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

Re: B220036
Lot 76 H3

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: I50414024 thru I50414070

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

Missouri COA: Engineering 001193

February 24,2022

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 76 H3
B220036	A1	Roof Special Girder	1	1	I50414024
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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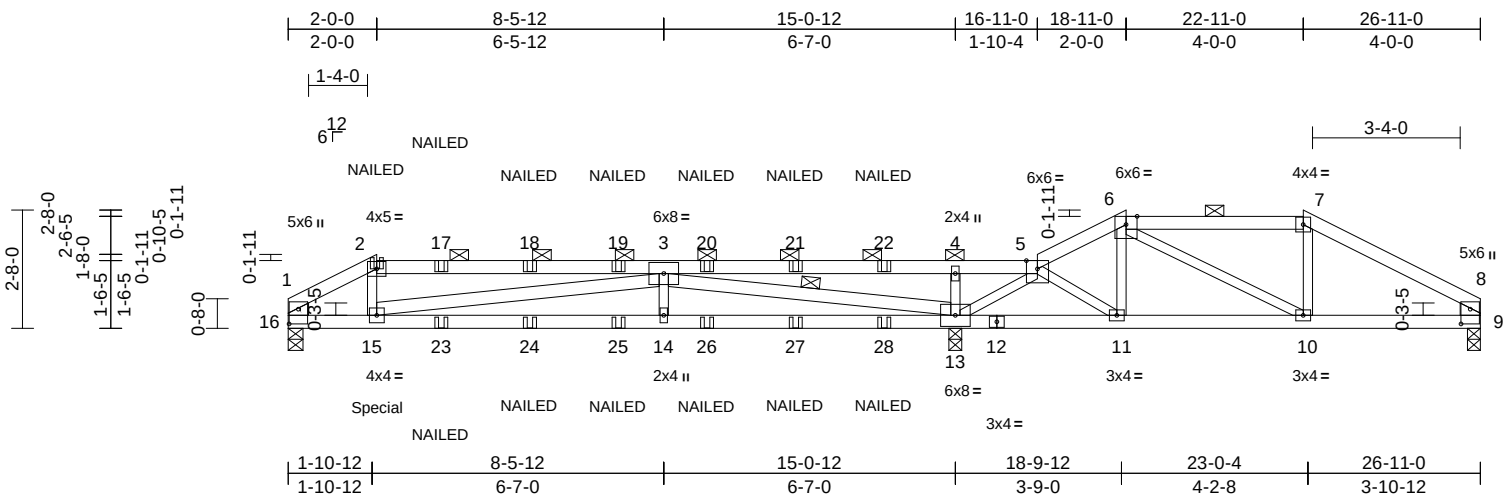

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Plate Offsets (X, Y): [1:0-4-0,0-2-8], [8:0-4-0,0-2-8]

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	0.79	Vert(LL)	-0.13	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.24	14-15	>735	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	14-15	>999	240	Weight: 91 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-1,9-8:2x6 SPF No.2, 15-3,13-3:2x4 SPF No.2

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

REACTIONS (lb/size) 9=393/0-3-8, 13=1420/0-3-8, 16=561/0-4-0
Max Horiz 16=42 (LC 7)
Max Uplift 9=-75 (LC 28), 13=-213 (LC 8), 16=-112 (LC 8)
Max Grav 9=403 (LC 22), 13=1420 (LC 1), 16=563 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-860/150, 2-3=-734/157, 3-4=-117/914, 4-5=-115/911, 5-6=-213/150, 6-7=-403/117, 7-8=-510/97, 1-16=-445/78, 8-9=-343/94
BOT CHORD 15-16=-142/741, 14-15=-323/1495, 13-14=-323/1495, 11-13=-374/127, 10-11=-131/205, 9-10=-60/401
WEBS 2-15=0/226, 4-13=-427/170, 5-11=-91/610, 6-11=-291/96, 6-10=-50/249, 7-10=-67/75, 3-14=0/263, 3-15=-777/203, 3-13=-2439/457, 5-13=-693/75

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 16, 213 lb uplift at joint 13 and 75 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 14 lb down and 2 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 9-16=-20
Concentrated Loads (lb)
Vert: 15=2 (B), 23=1 (B), 24=1 (B), 25=1 (B), 26=1 (B), 27=1 (B), 28=1 (B)

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

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	A2	Roof Special	1	1	I50414025
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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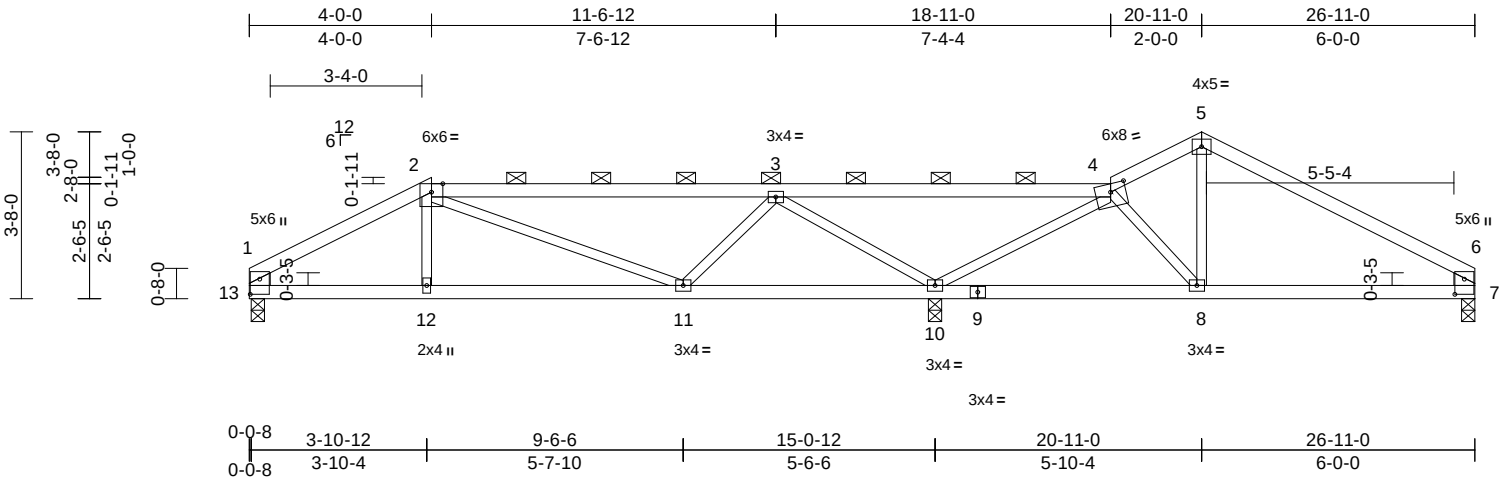

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Plate Offsets (X, Y): [1:0-4-0,0-2-8], [4:0-4-0,0-2-3], [6:0-4-0,0-2-8]

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	0.96	Vert(LL)	-0.05	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.11	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	11-12	>999	240	Weight: 85 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-1,7-6:2x6 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 (2-2-0 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 7=378/0-3-8, 10=1449/0-3-8, 13=554/0-3-8
Max Horiz 13=55 (LC 5)
Max Uplift 7=-84 (LC 9), 10=-225 (LC 8), 13=-109 (LC 8)
Max Grav 7=382 (LC 22), 10=1449 (LC 1), 13=554 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-804/164, 2-3=-564/148, 3-4=-107/810, 4-5=-321/136, 5-6=-382/102, 1-13=-469/118, 6-7=-335/121
BOT CHORD 12-13=-144/666, 11-12=-147/665, 10-11=-165/411, 8-10=-72/159, 7-8=-26/260
WEBS 2-12=0/156, 2-11=-117/35, 3-11=0/345, 3-10=-1437/361, 4-10=-1094/190, 5-8=-2/93, 4-8=0/207

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 13, 225 lb uplift at joint 10 and 84 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	A3	Hip	1	1	I50414026
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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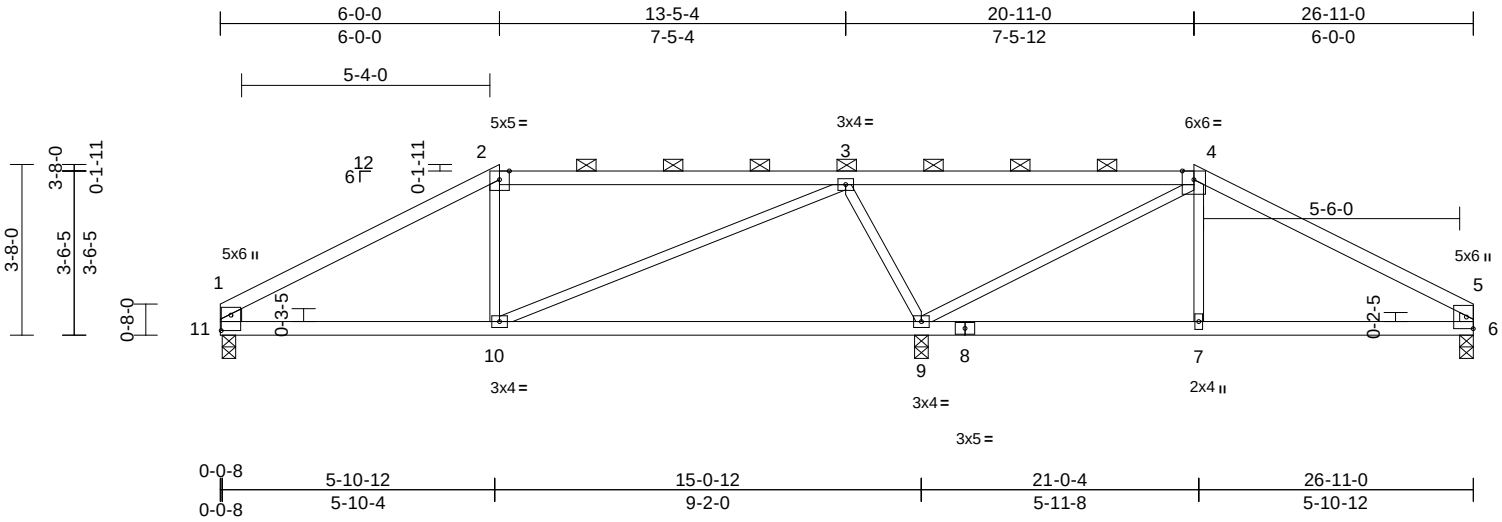

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Plate Offsets (X, Y): [1:0-4-0,0-2-8]

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	0.89	Vert(LL)	-0.15	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.32	9-10	>562	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	9-10	>999	240	Weight: 84 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-1:2x6 SPF No.2, 6-5:2x4 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.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-10.

REACTIONS (lb/size) 6=401/0-3-8, 9=1420/0-3-8, 11=568/0-3-8
Max Horiz 11=-55 (LC 4)
Max Uplift 6=-100 (LC 9), 9=-187 (LC 5), 11=-92 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-768/104, 2-3=-611/140, 3-4=-39/439, 4-5=-424/134, 1-11=-510/122, 5-6=-346/137
BOT CHORD 10-11=-67/605, 9-10=-84/26, 7-9=-55/300, 6-7=-53/303
WEBS 2-10=-115/103, 3-10=-8/649, 3-9=-970/285, 4-9=-810/101, 4-7=0/215

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 11, 187 lb uplift at joint 9 and 100 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	A4	Common Girder	1	2	I50414027 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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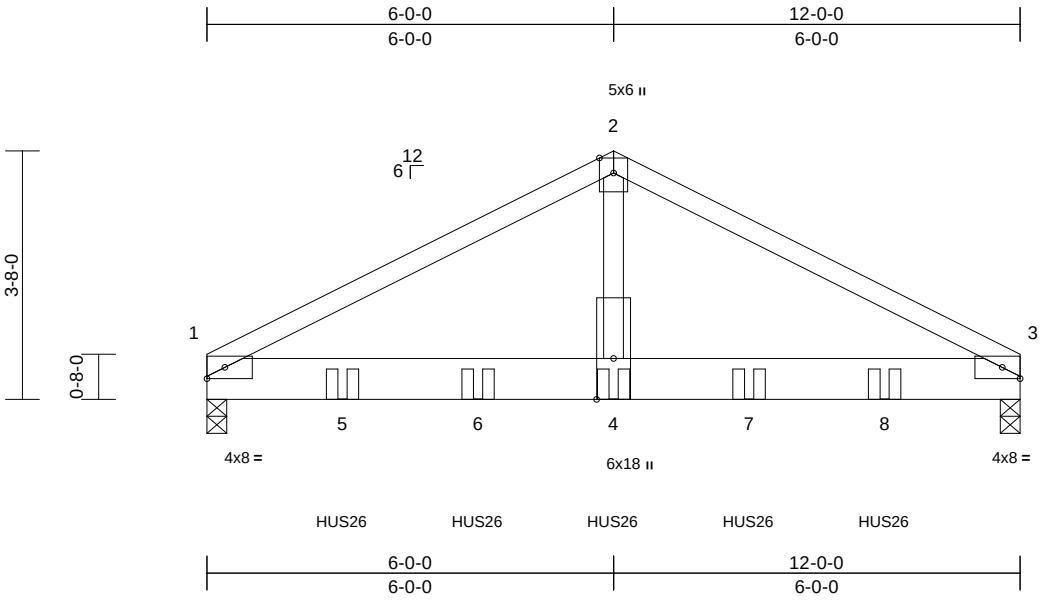

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.08	1-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.14	1-4	>986	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	1-4	>999	240	Weight: 111 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2

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

REACTIONS (lb/size) 1=4982/0-3-8, (req. 0-4-5), 3=4982/0-3-8, (req. 0-4-5)
Max Horiz 1=56 (LC 27)
Max Uplift 1=-533 (LC 8), 3=-533 (LC 9)
Max Grav 1=5516 (LC 15), 3=5516 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7793/755, 2-3=-7793/754
BOT CHORD 1-4=-613/6806, 3-4=-613/6806
WEBS 2-4=-574/7070

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-8-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) WARNING: Required bearing size at joint(s) 1, 3 greater than input bearing size.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 533 lb uplift at joint 1 and 533 lb uplift at joint 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 10-0-0 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 4=-1782 (F), 5=-1782 (F), 6=-1782 (F), 7=-1782 (F), 8=-1782 (F)

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B1	Piggyback Base Supported Gable	1	1	I50414028 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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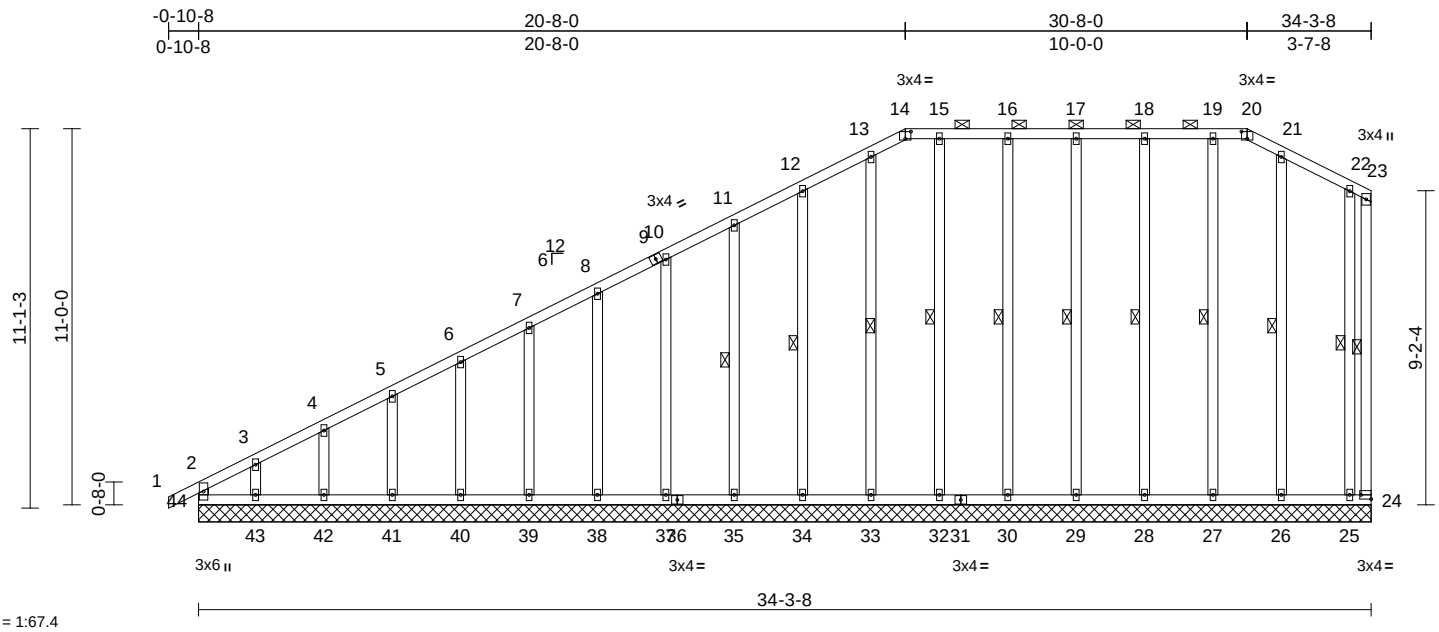

Scale = 1:67.4

Plate Offsets (X, Y): [14:0-2-0,0-2-8], [20:0-2-0,0-2-8], [24: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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 236 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.): 14-20.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 23-24, 11-35, 12-34, 13-33, 15-32, 16-30, 17-29, 18-28, 19-27, 21-26, 22-25

REACTIONS (lb/size) 24=1/34-3-8, 25=122/34-3-8, 26=191/34-3-8, 27=179/34-3-8, 28=179/34-3-8, 29=180/34-3-8, 30=179/34-3-8, 32=181/34-3-8, 33=180/34-3-8, 34=179/34-3-8, 35=180/34-3-8, 37=180/34-3-8, 38=180/34-3-8, 39=180/34-3-8, 40=180/34-3-8, 41=178/34-3-8, 42=188/34-3-8, 43=141/34-3-8, 44=151/34-3-8
Max Horiz 44=403 (LC 5)
Max Uplift 24=-96 (LC 7), 25=-151 (LC 4), 26=-72 (LC 9), 27=-38 (LC 5), 28=-41 (LC 4), 29=-34 (LC 5), 30=-43 (LC 4), 32=-48 (LC 5), 33=-32 (LC 5), 34=-63 (LC 8), 35=-53 (LC 8), 37=-54 (LC 8), 38=-54 (LC 8), 39=-54 (LC 8), 40=-53 (LC 8), 41=-59 (LC 8), 42=-34 (LC 8), 43=-161 (LC 8), 44=-27 (LC 4)
Max Grav 24=61 (LC 4), 25=257 (LC 7), 26=191 (LC 22), 27=179 (LC 1), 28=182 (LC 21), 29=180 (LC 1), 30=182 (LC 22), 32=181 (LC 21), 33=180 (LC 21), 34=179 (LC 1), 35=180 (LC 21), 37=180 (LC 1), 38=180 (LC 1), 39=180 (LC 21), 40=180 (LC 1), 41=178 (LC 21), 42=188 (LC 1), 43=145 (LC 15), 44=266 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-44=-221/31, 1-2=0/32, 2-3=-367/83, 3-4=-311/79, 4-5=-288/80, 5-6=-259/80, 6-7=-237/81, 7-8=-223/93, 8-10=-208/107, 10-11=-193/120, 11-12=-178/133, 12-13=-167/150, 13-14=-134/142, 14-15=-125/139, 15-16=-125/139, 16-17=-125/139, 17-18=-125/139, 18-19=-125/139, 19-20=-125/139, 20-21=-130/139, 21-22=-163/144, 22-23=-202/156, 23-24=-201/154
BOT CHORD 43-44=-129/98, 42-43=-129/98, 41-42=-129/98, 40-41=-129/98, 39-40=-129/98, 38-39=-129/98, 37-38=-129/98, 35-37=-129/98, 34-35=-129/98, 33-34=-129/98, 32-33=-129/98, 30-32=-129/98, 29-30=-129/98, 28-29=-129/98, 27-28=-129/98, 26-27=-129/98, 25-26=-129/98, 24-25=-129/98
WEBS 3-43=-109/133, 4-42=-146/68, 5-41=-139/80, 6-40=-140/77, 7-39=-140/78, 8-38=-140/78, 10-37=-140/78, 11-35=-140/77, 12-34=-139/87, 13-33=-140/56, 15-32=-141/72, 16-30=-142/67, 17-29=-140/58, 18-28=-142/65, 19-27=-140/64, 21-26=-150/92, 22-25=-89/122

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable 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 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.

