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

Re: 210257
Lot 44 W1

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

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: I44994441 thru I44994525

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193

March 1,2021

Sevier, Scott ,Engineer

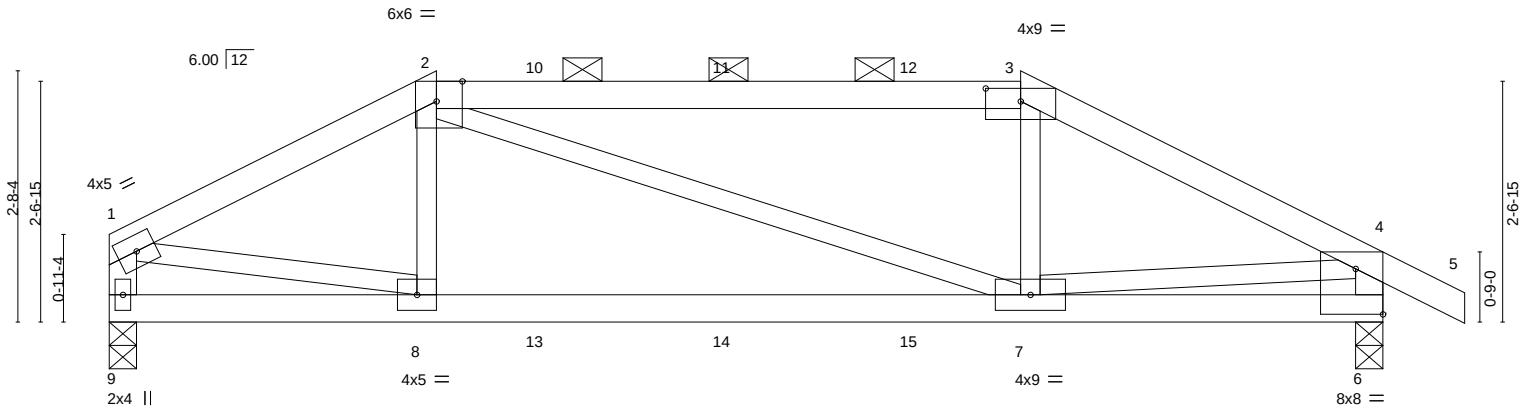
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 44 W1
210257	A1A	Hip Girder	1	1	I44994441
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:30 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ogmXdyImldHPnvtkYNTpwxQyxGz?omQRxYKJWfzfKu7

3-6-0 | 9-9-0 | 13-7-8 | 14-6-0
3-6-0 | 6-3-0 | 3-10-8 | 0-10-8

Scale = 1:24.6



3-6-0 | 9-9-0 | 13-7-8
3-6-0 | 6-3-0 | 3-10-8

Plate Offsets (X,Y)-- [2:0-3-5,Edge], [3:0-4-8,0-1-11], [6:Edge,0-5-13]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.06	7-8	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.16	7-8	>982	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 48 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*
1-9,4-6: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-14 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Horz 9=-58(LC 4)
Max Uplift 9=-219(LC 8), 6=-238(LC 9)
Max Grav 9=1173(LC 1), 6=1248(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1736/319, 2-3=-1586/337, 3-4=-1842/338, 1-9=-1155/219, 4-6=-1220/242
BOT CHORD 7-8=-285/1512
WEBS 3-7=0/290, 1-8=-275/1450, 4-7=-281/1396

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 9=219, 6=238.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 74 lb up at 3-6-0, 115 lb down and 74 lb up at 4-7-8, 115 lb down and 74 lb up at 6-7-8, and 115 lb down and 74 lb up at 8-7-8, and 108 lb down and 74 lb up at 9-9-0 on top chord, and 260 lb down and 76 lb up at 3-6-0, 32 lb down at 4-7-8, 32 lb down at 6-7-8, and 32 lb down at 8-7-8, and 260 lb down and 76 lb up at 9-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) 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

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

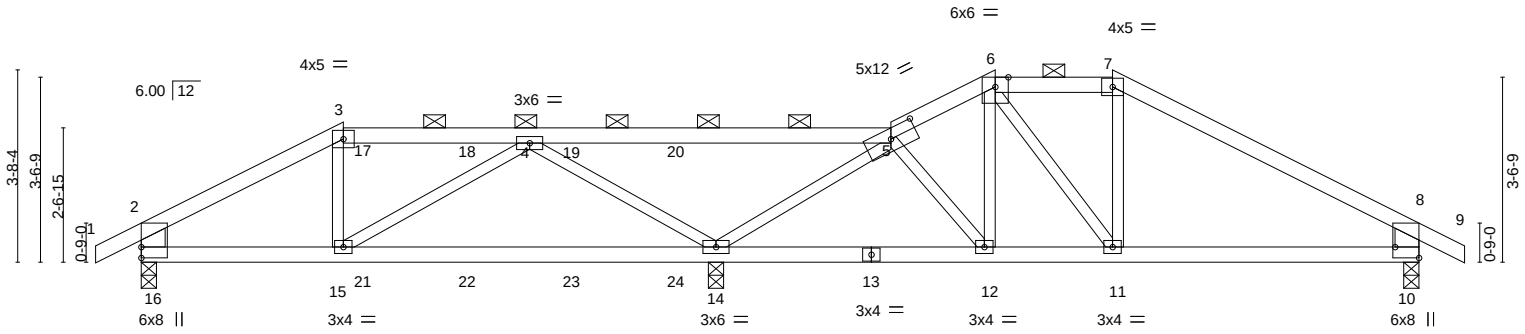
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-3=-90, 3-4=-90, 4-5=-90, 6-9=-20
   Concentrated Loads (lb)
   Vert: 2=-53(F) 3=-53(F) 8=-260(F) 7=-260(F) 10=-53(F) 11=-53(F) 12=-53(F) 13=-26(F) 14=-26(F) 15=-26(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	A2A	Roof Special Girder	1	1	I44994442
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:31 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-GsKvrIJOWxPGP3Sx65_2T8z9ffMMX7ja9C3t26zfKu6

0-10-8	3-10-8	7-5-6	14-4-8	16-4-8	18-7-8	24-6-0	25-4-8
0-10-8	3-10-8	3-6-14	6-11-2	2-0-0	2-3-0	5-10-8	0-10-8

Scale = 1:44.2



3-10-8	11-0-4	14-4-8	16-4-8	18-7-8	24-6-0
3-10-8	7-1-12	3-4-4	2-0-0	2-3-0	5-10-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.09	14-15	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.20	14-15	>640	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	14-15	>999	240	Weight: 83 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-14.

REACTIONS. (size) 16=0-3-8, 14=0-3-8, 10=0-3-8
Max Horz 16=64(LC 7)
Max Uplift 16=-200(LC 8), 14=-283(LC 8), 10=-181(LC 30)
Max Grav 16=805(LC 1), 14=2021(LC 1), 10=658(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-976/237, 3-4=-767/235, 4-5=-126/1099, 5-6=-479/320, 6-7=-474/251, 7-8=-638/238, 2-16=-746/195, 8-10=-608/215
BOT CHORD 15-16=-190/771, 14-15=-249/446, 12-14=-344/327, 11-12=-177/384, 10-11=-127/466
WEBS 4-15=0/448, 4-14=-1812/479, 5-14=-1439/220, 5-12=0/318, 6-11=-59/355

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 16=200, 14=283, 10=181.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 115 lb down and 74 lb up at 3-10-8, 115 lb down and 74 lb up at 4-3-0, 115 lb down and 74 lb up at 6-3-0, and 115 lb down and 74 lb up at 8-3-0, and 119 lb down and 77 lb up at 10-3-0 on top chord, and 260 lb down and 76 lb up at 3-10-8, 32 lb down at 4-3-0, 32 lb down at 6-3-0, and 32 lb down at 8-3-0, and 34 lb down at 10-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) 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

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

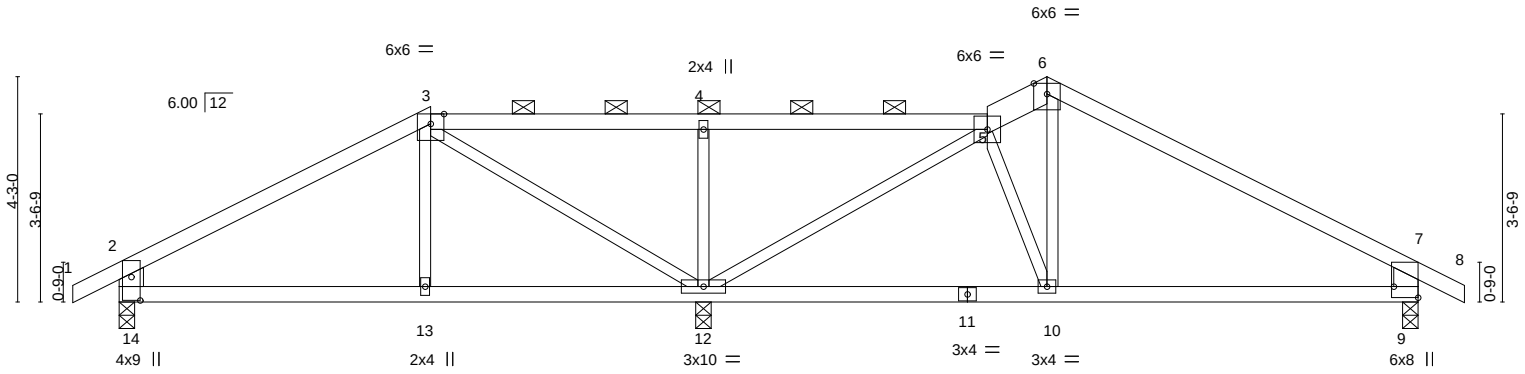
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-3=-90, 3-5=-90, 5-6=-90, 6-7=-90, 7-8=-90, 8-9=-90, 10-16=-20
   Concentrated Loads (lb)
   Vert: 3=-53(F) 15=-260(F) 17=-53(F) 18=-53(F) 19=-53(F) 20=-60(F) 21=-26(F) 22=-26(F) 23=-26(F) 24=-31(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	A3A	Roof Special	1	1	I44994443
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:32 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-k2uH2eK1HFX70D17goVH?MVLs3kuGb_jOspQaYzfKu5

0-10-8	5-10-8	11-0-4	16-4-8	17-6-0	24-6-0	25-4-8
0-10-8	5-10-8	5-1-12	5-4-4	1-1-8	7-0-0	0-10-8

Scale = 1:43.5



5-10-8	11-0-4	16-4-8	17-6-0	24-6-0
5-10-8	5-1-12	5-4-4	1-1-8	7-0-0

Plate Offsets (X,Y)-- [9:Edge,0-5-8], [14:0-5-5,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.04	9-10	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 83 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,7-9: 2x6 SPF No.2

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

REACTIONS. (size) 14=0-3-8, 12=0-3-8, 9=0-3-8
Max Horz 14=-73(LC 6)
Max Uplift 14=-140(LC 8), 12=-119(LC 8), 9=-149(LC 9)
Max Grav 14=645(LC 1), 12=1409(LC 1), 9=789(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-606/161, 5-6=-668/194, 6-7=-825/173, 2-14=-595/177, 7-9=-733/193
BOT CHORD 13-14=-110/432, 12-13=-112/429, 10-12=-89/632, 9-10=-58/608
WEBS 3-12=-646/36, 4-12=-536/177, 5-12=-824/18, 6-10=-59/268

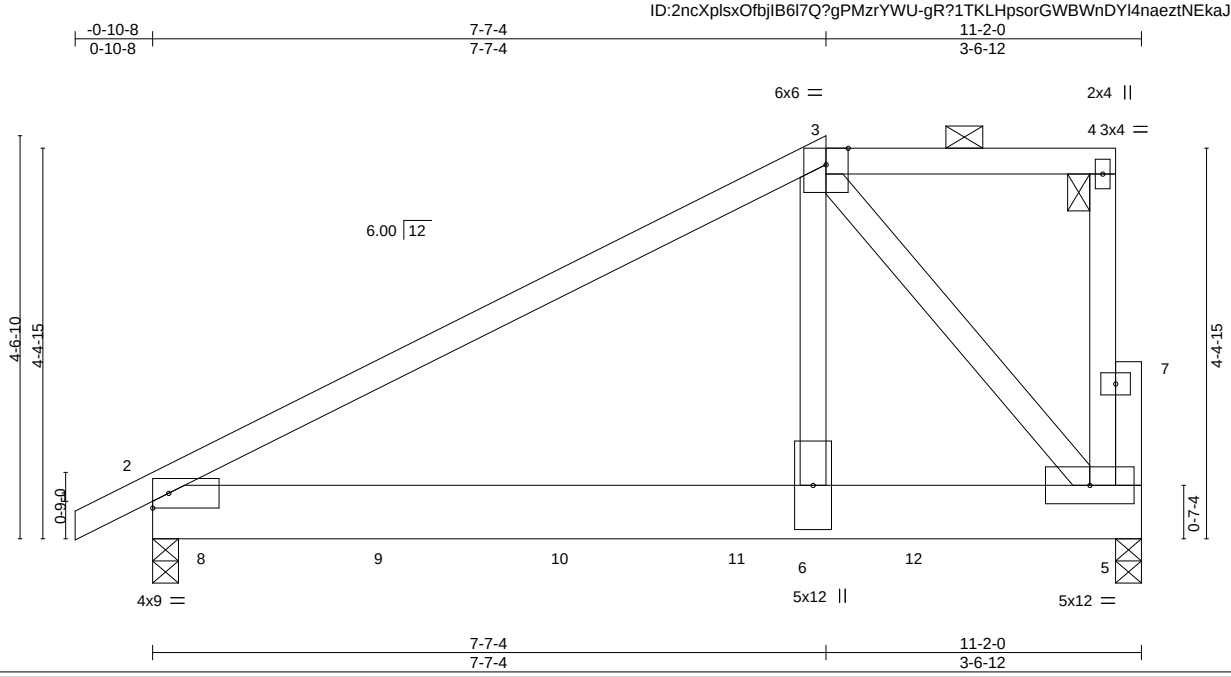
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 14=140, 12=119, 9=149.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	A4	HALF HIP GIRDER	1	3	I44994444
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:34 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-gR?1TKLHpsorGWBWnDYI4naeztNEkaJ0rAIXfQzfKu3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.08	2-6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.16	2-6	>798	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	2-6	>999	240	Weight: 192 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x8 SP DSS
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.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 2=0-3-8
Max Horz 2=167(LC 5)
Max Uplift 5=-168(LC 5), 2=-166(LC 8)
Max Grav 5=5934(LC 2), 2=5656(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-4588/131
BOT CHORD	2-6=-141/3920, 5-6=-139/3697
WEBS	3-6=-85/6165, 3-5=-5817/213

NOTES-

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-4-0 oc.
   Webs 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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 5=168, 2=166.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1753 lb down and 22 lb up at 0-8-0, 1740 lb down and 37 lb up at 2-8-0, 1743 lb down and 39 lb up at 4-8-0, 1744 lb down and 41 lb up at 6-8-0, and 1744 lb down and 41 lb up at 8-8-0, and 1752 lb down and 33 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

March 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-4=-90, 2-5=-20
   Concentrated Loads (lb)
   Vert: 5=-1699(B) 8=-1681(B) 9=-1674(B) 10=-1691(B) 11=-1691(B) 12=-1691(B)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	A5A	HALF HIP	1	1	I44994445
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:35 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-8dZQggMvaAwitgmiLx3_d_7oYHkETylA4q14BtzfKu2

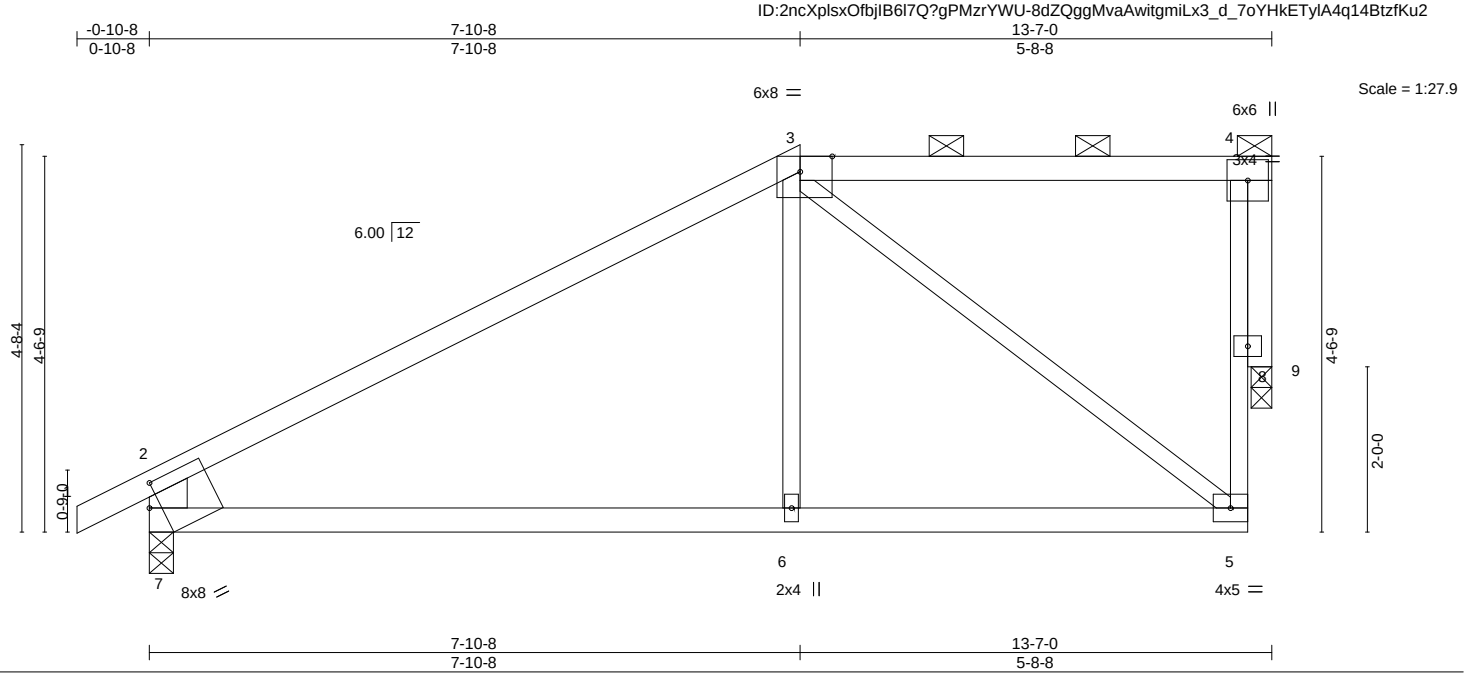


Plate Offsets (X,Y)-- [3:0-4-10,Edge], [7:0-1-10,0-3-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.08	6-7	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.17	6-7	>910	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	6-7	>999	240	Weight: 48 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 7=0-3-8, 9=0-3-0
Max Horz 7=145(LC 5)
Max Uplift 7=-91(LC 8), 9=-90(LC 5)
Max Grav 7=831(LC 1), 9=694(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-851/51, 5-8=-46/485, 4-8=-46/485, 2-7=-773/150
BOT CHORD 6-7=-89/617, 5-6=-91/613
WEBS 3-6=0/302, 3-5=-702/123, 4-9=-701/92

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

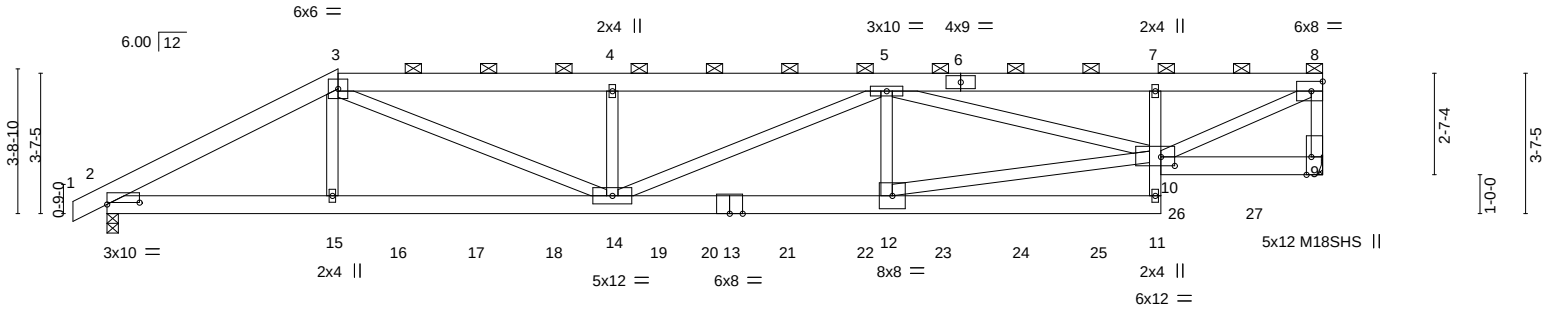
Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	B1	Half Hip Girder	1	2	I44994446

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:36 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-dp7ou0NXLT2ZVqKuveaDACg2Gg0lCOxJJUndjJzfKu1

-0-10-8	5-11-4	12-11-13	20-0-7	27-1-0	31-2-14
0-10-8	5-11-4	7-0-9	7-0-9	7-0-9	4-1-14

Scale = 1:59.2



5-11-4	12-11-13	20-0-7	27-1-0	31-2-14
5-11-4	7-0-9	7-0-9	7-0-9	4-1-14

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.23	12-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.50	12-14	>747	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15	12-14	>999	240	Weight: 333 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x6 SPF 1650F 1.4E *Except*
	9-10: 2x6 SPF No.2
WEBS	2x4 SPF No.2 *Except*
	10-12: 2x4 SPF 2100F 1.8E

BRACING-

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

REACTIONS. (size) 9=Mechanical, 2=0-3-8
Max Horz 2=93(LC 24)
Max Uplift 9=-359(LC 5), 2=-331(LC 5)
Max Grav 9=3849(LC 1), 2=3785(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-7302/722, 3-4=-9789/942, 4-5=-9787/941, 5-7=-6324/606, 7-8=-6449/614, 8-9=-3578/354
BOT CHORD	2-15=-676/6286, 14-15=-670/6225, 12-14=-884/9238, 11-12=-35/395
WEBS	10-11=-15/448, 7-10=-462/131, 3-15=-137/1338, 3-14=-364/3995, 4-14=-701/128, 5-14=-92/601, 5-12=-325/360, 10-12=-858/8931, 5-10=-3046/272, 8-10=-690/7173

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Webs 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=359, 2=331.
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.

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 725 lb down and 176 lb up at 5-11-4, 285 lb down and 44 lb up at 7-5-4, 285 lb down and 44 lb up at 9-5-4, 285 lb down and 44 lb up at 11-5-4, 285 lb down and 44 lb up at 13-5-4, 285 lb down and 44 lb up at 15-5-4, 285 lb down and 44 lb up at 17-5-4, 285 lb down and 44 lb up at 19-5-4, 285 lb down and 44 lb up at 21-5-4, 285 lb down and 44 lb up at 23-5-4, 285 lb down and 44 lb up at 25-5-4, and 285 lb down and 46 lb up at 27-5-4, and 285 lb down and 46 lb up at 29-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

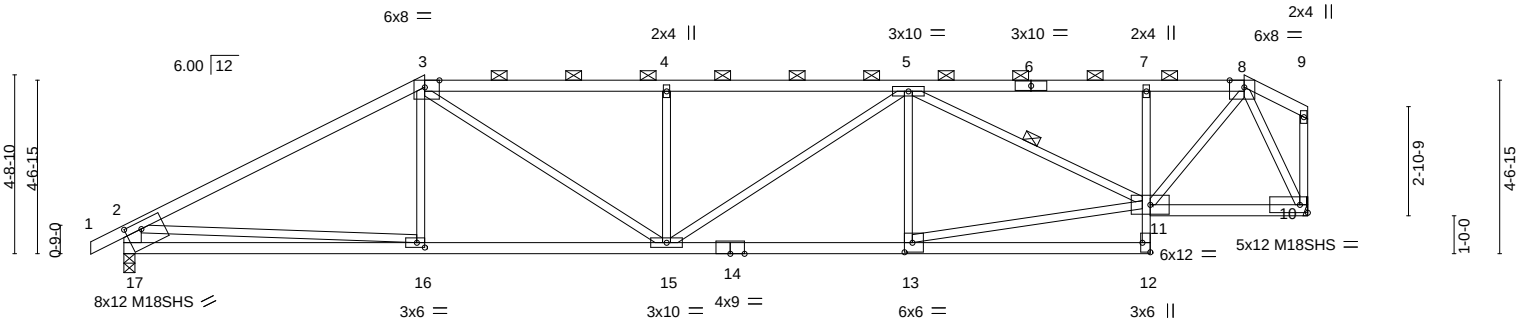
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-8=-90, 2-11=-20, 9-10=-20
   Concentrated Loads (lb)
   Vert: 15=-725(F) 16=-285(F) 17=-285(F) 18=-285(F) 19=-285(F) 20=-285(F) 21=-285(F) 22=-285(F) 23=-285(F) 24=-285(F) 25=-285(F) 26=-285(F) 27=-285(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	B2	Hip	1	1	I44994447
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:37 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-50hA5MN96nAQ7_v5SL5SiPCBT4L2xqRSY7WBFlzfKu0

-0-10-8	7-11-4	14-3-13	20-8-7	27-1-0	29-6-12	31-2-14
0-10-8	7-11-4	6-4-9	6-4-9	6-4-9	2-5-12	1-8-2

Scale = 1:60.8



7-11-4	14-3-13	20-8-7	27-1-0	31-2-14
7-11-4	6-4-9	6-4-9	6-4-9	4-1-14

Plate Offsets (X,Y)-- [3:0-4-10,Edge], [8:0-4-10,Edge], [12:Edge,0-2-8], [13:0-2-8,0-3-0], [16:0-2-8,0-1-8], [17:0-5-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.14	13-15	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.34	13-15	>999	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	13-15	>999	240	Weight: 124 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
8-9,6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x6 SP DSS

BRACING-

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

REACTIONS. (size) 17=0-3-8, 10=Mechanical
Max Horz 17=122(LC 5)
Max Uplift 17=-9(LC 5), 10=-39(LC 5)
Max Grav 17=1801(LC 1), 10=1698(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2756/60, 3-4=-3120/113, 4-5=-3117/112, 5-7=-1896/86, 7-8=-1904/84, 2-17=-1726/52
BOT CHORD 16-17=-189/1086, 15-16=-101/2314, 13-15=-123/2820, 7-11=-504/86, 10-11=-48/742
WEBS 3-15=-94/1080, 4-15=-640/115, 5-15=-20/362, 5-13=-301/104, 11-13=-127/2702, 5-11=-1049/30, 8-11=-75/1898, 2-16=-37/1413, 8-10=-1706/79

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

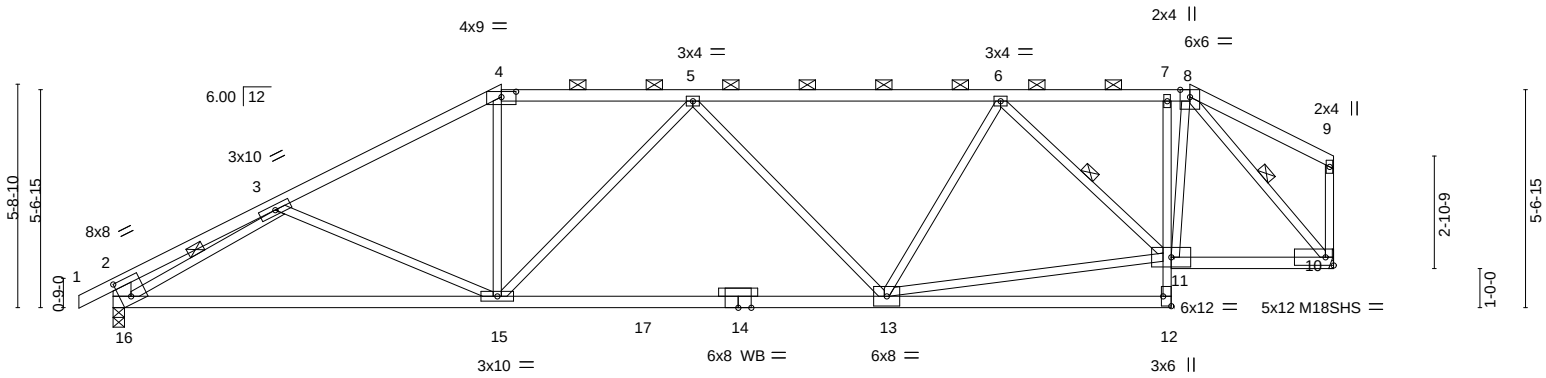
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	B3	Hip	1	1	I44994448
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:38 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ZCFYJiOns5IHl8UH03chFdlIsUiggIncmnGkoCzfKu?

-0-10-8	4-3-4	9-11-4	14-10-1	22-8-9	27-1-0	27-6-12	31-2-14
0-10-8	4-3-4	5-8-0	4-10-13	7-10-8	4-4-7	0-5-12	3-8-2

Scale = 1:59.0



9-11-4	19-8-14	27-1-0	27-6-12	31-2-14
9-11-4	9-9-10	7-4-2	0-5-12	3-8-2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.26	13-15	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.50	13-15	>742	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	13-15	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 16=0-3-8, 10=Mechanical
Max Horz 16=132(LC 5)
Max Uplift 10=-7(LC 4)
Max Grav 16=1845(LC 2), 10=1754(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-664/0, 3-4=-2642/39, 4-5=-2268/49, 5-6=-2400/46, 6-7=-1446/55, 7-8=-1453/54, 2-16=-507/15
BOT CHORD	15-16=-133/2376, 13-15=-119/2599, 10-11=-43/1295
WEBS	4-15=0/780, 5-15=-653/128, 5-13=-371/82, 6-13=0/317, 11-13=-100/2136, 6-11=-1173/73, 8-11=-24/1215, 3-16=-2235/82, 8-10=-1980/44

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

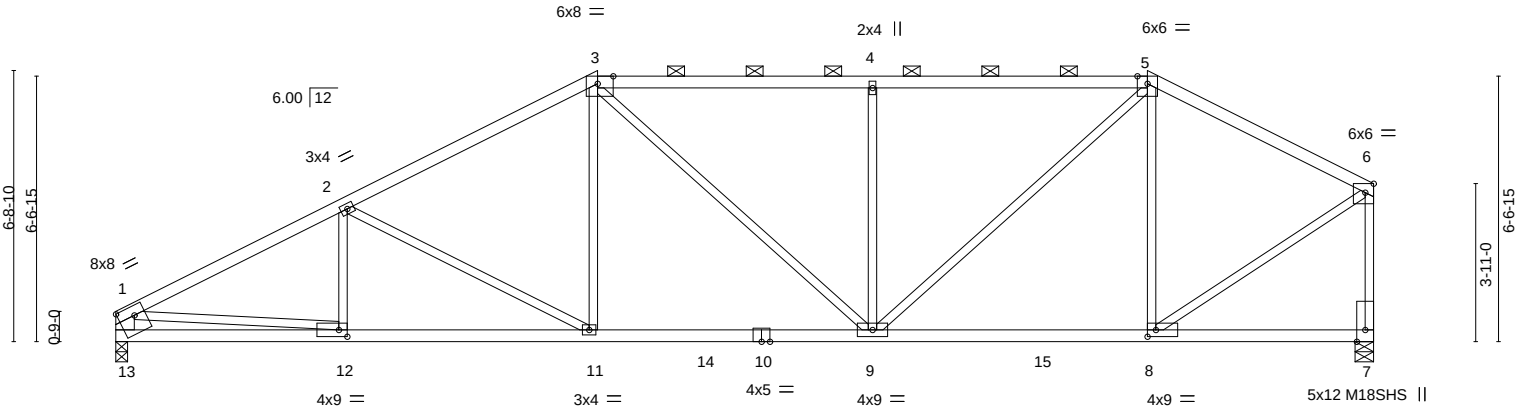
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C1	Hip	1	1	I44994449
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:39 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-1OpwW1PQdOQ8MH3Tam7wnqIU_u?APnHl?R?IKezfKu_

5-7-9	11-11-4	18-9-0	25-6-12	31-2-0
5-7-9	6-3-11	6-9-12	6-9-12	5-7-4

Scale = 1:57.1



5-7-9	11-11-4	18-9-0	25-6-12	31-2-0
5-7-9	6-3-11	6-9-12	6-9-12	5-7-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.14	9-11	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.29	9-11	>999	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	9-11	>999	240	Weight: 124 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-13: 2x6 SPF No.2

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

REACTIONS. (size) 13=0-3-8, 7=0-5-8
Max Horz 13=185(LC 5)
Max Uplift 13=-143(LC 8), 7=-108(LC 4)
Max Grav 13=1767(LC 2), 7=1784(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2898/232, 2-3=-2450/216, 3-4=-2184/245, 4-5=-2184/245, 5-6=-1545/160, 1-13=-1662/170, 6-7=-1711/135
BOT CHORD 12-13=-189/476, 11-12=-283/2516, 9-11=-246/2090, 8-9=-146/1321
WEBS 2-11=-506/194, 3-11=-12/512, 3-9=-126/301, 4-9=-731/232, 5-9=-176/1211, 5-8=-689/160, 1-12=-104/2080, 6-8=-138/1557

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) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 13=143, 7=108.
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.

