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

Re: 2847294
Summit/128 Manor

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I46810787 thru I46810829

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

Missouri COA: Engineering 001193

July 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	Summit/128 Manor	I46810787
2847294	A1	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:20:36 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-4DpAlW78vOviWGJJSgmAlxy2vN1KFdZ_5epmRPz17C5

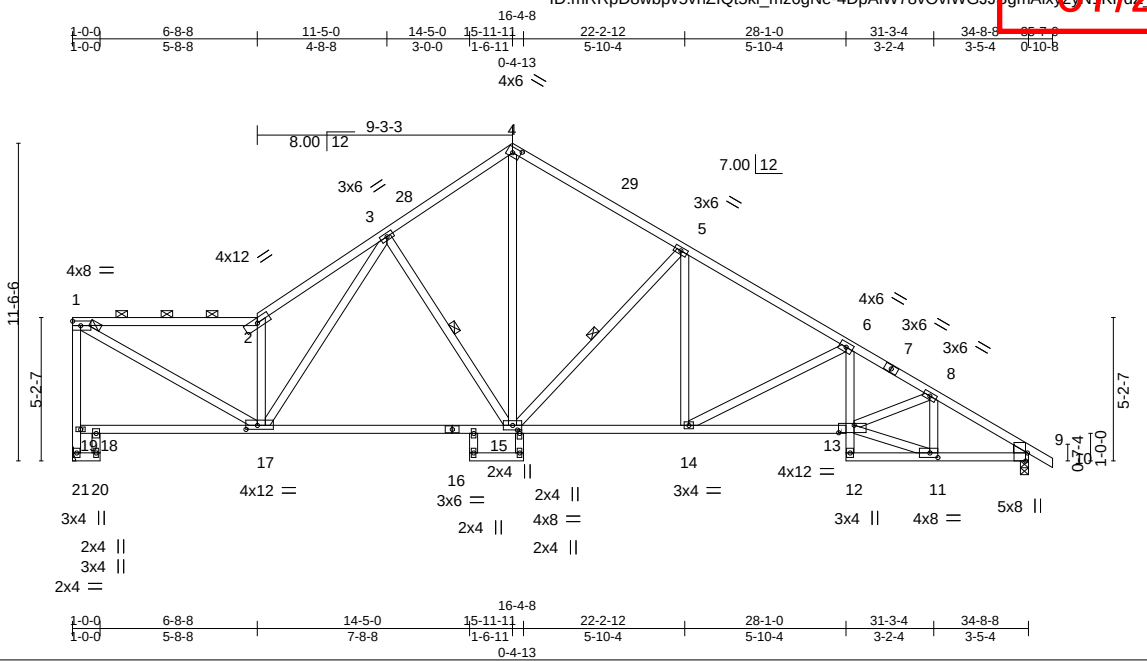


Plate Offsets (X,Y)-- [4:0-3-8,0-2-4], [9:0-3-8,Edge], [11:0-3-8,0-2-0], [13:0-6-12,0-3-4], [15:0-1-8,0-1-0], [17:0-5-0,0-1-12]

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	0.83	Vert(LL)	-0.20	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.46	15-17	>901	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.15	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 178 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-15, 3-15

REACTIONS. (size) 21=Mechanical, 9=0-3-8
Max Horz 21=-327(LC 10)
Max Uplift 21=-189(LC 12), 9=-211(LC 13)
Max Grav 21=1555(LC 1), 9=1617(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 19-21=-1507/157, 1-19=-1486/201, 1-2=-2189/262, 2-3=-2663/373, 3-4=-1686/299, 4-5=-1659/294, 5-6=-2332/301, 6-8=-3150/376, 8-9=-2442/308
BOT CHORD 17-18=-246/314, 15-17=-115/1648, 14-15=-64/1930, 13-14=-212/2750, 6-13=-25/520, 9-11=-197/2024
WEBS 1-17=-245/2454, 2-17=-1828/304, 5-15=-870/261, 5-14=-44/518, 6-14=-920/209, 8-11=-740/94, 11-13=-175/1981, 8-13=-26/737, 4-15=-200/1299, 3-15=-598/211, 3-17=-119/881

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=189, 9=211.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/23/2021

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810788
2847294	A1A	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:50 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-gwfThIHwcifiBQN?Hd0TJuXVq0pbhdq2JgQVwdz173r

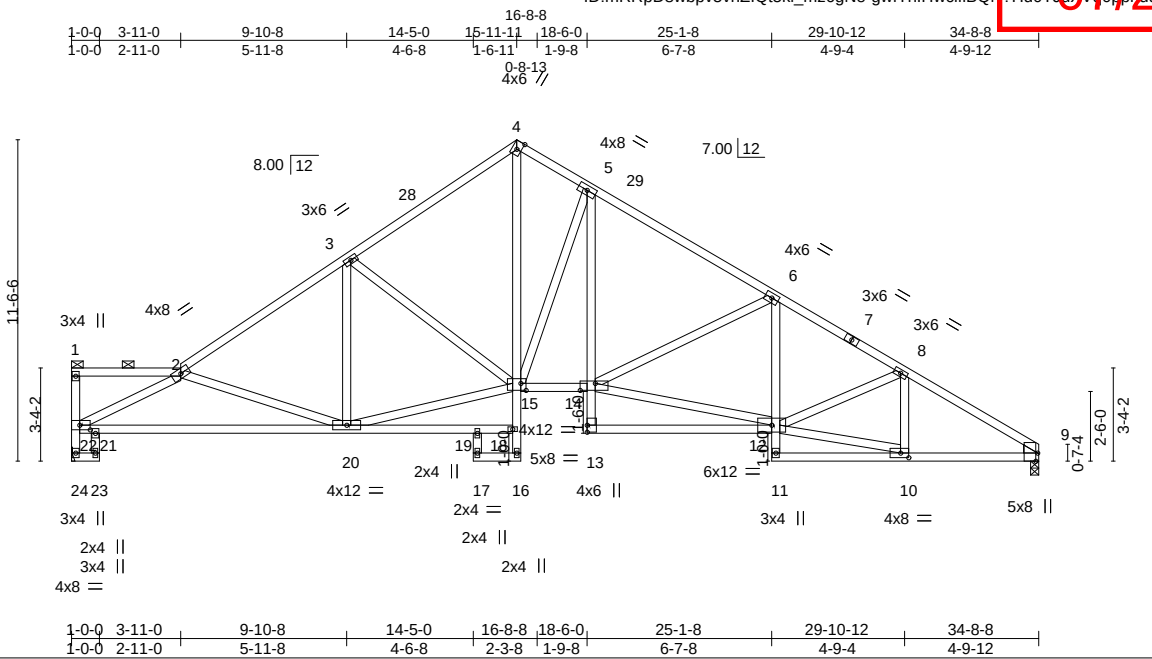


Plate Offsets (X,Y)-- [4:0-3-8,Edge], [9:0-3-8,Edge], [10:0-3-8,0-2-0], [14:0-6-8,0-3-0], [15:0-2-4,0-3-0], [22:0-4-8,0-2-0]

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	0.62	Vert(LL)	-0.19	20-21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.42	20-21	>983	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.22	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 193 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 24=Mechanical, 9=0-3-8
Max Horz 24=-296(LC 10)
Max Uplift 24=-178(LC 12), 9=-194(LC 13)
Max Grav 24=1555(LC 1), 9=1555(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 22-24=-1501/204, 2-3=-2310/277, 3-4=-1985/295, 4-5=-1834/319, 5-6=-2307/309, 6-8=-2671/334, 8-9=-2502/317
BOT CHORD 21-22=-338/2540, 20-21=-383/2482, 4-15=-230/1649, 14-15=-62/1879, 5-14=-90/788, 9-10=-206/2074
WEBS 2-22=-2706/388, 2-20=-692/197, 5-15=-964/245, 12-14=-168/2226, 6-14=-493/226, 10-12=-178/1975, 8-10=-409/77, 15-20=-205/1821, 3-15=-436/195

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 34-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 24=178, 9=194.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810789
2847294	A2	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:20:52 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-cInD6_JA8JwQRkXNO12xOJcnppSV9t4kMirc2vz_7Ar

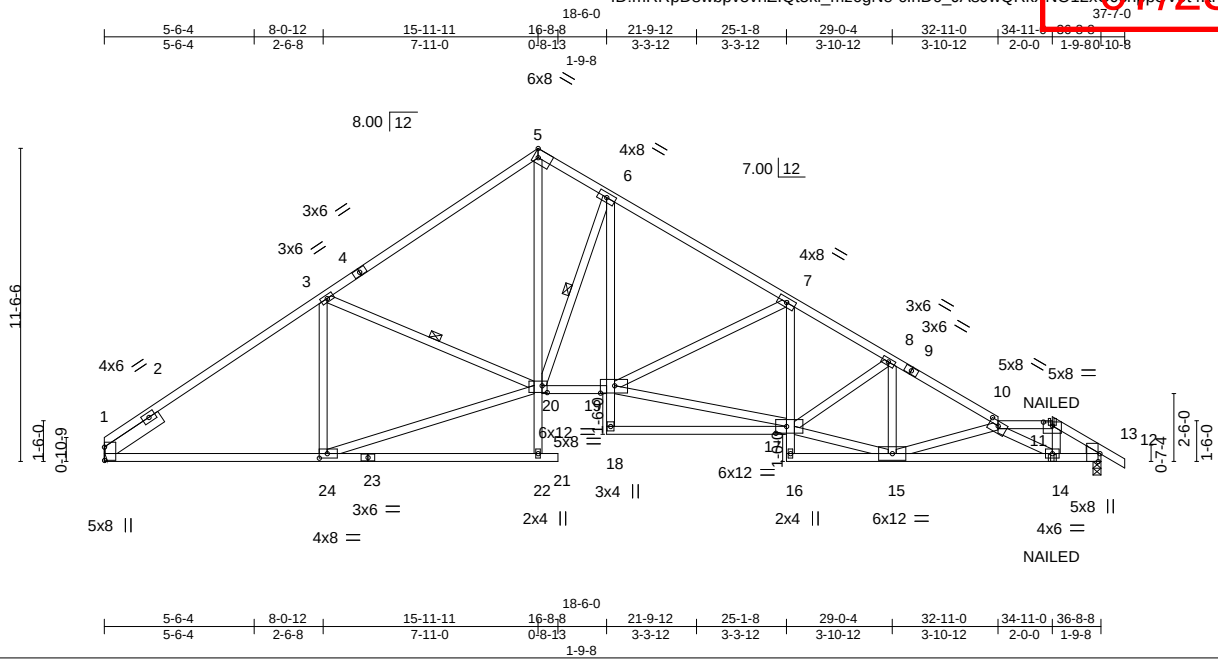


Plate Offsets (X,Y)-- [1:0-5-14,0-0-1], [5:Edge,0-3-8], [10:0-4-0,0-1-15], [11:0-4-0,0-1-11], [12:0-3-8,Edge], [17:0-4-12,0-3-0], [19:0-6-4,0-3-4], [20:0-2-4,0-3-0], [24:0-3-8,0-2-0]

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	0.84	Vert(LL)	-0.25	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.51	17-18	>861	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.19	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 199 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x4 SP 2400F 2.0E, 1-4: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
12-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-14 oc purlins, except
2-0-0 oc purlins (4-0-7 max.): 10-11.
BOT CHORD Rigid ceiling directly applied or 9-9-11 oc bracing.
WEBS 1 Row at midpt 3-20, 6-20

REACTIONS. (size) 1=Mechanical, 12=0-3-8
Max Horz 1=-263(LC 4)
Max Uplift 1=-177(LC 8), 12=-240(LC 9)
Max Grav 1=1658(LC 1), 12=1724(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2309/260, 3-5=-2239/274, 5-6=-2076/316, 6-7=-2609/303, 7-8=-3226/402, 8-10=-3336/419, 10-11=-2003/265, 11-12=-2497/308
BOT CHORD 1-24=-254/1821, 19-20=-77/2143, 6-19=-116/1013, 7-17=-41/329, 14-15=-540/4359, 12-14=-227/2135
WEBS 3-24=-414/137, 5-20=-230/1808, 17-19=-188/2740, 7-19=-719/263, 15-17=-227/2799, 10-15=-1619/298, 10-14=-2732/380, 11-14=-113/1152, 20-24=-267/1894, 3-20=-264/219, 6-20=-1152/267

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=4.2psf; h=15ft; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=177, 12=240.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

July 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810789
2847294	A2	Roof Special Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-70, 5-10=-70, 10-11=-70, 11-13=-70, 21-25=-20, 19-20=-20, 17-18=-20, 16-29=-20
   Concentrated Loads (lb)
   Vert: 14=-5(F)

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810790
2847294	A3	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:56 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-V30kyLMhBYQsvLr9dt7CZ9nUrRtV5AWhTg8GzL7Rn

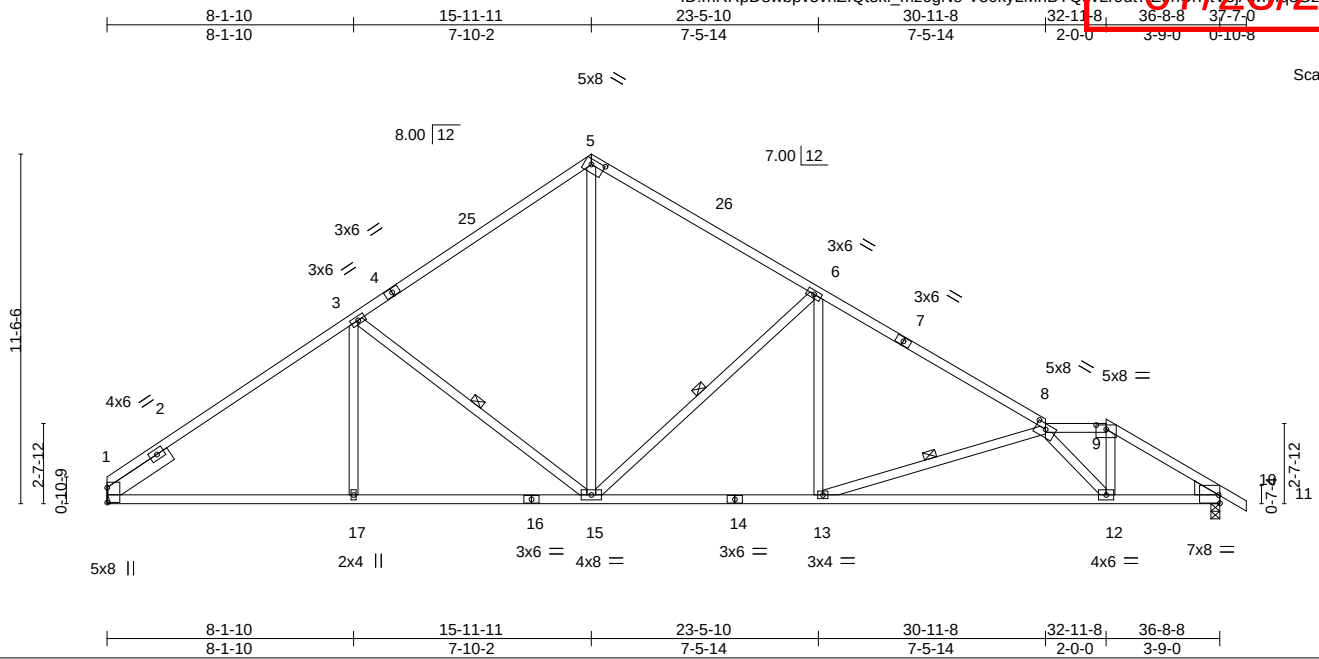


Plate Offsets (X,Y)-- [1:0-5-14,0-0-1], [5:0-5-4,0-2-0], [8:0-4-0,0-2-0], [9:0-4-0,0-1-11], [10:Edge,0-3-4]

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	0.77	Vert(LL)	-0.24	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.56	12-13	>781	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 161 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
10-14: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2
SLIDER Left 2x6 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-8-15 max.): 8-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-15, 6-15, 8-13

REACTIONS. (size) 1=Mechanical, 10=0-3-8
Max Horz 1=-263(LC 8)
Max Uplift 1=-178(LC 12), 10=-233(LC 13)
Max Grav 1=1651(LC 1), 10=1714(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2292/284, 3-5=-1788/318, 5-6=-1712/316, 6-8=-2576/335, 8-9=-2213/299, 9-10=-2737/326
BOT CHORD 1-17=-257/1805, 15-17=-257/1805, 13-15=-115/2114, 12-13=-388/3331, 10-12=-214/2292
WEBS 3-17=0/299, 3-15=-613/269, 5-15=-180/1183, 6-15=-1024/298, 6-13=-18/610, 8-13=-1279/302, 8-12=-1680/274, 9-12=-130/1309