February 24,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 44, 96 lb uplift at joint 24, 161 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, 54 lb uplift at joint 37, 53 lb uplift at joint 35, 63 lb uplift at joint 34, 32 lb uplift at joint 33, 48 lb uplift at joint 32, 43 lb uplift at joint 30, 34 lb uplift at joint 29, 41 lb uplift at joint 28, 38 lb uplift at joint 27, 72 lb uplift at joint 26 and 151 lb uplift at joint 25.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B2	Piggyback Base	1	1	I50414029
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:17
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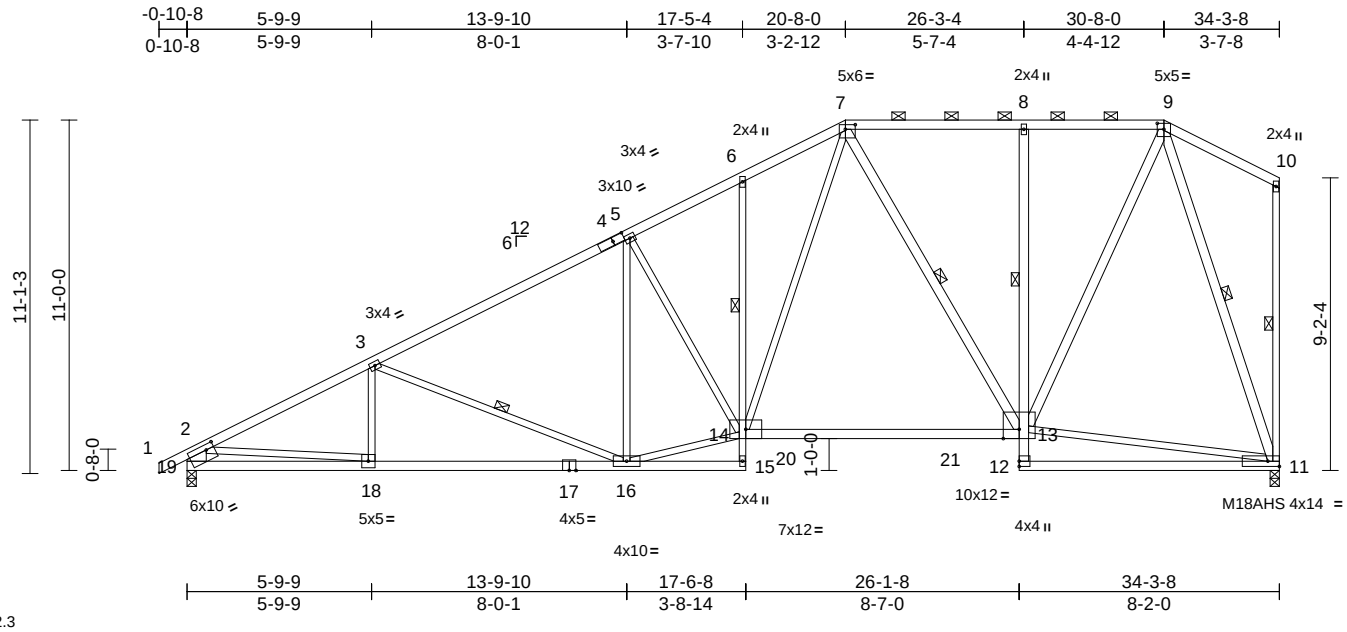
Page: 1



Scale = 1:72.3

Plate Offsets (X, Y): [4:0-4-5,0-1-8], [7:0-3-12,0-1-12], [9:0-2-8,0-2-4], [19:0-3-0,0-2-0]

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	0.84	Vert(LL)	-0.32	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.56	13-14	>731	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	16-18	>999	240	Weight: 189 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 15-6:2x3 SPF No.2, 14-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 13-7,13-9,11-9:2x4 SPF No.2, 19-2:2x8 SP DSS

BRACING

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

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

1 Row at midpt 6-14, 8-13

WEBS 1 Row at midpt 7-13, 10-11, 9-11, 3-16

REACTIONS (lb/size) 11=1523/0-3-8, 19=1609/0-3-8
Max Horiz 19=388 (LC 8)
Max Uplift 11=-150 (LC 8), 19=-208 (LC 8)
Max Grav 11=1614 (LC 2), 19=1665 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-2707/303, 3-5=-2184/251, 5-6=-2000/302, 6-7=-1944/357, 7-8=-1053/161, 8-9=-1045/161, 9-10=-49/63, 10-11=-115/63, 2-19=-1575/232

BOT CHORD 18-19=-422/470, 16-18=-586/2360, 15-16=-170/0, 14-15=0/21, 6-14=-116/81, 13-14=-222/1350, 12-13=0/173, 8-13=-399/168, 11-12=-21/42

WEBS 7-14=-266/1169, 7-13=-602/206, 11-13=-55/481, 9-13=-153/1369, 9-11=-1528/186, 2-18=-165/1903, 3-18=-41/173, 3-16=-548/216, 5-16=-148/98, 14-16=-341/2056, 5-14=-328/159

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 11 and 208 lb uplift at joint 19.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

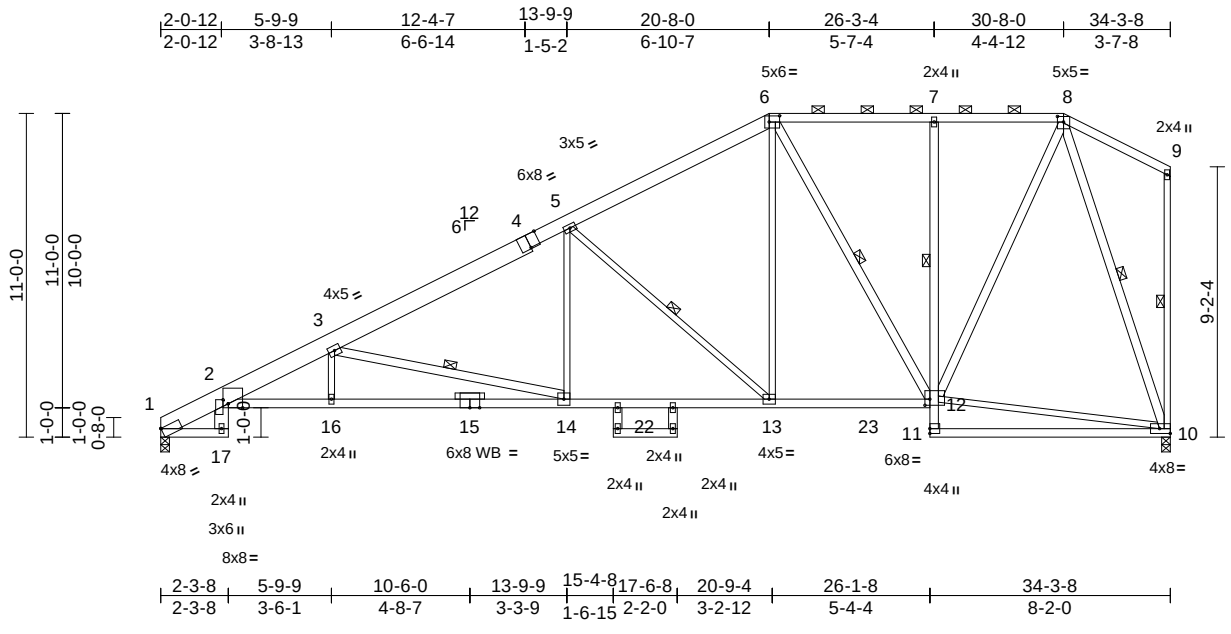
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B3	Piggyback Base	2	1	I50414030 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 ID:P9bQ_JsVwYntCqaJ60GNRFyMEST-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.3

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

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	0.73	Vert(LL)	-0.29	14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.54	14-16	>763	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	14-16	>999	240	Weight: 213 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS

BOT CHORD 2x4 SPF No.2 *Except* 2-15,11-10,15-12:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 17-2:2x6 SPF No.2, 14-3,12-6,12-8,10-8:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 8-2-7 oc bracing. Except:

1 Row at midpt 7-12

WEBS 1 Row at midpt 3-14, 5-13, 6-12, 9-10, 8-10

REACTIONS (lb/size) 1=1532/0-3-8, 10=1532/0-3-8
Max Horiz 1=395 (LC 8)
Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)
Max Grav 1=1614 (LC 2), 10=1624 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-874/0, 2-3=-3960/577, 3-5=-2620/327, 5-6=-1675/233, 6-7=-1046/165, 7-8=-1039/165, 8-9=-48/64, 9-10=-114/63

BOT CHORD 1-17=0/0, 2-16=-913/3817, 14-16=-908/3812, 13-14=-459/2244, 12-13=-215/1416, 11-12=0/173, 7-12=-387/165, 10-11=0/137

WEBS 2-17=-1/68, 3-16=-36/162, 3-14=-1619/464, 5-13=-1120/327, 6-13=-139/1014, 6-12=-747/183, 10-12=-87/363, 8-12=-158/1362, 8-10=-1523/190, 5-14=-23/715

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

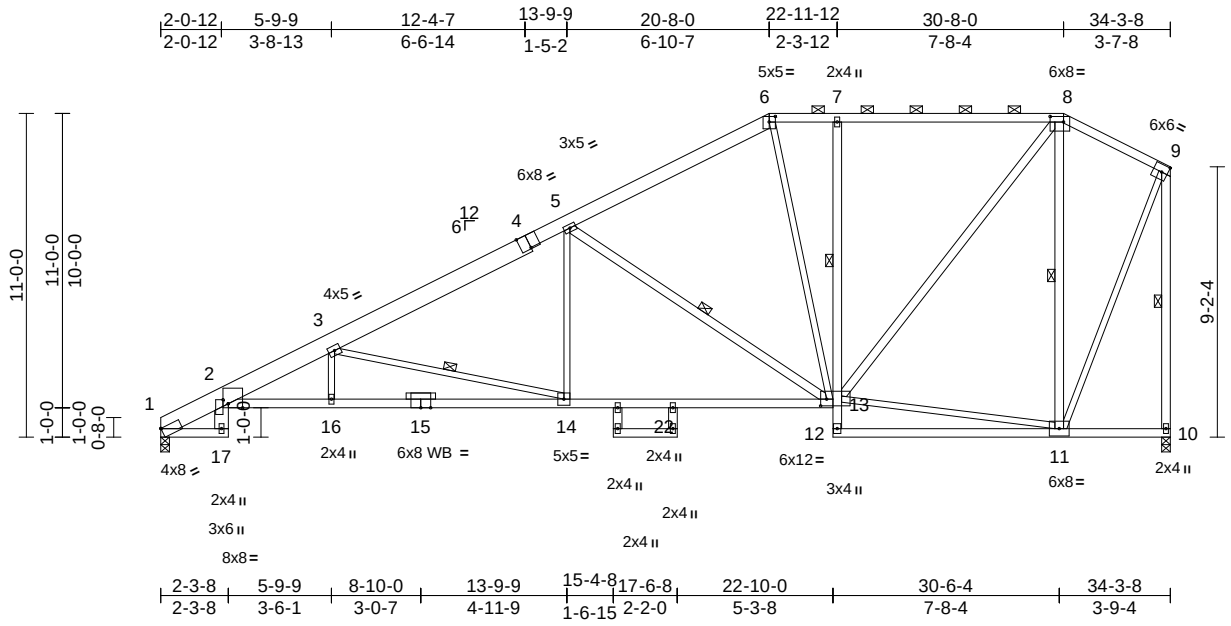
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B4	Piggyback Base	1	1	I50414031
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 ID:ZXM0xNjboYzc_sTdlWVBsXyMENU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.3

Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge], [6:0-2-8,0-2-4], [8:0-5-8,0-2-4], [13:0-2-8,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.32	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.59	13-14	>695	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	14-16	>999	240	Weight: 215 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS

BOT CHORD 2x4 SPF No.2 *Except* 2-15,15-13:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 17-2:2x6 SPF No.2, 13-5,13-8,11-8,10-9:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 6-8.

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

1 Row at midpt 7-13

WEBS 1 Row at midpt 3-14, 5-13, 8-11, 9-10

REACTIONS (lb/size) 1=1530/0-3-8, 10=1530/0-3-8
Max Horiz 1=395 (LC 8)
Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)
Max Grav 1=1600 (LC 2), 10=1595 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-867/0, 2-3=-3875/574, 3-5=-2607/321, 5-6=-1424/191, 6-7=-1277/217, 7-8=-1279/219, 8-9=-598/80, 9-10=-1569/158

BOT CHORD 1-17=0/0, 2-16=-908/3735, 14-16=-904/3729, 13-14=-455/2237, 12-13=0/142, 7-13=-486/213, 11-12=-16/13, 10-11=-1/3

WEBS 2-17=-1/68, 3-16=-52/133, 3-14=-1541/464, 5-13=-1276/331, 6-13=-46/432, 11-13=-41/499, 8-13=-217/1274, 8-11=-1113/213, 9-11=-131/1342, 5-14=-3/774

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B5	Piggyback Base	1	1	I50414032
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 Page: 1
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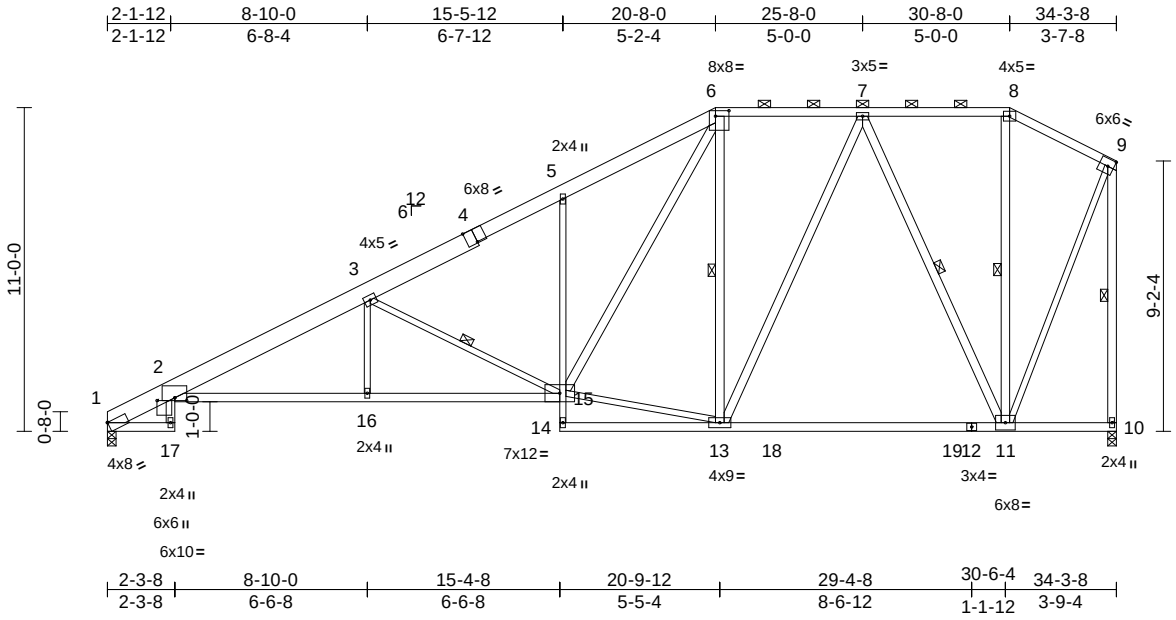

Scale = 1:78.3

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

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	0.84	Vert(LL)	-0.34	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.58	2-16	>704	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.34	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	2-16	>999	240	Weight: 214 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-17:2x4 SPF No.2, 5-14:2x3 SPF No.2

WEBS 2x4 SPF No.2 *Except* 3-16,15-3,13-15,11-9:2x3 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 (5-0-3 max.): 6-8.

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

WEBS 1 Row at midpt 3-15, 6-13, 7-11, 8-11, 9-10

REACTIONS (lb/size) 1=1530/0-3-8, 10=1530/0-3-8
Max Horiz 1=395 (LC 8)
Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)
Max Grav 1=1595 (LC 2), 10=1642 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-859/0, 2-3=-3354/451, 3-5=-2324/317, 5-6=-2231/440, 6-7=-1276/228, 7-8=-530/83, 8-9=-633/78, 9-10=-1659/150

BOT CHORD 1-17=0/0, 2-16=-727/3144, 15-16=-725/3141, 14-15=0/58, 5-15=-302/209, 13-14=-28/39, 11-13=-128/972, 10-11=-2/3

WEBS 2-17=0/69, 3-16=0/253, 3-15=-1356/381, 13-15=-166/1294, 6-15=-417/1396, 6-13=-633/269, 7-13=-146/744, 7-11=-1081/208, 8-11=-97/106, 9-11=-114/1406

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B6	Piggyback Base	1	1	I50414033
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:19 Page: 1
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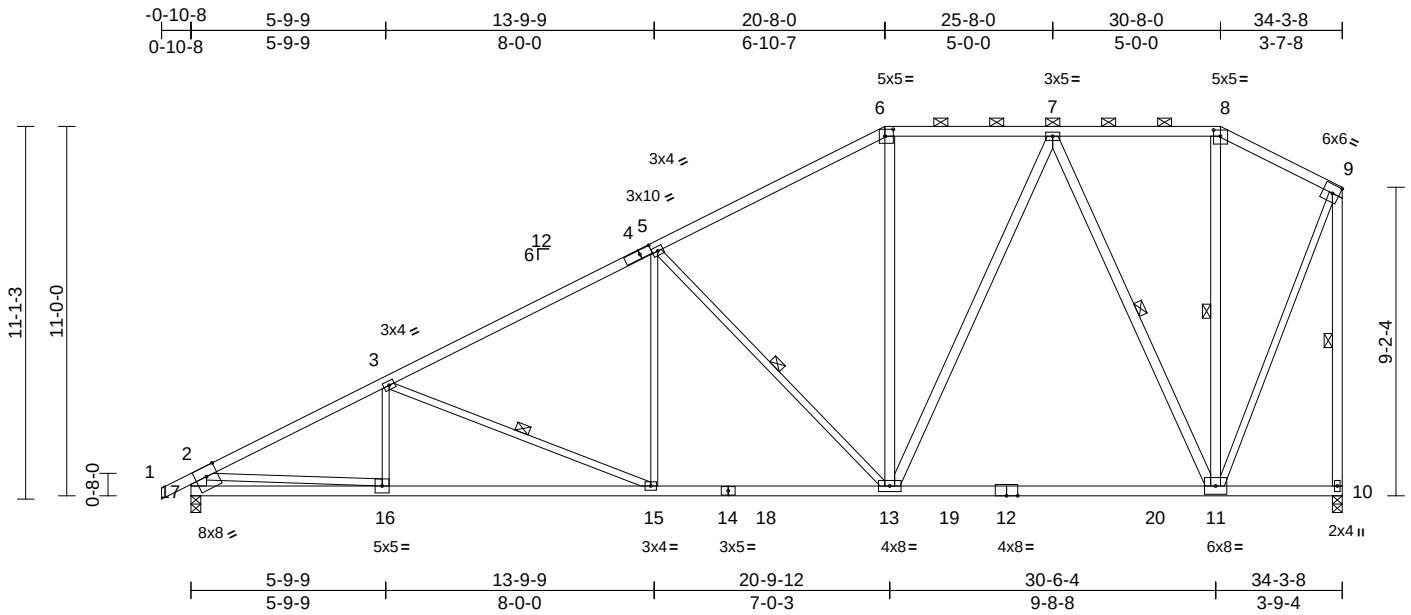