March 1,2021

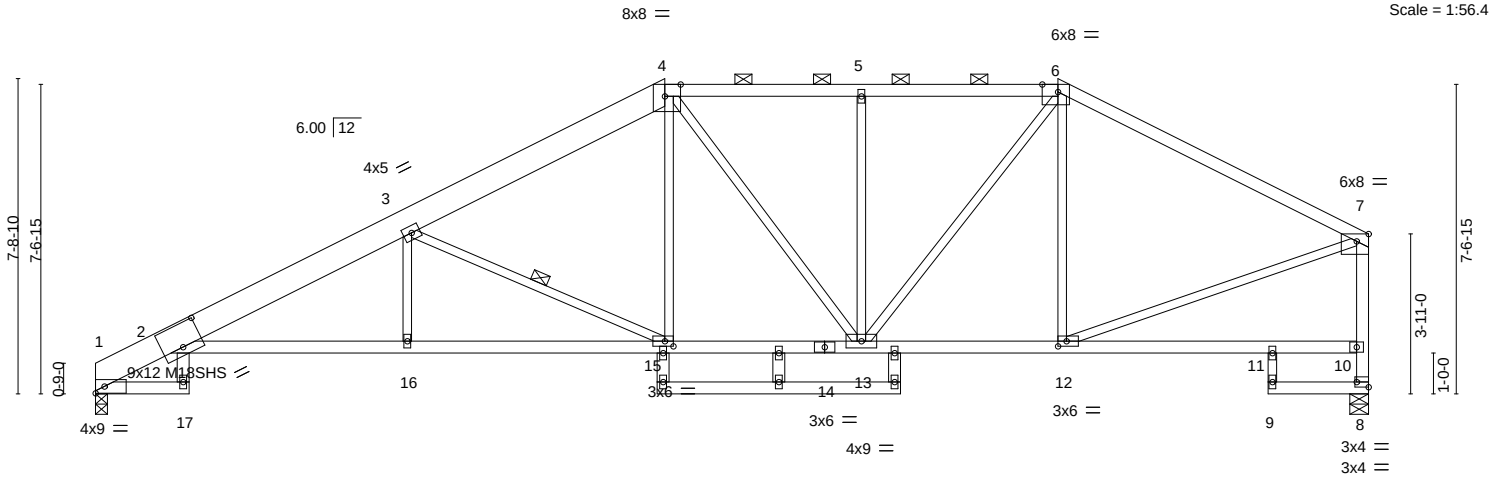
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C2	Hip	1	1	I44994450
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:40 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-VbNJkNQ2OiY?_Ref8Uf9K2qgcIQo8FBvE5lrr4zfKtz

2-3-8	7-7-10	13-11-4	18-9-0	23-6-12	28-8-8	31-2-0
2-3-8	5-4-2	6-3-11	4-9-12	4-9-12	5-1-12	2-5-8

Scale = 1:56.4



2-3-8	7-7-10	13-11-4	18-9-0	23-6-12	28-8-8	31-2-0
2-3-8	5-4-2	6-3-11	4-9-12	4-9-12	5-1-12	2-5-8

Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-10,Edge], [6:0-4-10,Edge], [7:0-3-8,Edge], [8:Edge,0-1-8], [12:0-2-8,0-1-8], [15:0-2-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.18	2-16	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.40	2-16	>927	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.27	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	2-16	>999	240	Weight: 164 lb	FT = 10%

LUMBER-

TOP CHORD	2x8 SP DSS *Except* 4-6: 2x4 SPF No.2, 6-7: 2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 2-14: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 2-17,7-8,15-18,19-20,21-22: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-3 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-17. 10-0-0 oc bracing: 13-15
WEBS	1 Row at midpt 3-15

REACTIONS. (size) 1=0-3-8, 8=0-5-8
Max Horz 1=202(LC 5)
Max Uplift 1=-155(LC 8), 8=-99(LC 9)
Max Grav 1=1706(LC 1), 8=1699(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-974/53, 2-3=-3643/345, 3-4=-2499/223, 4-5=-2029/197, 5-6=-2031/199, 6-7=-1875/126, 8-10=-1658/115, 7-10=-1617/139
BOT CHORD	2-16=-365/3358, 15-16=-363/3358, 13-15=-213/2097, 12-13=-135/1555
WEBS	3-15=-1411/309, 4-15=-63/722, 5-13=-484/159, 6-13=-135/866, 6-12=-394/120, 7-12=-111/1511

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) gable end 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) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8 except (jt=lb) 1=155.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

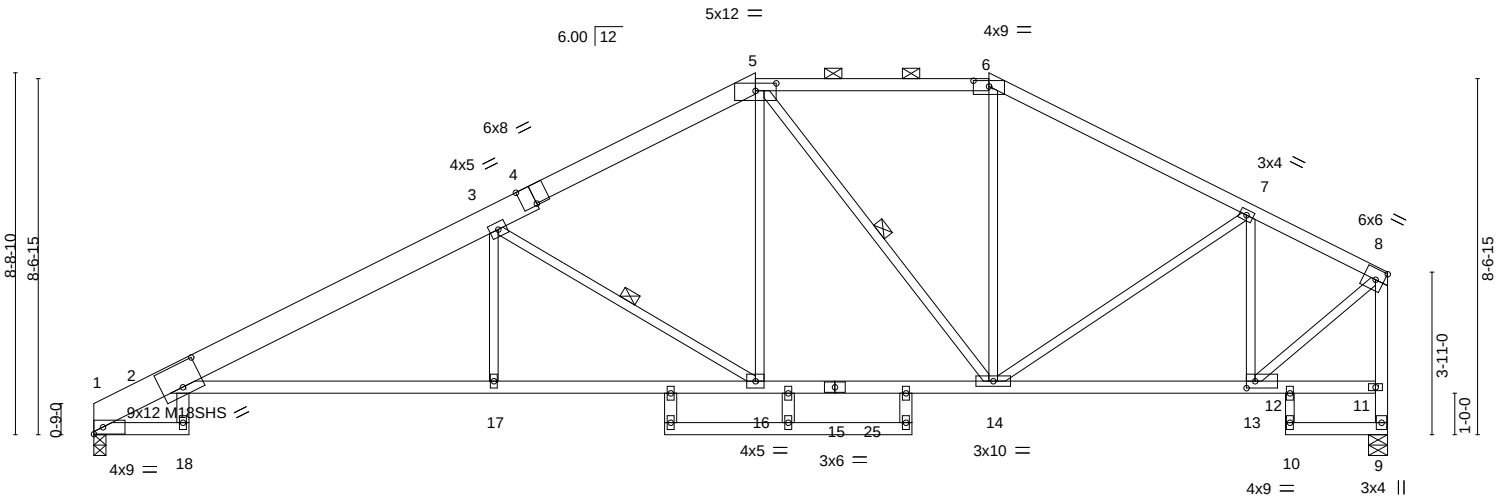
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C3	Hip	1	1	I44994451
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:42 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-RzU383RIwJoiDlo2FvhdPTw0_52mc7cChPEywzzfKtx

2-3-8	9-7-10	15-11-4	21-6-12	27-10-7	28-8-8	31-2-0
2-3-8	7-4-2	6-3-10	5-7-8	6-3-11	0-10-1	2-5-8

Scale = 1:55.5



2-3-8	9-7-10	15-11-4	21-6-12	25-1-10	28-8-8	31-2-0
2-3-8	7-4-2	6-3-10	5-7-8	3-6-14	3-6-14	2-5-8

Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [5:0-6-0,0-2-3], [6:0-4-8,0-1-11], [13:0-2-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.29	2-17	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.61	2-17	>605	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.34	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18	2-17	>999	240	Weight: 160 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	4-5: 2x6 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD	2x4 SPF No.2 *Except*
	2-15: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	2-18,8-9,19-21,20-22,23-24: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-12 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-18. 10-0-0 oc bracing: 14-16
WEBS	1 Row at midpt 3-16, 5-14

REACTIONS. (size) 1=0-3-8, 9=0-5-8
Max Horz 1=214(LC 5)
Max Uplift 1=-169(LC 8), 9=-120(LC 9)
Max Grav 1=1770(LC 2), 9=1792(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-1041/44, 2-3=-3379/334, 3-5=-2289/244, 5-6=-1616/186, 6-7=-1916/186, 7-8=-1421/104, 9-11=-1747/134, 8-11=-1729/128
BOT CHORD	2-17=-344/3065, 16-17=-342/3065, 14-16=-133/1904, 13-14=-121/1249
WEBS	3-17=0/306, 3-16=-1391/318, 5-16=-103/959, 5-14=-548/113, 6-14=-12/378, 7-14=-55/501, 7-13=-919/140, 8-13=-113/1622

NOTES-

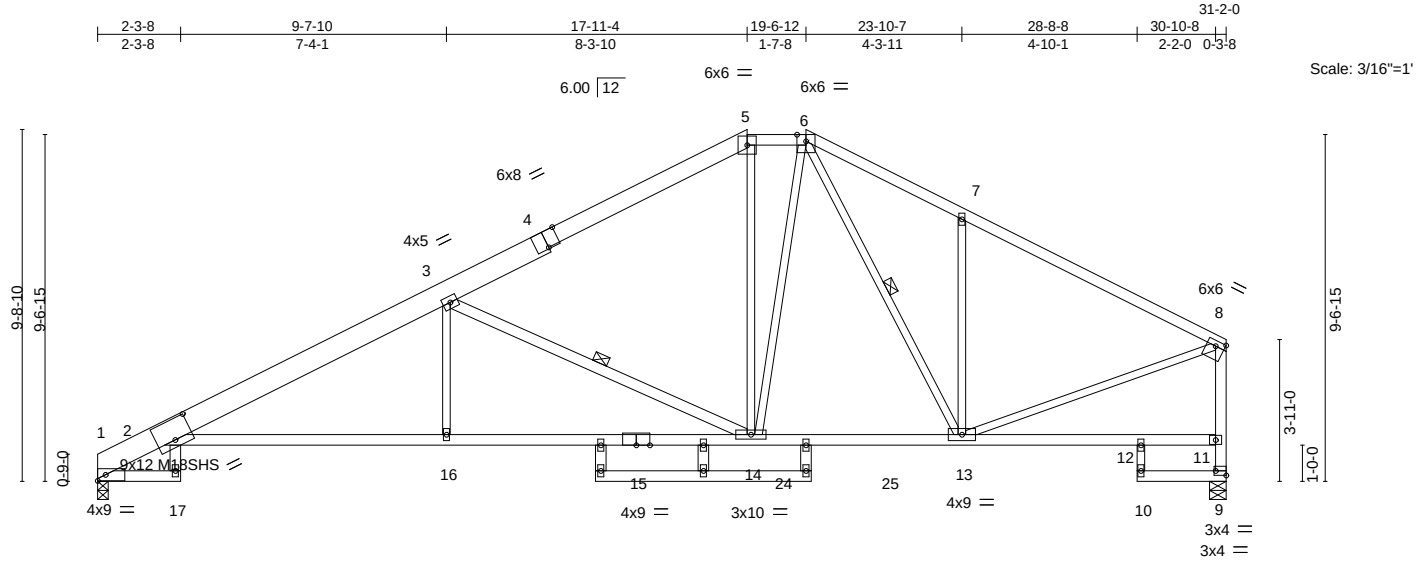
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=169, 9=120.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C4	Hip	1	1	I44994452
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:43 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wA2RMPSwhdwZrvNEpcCsygSCnVP4LbhLw3zVSPzfKtw



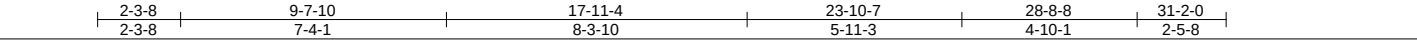


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [8:Edge,0-1-12], [9:Edge,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.27	2-16	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.57	2-16	>646	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.33	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18	2-16	>999	240	Weight: 169 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 5-6: 2x4 SPF No.2, 6-8: 2x4 SPF 2100F 1.8E, 1-4: 2x8 SP DSS
BOT CHORD	2x4 SPF No.2 *Except* 2-15,11-15: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 2-17,3-14,8-9,18-20,19-21,22-23: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-3 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-17. 10-0-0 oc bracing: 14-16
WEBS	1 Row at midpt 3-14, 6-13

REACTIONS. (size) 1=0-3-8, 9=0-5-8
Max Horz 1=225(LC 5)
Max Uplift 1=-180(LC 8), 9=-139(LC 9)
Max Grav 1=1767(LC 2), 9=1798(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-1062/36, 2-3=-3453/390, 3-5=-2031/241, 5-6=-1637/261, 6-7=-1905/298, 7-8=-1940/187, 9-11=-1740/154, 8-11=-1640/177
BOT CHORD	2-16=-420/3147, 14-16=-419/3148, 13-14=-38/1551
WEBS	3-16=0/343, 3-14=-1685/400, 5-14=-21/536, 6-14=-113/558, 6-13=-182/301, 7-13=-588/267, 8-13=-93/1617

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) gable end 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) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=180, 9=139.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C5	Roof Special	3	1	I44994453
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:44 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-OMcpZlTYSx2QT3yRNKj5Uu?J_vmx43mU9jj3_rzfKtv

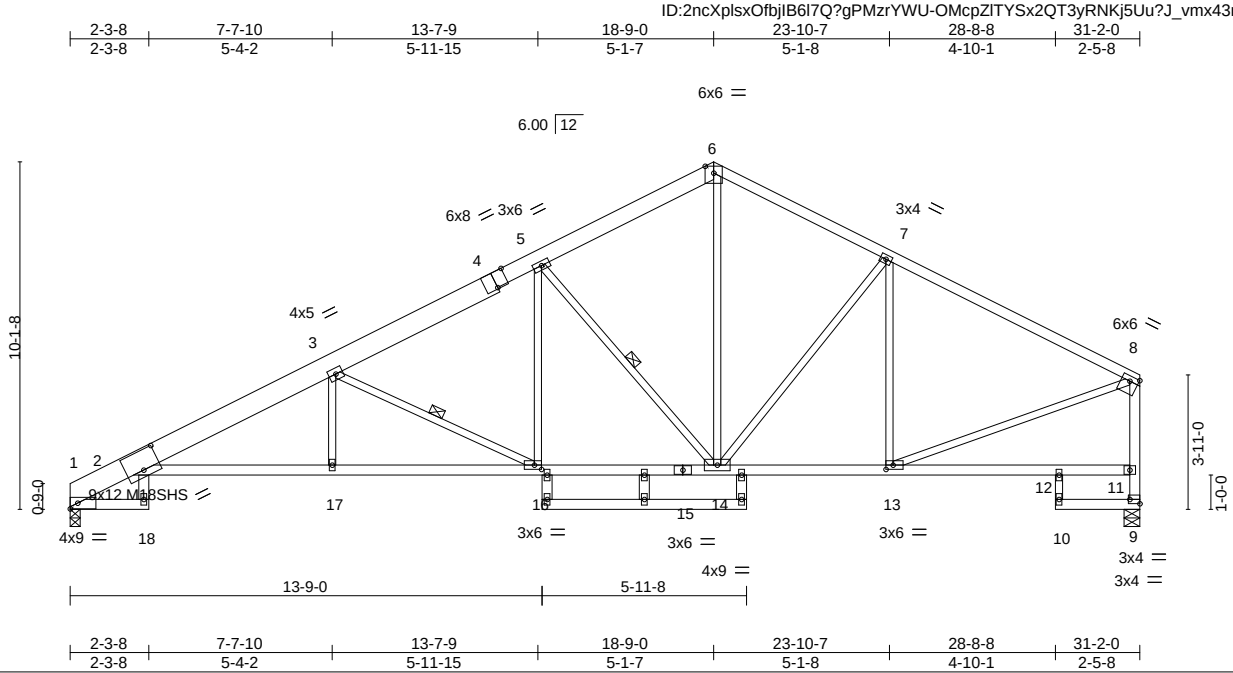


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [8:Edge,0-1-12], [9:Edge,0-1-8], [13:0-2-8,0-1-8], [16:0-2-8,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.18	2-17	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.40	2-17	>916	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.28	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15	2-17	>999	240	Weight: 168 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD	2x4 SPF No.2 *Except*
	2-15: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	2-18,8-9,19-21,20-22,23-24: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
	6-0-0 oc bracing: 1-18.
	10-0-0 oc bracing: 14-16
WEBS	1 Row at midpt 3-16, 5-14

REACTIONS. (size) 1=0-3-8, 9=0-5-8
Max Horz 1=232(LC 5)
Max Uplift 1=-184(LC 8), 9=-145(LC 9)
Max Grav 1=1706(LC 1), 9=1699(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-974/33, 2-3=-3634/429, 3-5=-2545/319, 5-6=-1721/256, 6-7=-1741/281,
	7-8=-1875/201, 9-11=-1659/161, 8-11=-1619/184
BOT CHORD	2-17=-489/3349, 16-17=-487/3349, 14-16=-216/2122, 13-14=-119/1559
WEBS	3-16=-1377/304, 5-16=-68/731, 5-14=-1060/258, 6-14=-144/1047, 7-14=-296/157,
	7-13=-429/119, 8-13=-107/1550

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 1=184, 9=145.
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.

March 1,2021

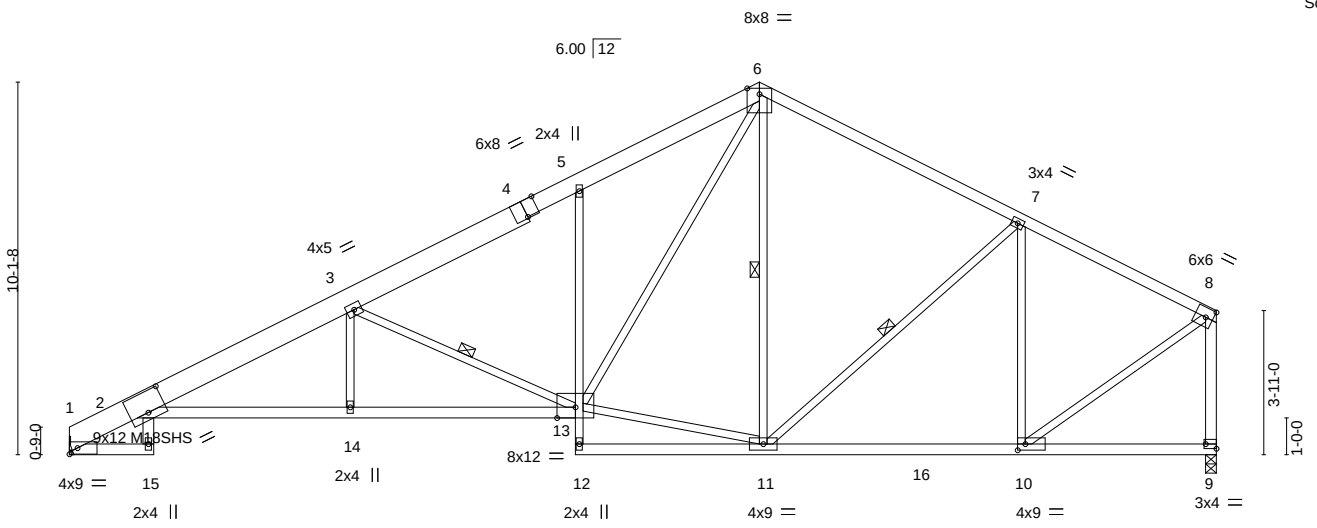
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C6	Roof Special	3	1	I44994454
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:45 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-sYACn5UADEAH4CWdw1EK15YXrJ6GpUkeNNScXIzfKtu

2-3-8	7-7-9	13-9-0	18-9-0	25-10-7	31-2-0
2-3-8	5-4-1	6-1-7	5-0-0	7-1-7	5-3-9

Scale = 1:62.6



2-3-8	7-7-9	13-9-0	18-9-0	25-10-7	31-2-0
2-3-8	5-4-1	6-1-7	5-0-0	7-1-7	5-3-9

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.21	2-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.45	13-14	>830	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.29	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	2-14	>999	240	Weight: 163 lb	FT = 10%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD	2x4 SPF No.2 *Except* 2-13: 2x4 SPF 2100F 1.8E, 5-12: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-15,8-9: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-15.
WEBS	1 Row at midpt 3-13, 6-11, 7-11

REACTIONS. (size) 1=Mechanical, 9=0-3-8
Max Horz 1=190(LC 5)
Max Uplift 1=-21(LC 8), 9=-1(LC 9)
Max Grav 1=1764(LC 2), 9=1775(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-1040/0, 2-3=-3786/84, 3-5=-2573/83, 5-6=-2462/167, 6-7=-1661/104, 7-8=-1515/42, 8-9=-1706/23
BOT CHORD	2-14=-115/3595, 13-14=-113/3596, 5-13=-402/126, 10-11=-4/1296
WEBS	3-14=0/252, 3-13=-1559/121, 11-13=0/1377, 6-13=-128/1626, 7-10=-744/74, 8-10=0/1569

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C7	Hip	1	1	I44994455
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:46 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Klka_RUp_YI8iM5pUklZZJ4j8iSVYxznc1C93kzfKtt

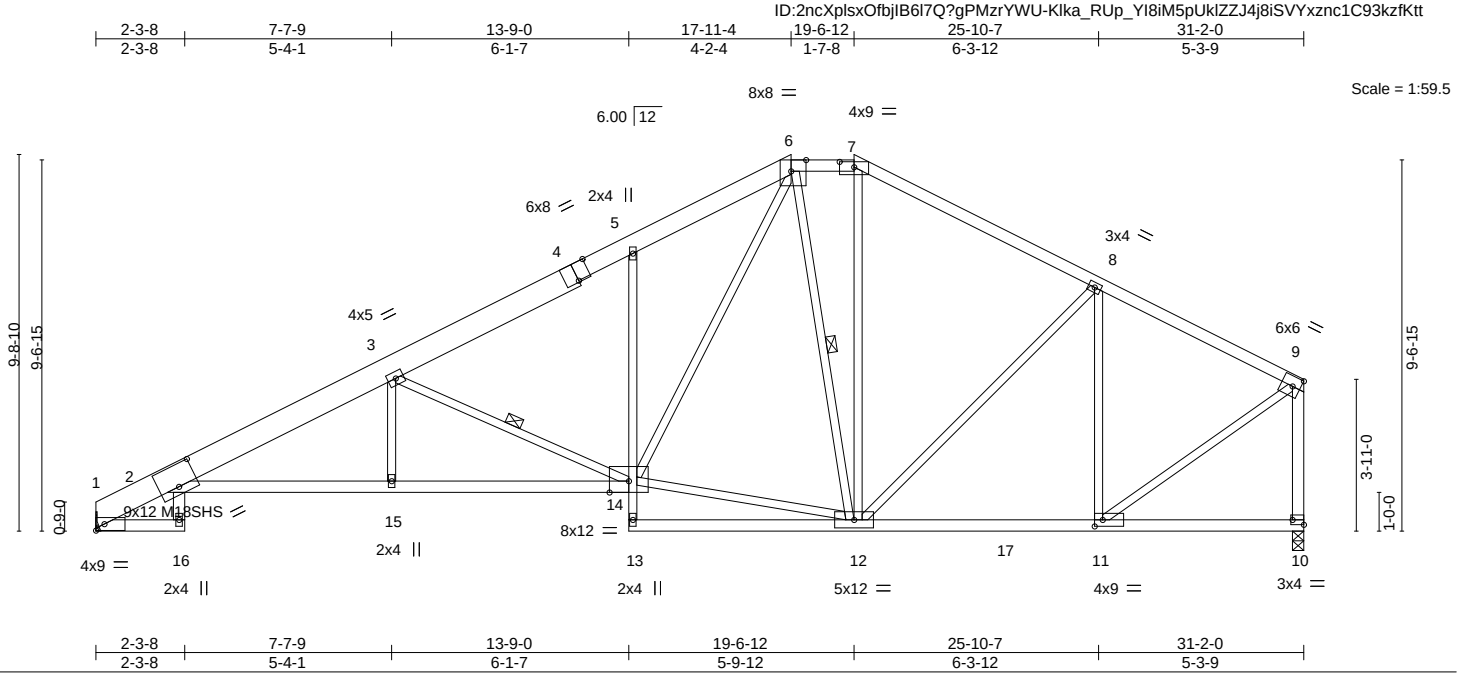


Plate Offsets (X,Y)-- [2:0-6-0,0-6-10], [4:0-4-0,Edge], [6:0-4-10,Edge], [7:0-4-8,0-1-11], [10:Edge,0-1-8], [11:0-2-8,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.21	14-15	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.45	14-15	>828	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	2-15	>999	240	Weight: 168 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x6 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
2-14: 2x4 SPF 2100F 1.8E, 5-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,9-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-11 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-16.
WEBS 1 Row at midpt 3-14, 6-12

REACTIONS. (size) 1=Mechanical, 10=0-3-8
Max Horz 1=186(LC 7)
Max Uplift 1=-19(LC 8)
Max Grav 1=1763(LC 2), 10=1772(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1032/0, 2-3=-3783/78, 3-5=-2569/77, 5-6=-2445/149, 6-7=-1387/91, 7-8=-1665/89, 8-9=-1502/37, 9-10=-1696/21
BOT CHORD 2-15=-104/3573, 14-15=-102/3574, 5-14=-342/117, 11-12=0/1280
WEBS 3-15=0/253, 3-14=-1557/121, 12-14=0/1438, 6-14=-111/1537, 6-12=-633/67, 7-12=-8/427, 8-12=-20/266, 8-11=-746/64, 9-11=0/1545

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	C8	Hip	1	1	I44994456
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:48 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-G7sKP6W3W9YsxgFCc9o1fkA32W2_0oG43LhG7dzfKtr

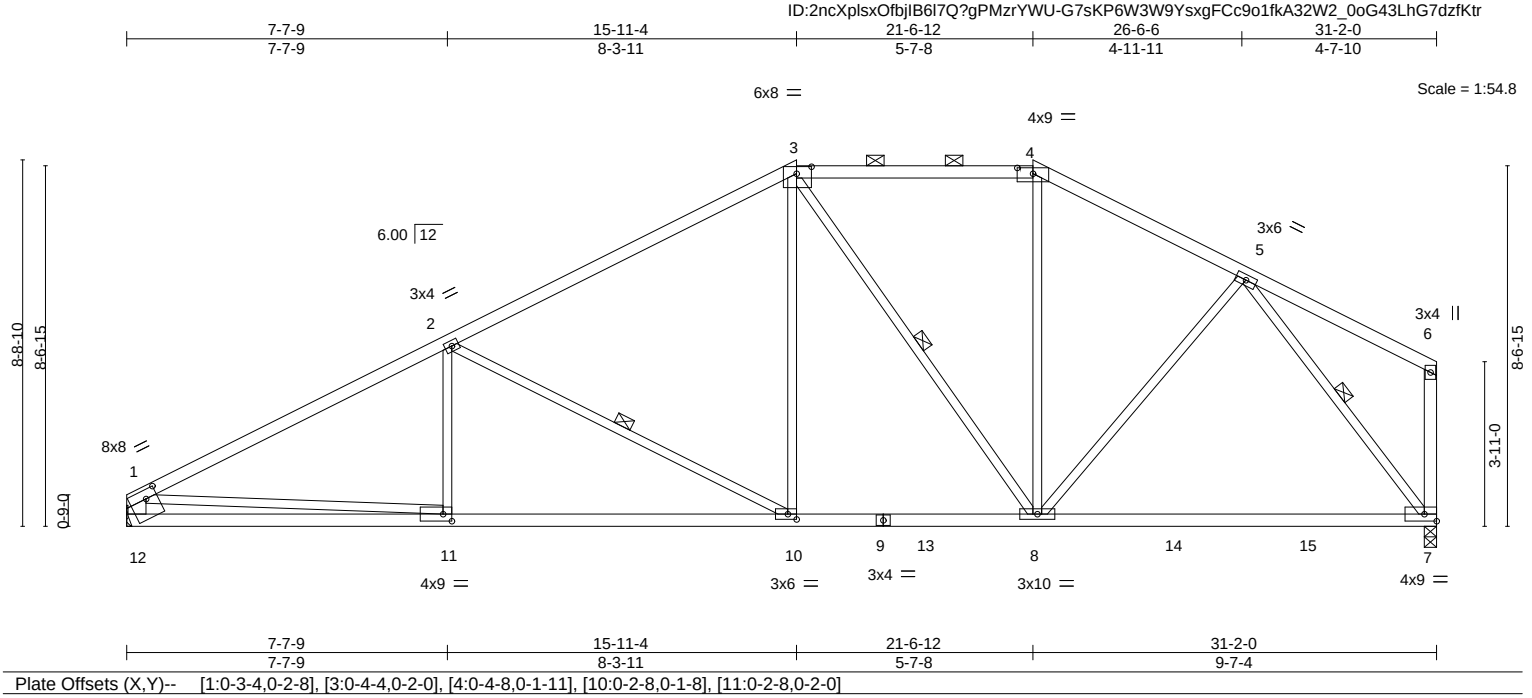


Plate Offsets (X,Y)-- [1:0-3-4,0-2-8], [3:0-4-4,0-2-0], [4:0-4-8,0-1-11], [10:0-2-8,0-1-8], [11:0-2-8,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.27	7-8	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.47	7-8	>787	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	10-11	>999	240	Weight: 129 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
9-12: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-12: 2x6 SPF No.2, 6-7: 2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 12=Mechanical, 7=0-3-8
Max Horz 12=173(LC 7)
Max Uplift 12=-17(LC 8)
Max Grav 12=1760(LC 2), 7=1799(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2896/44, 2-3=-2048/58, 3-4=-1448/52, 4-5=-1706/48, 1-12=-1637/55
BOT CHORD 11-12=-144/679, 10-11=-56/2501, 8-10=-7/1688, 7-8=-12/1139
WEBS 2-10=-927/126, 3-10=0/677, 3-8=-524/58, 4-8=0/340, 5-8=0/542, 1-11=0/1879, 5-7=-1813/12

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 12.
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.