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-8-1, Interior(1) 3-8-1 to 15-11-11, Exterior(2R) 15-11-11 to 19-7-12, Interior(1) 19-7-12 to 32-11-8, Exterior(2R) 32-11-8 to 36-8-8, Interior(1) 36-8-8 to 37-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=178, 10=233.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

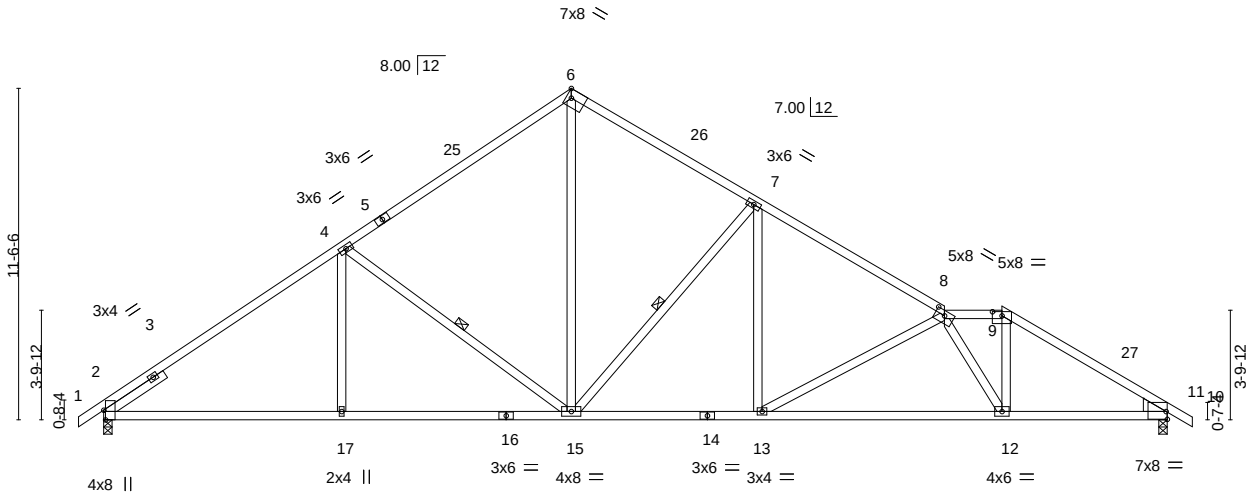
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810791
2847294	A4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:59 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-veisaNOZUToRmpZkJ0gaEnP1FesGLzMOnUkbz17Ek

-0-10-8	8-3-6	16-3-3	22-9-2	29-3-0	31-3-0	37-0-0	37-10-8
0-10-8	8-3-6	7-11-14	6-5-14	6-5-14	2-0-0	5-9-0	0-10-8

Scale = 1:80.2



8-3-6	16-3-3	22-9-2	29-3-0	31-3-0	37-0-0
8-3-6	7-11-14	6-5-14	6-5-14	2-0-0	5-9-0

Plate Offsets (X,Y)-- [2:0-4-1,Edge], [8:0-4-0,0-2-0], [9:0-4-0,0-1-11], [10:Edge,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	0.70	Vert(LL)	-0.19	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.46	12-13	>969	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 164 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-9-1 max.): 8-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-15, 7-15

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=269(LC 11)
Max Uplift 2=-199(LC 12), 10=-234(LC 13)
Max Grav 2=1726(LC 1), 10=1726(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2158/292, 4-6=-1821/321, 6-7=-1713/324, 7-8=-2442/331, 8-9=-2226/335, 9-10=-2737/345
BOT CHORD 2-17=-269/1892, 15-17=-269/1892, 13-15=-96/2011, 12-13=-284/2856, 10-12=-203/2273
WEBS 4-17=0/325, 4-15=-676/277, 6-15=-198/1243, 7-15=-963/282, 7-13=-53/628, 8-12=-1223/174, 9-12=-87/1152, 8-13=-964/247

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-9-14, Interior(1) 2-9-14 to 16-3-3, Exterior(2R) 16-3-3 to 19-11-10, Interior(1) 19-11-10 to 31-3-0, Exterior(2R) 31-3-0 to 34-11-6, Interior(1) 34-11-6 to 37-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=199, 10=234.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/23/2021

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor
2847294	A5	Roof Special	1	1	I46810792 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:01 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-r1qd?3Qp0428066QQj2GCUL3SbKnvrfl1NbpUzL78i

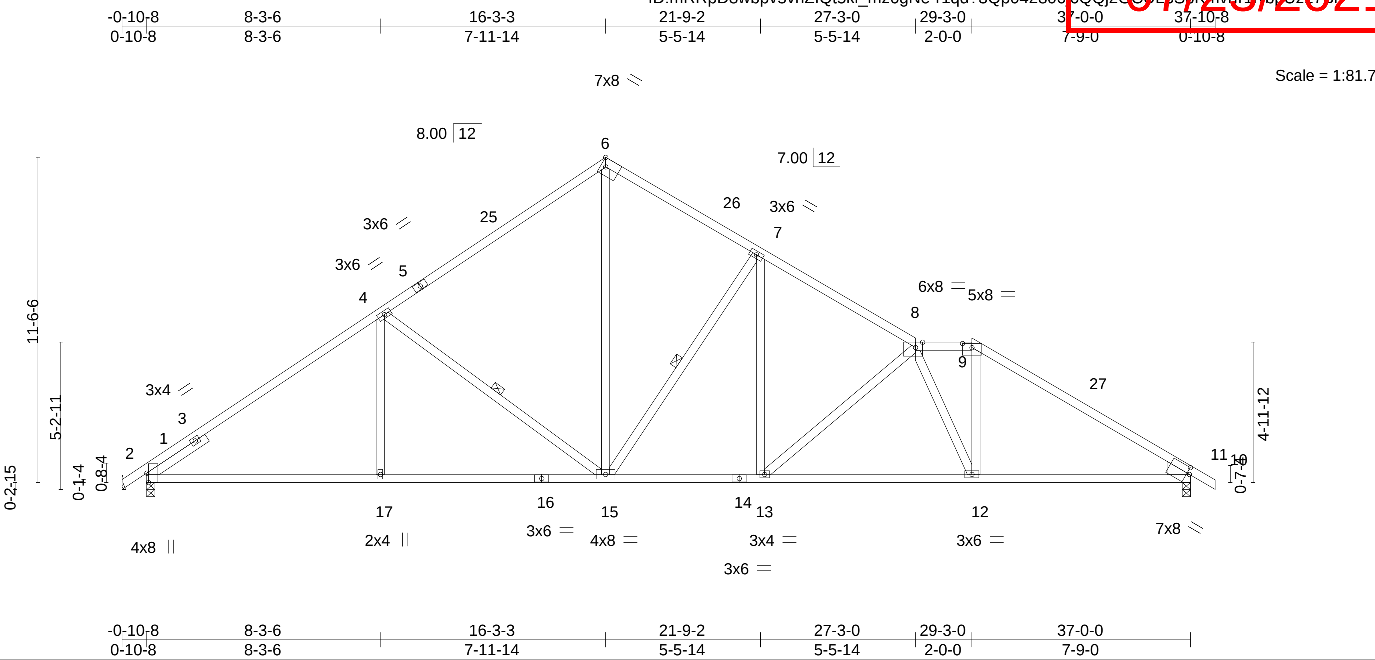


Plate Offsets (X,Y)-- [2:0-4-1,Edge], [8:0-3-0,Edge], [9:0-4-0,0-1-11], [10:0-1-1,0-2-11]

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	0.74	Vert(LL)	-0.16	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.35	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 167 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-8-11 max.): 8-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-15, 7-15

REACTIONS. (size) 2=0-3-8, 10=0-3-8, 1=Mechanical
Max Horz 2=493(LC 25), 1=-493(LC 25)
Max Uplift 2=-550(LC 12), 10=-233(LC 13), 1=-359(LC 25)
Max Grav 2=1978(LC 1), 10=1723(LC 1), 1=356(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-598/651, 2-4=-2137/277, 4-6=-1813/318, 6-7=-1681/323, 7-8=-2280/326, 8-9=-2161/352, 9-10=-2666/340
BOT CHORD 2-17=-233/1870, 15-17=-233/1870, 13-15=-71/1883, 12-13=-200/2514, 10-12=-173/2190
WEBS 4-17=0/319, 4-15=-643/244, 6-15=-209/1255, 7-15=-913/269, 7-13=-87/670, 8-13=-834/223, 8-12=-855/106, 9-12=-41/926

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-9-12 to 2-10-10, Interior(1) 2-10-10 to 16-3-3, Exterior(2R) 16-3-3 to 19-11-10, Interior(1) 19-11-10 to 29-3-0, Exterior(2R) 29-3-0 to 32-11-6, Interior(1) 32-11-6 to 37-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=550, 10=233, 1=359.
7) Non Standard bearing condition. Review required.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/23/2021

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810793
2847294	A6	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:05 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-ko38qQTK4JYaUk1tfGn_Q2f3J3w4ilfFMUovFz17Re

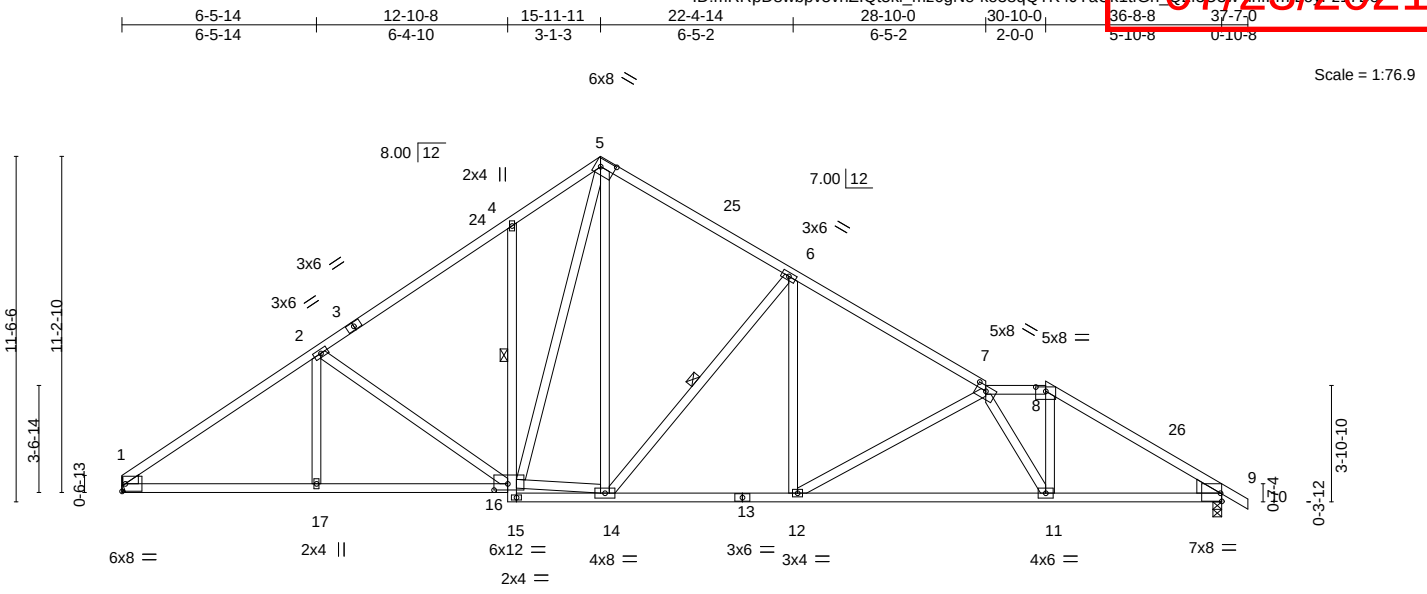


Plate Offsets (X,Y)-- [5:0-5-11,0-3-0], [7:0-4-0,0-2-0], [8:0-4-0,0-1-11], [9:Edge,0-3-4], [16:0-5-8,0-2-8]

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	0.59	Vert(LL)	-0.18	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.43	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 182 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-9-10 max.): 7-8.
BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 4-16
WEBS 1 Row at midpt 6-14

REACTIONS. (size) 1=Mechanical, 9=0-3-8
Max Horz 1=-263(LC 8)
Max Uplift 1=-180(LC 12), 9=-235(LC 13)
Max Grav 1=1651(LC 1), 9=1714(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2502/291, 2-4=-2026/314, 4-5=-1938/406, 5-6=-1699/327, 6-7=-2408/332, 7-8=-2204/338, 8-9=-2710/346
BOT CHORD 1-17=-291/1984, 16-17=-291/1984, 4-16=-346/199, 12-14=-94/1985, 11-12=-279/2803, 9-11=-203/2249
WEBS 2-17=0/255, 2-16=-522/211, 14-16=0/1107, 5-16=-284/867, 5-14=-195/730, 6-14=-983/280, 6-12=-51/635, 7-12=-940/244, 7-11=-1180/165, 8-11=-81/1121

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-8-1, Interior(1) 3-8-1 to 15-11-11, Exterior(2R) 15-11-11 to 19-7-12, Interior(1) 19-7-12 to 30-10-0, Exterior(2R) 30-10-0 to 34-6-1, Interior(1) 34-6-1 to 37-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) 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=235.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

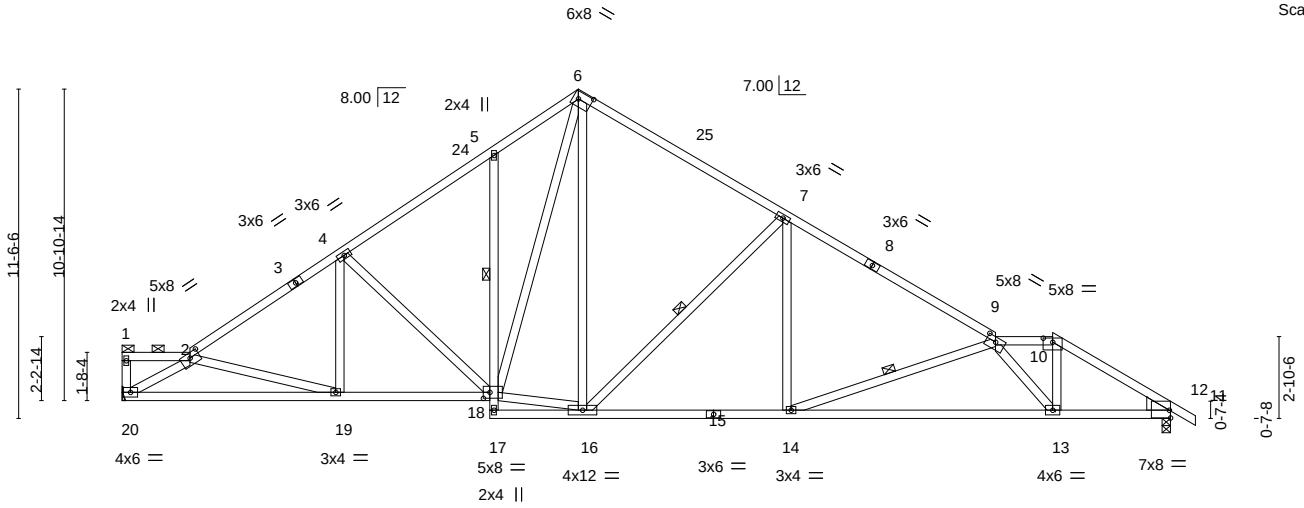
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810794
2847294	A7	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:07 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-gBBuF6VabwpIk1AGnhqSvTkPlsZ9AqQYDzqv05z17Bc

2-4-8	7-7-8	12-10-8	15-11-11	23-3-6	30-7-0	32-7-0	36-8-8	37-7-0
2-4-8	5-3-0	5-3-0	3-1-3	7-3-10	7-3-10	2-0-0	4-1-8	0-10-8

Scale = 1:80.7



2-4-8	7-7-8	12-10-8	15-11-11	23-3-6	32-7-0	36-8-8
2-4-8	5-3-0	5-3-0	3-1-3	7-3-10	9-3-10	4-1-8