Scale = 1:68.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.31	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.51	11-13	>804	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	15-16	>999	240	Weight: 178 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 17-14:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-6,13-7,11-7,11-8,10-9:2x4 SPF No.2, 17-2:2x6 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 (5-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-15, 5-13, 7-11, 8-11, 9-10

REACTIONS (lb/size) 10=1525/0-3-8, 17=1605/0-3-8
Max Horiz 17=389 (LC 8)
Max Uplift 10=-151 (LC 8), 17=-206 (LC 8)
Max Grav 10=1659 (LC 2), 17=1684 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-3=-2777/304, 3-5=-2240/256, 5-6=-1544/208, 6-7=-1293/229, 7-8=-536/82, 8-9=-640/78, 9-10=-1677/149, 2-17=-1592/231
BOT CHORD 16-17=-442/548, 15-16=-586/2420, 13-15=-394/1918, 11-13=-127/985, 10-11=-2/3
WEBS 3-16=-20/187, 3-15=-552/207, 5-15=0/492, 5-13=-909/295, 6-13=0/347, 7-13=-150/760, 7-11=-1098/206, 8-11=-97/109, 9-11=-113/1422, 2-16=-144/1881

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 206 lb uplift at joint 17 and 151 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

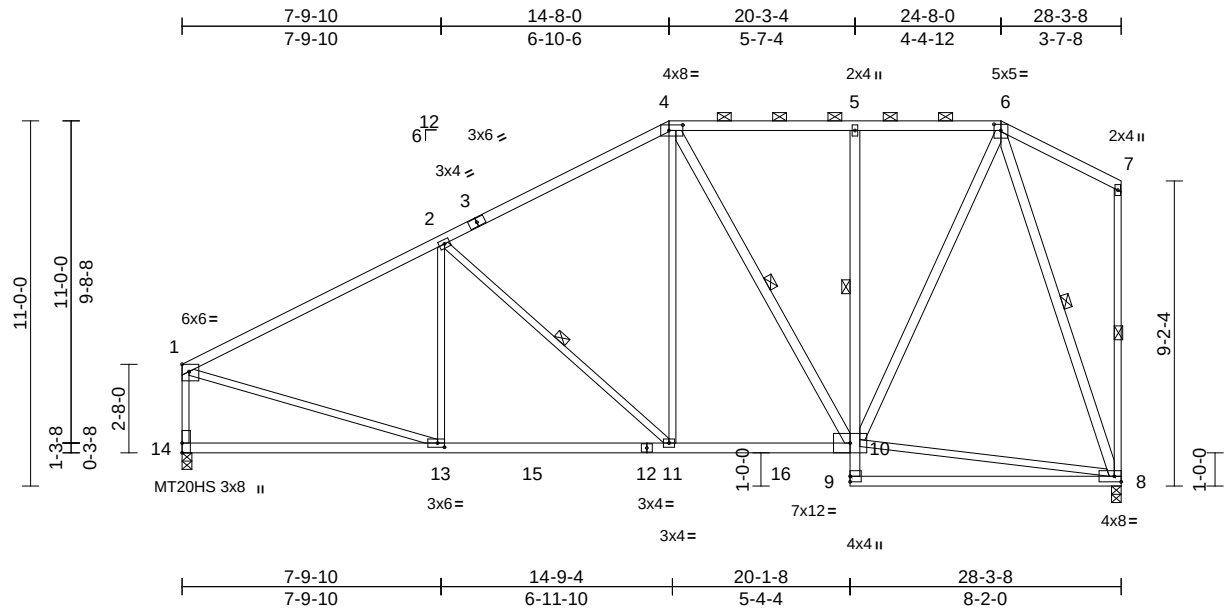
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B7	Piggyback Base	4	1	I50414034
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:19
ID:S46Op_F4yHRa9hhKUHToAdyMEZi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:69.4

Plate Offsets (X, Y): [1:Edge,0-2-11], [4:0-5-0,0-2-0], [6:0-2-8,0-2-4], [13:0-2-8,0-1-8]

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)	-0.16	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.33	8-9	>999	240	MT20HS	148/108
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	11-13	>999	240	Weight: 157 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, 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:
1 Row at midpt 5-10
WEBS 1 Row at midpt 4-10, 7-8, 6-8, 2-11

REACTIONS (lb/size) 8=1264/0-3-8, 14=1264/0-3-8
Max Horiz 14=256 (LC 8)
Max Uplift 8=-114 (LC 5), 14=-127 (LC 8)
Max Grav 8=1341 (LC 2), 14=1348 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1542/159, 2-4=-1232/168, 4-5=-814/129, 5-6=-810/129, 6-7=-49/63, 7-8=-114/63, 1-14=-1229/166
BOT CHORD 13-14=-275/84, 11-13=-311/1302, 10-11=-152/1014, 9-10=0/173, 5-10=-401/169, 8-9=0/131
WEBS 4-11=-69/554, 4-10=-423/132, 8-10=-80/280, 6-10=-130/1041, 6-8=-1212/175, 1-13=-38/1292, 2-11=-422/215, 2-13=-200/112

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 14 and 114 lb uplift at joint 8.
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

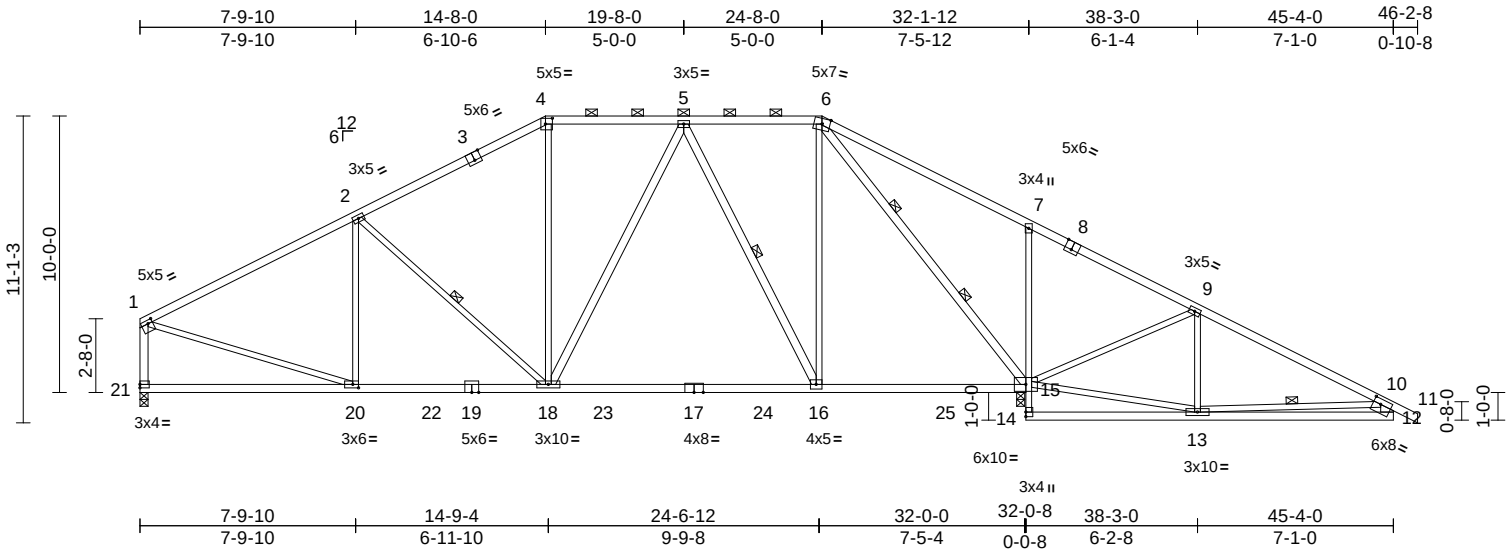
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B8	Piggyback Base	4	1	I50414035
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:20 Page: 1
ID:5Zv5G94hKUbkCztgAsd0dvziDIN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:83.3

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-3-0,Edge], [4:0-3-0,0-2-8], [8:0-3-0,Edge], [12:0-3-4,0-2-4], [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	0.97	Vert(LL)	-0.28	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.46	16-18	>841	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.03	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	18-20	>999	240	Weight: 208 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 2100F 1.8E *Except* 7-14:2x3 SPF No.2, 14-12:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-5,16-5,21-1:2x4 SPF No.2, 15-6:2x4 SPF 2100F 1.8E, 12-10:2x6 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-14.

WEBS 1 Row at midpt 2-18, 5-16, 10-13

WEBS 2 Rows at 1/3 pts 6-15

REACTIONS (lb/size) 15=2952/0-3-8, (req. 0-4-15), 21=1171/0-3-8
Max Horiz 21=-229 (LC 4)
Max Uplift 15=-375 (LC 9), 21=-163 (LC 8)
Max Grav 15=3134 (LC 2), 21=1369 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1558/203, 2-4=-1283/219, 4-5=-1057/239, 5-6=-534/158, 6-7=-114/1643, 7-9=-255/1647, 9-10=-151/778, 10-11=0/35, 1-21=-1241/203, 10-12=-22/117

BOT CHORD 20-21=-91/239, 18-20=-134/1316, 16-18=-7/873, 15-16=0/522, 14-15=-18/95, 7-15=-518/289, 13-14=-72/2, 12-13=-155/352

WEBS 2-18=-415/203, 4-18=0/237, 5-18=-65/540, 5-16=-851/182, 6-16=-46/1177, 6-15=-2785/188, 13-15=-557/202, 9-15=-898/248, 9-13=-80/423, 10-13=-953/357, 2-20=-220/119, 1-20=-90/1284

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 21 and 375 lb uplift at joint 15.
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

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B9	Piggyback Base	5	1	I50414036
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:20 Page: 1
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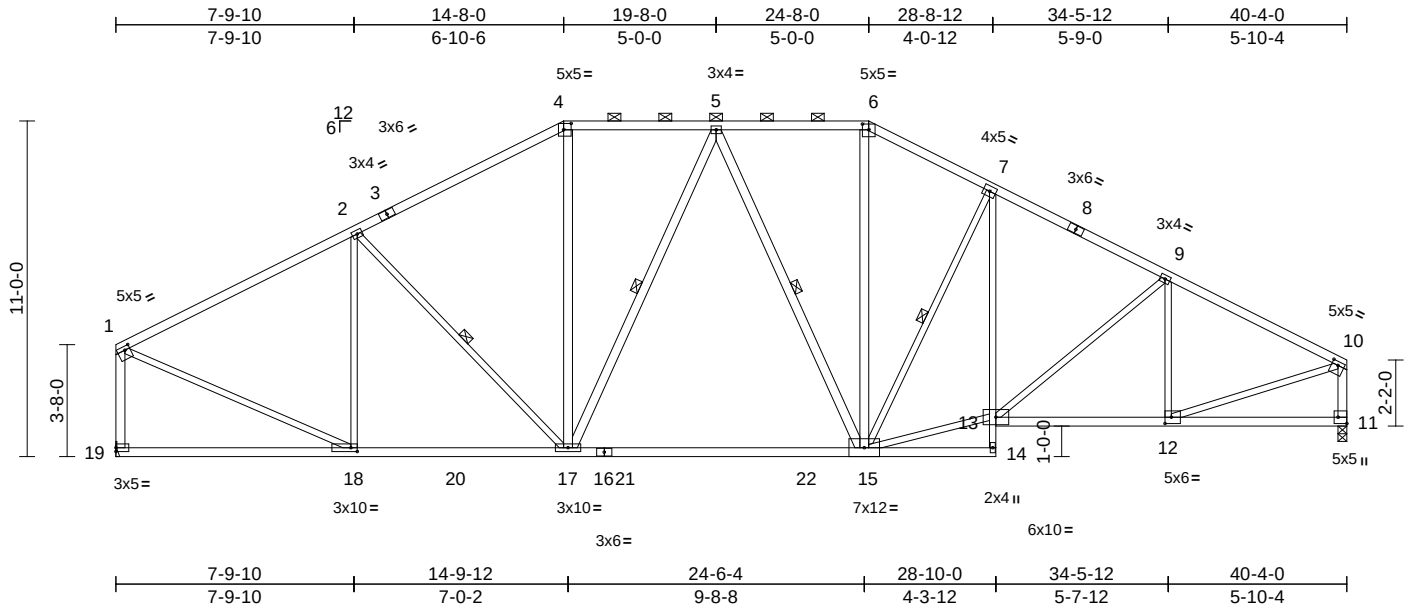

Scale = 1:75.5

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-3-0,0-2-8], [6:0-2-8,0-2-4], [10:0-2-8,0-1-8], [11:Edge,0-3-8], [12:0-2-8,0-2-8], [18:0-2-8,0-1-8]

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	0.91	Vert(LL)	-0.34	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.57	15-17	>842	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 204 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 14-7:2x3 SPF No.2, 13-11:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 17-4,17-5,15-5,15-6,11-10,19-1:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-6 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15,13-14.
WEBS 1 Row at midpt 2-17, 5-17, 5-15, 7-15

REACTIONS (lb/size) 11=1802/0-3-8, 19=1802/ Mechanical
Max Horiz 19=-216 (LC 6)
Max Uplift 11=-184 (LC 9), 19=-175 (LC 8)
Max Grav 11=1907 (LC 2), 19=1936 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2025/196, 2-4=-2034/238, 4-5=-1734/256, 5-6=-1760/269, 6-7=-2026/272, 7-9=-2399/270, 9-10=-2323/229, 10-11=-1816/211, 1-19=-1810/214
BOT CHORD 18-19=-160/192, 17-18=-166/1733, 15-17=-122/1817, 14-15=-24/49, 13-14=-14/14, 7-13=-55/533, 12-13=-166/2018, 11-12=-32/73
WEBS 1-18=-104/1833, 2-18=-551/135, 2-17=-109/184, 4-17=-26/564, 5-17=-411/158, 5-15=-334/155, 6-15=-44/646, 13-15=-54/2115, 7-15=-747/229, 9-13=-59/168, 9-12=-490/126, 10-12=-142/2053

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 19 and 184 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B10	Piggyback Base Supported Gable	1	1	I50414037
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:20
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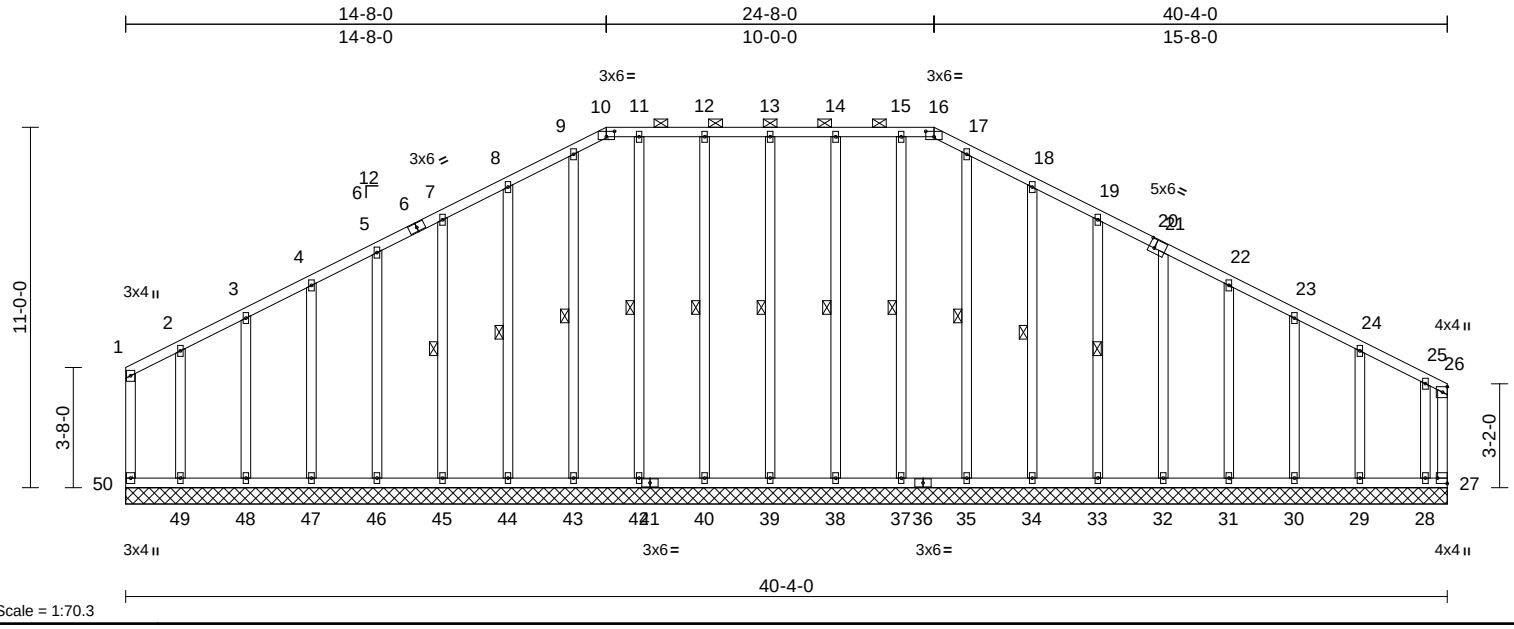

Scale = 1:70.3

Plate Offsets (X, Y): [10:0-3-0,0-2-0], [16:0-3-0,0-2-0], [20:0-2-0,0-3-4], [27:Edge,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	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.01	27	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 277 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.): 10-16.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-45, 8-44, 9-43, 11-42, 12-40, 13-39, 14-38, 15-37, 17-35, 18-34, 19-33

REACTIONS (lb/size) 27=-3/40-4-0, 28=134/40-4-0, 29=188/40-4-0, 30=178/40-4-0, 31=180/40-4-0, 32=180/40-4-0, 33=180/40-4-0, 34=179/40-4-0, 35=180/40-4-0, 37=181/40-4-0, 38=179/40-4-0, 39=180/40-4-0, 40=179/40-4-0, 42=181/40-4-0, 43=180/40-4-0, 44=179/40-4-0, 45=180/40-4-0, 46=180/40-4-0, 47=179/40-4-0, 48=183/40-4-0, 49=169/40-4-0, 50=56/40-4-0

Max Horiz 50=-226 (LC 4)

Max Uplift 27=-598 (LC 7), 28=-642 (LC 4), 29=-57 (LC 9), 30=-53 (LC 9), 31=-54 (LC 9), 32=-54 (LC 9), 33=-52 (LC 9), 34=-70 (LC 9), 38=-45 (LC 5), 39=-32 (LC 4), 40=-44 (LC 5), 44=-71 (LC 8), 45=-52 (LC 8), 46=-54 (LC 8), 47=-57 (LC 8), 48=-42 (LC 8), 49=-187 (LC 5), 50=-164 (LC 4)

Max Grav 27=668 (LC 4), 28=632 (LC 7), 29=188 (LC 1), 30=178 (LC 1), 31=180 (LC 1), 32=180 (LC 22), 33=180 (LC 22), 34=179 (LC 1), 35=180 (LC 22), 37=181 (LC 22), 38=182 (LC 21), 39=180 (LC 1), 40=182 (LC 22), 42=181 (LC 21), 43=180 (LC 21), 44=179 (LC 1), 45=180 (LC 21), 46=180 (LC 1), 47=179 (LC 21), 48=183 (LC 1), 49=283 (LC 15), 50=180 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-50=-92/87, 1-2=-92/104, 2-3=-47/106, 3-4=-34/135, 4-5=-33/161, 5-7=-33/187, 7-8=-36/212, 8-9=-41/243, 9-10=-41/247, 10-11=-35/248, 11-12=-35/248, 12-13=-35/248, 13-14=-35/248, 14-15=-35/248, 15-16=-35/248, 16-17=-41/249, 17-18=-46/261, 18-19=-45/229, 19-21=-51/204, 21-22=-62/178, 22-23=-74/153, 23-24=-84/126, 24-25=-105/102, 25-26=-216/179, 26-27=-299/254

BOT CHORD 49-50=-139/141, 48-49=-139/141, 47-48=-139/141, 46-47=-139/141, 45-46=-139/141, 44-45=-139/141, 43-44=-139/141, 42-43=-139/141, 40-42=-139/141, 39-40=-139/141, 38-39=-139/141, 37-38=-139/141, 35-37=-139/141, 34-35=-139/141, 33-34=-139/141, 32-33=-139/141, 31-32=-139/141, 30-31=-139/141, 29-30=-139/141, 28-29=-139/141, 27-28=-139/141

WEBS 2-49=-163/118, 3-48=-142/73, 4-47=-140/79, 5-46=-140/78, 7-45=-140/76, 8-44=-139/95, 9-43=-140/0, 11-42=-141/16, 12-40=-142/68, 13-39=-140/56, 14-38=-142/69, 15-37=-141/20, 17-35=-140/7, 18-34=-139/94, 19-33=-140/76, 21-32=-140/78, 22-31=-140/79, 23-30=-139/75, 24-29=-147/91, 25-28=-244/273

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.

