, 7-8=-55/38
BOT CHORD	2-12=-28/22, 11-12=-28/22, 10-11=-28/22, 9-10=-28/22, 8-9=-28/22
WEBS	5-10=-182/116, 4-11=-184/157, 3-12=-141/129, 6-9=-168/144

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 8, 109 lb uplift at joint 2, 75 lb uplift at joint 10, 133 lb uplift at joint 11, 107 lb uplift at joint 12 and 122 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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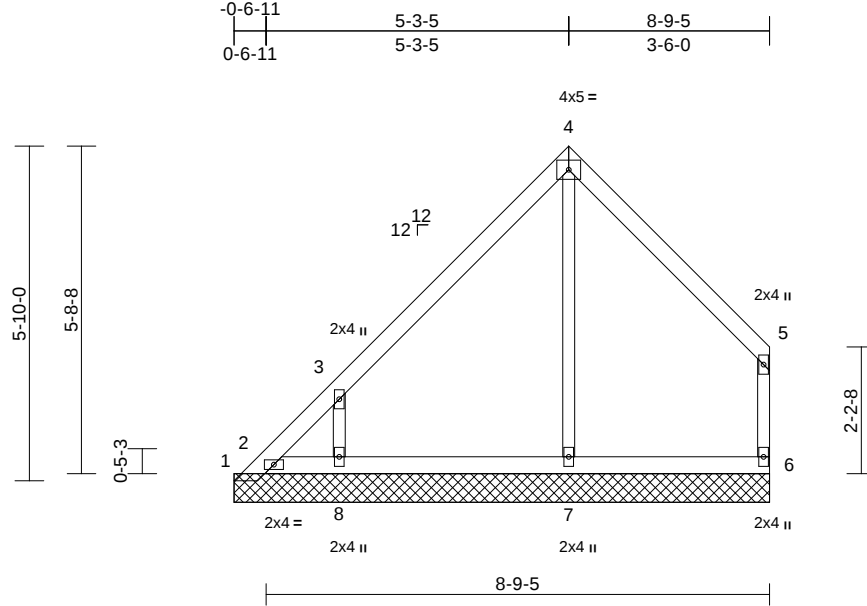
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P2	Piggyback	16	1	Job Reference (optional)	I63476829

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:51

Page: 1

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Scale = 1:40.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	6	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 32 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=9-4-0, 2=9-4-0, 6=9-4-0, 7=9-4-0, 8=9-4-0
	Max Horiz	1=173 (LC 7)
	Max Uplift	1=-81 (LC 6), 2=-169 (LC 22), 6=-89 (LC 11), 7=-26 (LC 7), 8=-284 (LC 10)
	Max Grav	1=157 (LC 23), 2=173 (LC 10), 6=200 (LC 23), 7=417 (LC 22), 8=487 (LC 22)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-215/164, 2-3=-240/245, 3-4=-199/158, 4-5=-111/97, 5-6=-156/104
BOT CHORD	2-8=-28/21, 7-8=-28/21, 6-7=-28/21
WEBS	4-7=-269/77, 3-8=-371/324

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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 1, 2 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 81 lb uplift at joint 1, 89 lb uplift at joint 6, 169 lb uplift at joint 2, 26 lb uplift at joint 7 and 284 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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Page: 1

WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 12/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

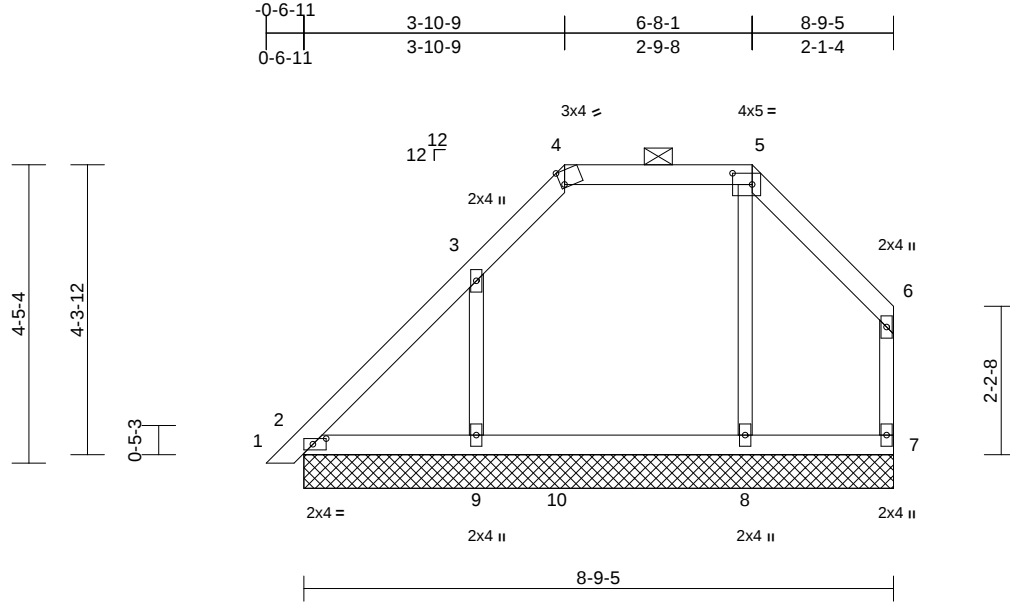
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476831
230872	P4	Piggyback	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:52
ID:pJL232K5Zhzt9k?GD3JoLy6jdh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:34.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	7	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										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, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	2=8-9-5, 7=8-9-5, 8=8-9-5, 9=8-9-5
	Max Horiz	2=135 (LC 9)
	Max Uplift	2=-56 (LC 6), 7=-41 (LC 10), 9=-107 (LC 7)
	Max Grav	2=176 (LC 23), 7=121 (LC 23), 8=356 (LC 31), 9=489 (LC 22)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/15, 2-3=-146/134, 3-4=-128/77, 4-5=-48/66, 5-6=-91/64, 6-7=-101/51
BOT CHORD	2-9=-37/25, 8-9=-37/25, 7-8=-37/25
WEBS	5-8=-185/53, 3-9=-277/150

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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 7, 56 lb uplift at joint 2 and 107 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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

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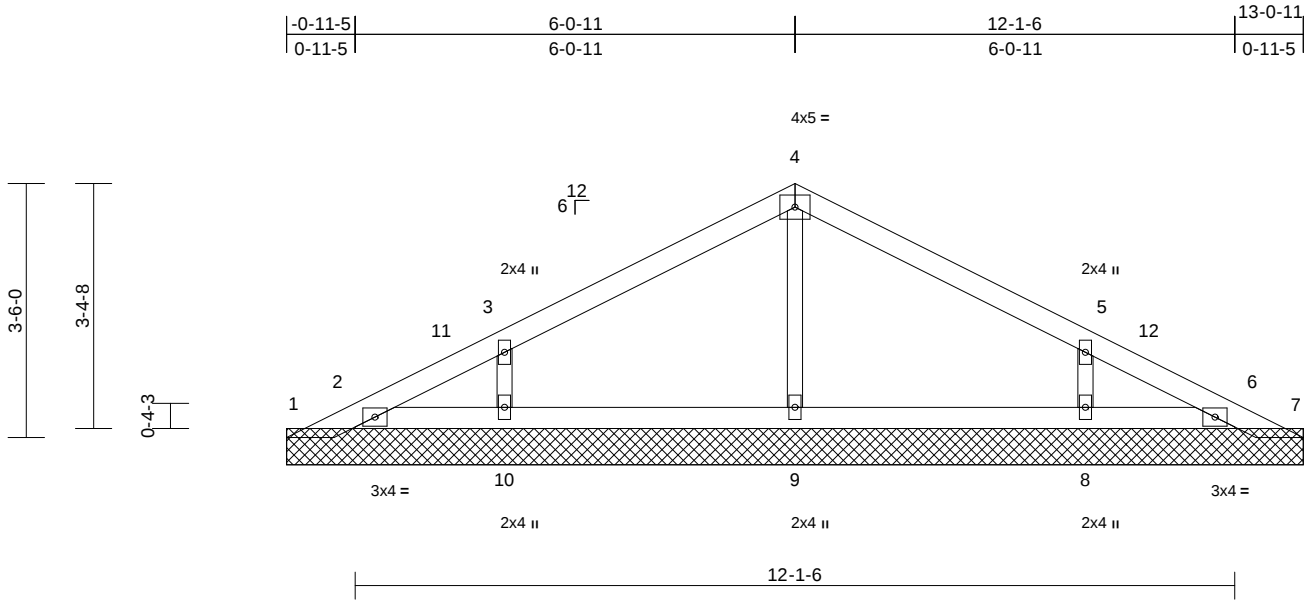
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P8	Piggyback	12	1	Job Reference (optional)	I63476832

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:53

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 35 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=14-0-0, 2=14-0-0, 6=14-0-0, 7=14-0-0, 8=14-0-0, 9=14-0-0, 10=14-0-0
Max Horiz 1=59 (LC 12)
Max Uplift 1=-26 (LC 13), 2=-3 (LC 12), 7=-10 (LC 13), 8=-111 (LC 13), 10=-112 (LC 12)
Max Grav 1=42 (LC 19), 2=84 (LC 2), 6=84 (LC 2), 7=42 (LC 20), 8=366 (LC 20), 9=336 (LC 3), 10=366 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-63/70, 2-3=-73/40, 3-4=-110/84, 4-5=-110/68, 5-6=-55/29, 6-7=-15/12
BOT CHORD 2-10=0/55, 9-10=0/55, 8-9=0/55, 6-8=0/55
WEBS 4-9=-227/38, 3-10=-300/153, 5-8=-300/152

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

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1, 10 lb uplift at joint 7, 3 lb uplift at joint 2, 112 lb uplift at joint 10 and 111 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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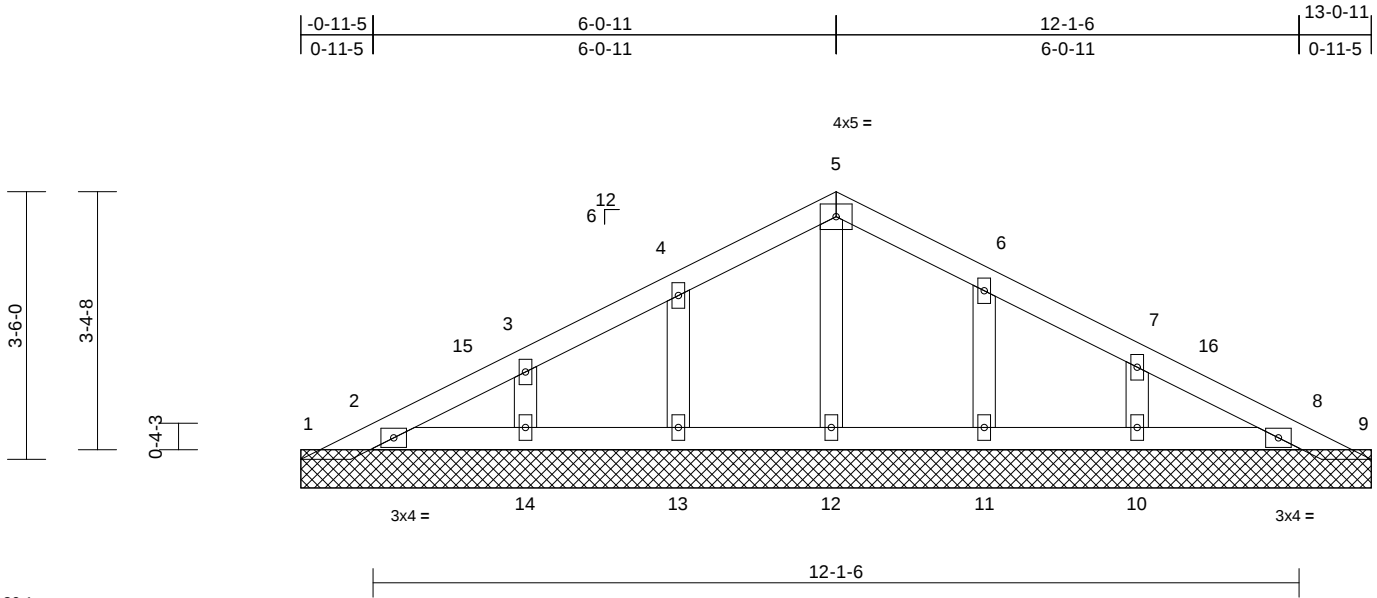
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P9	Piggyback	2	1	Job Reference (optional)	163476833

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:30.1

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	0.06	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	9	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0									Weight: 41 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)	1=14-0-0, 2=14-0-0, 8=14-0-0, 9=14-0-0, 10=14-0-0, 11=14-0-0, 12=14-0-0, 13=14-0-0, 14=14-0-0
Max Horiz	1=59 (LC 16)
Max Uplift	1=-23 (LC 17), 2=-34 (LC 12), 8=-24 (LC 13), 9=-10 (LC 35), 10=-57 (LC 13), 11=-56 (LC 13), 13=-60 (LC 12), 14=-55 (LC 12)
Max Grav	1=31 (LC 12), 2=149 (LC 2), 8=161 (LC 2), 9=8 (LC 13), 10=205 (LC 6), 11=207 (LC 20), 12=174 (LC 29), 13=216 (LC 19), 14=195 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-66/74, 2-3=-69/41, 3-4=-46/58, 4-5=-51/84, 5-6=-50/76, 6-7=-46/35, 7-8=-53/26, 8-9=-2/26
BOT CHORD	2-14=-4/54, 13-14=-4/54, 12-13=-4/54, 11-12=-4/55, 10-11=-4/55, 8-10=-4/55
WEBS	3-14=-145/79, 4-13=-177/84, 5-12=-115/0, 6-11=-169/80, 7-10=-153/82