Plate Offsets (X,Y)-- [2:0-4-0,0-2-0], [6:0-5-11,0-3-0], [9:0-4-0,0-2-0], [10:0-4-0,0-1-11], [11:Edge,0-3-4], [18:0-2-12,0-2-8]

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	0.60	Vert(LL)	-0.24	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.55	13-14	>794	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.14	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 188 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-7 max.): 1-2, 9-10.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 5-18
WEBS 1 Row at midpt 7-16, 9-14

REACTIONS. (size) 20=Mechanical, 11=0-3-8
Max Horz 20=-279(LC 8)
Max Uplift 20=-181(LC 12), 11=-236(LC 13)
Max Grav 20=1645(LC 1), 11=1707(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2487/287, 4-5=-2041/315, 5-6=-1954/396, 6-7=-1707/320, 7-9=-2533/340, 9-10=-2209/313, 10-11=-2727/337
BOT CHORD 19-20=-384/2360, 18-19=-245/2001, 5-18=-279/163, 14-16=-111/2081, 13-14=-370/3193, 11-13=-218/2279
WEBS 2-20=-2723/373, 2-19=-372/144, 4-19=0/337, 4-18=-546/184, 16-18=-3/1240, 6-18=-274/956, 6-16=-187/616, 7-16=-1026/294, 7-14=-22/619, 9-14=-1181/287, 9-13=-1554/251, 10-13=-124/1270

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-4-8, Interior(1) 2-4-8 to 15-11-11, Exterior(2R) 15-11-11 to 19-7-12, Interior(1) 19-7-12 to 32-7-0, Exterior(2R) 32-7-0 to 36-2-0, Interior(1) 36-2-0 to 37-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=181, 11=236.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810795
2847294	A8	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:10 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-5ms1u8XTurBtbVvrSpN976MvZ4bdNyJ_vx2Zd7z17EZ

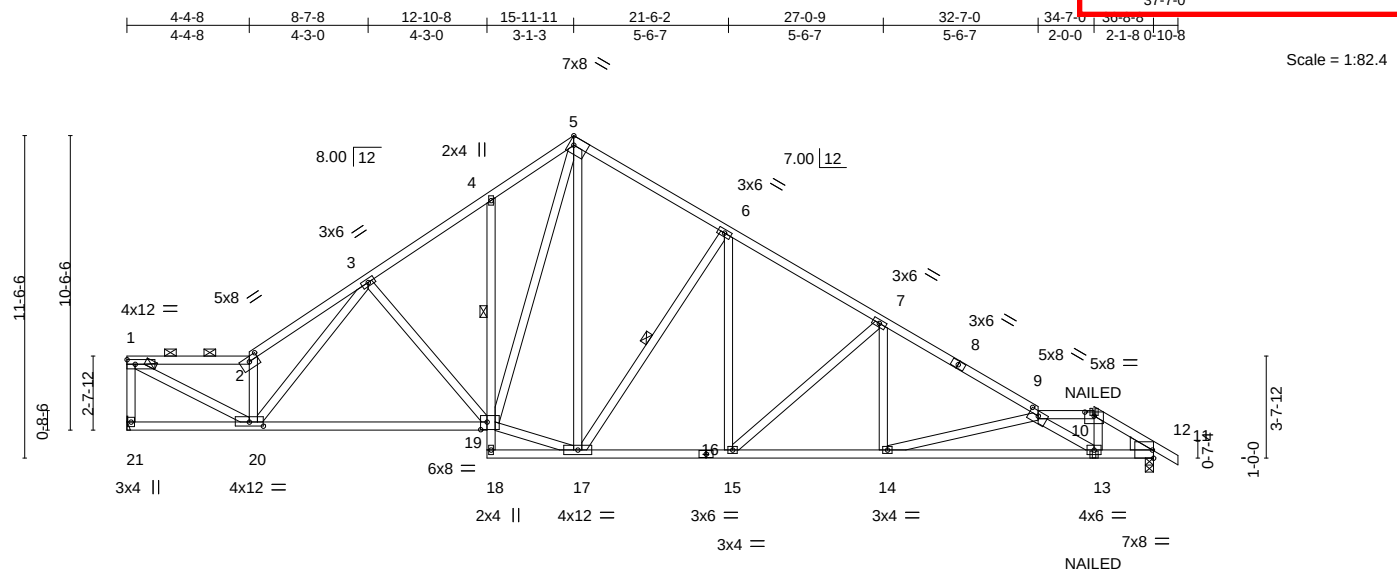


Plate Offsets (X,Y)-- [2:0-4-0,0-2-0], [9:0-4-0,0-2-0], [10:0-4-0,0-1-11], [19:0-2-12,0-3-4], [20:0-6-0,0-1-12]

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	0.69	Vert(LL)	-0.21	15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.49	19-20	>894	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 199 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-5 max.): 1-2, 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 17-18.
1 Row at midpt 4-19
WEBS 1 Row at midpt 6-17

REACTIONS. (size) 21=Mechanical, 11=0-3-8
Max Horz 21=-290(LC 4)
Max Uplift 21=-186(LC 8), 11=-238(LC 9)
Max Grav 21=1645(LC 1), 11=1715(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-21=-1610/190, 1-2=-2682/251, 2-3=-3153/356, 3-4=-2115/306, 4-5=-2061/371, 5-6=-1658/309, 6-7=-2245/343, 7-9=-2989/394, 9-10=-2072/267, 10-11=-2587/305
BOT CHORD 20-21=-227/263, 19-20=-223/2022, 15-17=-68/1857, 14-15=-209/2511, 13-14=-517/4057, 11-13=-220/2194
WEBS 1-20=-290/2996, 2-20=-1984/289, 3-20=-101/880, 3-19=-534/192, 17-19=0/1414, 5-19=-264/1217, 5-17=-230/520, 6-17=-926/274, 6-15=-99/657, 7-15=-863/219, 7-14=-25/565, 9-14=-1598/318, 9-13=-2399/376, 10-13=-119/1231

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=4.2psf; h=15ft; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=186, 11=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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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

July 1,2021

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810795
2847294	A8	Roof Special Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-5=-70, 5-9=-70, 9-10=-70, 10-12=-70, 19-21=-20, 18-22=-20
   Concentrated Loads (lb)
   Vert: 13=-8(B)

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810796
2847294	A9	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:11 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-ZyQP5UY5f9JkDfU10XuOgJv1xTyT6UW78Dg6AyZ17BY

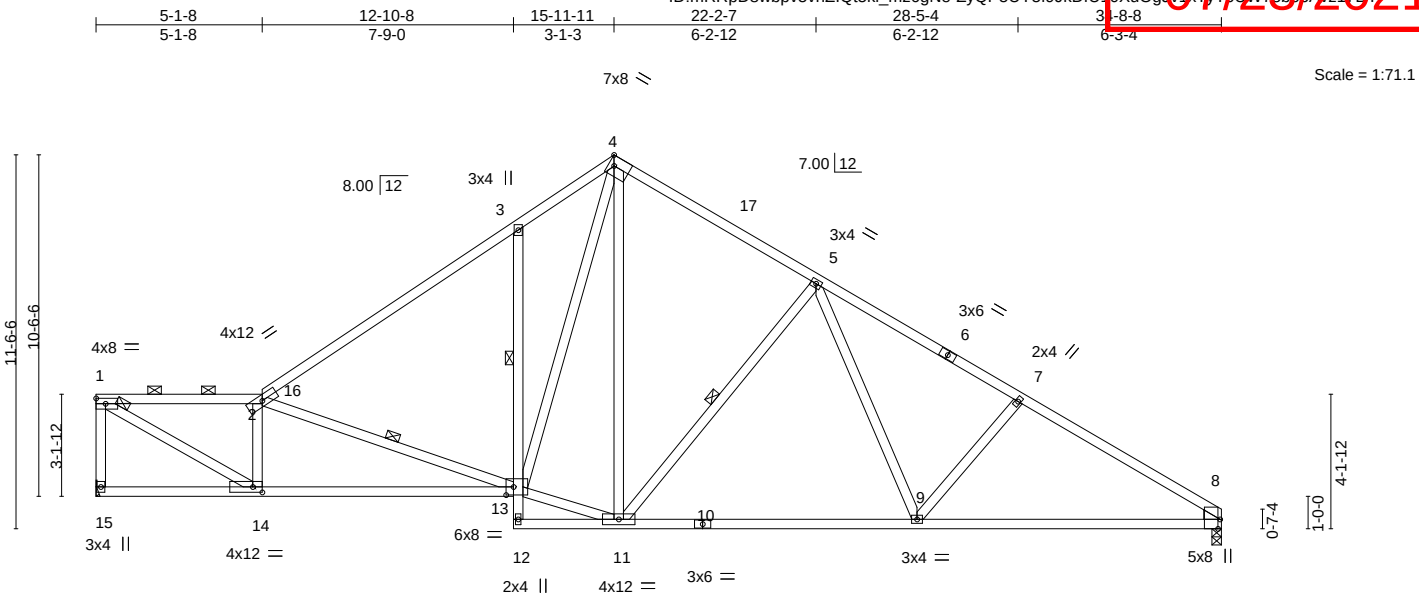


Plate Offsets (X,Y)-- [8:0-3-8,Edge], [13:0-2-12,0-3-0], [14:0-3-8,0-2-0]

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	0.85	Vert(LL)	-0.20	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.44	8-9	>946	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 170 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
2-4: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

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

REACTIONS. (size) 15=Mechanical, 8=0-3-8
Max Horz 15=-293(LC 8)
Max Uplift 15=-182(LC 12), 8=-198(LC 13)
Max Grav 15=1549(LC 1), 8=1549(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-1509/191, 1-2=-2277/263, 2-3=-2027/274, 3-4=-1952/411, 4-5=-1519/301, 5-7=-2229/345, 7-8=-2476/334
BOT CHORD 14-15=-226/261, 13-14=-276/2334, 3-13=-479/288, 9-11=-76/1646, 8-9=-200/2022
WEBS 1-14=-281/2606, 2-14=-1188/211, 2-13=-820/177, 11-13=0/1248, 4-13=-322/1240, 4-11=-194/404, 5-11=-717/266, 5-9=-79/500, 7-9=-320/202

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 34-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=182, 8=198.
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.

July 1,2021

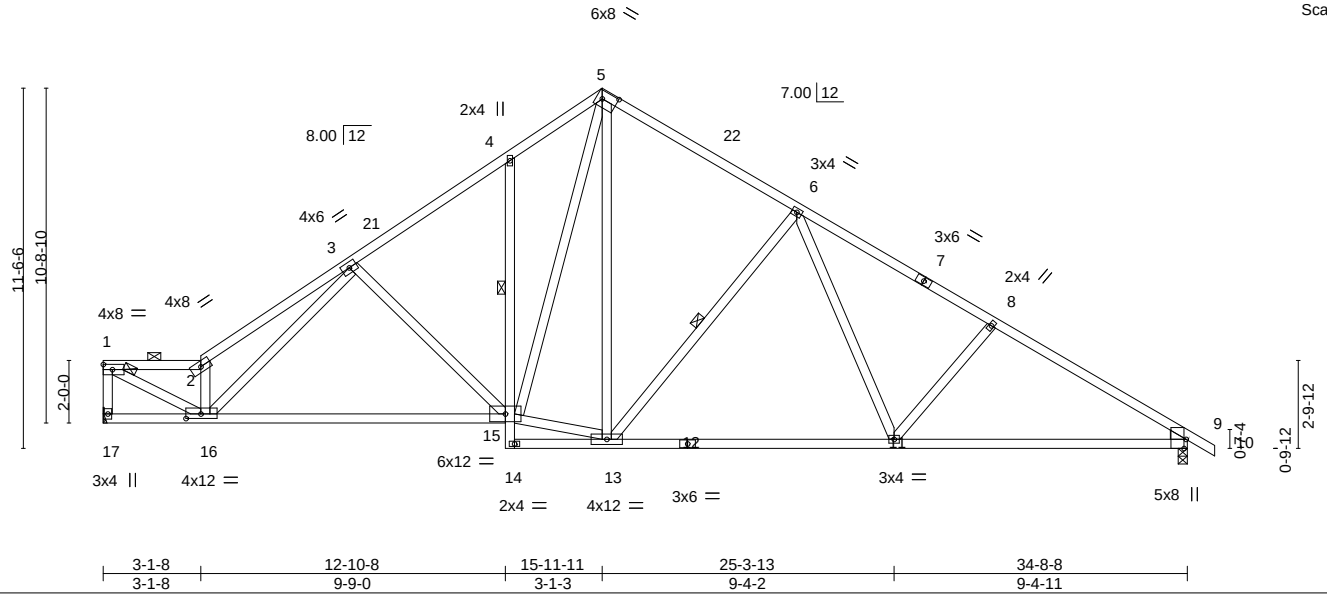
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810797
2847294	A10	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:38 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-1cxwAC8OR09PlaSha5oedMLULAprXLHYyWWJz17O3

3-1-8	8-0-0	12-10-8	15-11-11	22-2-7	28-5-4	34-8-8	35-7-0
3-1-8	4-10-8	4-10-8	3-1-3	6-2-12	6-2-12	6-3-4	0-10-8

Scale = 1:73.8



3-1-8	12-10-8	15-11-11	25-3-13	34-8-8
3-1-8	9-9-0	3-1-3	9-4-2	9-4-11

Plate Offsets (X,Y)-- [5:0-5-11,0-3-0], [9:0-3-8,Edge], [16:0-5-12,0-1-12]

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	0.46	Vert(LL)	-0.25	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.56	15-16	>736	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 173 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-11 max.): 1-2.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 4-15
WEBS 1 Row at midpt 6-13

REACTIONS. (size) 17=Mechanical, 9=0-3-8
Max Horz 17=-282(LC 8)
Max Uplift 17=-177(LC 12), 9=-216(LC 13)
Max Grav 17=1555(LC 1), 9=1617(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-17=-1543/164, 1-2=-2571/247, 2-3=-2980/348, 3-4=-1931/289, 4-5=-1851/373, 5-6=-1539/303, 6-8=-2228/343, 8-9=-2481/336
BOT CHORD 16-17=-230/257, 15-16=-245/1877, 4-15=-267/163, 13-14=-265/0, 11-13=-70/1660, 9-11=-190/2048
WEBS 1-16=-273/2866, 2-16=-1824/277, 3-16=-85/799, 3-15=-504/208, 13-15=0/1343, 5-15=-267/1048, 5-13=-192/460, 6-13=-718/267, 6-11=-78/489, 8-11=-347/194

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-8, Interior(1) 3-1-8 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=177, 9=216.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

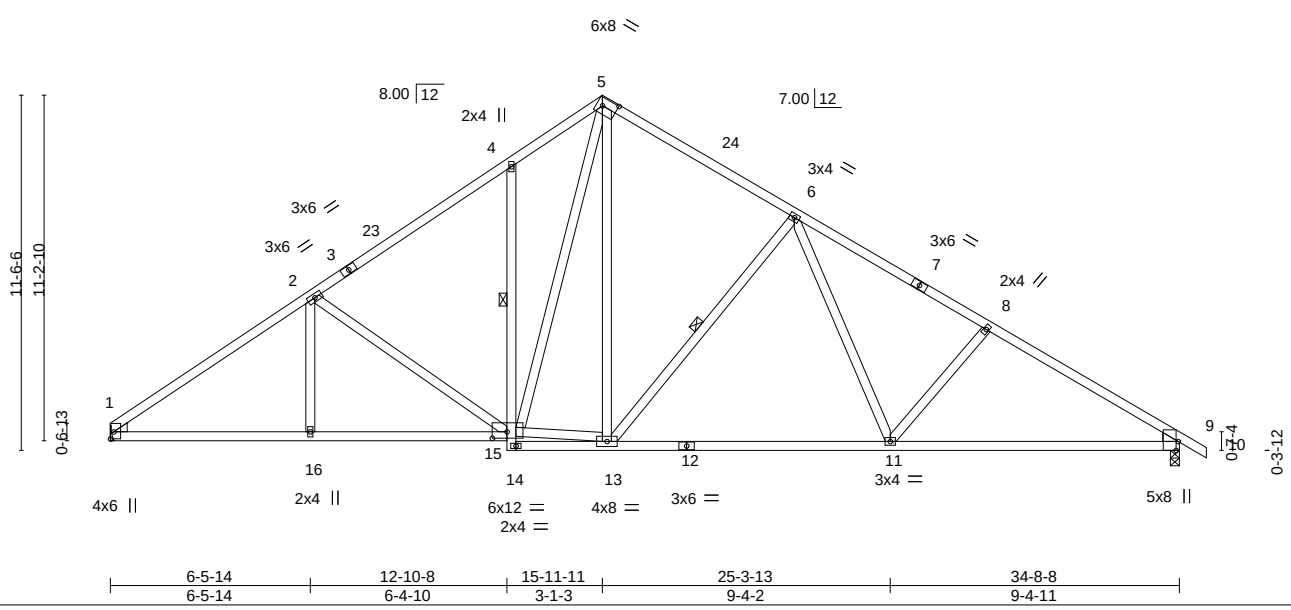
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810798
2847294	A11	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:40 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kI_mz6gNe-z_2hbtAeydP7?uc4hWr6vn6gh_PoLRqZQGnzaC217C1

6-5-14	12-10-8	15-11-11	22-2-7	28-5-4	34-8-8	35-7-0
6-5-14	6-4-10	3-1-3	6-2-12	6-2-12	6-3-4	0-10-8

Scale = 1:74.8



6-5-14	12-10-8	15-11-11	25-3-13	34-8-8
6-5-14	6-4-10	3-1-3	9-4-2	9-4-11

Plate Offsets (X,Y)-- [1:Edge,0-1-5], [5:0-5-11,0-3-0], [9:0-3-8,Edge], [15:0-5-12,0-2-8]

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	0.46	Vert(LL)	-0.16	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 166 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 4-15
WEBS 1 Row at midpt 6-13

REACTIONS. (size) 1=Mechanical, 9=0-3-8
Max Horz 1=-263(LC 8)
Max Uplift 1=-175(LC 12), 9=-214(LC 13)
Max Grav 1=1561(LC 1), 9=1624(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2349/270, 2-4=-1868/292, 4-5=-1781/385, 5-6=-1551/304, 6-8=-2241/339, 8-9=-2493/332
BOT CHORD 1-16=-284/1859, 15-16=-284/1859, 4-15=-346/199, 11-13=-78/1671, 9-11=-186/2059
WEBS 2-16=0/259, 2-15=-528/212, 13-15=0/1066, 5-15=-294/832, 5-13=-164/629, 6-13=-719/267, 6-11=-77/489, 8-11=-347/194

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-5-10, Interior(1) 3-5-10 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) 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) 1=175, 9=214.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	L46810799
2847294	A12	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:23:42 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-vNAR0ZBvUEfrEBnSpxta?C06n2?pkYsTaG4fAz17C?