February 24,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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 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.
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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 50, 598 lb uplift at joint 27, 187 lb uplift at joint 49, 42 lb uplift at joint 48, 57 lb uplift at joint 47, 54 lb uplift at joint 46, 52 lb uplift at joint 45, 71 lb uplift at joint 44, 44 lb uplift at joint 40, 32 lb uplift at joint 39, 45 lb uplift at joint 38, 70 lb uplift at joint 34, 52 lb uplift at joint 33, 54 lb uplift at joint 32, 54 lb uplift at joint 31, 53 lb uplift at joint 30, 57 lb uplift at joint 29 and 642 lb uplift at joint 28.
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

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	I50414038
B220036	C1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:21 Page: 1
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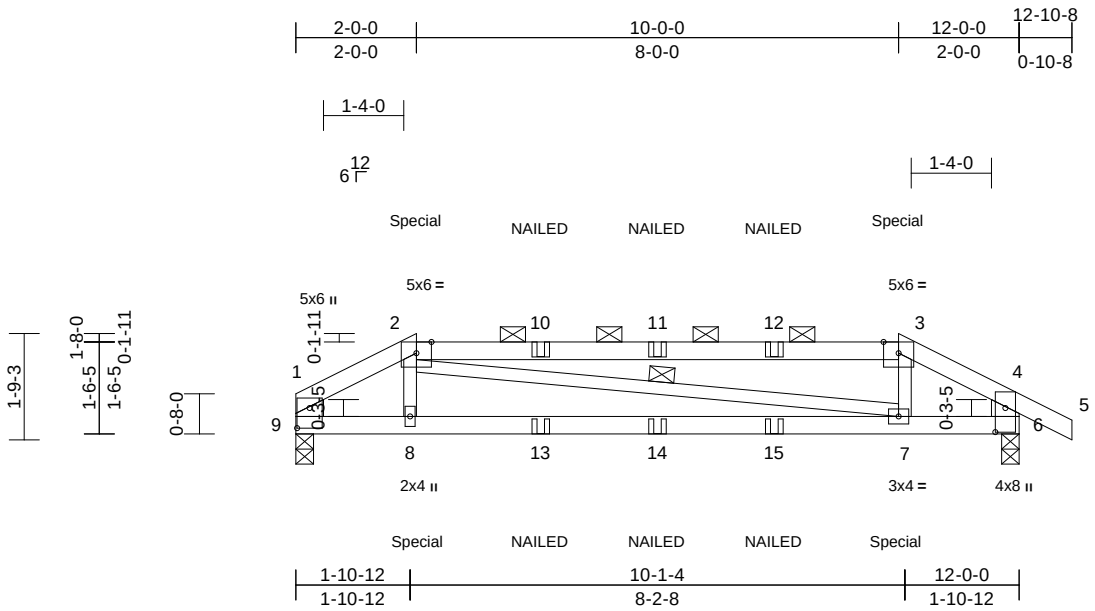

Scale = 1:38.2

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

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	0.75	Vert(LL)	-0.11	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.25	7-8	>549	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	7-8	>999	240	Weight: 39 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 2-3:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-1:2x6 SPF No.2, 6-4:2x6 SP DSS

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

REACTIONS (lb/size) 6=597/0-3-8, 9=512/0-3-8
Max Horiz 9=-37 (LC 4)
Max Uplift 6=-90 (LC 9), 9=-77 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-880/119, 2-3=-750/135, 3-4=-865/115, 4-5=0/35, 1-9=-394/22, 4-6=-514/48
BOT CHORD 8-9=-116/788, 7-8=-126/789, 6-7=-102/751
WEBS 2-8=-9/209, 2-7=-50/15, 3-7=0/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 9 and 90 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 109 lb down and 77 lb up at 2-0-0, and 109 lb down and 77 lb up at 10-0-0 on top chord, and 14 lb down and 2 lb up at 2-0-0, and 14 lb down and 2 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-9=-20
Concentrated Loads (lb)
Vert: 8=2 (B), 7=2 (B), 13=1 (B), 14=1 (B), 15=1 (B)

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	D1	Common Structural Gable	1	1	I50414039 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:21 Page: 1
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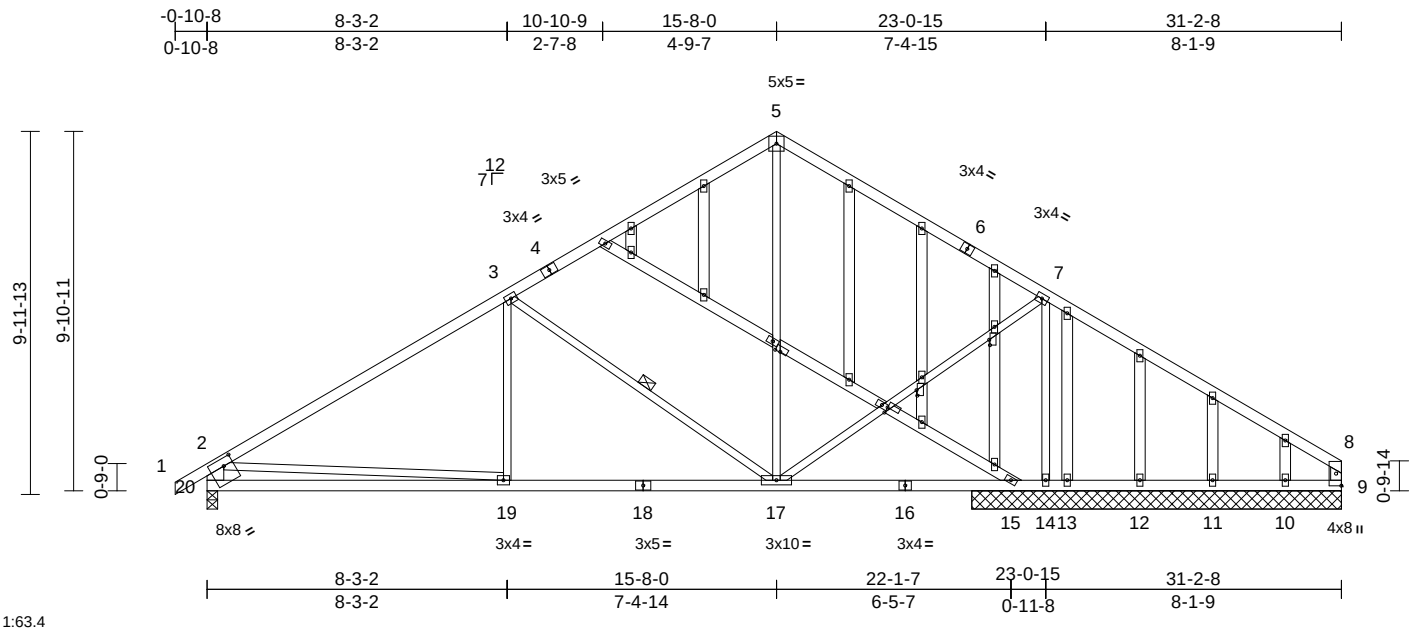

Scale = 1:63.4

Plate Offsets (X, Y): [20:0-3-4,0-2-8], [22:0-1-12,0-0-4], [23:0-0-1,0-2-0], [32:0-1-13,0-0-4], [35:0-1-13,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.10	19-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.20	19-20	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	19	>999	240	Weight: 167 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 20-2:2x6 SPF No.2, 9-8,21-22,22-23,23-15:2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-4-10 oc bracing.
WEBS 1 Row at midpt 3-17

REACTIONS (lb/size) 9=282/10-2-0, 10=111/10-2-0, 11=28/10-2-0, 12=42/10-2-0, 13=78/10-2-0, 14=1015/10-2-0, 15=179/10-2-0, 20=1117/0-3-8
Max Horiz 20=268 (LC 5)
Max Uplift 9=-122 (LC 9), 10=-38 (LC 9), 14=-211 (LC 8), 20=-178 (LC 8)
Max Grav 9=306 (LC 22), 10=154 (LC 16), 11=76 (LC 3), 12=100 (LC 14), 13=185 (LC 14), 14=1015 (LC 1), 15=321 (LC 14), 20=1187 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-1481/221, 3-5=-828/240, 5-7=-819/236, 7-8=-328/186, 2-20=-1058/223, 8-9=-347/180
BOT CHORD 19-20=-386/922, 17-19=-225/1336, 15-17=-63/178, 14-15=-63/178, 13-14=-63/178, 12-13=-63/178, 11-12=-63/178, 10-11=-63/178, 9-10=-63/178
WEBS 5-17=-79/318, 7-17=-26/697, 7-14=-1156/152, 3-17=-818/261, 3-19=0/308, 2-19=0/555

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 20, 211 lb uplift at joint 14, 122 lb uplift at joint 9 and 38 lb uplift at joint 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	D2	Common	1	1	I50414040 Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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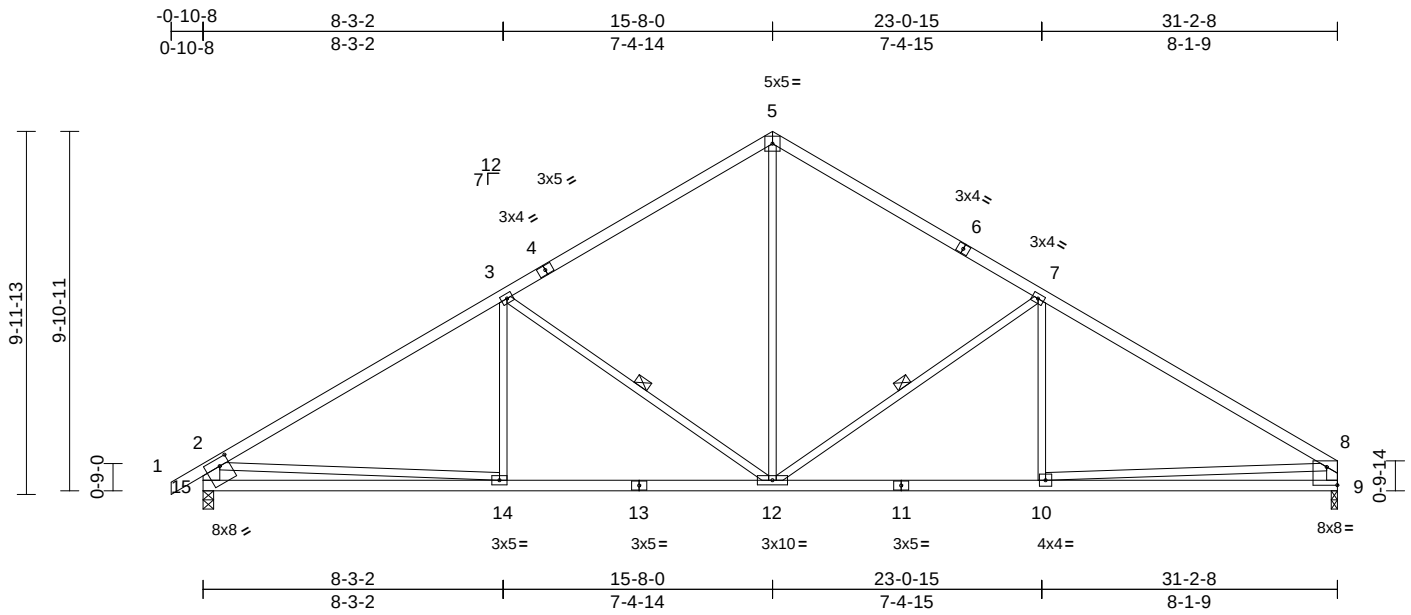

Scale = 1:63.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.10	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	14-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	10-12	>999	240	Weight: 122 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-6-11 oc bracing.
WEBS 1 Row at midpt 7-12, 3-12

REACTIONS (lb/size) 9=1386/0-2-0, (req. 0-2-3), 15=1466/0-3-8
Max Horiz 15=268 (LC 5)
Max Uplift 9=-165 (LC 9), 15=-191 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2056/246, 3-5=-1467/261, 5-7=-1469/261, 7-8=-2048/244, 2-15=-1388/236, 8-9=-1307/208
BOT CHORD 14-15=-371/887, 12-14=-247/1654, 10-12=-113/1660, 9-10=-121/495
WEBS 5-12=-101/878, 7-12=-678/266, 7-10=0/269, 3-12=-671/262, 3-14=0/279, 2-14=0/925, 8-10=-50/1168

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) WARNING: Required bearing size at joint(s) 9 greater than input bearing size.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 15 and 165 lb uplift at joint 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	D3	Common	9	1	I50414041
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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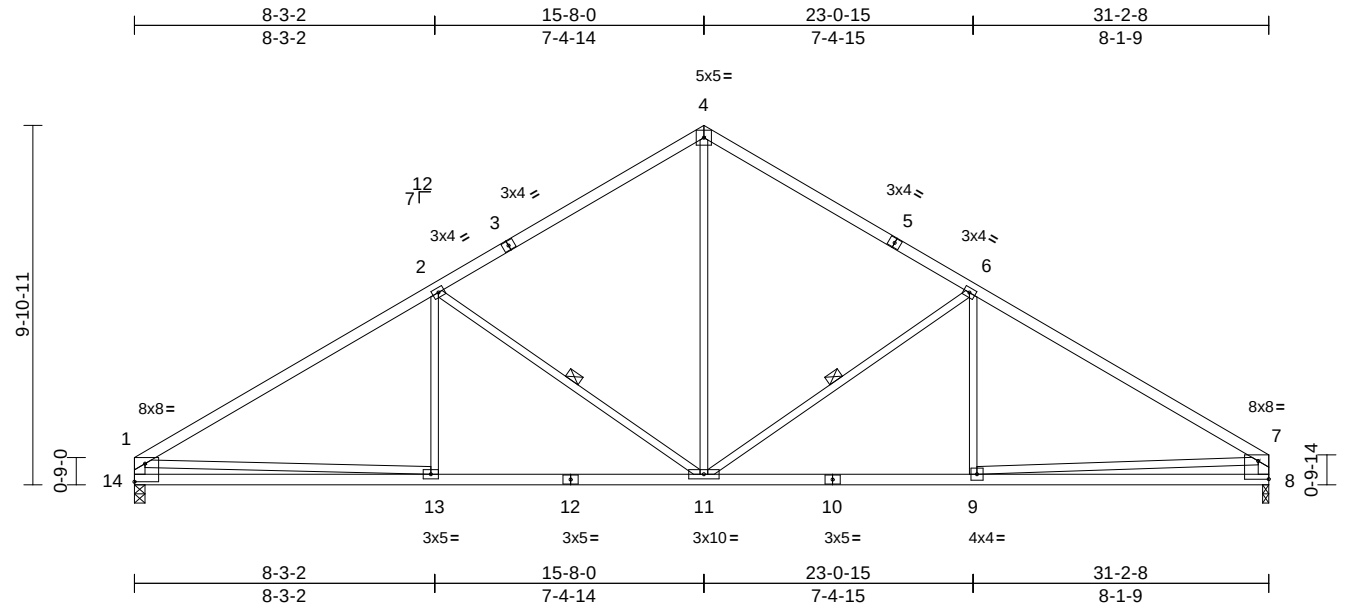

Scale = 1:63.4

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

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	0.60	Vert(LL)	-0.11	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.24	13-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11-13	>999	240	Weight: 121 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 3-4,5-4:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-1:2x4 SPF 2100F 1.8E, 8-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-11, 2-11

REACTIONS (lb/size) 8=1391/0-2-0, (req. 0-2-3), 14=1391/0-3-8
Max Horiz 14=257 (LC 5)
Max Uplift 8=-165 (LC 9), 14=-166 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2081/247, 2-4=-1479/262, 4-6=-1479/262, 6-7=-2058/244, 1-14=-1311/211, 7-8=-1312/208
BOT CHORD 13-14=-271/742, 11-13=-255/1685, 9-11=-113/1668, 8-9=-121/495
WEBS 4-11=-105/896, 6-11=-678/266, 6-9=0/268, 2-11=-698/270, 2-13=0/282, 1-13=-33/1099, 7-9=-51/1176

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) The Fabrication Tolerance at joint 1 = 6%, joint 1 = 6%
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 14 and 165 lb uplift at joint 8.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	D4	Monopitch Supported Gable	1	1	I50414042
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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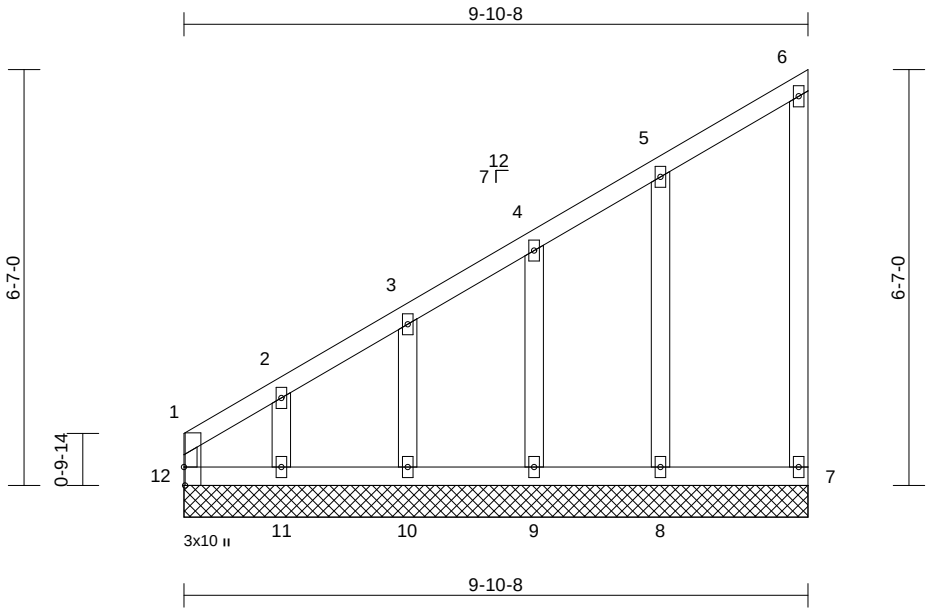