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 10 lb uplift at joint 9, 34 lb uplift at joint 2, 24 lb uplift at joint 8, 55 lb uplift at joint 14, 60 lb uplift at joint 13, 56 lb uplift at joint 11 and 57 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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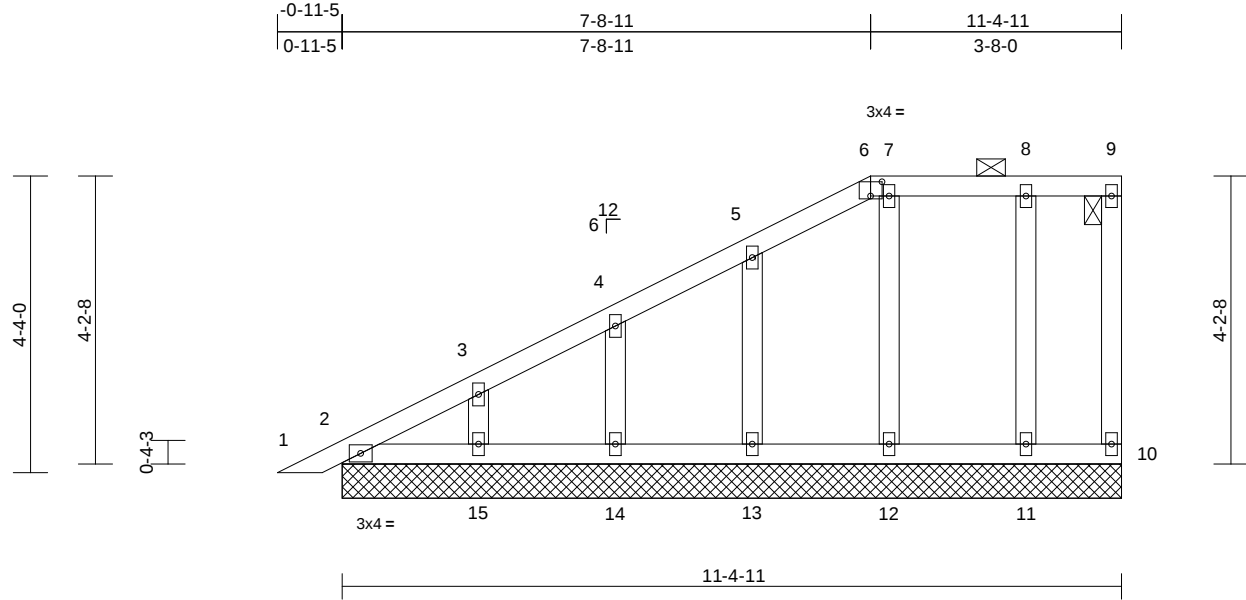
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P10	Piggyback	2	1	Job Reference (optional)	I63476834

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:53
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Page: 1



Scale = 1:33.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 47 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, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	2=11-4-11, 10=11-4-11, 11=11-4-11, 12=11-4-11, 13=11-4-11, 14=11-4-11, 15=11-4-11
Max Horiz	2=168 (LC 9)
Max Uplift	2=-1 (LC 8), 10=-10 (LC 9), 11=-37 (LC 8), 12=-44 (LC 9), 13=-55 (LC 12), 14=-53 (LC 12), 15=-59 (LC 12)
Max Grav	2=156 (LC 40), 10=45 (LC 33), 11=199 (LC 33), 12=188 (LC 3), 13=221 (LC 34), 14=210 (LC 34), 15=230 (LC 34)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/22, 2-3=-138/50, 3-4=-108/46, 4-5=-93/48, 5-6=-84/44, 6-7=-55/42, 7-8=-55/42, 8-9=-55/42, 9-10=-37/25
BOT CHORD	2-15=-56/42, 14-15=-56/42, 13-14=-56/42, 12-13=-56/42, 11-12=-56/42, 10-11=-56/42
WEBS	3-15=-182/82, 4-14=-172/78, 5-13=-181/78, 7-12=-141/66, 8-11=-163/62

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 10, 1 lb uplift at joint 2, 59 lb uplift at joint 15, 53 lb uplift at joint 14, 55 lb uplift at joint 13, 44 lb uplift at joint 12 and 37 lb uplift at joint 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.

- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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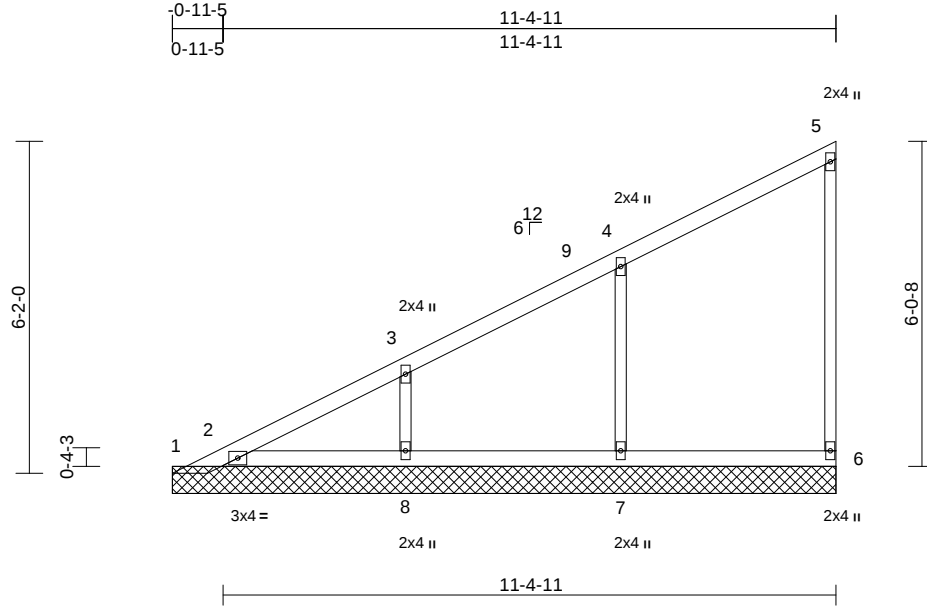
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P11	Piggyback	4	1	Job Reference (optional)	I63476835

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:54

Page: 1

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Scale = 1:42.8

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	0.28	Vert(LL)	n/a	-	n/a	999	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	6	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 37 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=12-4-0, 2=12-4-0, 6=12-4-0, 7=12-4-0, 8=12-4-0
	Max Horiz	1=243 (LC 9)
	Max Uplift	1=-88 (LC 26), 2=-51 (LC 12), 6=-35 (LC 9), 7=-120 (LC 12), 8=-101 (LC 12)
	Max Grav	1=120 (LC 9), 2=292 (LC 26), 6=209 (LC 5), 7=516 (LC 5), 8=401 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-270/92, 2-3=-197/65, 3-4=-154/73, 4-5=-135/61, 5-6=-128/46
BOT CHORD	2-8=-80/62, 7-8=-80/62, 6-7=-80/62
WEBS	4-7=-317/161, 3-8=-258/149

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 1, 35 lb uplift at joint 6, 51 lb uplift at joint 2, 120 lb uplift at joint 7 and 101 lb uplift at joint 8.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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

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

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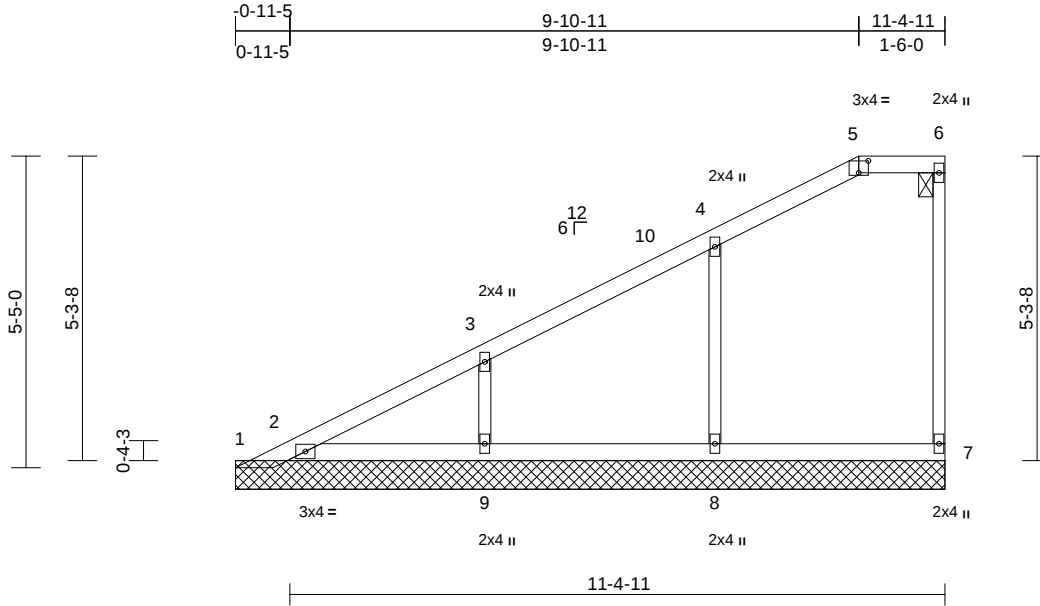
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476836
230872	P12	Piggyback	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:54
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Page: 1



Scale = 1:40.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	7	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 36 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	1=12-4-0, 2=12-4-0, 7=12-4-0, 8=12-4-0, 9=12-4-0
	Max Horiz	1=215 (LC 9)
	Max Uplift	1=-95 (LC 38), 2=-51 (LC 12), 7=-35 (LC 9), 8=-96 (LC 12), 9=-107 (LC 12)
	Max Grav	1=110 (LC 9), 2=328 (LC 38), 7=196 (LC 35), 8=552 (LC 36), 9=452 (LC 36)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-240/93, 2-3=-169/72, 3-4=-153/80, 4-5=-122/54, 5-6=-70/53, 6-7=-109/46
BOT CHORD	2-9=-72/54, 8-9=-72/54, 7-8=-72/54
WEBS	4-8=-367/141, 3-9=-326/154

NOTES

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

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) All bearings are assumed to be SPF No.2 .
- 12) Bearing at joint(s) 1, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 1, 35 lb uplift at joint 7, 51 lb uplift at joint 2, 96 lb uplift at joint 8 and 107 lb uplift at joint 9.
- 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.
- 15) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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

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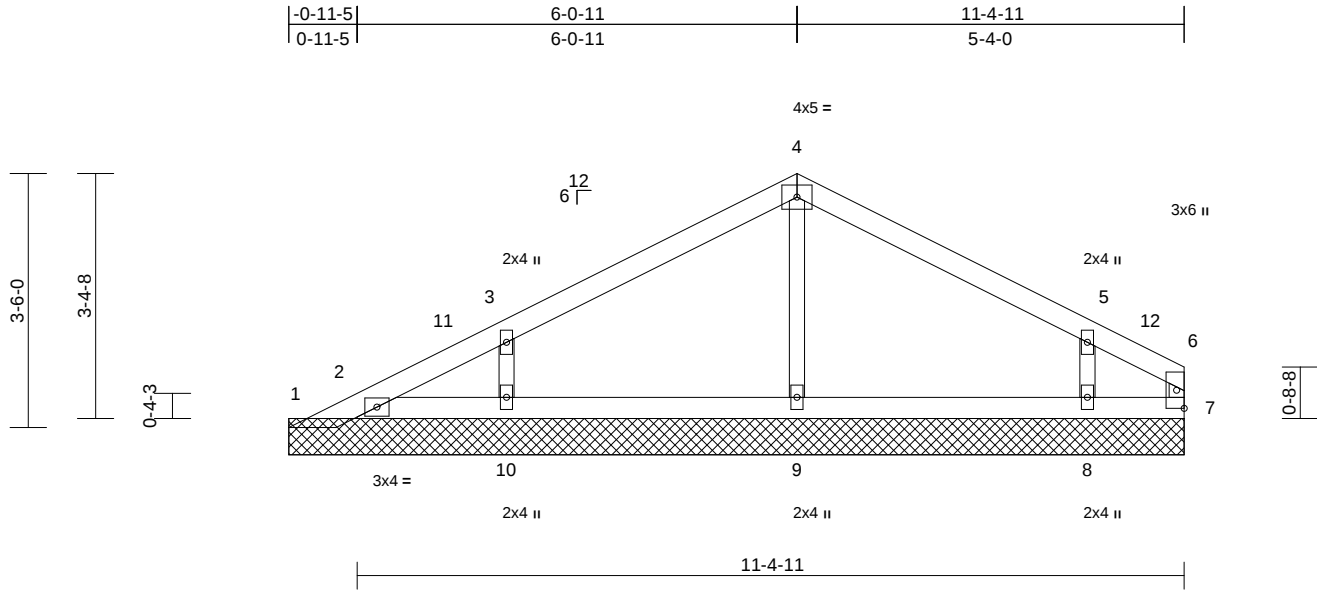
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	163476837
230872	P13	Piggyback	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:55