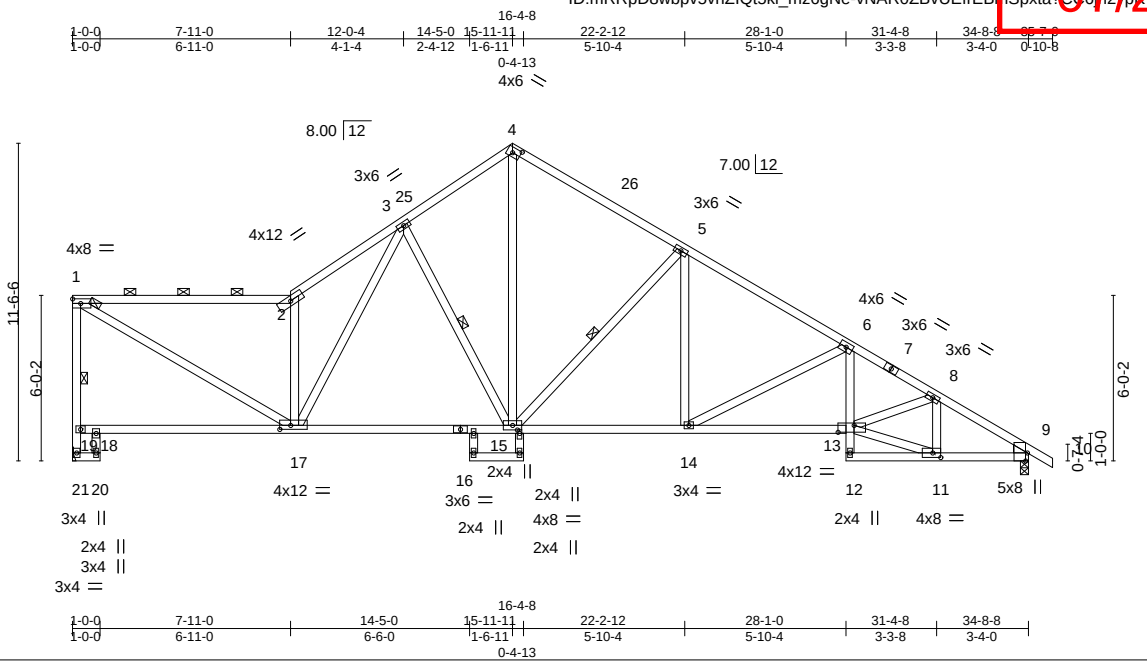


Plate Offsets (X,Y)-- [4:0-3-8,0-2-4], [9:0-3-8,Edge], [11:0-3-8,0-2-0], [13:0-7-0,0-3-0], [15:0-1-8,0-1-0], [17:0-4-12,0-1-12]

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	0.75	Vert(LL)	-0.16	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.34	15-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.17	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 184 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-2: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-12 max.): 1-2.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 20-21,18-20.
WEBS 1 Row at midpt 1-21, 5-15, 3-15

REACTIONS. (size) 21=Mechanical, 9=0-3-8
Max Horz 21=-334(LC 10)
Max Uplift 21=-194(LC 12), 9=-212(LC 13)
Max Grav 21=1548(LC 1), 9=1621(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 19-21=-1495/158, 1-19=-1464/212, 1-2=-2031/262, 2-3=-2479/368, 3-4=-1653/304, 4-5=-1643/295, 5-6=-2308/299, 6-8=-3092/368, 8-9=-2503/302
BOT CHORD 17-18=-234/318, 15-17=-77/1590, 14-15=-68/1911, 13-14=-202/2676, 6-13=-24/491, 9-11=-191/1995
WEBS 1-17=-241/2292, 2-17=-1759/294, 5-15=-866/258, 5-14=-37/502, 6-14=-860/204, 11-13=-175/1976, 8-13=-26/681, 8-11=-576/84, 4-15=-212/1304, 3-15=-603/189, 3-17=-124/832

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=194, 9=212.
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.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810890
2847294	A13	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:20:45 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-JysaebEnn91Q5fV1U3QIcngeD?5Q0HsI9YVkFFz17Ey

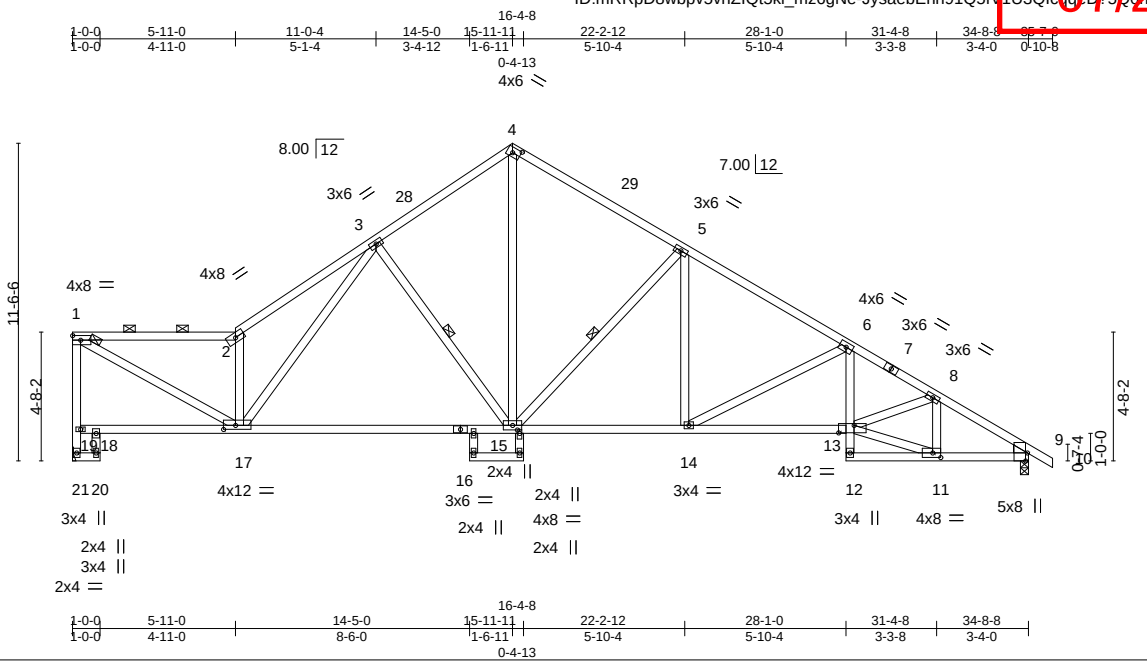


Plate Offsets (X,Y)-- [4:0-3-8,0-2-4], [9:0-3-8,Edge], [11:0-3-8,0-2-0], [13:0-6-12,0-3-4], [15:0-1-8,0-1-0], [17:0-5-4,0-1-12]

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	0.61	Vert(LL)	-0.26	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.59	15-17	>705	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 176 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-0-7 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-15, 5-15

REACTIONS. (size) 21=Mechanical, 9=0-3-8
Max Horz 21=-320(LC 10)
Max Uplift 21=-185(LC 12), 9=-211(LC 13)
Max Grav 21=1555(LC 1), 9=1617(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 19-21=-1510/166, 1-19=-1500/193, 1-2=-2291/259, 2-3=-2771/372, 3-4=-1701/296, 4-5=-1662/293, 5-6=-2331/302, 6-8=-3144/375, 8-9=-2438/308
BOT CHORD 17-18=-259/317, 15-17=-140/1681, 14-15=-65/1929, 13-14=-211/2744, 6-13=-23/512, 9-11=-198/2021
WEBS 1-17=-253/2568, 2-17=-1856/306, 3-17=-117/908, 3-15=-603/227, 5-15=-865/263, 5-14=-46/513, 6-14=-914/208, 11-13=-175/1967, 8-13=-25/725, 8-11=-715/93, 4-15=-194/1295

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=185, 9=211.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810891
2847294	AG1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:17 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-N6ngMXcsF?3txaxBMo?ova82buuIoWFC0WWFRNZz1TBS

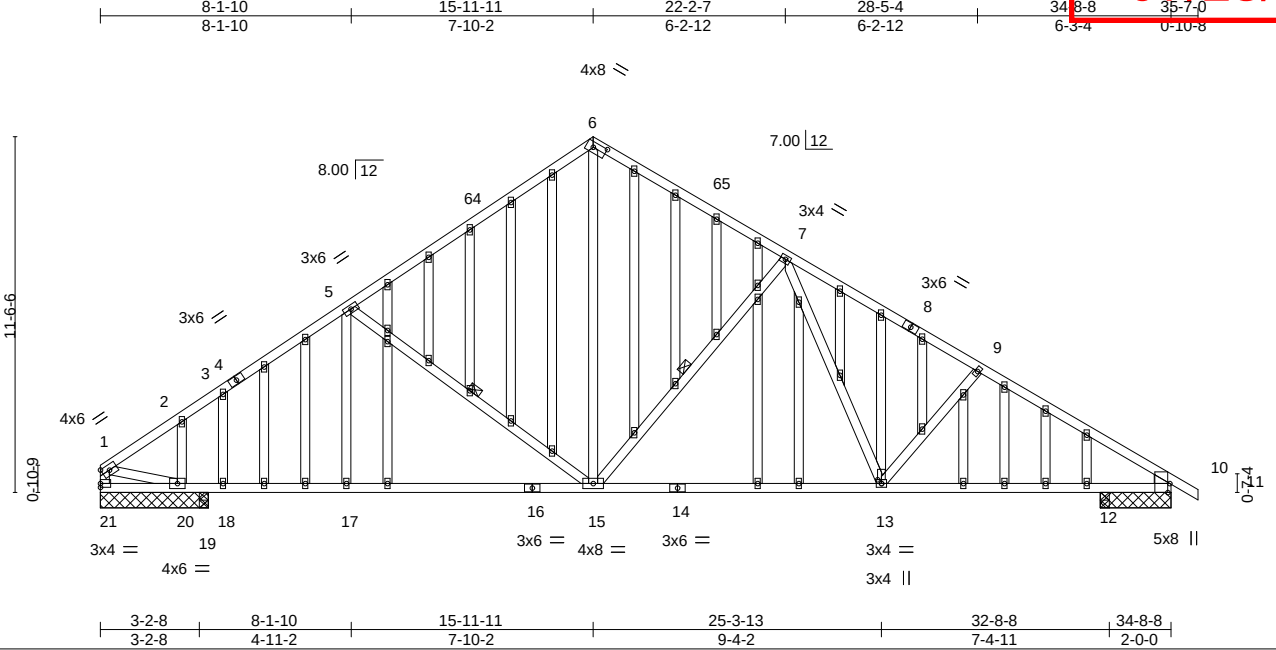


Plate Offsets (X,Y)-- [6:0-5-4,0-2-0], [10:0-3-8,Edge], [13:0-1-8,0-1-8]

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	0.86	Vert(LL)	-0.17	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.40	13-15	>886	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 261 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	
Right: 2x4 SPF No.2	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-15, 7-15

REACTIONS. All bearings 3-6-0 except (jt=length) 10=2-3-8, 19=0-3-8, 12=0-3-8.
(lb) - Max Horz 21=-276(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 19 except 21=-108(LC 13), 10=-211(LC 13), 20=-596(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 20, 12 except 21=1600(LC 1), 10=1548(LC 1), 19=556(LC 1)

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

TOP CHORD	1-2=-1977/156, 2-3=-1945/197, 3-5=-1980/243, 5-6=-1605/291, 6-7=-1504/292, 7-9=-2186/333, 9-10=-2437/326, 1-21=-1541/119
BOT CHORD	20-21=-223/323, 19-20=-200/1605, 18-19=-200/1605, 17-18=-200/1605, 15-17=-200/1605, 13-15=-67/1630, 12-13=-181/2006, 10-12=-181/2006
WEBS	5-15=-532/220, 6-15=-165/1012, 7-15=-697/264, 7-13=-80/451, 9-13=-334/196, 1-20=-83/1510

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19 except (jt=lb) 21=108, 10=211, 20=596.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810892
2847294	AG2	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:29 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-1QWCtemNQgaANQsV3JDcO6eFXkA3KeCnHO3gosz1TBG

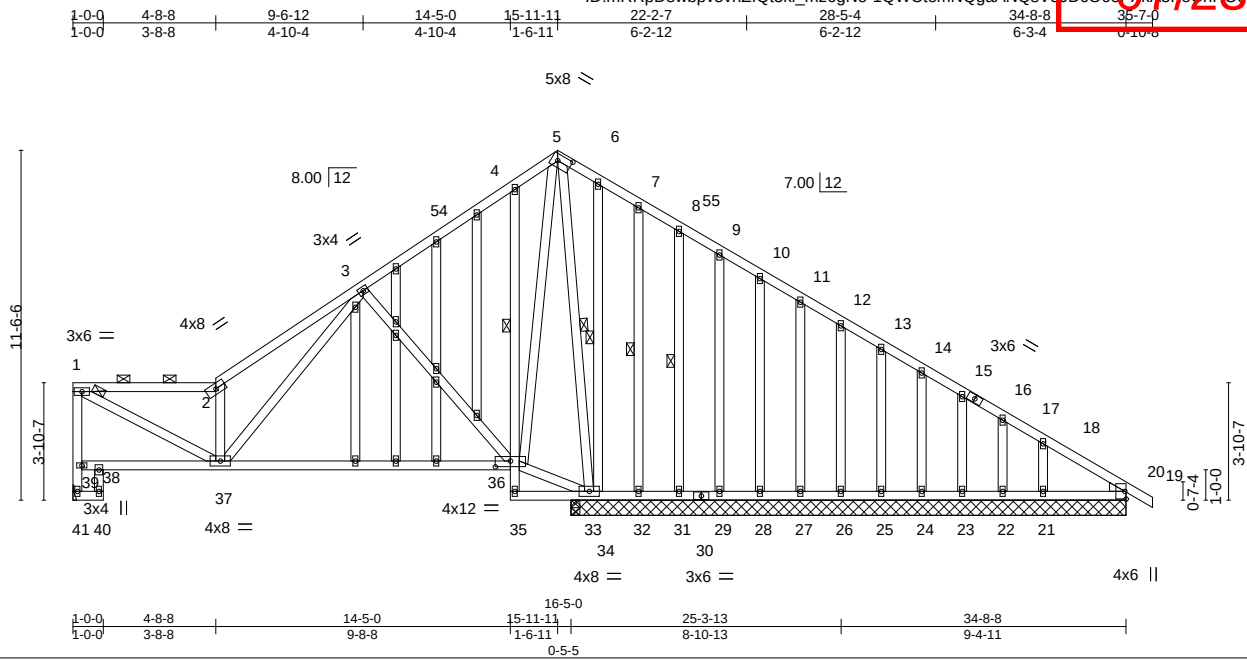


Plate Offsets (X,Y)-- [5:0-5-8,0-2-8], [36:0-6-0,0-2-4]