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Plate Offsets (X, Y): [12:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 45 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 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 (lb/size) 7=83/9-10-8, 8=209/9-10-8, 9=172/9-10-8, 10=184/9-10-8, 11=170/9-10-8, 12=47/9-10-8
Max Horiz 12=245 (LC 7)
Max Uplift 7=-40 (LC 5), 8=-68 (LC 8), 9=-63 (LC 8), 10=-47 (LC 8), 11=-149 (LC 8), 12=-92 (LC 6)
Max Grav 7=100 (LC 15), 8=211 (LC 15), 9=180 (LC 15), 10=184 (LC 1), 11=225 (LC 15), 12=191 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-137/71, 1-2=-225/147, 2-3=-174/113, 3-4=-151/95, 4-5=-139/92, 5-6=-109/74, 6-7=-73/33
BOT CHORD 11-12=-88/68, 10-11=-88/68, 9-10=-88/68, 8-9=-88/68, 7-8=-88/68
WEBS 2-11=-159/123, 3-10=-145/79, 4-9=-137/90, 5-8=-176/74

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 12, 40 lb uplift at joint 7, 149 lb uplift at joint 11, 47 lb uplift at joint 10, 63 lb uplift at joint 9 and 68 lb uplift at joint 8.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	E1	Common Supported Gable	1	1	I50414043
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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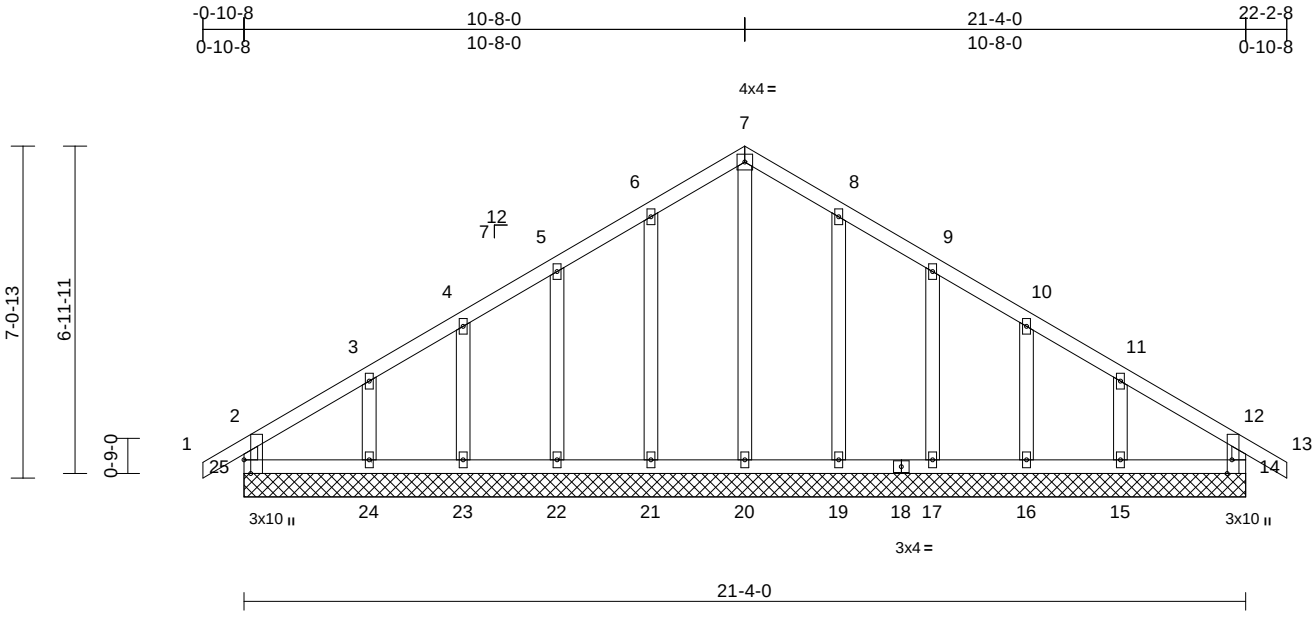

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Plate Offsets (X, Y): [14:0-3-8,Edge], [25:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 95 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 (lb/size) 14=195/21-4-0, 15=209/21-4-0, 16=172/21-4-0, 17=181/21-4-0, 19=187/21-4-0, 20=150/21-4-0, 21=187/21-4-0, 22=181/21-4-0, 23=172/21-4-0, 24=209/21-4-0, 25=195/21-4-0
Max Horiz 25=196 (LC 7)
Max Uplift 14=-25 (LC 8), 15=-102 (LC 9), 16=-48 (LC 9), 17=-66 (LC 9), 19=-59 (LC 9), 21=-60 (LC 8), 22=-67 (LC 8), 23=-46 (LC 8), 24=-109 (LC 8), 25=-42 (LC 4)
Max Grav 14=195 (LC 1), 15=237 (LC 16), 16=172 (LC 1), 17=187 (LC 16), 19=192 (LC 16), 20=189 (LC 18), 21=193 (LC 15), 22=188 (LC 15), 23=172 (LC 1), 24=247 (LC 15), 25=201 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 12-14=-172/39, 7-8=-66/184, 8-9=-55/143, 9-10=-67/111, 10-11=-79/80, 11-12=-104/69, 12-13=0/36, 1-2=0/36, 2-3=-138/113, 3-4=-110/102, 4-5=-99/133, 5-6=-87/165, 6-7=-77/193, 2-25=-172/53
BOT CHORD 24-25=-73/97, 23-24=-73/97, 22-23=-73/97, 21-22=-73/97, 20-21=-73/97, 19-20=-73/97, 17-19=-73/97, 16-17=-73/97, 15-16=-73/97, 14-15=-73/97
WEBS 7-20=-149/1, 8-19=-152/84, 9-17=-146/90, 10-16=-135/75, 11-15=-177/117, 6-21=-153/84, 5-22=-145/90, 4-23=-135/74, 3-24=-183/121

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 14, 42 lb uplift at joint 25, 59 lb uplift at joint 19, 66 lb uplift at joint 17, 48 lb uplift at joint 16, 102 lb uplift at joint 15, 60 lb uplift at joint 21, 67 lb uplift at joint 22, 46 lb uplift at joint 23 and 109 lb uplift at joint 24.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	F1	Common Supported Gable	1	1	I50414044
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:23
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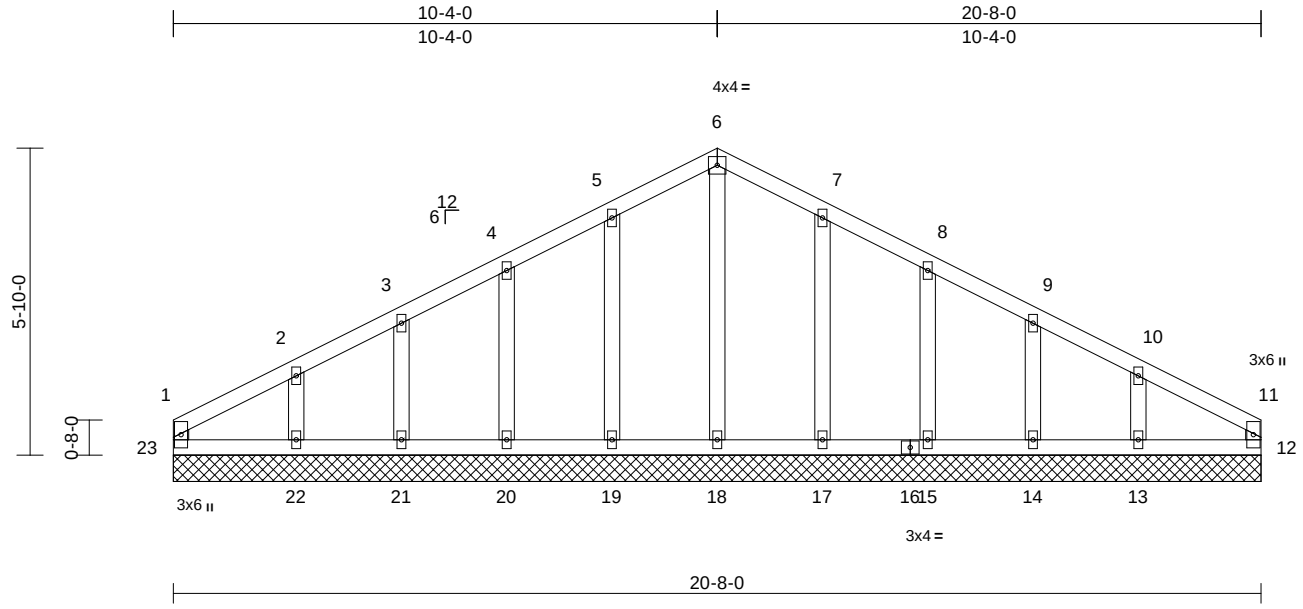

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 82 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 (lb/size) 12=97/20-8-0, 13=208/20-8-0, 14=172/20-8-0, 15=180/20-8-0, 17=187/20-8-0, 18=144/20-8-0, 19=187/20-8-0, 20=180/20-8-0, 21=172/20-8-0, 22=208/20-8-0, 23=97/20-8-0
Max Horiz 23=-82 (LC 4)
Max Uplift 12=-10 (LC 8), 13=-85 (LC 9), 14=-45 (LC 9), 15=-57 (LC 9), 17=-55 (LC 9), 19=-55 (LC 8), 20=-57 (LC 8), 21=-44 (LC 8), 22=-90 (LC 8), 23=-22 (LC 9)
Max Grav 12=97 (LC 1), 13=211 (LC 22), 14=172 (LC 1), 15=180 (LC 1), 17=190 (LC 22), 18=159 (LC 18), 19=190 (LC 21), 20=180 (LC 1), 21=172 (LC 1), 22=211 (LC 21), 23=100 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-79/32, 1-2=-97/50, 2-3=-72/75, 3-4=-61/101, 4-5=-58/127, 5-6=-61/152, 6-7=-61/144, 7-8=-58/109, 8-9=-58/82, 9-10=-61/57, 10-11=-82/31, 11-12=-79/21
BOT CHORD 22-23=-20/58, 21-22=-20/58, 20-21=-20/58, 19-20=-20/58, 18-19=-20/58, 17-18=-20/58, 15-17=-20/58, 14-15=-20/58, 13-14=-20/58, 12-13=-20/58
WEBS 6-18=-119/0, 5-19=-150/79, 4-20=-140/80, 3-21=-135/71, 2-22=-161/102, 7-17=-150/79, 8-15=-140/80, 9-14=-135/72, 10-13=-161/99

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 23, 10 lb uplift at joint 12, 55 lb uplift at joint 19, 57 lb uplift at joint 20, 44 lb uplift at joint 21, 90 lb uplift at joint 22, 55 lb uplift at joint 17, 57 lb uplift at joint 15, 45 lb uplift at joint 14 and 85 lb uplift at joint 13.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	J1	Diagonal Hip Girder	3	1	I50414045
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:23 Page: 1
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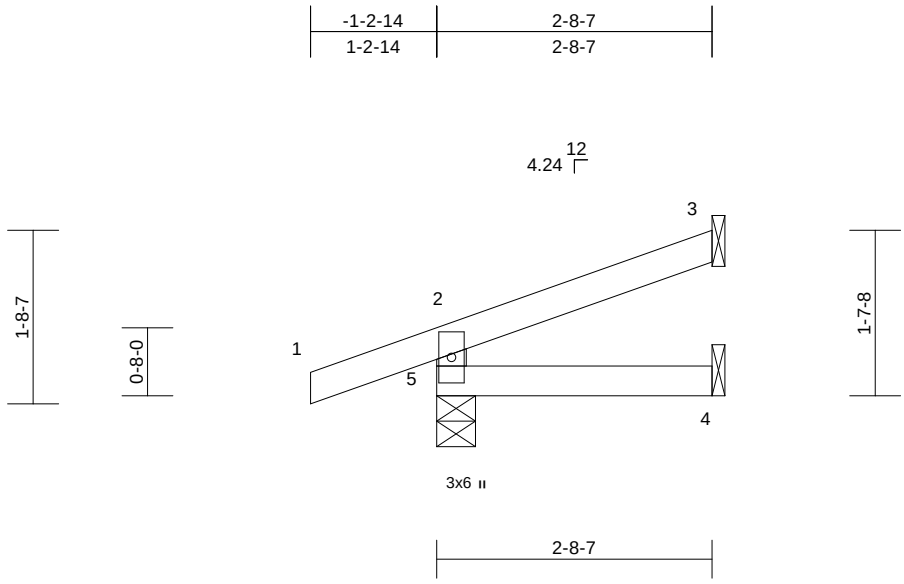

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=65/ Mechanical, 4=20/ Mechanical, 5=236/0-4-9
Max Horiz 5=56 (LC 4)
Max Uplift 3=-34 (LC 8), 5=-82 (LC 4)
Max Grav 3=65 (LC 1), 4=44 (LC 3), 5=236 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-206/100, 1-2=0/32, 2-3=-38/16
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 5 and 34 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	J2	Jack-Open	12	1	I50414046
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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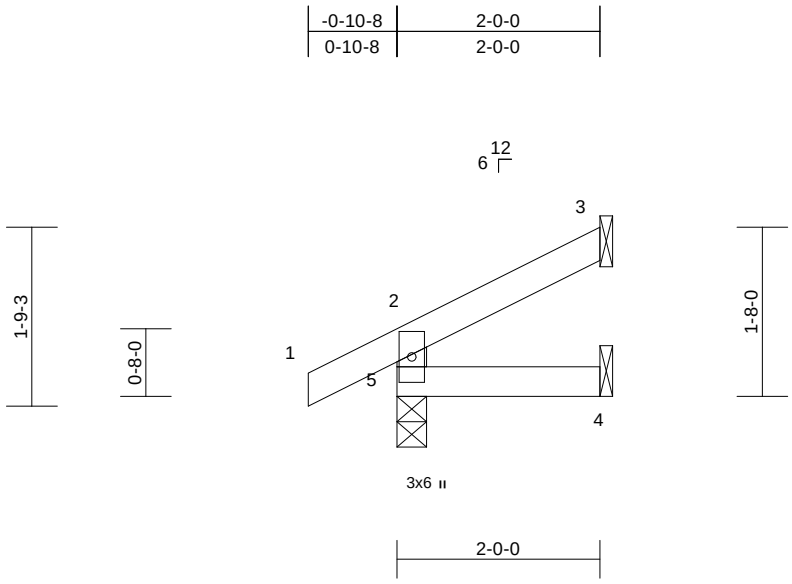

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 6 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=48/ Mechanical, 4=15/ Mechanical, 5=174/0-3-8
Max Horiz 5=49 (LC 8)
Max Uplift 3=-32 (LC 8), 5=-26 (LC 8)
Max Grav 3=48 (LC 1), 4=33 (LC 3), 5=174 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-153/45, 1-2=0/32, 2-3=-39/16
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 5 and 32 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	LAY1	Lay-In Gable	1	1	I50414047
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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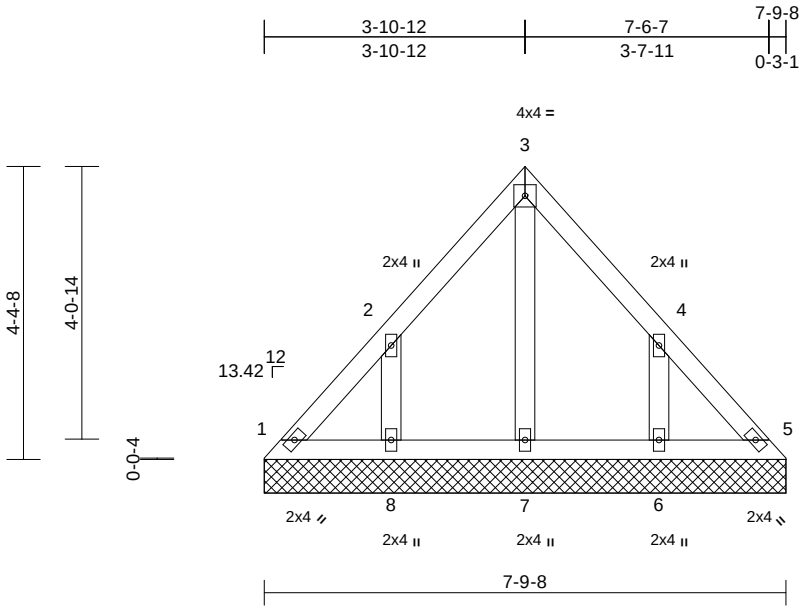

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 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 (lb/size) 1=71/7-9-8, 5=71/7-9-8, 6=198/7-9-8, 7=108/7-9-8, 8=198/7-9-8
Max Horiz 1=108 (LC 5)
Max Uplift 1=-27 (LC 4), 5=-10 (LC 5), 6=-154 (LC 9), 8=-154 (LC 8)
Max Grav 1=99 (LC 17), 5=91 (LC 18), 6=228 (LC 16), 7=122 (LC 18), 8=229 (LC 15)

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.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 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.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	LAY2	Lay-In Gable	1	1	I50414048
					Job Reference (optional)

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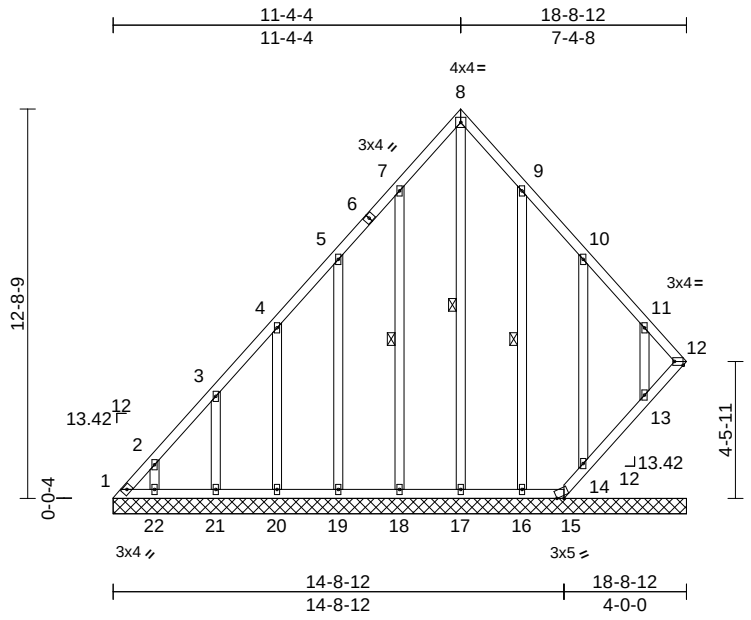

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Plate Offsets (X, Y): [12:Edge,0-1-8]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 122 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-17, 7-18, 9-16

REACTIONS (lb/size) 1=52/18-8-12, 12=86/18-8-12, 13=162/18-8-12, 14=179/18-8-12, 15=-21/18-8-12, 16=181/18-8-12, 17=117/18-8-12, 18=185/18-8-12, 19=180/18-8-12, 20=179/18-8-12, 21=185/18-8-12, 22=156/18-8-12
Max Horiz 1=318 (LC 8)
Max Uplift 1=-186 (LC 6), 12=-199 (LC 7), 13=-119 (LC 9), 14=-130 (LC 9), 15=-214 (LC 9), 16=-133 (LC 9), 18=-132 (LC 8), 19=-140 (LC 8), 20=-134 (LC 8), 21=-139 (LC 8), 22=-117 (LC 8)
Max Grav 1=394 (LC 8), 12=381 (LC 9), 13=187 (LC 16), 14=200 (LC 16), 15=129 (LC 7), 16=213 (LC 16), 17=221 (LC 9), 18=217 (LC 15), 19=207 (LC 15), 20=207 (LC 15), 21=214 (LC 15), 22=180 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-534/280, 2-3=-425/240, 3-4=-285/185, 4-5=-164/133, 5-7=-136/115, 7-8=-107/183, 8-9=-92/167, 9-10=-117/98, 10-11=-147/110, 11-12=-249/153
BOT CHORD 1-22=-101/182, 21-22=-101/182, 20-21=-101/182, 19-20=-101/182, 18-19=-101/182, 17-18=-101/182, 16-17=-101/182, 15-16=-101/182, 14-15=-157/293, 13-14=-166/282, 12-13=-164/277
WEBS 8-17=-197/7, 7-18=-177/156, 5-19=-167/164, 4-20=-167/157, 3-21=-173/165, 2-22=-143/133, 9-16=-175/154, 10-14=-171/168, 11-13=-148/139