March 1,2021

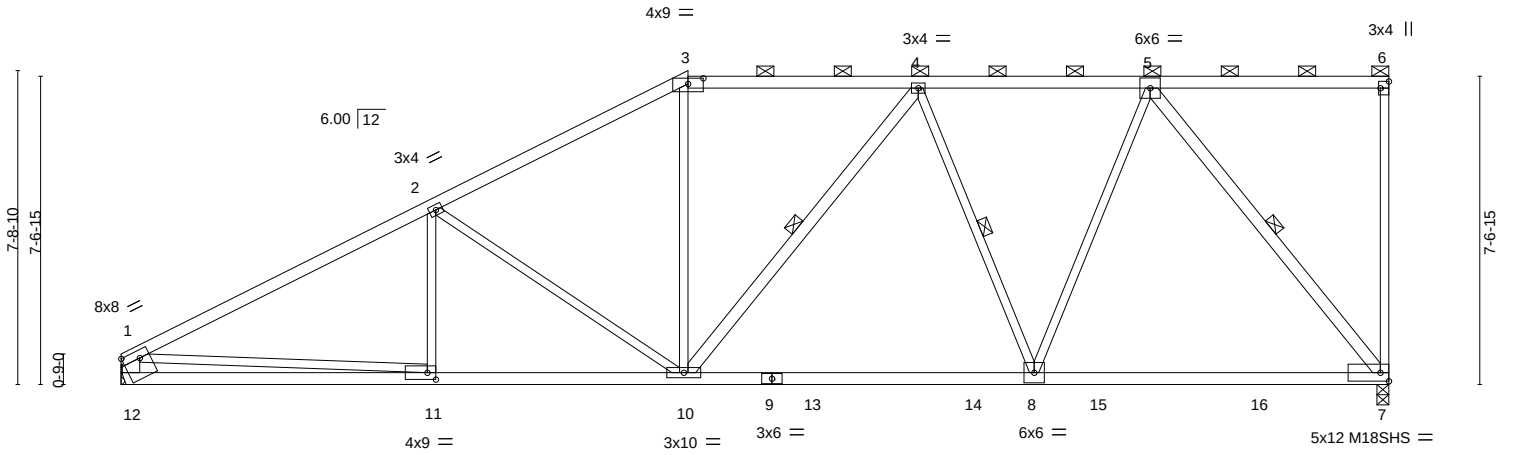
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	D1	Half Hip	1	1	I44994457
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:49 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-kKPicSXhHTgjZqqO9tJGBxiHHwPHlEpEl?Qqg3zfKtq

7-7-10	13-11-4	19-7-3	25-3-9	31-2-0
7-7-10	6-3-11	5-7-15	5-8-6	5-10-7

Scale = 1:56.6



7-7-10	13-11-4	22-5-6	31-2-0
7-7-10	6-3-11	8-6-2	8-8-10

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.19	7-8	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.34	7-8	>999	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	8-10	>999	240	Weight: 133 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
9-12: 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-10,5-7: 2x4 SPF No.2, 1-12: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 7=0-3-8, 12=Mechanical
Max Horz 12=238(LC 7)
Max Uplift 7=-72(LC 5), 12=-7(LC 8)
Max Grav 7=1820(LC 2), 12=1768(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2867/24, 2-3=-2244/38, 3-4=-1899/57, 4-5=-1587/30, 1-12=-1633/49
BOT CHORD 11-12=-209/744, 10-11=-145/2455, 8-10=-126/1812, 7-8=-105/1194
WEBS 2-10=-700/110, 3-10=0/541, 4-8=-692/96, 5-8=0/1079, 5-7=-1907/98, 1-11=0/1763

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 12.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

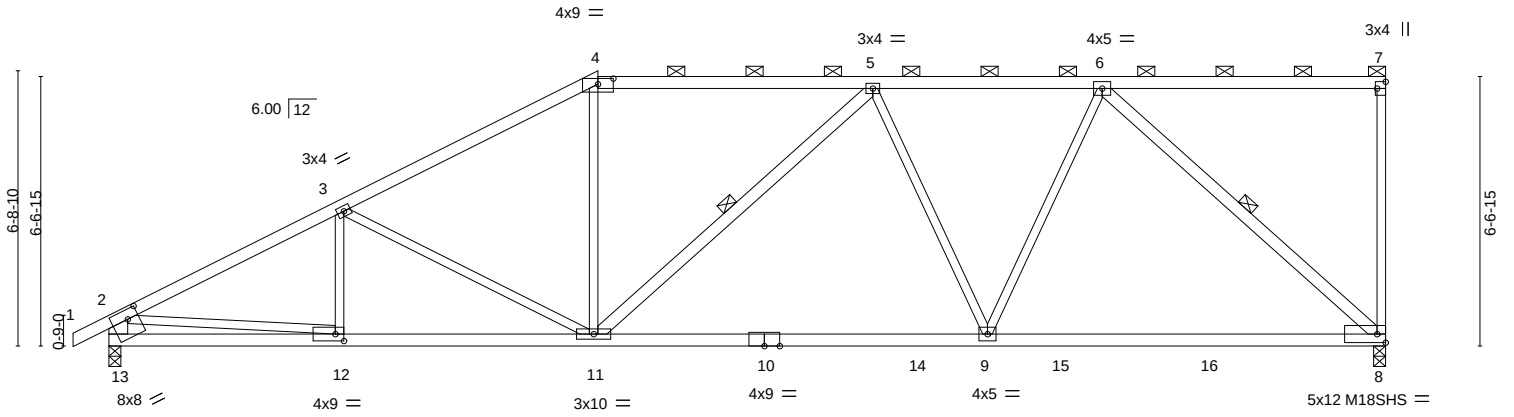
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	D2	Half Hip	1	1	I44994458
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:49 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-kKPicSXhHTgjZqqO9tJGBxiCvwOnlGPEI?Qqg3zfKtq

-0-10-8	5-7-9	11-11-4	18-7-13	24-2-15	31-2-0
0-10-8	5-7-9	6-3-11	6-8-9	5-7-3	6-11-1

Scale = 1:56.2



5-7-9	11-11-4	21-5-6	31-2-0
5-7-9	6-3-11	9-6-2	9-8-10

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.27	8-9	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.48	8-9	>774	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	9-11	>999	240	Weight: 128 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-7: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
8-10: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
5-11,6-8: 2x4 SPF No.2, 2-13: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 8=0-3-8, 13=0-3-8
Max Horz 13=269(LC 5)
Max Uplift 8=-250(LC 5), 13=-167(LC 8)
Max Grav 8=1808(LC 2), 13=1856(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2884/229, 3-4=-2459/218, 4-5=-2102/218, 5-6=-1970/213, 7-8=-263/91, 2-13=-1748/196
BOT CHORD 12-13=-277/564, 11-12=-360/2493, 9-11=-357/2164, 8-9=-286/1569
WEBS 3-11=-471/196, 4-11=0/567, 5-11=-253/148, 5-9=-569/163, 6-9=-12/987, 6-8=-2109/318, 2-12=-84/1955

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) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 8=250, 13=167.
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.

March 1,2021

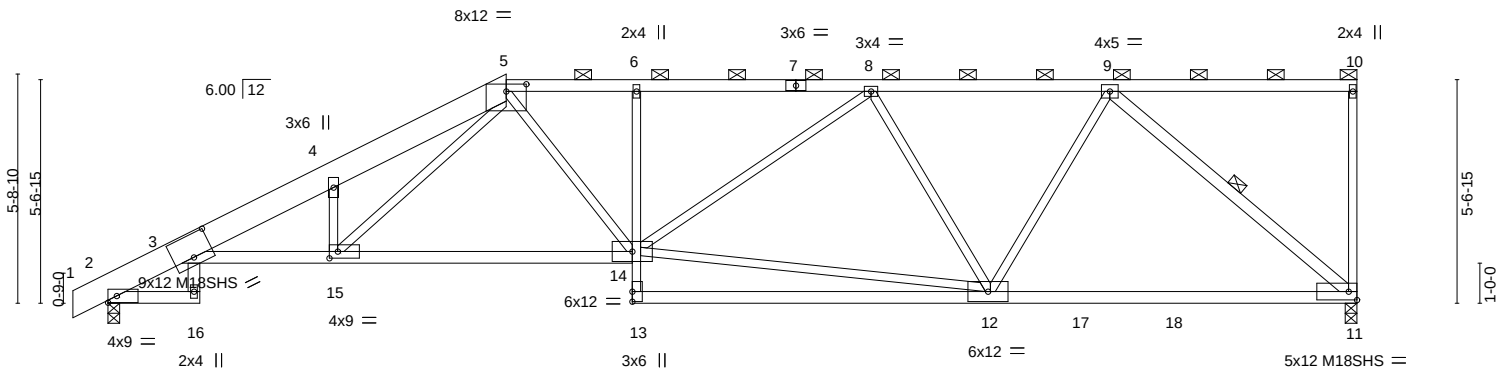
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	D3	Half Hip	1	1	I44994459
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:50 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-CWz5qoXJ2npaB_PajaqVk9FQlKp5UitNXfANCVzfKtp

-0-10-8	2-3-8	5-7-9	9-11-4	13-1-0	19-0-8	25-0-0	31-2-0
0-10-8	2-3-8	3-4-1	4-3-11	3-1-12	5-11-8	5-11-8	6-2-0

Scale = 1:57.5



2-3-8	5-7-9	9-11-4	13-1-0	22-0-4	31-2-0
2-3-8	3-4-1	4-3-11	3-1-12	8-11-4	9-1-12

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.25	14-15	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.55	14-15	>677	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.28	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15	14-15	>999	240	Weight: 148 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
2-16: 2x4 SPF No.2, 6-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,9-11: 2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=222(LC 8)
Max Uplift 11=-246(LC 5), 2=-133(LC 8)
Max Grav 11=1767(LC 2), 2=1840(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-993/0, 3-4=-4138/368, 4-5=-4436/468, 5-6=-3114/405, 6-8=-3096/407, 8-9=-2181/264
BOT CHORD 3-15=-435/3896, 14-15=-349/2697, 6-14=-442/145, 11-12=-250/1655
WEBS 5-14=-126/766, 12-14=-356/2468, 8-14=-81/585, 8-12=-991/223, 9-12=-28/1053, 9-11=-2169/331, 5-15=-266/1668, 4-15=-1037/282

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 11=246, 2=133.
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.

March 1,2021

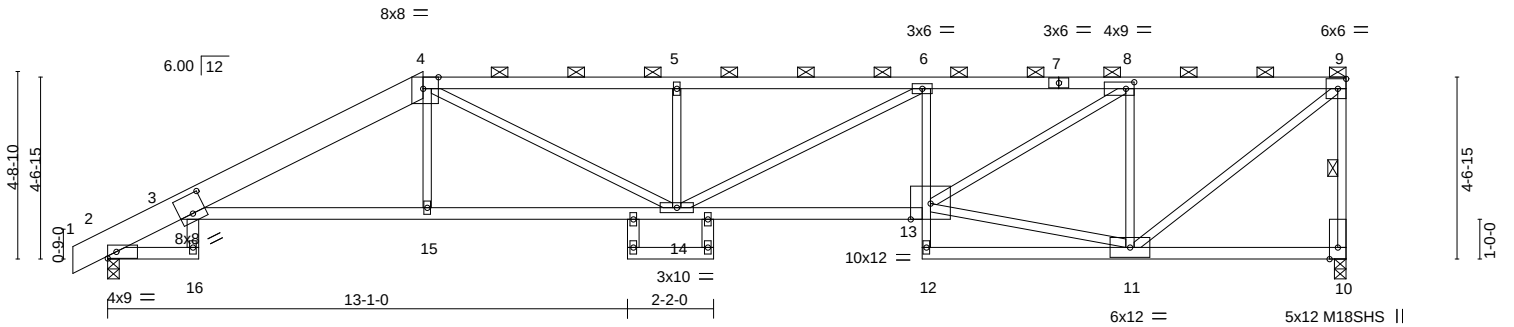
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	D4	Half Hip	1	1	I44994460
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:51 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hiXT18Yxo4xRo7_nHILkGMoa4jAWDBrWmJvwkxzfKto

-0-10-8	2-3-8	7-11-4	14-3-14	20-6-0	25-8-12	31-2-0
0-10-8	2-3-8	5-7-12	6-4-10	6-2-2	5-2-12	5-5-4

Scale = 1:58.0



2-3-8	7-11-4	14-3-14	20-6-0	25-8-12	31-2-0
2-3-8	5-7-12	6-4-10	6-2-2	5-2-12	5-5-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.27	13-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.61	13-14	>611	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.35	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22	13-14	>999	240	Weight: 138 lb	FT = 10%

LUMBER-

TOP CHORD	2x8 SP DSS *Except* 4-7: 2x4 SPF 2100F 1.8E, 7-9: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 3-16,17-19,18-20: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-2 max.): 4-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-16 9-11-3 oc bracing: 13-14.
WEBS	1 Row at midpt 9-10

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=182(LC 5)
Max Uplift 10=-256(LC 5), 2=-142(LC 5)
Max Grav 10=1699(LC 1), 2=1802(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-976/91, 3-4=-3452/417, 4-5=-4070/580, 5-6=-4069/581, 6-8=-3801/554, 8-9=-1812/282, 9-10=-1649/277
BOT CHORD	3-15=-495/3138, 14-15=-492/3141, 13-14=-630/3835, 6-13=-614/168
WEBS	4-15=0/251, 4-14=-249/1042, 5-14=-577/196, 6-14=-38/267, 11-13=-292/1759, 8-13=-373/2328, 8-11=-1726/363, 9-11=-344/2303

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are MT20 plates unless otherwise indicated.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 10=256, 2=142.
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.

March 1,2021

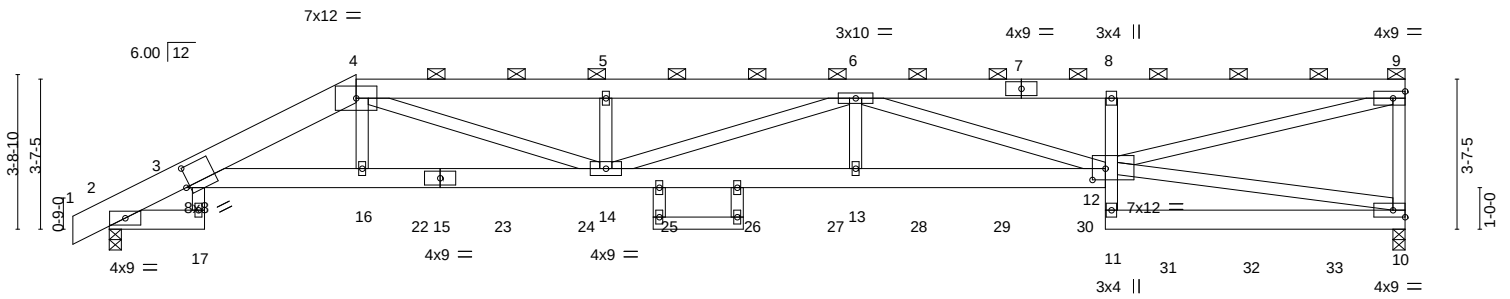
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	D5	HALF HIP GIRDER	1	3	I44994461
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:52 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9u5rFUZZZO3IQHZzr?szpaKnQ7YAye4g_zfUGOzfKtn

-0-10-8	2-3-8	5-11-4	11-11-5	17-11-7	23-11-8	31-2-0
0-10-8	2-3-8	3-7-12	6-0-1	6-0-1	6-0-1	7-2-8

Scale = 1:55.4



2-3-8	5-11-4	11-11-5	17-11-7	23-11-8	31-2-0
2-3-8	3-7-12	6-0-1	6-0-1	6-0-1	7-2-8

Plate Offsets (X,Y)-- [3:0-1-2,0-5-10], [12:0-3-12,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.24	13-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.51	13-14	>721	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.21	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.16	13-14	>999	240	Weight: 621 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except* 1-4: 2x8 SP DSS
BOT CHORD 2x6 SP 2400F 2.0E *Except* 8-11,18-19: 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-17.

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=107(LC 5)
Max Uplift 10=-355(LC 5), 2=-331(LC 5)
Max Grav 10=3833(LC 1), 2=3751(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2060/201, 3-4=-10054/1071, 4-5=-13404/1314, 5-6=-13404/1314, 6-8=-9861/934, 8-9=-9554/909, 9-10=-3281/340
BOT CHORD 3-16=-1057/9361, 14-16=-1071/9472, 13-14=-1350/13842, 12-13=-1350/13842, 11-12=-16/517, 8-12=-576/114, 10-11=-54/677
WEBS 3-17=-22/310, 4-16=-203/1605, 4-14=-348/4279, 5-14=-442/95, 6-14=-537/35, 6-13=-36/1022, 6-12=-4218/399, 10-12=-535/65, 9-12=-959/9851

NOTES-

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 10=355, 2=331.
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.

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 742 lb down and 199 lb up at 5-11-4, 285 lb down and 46 lb up at 7-5-4, 285 lb down and 46 lb up at 9-5-4, 285 lb down and 46 lb up at 11-5-4, 285 lb down and 46 lb up at 15-5-4, 285 lb down and 46 lb up at 17-5-4, 285 lb down and 46 lb up at 19-5-4, 285 lb down and 46 lb up at 21-5-4, 285 lb down and 46 lb up at 23-5-4, 285 lb down and 44 lb up at 25-5-4, 285 lb down and 44 lb up at 27-5-4, and 285 lb down and 44 lb up at 29-5-4, and 216 lb down and 9 lb up at 13-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) Filler applied to ply: 1(Front)

LOAD CASE(S) Standard

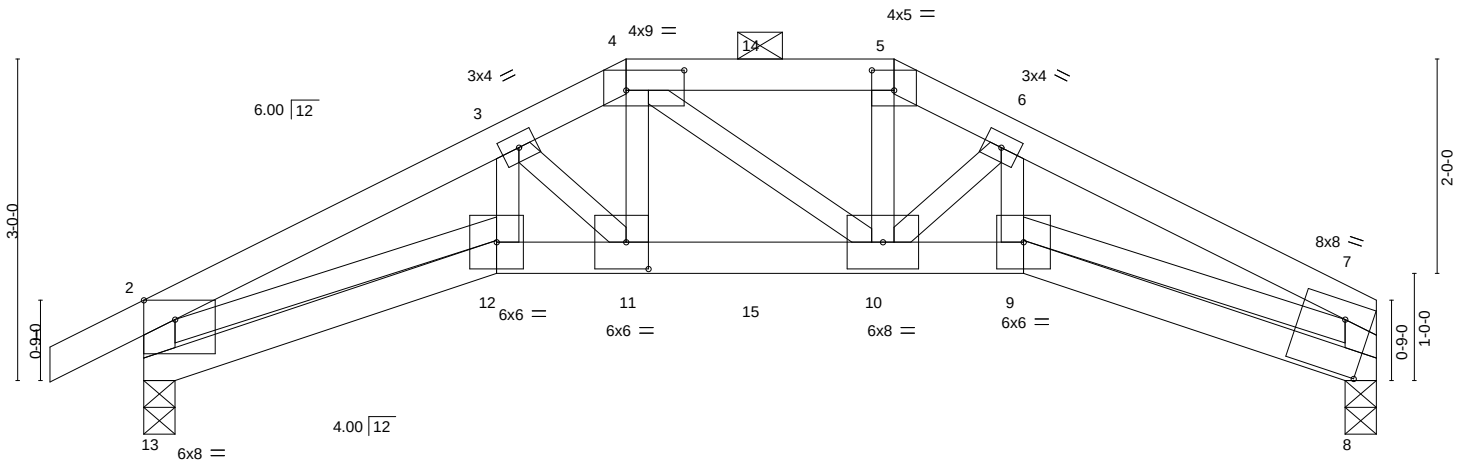
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-9=-90, 2-17=-20, 3-12=-20, 10-11=-20
   Concentrated Loads (lb)
   Vert: 16=-742(B) 22=-285(B) 23=-285(B) 24=-285(B) 25=-215(B) 26=-285(B) 27=-285(B) 28=-285(B) 29=-285(B) 30=-285(B) 31=-285(B) 32=-285(B) 33=-285(B)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	E1	Hip Girder	1	1	I44994462
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:54 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5HDbgAbq5?J?fbjMyQvRu?Q7sx90QZUzSH8aLGzfKtl

-0-10-8 | 3-3-8 | 4-6-0 | 7-0-0 | 8-2-8 | 11-6-0
0-10-8 | 3-3-8 | 1-2-8 | 2-6-0 | 1-2-8 | 3-3-8

Scale = 1:21.5



3-3-8 | 4-6-0 | 7-0-0 | 8-2-8 | 11-6-0
3-3-8 | 1-2-8 | 2-6-0 | 1-2-8 | 3-3-8

Plate Offsets (X,Y)-- [4:0-6-8,0-2-4], [5:0-2-8,0-2-4], [7:0-3-0,0-6-0], [11:0-2-8,0-3-0], [13:0-3-8,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.07	11	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.16	10-11	>846	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	11	>999	240	Weight: 43 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,7-8: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 8-6-0 oc bracing.

REACTIONS. (size) 13=0-3-8, 8=0-3-8
Max Horz 13=59(LC 5)
Max Uplift 13=-227(LC 8), 8=-204(LC 9)
Max Grav 13=1179(LC 1), 8=1082(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2849/568, 3-4=-2377/510, 4-5=-2209/467, 5-6=-2409/505, 6-7=-2886/557, 2-13=-1237/277, 7-8=-1119/238
BOT CHORD 12-13=-127/429, 11-12=-484/2418, 10-11=-414/2186, 9-10=-460/2466, 8-9=-78/368
WEBS 3-12=-55/402, 3-11=-376/106, 4-11=-115/680, 5-10=-105/727, 6-10=-415/111, 6-9=-41/385, 2-12=-375/2067, 7-9=-396/2172

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 13, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=227, 8=204.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 124 lb down and 89 lb up at 4-6-0, and 131 lb down and 89 lb up at 5-9-0, and 124 lb down and 89 lb up at 7-0-0 on top chord, and 322 lb down and 83 lb up at 4-6-0, and 44 lb down at 5-9-0, and 338 lb down and 87 lb up at 6-11-4 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).

March 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

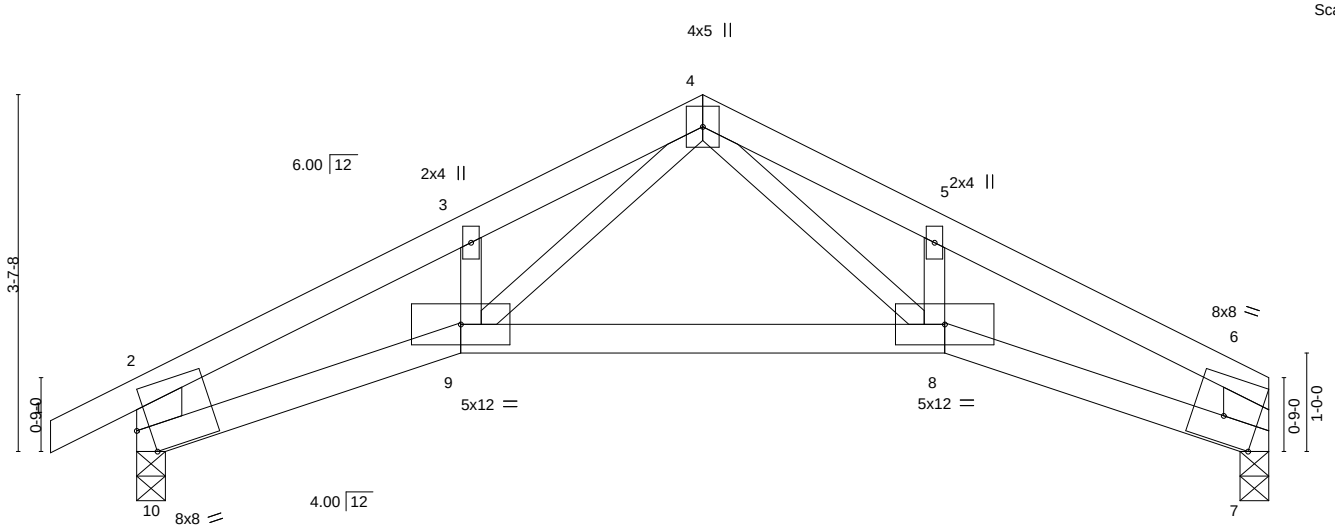
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-4=-90, 4-5=-90, 5-7=-90, 12-13=-20, 9-12=-20, 8-9=-20
   Concentrated Loads (lb)
   Vert: 4=-80(F) 5=-80(F) 11=-322(F) 10=-338(F) 14=-80(F) 15=-35(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	E2	Roof Special	1	1	I44994463
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:54 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5HDbgAbq5?J?fbjMyQvRu?Q1Zx8UQilzSH8aLGzfKtl

-0-10-8 | 3-3-8 | 5-9-0 | 8-2-8 | 11-6-0
0-10-8 | 3-3-8 | 2-5-8 | 2-5-8 | 3-3-8

Scale = 1:23.4



3-3-8 | 8-2-8 | 11-6-0
3-3-8 | 4-11-0 | 3-3-8

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

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC	0.92	Vert(LL)	-0.11	8-9	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL 1.15	BC	0.78	Vert(CT)	-0.28	8-9	>481	240		
BCLL	0.0 *	Rep Stress Incr YES	WB	0.15	Horz(CT)	0.15	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	8-9	>999	240	Weight: 38 lb	FT = 10%

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

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

REACTIONS. (size) 10=0-3-8, 7=0-3-8
Max Horz 10=68(LC 5)
Max Uplift 10=-86(LC 8), 7=-60(LC 9)
Max Grav 10=712(LC 1), 7=602(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1281/131, 3-4=-1121/198, 4-5=-1125/180, 5-6=-1261/107, 2-10=-942/135, 6-7=-800/92
BOT CHORD 9-10=-118/1052, 8-9=-30/704, 7-8=-68/1040
WEBS 4-8=-115/447, 4-9=-122/436

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	E3	Half Hip Girder	1	3	I44994464
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:55 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ZTn_tWbSsJRsHlHYW7QgRCyGHLYA93H6gxt8tjzfKtk

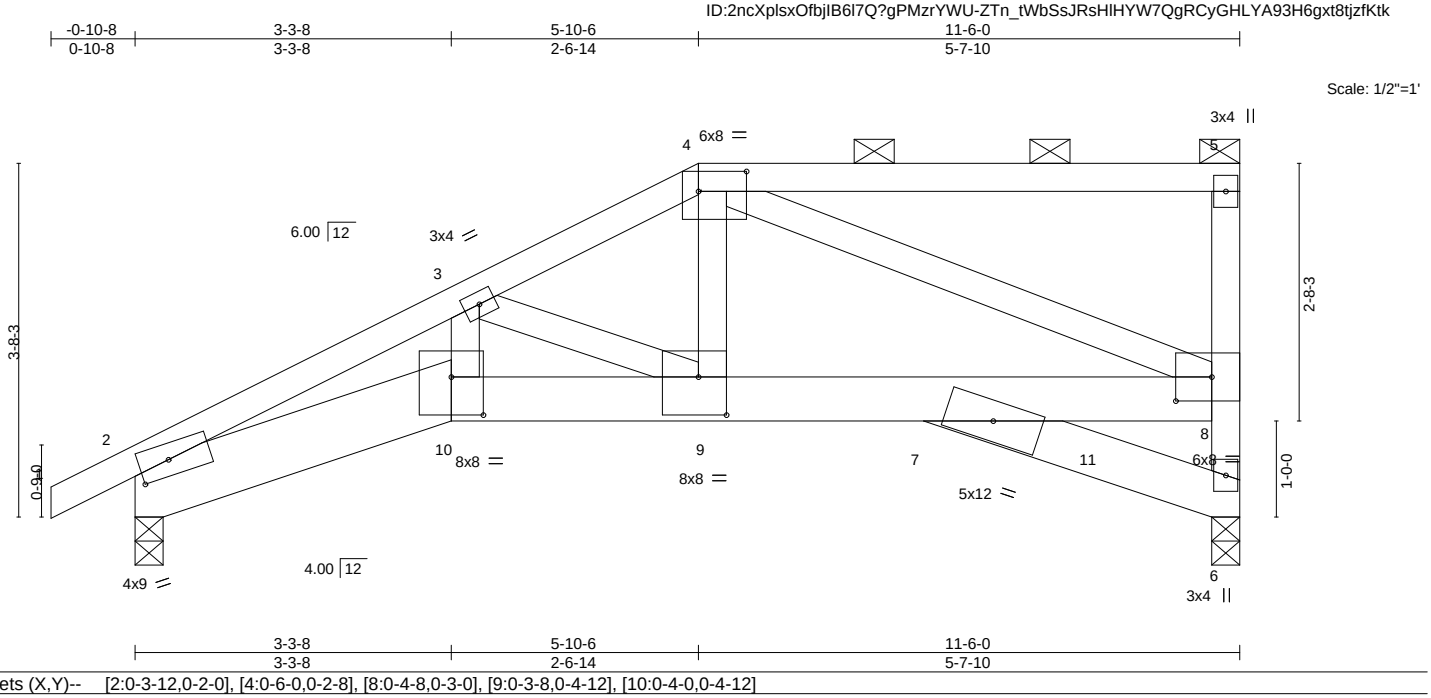


Plate Offsets (X,Y)-- [2:0-3-12,0-2-0], [4:0-6-0,0-2-8], [8:0-4-8,0-3-0], [9:0-3-8,0-4-12], [10:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.06	7-9	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	7-9	>959	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.10	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04	7-9	>999	240	Weight: 205 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
2-10: 2x8 SP DSS
WEBS 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.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=111(LC 7)
Max Uplift 6=-216(LC 5), 2=-115(LC 8)
Max Grav 6=5304(LC 1), 2=3206(LC 1)

PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED FOR LOADS REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.148"x 3" NAILS PER HANGER MANUFACTURER SPECIFICATIONS.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-9771/365, 3-4=-8203/310, 4-5=-378/39, 6-8=-5025/226, 5-8=-272/46
BOT CHORD 2-10=-410/8504, 9-10=-380/7971, 7-9=-341/7728, 7-8=-328/7234, 6-7=-15/411
WEBS 3-10=-60/1602, 3-9=-712/76, 4-9=-208/6393, 4-8=-7969/313

NOTES-
1) N/A
2) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 3 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
3) 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.
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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 6, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=216, 2=115.
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.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

March 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

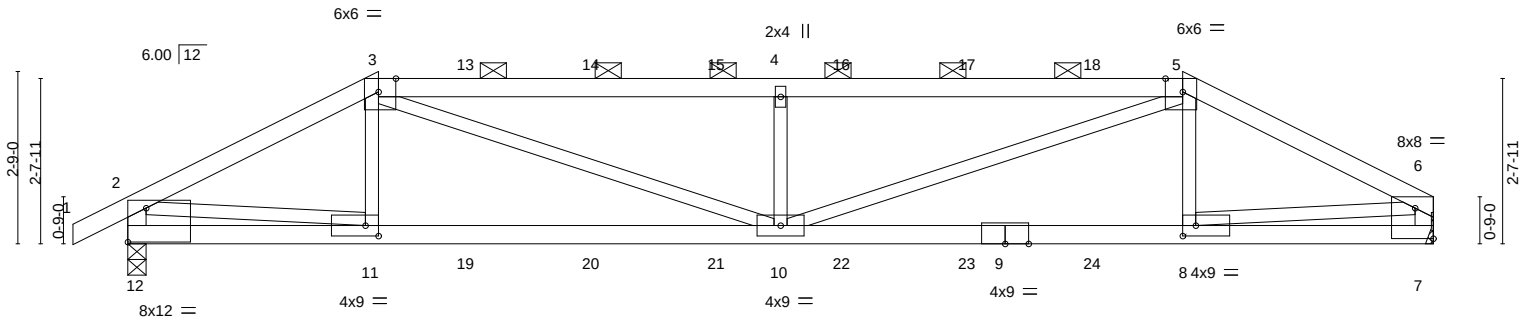
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-5=-90, 2-10=-20, 7-10=-20, 6-7=-20
   Concentrated Loads (lb)
   Vert: 9=-3829(B) 7=-1678(B) 11=-1678(B)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G1	Hip Girder	1	1	I44994465
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:56 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-1gLM4rc4ddZjvvsk4rxvzQVNpkoRuTtFvbdhP9zfKtj

0-10-8 4-0-0 10-5-0 16-10-0 20-10-0
0-10-8 4-0-0 6-5-0 6-5-0 4-0-0

Scale = 1:36.8



4-0-0 10-5-0 16-10-0 20-10-0
4-0-0 6-5-0 6-5-0 4-0-0

Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge], [6:Edge,0-5-13], [8:0-2-8,0-2-0], [11:0-2-8,0-2-0], [12:Edge,0-6-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.15	10	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.34	8-10	>715	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	10	>999	240	Weight: 72 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-7: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-4-11 oc bracing.

REACTIONS. (size) 12=0-3-8, 7=Mechanical
Max Horz 12=54(LC 26)
Max Uplift 12=-318(LC 8), 7=-294(LC 9)
Max Grav 12=1813(LC 1), 7=1717(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2839/532, 3-4=-4047/816, 4-5=-4047/816, 5-6=-2847/531, 2-12=-1776/326, 6-7=-1679/302
BOT CHORD 11-12=-121/362, 10-11=-484/2474, 8-10=-453/2490, 7-8=-82/320
WEBS 3-10=-373/1718, 4-10=-938/371, 5-10=-373/1707, 2-11=-417/2137, 6-8=-420/2194

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=318, 7=294.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 77 lb up at 4-0-0, 119 lb down and 77 lb up at 5-5-0, 119 lb down and 77 lb up at 7-5-0, 119 lb down and 77 lb up at 9-5-0, 119 lb down and 77 lb up at 11-5-0, 119 lb down and 77 lb up at 13-5-0, and 119 lb down and 77 lb up at 15-5-0, and 111 lb down and 77 lb up at 16-10-0 on top chord, and 272 lb down and 77 lb up at 4-0-0, 34 lb down at 5-5-0, 34 lb down at 7-5-0, 34 lb down at 9-5-0, 34 lb down at 11-5-0, 34 lb down at 13-5-0, and 34 lb down at 15-5-0, and 272 lb down and 77 lb up at 16-9-4 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).