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	0.26	Vert(LL)	-0.20	36-37	>971	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.42	36-37	>468	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.06	34	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 266 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 4-36
WEBS 1 Row at midpt 6-33, 7-32, 8-31, 5-33

REACTIONS. All bearings 18-3-8 except (jt=length) 41=Mechanical, 34=0-3-8.
(lb) - Max Horz 41=-310(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 41, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22, 34, 19 except 33=-107(LC 12), 19=-142(LC 25), 21=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 19, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22 except 41=567(LC 1), 33=854(LC 1), 21=292(LC 20), 34=380(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 39-41=-547/82, 1-39=-542/84, 1-2=-725/92, 2-3=-909/170, 3-4=-81/269, 5-6=-10/381, 6-7=-12/409, 7-8=-8/365, 8-9=-5/352, 9-10=-3/351, 10-11=-1/351, 11-12=-12/351, 12-13=-30/351, 13-14=-49/351, 14-15=-68/350, 15-17=-93/354, 17-18=-115/336, 18-19=-175/382
BOT CHORD 37-38=-288/322, 36-37=-102/326, 4-36=-253/145, 32-33=-288/191, 31-32=-288/191, 29-31=-288/191, 28-29=-288/191, 27-28=-288/191, 26-27=-288/191, 25-26=-288/191, 24-25=-288/191, 23-24=-288/191, 22-23=-288/191, 21-22=-288/191, 19-21=-288/191
WEBS 1-37=-90/784, 2-37=-772/186, 3-37=-96/716, 3-36=-537/214, 33-36=-131/268, 5-36=-182/697, 5-33=-928/67

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-6, Interior(1) 3-7-6 to 15-11-11, Exterior(2R) 15-11-11 to 19-5-6, Interior(1) 19-5-6 to 35-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 41, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22, 34 except (jt=lb) 33=107, 19=142, 21=113, 19=142.

July 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810892
2847294	AG2	GABLE	1	1	Job Reference (optional)	

NOTES-

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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810893
2847294	B2	Roof Special	6	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:33 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-vBljj?puUv4cr1AG9HYZypu4LvNCNpNC07Hxp2i7BC

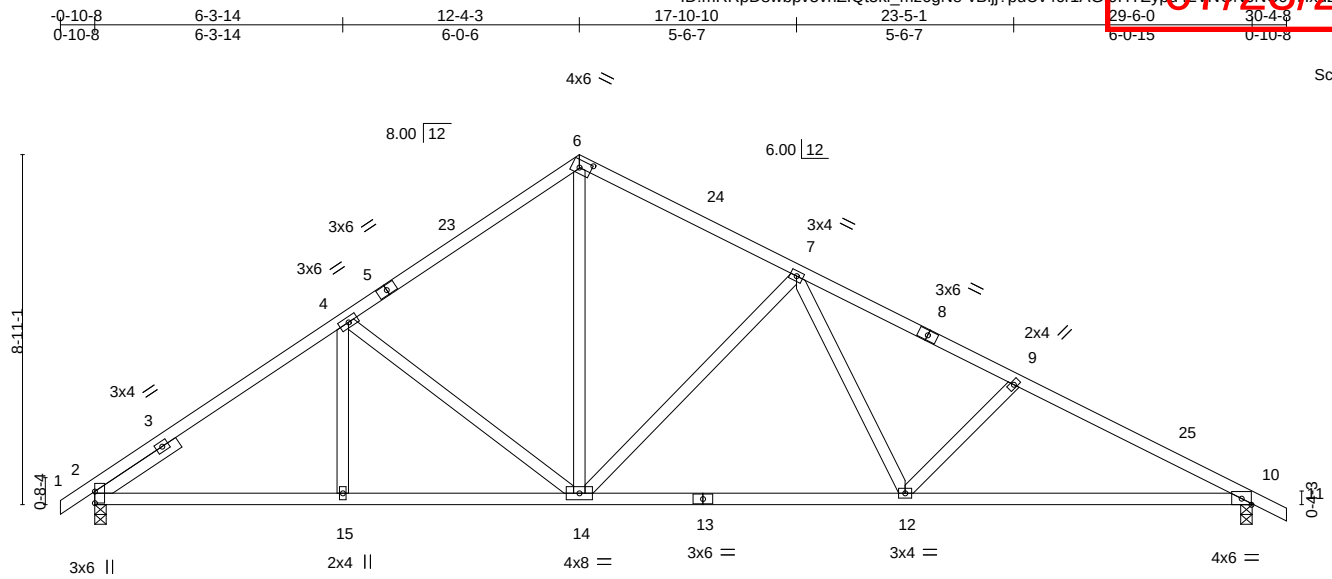


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:0-3-10,0-2-4]

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	0.42	Vert(LL)	-0.12	12-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.29	12-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 121 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-223(LC 10)
Max Uplift 2=-158(LC 12), 10=-196(LC 13)
Max Grav 2=1389(LC 1), 10=1389(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1700/253, 4-6=-1480/272, 6-7=-1353/271, 7-9=-2157/317, 9-10=-2429/340
BOT CHORD 2-15=-199/1478, 14-15=-199/1478, 12-14=-97/1619, 10-12=-221/2129
WEBS 4-14=-472/211, 6-14=-138/925, 7-14=-723/229, 7-12=-68/536, 9-12=-407/181

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-4-3, Exterior(2R) 12-4-3 to 15-4-3, Interior(1) 15-4-3 to 30-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 10=196.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810894
2847294	BG	Roof Special Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:39 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-kL6_z2tf3lrlaydOfPOyoD3?4mjQgGnFaya09Iz17F6

-0-10-8 12-4-3 29-6-0 30-4-8
0-10-8 12-4-3 17-1-13 0-10-8

Scale = 1:58.9

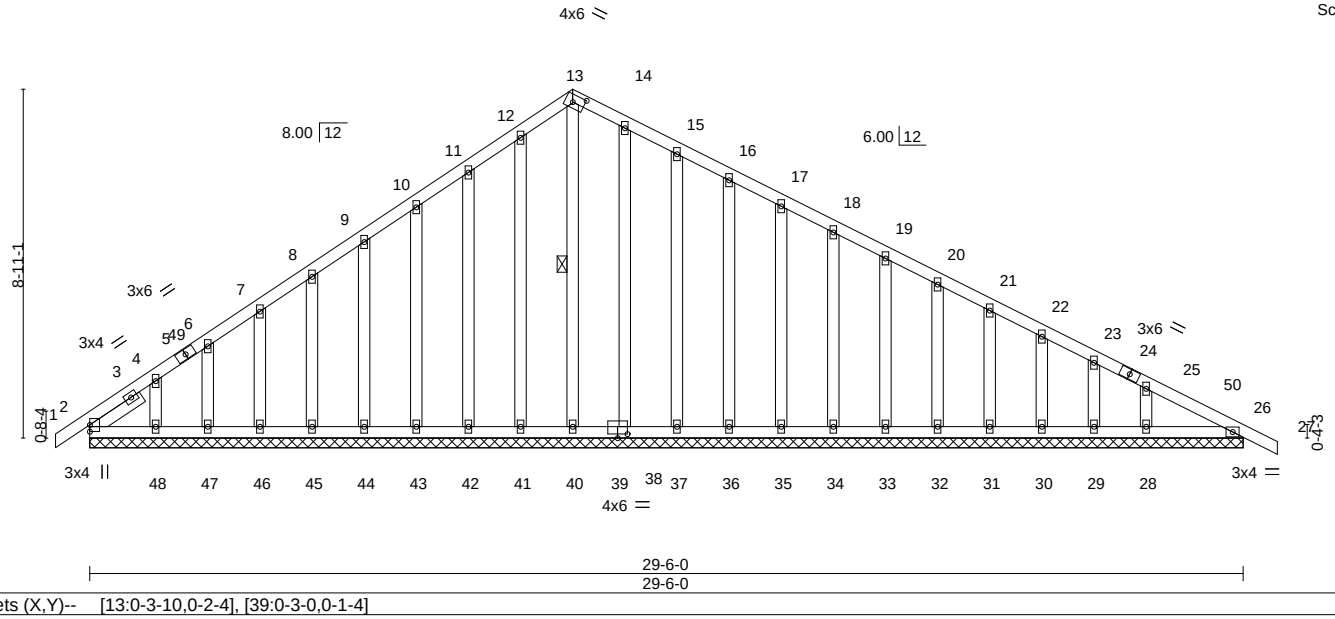


Plate Offsets (X,Y)-- [13:0-3-10,0-2-4], [39:0-3-0,0-1-4]

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	0.06	Vert(LL)	0.00	26	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	26	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	26	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 181 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-9

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 13-40

REACTIONS. All bearings 29-6-0.
(lb) - Max Horz 2=-224(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 41, 42, 43, 44, 45, 46, 47, 48, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28
Max Grav All reactions 250 lb or less at joint(s) 2, 40, 41, 42, 43, 44, 45, 46, 47, 48, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 26

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-104/257

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 12-4-3, Corner(3R) 12-4-3 to 15-4-3, Exterior(2N) 15-4-3 to 30-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 41, 42, 43, 44, 45, 46, 47, 48, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28.
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.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810895
2847294	D1	Roof Special Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:42 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-9wo7b4wXMgDKRQM_KYyfQrh_zczfV2hGVoFmzz17F3

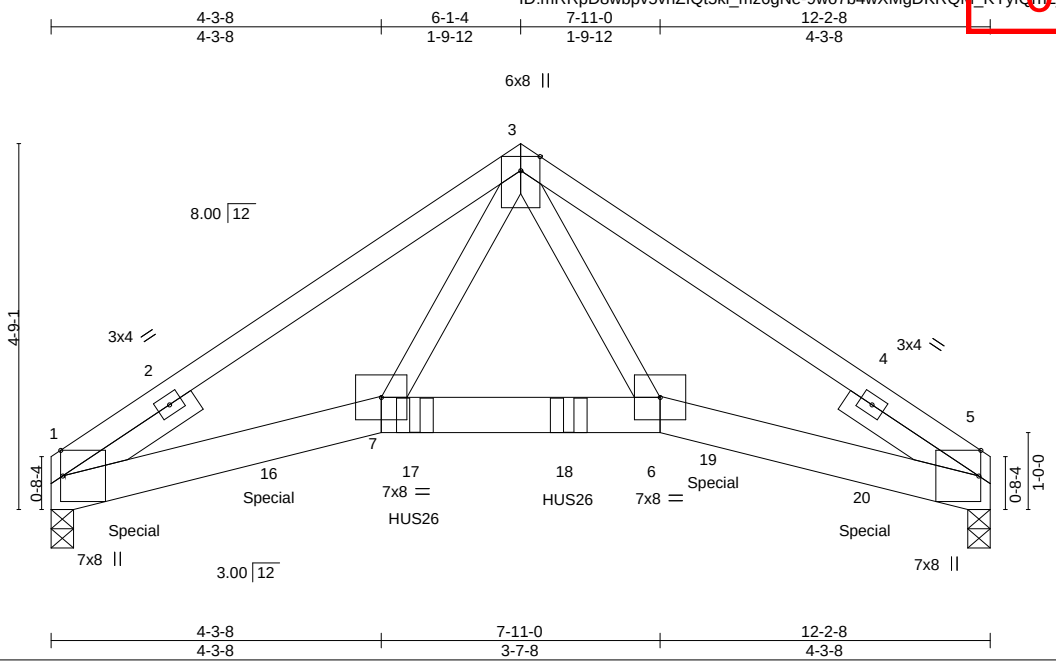


Plate Offsets (X,Y)-- [1:0-4-0,Edge], [5:0-4-0,Edge]

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	0.79	Vert(LL)	-0.12	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.22	6-7	>651	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 105 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-93(LC 27)
Max Uplift 1=-660(LC 8), 5=-591(LC 9)
Max Grav 1=5612(LC 1), 5=4948(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-8319/1018, 3-5=-8090/980
BOT CHORD 1-7=-864/7255, 6-7=-503/4378, 5-6=-811/7152
WEBS 3-6=-577/4765, 3-7=-634/5172

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.
Bottom chords connected as follows: 2x6 - 2 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=4.2psf; h=15ft; 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) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=660, 5=591.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-8-12 from the left end to 6-8-12 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1633 lb down and 198 lb up at 0-11-12, 1625 lb down and 201 lb up at 2-8-12, and 1535 lb down and 197 lb up at 8-8-12, and 1541 lb down and 195 lb up at 10-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

July 1,2021

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810895
2847294	D1	Roof Special Girder	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 7-8=-20, 6-7=-20, 6-12=-20
   Concentrated Loads (lb)
   Vert: 10=-1633(F) 16=-1625(F) 17=-1625(F) 18=-1529(F) 19=-1535(F) 20=-1541(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810896
2847294	D2	Common Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:46 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-1h2eRSz2Qvjmv1fmzN0bbhr6Sa_KpG?HBXn7vNZ17B?

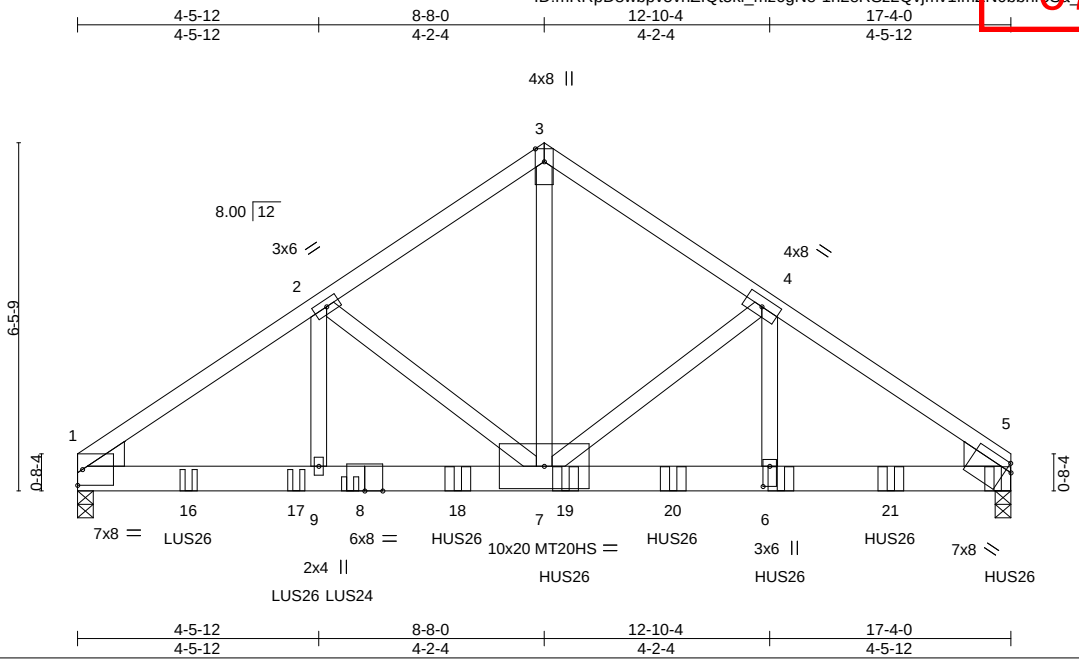


Plate Offsets (X,Y)-- [5:0-1-4,0-1-12], [6:0-4-8,0-1-8]

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	0.57	Vert(LL)	-0.10	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.19	6-7	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 179 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 2100F 1.8E *Except*
5-8: 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SP No.2 , Right: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-136(LC 25)
Max Uplift 1=-674(LC 8), 5=-945(LC 9)
Max Grav 1=5186(LC 1), 5=7798(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7582/999, 2-3=-6093/842, 3-4=-6094/842, 4-5=-8780/1106
BOT CHORD 1-9=-852/6205, 7-9=-852/6205, 6-7=-857/7211, 5-6=-857/7211
WEBS 3-7=-839/6355, 4-7=-2791/435, 4-6=-323/2958, 2-7=-1515/320, 2-9=-194/1523

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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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=4.2psf; h=15ft; 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) All plates are MT20 plates 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=674, 5=945.
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) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 4-0-12 to connect truss(es) to front face of bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 5-0-12 from the left end to connect truss(es) to front face of bottom chord.
11) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-8 oc max. starting at 7-0-12 from the left end to 15-1-4 to connect truss(es) to front face of bottom chord.