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 12, 186 lb uplift at joint 1, 214 lb uplift at joint 15, 132 lb uplift at joint 18, 140 lb uplift at joint 19, 134 lb uplift at joint 20, 139 lb uplift at joint 21, 117 lb uplift at joint 22, 133 lb uplift at joint 16, 130 lb uplift at joint 14 and 119 lb uplift at joint 13.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 14, 13.
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 24,2022

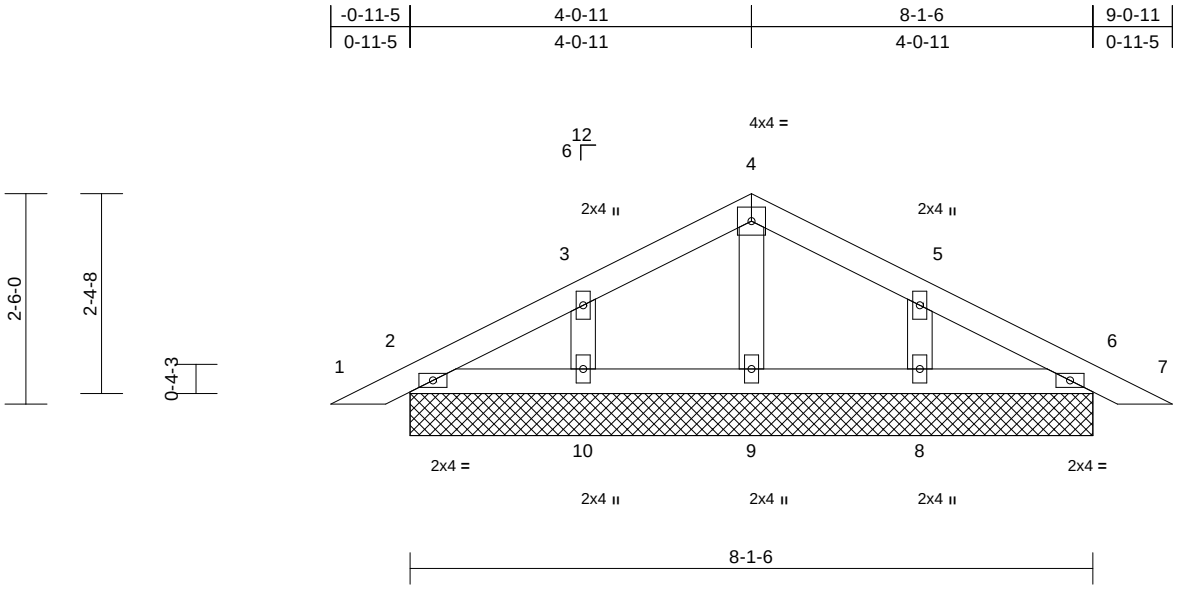
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	P1	Piggyback	2	1	I50414049
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:24 ID:hC8n44pz_c6wnQi?LwXpNqyMGXV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 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 (lb/size) 2=127/8-1-6, 6=127/8-1-6, 8=214/8-1-6, 9=134/8-1-6, 10=214/8-1-6
Max Horiz 2=41 (LC 8)
Max Uplift 2=-17 (LC 8), 6=-25 (LC 9), 8=-67 (LC 9), 10=-67 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-51/41, 3-4=-50/56, 4-5=-50/49, 5-6=-40/30, 6-7=0/17
BOT CHORD 2-10=-2/37, 9-10=-2/37, 8-9=-2/37, 6-8=-2/37
WEBS 4-9=-98/2, 3-10=-167/95, 5-8=-167/95

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2, 25 lb uplift at joint 6, 67 lb uplift at joint 10 and 67 lb uplift at joint 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

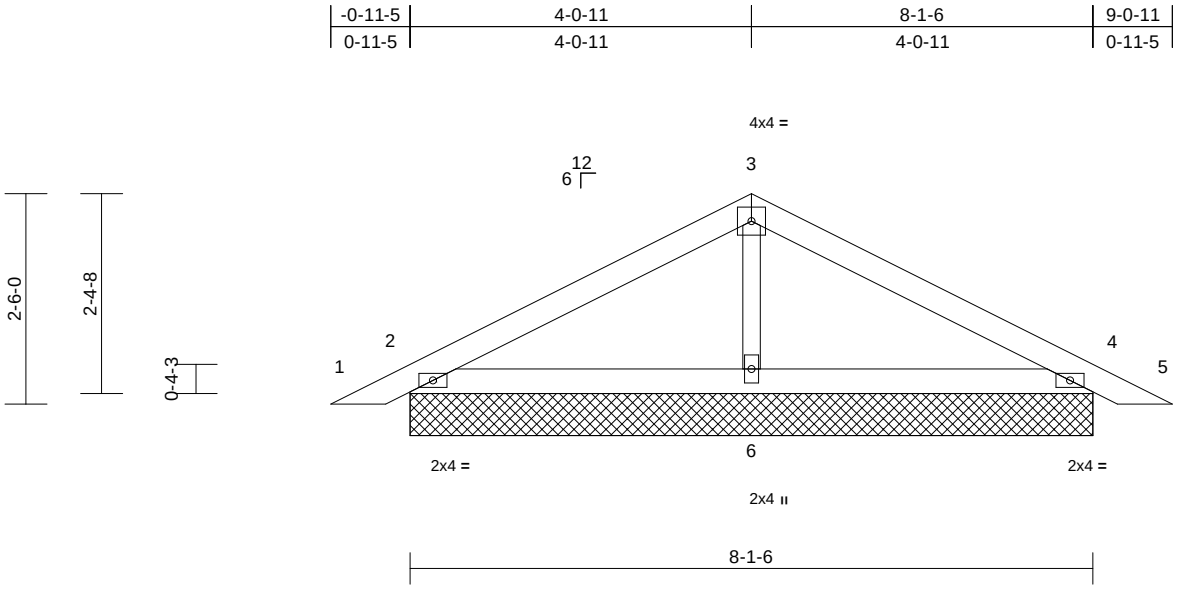
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	P2	Piggyback	19	1	I50414050
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:24 ID:WMV2L7ukZSs3VLA9iBdDc5yMGXP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 10%

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

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

REACTIONS (lb/size) 2=237/8-1-6, 4=237/8-1-6, 6=343/8-1-6
Max Horiz 2=-41 (LC 13)
Max Uplift 2=-60 (LC 8), 4=-67 (LC 9), 6=-1 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-93/55, 3-4=-93/39, 4-5=0/17
BOT CHORD 2-6=0/45, 4-6=0/45
WEBS 3-6=-241/62

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2, 67 lb uplift at joint 4 and 1 lb uplift at joint 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	I50414051
B220036	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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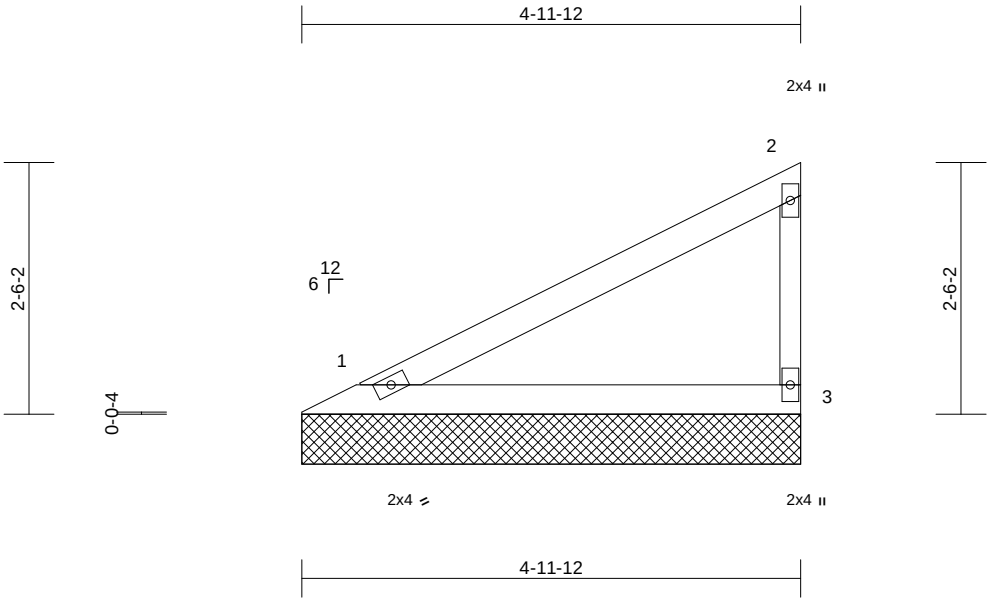

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 5-0-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=193/4-11-12, 3=193/4-11-12
Max Horiz 1=89 (LC 7)
Max Uplift 1=-25 (LC 8), 3=-47 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-82/54, 2-3=-150/73
BOT CHORD 1-3=-31/23

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 47 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V2	Valley	1	1	I50414052
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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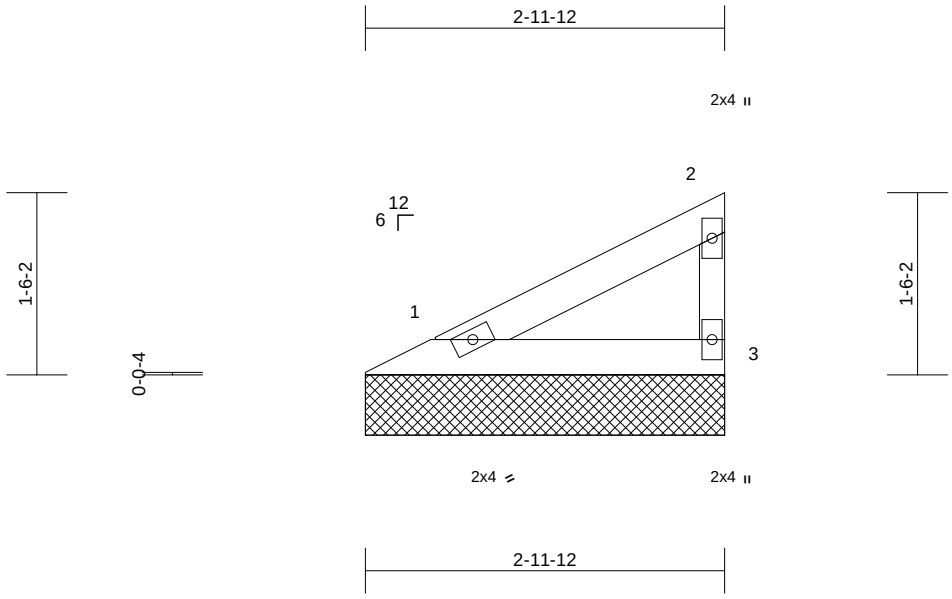

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=103/2-11-12, 3=103/2-11-12
Max Horiz 1=48 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-25 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-44/29, 2-3=-80/39
BOT CHORD 1-3=-16/12

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 25 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V3	Valley	1	1	I50414053
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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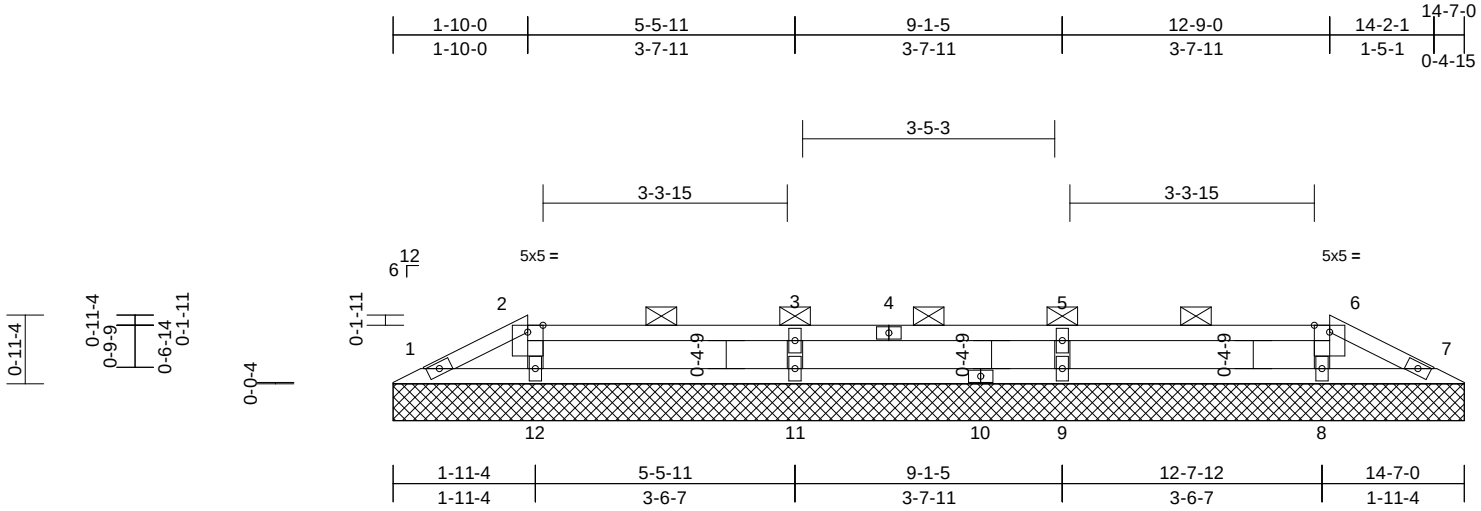

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 25 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=43/14-7-0, 7=43/14-7-0, 8=232/14-7-0, 9=343/14-7-0, 11=343/14-7-0, 12=232/14-7-0
Max Horiz 1=12 (LC 8)
Max Uplift 1=-14 (LC 8), 7=-16 (LC 9), 8=-24 (LC 4), 9=-67 (LC 5), 11=-67 (LC 4), 12=-26 (LC 5)
Max Grav 1=44 (LC 21), 7=44 (LC 22), 8=232 (LC 1), 9=344 (LC 21), 11=344 (LC 22), 12=232 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-36/14, 2-3=-1/14, 3-5=-1/13, 5-6=-1/14, 6-7=-36/11
BOT CHORD 1-12=-7/26, 11-12=-2/12, 9-11=-2/12, 8-9=-2/12, 7-8=-5/26
WEBS 3-11=-270/111, 5-9=-270/111, 2-12=-174/63, 6-8=-174/61

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 16 lb uplift at joint 7, 67 lb uplift at joint 11, 67 lb uplift at joint 9, 26 lb uplift at joint 12 and 24 lb uplift at joint 8.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V4	Valley	1	1	I50414054
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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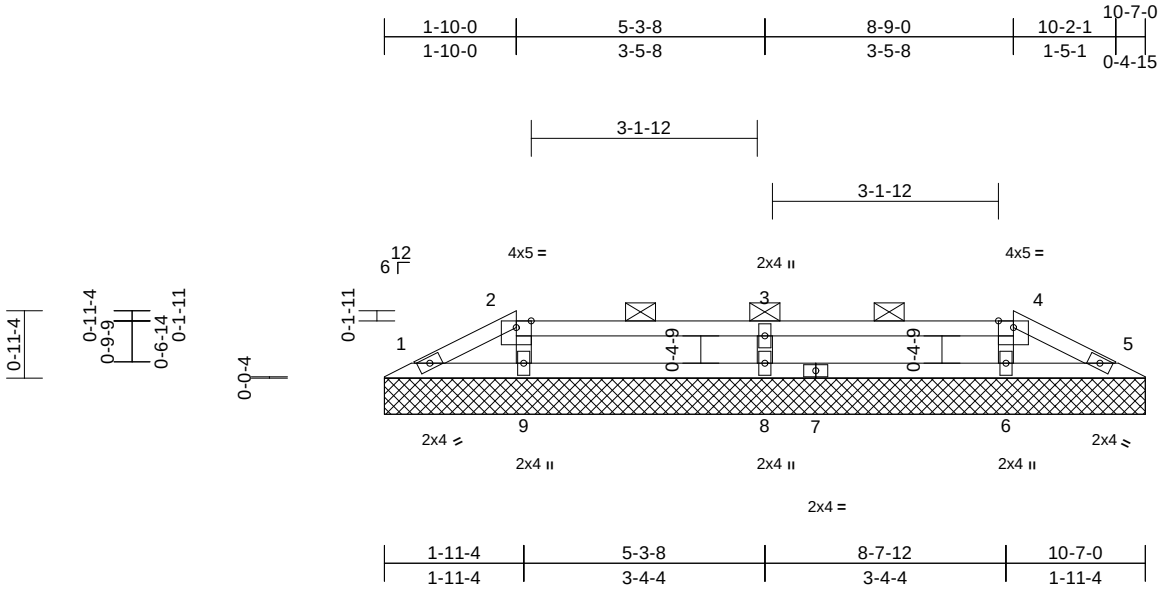

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 18 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=47/10-7-0, 5=47/10-7-0, 6=215/10-7-0, 8=351/10-7-0, 9=215/10-7-0
Max Horiz 1=-12 (LC 13)
Max Uplift 1=-14 (LC 8), 5=-16 (LC 9), 6=-20 (LC 4), 8=-73 (LC 4), 9=-22 (LC 5)
Max Grav 1=48 (LC 21), 5=48 (LC 22), 6=215 (LC 1), 8=352 (LC 21), 9=215 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-35/14, 2-3=-1/14, 3-4=-1/14, 4-5=-35/10
BOT CHORD 1-9=-6/23, 8-9=-2/12, 6-8=-2/12, 5-6=-4/23
WEBS 3-8=-281/116, 2-9=-160/57, 4-6=-160/55

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 16 lb uplift at joint 5, 73 lb uplift at joint 8, 22 lb uplift at joint 9 and 20 lb uplift at joint 6.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	
B220036	V5	Valley	1	1	Job Reference (optional)	I50414055

Wheeler Lumber, Waverly, KS - 66871,

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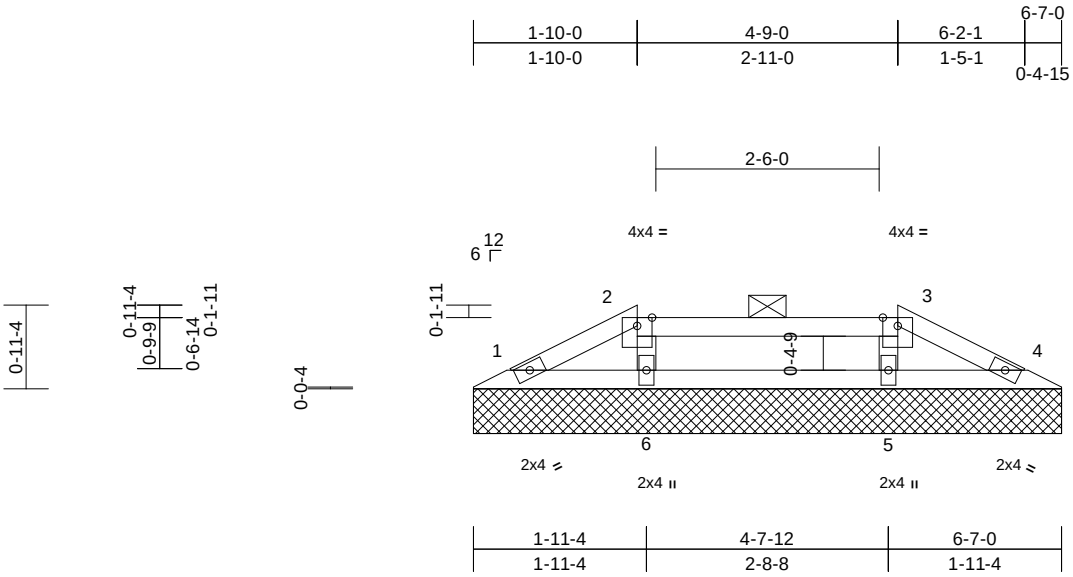