March 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

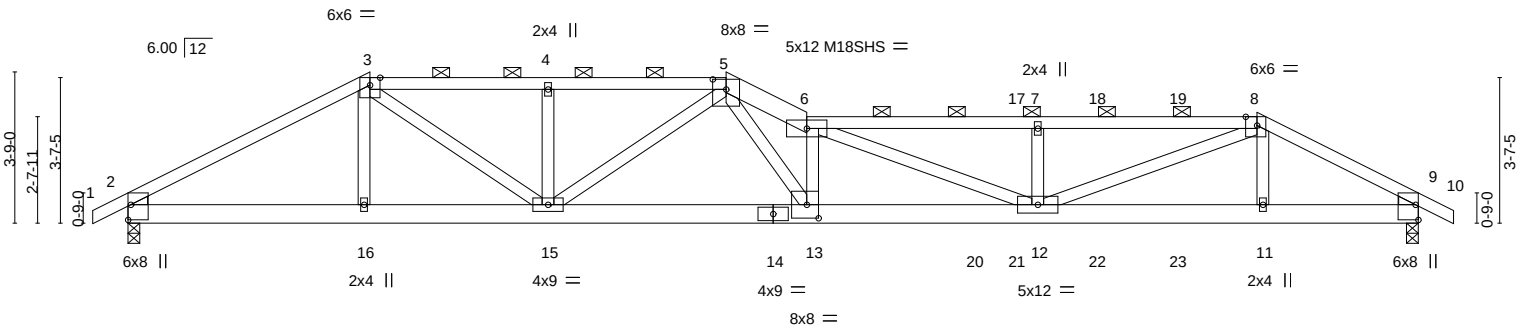
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-3=-90, 3-5=-90, 5-6=-90, 7-12=-20
   Concentrated Loads (lb)
   Vert: 3=-59(F) 5=-59(F) 11=-272(F) 8=-272(F) 13=-59(F) 14=-59(F) 15=-59(F) 16=-59(F) 17=-59(F) 18=-59(F) 19=-28(F) 20=-28(F) 21=-28(F) 22=-28(F) 23=-28(F) 24=-28(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G2	ROOF SPECIAL GIRDER	1	2	I44994466
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:58 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-z2S6VXeK9EpR8C07BGzN3raoJYY4MMqYNv6oU1zfKth

-0-10-8	6-0-0	10-5-0	14-10-0	16-10-0	22-6-12	28-0-0	32-0-0	32-10-8
0-10-8	6-0-0	4-5-0	4-5-0	2-0-0	5-8-12	5-5-4	4-0-0	0-10-8

Scale = 1:57.1



6-0-0	10-5-0	14-10-0	16-10-0	22-6-12	28-0-0	32-0-0
6-0-0	4-5-0	4-5-0	2-0-0	5-8-12	5-5-4	4-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.26	12-13	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.57	12-13	>667	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.19	12-13	>999	240	Weight: 319 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 6-8: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP DSS
WEBS 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-39(LC 6)
Max Uplift 2=-122(LC 5), 9=-372(LC 9)
Max Grav 2=2303(LC 1), 9=3019(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4034/282, 3-4=-5223/438, 4-5=-5220/437, 5-6=-11024/1109, 6-7=-9069/1123, 7-8=-9072/1125, 8-9=-5379/681
BOT CHORD 2-16=-231/3393, 15-16=-233/3386, 13-15=-583/6348, 12-13=-930/9571, 11-12=-545/4519, 9-11=-542/4541
WEBS 3-15=-222/2364, 4-15=-500/88, 5-15=-1439/282, 5-13=-723/6423, 6-13=-4919/606, 6-12=-1044/494, 7-12=-774/231, 8-12=-606/4944, 8-11=0/388

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 0-7-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 2=122, 9=372.
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.

Continued on page 2

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

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 109 lb down and 82 lb up at 22-0-0, 109 lb down and 82 lb up at 24-0-0, and 109 lb down and 82 lb up at 26-0-0, and 109 lb down and 82 lb up at 28-0-0 on top chord, and 1061 lb down and 224 lb up at 20-11-9, 34 lb down at 22-0-0, 34 lb down at 24-0-0, and 34 lb down at 26-0-0, and 272 lb down and 77 lb up at 27-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

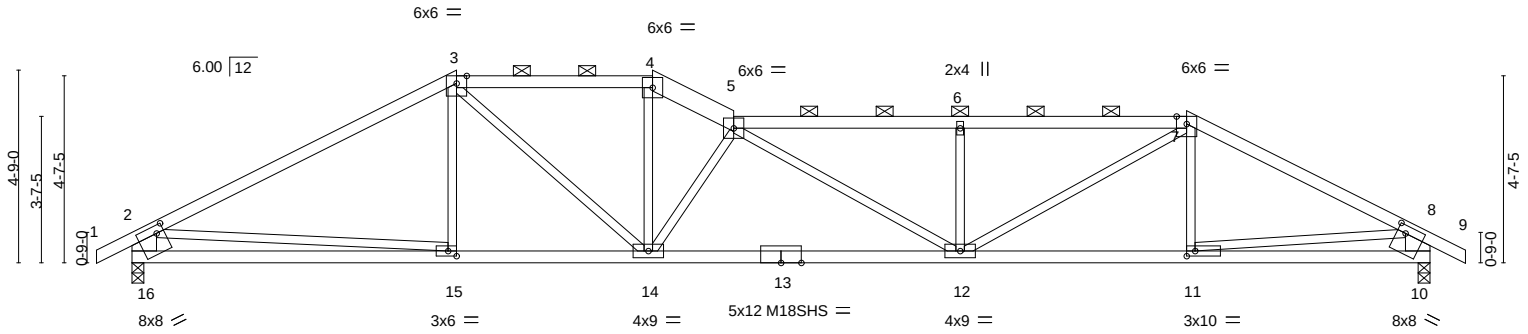
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-5=-90, 5-6=-90, 6-8=-90, 8-10=-90, 2-9=-20
   Concentrated Loads (lb)
   Vert: 8=-59(F) 11=-272(F) 17=-59(F) 18=-59(F) 19=-59(F) 20=-1061(F) 21=-28(F) 22=-28(F) 23=-28(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G3	Roof Special	1	1	I44994467
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:06:59 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-SF0UjteywYxImMbJlzUcb27ulyvd5pZibZrL0UzfKtg

-0-10-8	8-0-0	12-10-0	14-10-0	20-5-0	26-0-0	32-0-0	32-10-8
0-10-8	8-0-0	4-10-0	2-0-0	5-7-0	5-7-0	6-0-0	0-10-8

Scale = 1:56.8



8-0-0	12-10-0	14-10-0	20-5-0	26-0-0	32-0-0
8-0-0	4-10-0	2-0-0	5-7-0	5-7-0	6-0-0

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.20	12-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.51	12-14	>744	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14	12-14	>999	240	Weight: 122 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E, 4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x8 SP DSS

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

REACTIONS. (size) 16=0-3-8, 10=0-3-8
Max Horz 16=-80(LC 6)
Max Uplift 16=-128(LC 8), 10=-242(LC 9)
Max Grav 16=1833(LC 1), 10=1833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2771/229, 3-4=-3010/320, 4-5=-3367/341, 5-6=-3840/480, 6-7=-3843/481, 7-8=-2804/346, 2-16=-1752/176, 8-10=-1765/274
BOT CHORD 15-16=-315/1083, 14-15=-182/2325, 12-14=-368/4029, 11-12=-225/2402, 10-11=-157/662
WEBS 3-14=-144/1025, 4-14=-105/1155, 5-14=-1965/326, 5-12=-344/58, 6-12=-618/192, 7-12=-219/1680, 2-15=-47/1414, 8-11=-183/1747

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) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 16=128, 10=242.
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.

March 1,2021

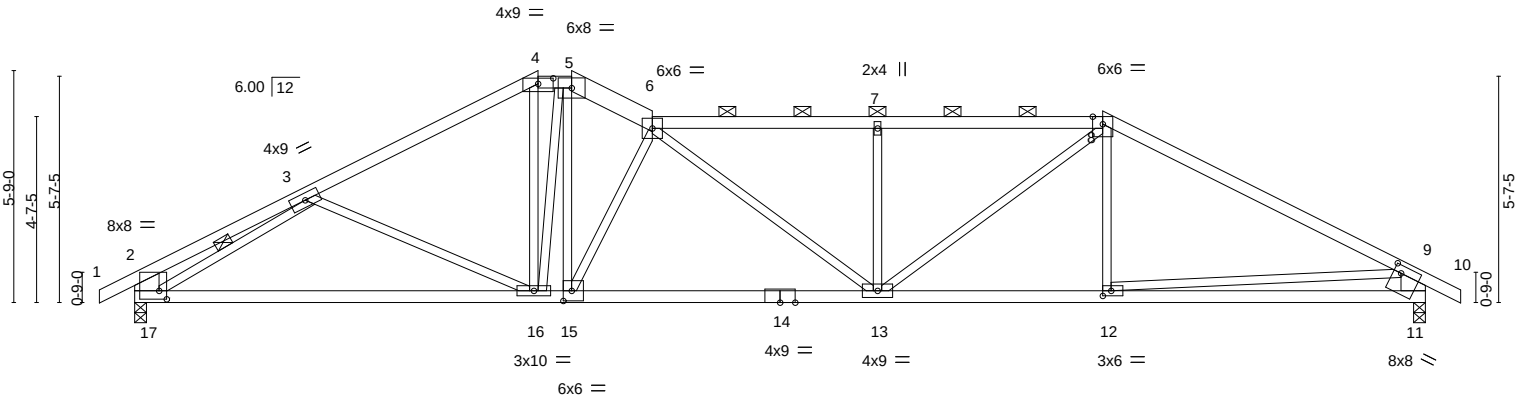
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G4	Roof Special	1	1	I44994468
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:00 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wRaswDfbhr39NWAVJh?r8Gf4RM9OqCWrqDbvZwzfKtf

-0-10-8 4-4-3 10-0-0 10-10-0 12-10-0 18-5-0 24-0-0 32-0-0 32-10-8
0-10-8 4-4-3 5-7-13 0-10-0 2-0-0 5-7-0 5-7-0 8-0-0 0-10-8

Scale = 1:57.1



10-0-0 10-10-0 12-10-0 18-5-0 24-0-0 32-0-0
10-0-0 0-10-0 2-0-0 5-7-0 5-7-0 8-0-0

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.20	16-17	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.45	13-15	>828	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.13	13-15	>999	240	Weight: 131 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 8-10: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17,9-11: 2x8 SP DSS

BRACING-

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

REACTIONS. (size) 17=0-3-8, 11=0-3-8
Max Horz 17=-93(LC 6)
Max Uplift 17=-151(LC 8), 11=-252(LC 9)
Max Grav 17=1833(LC 1), 11=1833(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-547/10, 3-4=-2572/276, 4-5=-2184/263, 5-6=-2551/306, 6-7=-3128/442, 7-8=-3130/443, 8-9=-2774/357, 2-17=-497/70, 9-11=-1755/297
BOT CHORD 16-17=-231/2325, 15-16=-109/2259, 13-15=-220/2989, 12-13=-207/2328, 11-12=-285/1051
WEBS 4-16=-57/753, 5-16=-509/143, 5-15=-277/1479, 6-15=-1738/325, 6-13=-73/294, 7-13=-595/190, 8-13=-151/1016, 3-17=-2281/275, 9-12=-133/1282

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 17=151, 11=252.
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.

March 1,2021

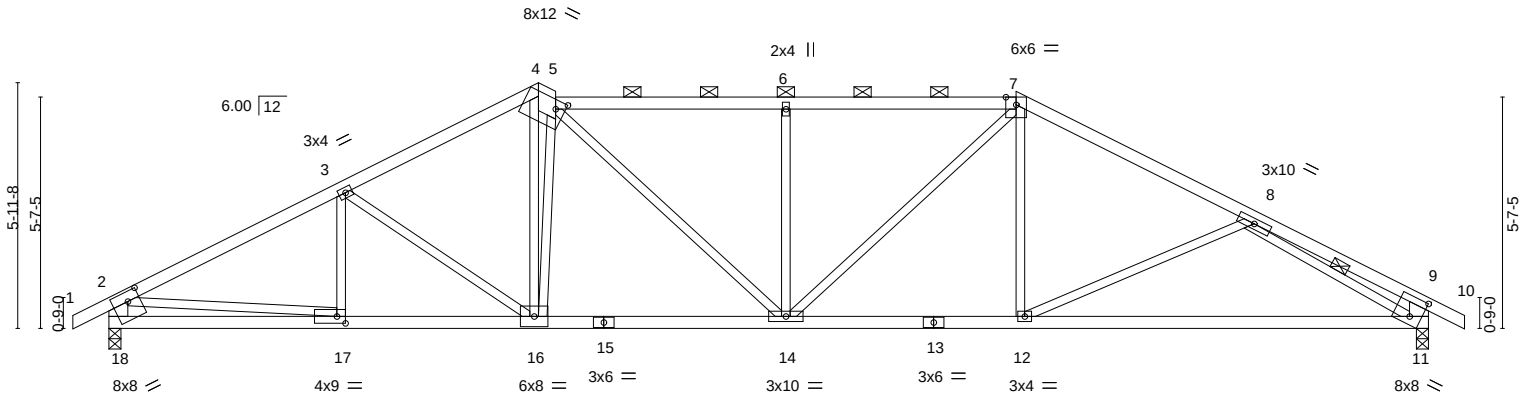
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G5	Roof Special	1	1	I44994469
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:01 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Od8F8ZgDS9B0?glisOX4gTCE1IVQZhX?3sKS5MzfKte

-0-10-8	5-7-9	10-5-0	10-10-0	16-5-0	22-0-0	27-7-13	32-0-0	32-10-8
0-10-8	5-7-9	4-9-7	0-5-0	5-7-0	5-7-0	5-7-13	4-4-3	0-10-8

Scale = 1:55.9



5-7-9	10-5-0	10-10-0	16-5-0	22-0-0	32-0-0
5-7-9	4-9-7	0-5-0	5-7-0	5-7-0	10-0-0

Plate Offsets (X,Y)-- [4:0-2-11,0-2-9], [11:0-3-5,0-5-12], [17:0-2-8,0-2-0], [18:0-3-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.24	11-12	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.52	11-12	>730	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11	14	>999	240	Weight: 130 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 2-18,9-11: 2x6 SPF No.2

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

REACTIONS. (size) 18=0-3-8, 11=0-3-8
Max Horz 18=94(LC 7)
Max Uplift 18=-155(LC 8), 11=-253(LC 9)
Max Grav 18=1834(LC 1), 11=1834(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2815/255, 3-4=-2522/312, 4-5=-2250/311, 5-6=-2620/403, 6-7=-2624/405, 7-8=-2586/360, 8-9=-624/34, 2-18=-1764/186, 9-11=-525/84
BOT CHORD 17-18=-171/621, 16-17=-178/2407, 14-16=-142/2291, 12-14=-158/2212, 11-12=-322/2376
WEBS 3-16=-360/148, 4-16=-218/1540, 5-14=-127/572, 6-14=-611/191, 7-14=-145/567, 7-12=0/353, 2-17=-108/1796, 8-11=-2247/414, 5-16=-1305/285

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 18=155, 11=253.
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.

March 1,2021

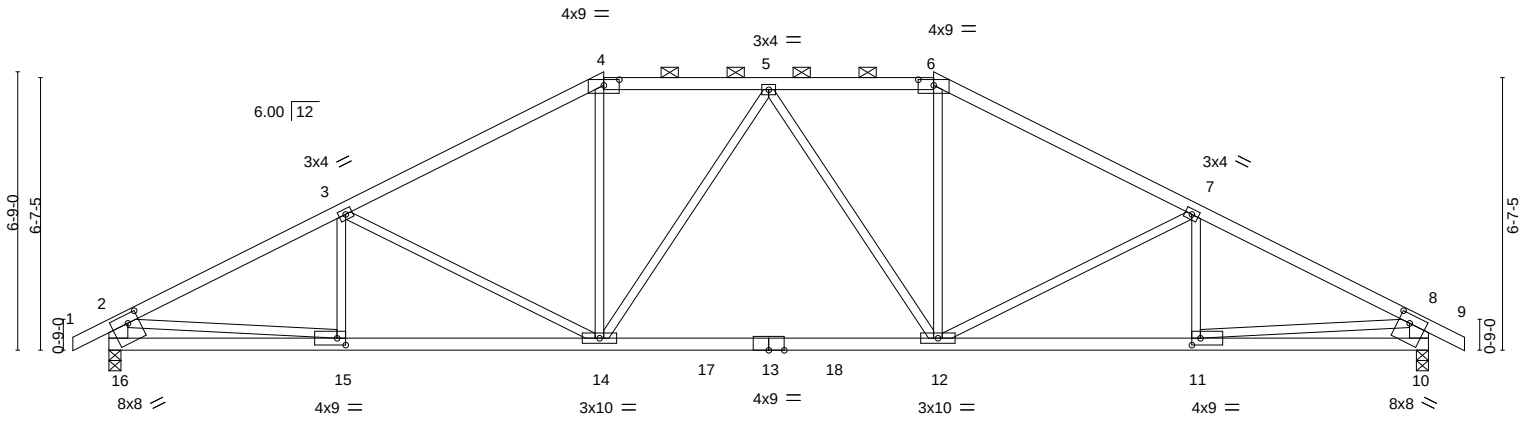
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G6A	Hip	1	1	I44994470
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:02 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-sqidLvhrDTJtdqKuQ52JDhlOp9qsIBL8HW40dpzfKtd

-0-10-8	5-7-10	12-0-0	16-0-0	20-0-0	26-4-6	32-0-0	32-10-8
0-10-8	5-7-10	6-4-6	4-0-0	4-0-0	6-4-6	5-7-10	0-10-8

Scale = 1:55.9



5-7-10	12-0-0	20-0-0	26-4-6	32-0-0
5-7-10	6-4-6	8-0-0	6-4-6	5-7-10

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.24	12-14	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.45	12-14	>841	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	14-15	>999	240	Weight: 126 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-16,8-10: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 16=0-3-8, 10=0-3-8
Max Horz 16=-103(LC 6)
Max Uplift 16=-170(LC 8), 10=-170(LC 9)
Max Grav 16=1883(LC 2), 10=1883(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-2939/236, 3-4=-2504/188, 4-5=-2136/212, 5-6=-2136/212, 6-7=-2504/188, 7-8=-2939/236, 2-16=-1775/199, 8-10=-1775/199
BOT CHORD	15-16=-159/586, 14-15=-230/2544, 12-14=-84/2247, 11-12=-136/2544, 10-11=-73/544
WEBS	3-14=-491/196, 4-14=0/684, 5-12=-383/125, 6-12=0/684, 7-12=-491/196, 2-15=-72/2011, 8-11=-64/2011, 5-14=-383/125

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 16=170, 10=170.
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.

March 1,2021

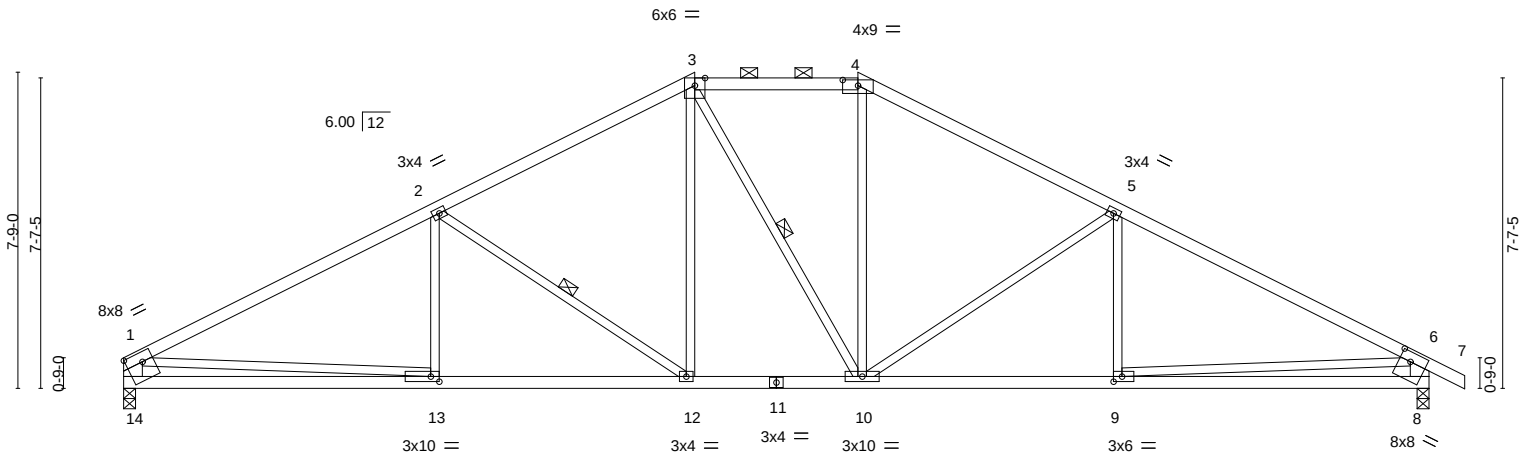
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G7	Hip	1	1	I44994471
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:04 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-oCpNmbi5l4Zbs7THYW4nl6qlGzanm0PRlqZ6ihzfKtb

7-7-9	14-0-0	18-0-0	24-4-7	32-0-0	32-10-8
7-7-9	6-4-7	4-0-0	6-4-7	7-7-9	0-10-8

Scale = 1:56.5



7-7-9	14-0-0	18-0-0	24-4-7	32-0-0
7-7-9	6-4-7	4-0-0	6-4-7	7-7-9

Plate Offsets (X,Y)-- [1:Edge,0-2-12], [4:0-4-8,0-1-11], [8:0-3-4,0-2-12], [9:0-2-8,0-1-8], [13:0-2-8,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.11	12-13	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.25	12-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	12-13	>999	240	Weight: 128 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-14,6-8: 2x6 SP DSS

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

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Horz 14=-121(LC 13)
Max Uplift 14=-162(LC 8), 8=-187(LC 9)
Max Grav 14=1733(LC 1), 8=1836(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2843/254, 2-3=-2205/222, 3-4=-1843/238, 4-5=-2203/221, 5-6=-2837/253, 1-14=-1654/203, 6-8=-1758/229
BOT CHORD 13-14=-200/670, 12-13=-239/2418, 10-12=-58/1840, 9-10=-123/2399, 8-9=-199/893
WEBS 2-12=-714/218, 3-12=-65/501, 4-10=-35/474, 5-10=-691/211, 1-13=-39/1752, 6-9=0/1510

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 14=162, 8=187.
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.

March 1,2021

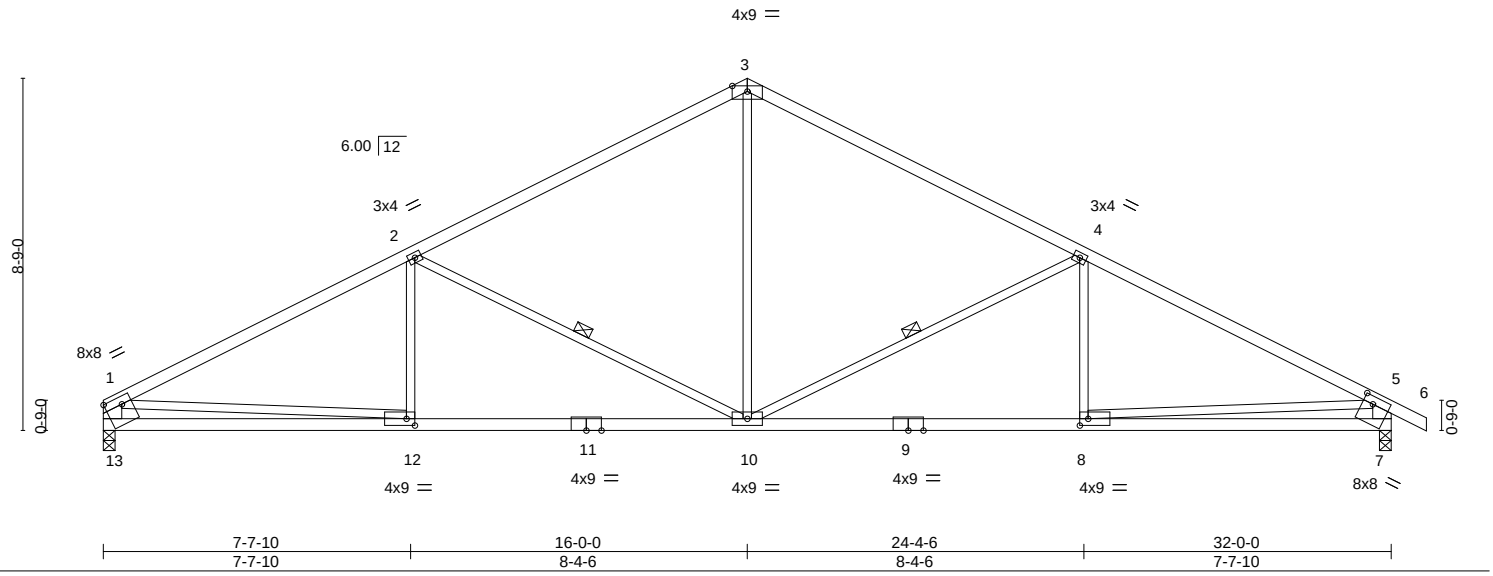
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	G8	Common	4	1	I44994472
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:06 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-kbx8BGkLGhqJ6Rdffx6FNXv7jmE4E_IkC82DmazfKtZ

7-7-10 | 16-0-0 | 24-4-6 | 32-0-0 | 32-10-8
7-7-10 | 8-4-6 | 8-4-6 | 7-7-10 | 0-10-8

Scale = 1:57.2



7-7-10 | 16-0-0 | 24-4-6 | 32-0-0
7-7-10 | 8-4-6 | 8-4-6 | 7-7-10

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.11	10-12	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.30	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	10-12	>999	240	Weight: 120 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-13,5-7: 2x6 SPF No.2

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

REACTIONS. (size) 13=0-3-8, 7=0-3-8
Max Horz 13=-139(LC 13)
Max Uplift 13=-176(LC 8), 7=-201(LC 9)
Max Grav 13=1733(LC 1), 7=1836(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2871/290, 2-3=-2047/253, 3-4=-2045/253, 4-5=-2866/289, 1-13=-1656/214, 5-7=-1760/240
BOT CHORD 12-13=-200/617, 10-12=-294/2451, 8-10=-160/2435, 7-8=-155/808
WEBS 3-10=-41/969, 4-10=-909/268, 2-10=-926/273, 1-12=-94/1843, 5-8=-29/1632

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=176, 7=201.
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.

March 1,2021

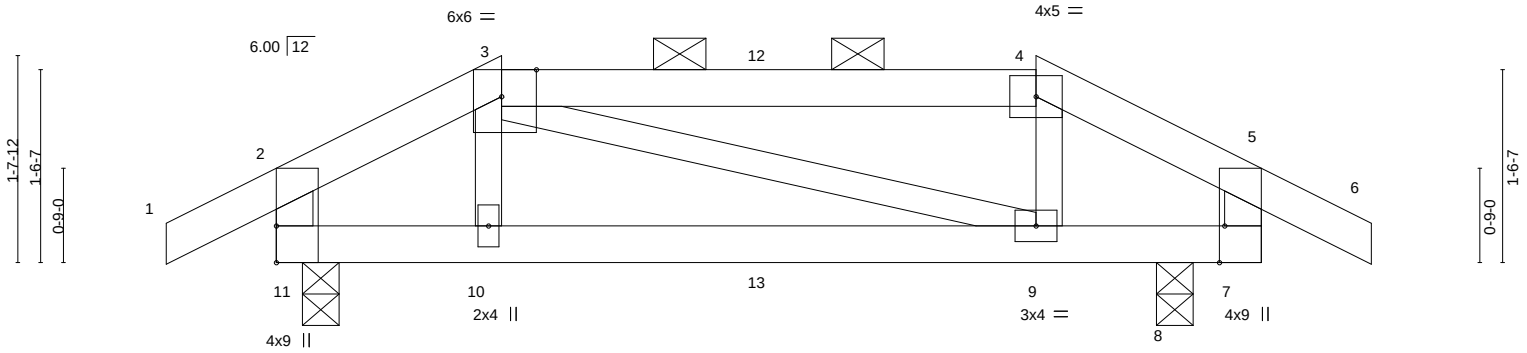
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	H1	Hip Girder	1	1	I44994473
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:07 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-DnVWOcl_1?y9jbCsDfeUwkSOkAgnzb5tRonmI0zfKtY

-0-10-8 | 1-9-8 | 6-0-8 | 7-10-0 | 8-8-8
0-10-8 | 1-9-8 | 4-3-0 | 1-9-8 | 0-10-8

Scale = 1:18.3



0-2-8 | 1-9-8 | 6-0-8 | 7-3-8 | 7-10-0
0-2-8 | 1-7-0 | 4-3-0 | 1-3-0 | 0-6-8

Plate Offsets (X,Y)-- [3:0-3-5,Edge], [7:0-3-8,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.02	9-10	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.05	9-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 27 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,5-7: 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-36(LC 6)
Max Uplift 11=-95(LC 8), 8=-127(LC 9)
Max Grav 11=468(LC 21), 8=543(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-453/104, 4-5=-299/88, 2-11=-390/85, 5-7=-303/75
BOT CHORD 10-11=-84/368, 9-10=-89/368

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 11 except (jt=lb) 8=127.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 109 lb down and 125 lb up at 1-9-8, and 62 lb down and 30 lb up at 3-11-0, and 68 lb down and 105 lb up at 6-0-8 on top chord, and 9 lb down and 3 lb up at 1-9-8, and 4 lb down and 2 lb up at 3-11-0, and 73 lb down and 64 lb up at 5-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) 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 (plf)
Vert: 1-2=-90, 2-3=-90, 3-4=-90, 4-5=-90, 5-6=-90, 7-11=-20

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

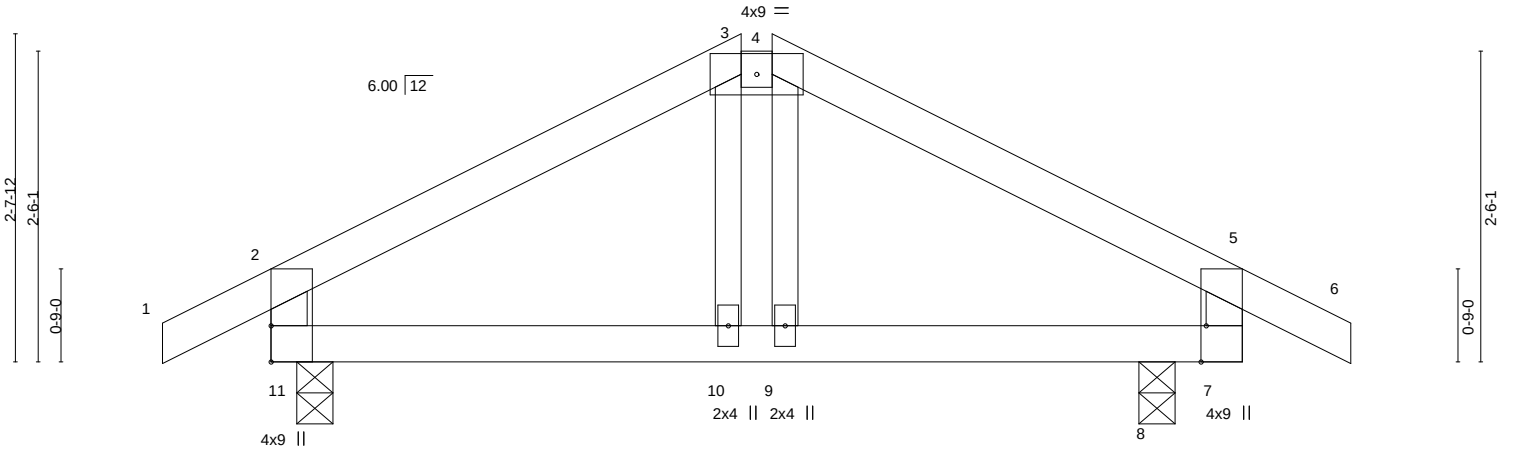
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 10=3(F) 9=2(F) 13=2(F)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	H2	Hip	1	1	I44994474
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:08 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hz3ucylcoJ40LIn2nM9jTy?Z8a_ai3p1gSXKrSzfKtX

-0-10-8 | 3-9-8 | 4-0-8 | 7-10-0 | 8-8-8
0-10-8 | 3-9-8 | 0-3-0 | 3-9-8 | 0-10-8

Scale = 1:18.6



0-2-8 | 3-9-8 | 4-0-8 | 7-3-8 | 7-10-0
0-2-8 | 3-7-0 | 0-3-0 | 3-3-0 | 0-6-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.01	10	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.03	10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	10-11	>999	240	Weight: 25 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-10,4-9: 2x3 SPF No.2

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

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-49(LC 6)
Max Uplift 11=-63(LC 8), 8=-70(LC 9)
Max Grav 11=467(LC 1), 8=546(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-365/43, 4-5=-354/51, 2-11=-413/87, 5-7=-413/86
BOT CHORD 10-11=0/250

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 11, 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	H3	Common	3	1	I44994475
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:09 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9AdGpImEZcCtzuMEK4gy?9Xkb_KvRWSAu6GtNvzfKtW