Page: 1

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Scale = 1:31.7

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	0.20	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0									Weight: 33 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=12-4-0, 2=12-4-0, 7=12-4-0, 8=12-4-0, 9=12-4-0, 10=12-4-0
	Max Horiz	1=67 (LC 12)
	Max Uplift	1=-11 (LC 8), 2=-5 (LC 12), 7=-49 (LC 20), 8=-122 (LC 13), 10=-112 (LC 12)
	Max Grav	1=42 (LC 19), 2=73 (LC 2), 7=38 (LC 13), 8=371 (LC 20), 9=354 (LC 3), 10=366 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-68/45, 2-3=-61/53, 3-4=-95/75, 4-5=-87/59, 5-6=-40/52, 6-7=-38/50
BOT CHORD	2-10=-11/22, 9-10=-11/22, 8-9=-11/22, 7-8=-11/22
WEBS	4-9=-248/41, 3-10=-300/153, 5-8=-311/159

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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 49 lb uplift at joint 7, 5 lb uplift at joint 2, 112 lb uplift at joint 10 and 122 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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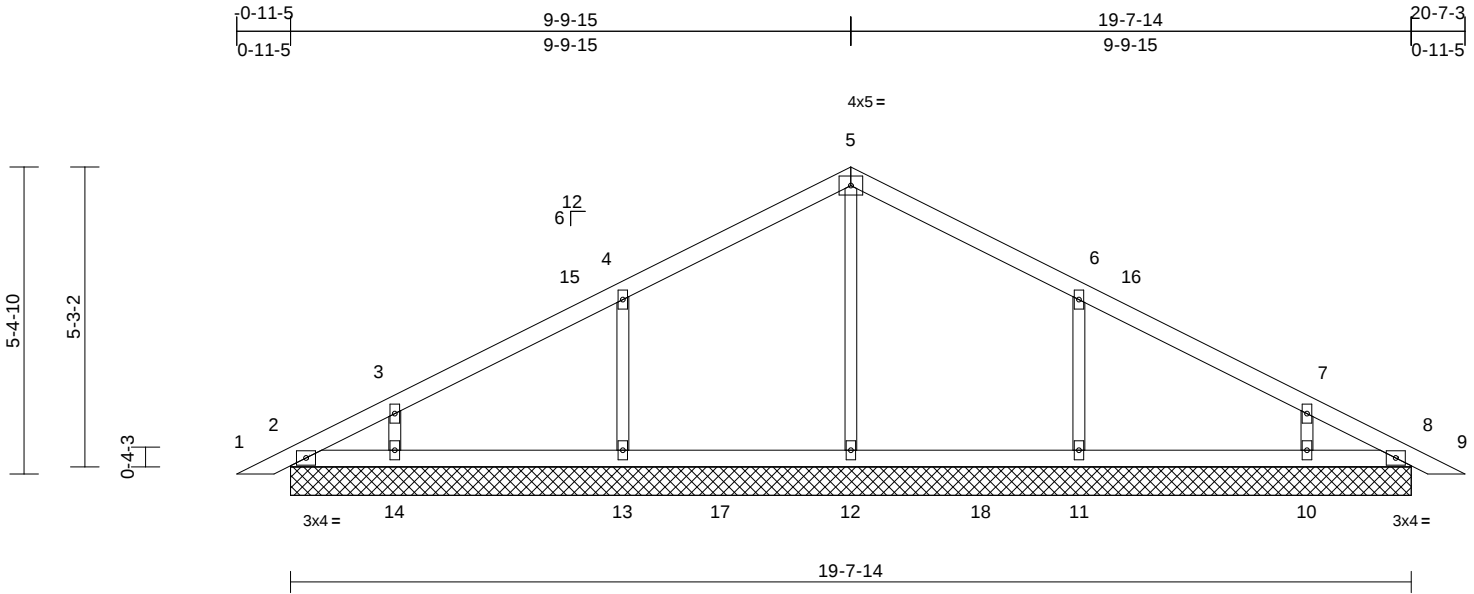
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P18	Piggyback	1	1	Job Reference (optional)	I63476838

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:55
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Page: 1



Scale = 1:40.4

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	8	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 59 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)	2=19-7-14, 8=19-7-14, 10=19-7-14, 11=19-7-14, 12=19-7-14, 13=19-7-14, 14=19-7-14
Max Horiz	2=92 (LC 16)
Max Uplift	2=-16 (LC 8), 8=-4 (LC 9), 10=-85 (LC 13), 11=-124 (LC 13), 13=-124 (LC 12), 14=-85 (LC 12)
Max Grav	2=103 (LC 2), 8=103 (LC 2), 10=347 (LC 3), 11=473 (LC 6), 12=435 (LC 26), 13=473 (LC 5), 14=347 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/17, 2-3=-110/46, 3-4=-103/78, 4-5=-109/131, 5-6=-109/116, 6-7=-94/46, 7-8=-80/20, 8-9=0/17
BOT CHORD	2-14=-2/81, 13-14=-2/81, 12-13=-2/81, 11-12=-2/81, 10-11=-2/81, 8-10=-2/81
WEBS	5-12=-216/3, 4-13=-315/173, 3-14=-224/128, 6-11=-315/173, 7-10=-224/127

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 4 lb uplift at joint 8, 124 lb uplift at joint 13, 85 lb uplift at joint 14, 124 lb uplift at joint 11 and 85 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 8, 2024

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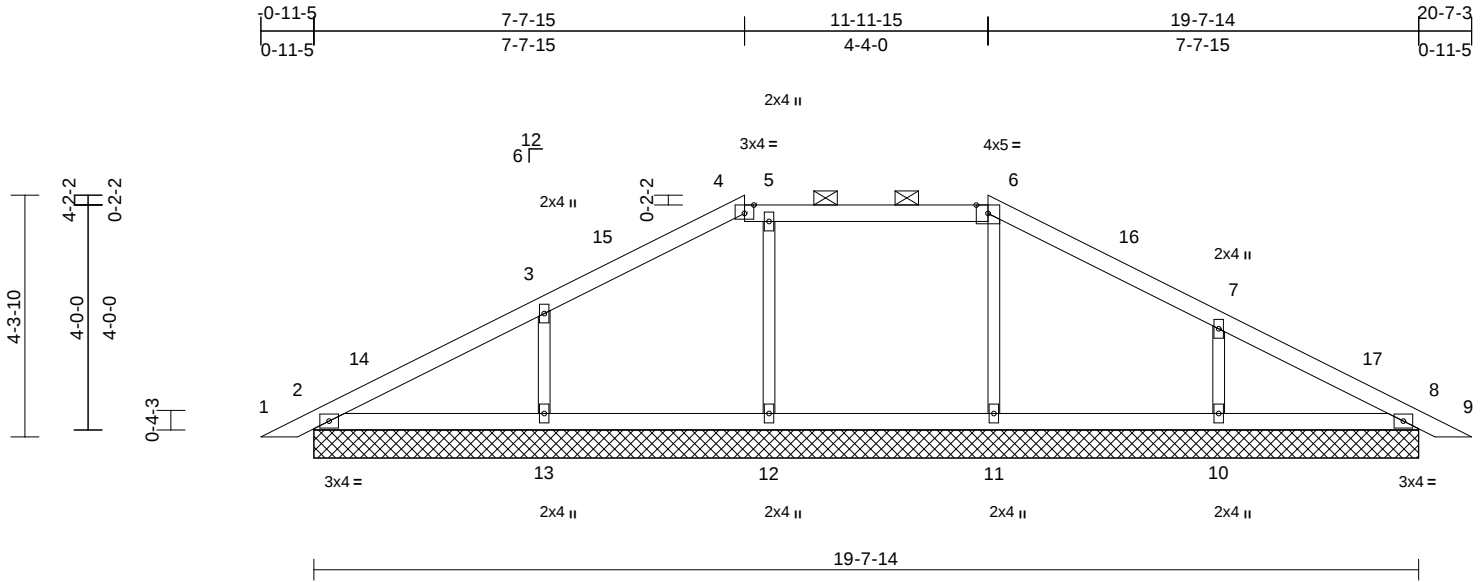
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P19	Piggyback	1	1	Job Reference (optional)	I63476839

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:55
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Page: 1



Scale = 1:41

Plate Offsets (X, Y): [4:0-2-0,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	0.26	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	8	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 58 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, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=19-7-14, 8=19-7-14, 10=19-7-14, 11=19-7-14, 12=19-7-14, 13=19-7-14
Max Horiz 2=-72 (LC 17)
Max Uplift 2=-21 (LC 12), 8=-19 (LC 13), 10=-125 (LC 13), 11=-27 (LC 8), 12=-43 (LC 9), 13=-123 (LC 12)
Max Grav 2=260 (LC 37), 8=226 (LC 37), 10=480 (LC 37), 11=365 (LC 55), 12=367 (LC 5), 13=498 (LC 37)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/22, 2-3=-134/79, 3-4=-143/91, 4-5=-71/89, 5-6=-56/92, 6-7=-144/84, 7-8=-112/92, 8-9=0/22
BOT CHORD 2-13=-26/82, 12-13=-26/82, 11-12=-26/82, 10-11=-33/79, 8-10=-33/79
WEBS 6-11=-277/76, 5-12=-286/91, 3-13=-394/169, 7-10=-390/170

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 19 lb uplift at joint 8, 27 lb uplift at joint 11, 43 lb uplift at joint 12, 123 lb uplift at joint 13 and 125 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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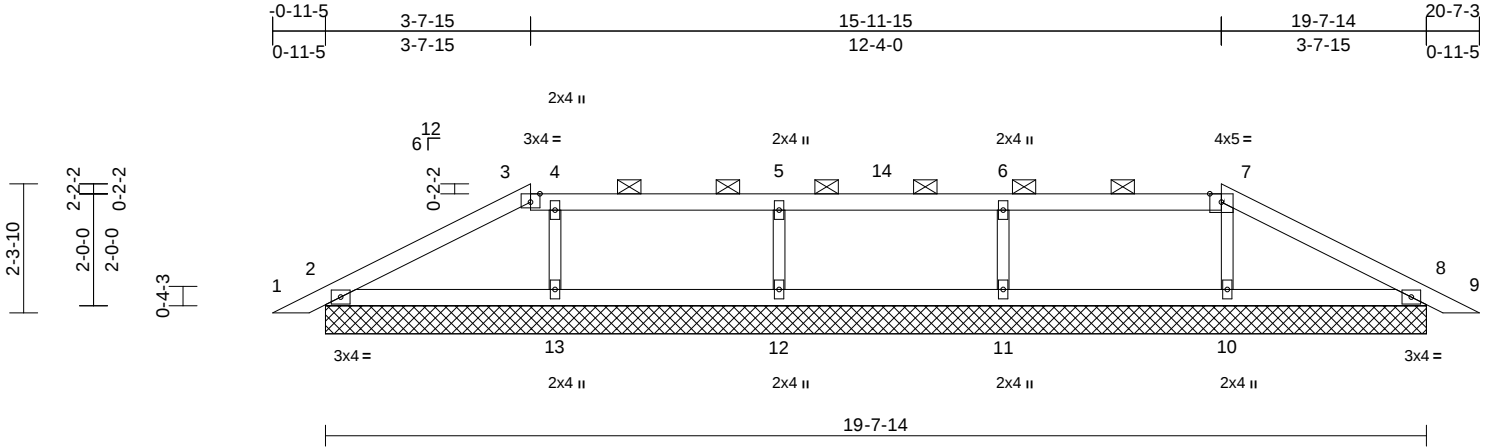
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	P20	Piggyback	1	1	Job Reference (optional)	I63476840

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:56

Page: 1

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Scale = 1:41.1

Plate Offsets (X, Y): [3:0-2-0,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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	8	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 53 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, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=19-7-14, 8=19-7-14, 10=19-7-14, 11=19-7-14, 12=19-7-14, 13=19-7-14
Max Horiz 2=-36 (LC 13)
Max Uplift 2=-52 (LC 12), 8=-49 (LC 13), 10=-38 (LC 8), 11=-76 (LC 9), 12=-77 (LC 8), 13=-45 (LC 9)
Max Grav 2=277 (LC 37), 8=262 (LC 37), 10=375 (LC 55), 11=448 (LC 36), 12=437 (LC 36), 13=402 (LC 54)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-3=-154/55, 3-4=-94/58, 4-5=-74/51, 5-6=-74/51, 6-7=-75/52, 7-8=-142/89, 8-9=0/22
BOT CHORD 2-13=-19/83, 12-13=-19/83, 11-12=-19/83, 10-11=-19/83, 8-10=-29/78
WEBS 7-10=-270/83, 6-11=-369/124, 5-12=-360/123, 4-13=-286/94

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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 2, 49 lb uplift at joint 8, 38 lb uplift at joint 10, 76 lb uplift at joint 11, 77 lb uplift at joint 12 and 45 lb uplift at joint 13.
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