July 1,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810896
2847294	D2	Common Girder	1	2	Job Reference (optional)	

NOTES-

12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 4-3-4 oc max. starting at 9-0-12 from the left end to 17-4-0 to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

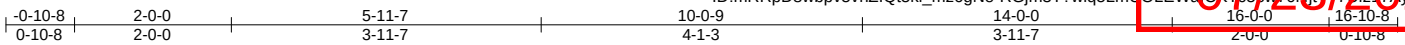
LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 10-13=-20
   Concentrated Loads (lb)
   Vert: 8=-547(F) 6=-1535(F) 15=-1638(F) 16=-738(F) 17=-731(F) 18=-1535(F) 19=-1528(F) 20=-1535(F) 21=-1638(F)

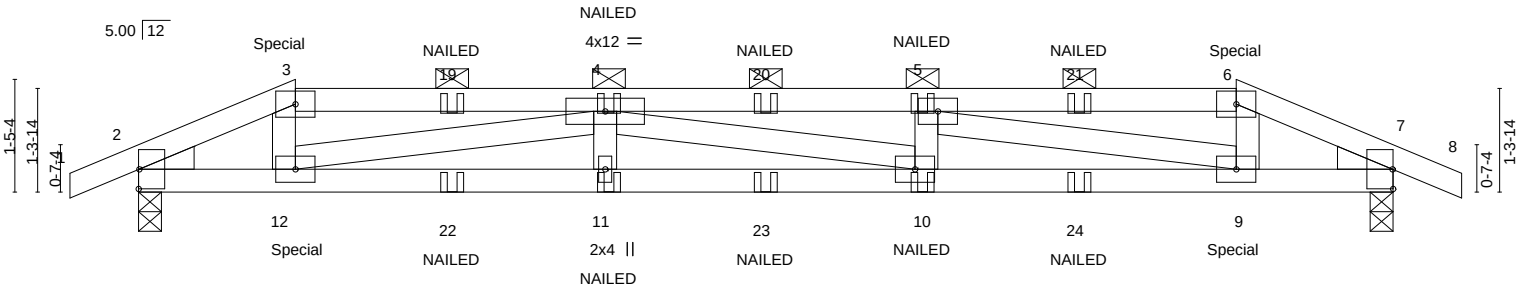
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/23/2021

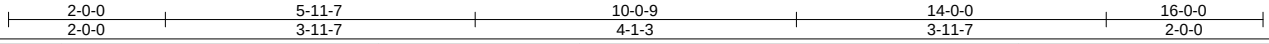
Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810897
2847294	D3	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:49 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-RGjm3T?wiq5LmUOLEWaCKTc50w?0i4jb77UIz17Ay



Scale = 1:29.4





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)	-0.18	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.32	10-11	>603	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 58 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-7 oc purlins, except
2-0-0 oc purlins (3-2-14 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 7-8-11 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-17(LC 30)
Max Uplift 2=-169(LC 4), 7=-169(LC 5)
Max Grav 2=817(LC 1), 7=817(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1345/281, 3-4=-1183/258, 4-5=-2735/612, 5-6=-1183/258, 6-7=-1345/281
BOT CHORD 2-12=-237/1228, 11-12=-588/2735, 10-11=-588/2735, 9-10=-588/2735, 7-9=-239/1228
WEBS 3-12=-50/347, 4-12=-1615/369, 5-9=-1616/368, 6-9=-50/347

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=169, 7=169.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 31 lb down and 60 lb up at 2-0-0, and 31 lb down and 60 lb up at 14-0-0 on top chord, and 26 lb down and 11 lb up at 2-0-0, and 26 lb down and 11 lb up at 13-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-6=-70, 6-8=-70, 13-16=-20
Concentrated Loads (lb)
Vert: 12=-16(B) 11=-8(B) 10=-8(B) 9=-16(B) 22=-8(B) 23=-8(B) 24=-8(B)

July 1,2021

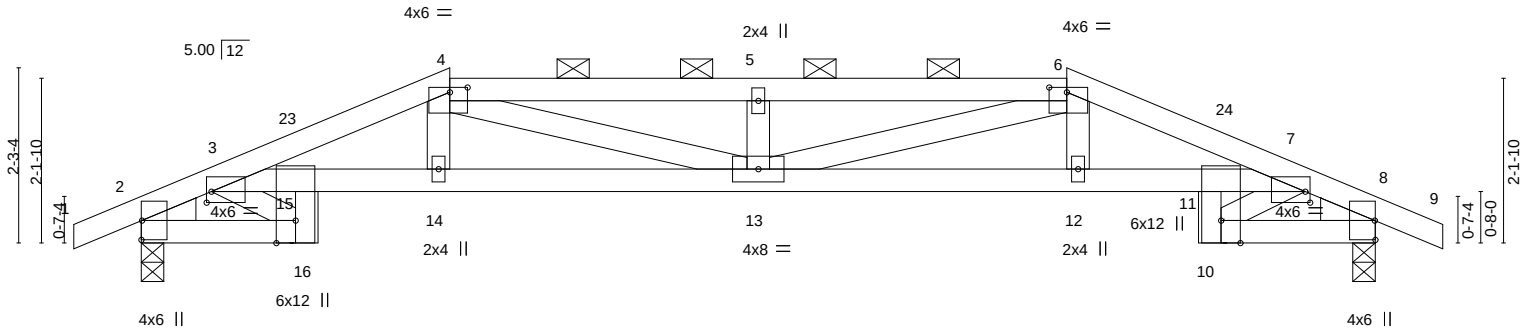
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810898
2847294	D4	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:51 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-OfrXU91BERL20oYMxcmHIZ?Drc5Uqd0LpyEZzz17Aw

-0-10-8	2-3-8	4-0-0	8-0-0	12-0-0	13-8-8	16-0-0	16-10-8
0-10-8	2-3-8	1-8-8	4-0-0	4-0-0	1-8-8	2-3-8	0-10-8

Scale = 1:29.9



2-3-8	4-0-0	8-0-0	12-0-0	13-8-8	16-0-0
2-3-8	1-8-8	4-0-0	4-0-0	1-8-8	2-3-8

Plate Offsets (X,Y)-- [3:0-0-12,0-1-11], [4:0-2-12,0-0-12], [6:0-2-12,0-0-12], [7:0-0-12,0-1-11]

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	0.31	Vert(LL)	-0.14	13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.25	13	>767	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 60 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-3 max.): 4-6.
BOT CHORD Rigid ceiling directly applied. Except: 2-2-0 oc bracing: 11-12

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-30(LC 13)
Max Uplift 2=-114(LC 12), 8=-114(LC 13)
Max Grav 2=781(LC 1), 8=781(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-18=-1014/218, 3-4=-2014/362, 4-5=-2429/451, 5-6=-2429/451, 6-7=-2014/360, 7-8=-1014/217
BOT CHORD 2-16=-149/805, 15-16=-72/441, 3-15=-221/1512, 14-15=-275/1867, 13-14=-274/1833, 12-13=-271/1833, 11-12=-273/1867, 7-11=-217/1512, 10-11=-74/441, 8-10=-152/805
WEBS 4-14=-17/288, 6-12=-18/288, 5-13=-344/115, 4-13=-123/727, 6-13=-121/727, 3-16=-562/105, 7-10=-562/108

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-0, Exterior(2R) 4-0-0 to 8-0-0, Interior(1) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-0-0, Interior(1) 16-0-0 to 16-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=114, 8=114.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

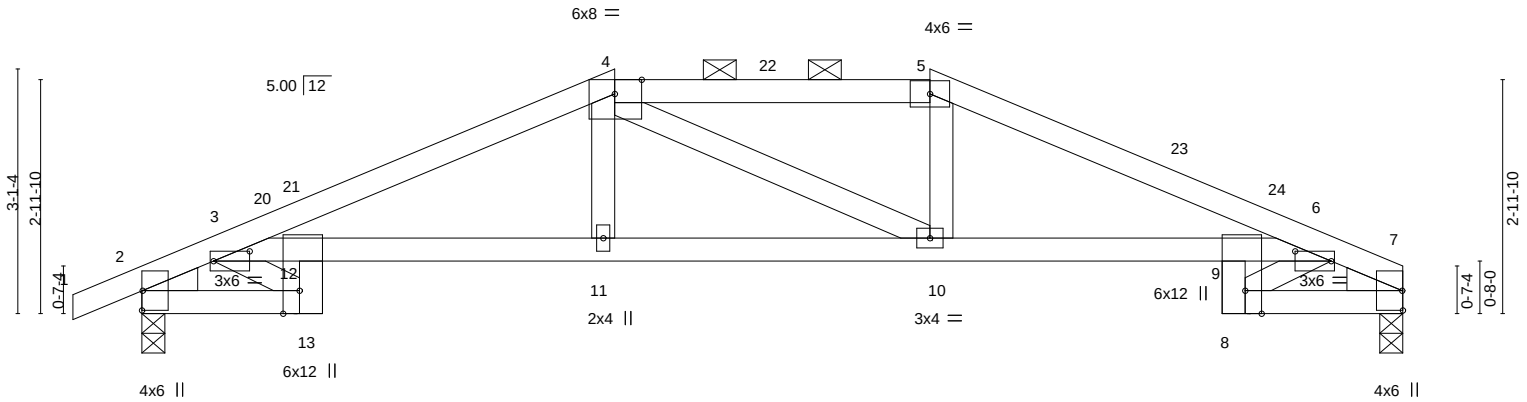
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810899
2847294	D5	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:24:52 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-srPviV2p?lTvdy?vve7?qY5?_?x9D8ZAaTCn5zz17Av

-0-10-8	2-3-8	6-0-0	10-0-0	13-8-8	16-0-0
0-10-8	2-3-8	3-8-8	4-0-0	3-8-8	2-3-8

Scale = 1:29.2



2-3-8	6-0-0	10-0-0	13-8-8	16-0-0
2-3-8	3-8-8	4-0-0	3-8-8	2-3-8

Plate Offsets (X,Y)-- [3:0-5-8,0-1-8], [4:0-4-2,Edge], [6:0-5-8,0-1-8], [9:0-3-8,Edge], [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	0.50	Vert(LL)	-0.14	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.26	9-10	>725	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.13	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-9-6 max.): 4-5.
BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 9-10

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=50(LC 16)
Max Uplift 2=-112(LC 12), 7=-95(LC 13)
Max Grav 2=783(LC 1), 7=718(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-1026/249, 3-4=-1567/350, 4-5=-1416/350, 5-6=-1574/339, 6-7=-1050/249
BOT CHORD 2-13=-200/819, 12-13=-82/407, 3-12=-166/1034, 11-12=-270/1424, 10-11=-270/1409, 9-10=-254/1431, 6-9=-152/1031, 8-9=-82/424, 7-8=-196/845
WEBS 4-11=0/259, 5-10=-6/261, 3-13=-517/122, 6-8=-537/120

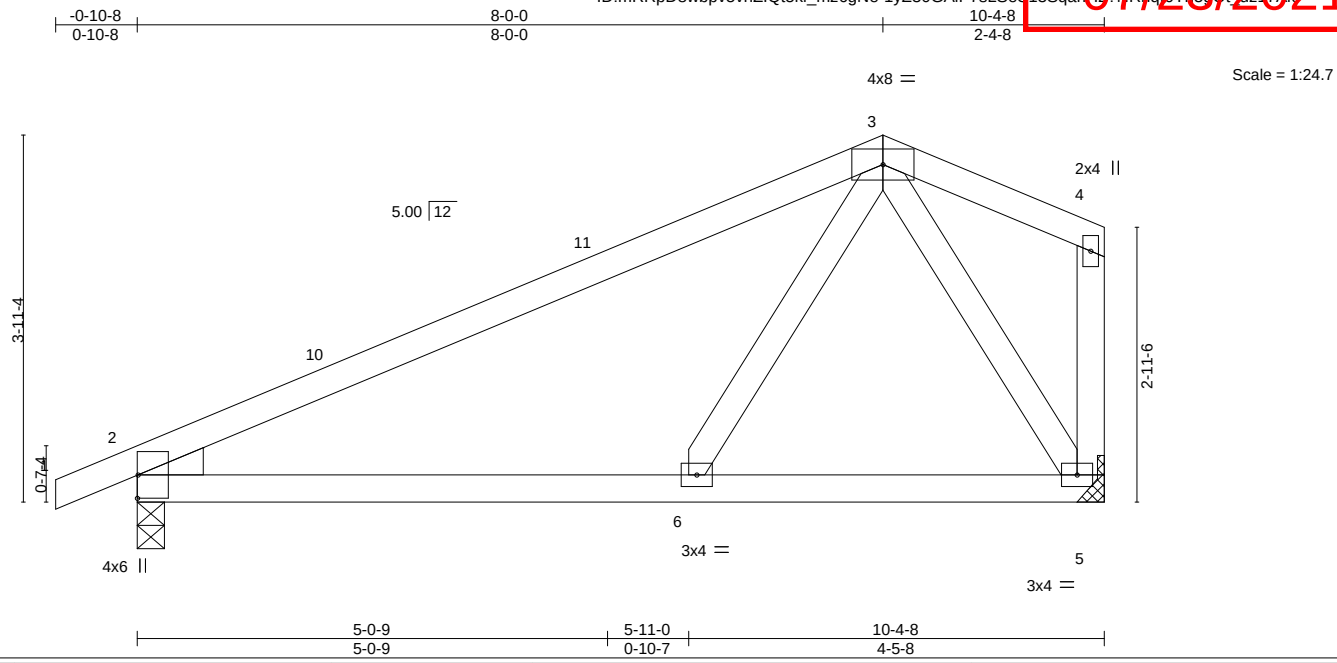
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2E) 6-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 16-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=112.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810810
2847294	D6	Common	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:03 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-1yZ30GAiP7sLSeS13SqanH2?NRuqI8Yn5t0t_zz17Ak



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	0.55	Vert(LL)	-0.07	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.11	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 39 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=107(LC 11)
Max Uplift 2=-86(LC 12), 5=-62(LC 12)
Max Grav 2=524(LC 1), 5=458(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-524/147
BOT CHORD 2-6=-187/395, 5-6=-179/284
WEBS 3-5=-563/314, 3-6=-16/283

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2E) 8-0-0 to 10-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) 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, 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.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

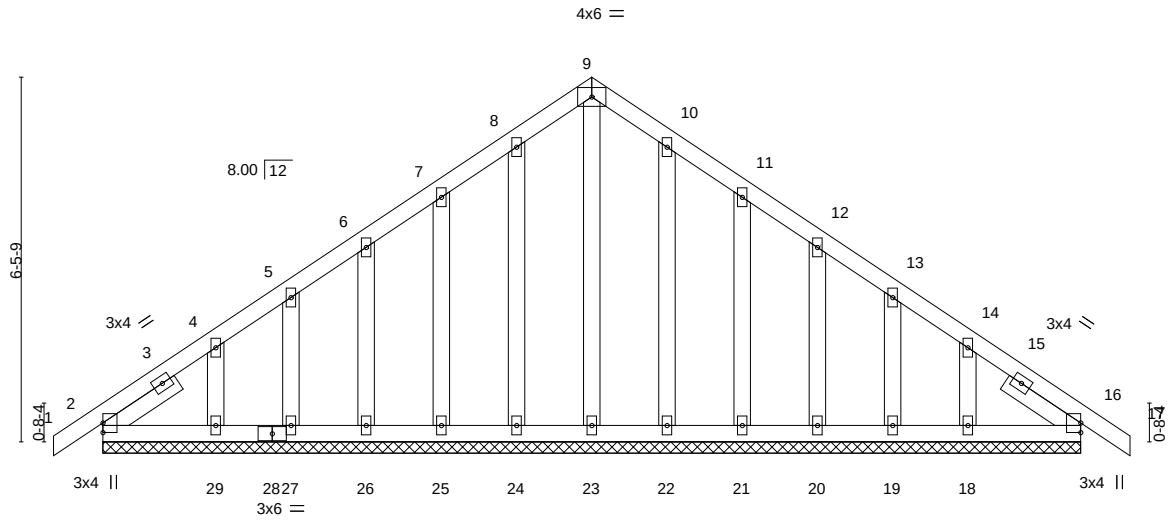
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810811
2847294	DG1	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:07 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-wkpardDDTMMnwFmoIluWxYDoF2H5Ex_N0W47iz17Ag

0-10-8 8-8-0 17-4-0 18-2-8
0-10-8 8-8-0 8-8-0 0-10-8

Scale = 1:40.8



17-4-0
17-4-0

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	0.05	Vert(LL)	-0.00	16	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	16	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-8, Right 2x4 SPF No.2 1-6-8

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 17-4-0.
(lb) - Max Horz 2=149(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 2, 23, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18, 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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 8-8-0, Corner(3R) 8-8-0 to 11-8-0, Exterior(2N) 11-8-0 to 18-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18.
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.