-0-10-8 3-11-0 7-10-0 8-8-8
0-10-8 3-11-0 3-11-0 0-10-8

Scale = 1:18.8

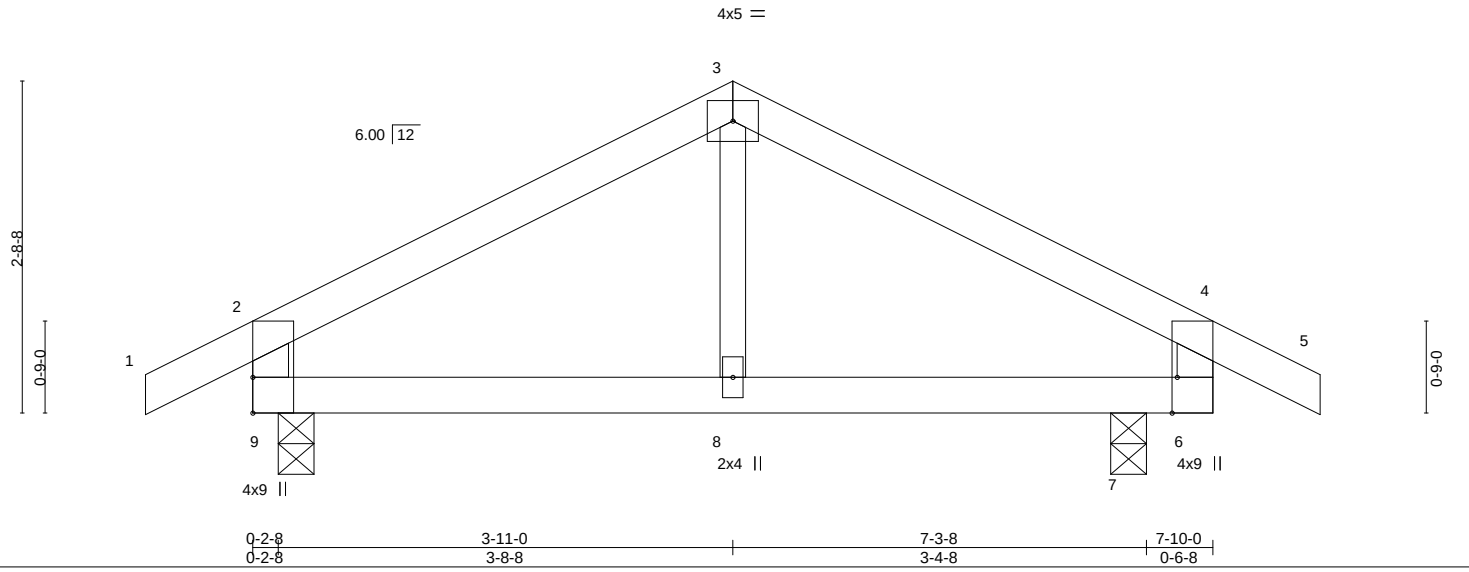


Plate Offsets (X,Y)-- [6:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	8-9	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.04	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	8-9	>999	240	Weight: 24 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-8: 2x3 SPF No.2

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

REACTIONS. (size) 9=0-3-8, 7=0-3-8
Max Horz 9=-50(LC 6)
Max Uplift 9=-63(LC 8), 7=-70(LC 9)
Max Grav 9=467(LC 1), 7=546(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-352/44, 3-4=-360/53, 2-9=-405/89, 4-6=-425/90

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 7.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

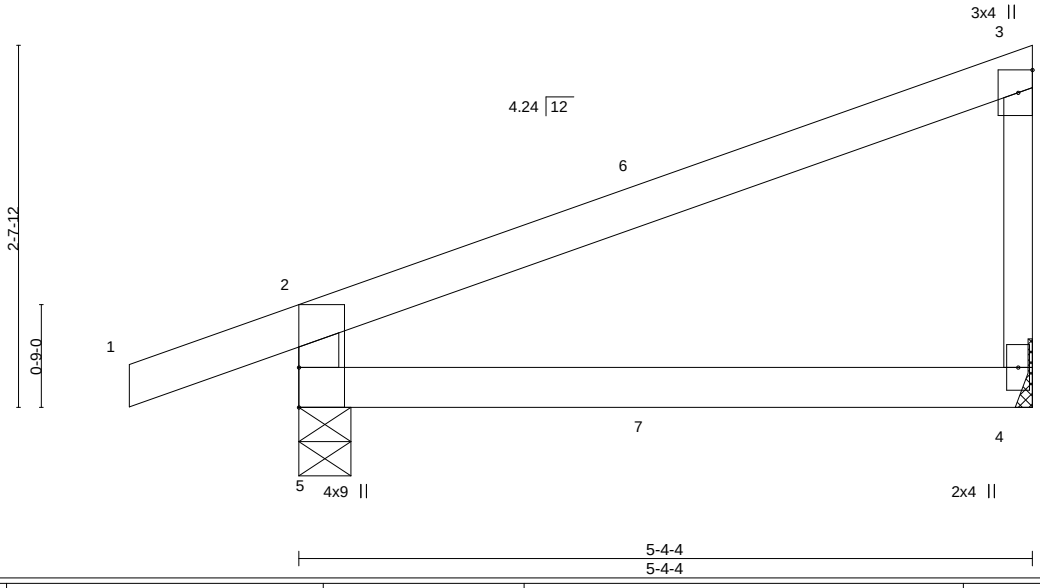
Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J1	Diagonal Hip Girder	3	1	I44994476

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:09 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9AdGpImEZcCtzuMEK4gy?9Xik_OPRWsAu6GtNvzfKtW

-1-2-14 / 1-2-14 — 5-4-4 / 5-4-4

Scale = 1:16.8



5-4-4 / 5-4-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=111(LC 5)
Max Uplift 5=-99(LC 4), 4=-49(LC 8)
Max Grav 5=420(LC 1), 4=262(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-385/137

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 34 lb up at 2-7-6, and 74 lb down and 34 lb up at 2-7-6 on top chord, and 3 lb down and 2 lb up at 2-7-6, and 3 lb down and 2 lb up at 2-7-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-3=-90, 4-5=-20
Concentrated Loads (lb)
Vert: 7=3(F=2, B=2)

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

March 1,2021

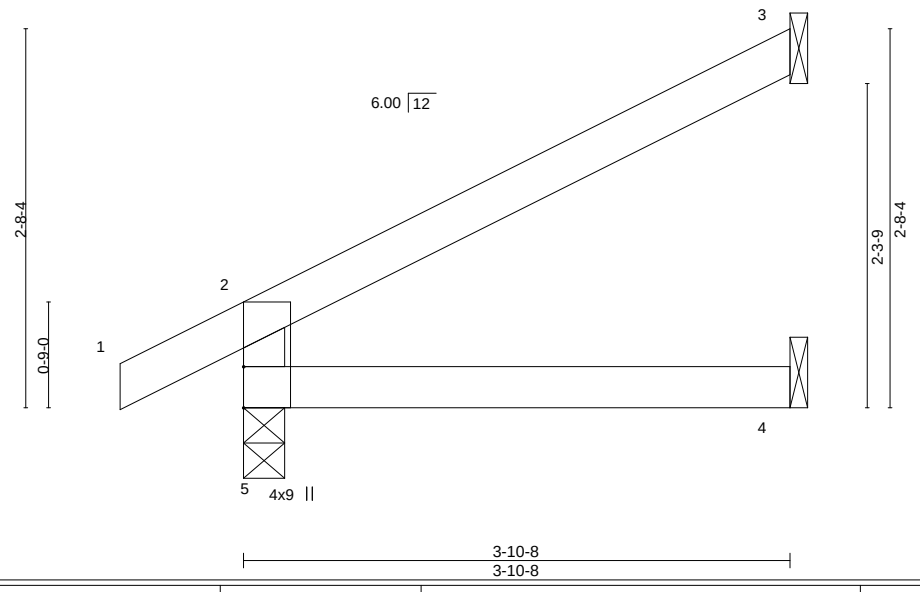
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J2	Jack-Open	9	1	I44994477
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:18 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-OvggiNttSNKcYHYzMTK3t3PJAcVJ2a5Vz0ysBtzfKtN

-0-10-8 3-10-8
0-10-8 3-10-8

Scale = 1:16.3



3-10-8
3-10-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=85(LC 8)
Max Uplift 5=-28(LC 8), 3=-65(LC 8)
Max Grav 5=306(LC 1), 3=143(LC 1), 4=72(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-279/64

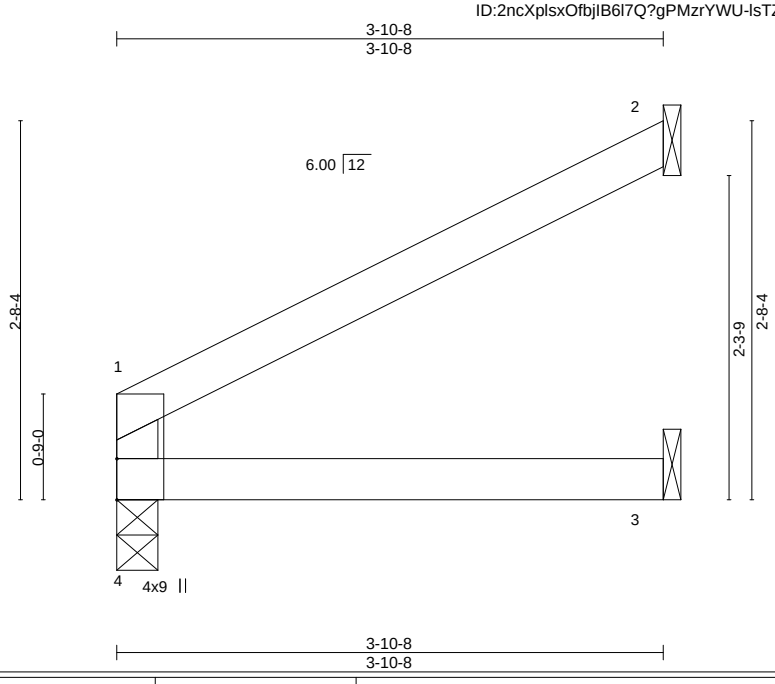
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J2A	Jack-Open	1	1	I44994478
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:23 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-lsTZl4x0Gwzue2Qw90wEZ668XdBFjrKE6Ifdt5zfKtl



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.01	3-4	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	3-4	>999	240	Weight: 10 lb	FT = 10%

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

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

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=68(LC 8)
Max Uplift 4=-2(LC 8), 2=-66(LC 8)
Max Grav 4=202(LC 1), 2=150(LC 1), 3=74(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

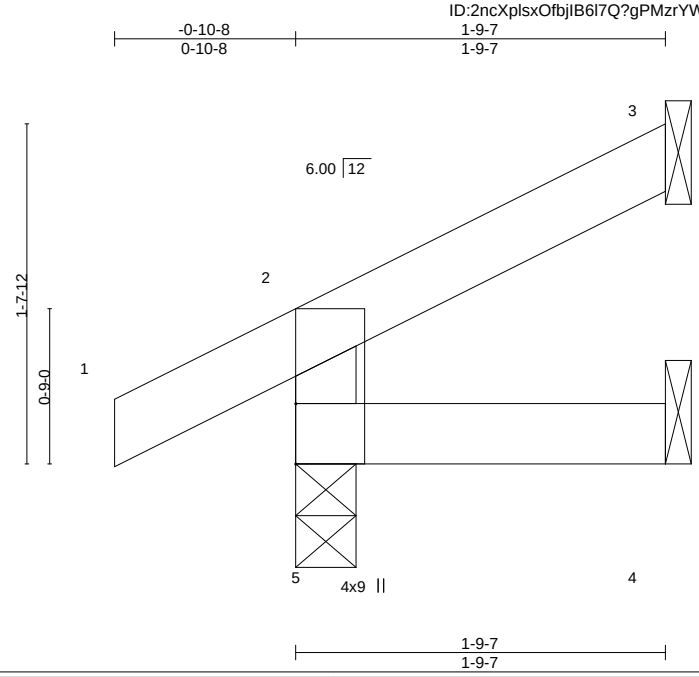
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J3	Jack-Open	9	1	I44994479
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:23 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-lsTZl4x0Gwzue2Qw90wEZ66BFdDBjrKE6Ifdt5zfKtl



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	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	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 1-9-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 8)
Max Uplift 5=-24(LC 8), 3=-29(LC 8)
Max Grav 5=210(LC 1), 3=50(LC 1), 4=28(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J4	Diagonal Hip Girder	1	1	I44994480
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:24 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-D21xzQye1D5lGC?7jjRT6KfJY1WXSE?NLxPAPXzfKtH

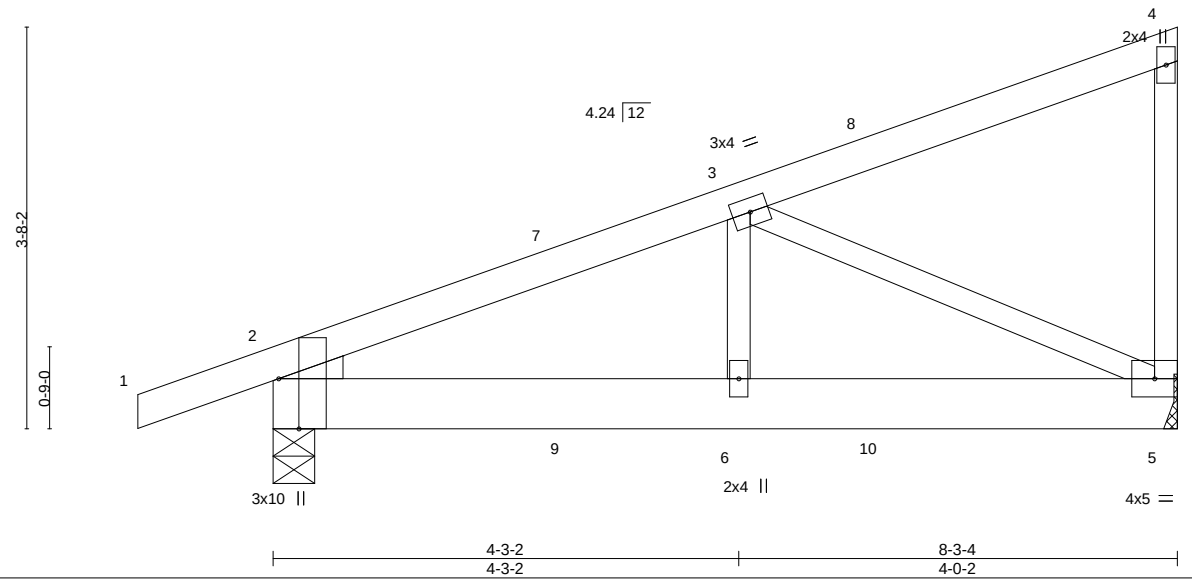


Plate Offsets (X,Y)-- [2:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 34 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
WEDGE
Left: 2x3 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 2=0-4-9
Max Horz 2=148(LC 5)
Max Uplift 5=-104(LC 8), 2=-133(LC 4)
Max Grav 5=469(LC 1), 2=598(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-719/98
BOT CHORD 2-6=-140/566, 5-6=-140/566
WEBS 3-5=-627/163

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 5=104, 2=133.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 35 lb up at 2-8-7, 76 lb down and 35 lb up at 2-8-7, and 127 lb down and 73 lb up at 5-6-6, and 127 lb down and 73 lb up at 5-6-6 on top chord , and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 25 lb down at 5-6-6, and 25 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 2-5=-20

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

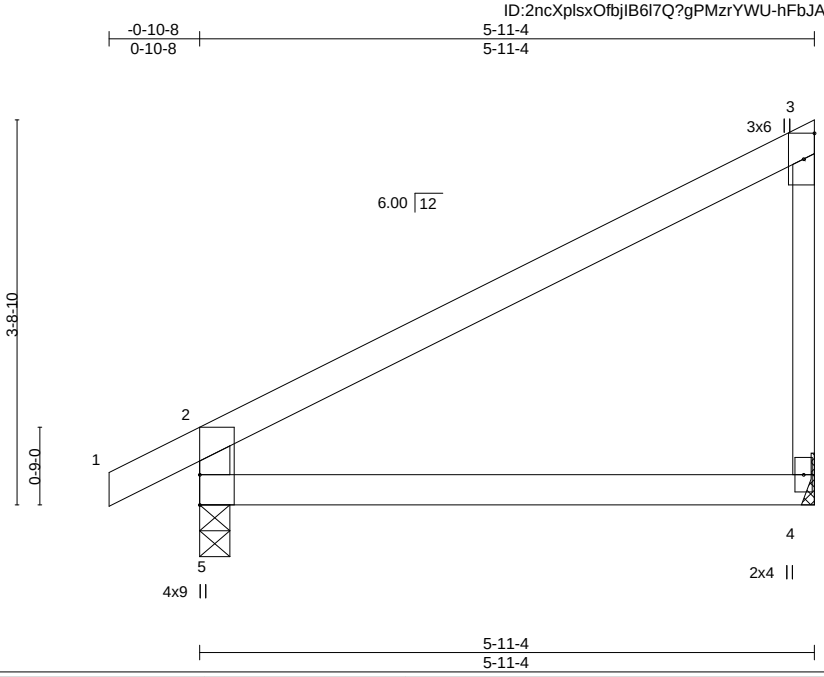
LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-30(F=-15, B=-15) 9=3(F=1, B=1) 10=-34(F=-17, B=-17)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J5	Jack-Closed	14	1	I44994481
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:25 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hFbJAmzGoXDctMaJGRyifXCP5RrLBlpXab8jxzzfKtG



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.04	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.10	4-5	>681	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=117(LC 5)
Max Uplift 5=-12(LC 8), 4=-24(LC 8)
Max Grav 5=413(LC 1), 4=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-376/54

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 4.
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.

March 1,2021

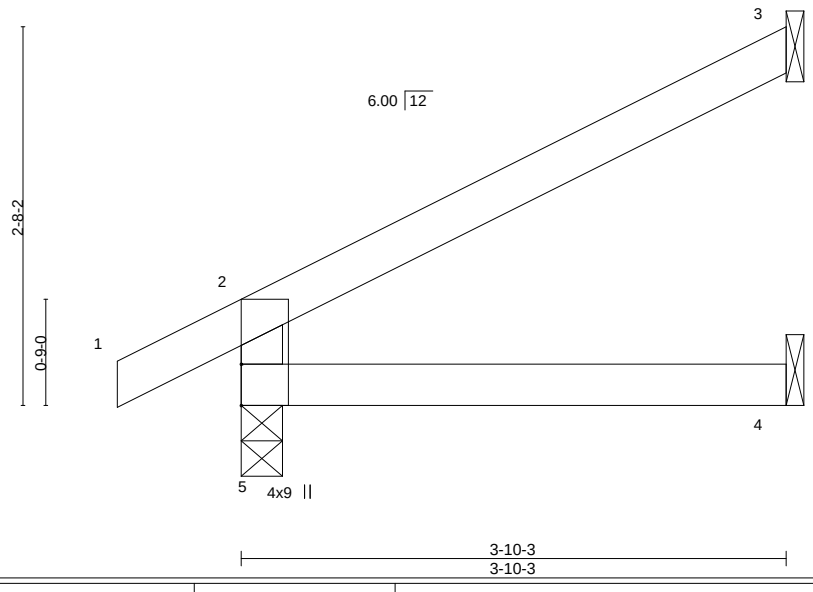
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J6	Jack-Open	2	1	I44994482
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:25 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hFbJAmzGoXDctMaJGRyifXCVTRuzBlpXab8jxzzfKtG

-0-10-8 3-10-3
0-10-8 3-10-3

Scale = 1:16.3



3-10-3
3-10-3

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=85(LC 8)
Max Uplift 5=-27(LC 8), 3=-64(LC 8)
Max Grav 5=305(LC 1), 3=142(LC 1), 4=71(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-277/64

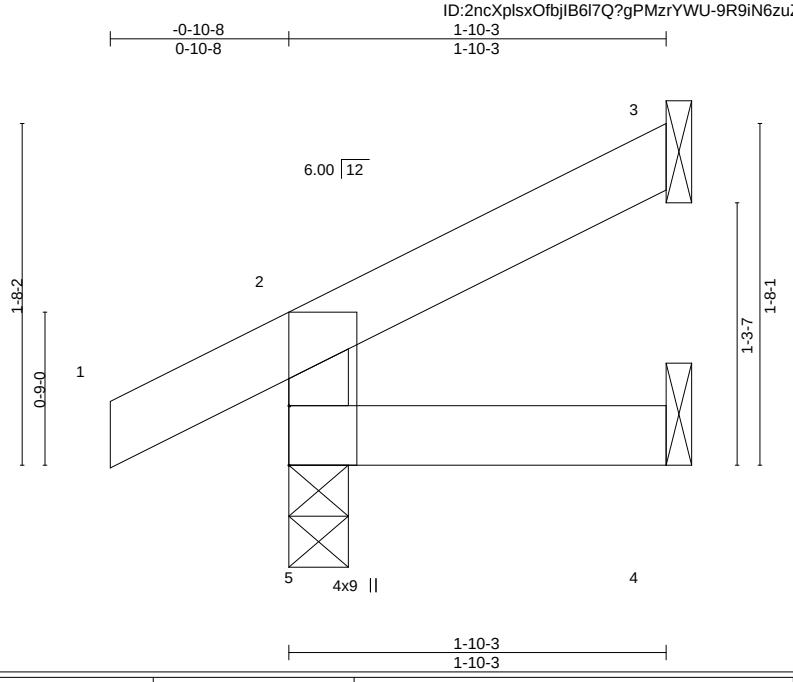
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J7	Jack-Open	4	1	I44994483
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:26 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9R9iN6zuZrLTVW9Vq8TxBlkiUqFswC3gpFuHTQzfKtF



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	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	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 1-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=45(LC 8)
Max Uplift 5=-24(LC 8), 3=-30(LC 8)
Max Grav 5=213(LC 1), 3=53(LC 1), 4=30(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J8	Jack-Closed	2	1	I44994484
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:26 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9R9iN6zuZrLTVW9Vq8TxBlkd_qBEwCrgpFuHTQzfKtF

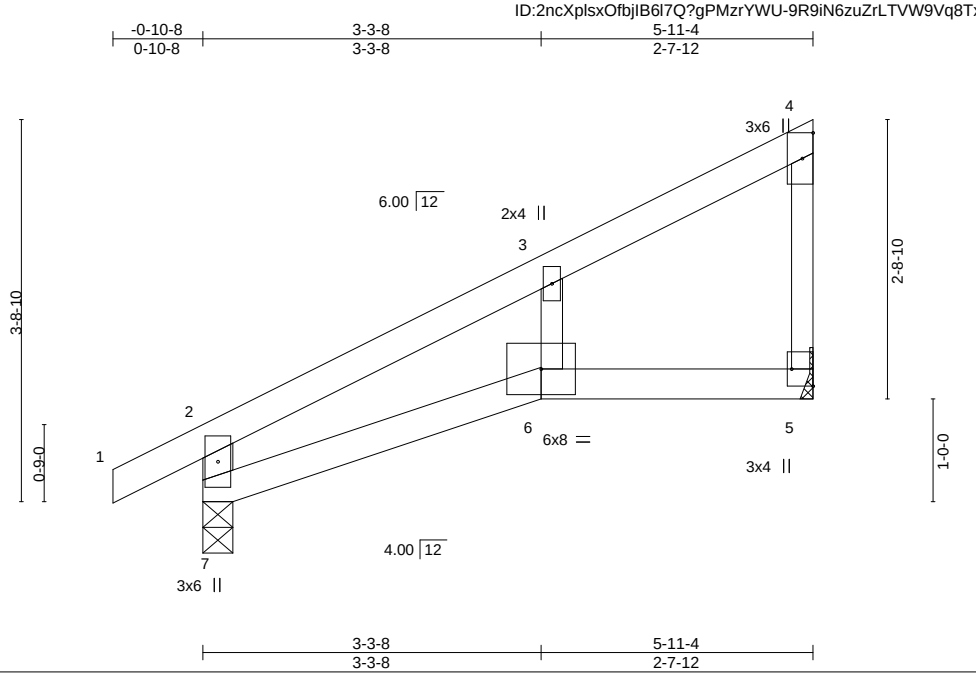


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.07	6	>931	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.16	6	>427	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.06	6	>999	240	Weight: 19 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-10(LC 8), 5=-26(LC 8)
Max Grav 7=413(LC 1), 5=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-363/25

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J9	Diagonal Hip Girder	1	1	I44994485
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:27 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ddi4bS_XK8TK7gkiOs_AkyHhsEPOffxp1vdq0szfKtE

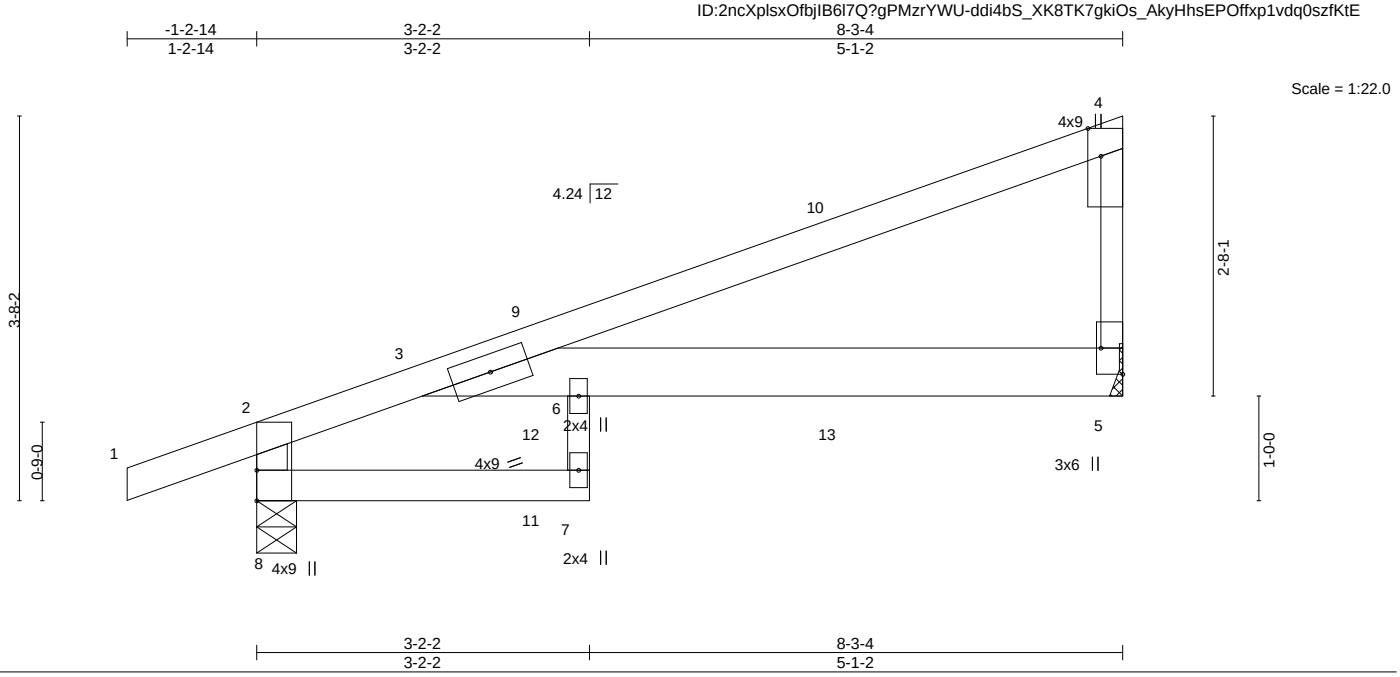


Plate Offsets (X,Y)-- [4:0-3-3,Edge], [5:Edge,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.12	5-6	>794	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.27	5-6	>356	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.15	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.14	5-6	>696	240	Weight: 30 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-5: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-8: 2x4 SPF No.2

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

REACTIONS. (size) 8=0-4-9, 5=Mechanical
Max Horz 8=139(LC 5)
Max Uplift 8=-138(LC 4), 5=-125(LC 8)
Max Grav 8=602(LC 1), 5=485(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-601/170, 4-5=-255/89

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 8=138, 5=125.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 35 lb up at 2-8-7, 76 lb down and 35 lb up at 2-8-7, and 118 lb down and 56 lb up at 5-6-6, and 118 lb down and 56 lb up at 5-6-6 on top chord , and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 37 lb down and 32 lb up at 5-6-6, and 37 lb down and 32 lb up at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-4=-90, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-9(F=-4, B=-4) 11=3(F=1, B=1) 13=-74(F=-37, B=-37)

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J10	Jack-Closed	5	1	I44994486
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:10 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-dMBe0ensKwKka2xRunBBYN4teOfBAz6J7m0RvLzfKtV

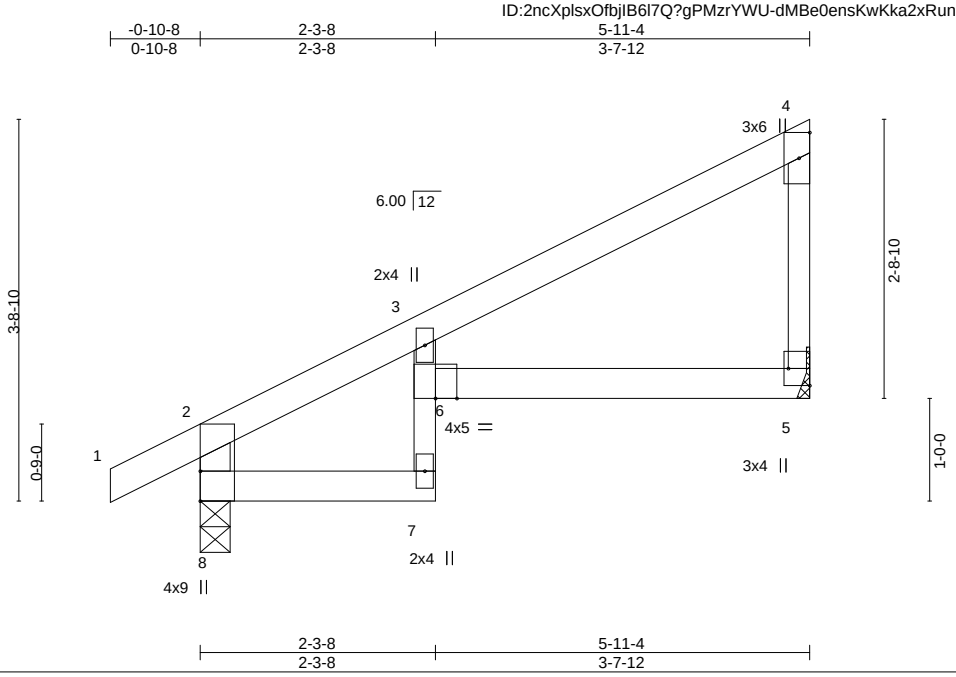


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.07	6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.15	5-6	>464	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.08	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.05	6	>999	240	Weight: 19 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-5: 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Horz 8=104(LC 5)
Max Uplift 8=-10(LC 8), 5=-26(LC 8)
Max Grav 8=413(LC 1), 5=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-400/30, 2-3=-296/4

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8, 5.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J11	Jack-Closed	5	1	I44994487
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:11 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5Yl1E_oU5ESbCCWdSUiQ4ad3in2PvQ7TMQl_RnzfKtU

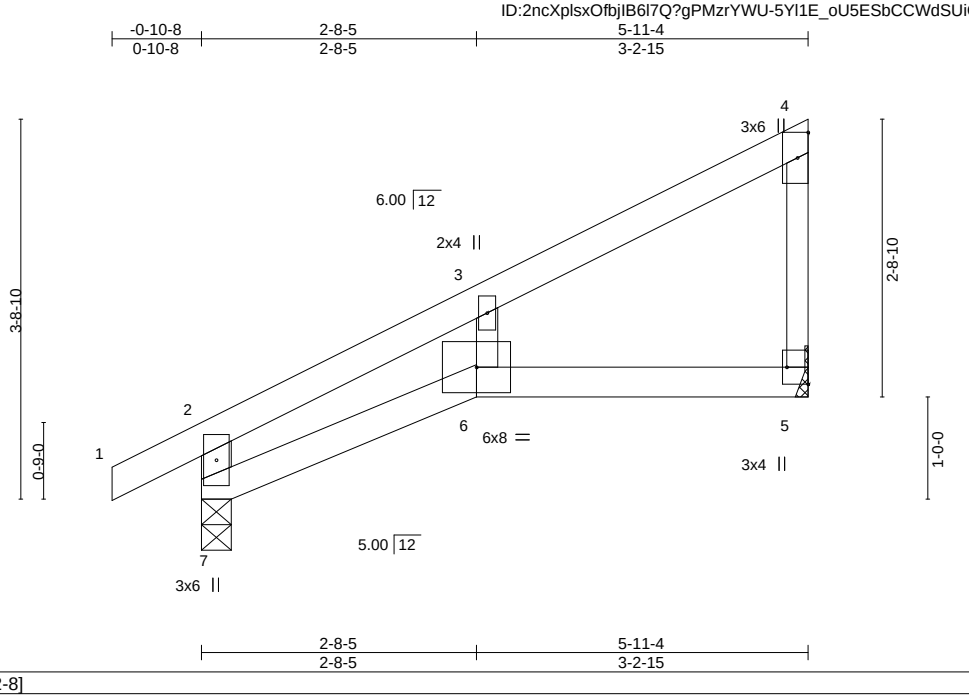


Plate Offsets (X,Y)-- [5:Edge,0-2-8]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.08	6	>866	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.17	6	>398	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.06	6	>999	240	Weight: 19 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 5=Mechanical
Max Horz 7=105(LC 5)
Max Uplift 7=-10(LC 8), 5=-26(LC 8)
Max Grav 7=413(LC 1), 5=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-354/17

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); 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
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.