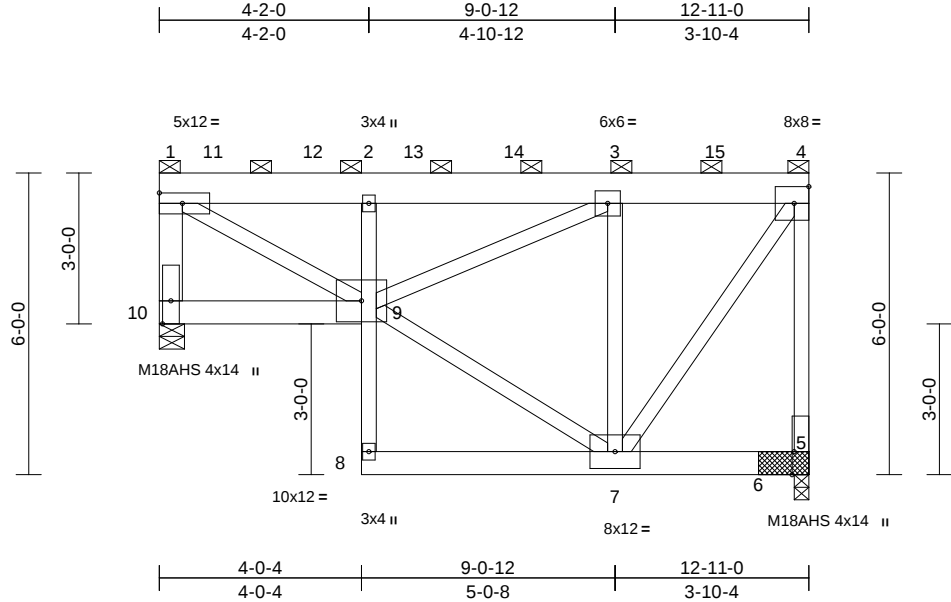
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	R1	Roof Special Girder	1	2	Job Reference (optional)	I63476841

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:56

Page: 1

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Scale = 1:45.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.08	2	>999	360	M18AHS 142/136
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	2	>999	240	MT20 197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.04	5	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.01	2	>999	240	
BCDL	10.0										
Weight: 221 lb FT = 10%											

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x6 SPF No.2 *Except* 2-8:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 10-1:2x6 SPF No.2,
9-1:2x4 SPF 2100F 1.8E

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 + bearing block), (req.
0-5-2), 10=0-6-0
Max Horiz 10=147 (LC 9)
Max Grav 5=6552 (LC 19), 10=7162 (LC 20)

FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-10=-6941/0, 1-2=-7937/0, 2-3=-7963/0,
3-4=-3641/0, 4-5=-6430/0
BOT CHORD 9-10=-20/417, 8-9=0/141, 2-9=-4764/0,
7-8=0/139, 5-7=-51/61
WEBS 1-9=0/8916, 7-9=0/4067, 3-9=0/4908,
3-7=-7346/0, 4-7=0/6344

NOTES

- 2-ply truss to be connected together with 10d
(0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows
staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0
oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows
staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.

- 2x6 SPF No.2 bearing block 12" long at jt. 5 attached to
each face with 3 rows of 10d (0.131"x3") nails spaced
3" o.c. 12 Total fasteners per block. Bearing is assumed
to be SPF No.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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum
DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C;
Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- 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) 338
lb down and 238 lb up at 12-9-4 on top chord. The
design/selection of such connection device(s) is the
responsibility of others.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate
Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-61, 9-10=-20, 5-8=-20

Concentrated Loads (lb)

Vert: 3=-1393, 11=-1396, 12=-1394, 13=-1393,
14=-1393, 15=-1390



February 8, 2024

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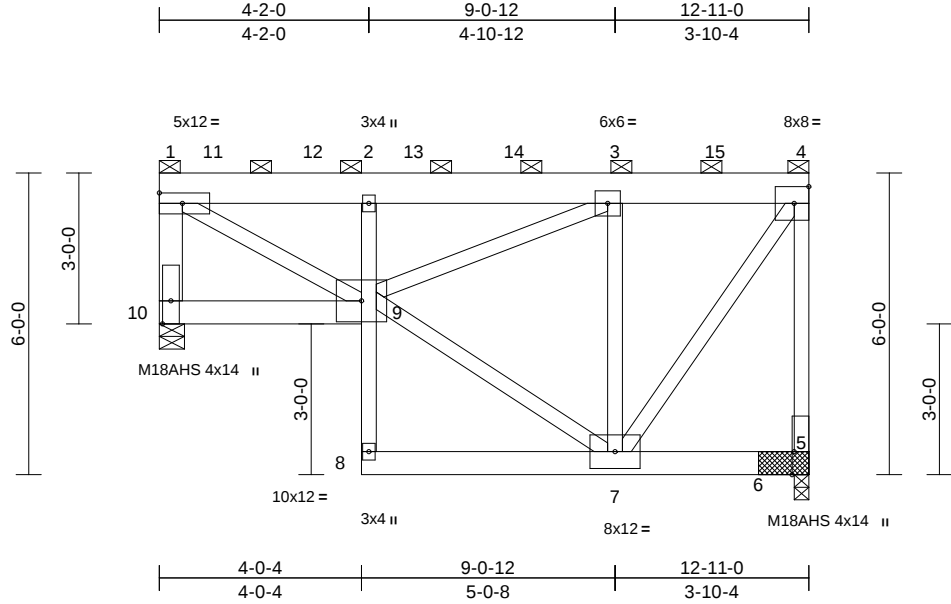
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	R2	Roof Special Girder	1	2	Job Reference (optional)	I63476842

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:57
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Page: 1



Scale = 1:45.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.08	2	>999	360	M18AHS 142/136
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	2	>999	240	MT20 197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.04	5	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	-0.01	2	>999	240	
BCDL	10.0										
Weight: 221 lb FT = 10%											

LUMBER

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x6 SPF No.2 *Except* 2-8:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 10-1:2x6 SPF No.2,
9-1:2x4 SPF 2100F 1.8E

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 + bearing block), (req.
0-5-2), 10=0-6-0
Max Horiz 10=147 (LC 9)
Max Grav 5=6552 (LC 19), 10=7162 (LC 20)

FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-10=-6941/0, 1-2=-7937/0, 2-3=-7963/0,
3-4=-3641/0, 4-5=-6430/0
BOT CHORD 9-10=-20/417, 8-9=0/141, 2-9=-4764/0,
7-8=0/139, 5-7=-51/61
WEBS 1-9=0/8916, 7-9=0/4067, 3-9=0/4908,
3-7=-7346/0, 4-7=0/6344

NOTES

- 2-ply truss to be connected together with 10d
(0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows
staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0
oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows
staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.

- 2x6 SPF No.2 bearing block 12" long at jt. 5 attached to
each face with 3 rows of 10d (0.131"x3") nails spaced
3" o.c. 12 Total fasteners per block. Bearing is assumed
to be SPF No.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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum
DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C;
Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- 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) 338
lb down and 238 lb up at 12-9-4 on top chord. The
design/selection of such connection device(s) is the
responsibility of others.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate
Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-61, 9-10=-20, 5-8=-20

Concentrated Loads (lb)

Vert: 3=-1393, 11=-1396, 12=-1394, 13=-1393,
14=-1393, 15=-1390



February 8, 2024

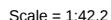
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:57 Page: 1
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[illegible]

- 1) 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.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=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) TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with any other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
- 9) WARNING: Required bearing size at joint(s) 6, 10 greater than input bearing size.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 890 lb uplift at joint 6 and 1127 lb uplift at joint 10.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- 15) Use Simpson Strong-Tie HGUS26-2 (20-10d Girder, 8-10d Truss) or equivalent at 3-2-9 from the left end to connect truss(es) to front face of bottom chord.
 - 16) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent at 5-1-12 from the left end to connect truss(es) to front face of bottom chord.
 - 17) Fill all nail holes where hanger is in contact with lumber.
 - 18) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2098 lb down and 241 lb up at 7-1-12, and 1828 lb down and 250 lb up at 9-1-12, and 1828 lb down and 250 lb up at 11-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 3-5=-61, 8-10=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 4=-1689, 11=-1637, 12=-1689, 13=-2064 (F), 14=-1818 (F)

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-51, 3-5=-61, 8-10=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 4=-1689, 11=-1637, 12=-1689, 13=-2064 (F),
14=-1818 (F)



February 8, 2024



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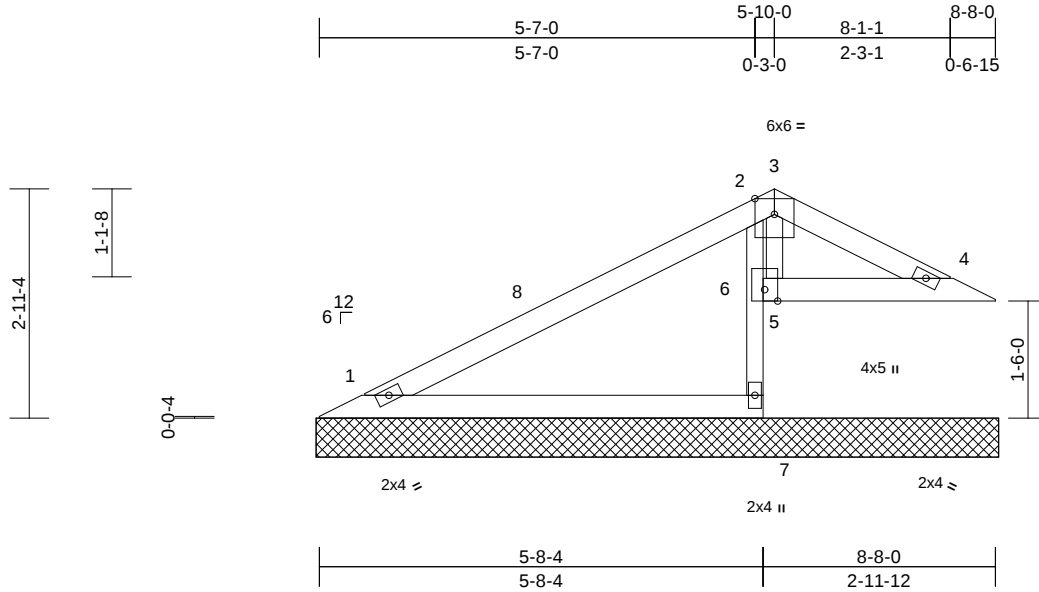
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V3	Valley	3	1	Job Reference (optional)	I63476844

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:58

Page: 1

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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	Vert(LL)	n/a	-	n/a	999	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 22 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF 2100F 1.8E *Except* 3-4:2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 7-2:2x3 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 6-0-0 oc bracing.

REACTIONS (size)	1=8-9-0, 4=8-9-0, 5=8-9-0, 6=8-9-0, 7=8-9-0
Max Horiz	1=81 (LC 12)
Max Uplift	1=-7 (LC 12), 4=-32 (LC 13), 5=-543 (LC 31), 6=-511 (LC 12)
Max Grav	1=202 (LC 33), 4=105 (LC 19), 5=408 (LC 12), 6=837 (LC 2), 7=100 (LC 7)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-66/98, 2-3=-290/184, 3-4=-28/44
BOT CHORD	1-7=-4/3, 6-7=0/0, 2-6=-880/485, 5-6=-11/6, 4-5=-11/6
WEBS	3-5=-362/618

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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 32 lb uplift at joint 4, 511 lb uplift at joint 6 and 543 lb uplift at joint 5.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4, 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



February 8, 2024

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

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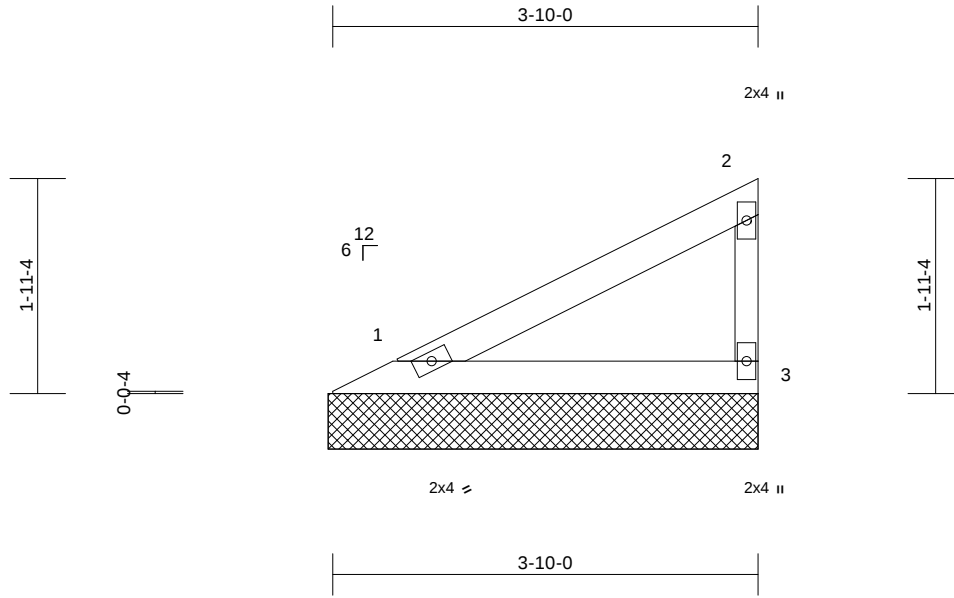
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476845
230872	V4	Valley	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:58