Scale = 1:25.8

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)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=66/6-7-0, 4=66/6-7-0, 5=192/6-7-0, 6=192/6-7-0
Max Horiz 1=-12 (LC 13)
Max Uplift 1=-16 (LC 8), 4=-18 (LC 9), 5=-18 (LC 4), 6=-20 (LC 5)
Max Grav 1=66 (LC 21), 4=66 (LC 22), 5=192 (LC 1), 6=192 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-37/14, 2-3=0/14, 3-4=-37/11
BOT CHORD 1-6=-4/19, 5-6=-5/12, 4-5=-2/18
WEBS 2-6=-145/50, 3-5=-145/48

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1, 18 lb uplift at joint 4, 20 lb uplift at joint 6 and 18 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) 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V6	Valley	1	1	I50414056
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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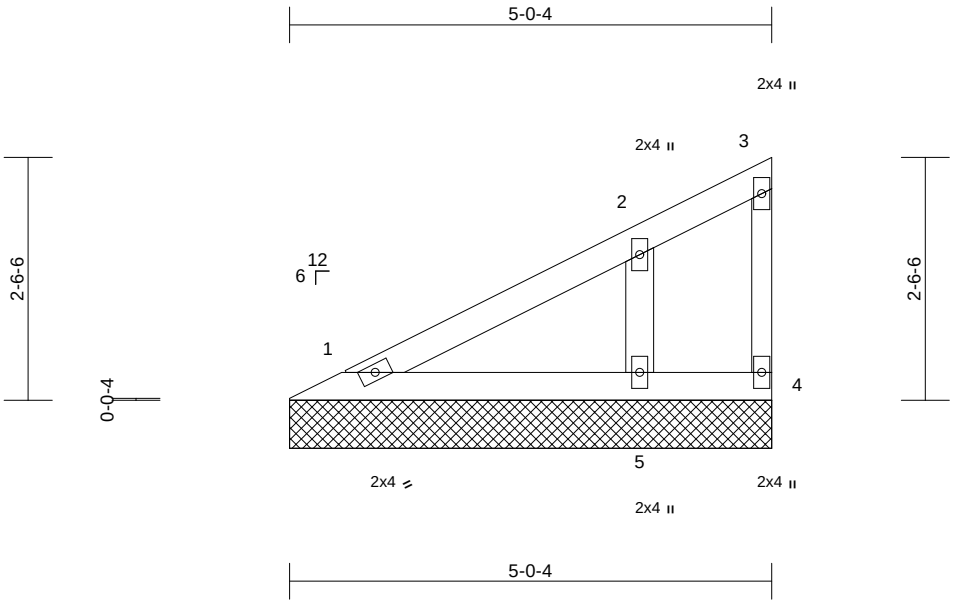

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=112/5-0-4, 4=-4/5-0-4, 5=282/5-0-4
Max Horiz 1=90 (LC 7)
Max Uplift 4=-17 (LC 7), 5=-84 (LC 8)
Max Grav 1=112 (LC 1), 4=12 (LC 8), 5=282 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-68/57, 2-3=-59/25, 3-4=-12/15
BOT CHORD	1-5=-31/23, 4-5=-31/23
WEBS	2-5=-219/122

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 84 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V7	Valley	1	1	I50414057
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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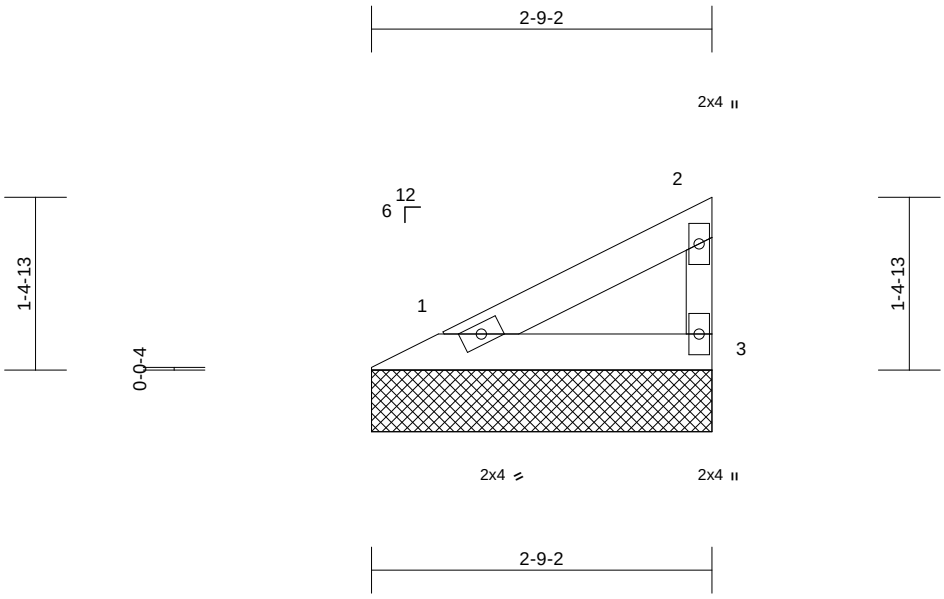

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=93/2-9-2, 3=93/2-9-2
Max Horiz 1=43 (LC 5)
Max Uplift 1=-12 (LC 8), 3=-23 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-40/26, 2-3=-72/35
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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 23 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V8	Valley	1	1	I50414058
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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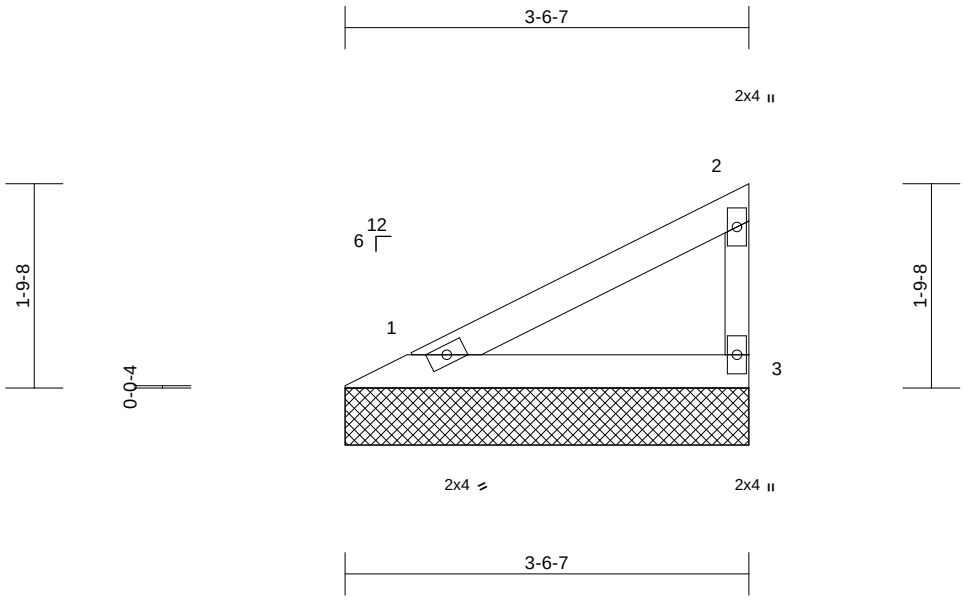

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 3-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=128/3-6-7, 3=128/3-6-7
Max Horiz 1=59 (LC 5)
Max Uplift 1=-16 (LC 8), 3=-31 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-54/36, 2-3=-100/48
BOT CHORD 1-3=-20/15

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1 and 31 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V9	Valley	1	1	I50414059
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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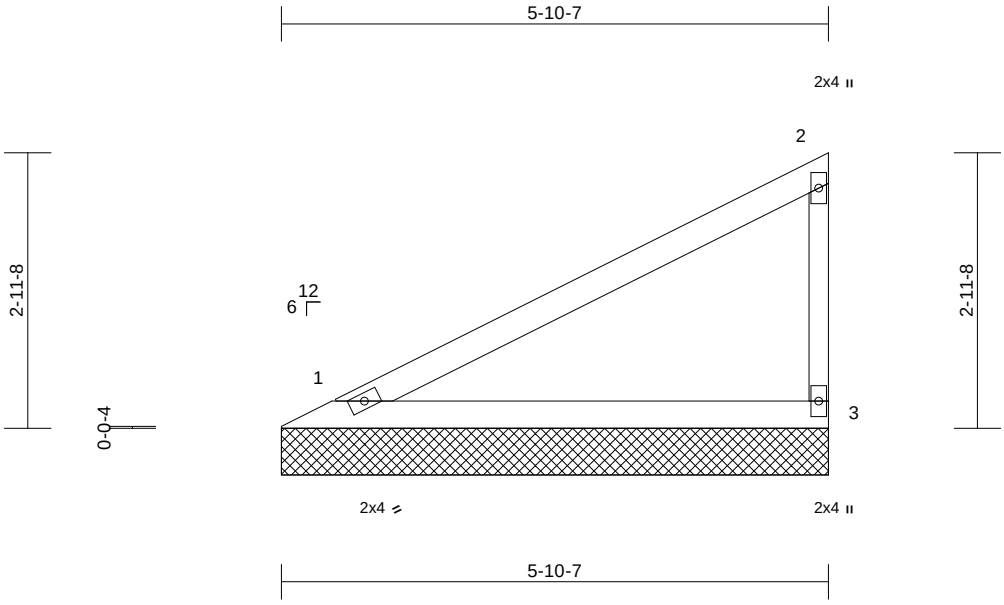

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=233/5-10-7, 3=233/5-10-7
Max Horiz 1=108 (LC 5)
Max Uplift 1=-30 (LC 8), 3=-57 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-99/65, 2-3=-181/88
BOT CHORD 1-3=-37/28

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 57 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V10	Valley	1	1	I50414060
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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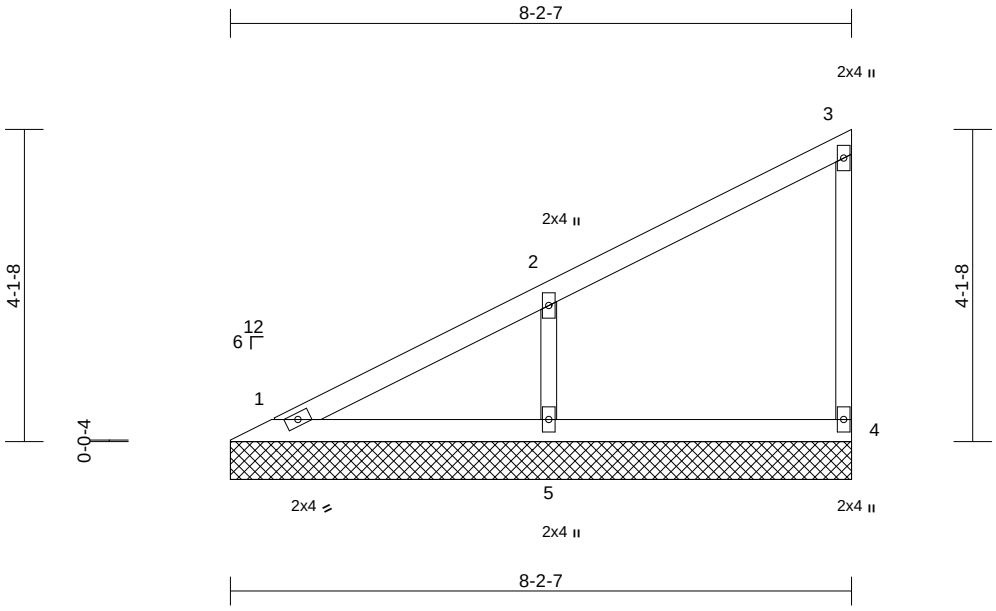

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06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

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 (lb/size) 1=119/8-2-7, 4=135/8-2-7, 5=423/8-2-7
Max Horiz 1=157 (LC 5)
Max Uplift 4=-26 (LC 5), 5=-127 (LC 8)
Max Grav 1=125 (LC 16), 4=135 (LC 1), 5=423 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-127/74, 2-3=-115/44, 3-4=-105/44
BOT CHORD	1-5=-53/41, 4-5=-53/41
WEBS	2-5=-329/183

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 127 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V11	Valley	1	1	I50414061
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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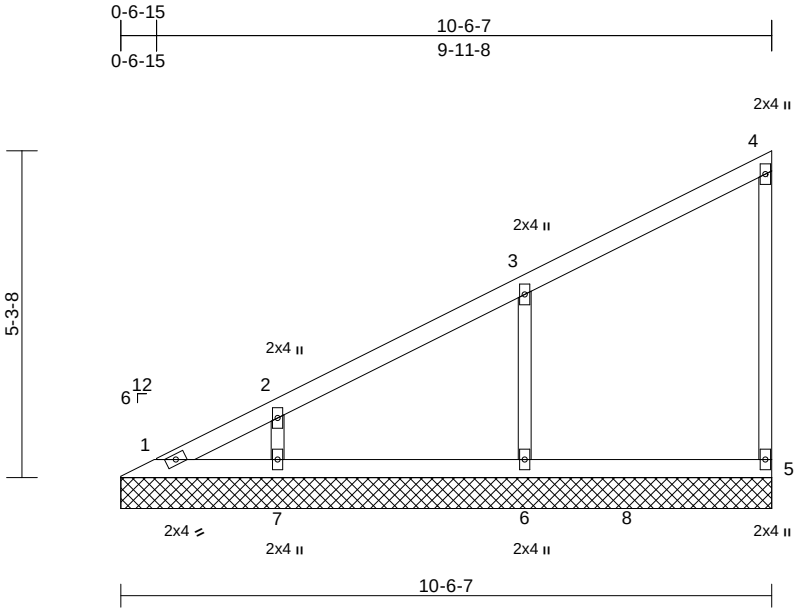

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							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 (lb/size) 1=46/10-6-7, 5=140/10-6-7, 6=405/10-6-7, 7=296/10-6-7
Max Horiz 1=205 (LC 5)
Max Uplift 5=-32 (LC 5), 6=-121 (LC 8), 7=-89 (LC 8)
Max Grav 1=93 (LC 16), 5=174 (LC 15), 6=430 (LC 2), 7=300 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-178/52, 2-3=-144/71, 3-4=-127/53, 4-5=-108/44
BOT CHORD 1-7=-69/54, 6-7=-69/54, 5-6=-69/54
WEBS 3-6=-315/167, 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) 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.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V12	Valley	1	1	I50414062
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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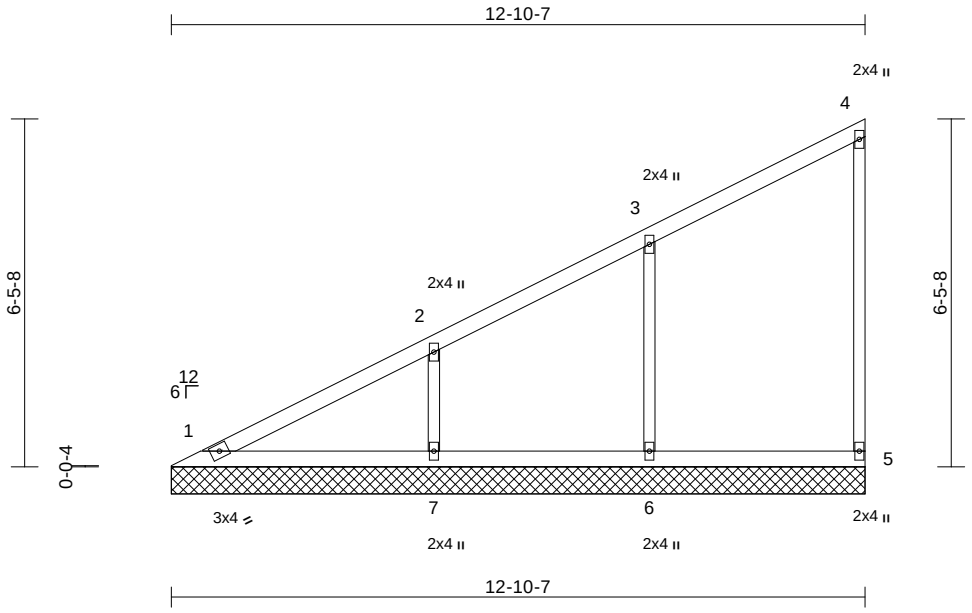

Scale = 1:42.8

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 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 (lb/size) 1=156/12-10-7, 5=145/12-10-7, 6=376/12-10-7, 7=419/12-10-7
Max Horiz 1=254 (LC 5)
Max Uplift 5=-37 (LC 5), 6=-113 (LC 8), 7=-126 (LC 8)
Max Grav 1=203 (LC 16), 5=186 (LC 15), 6=423 (LC 2), 7=425 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-210/84, 2-3=-163/71, 3-4=-138/65, 4-5=-112/47
BOT CHORD 1-7=-86/66, 6-7=-86/66, 5-6=-86/66
WEBS 3-6=-296/152, 2-7=-316/176

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 5, 113 lb uplift at joint 6 and 126 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V13	Valley	1	1	I50414063
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:27 ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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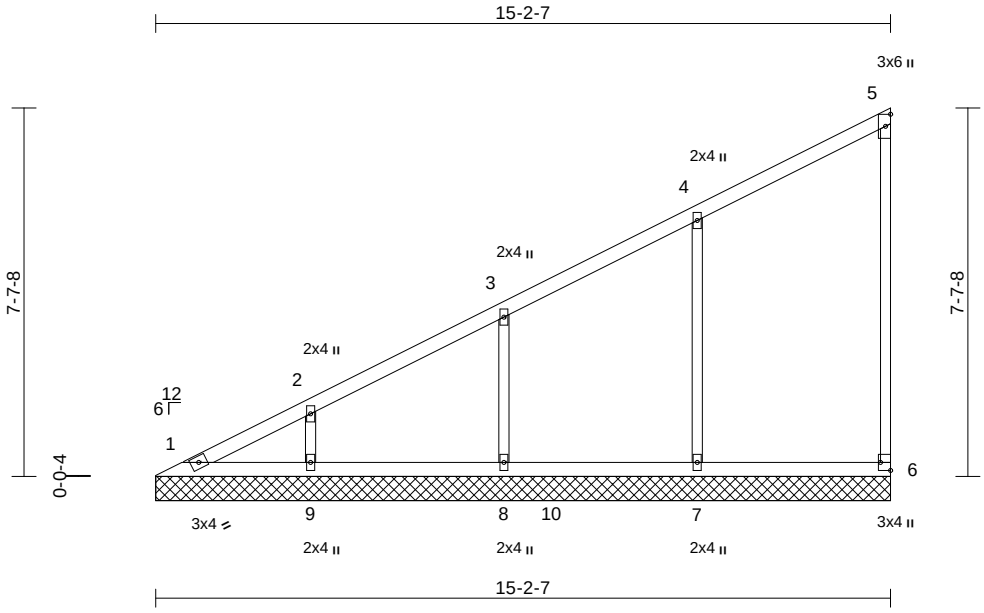

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Plate Offsets (X, Y): [6:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 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 (lb/size) 1=79/15-2-7, 6=142/15-2-7, 7=393/15-2-7, 8=359/15-2-7, 9=333/15-2-7

Max Horiz 1=302 (LC 5)

Max Uplift 6=-42 (LC 5), 7=-118 (LC 8), 8=-108 (LC 8), 9=-101 (LC 8)

Max Grav 1=146 (LC 16), 6=182 (LC 15), 7=473 (LC 2), 8=383 (LC 2), 9=340 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-262/70, 2-3=-216/78, 3-4=-180/80, 4-5=-149/77, 5-6=-110/47
BOT CHORD	1-9=-103/79, 8-9=-103/79, 7-8=-103/79, 6-7=-103/79
WEBS	4-7=-306/150, 3-8=-279/161, 2-9=-256/141