July 1,2021

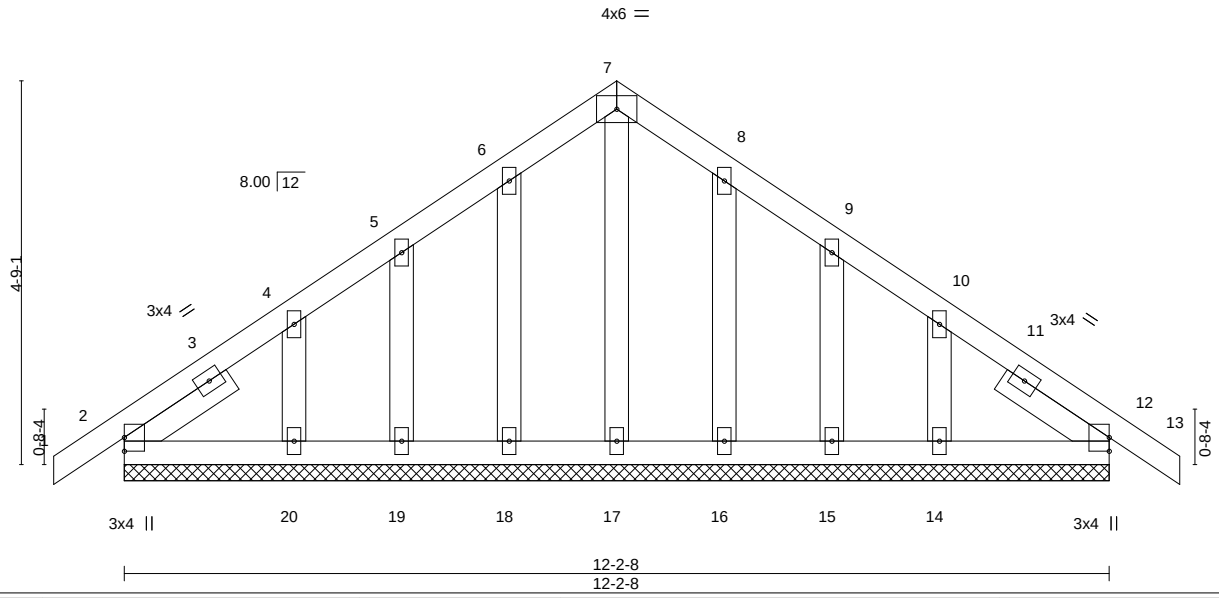
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810812
2847294	DG2	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:10 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-KJUiUfF5mHlMoVNzQSOZrJUGlqRiXpfGakk_z-7Ad

-0-10-8 | 6-1-4 | 12-2-8 | 13-1-0
0-10-8 | 6-1-4 | 6-1-4 | 0-10-8

Scale = 1:28.6



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	0.05	Vert(LL)	-0.00	12	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	12	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 58 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-8, Right 2x4 SPF No.2 1-6-8

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 12-2-8.
(lb) - Max Horz 2=-109(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 19, 20, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 18, 19, 20, 16, 15, 14

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-4, Exterior(2N) 2-1-4 to 6-1-4, Corner(3R) 6-1-4 to 9-1-4, Exterior(2N) 9-1-4 to 13-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 18, 19, 20, 16, 15, 14.
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.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810813
2847294	E1	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:12 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-GhcTuLHMIu?41Lel4rUheAvU33O9z7567a8rnz17Ab

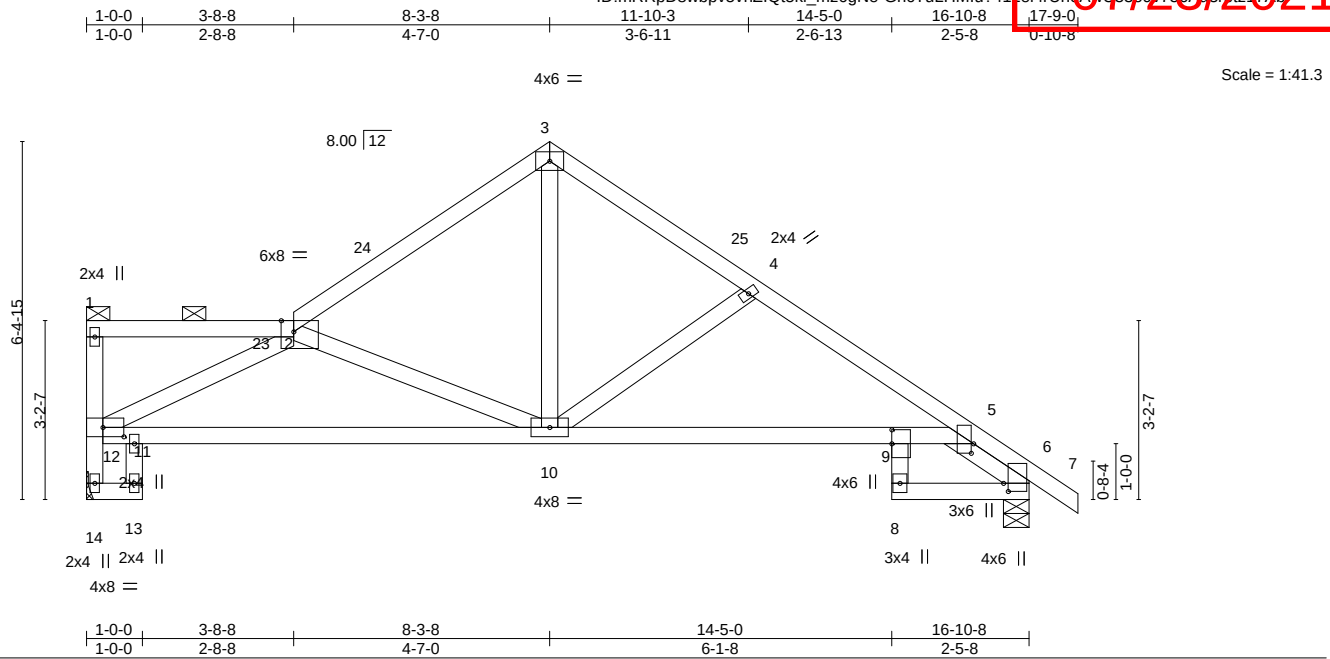


Plate Offsets (X,Y)-- [2:0-2-11,Edge], [5:0-2-1,0-0-8], [6:0-1-12,0-1-0], [9:0-3-0,0-0-0], [12:0-4-8,0-2-0]

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	0.75	Vert(LL)	-0.16	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.33	9-10	>615	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 72 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 1-7-14

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 9-10

REACTIONS. (size) 14=Mechanical, 6=0-5-8
Max Horz 14=-182(LC 10)
Max Uplift 14=-96(LC 12), 6=-104(LC 13)
Max Grav 14=751(LC 1), 6=816(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-14=-721/84, 2-3=-893/129, 3-4=-888/146, 4-5=-1151/157, 5-6=-1179/101
BOT CHORD 11-12=-111/1108, 10-11=-117/1086, 9-10=-33/1002, 5-9=-6/736, 6-8=-33/266
WEBS 2-10=-461/143, 3-10=-52/643, 4-10=-418/151, 2-12=-1166/229

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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-3-8, Exterior(2R) 8-3-8 to 11-3-8, Interior(1) 11-3-8 to 17-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 6=104.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810814
2847294	E2	Common	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:13 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-ktAr6hI_3C7xfADyeY?wBCTcn1DFedKFPEaOLJz17Aa

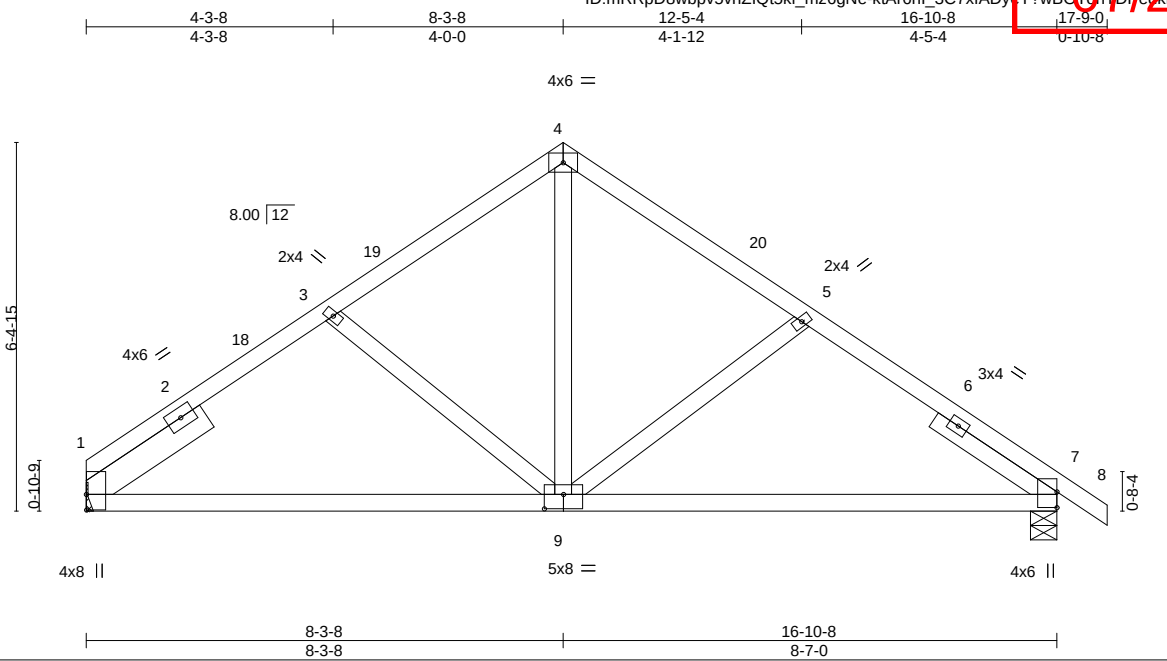


Plate Offsets (X,Y)-- [1:0-3-4,0-0-1], [7:Edge,0-0-0], [9:0-4-0,0-3-0]

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	0.18	Vert(LL)	-0.07	9-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.15	9-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 69 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=Mechanical, 7=0-5-8
Max Horz 1=-143(LC 8)
Max Uplift 1=-85(LC 12), 7=-105(LC 13)
Max Grav 1=758(LC 1), 7=822(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-899/152, 3-4=-744/151, 4-5=-751/149, 5-7=-848/154
BOT CHORD 1-9=-119/722, 7-9=-53/754
WEBS 4-9=-62/449, 5-9=-273/156

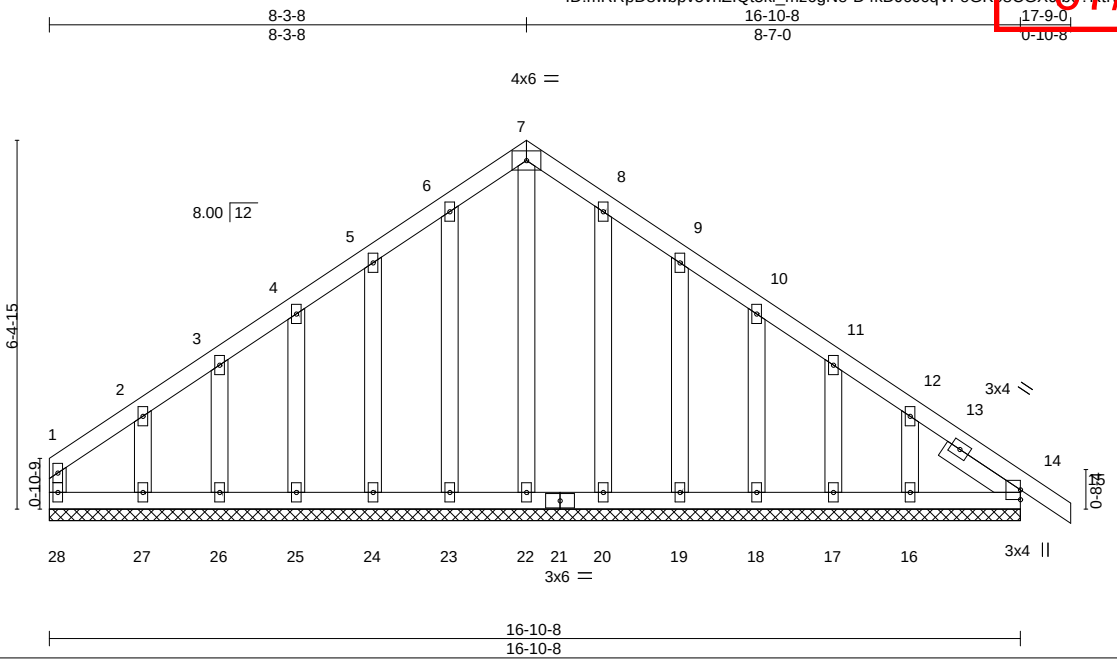
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-3-8, Exterior(2R) 8-3-8 to 11-3-8, Interior(1) 11-3-8 to 17-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) 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) 1 except (jt=lb) 7=105.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810815
2847294	EG	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:14 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-D4kDJ0JcqVFoGKo8CGX9b0?RtfWN8QP6uZyiz17AZ



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)	-0.00	14	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	14	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 1-6-8

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. All bearings 16-10-8.
(lb) - Max Horz 28=-154(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 28, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 28, 22, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14

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

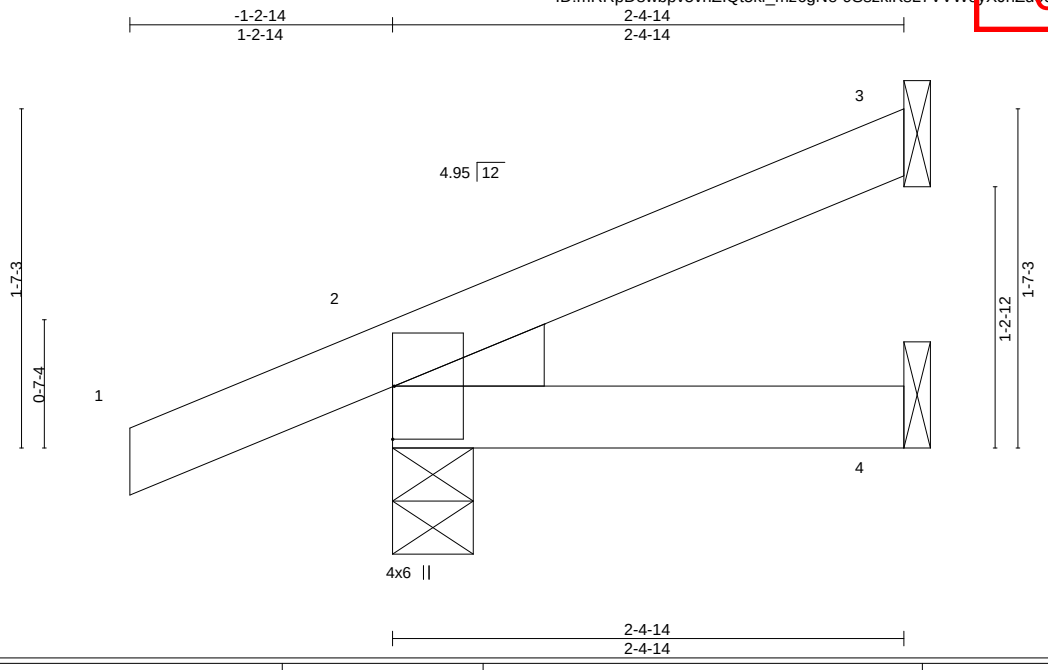
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 2-11-8, Exterior(2N) 2-11-8 to 8-3-8, Corner(3R) 8-3-8 to 11-3-8, Exterior(2N) 11-3-8 to 17-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 23, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14.
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.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810816
2847294	J1	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:16 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-9SszkiKsL7VVWeyXJhZdn05KAg11r0bb5Q28yzz17AX