Page: 1

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Scale = 1:20.8

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 10 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)

1=3-10-8, 3=3-10-8
Max Horiz 1=66 (LC 9)
Max Uplift 1=-18 (LC 12), 3=-35 (LC 12)
Max Grav 1=150 (LC 5), 3=150 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-60/41, 2-3=-116/54
BOT CHORD	1-3=-22/17

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 35 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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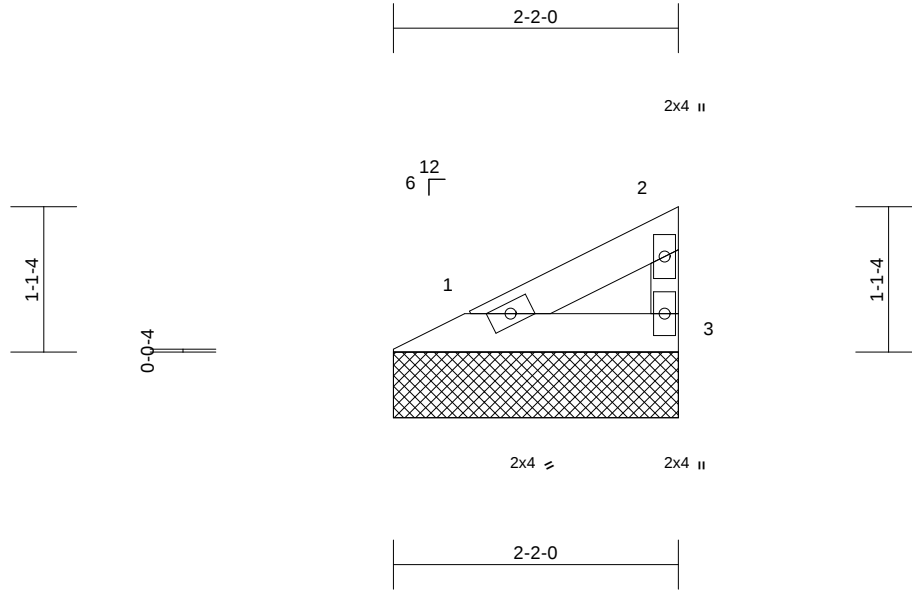
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476846
230872	V5	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:17.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 5 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size) 1=2-2-0, 3=2-2-0

Max Horiz	1=31 (LC 9)
Max Uplift	1=-8 (LC 12), 3=-16 (LC 12)
Max Grav	1=68 (LC 3), 3=69 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

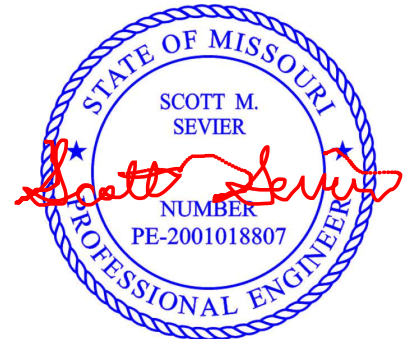
TOP CHORD	1-2=-28/19, 2-3=-52/25
BOT CHORD	1-3=-11/8

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 16 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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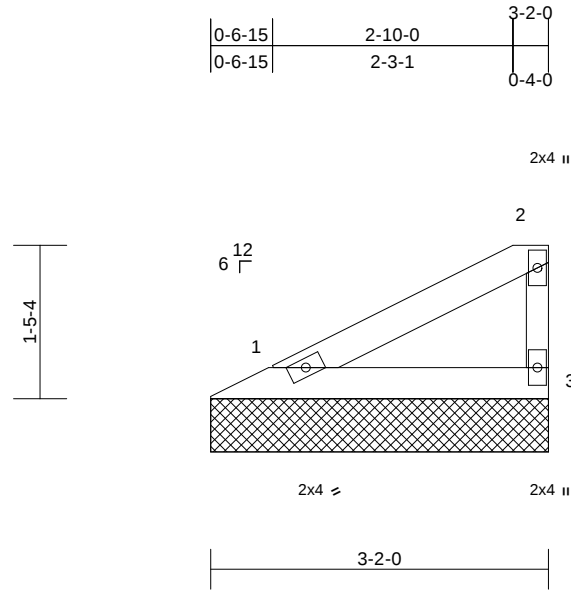
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476847
230872	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:59

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Scale = 1:21.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 8 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)

1=3-2-0, 3=3-2-0
Max Horiz 1=52 (LC 11)
Max Uplift 1=-14 (LC 12), 3=-27 (LC 12)
Max Grav 1=115 (LC 5), 3=116 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-47/32, 2-3=-88/42
BOT CHORD	1-3=-18/13

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 27 lb uplift at joint 3.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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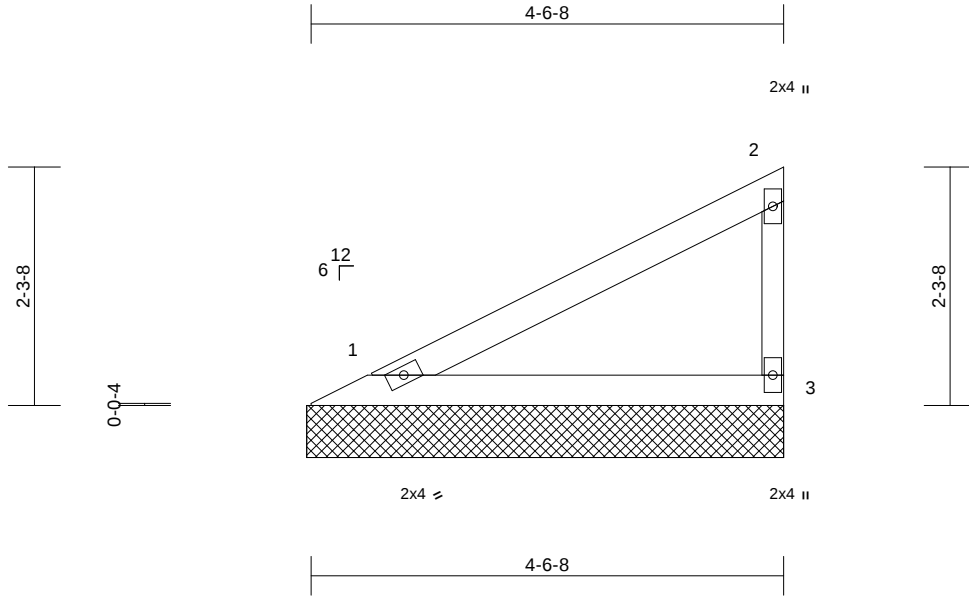
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476848
230872	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:59

Page: 1

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Scale = 1:22.1

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
Weight: 12 lb FT = 10%											

LUMBER

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

BRACING

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

REACTIONS (size)

1=4-7-0, 3=4-7-0
Max Horiz 1=80 (LC 9)
Max Uplift 1=-22 (LC 12), 3=-42 (LC 12)
Max Grav 1=187 (LC 5), 3=187 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-73/53, 2-3=-146/66
BOT CHORD	1-3=-27/21

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 42 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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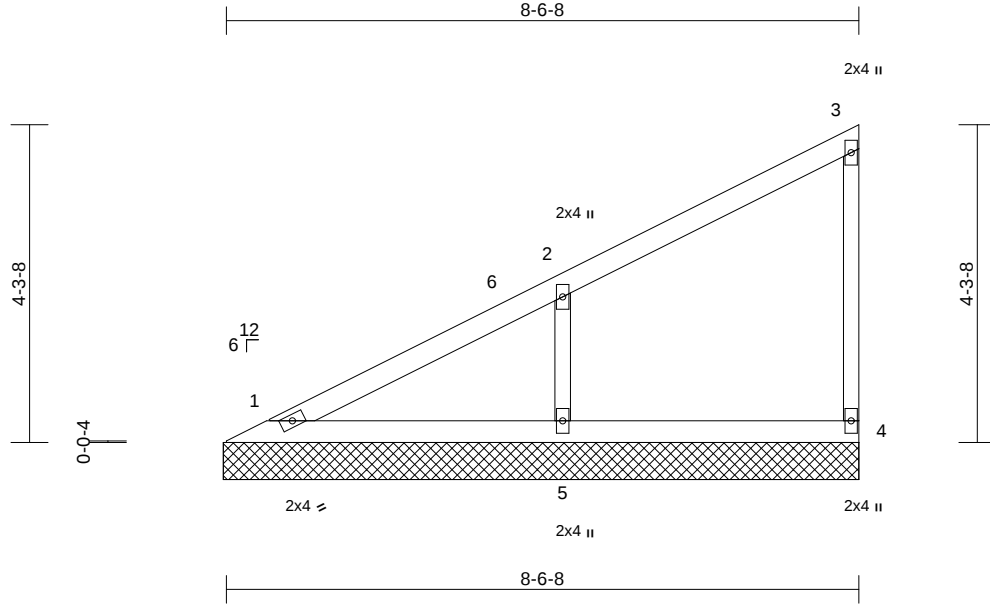
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V8	Valley	1	1	Job Reference (optional)	I63476849

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:22:59
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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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										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=8-7-0, 4=8-7-0, 5=8-7-0
Max Horiz	1=164 (LC 11)
Max Uplift	4=-27 (LC 9), 5=-132 (LC 12)
Max Grav	1=160 (LC 26), 4=152 (LC 18), 5=453 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-131/79, 2-3=-118/43, 3-4=-123/44
BOT CHORD	1-5=-56/42, 4-5=-56/42
WEBS	2-5=-343/191

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) All bearings are assumed to be SPF No.2 .
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 132 lb uplift at joint 5.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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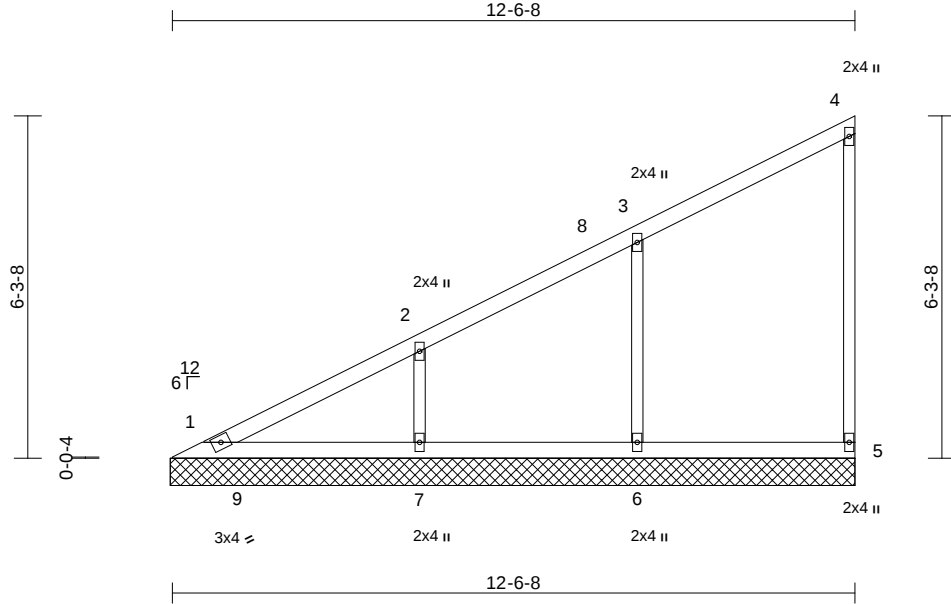
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V9	Valley	1	1	Job Reference (optional)	I63476850

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:00
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Page: 1



Scale = 1:42.3

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	0.31	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 39 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=12-7-0, 5=12-7-0, 6=12-7-0, 7=12-7-0
	Max Horiz	1=247 (LC 9)
	Max Uplift	5=-37 (LC 9), 6=-115 (LC 12), 7=-119 (LC 12)
	Max Grav	1=205 (LC 26), 5=212 (LC 5), 6=502 (LC 5), 7=467 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-205/79, 2-3=-160/71, 3-4=-137/64, 4-5=-130/46
BOT CHORD	1-7=-84/64, 6-7=-84/64, 5-6=-84/64
WEBS	3-6=-309/155, 2-7=-301/168