March 1,2021

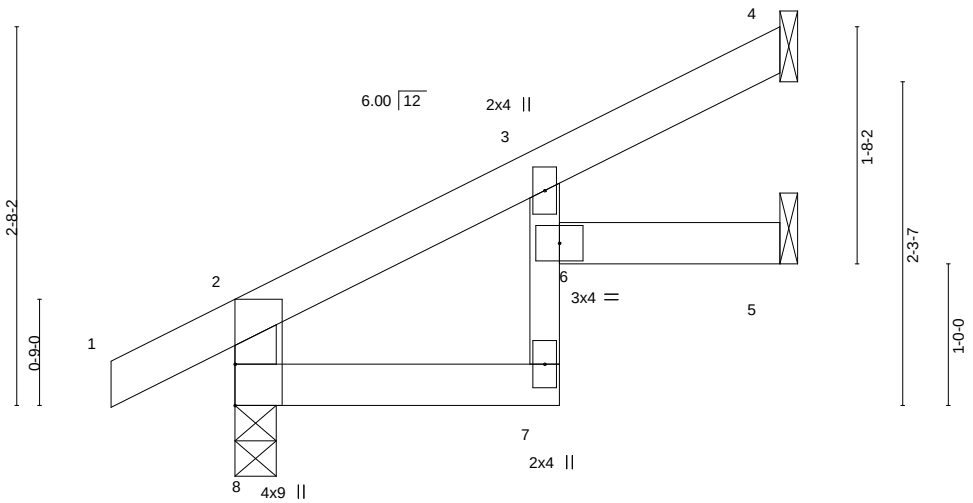
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J12	Jack-Open	2	1	I44994488
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:11 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5Yl1E_oU5ESbCCWdSUiQ4ad7Kn46vQMTMQl_RnzfKtU

-0-10-8 2-3-8 3-10-3
0-10-8 2-3-8 1-6-11

Scale = 1:16.3



2-3-8 3-10-3
2-3-8 1-6-11

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	7	>999	240	Weight: 12 lb	FT = 10%

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

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

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=85(LC 8)
Max Uplift 8=-27(LC 8), 4=-45(LC 8), 5=-12(LC 8)
Max Grav 8=305(LC 1), 4=122(LC 1), 5=67(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-287/52

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8, 4, 5.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J14	Diagonal Hip Girder	1	1	I44994489
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:13 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-1xsnffpkdriJRWf?ZvkuA?iO7bmvNJYmpkE5WgzfKtS

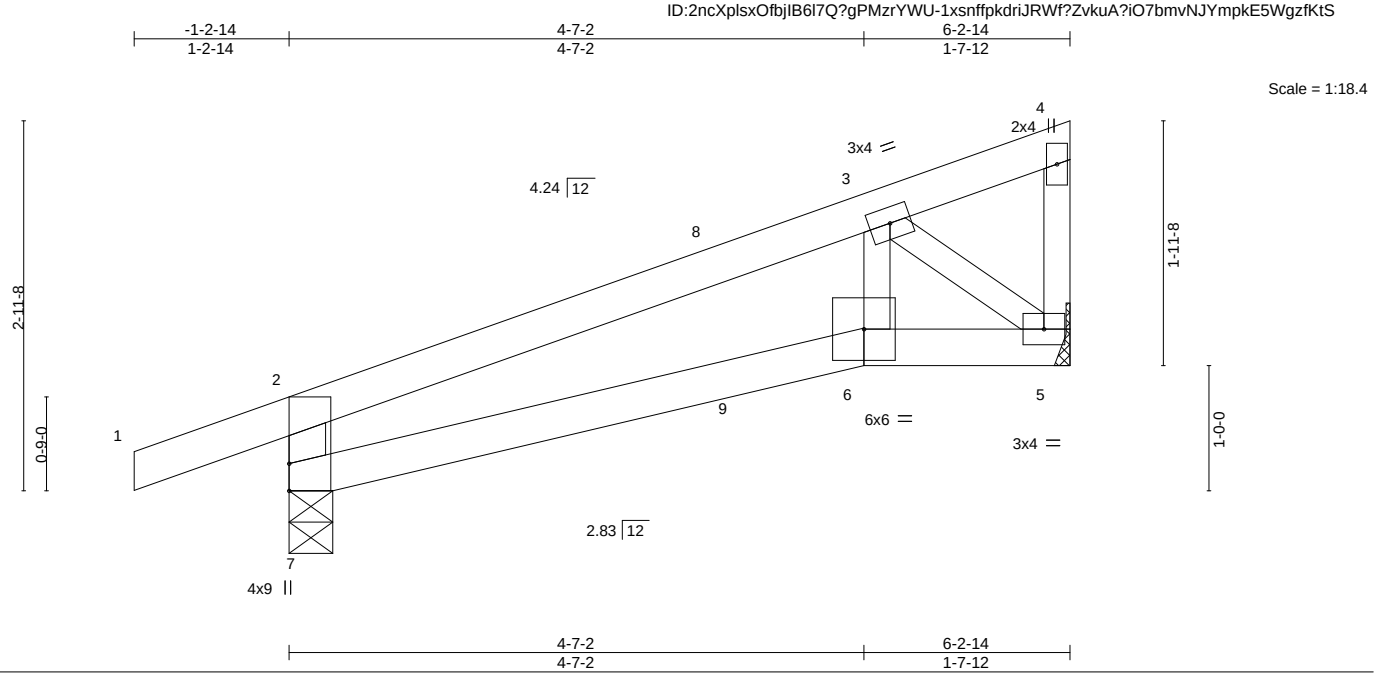


Plate Offsets (X,Y)-- [7:0-2-10,Edge]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.01	6-7	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.03	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01	6	>999	240	Weight: 20 lb	FT = 10%

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

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

REACTIONS. (size) 7=0-4-3, 5=Mechanical
Max Horz 7=109(LC 5)
Max Uplift 7=-102(LC 4), 5=-60(LC 8)
Max Grav 7=469(LC 1), 5=316(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-493/146, 2-3=-465/75
BOT CHORD 6-7=-106/377, 5-6=-98/351
WEBS 3-5=-440/129

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=102.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 91 lb down and 47 lb up at 3-6-0, and 91 lb down and 47 lb up at 3-6-0 on top chord, and 7 lb down at 3-6-0, and 7 lb down at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-4=-90, 6-7=-20, 5-6=-20

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J14	Diagonal Hip Girder	1	1	I44994489
					Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 9=-1(F=-1, B=-1)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J15	Diagonal Hip Girder	1	1	I44994490
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:14 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-V7Q9s?qNO9qA3gEC7dG7iDFc5?5T6mgv2O_e26zfKtR

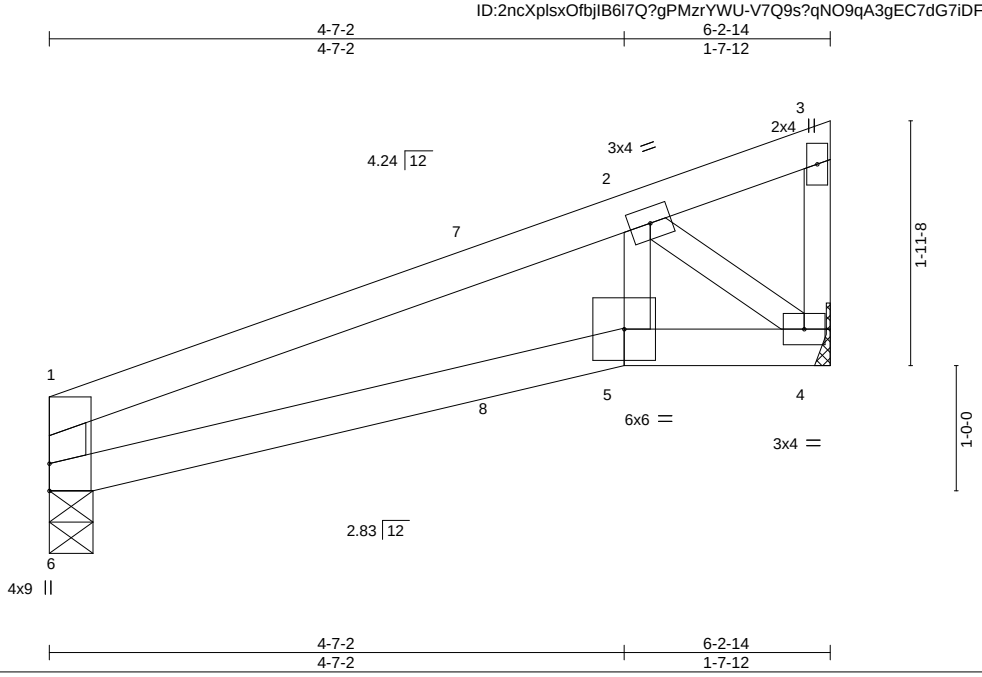


Plate Offsets (X,Y)-- [6:0-2-10,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.03	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01	5	>999	240	Weight: 18 lb	FT = 10%

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

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

REACTIONS. (size) 6=0-4-3, 4=Mechanical
Max Horz 6=98(LC 5)
Max Uplift 6=-39(LC 4), 4=-64(LC 8)
Max Grav 6=331(LC 1), 4=332(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-356/85, 1-2=-491/79
BOT CHORD 5-6=-113/409, 4-5=-106/383
WEBS 2-4=-481/136

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 98 lb down and 54 lb up at 3-6-0, and 91 lb down and 47 lb up at 3-6-0 on top chord, and 10 lb down at 3-6-0, and 7 lb down at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 5-6=-20, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-4(F=-4, B=-1)

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J16	Jack-Open	3	1	I44994491
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:15 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-_K_X4Lr?9Sy1hqpOhKnMFQnmFPSprEL2H2jCaYzfKtQ

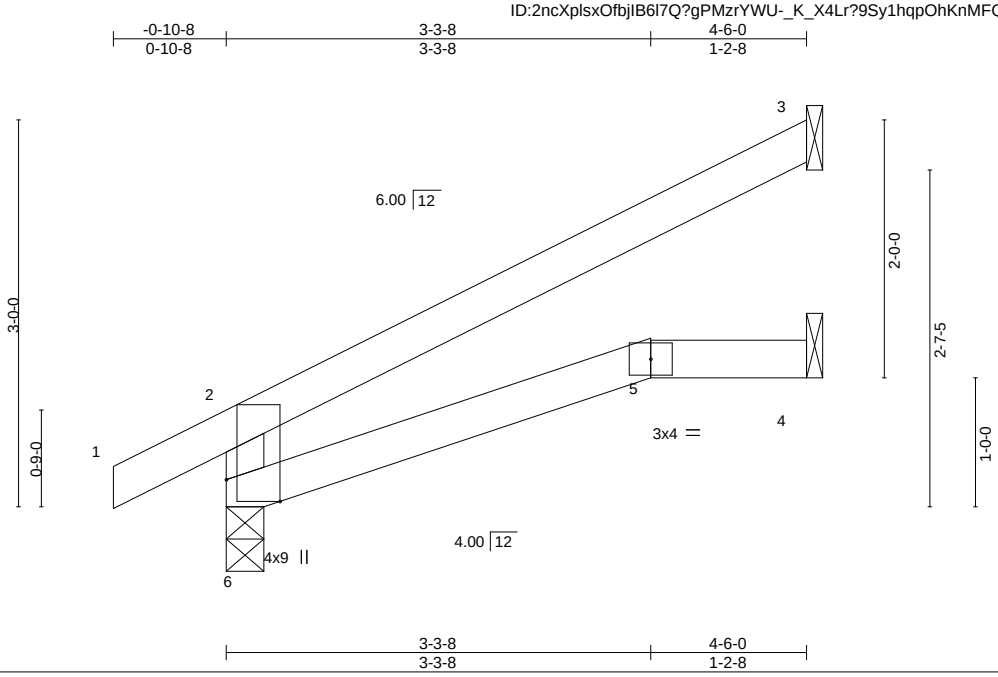


Plate Offsets (X,Y)-- [6:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	5-6	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02	5-6	>999	240	Weight: 13 lb	FT = 10%

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

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=98(LC 8)
Max Uplift 6=-28(LC 8), 3=-76(LC 8)
Max Grav 6=339(LC 1), 3=170(LC 1), 4=84(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-308/71

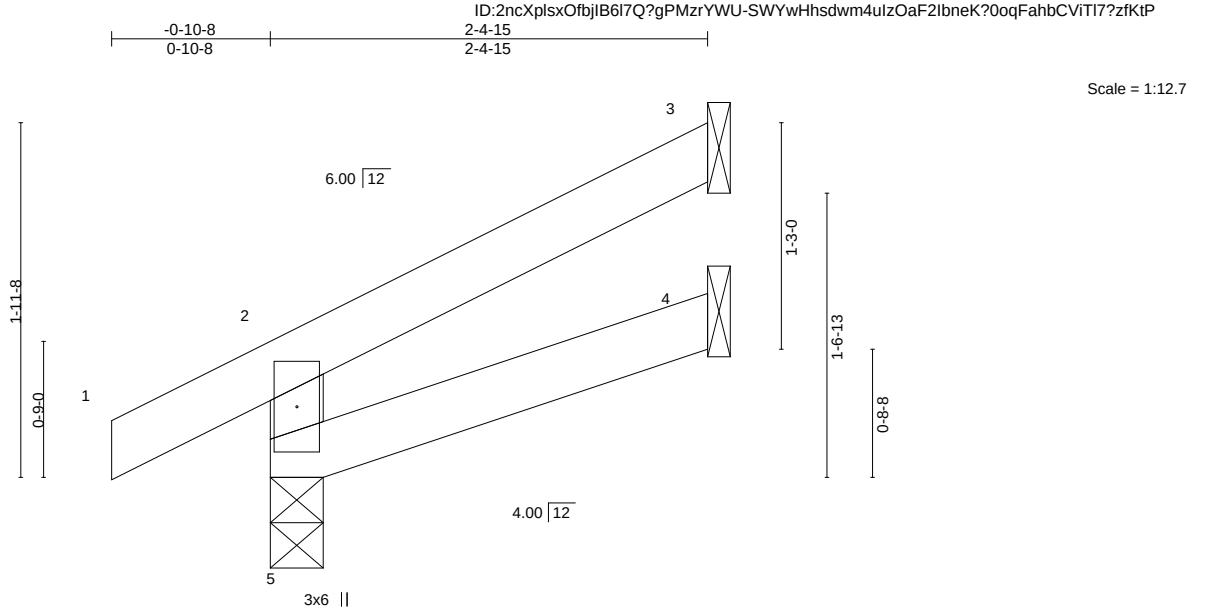
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J17	Jack-Open	3	1	I44994492
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:16 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-SWYwHhsdwm4uIzOaF2IbneK?0oqFahbCViTl7?zfKtP



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	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: 8 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=55(LC 8)
Max Uplift 5=-23(LC 8), 3=-40(LC 8)
Max Grav 5=234(LC 1), 3=79(LC 1), 4=41(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

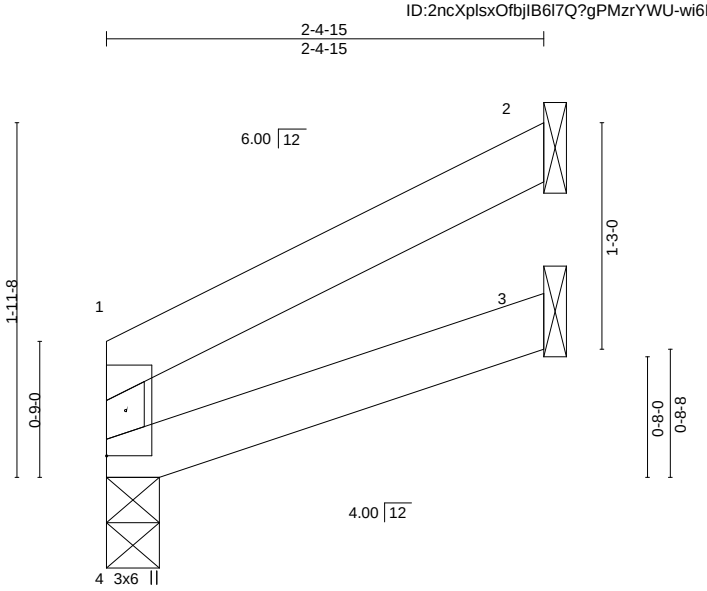
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J18	Jack-Open	1	1	I44994493
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:17 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wi6lV1sFh4Clw7znolpqKrsAeCALJ7rLkMCIfRzfKtO



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	3-4	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	3-4	>999	240	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 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=40(LC 5)
Max Uplift 2=-45(LC 8)
Max Grav 4=123(LC 1), 2=96(LC 1), 3=45(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

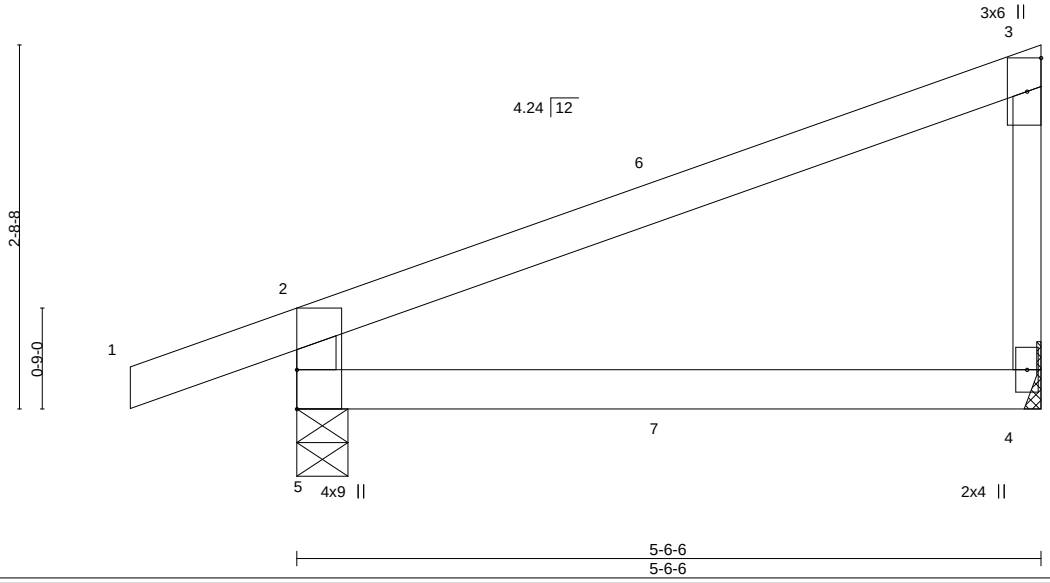
Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J19	Diagonal Hip Girder	3	1	I44994494

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:17 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-wi6IV1sFh4Clw7znolpqKrs34C6_J7rLkMCIfRzfKtO

-1-2-14 5-6-6
1-2-14 5-6-6

Scale = 1:17.1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.07	4-5	>922	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 17 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2

BRACING-

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=114(LC 24)
Max Uplift 5=-100(LC 4), 4=-51(LC 8)
Max Grav 5=430(LC 1), 4=273(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-393/140

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 4 except (jt=lb) 5=100.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 37 lb up at 2-9-8, and 78 lb down and 37 lb up at 2-9-8 on top chord, and 3 lb down and 1 lb up at 2-9-8, and 3 lb down and 1 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

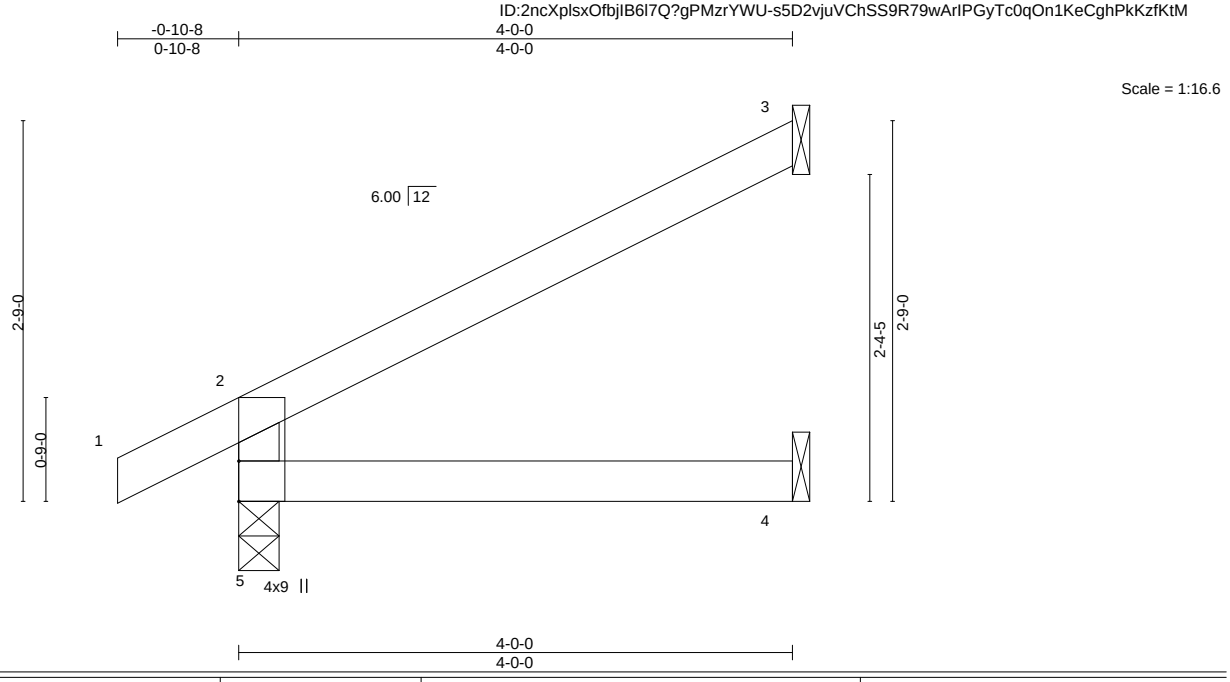
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-90, 2-3=-90, 4-5=-20
Concentrated Loads (lb)
Vert: 7=2(F=1, B=1)

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J20	Jack-Open	12	1	I44994495
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:19 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-s5D2vjuVChSS9R79wArIPGyTc0qOn1KeCghPkKzfKtM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=88(LC 8)
Max Uplift 5=-28(LC 8), 3=-67(LC 8)
Max Grav 5=313(LC 1), 3=149(LC 1), 4=74(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-285/66

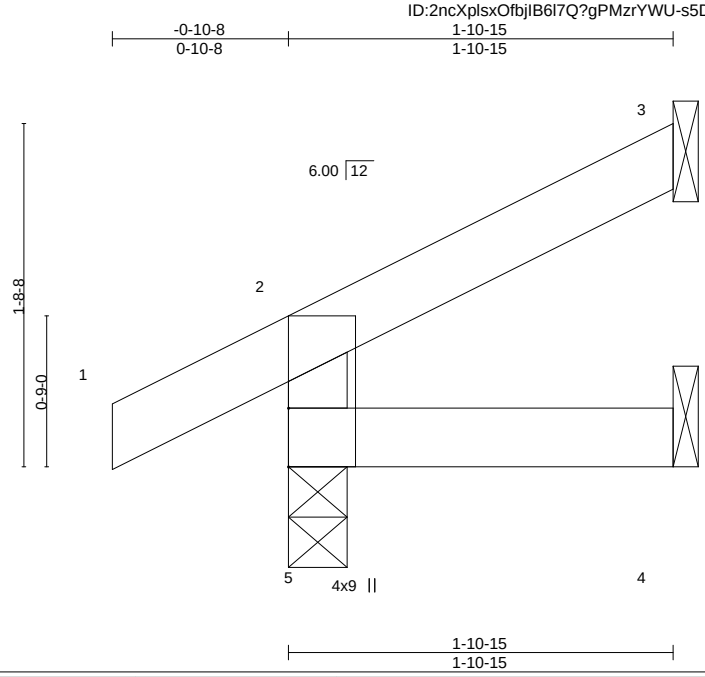
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J21	Jack-Open	5	1	I44994496
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:19 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-s5D2vjuVChSS9R79wArIPGyWF0sDn1KeCghPkKzfKtM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	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	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 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=46(LC 8)
Max Uplift 5=-24(LC 8), 3=-31(LC 8)
Max Grav 5=215(LC 1), 3=56(LC 1), 4=31(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

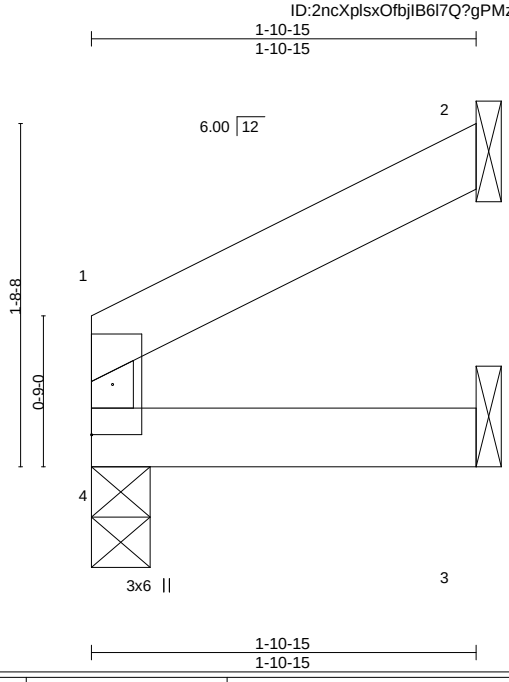
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J22	Jack-Open	1	1	I44994497
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:20 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-KHnQ73v7z?aJnbiMUtMXyUUiTQBJWUaoQKRyGmzfKtL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	4	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	4	>999	240	Weight: 5 lb	FT = 10%

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

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

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=33(LC 5)
Max Uplift 2=-37(LC 8)
Max Grav 4=99(LC 1), 2=77(LC 1), 3=36(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J23	JACK-CLOSED GIRDER	1	2	I44994498

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:21 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-oULpKPvmkljAPlHY1bumUh1qTpL4Fxqxf_AWoCzfKtK

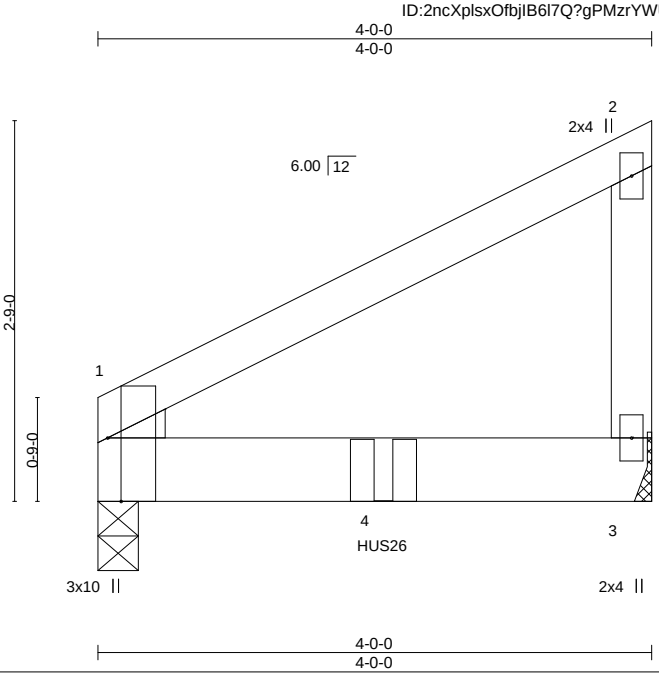


Plate Offsets (X,Y)-- [1:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02	1-3	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.05	1-3	>811	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-P		Wind(LL)	0.02	1-3	>999	240	Weight: 30 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 1=0-3-8
Max Horz 1=95(LC 5)
Max Uplift 3=-204(LC 8), 1=-164(LC 8)
Max Grav 3=1081(LC 1), 1=1024(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) N/A
2) 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
3) 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.
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) gable end 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=204, 1=164.
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, Single Ply Girder) or equivalent at 2-0-12 from the left end to connect truss(es) to back 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 (plf)
Vert: 1-2=-90, 1-3=-20

March 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

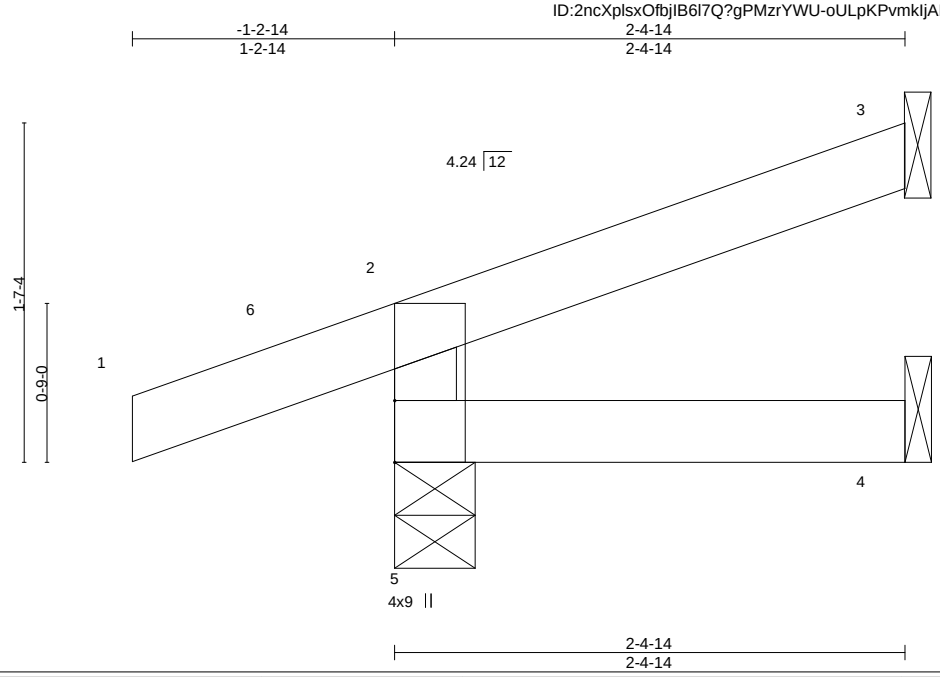
Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J23	JACK-CLOSED GIRDER	1	2	I44994498
					Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-1697(B)

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J24	Diagonal Hip Girder	1	1	I44994499

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:21 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-oULpKPvmkIjAPlHY1bumUh1slpXbFxqxf_AWoCzfKtK



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	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	5	>999	240	Weight: 8 lb	FT = 10%

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

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 7)
Max Uplift 5=-108(LC 19), 3=-26(LC 12)
Max Grav 5=98(LC 1), 3=36(LC 1), 4=29(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3 except (jt=lb) 5=108.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 5 lb up at -1-2-14, and 17 lb down and 5 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

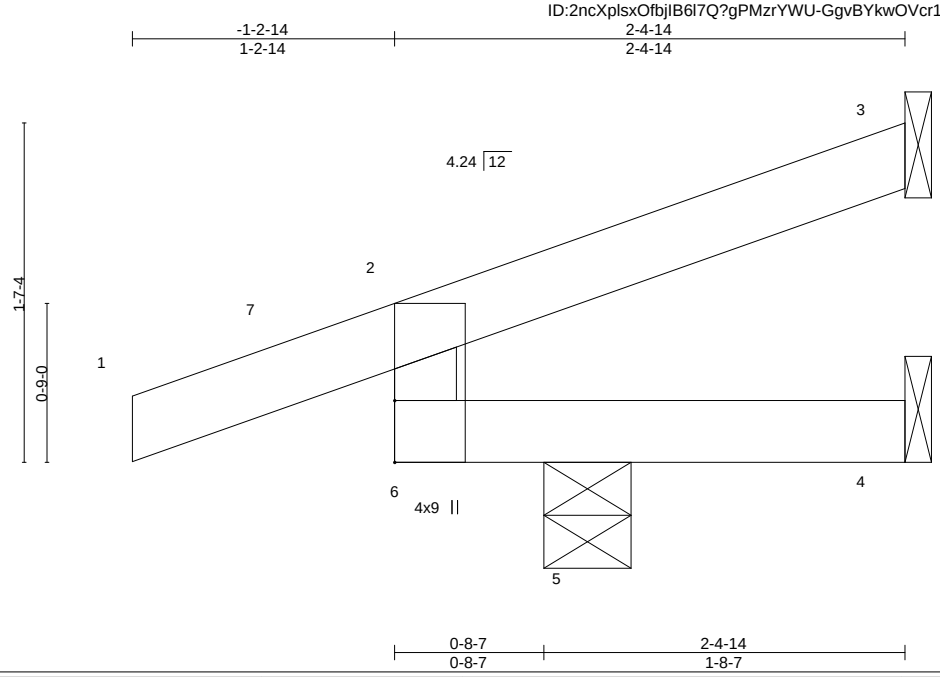
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-27(F=-13, B=-13)
Trapezoidal Loads (plf)
Vert: 1=0(F=45, B=45)-to-6=-18(F=36, B=36), 6=0(F=45, B=45)-to-2=-13(F=38, B=38), 2=-13(F=38, B=38)-to-3=-64(F=13, B=13), 5=-3(F=9, B=9)-to-4=-14(F=3, B=3)

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	J25	Diagonal Hip Girder	1	1	I44994500
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:22 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-GgvBYkwOVcr10uskbIP?1va1ADsF_O44uew3KezfKtJ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 8 lb	FT = 10%

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-4-15
Max Horz 5=58(LC 7)
Max Uplift 3=-17(LC 12), 4=-35(LC 1), 5=-166(LC 19)
Max Grav 3=26(LC 1), 4=47(LC 19), 5=150(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=166.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 5 lb up at -1-2-14, and 17 lb down and 5 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