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 6, 118 lb uplift at joint 7, 108 lb uplift at joint 8 and 101 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	
B220036	V14	Valley	2	1	Job Reference (optional)	I50414064

Wheeler Lumber, Waverly, KS - 66871,

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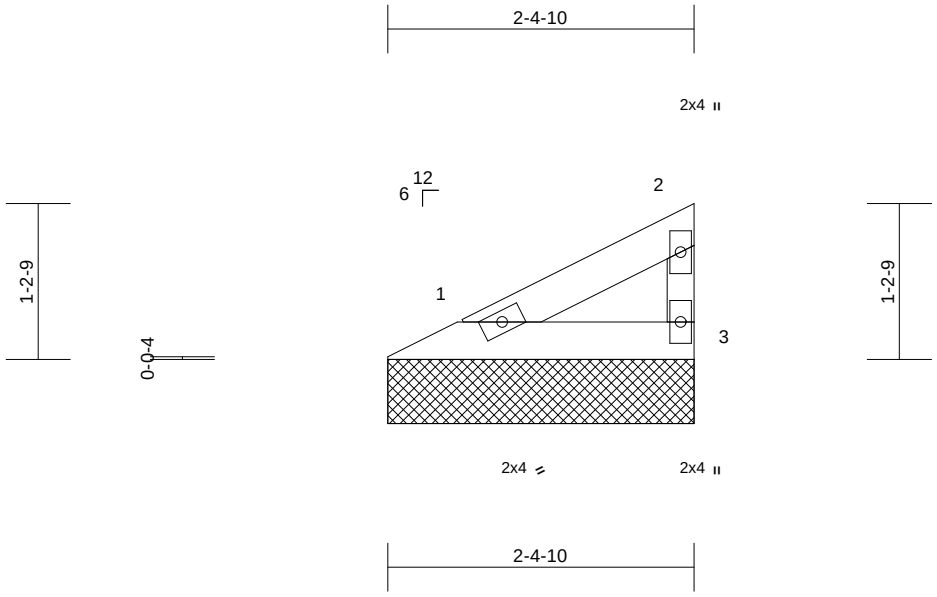

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=76/2-4-10, 3=76/2-4-10
Max Horiz 1=35 (LC 7)
Max Uplift 1=-10 (LC 8), 3=-19 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-32/21, 2-3=-59/29
BOT CHORD 1-3=-12/9

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 19 lb uplift at joint 3.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V15	Valley	1	1	I50414065
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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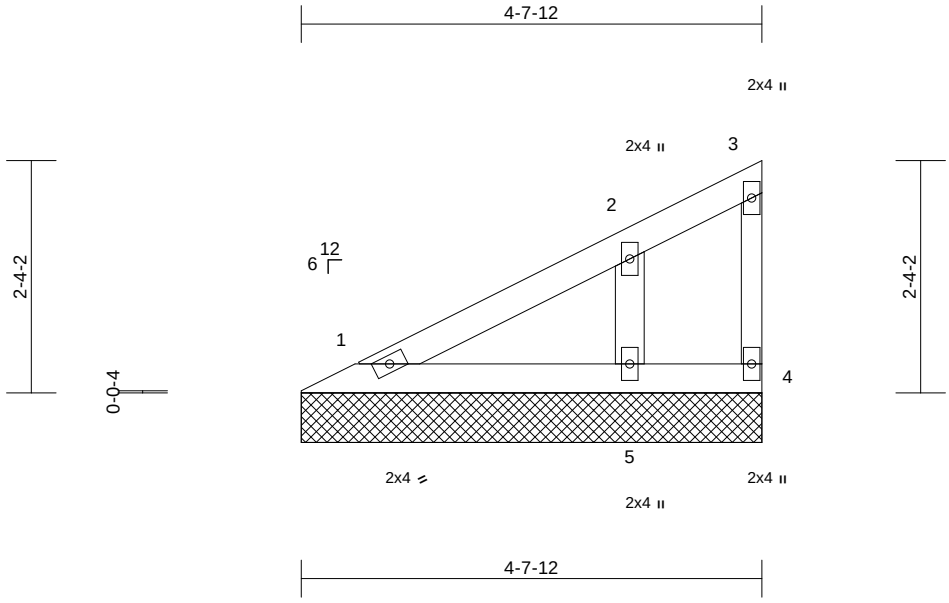

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=100/4-7-12, 4=5/4-7-12, 5=250/4-7-12
Max Horiz 1=83 (LC 5)
Max Uplift 4=-13 (LC 7), 5=-75 (LC 8)
Max Grav 1=100 (LC 1), 4=11 (LC 4), 5=250 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-63/51, 2-3=-54/23, 3-4=-10/14
BOT CHORD 1-5=-28/21, 4-5=-28/21
WEBS 2-5=-194/108

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 75 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V16	Valley	1	1	I50414066
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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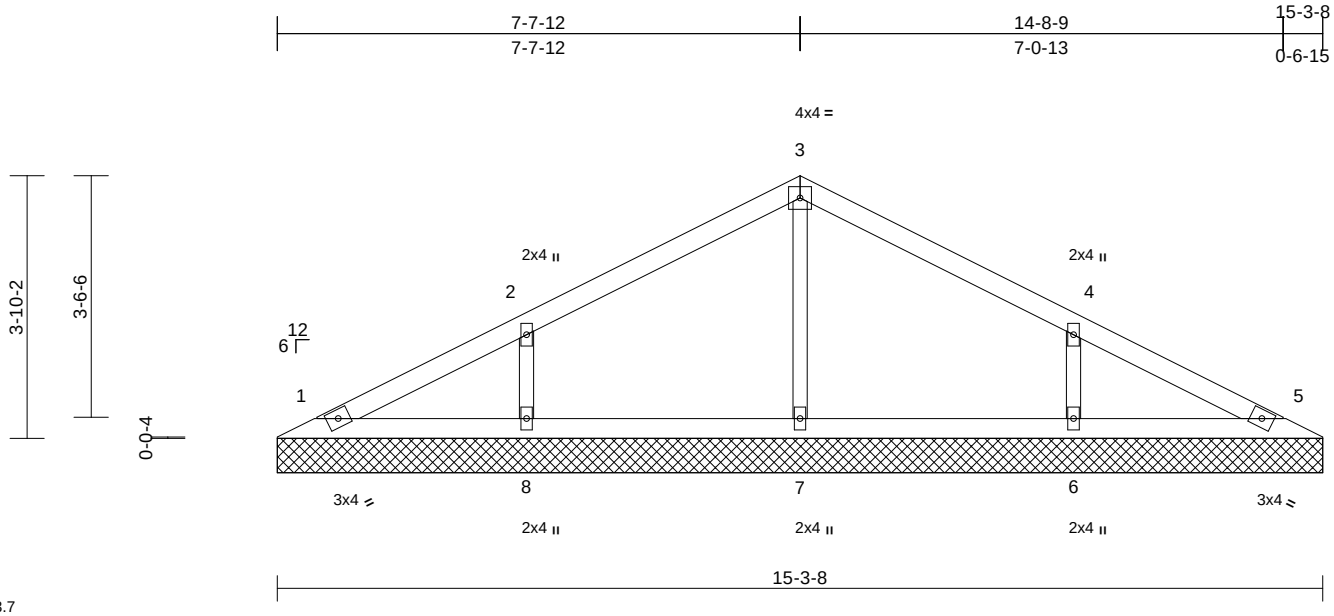

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 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 (lb/size) 1=114/15-3-8, 5=114/15-3-8, 6=370/15-3-8, 7=302/15-3-8, 8=370/15-3-8
Max Horiz 1=62 (LC 12)
Max Uplift 1=-12 (LC 9), 5=-3 (LC 9), 6=-119 (LC 9), 8=-119 (LC 8)
Max Grav 1=114 (LC 1), 5=114 (LC 1), 6=378 (LC 22), 7=302 (LC 1), 8=378 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-87/48, 2-3=-106/91, 3-4=-106/75, 4-5=-68/38
BOT CHORD 1-8=0/54, 7-8=0/54, 6-7=0/54, 5-6=0/54
WEBS 3-7=-223/31, 2-8=-296/162, 4-6=-296/162

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 3 lb uplift at joint 5, 119 lb uplift at joint 8 and 119 lb uplift at joint 6.
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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V17	Valley	1	1	I50414067
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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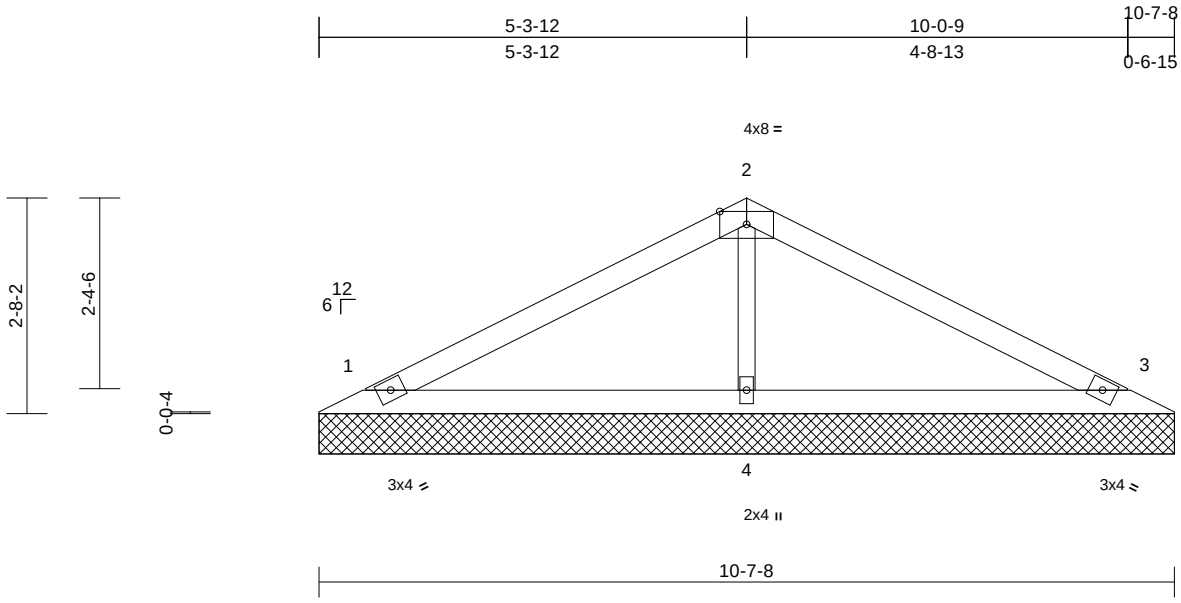

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 26 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 (lb/size) 1=200/10-7-8, 3=200/10-7-8, 4=451/10-7-8
Max Horiz 1=-42 (LC 13)
Max Uplift 1=-41 (LC 8), 3=-48 (LC 9), 4=-25 (LC 8)
Max Grav 1=200 (LC 21), 3=200 (LC 22), 4=451 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-122/61, 2-3=-122/44
BOT CHORD 1-4=-3/51, 3-4=-3/51
WEBS 2-4=-308/81

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1, 48 lb uplift at joint 3 and 25 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 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V18	Valley	1	1	I50414068
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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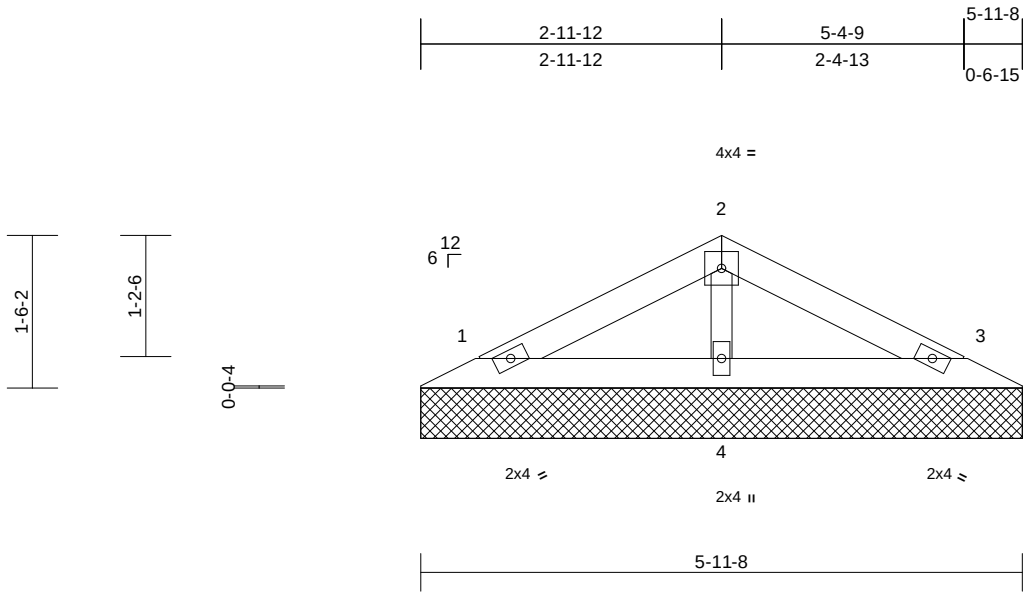

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=112/5-11-8, 3=112/5-11-8, 4=206/5-11-8
Max Horiz 1=-21 (LC 13)
Max Uplift 1=-26 (LC 8), 3=-30 (LC 9), 4=-3 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-54/30, 2-3=-54/21
BOT CHORD 1-4=-1/24, 3-4=-1/24
WEBS 2-4=-146/38

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1, 30 lb uplift at joint 3 and 3 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

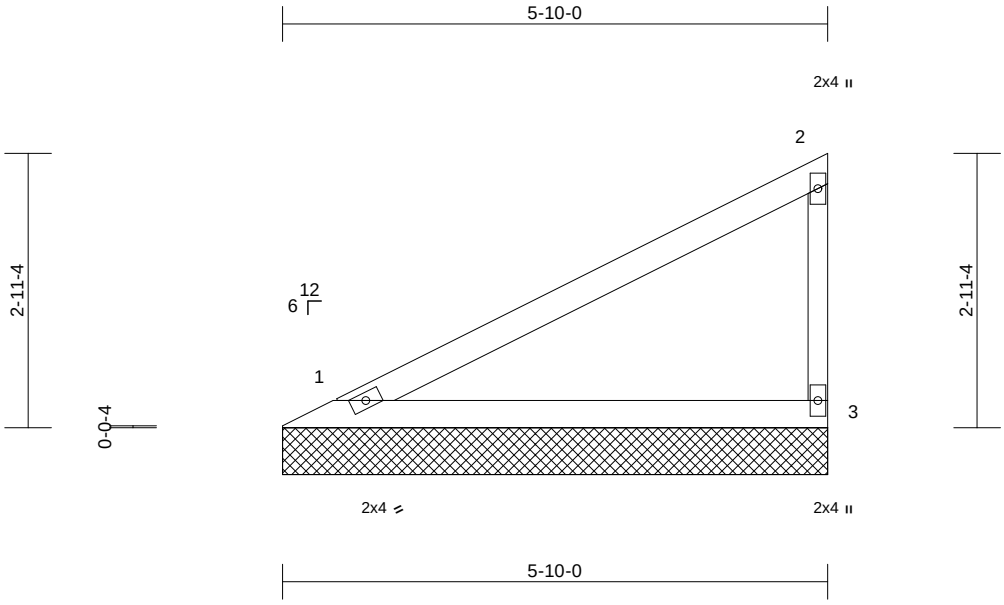
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V19	Valley	1	1	I50414069
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:28 Page: 1
ID:eQN?fsmhfva?qe0h39pSQXziDUP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.7

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	0.51	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 10%

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

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 (lb/size) 1=231/5-10-0, 3=231/5-10-0
Max Horiz 1=107 (LC 7)
Max Uplift 1=-30 (LC 8), 3=-57 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-98/64, 2-3=-180/88
BOT CHORD 1-3=-37/28

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 57 lb uplift at joint 3.
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

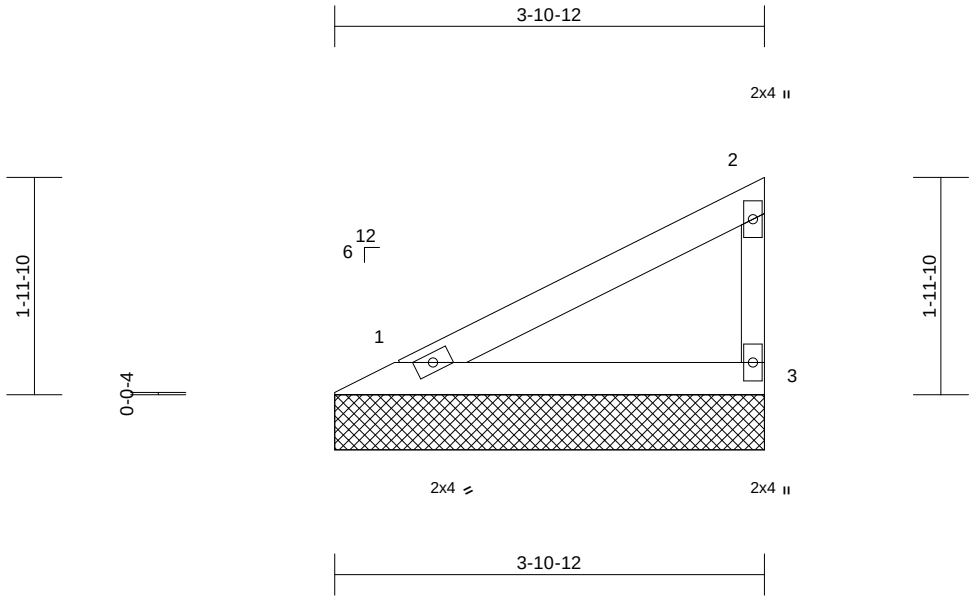
February 24,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V20	Valley	1	1	I50414070
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:28 Page: 1
ID:eQN?fsmhfva?qe0h39pSQXziDUP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:20.9

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

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=144/3-10-12, 3=144/3-10-12
Max Horiz 1=67 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-35 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-61/40, 2-3=-112/55
BOT CHORD 1-3=-23/17

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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 4-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 35 lb uplift at joint 3.
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.

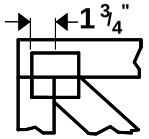
LOAD CASE(S) Standard

February 24,2022

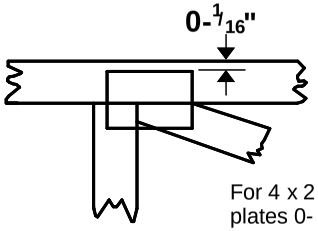
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

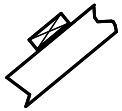
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

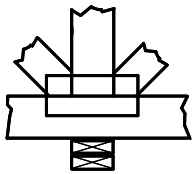
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

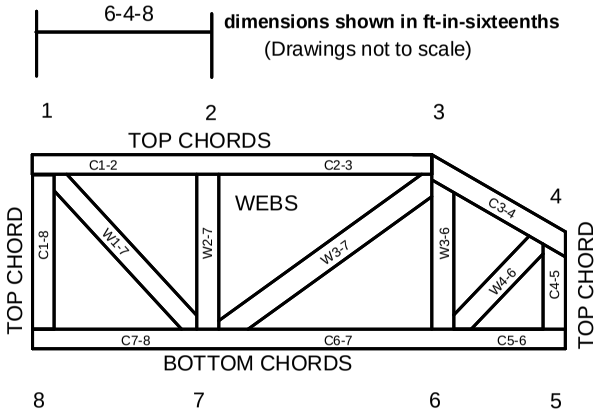


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

21.The design does not take into account any dynamic or other loads other than those expressly stated.