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 5, 115 lb uplift at joint 6 and 119 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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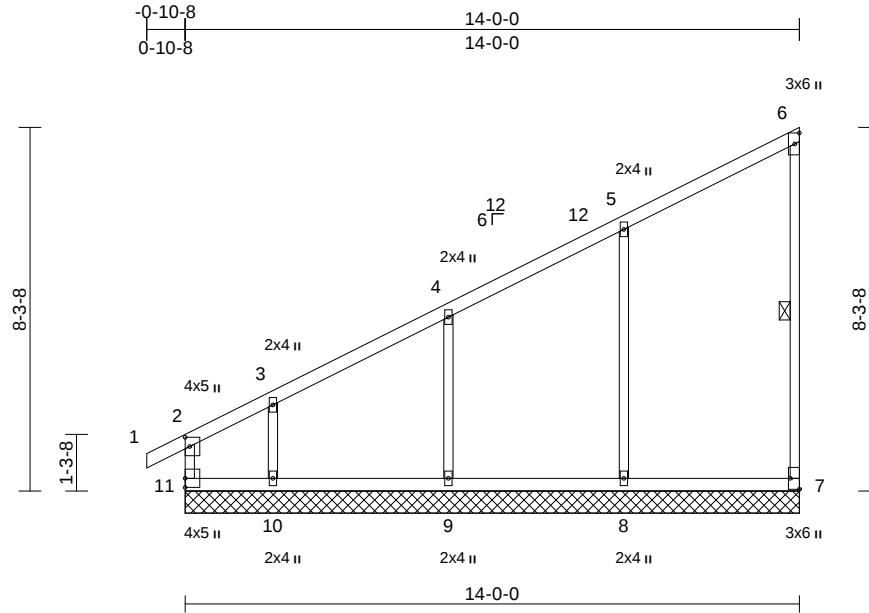
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V10	Valley	2	1	Job Reference (optional)	I63476851

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:00

Page: 1

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Scale = 1:52.5									
Plate Offsets (X, Y): [2:0-2-8,0-1-4], [7:Edge,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	n/a	-	n/a
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.00	7	n/a
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R					
BCDL	10.0								
Weight: 51 lb FT = 10%									

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E
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.
WEBS	1 Row at midpt 6-7
REACTIONS (size)	
	7=14-0-0, 8=14-0-0, 9=14-0-0, 10=14-0-0, 11=14-0-0
Max Horiz	11=336 (LC 11)
Max Uplift	7=-46 (LC 9), 8=-120 (LC 12), 9=-95 (LC 12), 10=-229 (LC 12), 11=-15 (LC 10)
Max Grav	7=206 (LC 26), 8=545 (LC 5), 9=463 (LC 3), 10=369 (LC 26), 11=275 (LC 27)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-11=-202/20, 1-2=0/31, 2-3=-298/65, 3-4=-218/82, 4-5=-190/83, 5-6=-154/83, 6-7=-129/47
BOT CHORD	10-11=-114/86, 9-10=-114/86, 8-9=-114/86, 7-8=-114/86
WEBS	5-8=-313/147, 4-9=-284/157, 3-10=-219/197
NOTES	
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60	

- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF 2100F 1.8E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 11, 46 lb uplift at joint 7, 120 lb uplift at joint 8, 95 lb uplift at joint 9 and 229 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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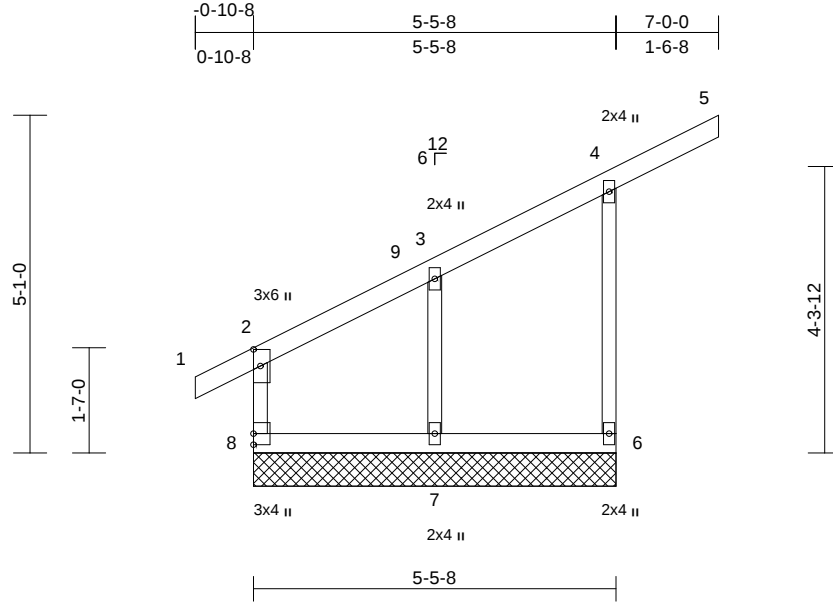
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V11	Valley	2	1	Job Reference (optional)	I63476852

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:00

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Scale = 1:34.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R							
BCDL	10.0										
										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 5-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size)	6=5-5-8, 7=5-5-8, 8=5-5-8
Max Horiz	8=201 (LC 9)
Max Uplift	6=-95 (LC 9), 7=-121 (LC 12), 8=-14 (LC 8)
Max Grav	6=285 (LC 19), 7=264 (LC 26), 8=227 (LC 27)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-8=-169/26, 1-2=0/31, 2-3=-150/48, 3-4=-95/61, 4-5=-59/0, 4-6=-265/105
BOT CHORD	7-8=-60/42, 6-7=-60/42
WEBS	3-7=-161/121

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 4-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) All bearings are assumed to be SPF No.2 .
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 8, 95 lb uplift at joint 6 and 121 lb uplift at joint 7.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



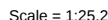
February 8, 2024

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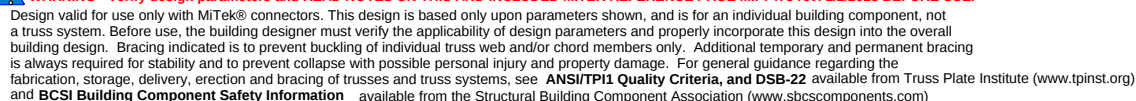
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Page: 1LOAD CASE(S) Standard

- February 8, 2024



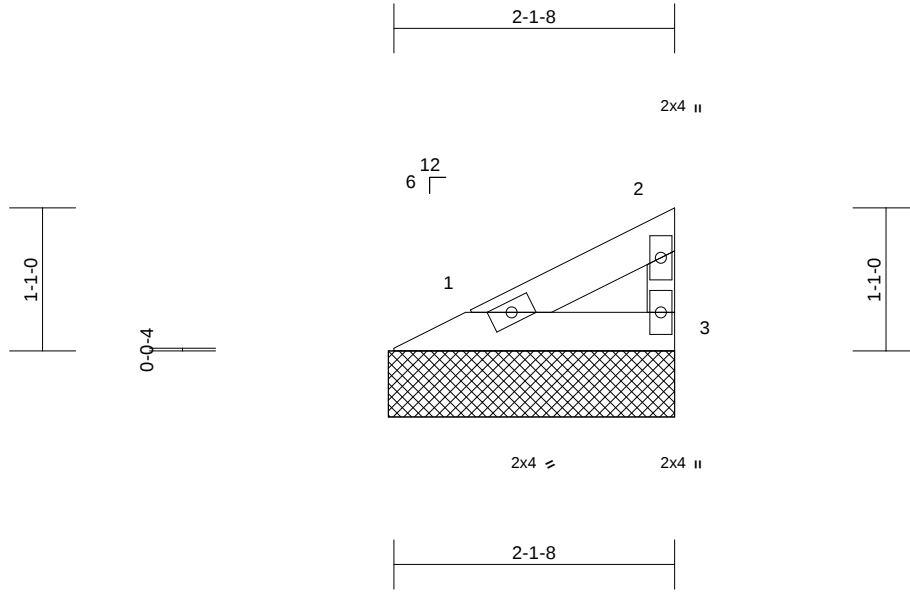
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476854
230872	V13	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:01
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Page: 1



Scale = 1:17.4

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 5 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)

1=2-2-0, 3=2-2-0
Max Horiz 1=30 (LC 9)
Max Uplift 1=-8 (LC 12), 3=-16 (LC 12)
Max Grav 1=66 (LC 3), 3=67 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-27/18, 2-3=-50/24
BOT CHORD	1-3=-10/8

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 16 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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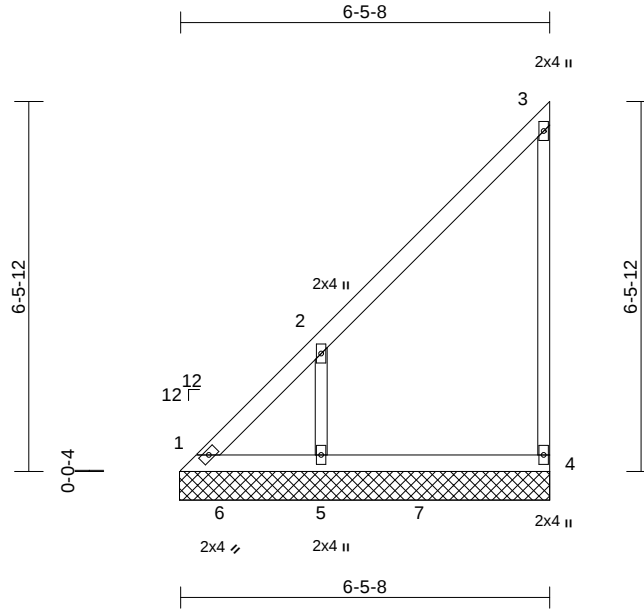
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V14	Valley	2	1	Job Reference (optional)	I63476855

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:01
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Page: 1



Scale = 1:40.3

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	0.51	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
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=6-5-12, 4=6-5-12, 5=6-5-12
Max Horiz	1=240 (LC 9)
Max Uplift	1=-90 (LC 8), 4=-86 (LC 7), 5=-232 (LC 10)
Max Grav	1=181 (LC 7), 4=248 (LC 21), 5=539 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-257/189, 2-3=-204/108, 3-4=-148/105
BOT CHORD	1-5=-86/65, 4-5=-86/65
WEBS	2-5=-321/280

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 1, 86 lb uplift at joint 4 and 232 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

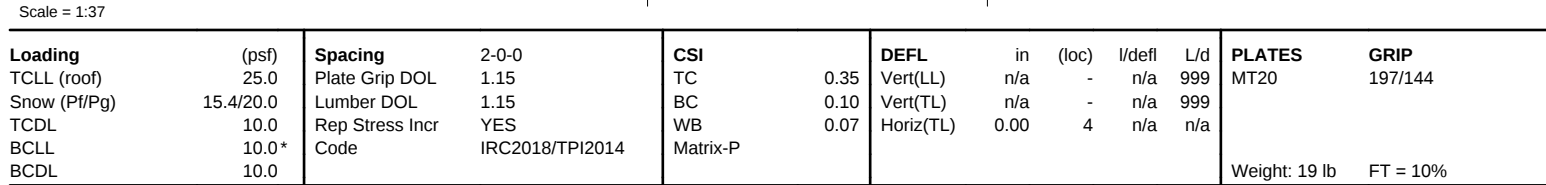
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

MiTek®

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

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:01 Page: 1
ID:liToUkML5IDbP29eKTLGNmy6jdf-RfC?PsB70Hg3NSgPqnL8w3uITXbGKWCrDdoi7J4zJC?f



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) TCdL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4'-0" oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 161 lb uplift at joint 1, 77 lb uplift at joint 4 and 242 lb uplift at joint 5.
 - 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

LOAD CASE(S) Standard



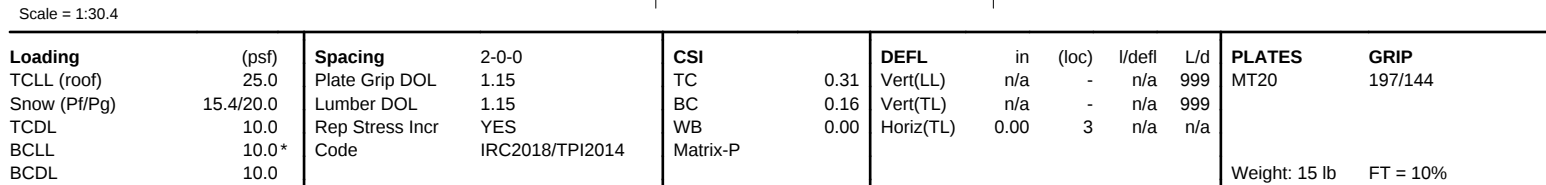
February 8, 2024

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

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

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

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:02 Page: 1
ID:liToUkML5IDbP29eKTLGNmy6jdf-RfC?PsB70Hg3NSgPqnL8w3uITxbGKWCrDdoi7J4zJC?i



- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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) TCDL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 8, 2024

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

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

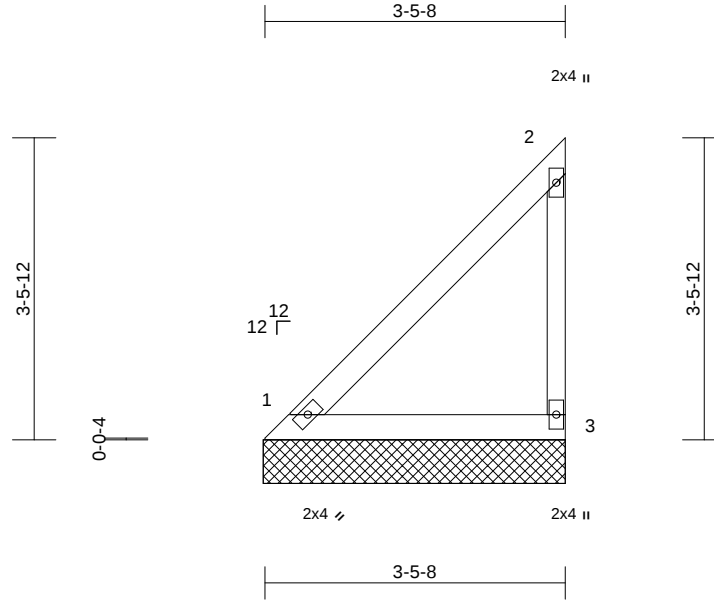
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476858
230872	V17	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:02
ID:liToUkML5IDbP29eKTLGNmy6jdf-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:26.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 11 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 3-5-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