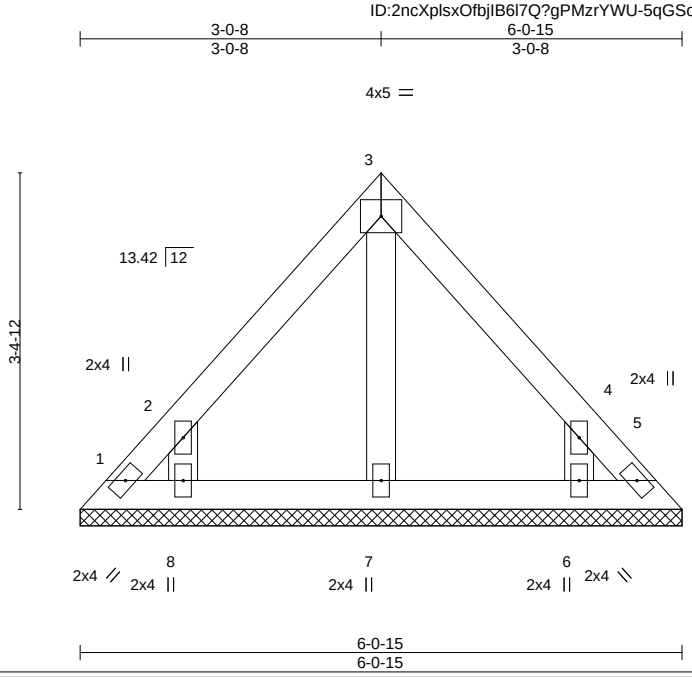
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-27(F=-13, B=-13)
Trapezoidal Loads (plf)
Vert: 1=0(F=45, B=45)-to-7=-18(F=36, B=36), 7=0(F=45, B=45)-to-2=-13(F=38, B=38), 2=-13(F=38, B=38)-to-3=-64(F=13, B=13), 6=-3(F=9, B=9)-to-4=-14(F=3, B=3)

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY1A	GABLE	1	1	I44994501
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:28 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-5qGSoo?95SbBkpJuyZWPGAq2NewCO67zGZNOYIzfKtD



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 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. All bearings 6-0-15.
(lb) - Max Horz 1=-82(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-143(LC 8), 6=-143(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=143, 6=143.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY2A	GABLE	1	1	I44994502
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:29 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Z0qq080nsmj2Mzu4VG1epNMDz2GJ7XC6VD6x4kzfKtC

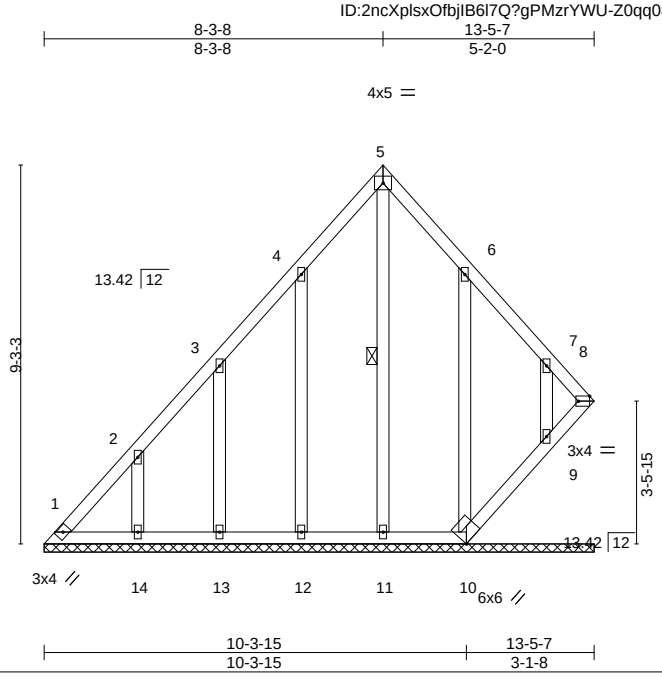


Plate Offsets (X,Y)-- [8:Edge,0-1-8]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 74 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11

REACTIONS. All bearings 13-5-7.
(lb) - Max Horz 1=235(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-118(LC 7), 12=-140(LC 8), 13=-133(LC 8), 14=-151(LC 8), 10=-277(LC 9), 9=-116(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 13, 9 except 8=254(LC 9), 12=261(LC 15), 14=278(LC 15), 10=296(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-342/196

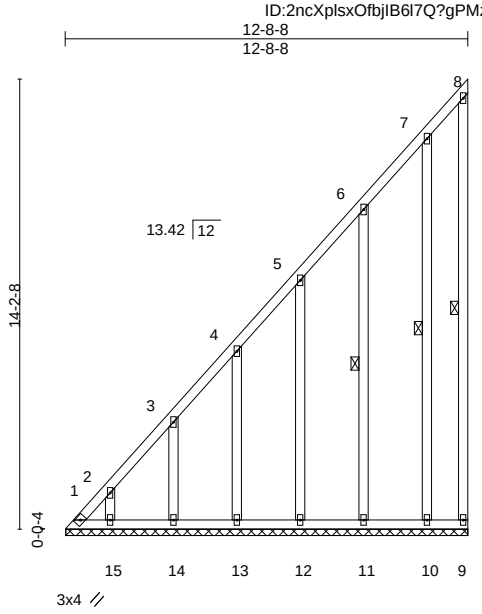
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1 except (jt=lb) 8=118, 12=140, 13=133, 14=151, 10=277, 9=116.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY3	GABLE	1	1	I44994503
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:29 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Z0qq080nsmj2Mzu4VG1epNMDn2GV7WK6VD6x4kzfKtC



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	-0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 96 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 12-8-4.
(lb) - Max Horz 1=558(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=-210(LC 6), 15=-118(LC 8), 14=-139(LC 8), 13=-135(LC 8), 12=-135(LC 8), 11=-142(LC 8), 10=-109(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 15, 13, 12, 10 except 1=603(LC 8), 14=254(LC 15), 11=258(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-814/334, 2-3=-706/299, 3-4=-565/243, 4-5=-429/191, 5-6=-293/140

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) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 9 except (jt=lb) 1=210, 15=118, 14=139, 13=135, 12=135, 11=142, 10=109.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY4	GABLE	1	1	I44994504
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:30 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-1COCDT0Pd3rv_7TH3_YtMbvOXScks_pGktsUcBzfKtB

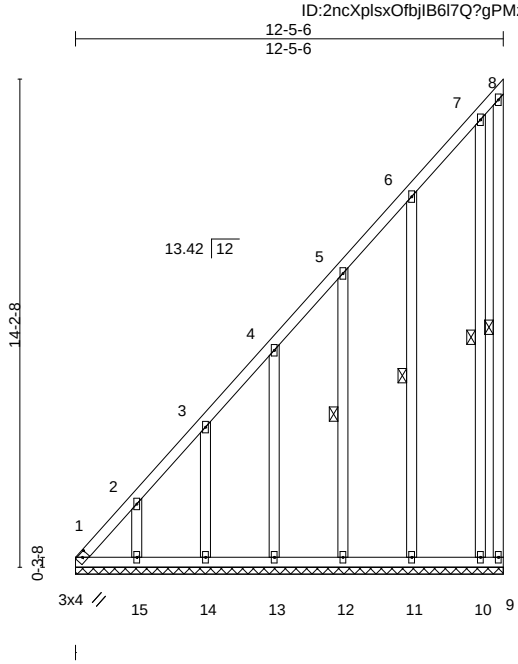


Plate Offsets (X,Y)-- [1:0-2-0,0-1-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 101 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 8-9, 5-12, 6-11, 7-10

REACTIONS. All bearings 12-5-6.
(lb) - Max Horz 1=558(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 1=-191(LC 6), 15=-167(LC 8), 14=-135(LC 8), 13=-136(LC 8), 12=-134(LC 8), 11=-147(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 14, 13, 12, 10 except 1=608(LC 8), 15=259(LC 15), 11=265(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-813/340, 2-3=-661/280, 3-4=-523/227, 4-5=-386/174, 5-6=-250/128

NOTES-

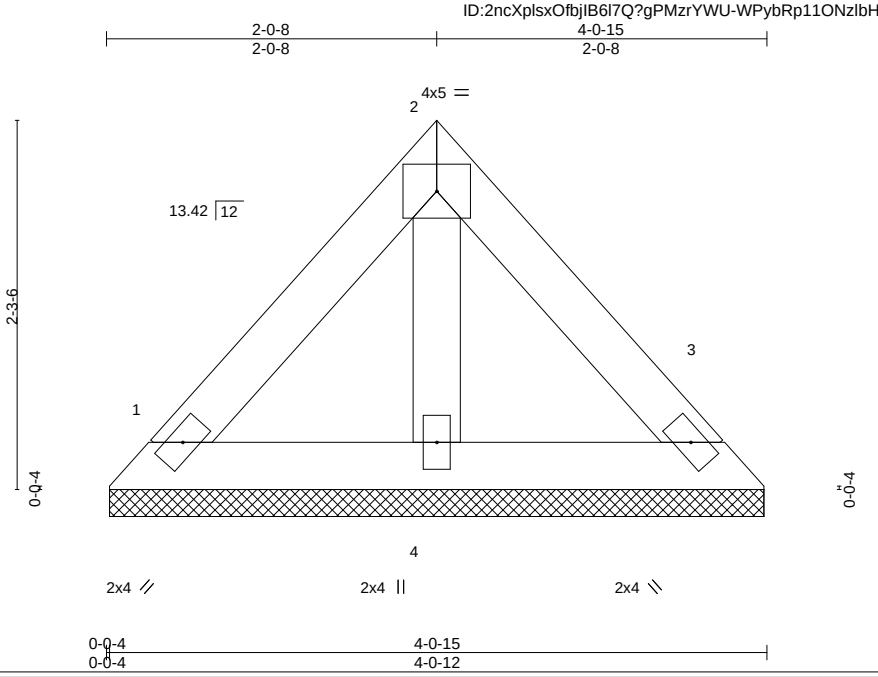
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are 2x4 MT20 unless otherwise indicated.
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 9, 10 except (jt=lb) 1=191, 15=167, 14=135, 13=136, 12=134, 11=147.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY5	Lay-In Gable	1	1	I44994505
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:31 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-WPybRp11ONzlbH2Tdh36uoSZerywbT7PyXb29dzfKtA



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 10%

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

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

REACTIONS. (size) 1=4-0-8, 3=4-0-8, 4=4-0-8
Max Horz 1=-52(LC 4)
Max Uplift 1=-25(LC 9), 3=-22(LC 9)
Max Grav 1=120(LC 1), 3=120(LC 1), 4=137(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY6	GABLE	1	1	I44994506
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:32 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-_bWze92f9h5cDRcfBPaMR0_kLFIwKv8ZBBLbh3zfKt9

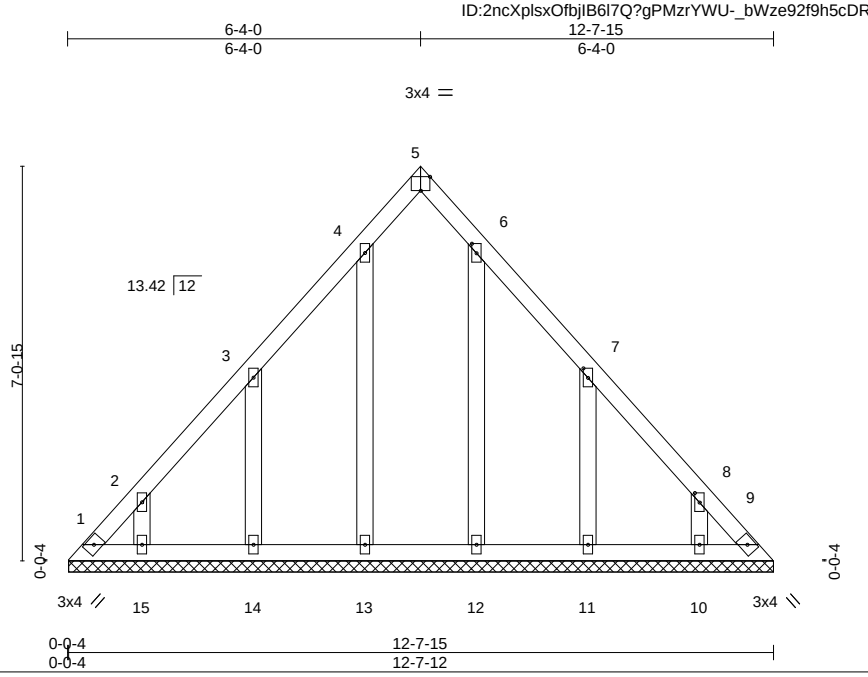


Plate Offsets (X,Y)-- [5:Edge,0-3-0], [6:0-2-1,0-1-0], [7:0-2-1,0-1-0], [8:0-2-1,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 57 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. All bearings 12-7-11.
(lb) - Max Horz 1=-181(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 12 except 15=-112(LC 8), 14=-155(LC 8), 11=-157(LC 9), 10=-111(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 15, 13, 12, 10 except 14=263(LC 15), 11=265(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-325/158, 8-9=-315/143

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 9, 13, 12 except (jt=lb) 15=112, 14=155, 11=157, 10=111.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY7	GABLE	1	1	I44994507
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:33 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-Sn4LrV3Hv_DTrbBrk65bzDXvyfdE3KciQr49DWzfKt8

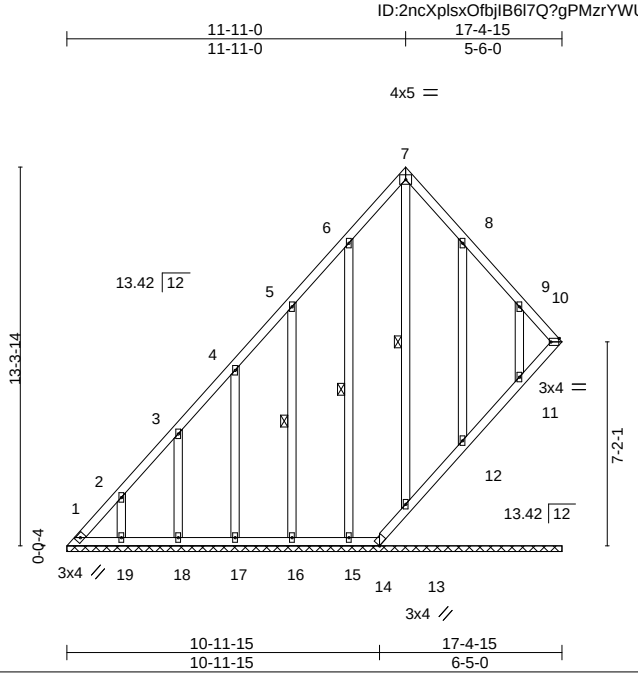


Plate Offsets (X,Y)-- [10:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 112 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 7-13, 6-15, 5-16

REACTIONS. All bearings 17-4-15.
(lb) - Max Horz 1=391(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-144(LC 6), 10=-120(LC 5), 14=-126(LC 9), 15=-136(LC 8), 16=-139(LC 8), 17=-135(LC 8), 18=-136(LC 8), 19=-135(LC 8), 12=-134(LC 9), 11=-130(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 13, 16, 17, 18, 19, 11 except 1=405(LC 8), 15=251(LC 15), 12=264(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-557/280, 2-3=-430/232, 3-4=-292/178

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 144 lb uplift at joint 1, 120 lb uplift at joint 10, 126 lb uplift at joint 14, 136 lb uplift at joint 15, 139 lb uplift at joint 16, 135 lb uplift at joint 17, 136 lb uplift at joint 18, 135 lb uplift at joint 19, 134 lb uplift at joint 12 and 130 lb uplift at joint 11.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 13, 12, 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY8	GABLE	1	1	I44994508
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:34 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-w_dj3r4wgILKSkm2IqdqWR40k3xHonVreVqilyzfKt7

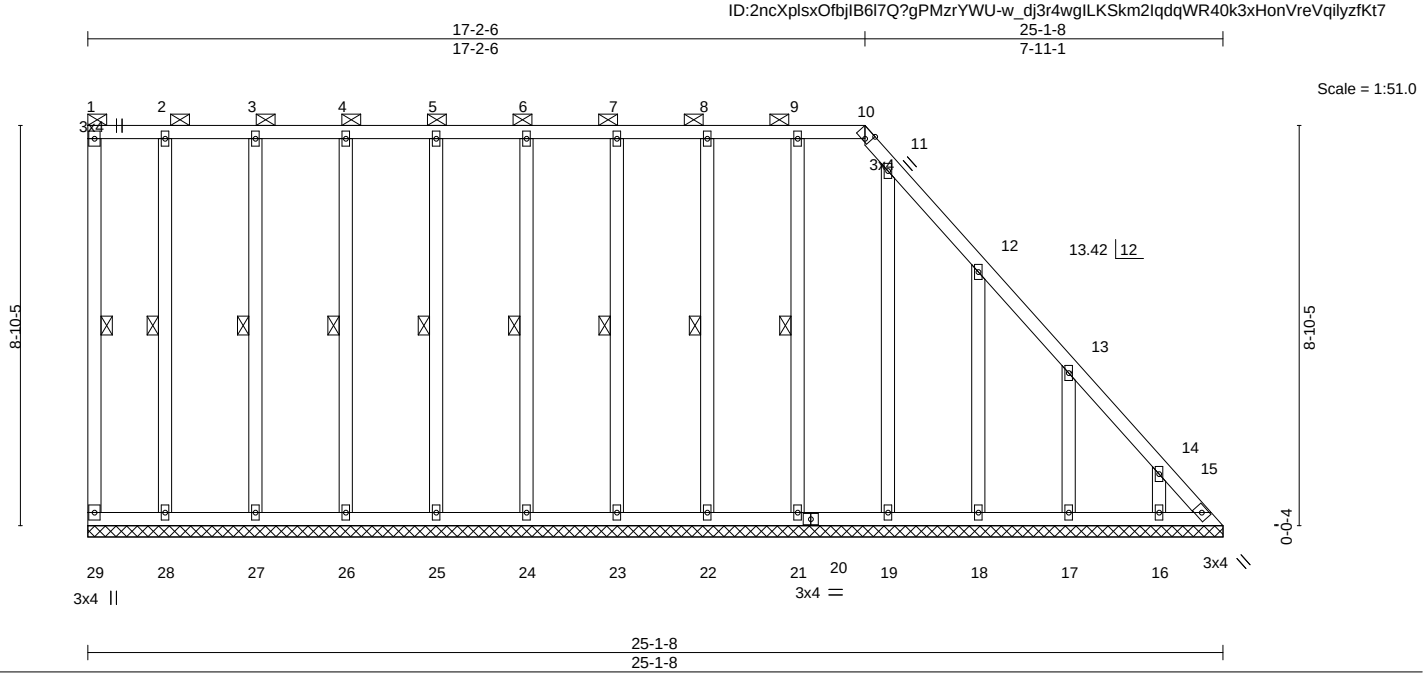


Plate Offsets (X,Y)-- [10:0-1-6,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 166 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.): 1-10.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 1-29, 2-28, 3-27, 4-26, 5-25, 6-24, 7-23, 8-22, 9-21

REACTIONS. All bearings 25-1-8.
(lb) - Max Horz 29=-340(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21 except 15=-167(LC 7), 19=-117(LC 4), 18=-154(LC 9), 17=-135(LC 9), 16=-119(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21, 19, 18, 16 except 15=291(LC 4), 17=254(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-252/162, 12-13=-277/185, 13-14=-332/241, 14-15=-391/277
BOT CHORD 28-29=-176/268, 27-28=-176/268, 26-27=-176/268, 25-26=-176/268, 24-25=-176/268, 23-24=-176/268, 22-23=-176/268, 21-22=-176/268, 19-21=-176/268, 18-19=-176/268, 17-18=-176/268, 16-17=-176/268, 15-16=-176/268

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 29, 28, 27, 26, 25, 24, 23, 22, 21 except (jt=lb) 15=167, 19=117, 18=154, 17=135, 16=119.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	LAY9	GABLE	1	1	I44994509
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:35 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-OAB5GB4YRcTB4uLEsX833ecFSTJVXGP?t9ZFIOzfKt6

9-7-14 12-4-12 17-1-8
9-7-14 2-8-14 4-8-12

Scale = 1:34.7

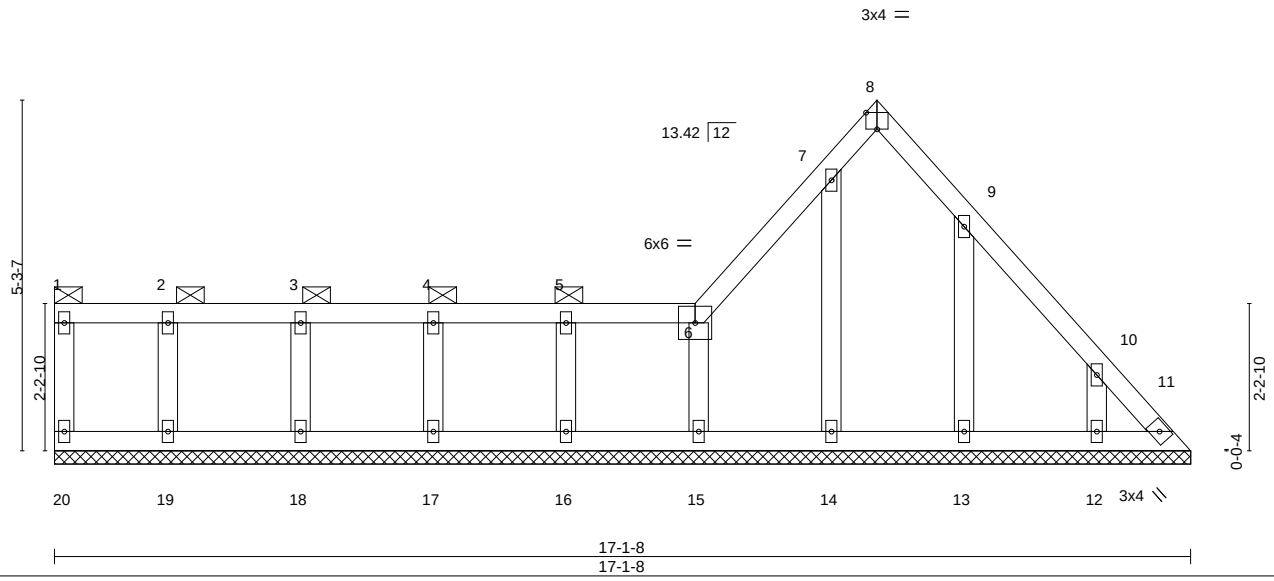


Plate Offsets (X,Y)-- [8:Edge,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 64 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.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-1-8.
(lb) - Max Horz 20=-159(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 13 except 12=-140(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 12 except 13=266(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 20, 11, 19, 18, 17, 16, 15, 13 except (jt=lb) 12=140.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

March 1,2021

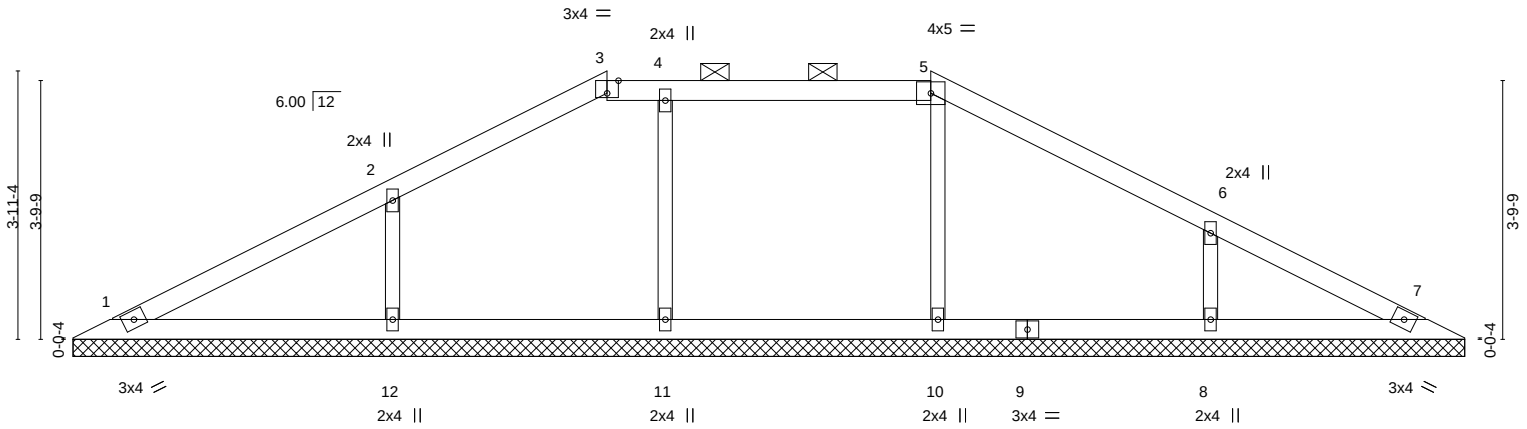
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V1A	Valley	1	1	I44994510
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:43 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9ig7ywBZZ3U327ymKDHxNKxahh1FPtSAjPWgaxzfKt_

7-10-8 12-7-8 20-6-0
7-10-8 4-9-0 7-10-8

Scale = 1:33.8



0-0-8 20-6-0
0-0-8 20-5-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 55 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 20-5-0.
(lb) - Max Horz 1=-63(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 12=-119(LC 8), 8=-122(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=425(LC 22), 11=430(LC 21), 12=499(LC 1), 8=464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-10=-344/81, 4-11=-357/99, 2-12=-395/166, 6-8=-381/165

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) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 10, 11 except (jt=lb) 12=119, 8=122.
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.

March 1,2021

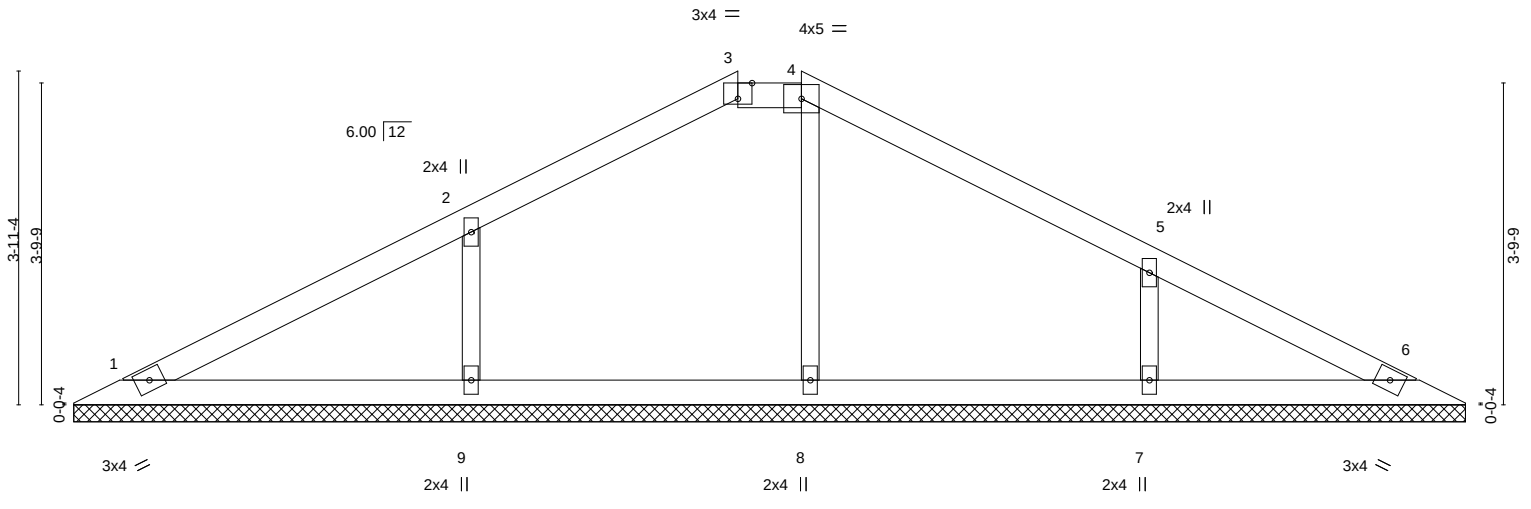
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V2A	Valley	1	1	I44994511
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:43 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-9ig7ywBZZ3U327ymKDHxNKxZRh1CPtvAjPWgaxzfKt_

7-10-8 8-7-8 16-6-0
7-10-8 0-9-0 7-10-8

Scale = 1:27.2



0-0-8 16-6-0
0-0-8 16-5-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 43 lb	FT = 10%

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

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

REACTIONS. All bearings 16-5-0.
(lb) - Max Horz 1=-63(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 6 except 9=-120(LC 8), 7=-124(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 8=333(LC 1), 9=510(LC 21), 7=470(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-8=-260/40, 2-9=-407/167, 5-7=-385/168

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) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 6 except (jt=lb) 9=120, 7=124.
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.

March 1,2021

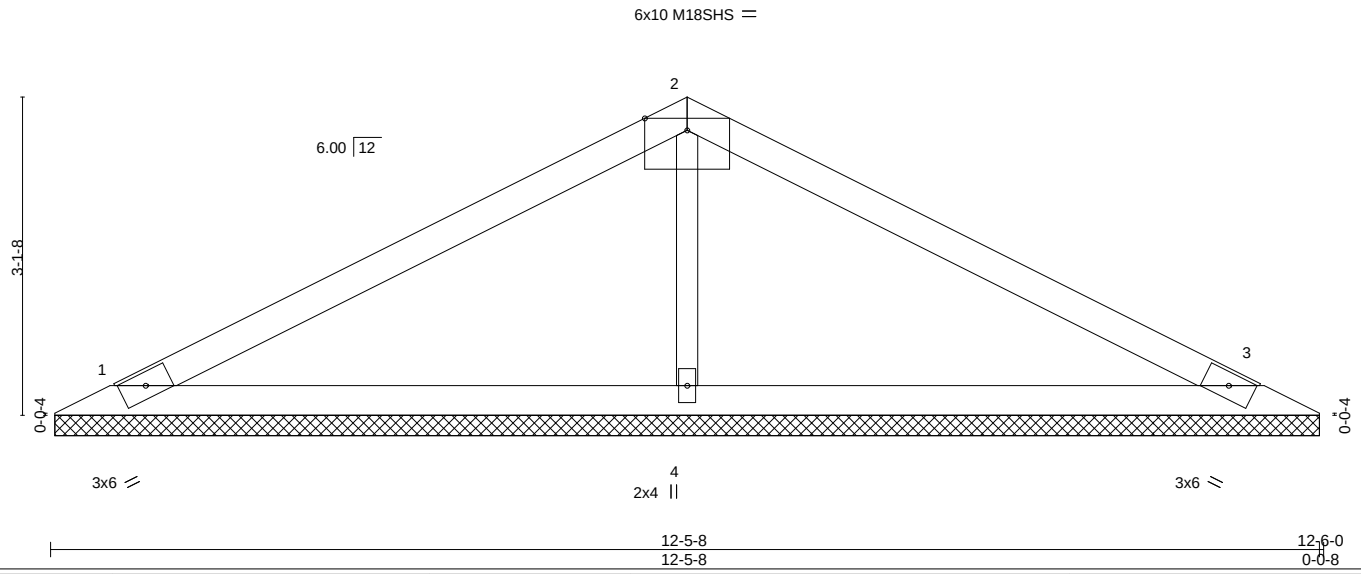
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V3A	Valley	1	1	I44994512
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:44 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-dvEV9GBBKNcvfHXzuwoAwYUgY5Ky8KjKy3FE5NzfKsz

6-3-0 12-6-0
6-3-0 6-3-0

Scale = 1:22.6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	3	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
OTHERS 2x3 SPF No.2

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

REACTIONS. (size) 1=12-5-0, 3=12-5-0, 4=12-5-0
Max Horz 1=50(LC 8)
Max Uplift 1=-49(LC 8), 3=-58(LC 9), 4=-30(LC 8)
Max Grav 1=294(LC 21), 3=294(LC 22), 4=651(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-470/96

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3, 4.
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.

March 1,2021

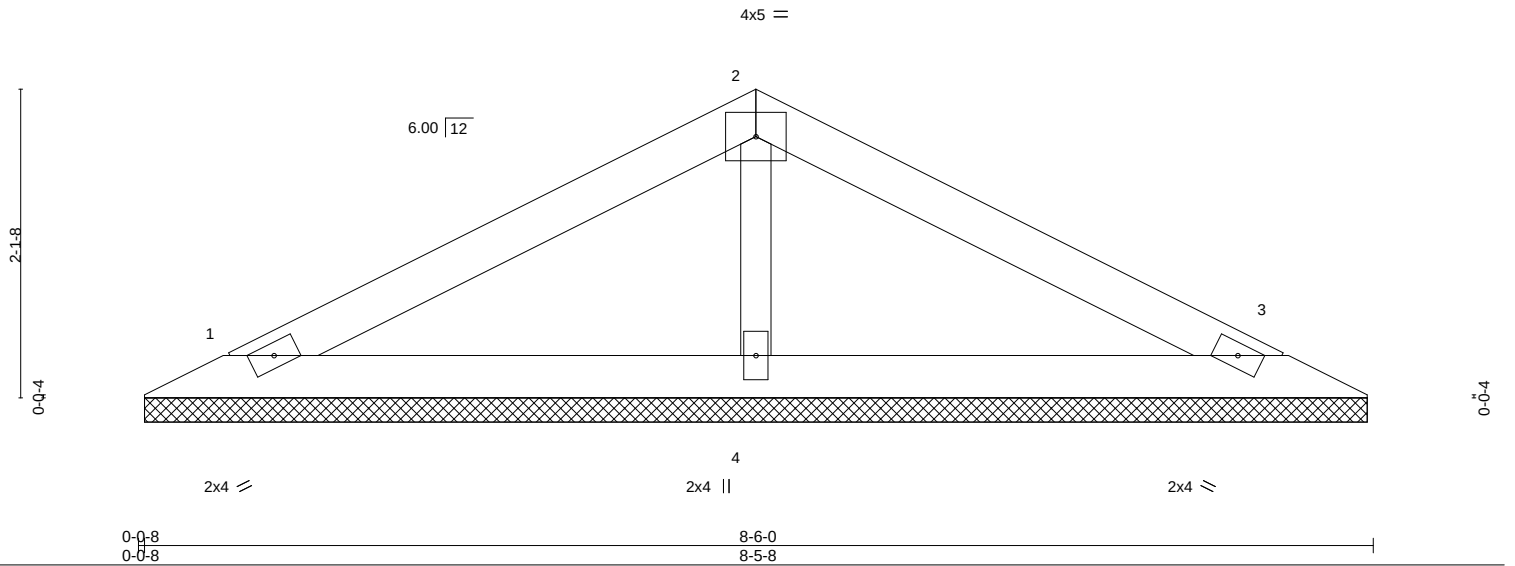
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V4A	Valley	1	1	I44994513
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:45 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-55otNcCp5gkmHR69RdJPTl1vGVjrtowTAj?ndpzfKsy

4-3-0 8-6-0
4-3-0 4-3-0

Scale: 3/4"=1'



0-0-8 8-6-0
0-0-8 8-5-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 20 lb	FT = 10%

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

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

REACTIONS. (size) 1=8-5-0, 3=8-5-0, 4=8-5-0
Max Horz 1=32(LC 12)
Max Uplift 1=-39(LC 8), 3=-45(LC 9), 4=-4(LC 8)
Max Grav 1=211(LC 1), 3=211(LC 1), 4=374(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-284/58

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3, 4.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V5A	Valley	1	1	I44994514
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:45 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-55otNcCp5gkmHR69RdJPTl1zFVjptomTAj?ndpzfKsy

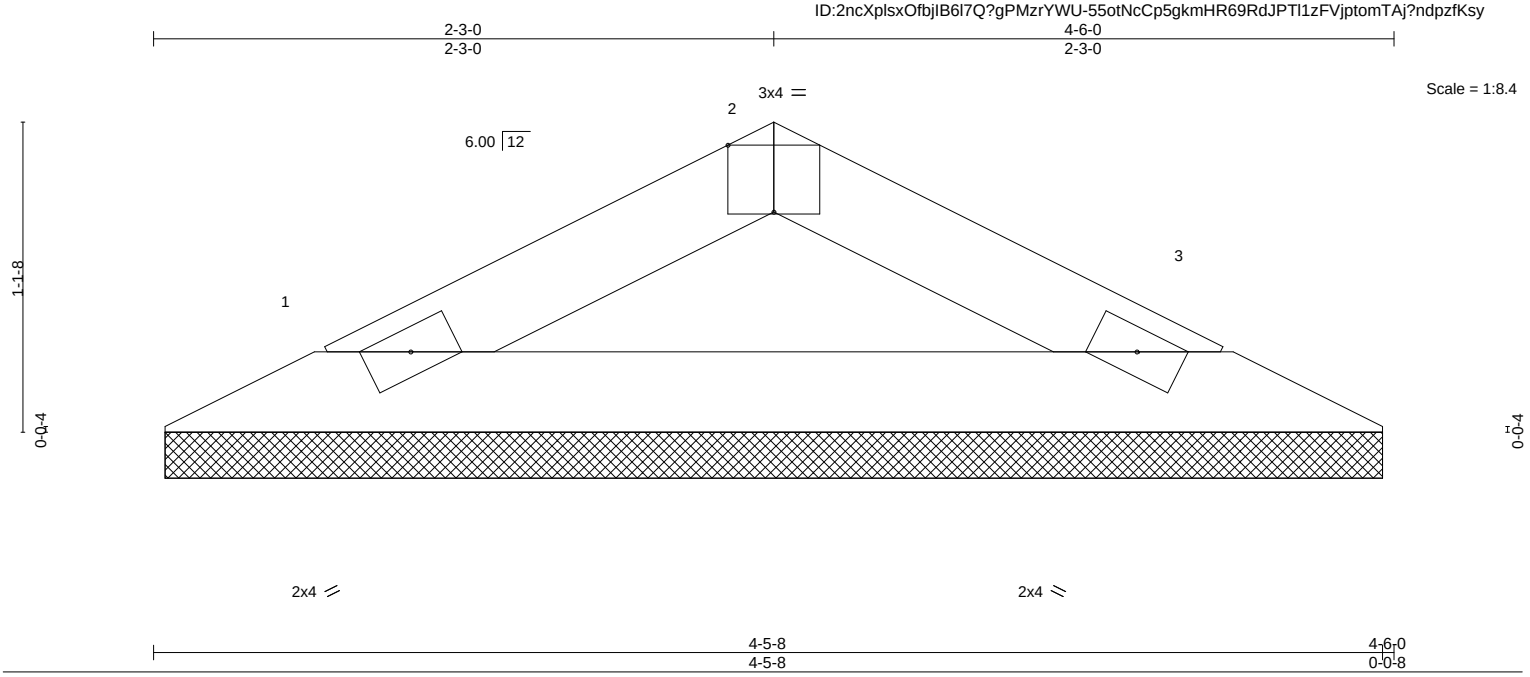


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 9 lb	FT = 10%

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

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

REACTIONS. (size) 1=4-5-0, 3=4-5-0
Max Horz 1=14(LC 8)
Max Uplift 1=-18(LC 8), 3=-18(LC 9)
Max Grav 1=178(LC 1), 3=178(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3.
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.

March 1,2021

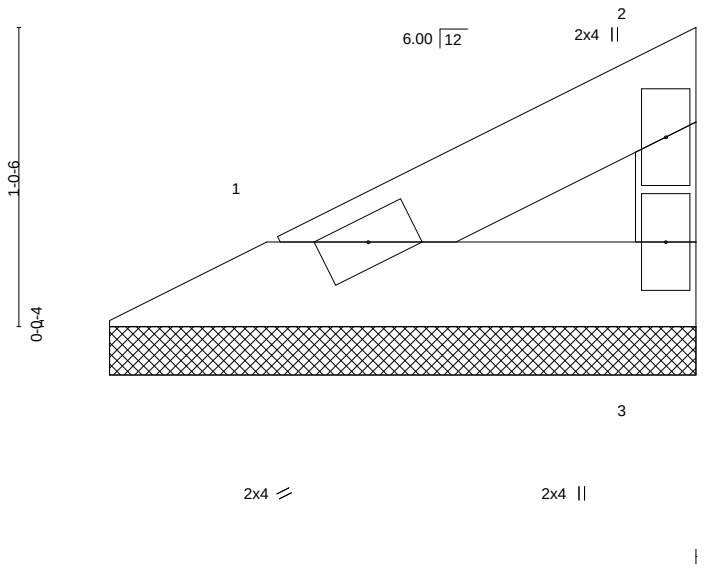
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V6A	Valley	1	1	I44994515
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:46 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-ZHMFayDRs_sdvahL?Lqe?zZ8Iu3dcF0cPNkLAFzfKsx

2-0-12
2-0-12

Scale: 1.5"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 4 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-0-4, 3=2-0-4
Max Horz 1=28(LC 5)
Max Uplift 1=-8(LC 8), 3=-15(LC 8)
Max Grav 1=73(LC 1), 3=73(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

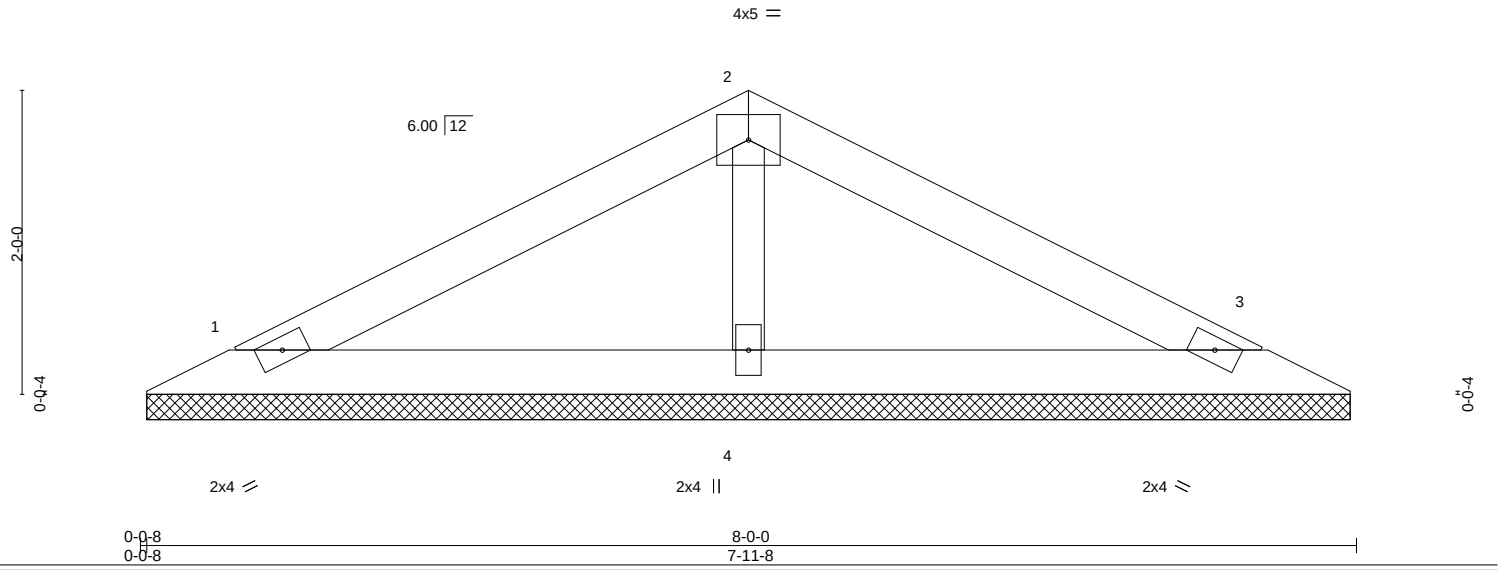
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V7	Valley	1	1	I44994516
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:47 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-2UwenIE3cI_UWkGYZ2LtYA6FTIOYLiVme0UuiizfKsw

4-0-0 8-0-0
4-0-0 4-0-0

Scale = 1:15.2



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

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

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

REACTIONS. (size) 1=7-11-0, 3=7-11-0, 4=7-11-0
Max Horz 1=-30(LC 13)
Max Uplift 1=-36(LC 8), 3=-42(LC 9), 4=-4(LC 8)
Max Grav 1=196(LC 1), 3=196(LC 1), 4=349(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-264/54

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3, 4.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V8	Valley	1	1	I44994517
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:47 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-2UwenIE3cI_UWkGYZ2LtYA6J0lOoLiGme0UuiizfKsw

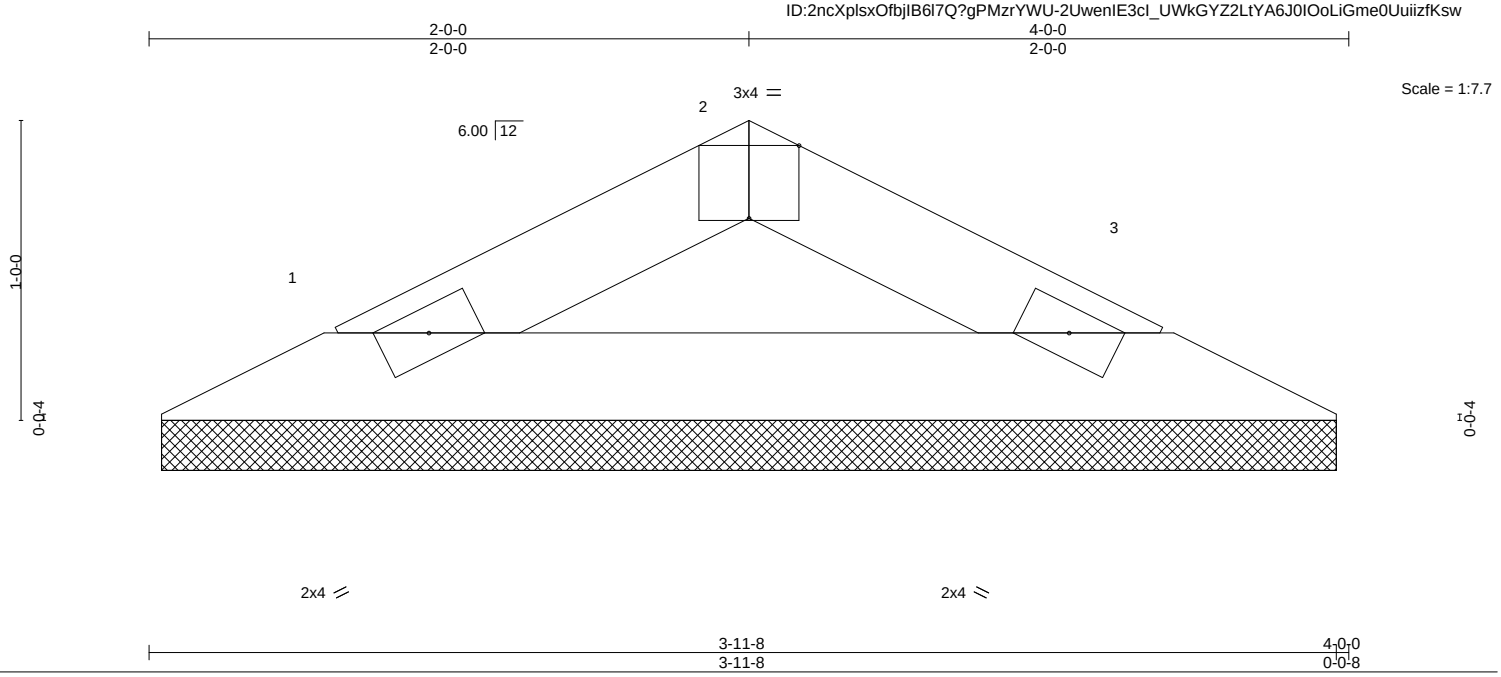


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 8 lb	FT = 10%

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

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

REACTIONS. (size) 1=3-11-0, 3=3-11-0
Max Horz 1=12(LC 12)
Max Uplift 1=-15(LC 8), 3=-15(LC 9)
Max Grav 1=151(LC 1), 3=151(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

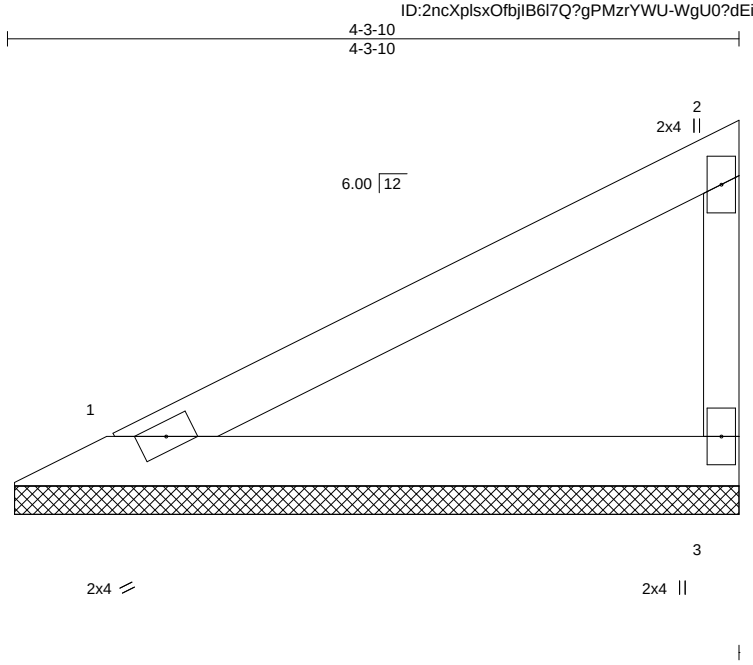
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1, 3.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V9	Valley	1	1	I44994518
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:48 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-WgU0?dEiNb6L8urk7mt64OfQgikM49WvsgDRE8zfKsv



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

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

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

REACTIONS. (size) 1=4-3-2, 3=4-3-2
Max Horz 1=75(LC 5)
Max Uplift 1=-21(LC 8), 3=-39(LC 8)
Max Grav 1=196(LC 1), 3=196(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

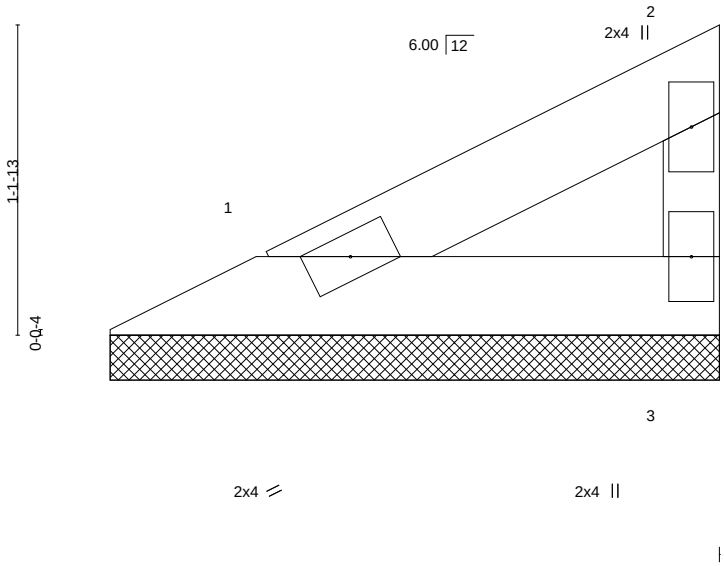
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V10	Valley	1	1	I44994519
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:36 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-sMlUUX5ACvb2i2wQQEflbs9RbsfAGjY86pJpqqzfKt5

2-3-10
2-3-10

Scale = 1:8.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

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

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

REACTIONS. (size) 1=2-3-2, 3=2-3-2
Max Horz 1=33(LC 5)
Max Uplift 1=-9(LC 8), 3=-17(LC 8)
Max Grav 1=86(LC 1), 3=86(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

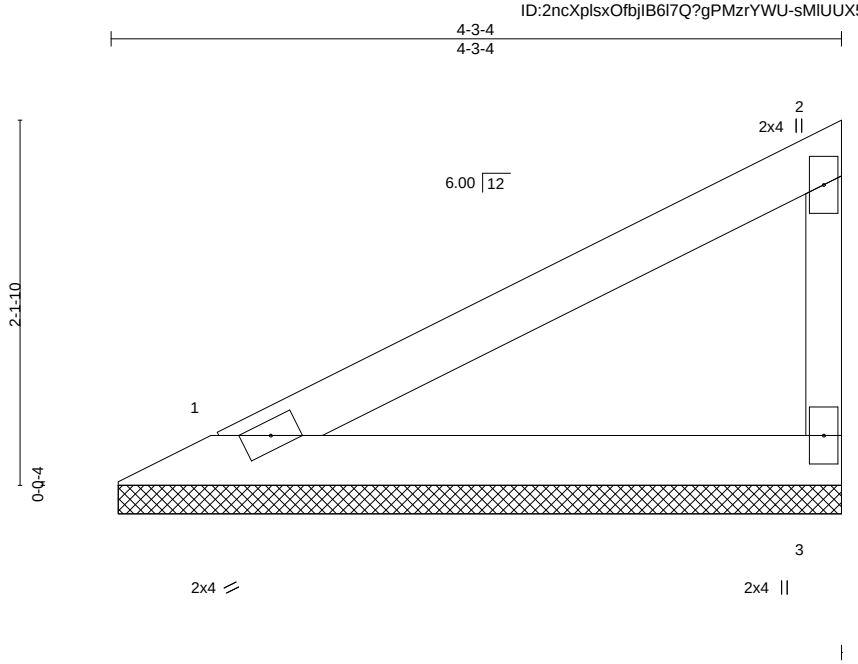
March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V11	Valley	1	1	I44994520

Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:36 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-sMlUUX5ACvb2i2wQQEflbs9NoseaGjY86pJpqqzfKt5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=4-2-12, 3=4-2-12
Max Horz 1=74(LC 7)
Max Uplift 1=-20(LC 8), 3=-39(LC 8)
Max Grav 1=195(LC 1), 3=195(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

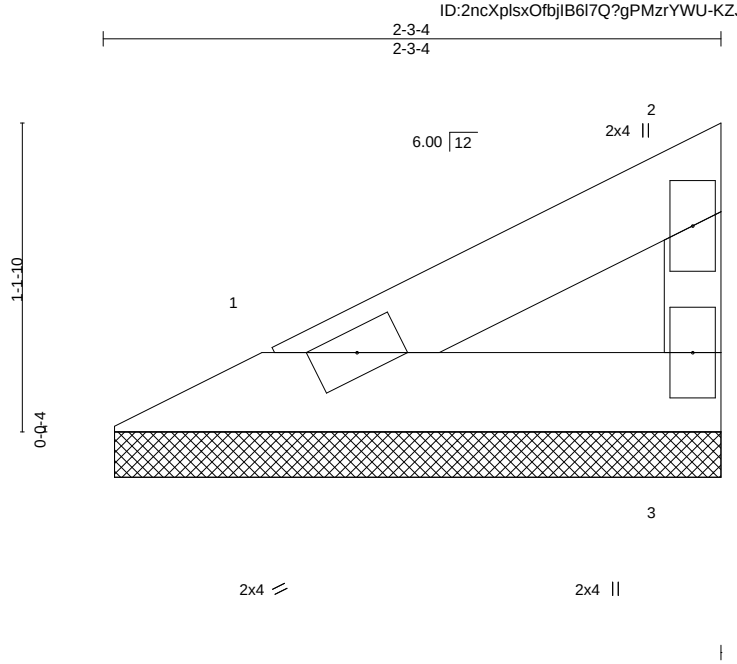
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V12	Valley	1	1	I44994521
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:37 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-KZJsht6ozDkvKCVdzyAX83hcNG?Q?AoILT3MMHzfKt4



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb	FT = 10%

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

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

REACTIONS. (size) 1=2-2-12, 3=2-2-12
Max Horz 1=32(LC 7)
Max Uplift 1=-9(LC 8), 3=-17(LC 8)
Max Grav 1=85(LC 1), 3=85(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

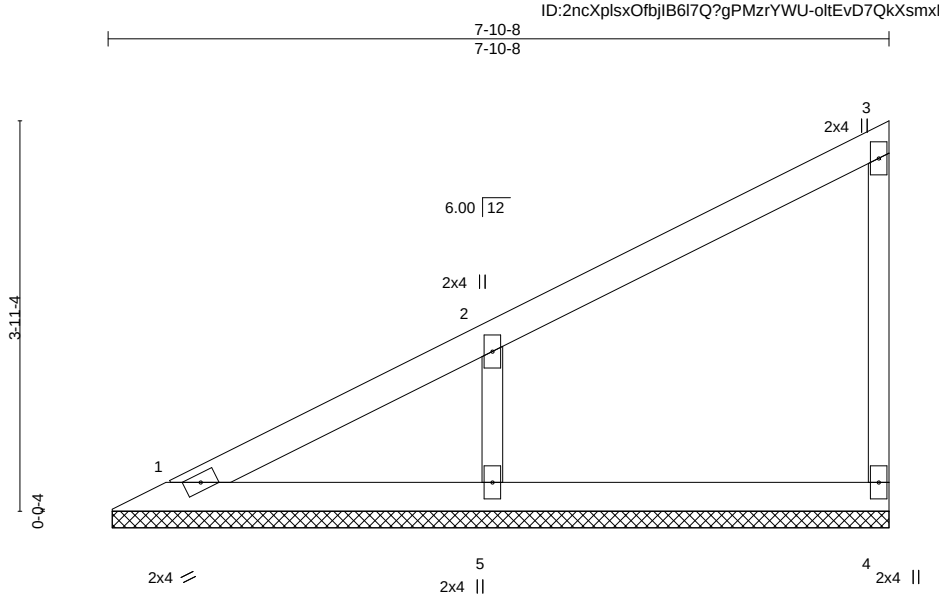
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V13	Valley	1	1	I44994522
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:38 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-oltEvD7QkXsmxM4pXfhmgHEjcgKGkcsRZ7ovujzfKt3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=7-10-0, 4=7-10-0, 5=7-10-0
Max Horz 1=149(LC 5)
Max Uplift 4=-26(LC 5), 5=-121(LC 8)
Max Grav 1=132(LC 16), 4=168(LC 1), 5=494(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-404/175

NOTES-

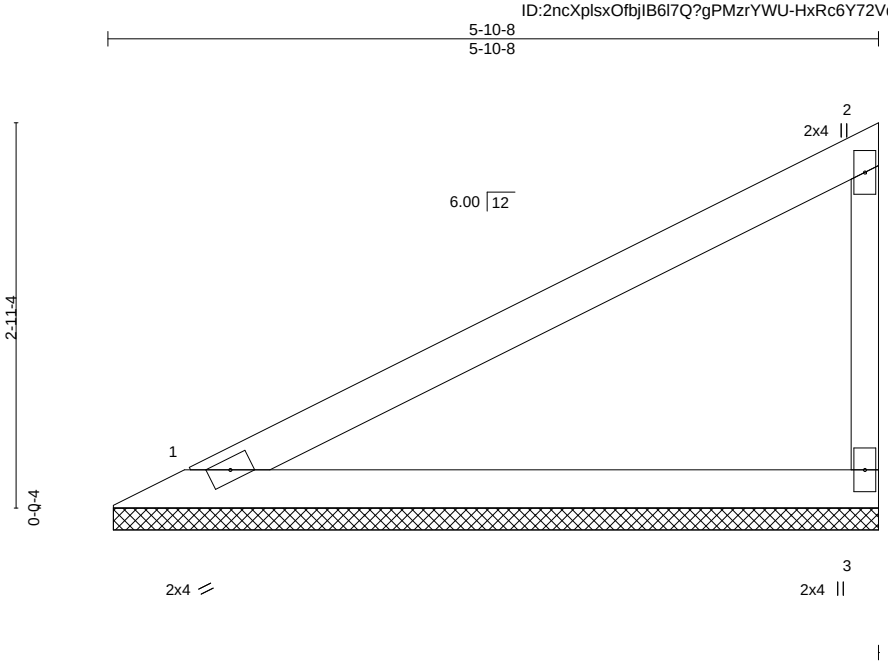
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=121.
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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V14	Valley	1	1	I44994523
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:39 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-HxRc6Y72Vq_dZWf?5NC?DUnnI4ctT4HbonYTR9zfKt2



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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. (size) 1=5-10-0, 3=5-10-0
Max Horz 1=107(LC 5)
Max Uplift 1=-30(LC 8), 3=-57(LC 8)
Max Grav 1=283(LC 1), 3=283(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

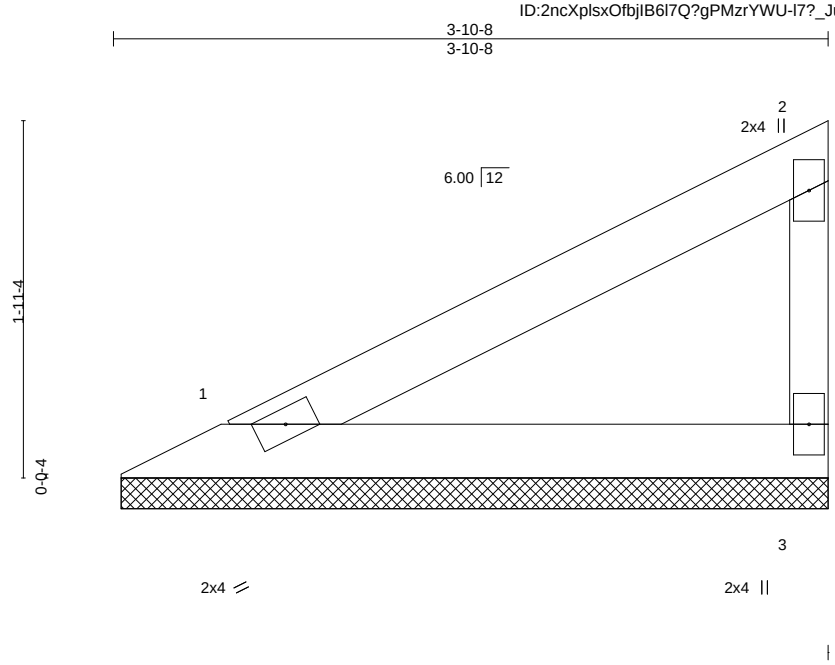
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V15	Valley	1	1	I44994524
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:40 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-l7?_Ju8gG86UBfECf4jEmiJ3pU?yCXXk1RH0zczfKt1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 10%

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

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

REACTIONS. (size) 1=3-10-0, 3=3-10-0
Max Horz 1=66(LC 5)
Max Uplift 1=-18(LC 8), 3=-35(LC 8)
Max Grav 1=173(LC 1), 3=173(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

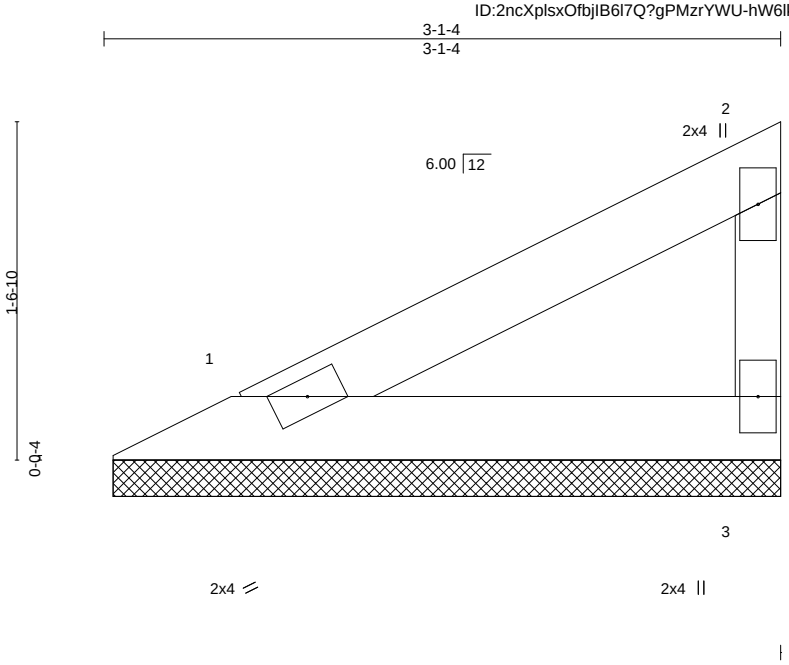
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 44 W1
210257	V16	Valley	1	1	I44994525
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Mon Mar 1 09:07:42 2021 Page 1
ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-hW6lkaAxolMCQzNamVmir7PRxHi6gR11Ulm72UzfKt?



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 3-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-0-12, 3=3-0-12
Max Horz 1=50(LC 5)
Max Uplift 1=-14(LC 8), 3=-26(LC 8)
Max Grav 1=130(LC 1), 3=130(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

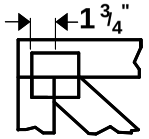
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

March 1,2021

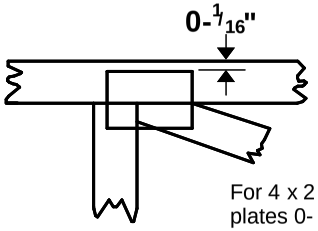
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

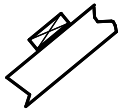
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

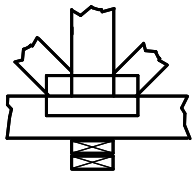
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

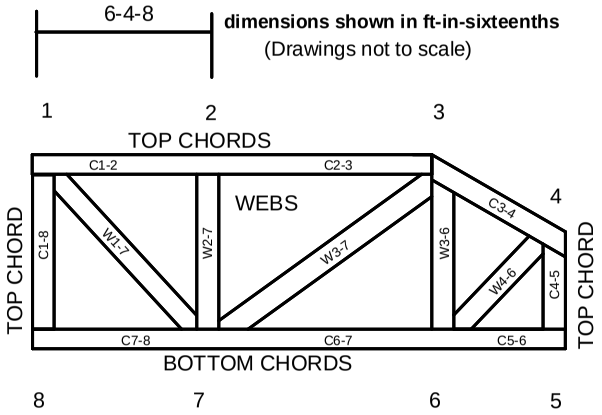


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.