1=3-5-12, 3=3-5-12
Max Horiz 1=120 (LC 9)
Max Uplift 3=-59 (LC 7)
Max Grav 1=172 (LC 22), 3=184 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-113/88, 2-3=-131/77
BOT CHORD	1-3=-43/33

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

LOAD CASE(S) Standard



February 8, 2024

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

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

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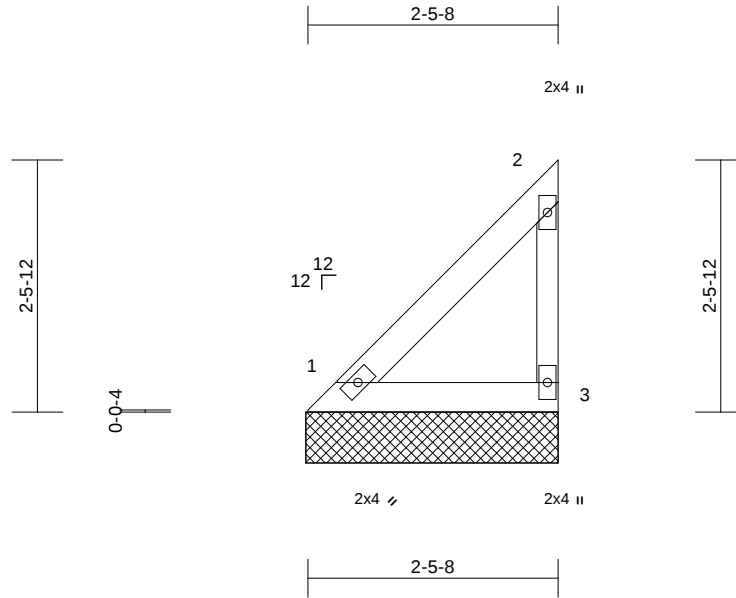
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V18	Valley	2	1	Job Reference (optional)	I63476859

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:02
ID:liToUkML5IDbP29eKTLGNmy6jdf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 10%
BCDL	10.0											

LUMBER		
TOP CHORD	2x4 SPF No.2	
BOT CHORD	2x4 SPF No.2	
WEBS	2x3 SPF No.2	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-5-12 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS		(size) 1=2-5-12, 3=2-5-12
		Max Horiz 1=81 (LC 7)
		Max Uplift 3=-39 (LC 7)
		Max Grav 1=115 (LC 22), 3=123 (LC 21)
FORCES		(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-76/59, 2-3=-88/52	
BOT CHORD	1-3=-29/22	

- 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 4-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 8) All bearings are assumed to be SPF No.2 .
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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

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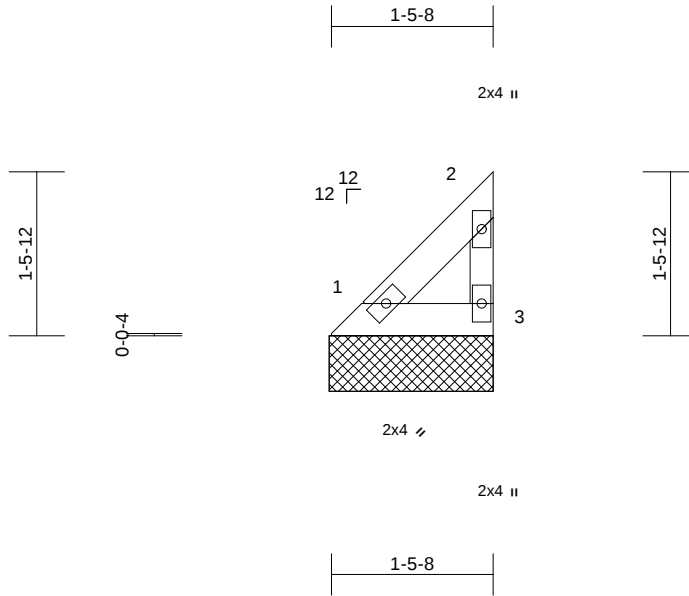
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476860
230872	V19	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:03
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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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							Weight: 4 lb	FT = 10%
BCDL	10.0											

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 1-5-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

Max Horiz	1=41 (LC 7)
Max Uplift	3=-20 (LC 7)
Max Grav	1=58 (LC 22), 3=62 (LC 21)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-38/30, 2-3=-44/26
BOT CHORD	1-3=-15/11

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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

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

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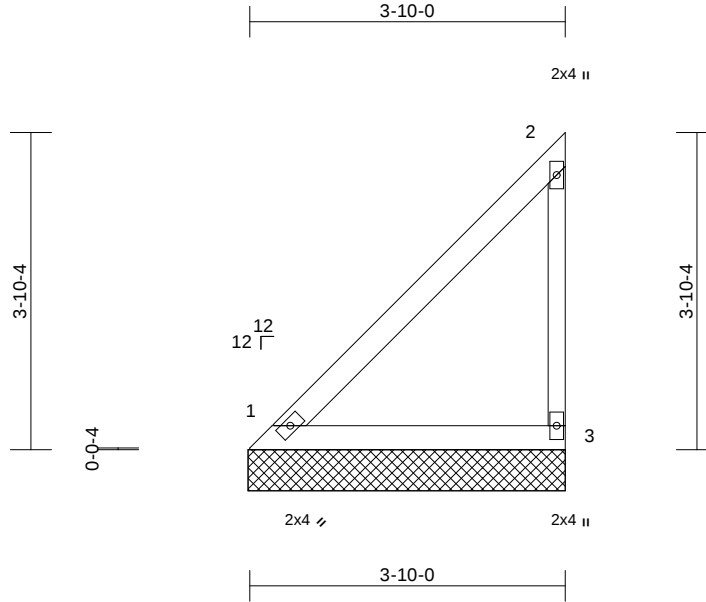
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476861
230872	V20	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:03
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Page: 1



Scale = 1:28

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0										
										Weight: 13 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (size)

1=3-10-4, 3=3-10-4
Max Horiz 1=135 (LC 7)
Max Uplift 3=-66 (LC 7)
Max Grav 1=193 (LC 22), 3=207 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-127/99, 2-3=-148/87
BOT CHORD 1-3=-48/37

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 3.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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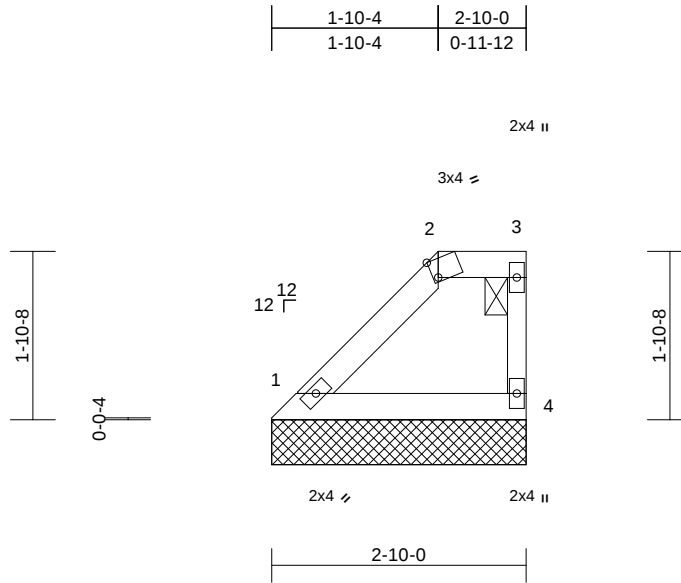
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V21	Valley	2	1	Job Reference (optional)	I63476862

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:03
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Page: 1



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-R							
BCDL	10.0										
										Weight: 8 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=2-10-0, 4=2-10-0
Max Horiz 1=63 (LC 9)
Max Uplift 1=-6 (LC 10), 4=-32 (LC 7)
Max Grav 1=115 (LC 24), 4=111 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-81/22, 2-3=-27/24, 3-4=-74/39
BOT CHORD 1-4=-26/27

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 5) Provide adequate drainage to prevent water ponding.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.

- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 32 lb uplift at joint 4.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 8, 2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Wheeler Lumber, Waverly, KS - 66871, Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:03 Page: 1
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LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 2-7-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS	
(size)	1=2-7-0, 3=2-7-0
Max Horiz	1=39 (LC 9)
Max Uplift	1=-11 (LC 12), 3=-20 (LC 12)
Max Grav	1=86 (LC 3), 3=87 (LC 25)
FORCES	
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-35/23, 2-3=-65/32
BOT CHORD	1-3=-13/10

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 20 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 8, 2024



WARNING – verify design parameters and READ NOTES on this and INCLUDED MITER REFERENCE PAGE MIT-7475 REV. 12/2023 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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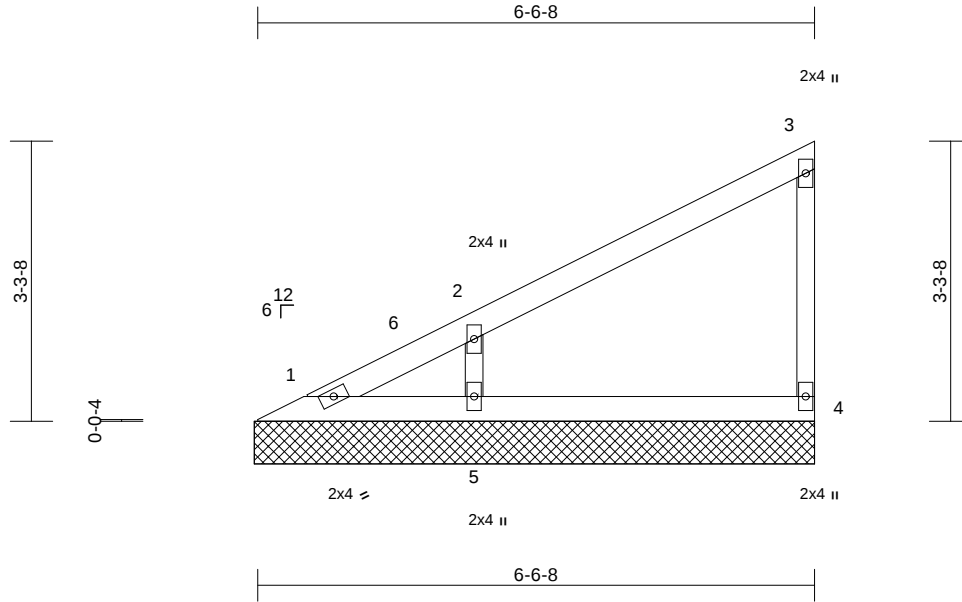
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V23	Valley	2	1	Job Reference (optional)	I63476864

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:04
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Scale = 1:27.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							
BCDL	10.0									Weight: 18 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=6-7-0, 4=6-7-0, 5=6-7-0
Max Horiz	1=122 (LC 9)
Max Uplift	4=-28 (LC 12), 5=-108 (LC 12)
Max Grav	1=50 (LC 26), 4=159 (LC 18), 5=391 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-106/55, 2-3=-103/43, 3-4=-127/47
BOT CHORD	1-5=-42/32, 4-5=-42/32
WEBS	2-5=-307/157

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 9) All bearings are assumed to be SPF No.2 .
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 4 and 108 lb uplift at joint 5.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 8, 2024

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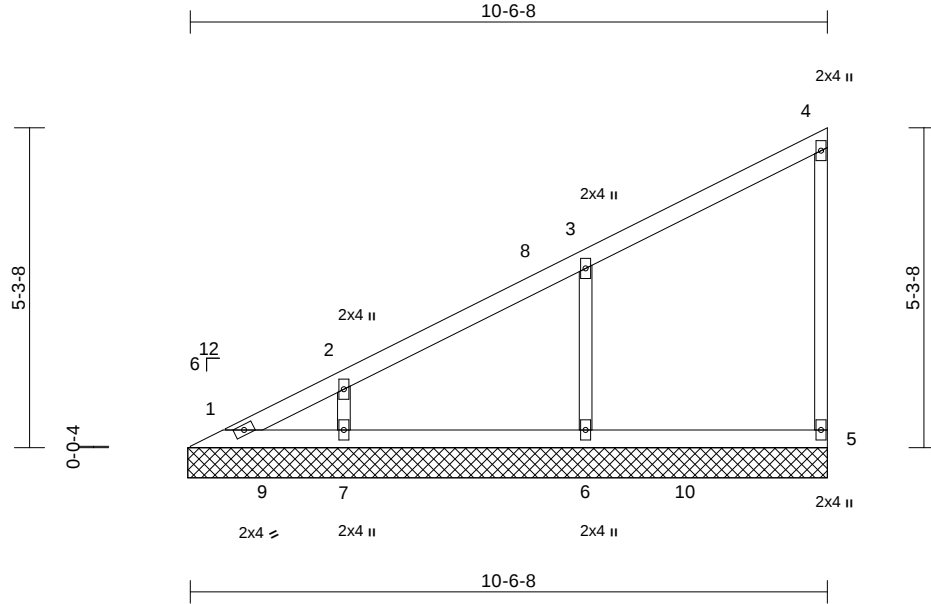
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476865
230872	V24	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:04

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Scale = 1:38.1

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	0.22	Vert(LL)	n/a	-	n/a	999	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
										Weight: 31 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=10-7-0, 5=10-7-0, 6=10-7-0, 7=10-7-0
	Max Horiz	1=205 (LC 11)
	Max Uplift	5=-32 (LC 9), 6=-121 (LC 12), 7=-89 (LC 12)
	Max Grav	1=94 (LC 26), 5=204 (LC 5), 6=502 (LC 5), 7=347 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-178/51, 2-3=-145/70, 3-4=-128/53, 4-5=-128/44
BOT CHORD	1-7=-69/54, 6-7=-69/54, 5-6=-69/54
WEBS	3-6=-321/167, 2-7=-230/131

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 121 lb uplift at joint 6 and 89 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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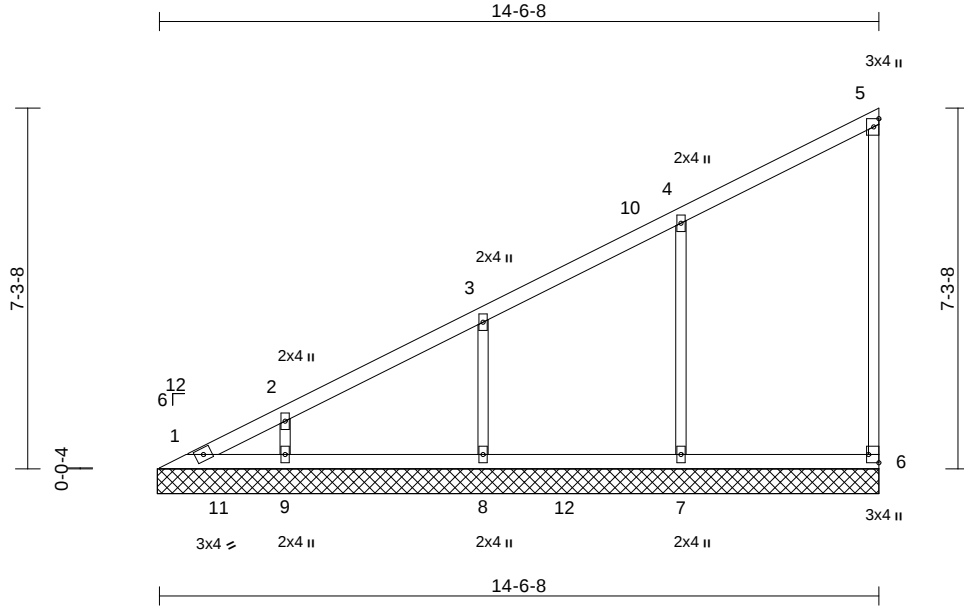
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476866
230872	V25	Valley	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:04
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Page: 1



Scale = 1:46.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	6	n/a	n/a	
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										
Weight: 46 lb FT = 10%											

LUMBER

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

BRACING

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

REACTIONS (size)	1=14-7-0, 6=14-7-0, 7=14-7-0, 8=14-7-0, 9=14-7-0
Max Horiz	1=288 (LC 9)
Max Uplift	6=-41 (LC 9), 7=-118 (LC 12), 8=-109 (LC 12), 9=-94 (LC 12)
Max Grav	1=113 (LC 9), 6=208 (LC 5), 7=539 (LC 5), 8=439 (LC 3), 9=366 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-253/62, 2-3=-213/77, 3-4=-174/78, 4-5=-146/74, 5-6=-129/47
BOT CHORD	1-9=-98/75, 8-9=-98/75, 7-8=-98/75, 6-7=-98/75
WEBS	4-7=-313/152, 3-8=-282/162, 2-9=-241/133

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 6, 118 lb uplift at joint 7, 109 lb uplift at joint 8 and 94 lb uplift at joint 9.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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

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

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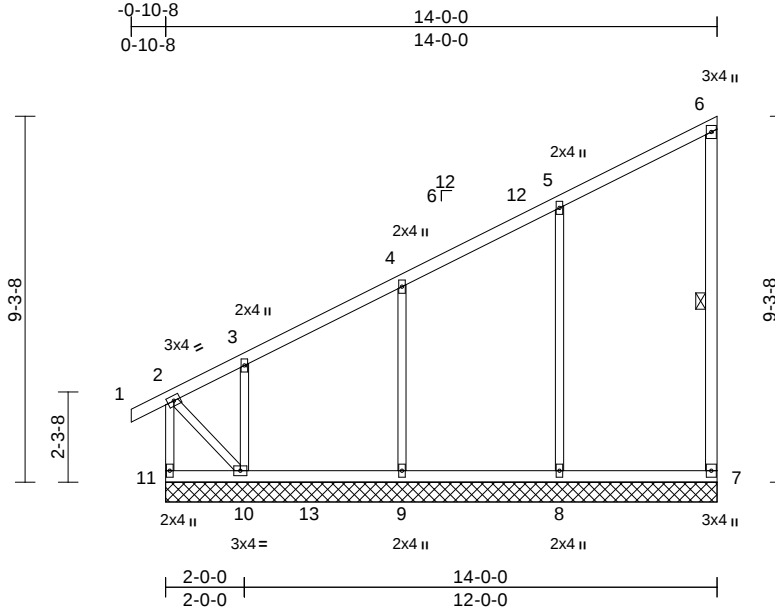
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V26	Valley	1	1	Job Reference (optional)	I63476867

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:05

Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.00	7	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 60 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 6-7:2x4 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, Except:
	6-0-0 oc bracing: 10-11.
WEBS	1 Row at midpt 6-7

REACTIONS	(size)	7=14-0-0, 8=14-0-0, 9=14-0-0, 10=14-0-0, 11=14-0-0
	Max Horiz	11=373 (LC 9)
	Max Uplift	7=-50 (LC 9), 8=-116 (LC 12), 9=-110 (LC 12), 10=-316 (LC 9), 11=-57 (LC 10)
	Max Grav	7=210 (LC 26), 8=532 (LC 5), 9=493 (LC 3), 10=410 (LC 26), 11=405 (LC 9)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-11=-396/62, 1-2=0/31, 2-3=-269/62, 3-4=-231/85, 4-5=-206/85, 5-6=-166/94, 6-7=-130/50
BOT CHORD	10-11=-360/114, 9-10=-126/97, 8-9=-126/97, 7-8=-126/97
WEBS	5-8=-307/141, 4-9=-285/166, 3-10=-220/124, 2-10=-95/400

- NOTES**
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 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, with BCDL = 10.0psf.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 11, 50 lb uplift at joint 7, 116 lb uplift at joint 8, 110 lb uplift at joint 9 and 316 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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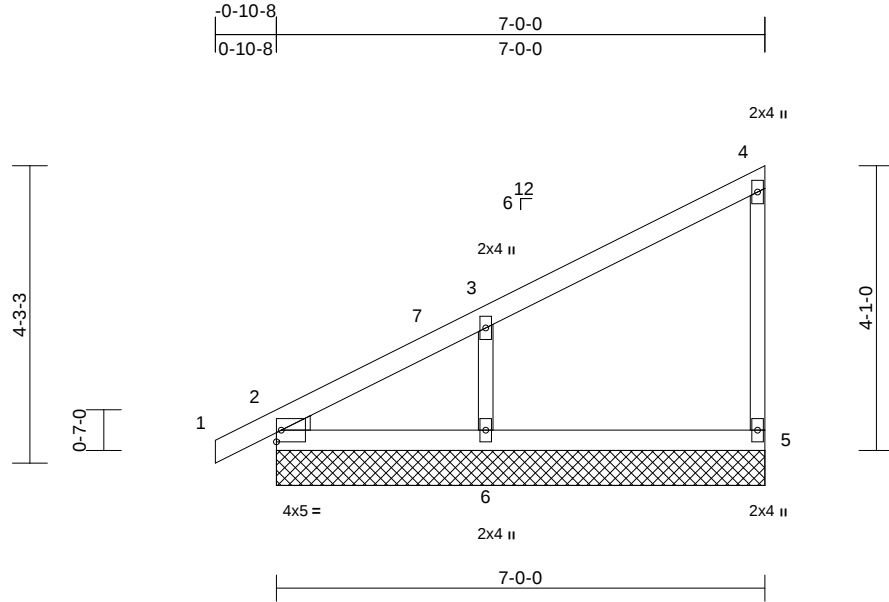
Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	
230872	V28	Valley	1	1	Job Reference (optional)	I63476868

Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

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Scale = 1:33

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
WEDGE	Left: 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=7-0-0, 5=7-0-0, 6=7-0-0
Max Horiz	2=158 (LC 9)
Max Uplift	2=-4 (LC 8), 5=-27 (LC 9), 6=-124 (LC 12)
Max Grav	2=167 (LC 27), 5=159 (LC 19), 6=404 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/11, 2-3=-130/70, 3-4=-113/45, 4-5=-128/45
BOT CHORD	2-6=-53/40, 5-6=-53/40
WEBS	3-6=-307/177

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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SPF No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 5, 4 lb uplift at joint 2 and 124 lb uplift at joint 6.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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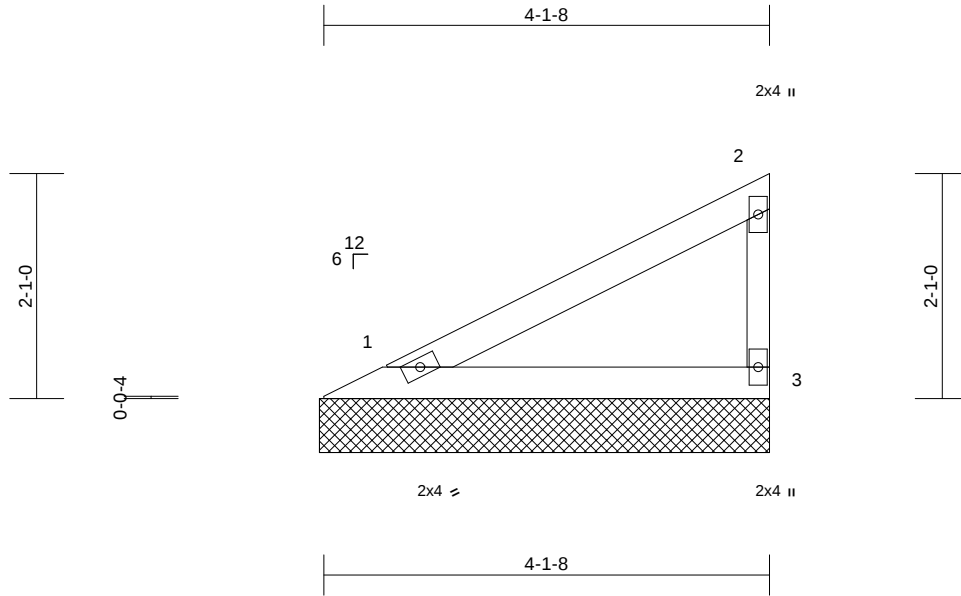
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Job	Truss	Truss Type	Qty	Ply	Lot 17 TCR	I63476869
230872	V29	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Tue Feb 06 14:23:05
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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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	10.0*	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%
BCDL	10.0											

LUMBER

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

BRACING

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

REACTIONS (size)

Max Horiz	1=72 (LC 9)
Max Uplift	1=-20 (LC 12), 3=-38 (LC 12)
Max Grav	1=165 (LC 5), 3=165 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension	
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TOP CHORD	1-2=-65/46, 2-3=-128/58
-----------	-------------------------

BOT CHORD	1-3=-24/19
-----------	------------

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SPF No.2 .
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 38 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 8, 2024

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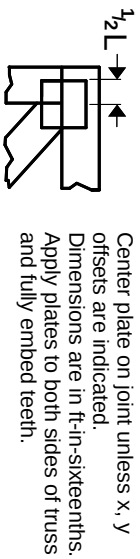
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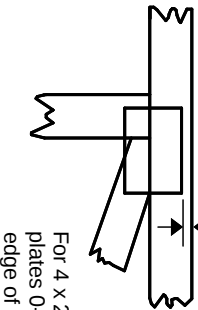
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Symbols

PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

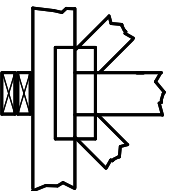
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

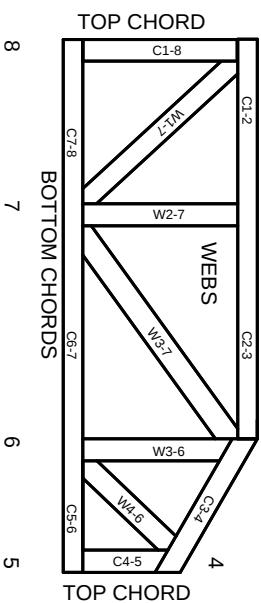
Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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

1 2 3 Joint ID typ.



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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