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	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	7	>999	180		
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-MP							Weight: 8 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=51(LC 12)
Max Uplift 3=-25(LC 12), 2=-42(LC 8)
Max Grav 3=57(LC 1), 2=215(LC 1), 4=39(LC 3)

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

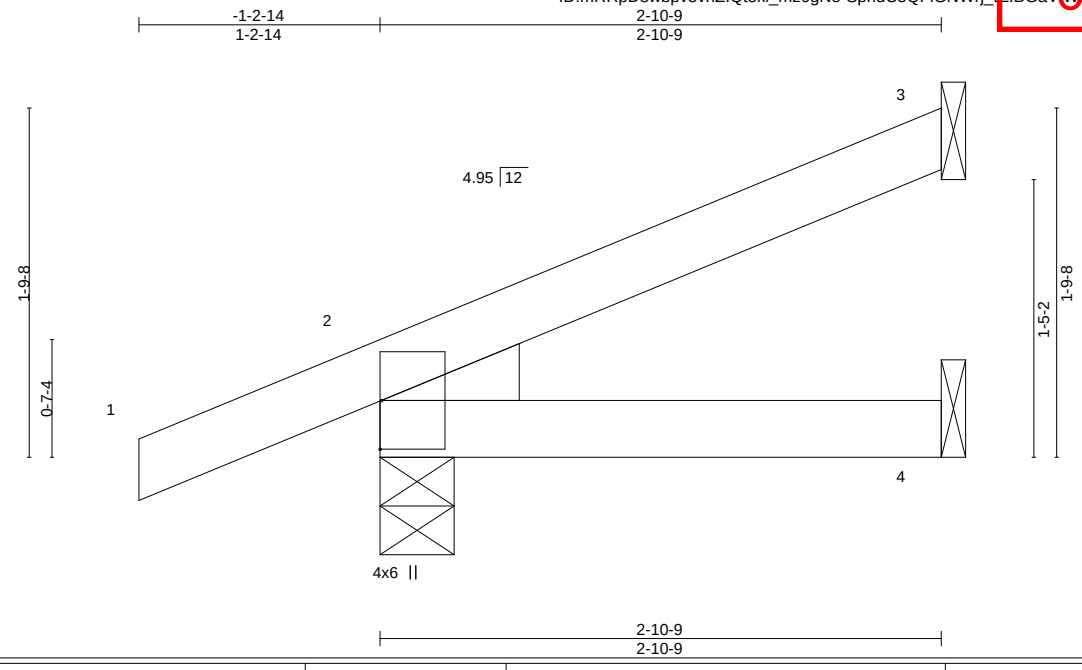
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810817
2847294	J2	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:23 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-SpndC5QFiGNWrj_tEfBGaVWPVkM_PKKi05vhkz17AQ



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	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-7	>999	180		
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-MP							Weight: 9 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=59(LC 12)
Max Uplift 3=-31(LC 12), 2=-41(LC 8)
Max Grav 3=74(LC 1), 2=232(LC 1), 4=48(LC 3)

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

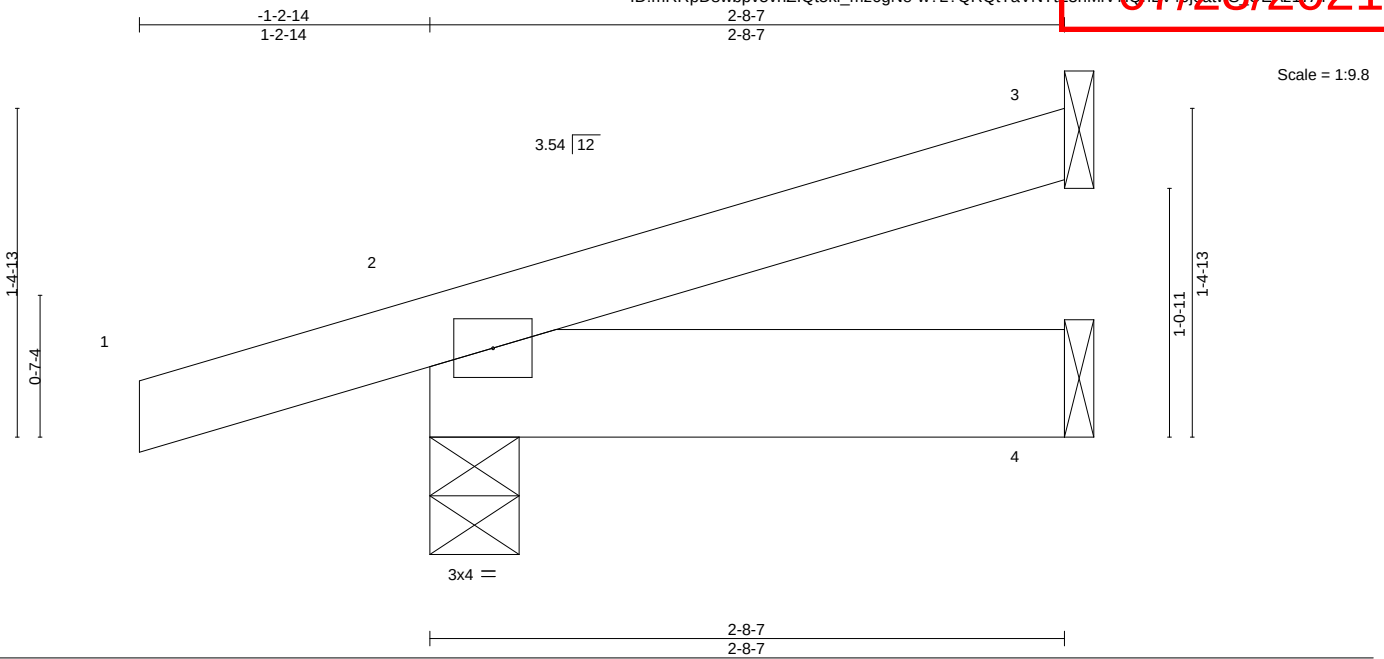
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810818
2847294	JD1	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:24 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-w?L?QRQtTaVNTt?3nMiV?iQhBv4ojeatwSyUEAz17AP



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	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	7	>999	180		
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-MP							Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=46(LC 8)
Max Uplift 3=-24(LC 12), 2=-71(LC 8)
Max Grav 3=62(LC 1), 2=226(LC 1), 4=52(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

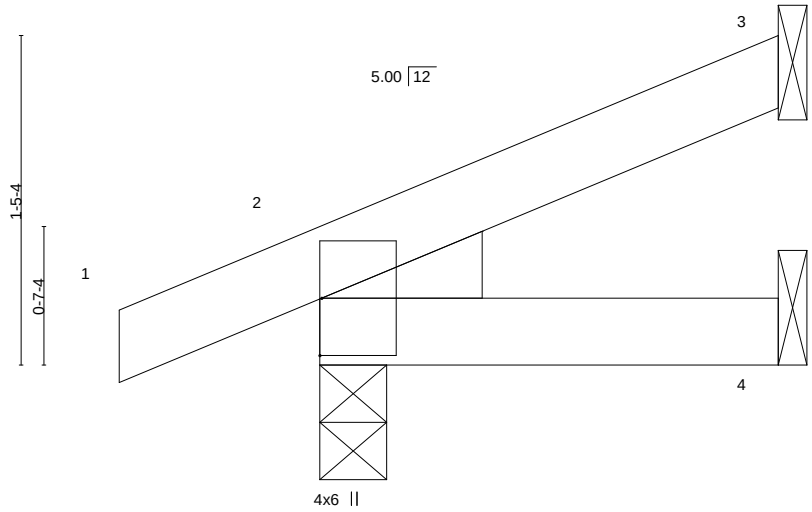
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810819
2847294	JD2	Jack-Open	7	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:26 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-sOSlq7S8?Bm5iAjSvnkzC7V20imUBY3AOnTal2217AN

-0-10-8 2-0-0
0-10-8 2-0-0

Scale = 1:10.1



2-0-0
2-0-0

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	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	7	>999	180		
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-MP							Weight: 7 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=42(LC 12)
Max Uplift 3=-22(LC 12), 2=-25(LC 12), 4=-2(LC 12)
Max Grav 3=50(LC 1), 2=164(LC 1), 4=33(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810820
2847294	L1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:28 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-omaWFpTOXp0oyUtq0CnRHYbOvWR0fOWTf3yNxz17AL

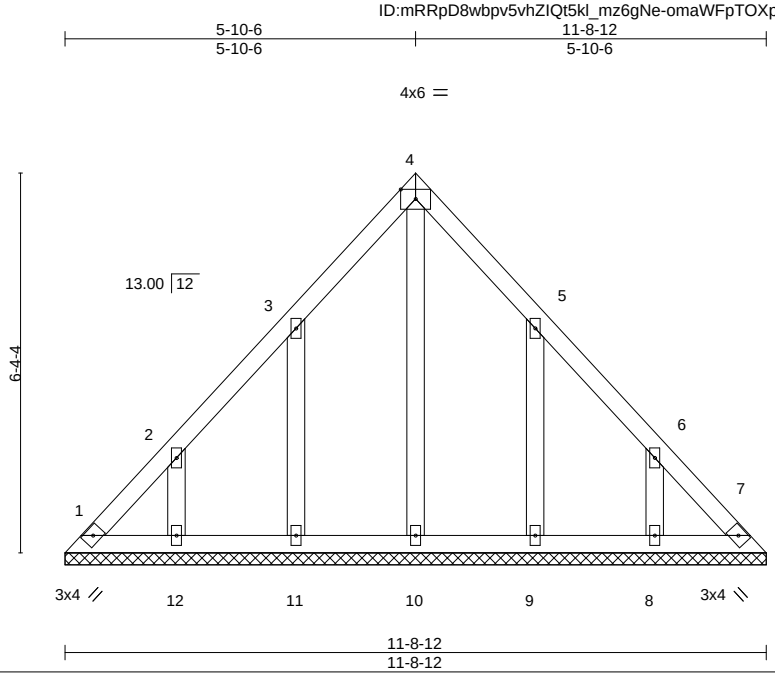


Plate Offsets (X,Y)-- [4:Edge,0-1-15], [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

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 11-8-12.
(lb) - Max Horz 1=-144(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-125(LC 12), 12=-116(LC 12), 9=-124(LC 13), 8=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

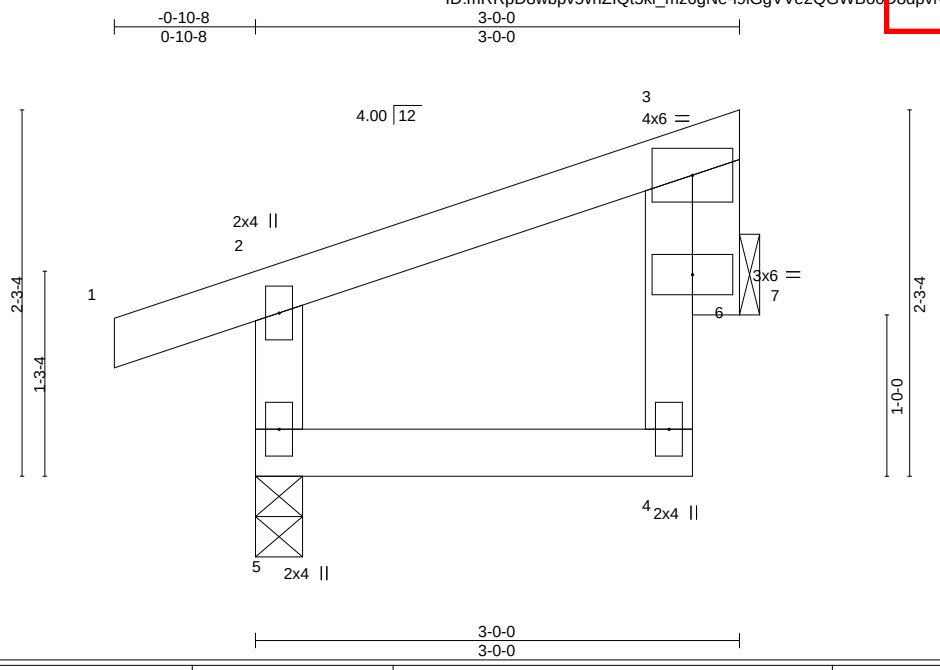
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-4-0 to 3-4-0, Exterior(2N) 3-4-0 to 5-10-6, Corner(3R) 5-10-6 to 8-10-6, Exterior(2N) 8-10-6 to 11-4-12 zone;C-C for members and forces & MWFRS for reactions shown; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=125, 12=116, 9=124, 8=116.
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.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810821
2847294	M1	Monopitch	5	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:30 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-l9iGgVVe2QGWBo0D8dpvNrgjtK7E7LbmJNRoRaz17AU



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	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
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-MR							Weight: 12 lb	FT = 20%

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 3-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 7=Mechanical
Max Horz 5=59(LC 9)
Max Uplift 5=-52(LC 8), 7=-27(LC 12)
Max Grav 5=208(LC 1), 7=81(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810822
2847294	M3	Monopitch	8	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:31 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-DLGeuqWGpkONpYbPiKK8vBDtzRisp0vXy4LzSzL7AI

-0-10-8 5-0-0
0-10-8 5-0-0

Scale = 1:14.1

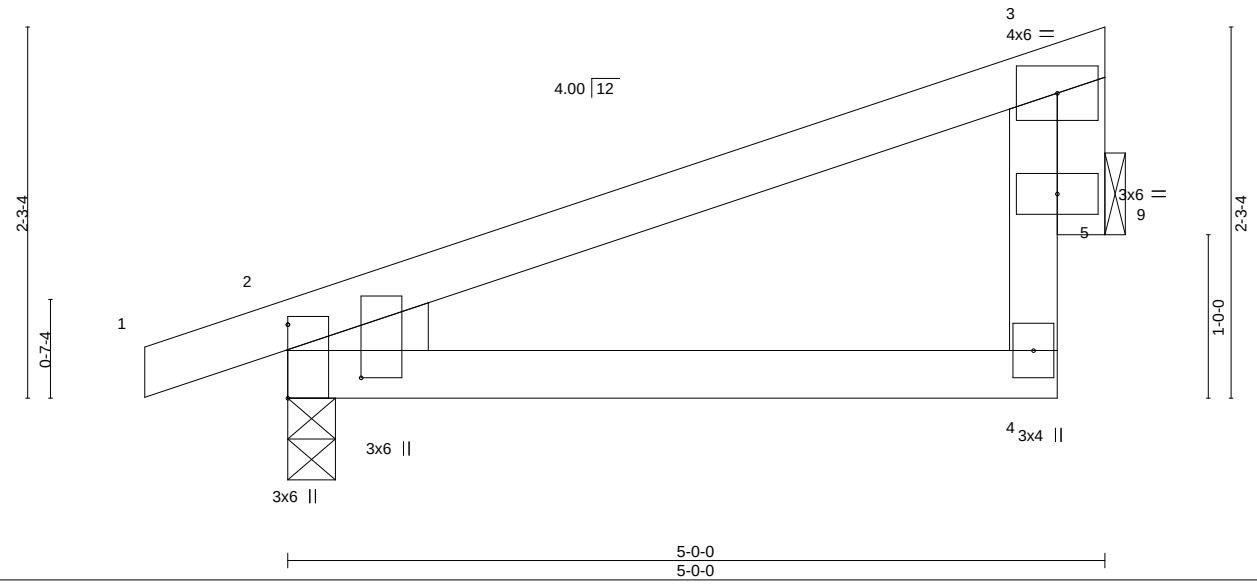


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6]

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	0.19	Vert(LL)	-0.01	4-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	4-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=57(LC 9)
Max Uplift 2=-64(LC 8), 9=-44(LC 12)
Max Grav 2=288(LC 1), 9=184(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810823
2847294	M4	Monopitch	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:32 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-hXp15AWva1WEQ5AbF2rNSO007mtbCx2mhyWiz17AH

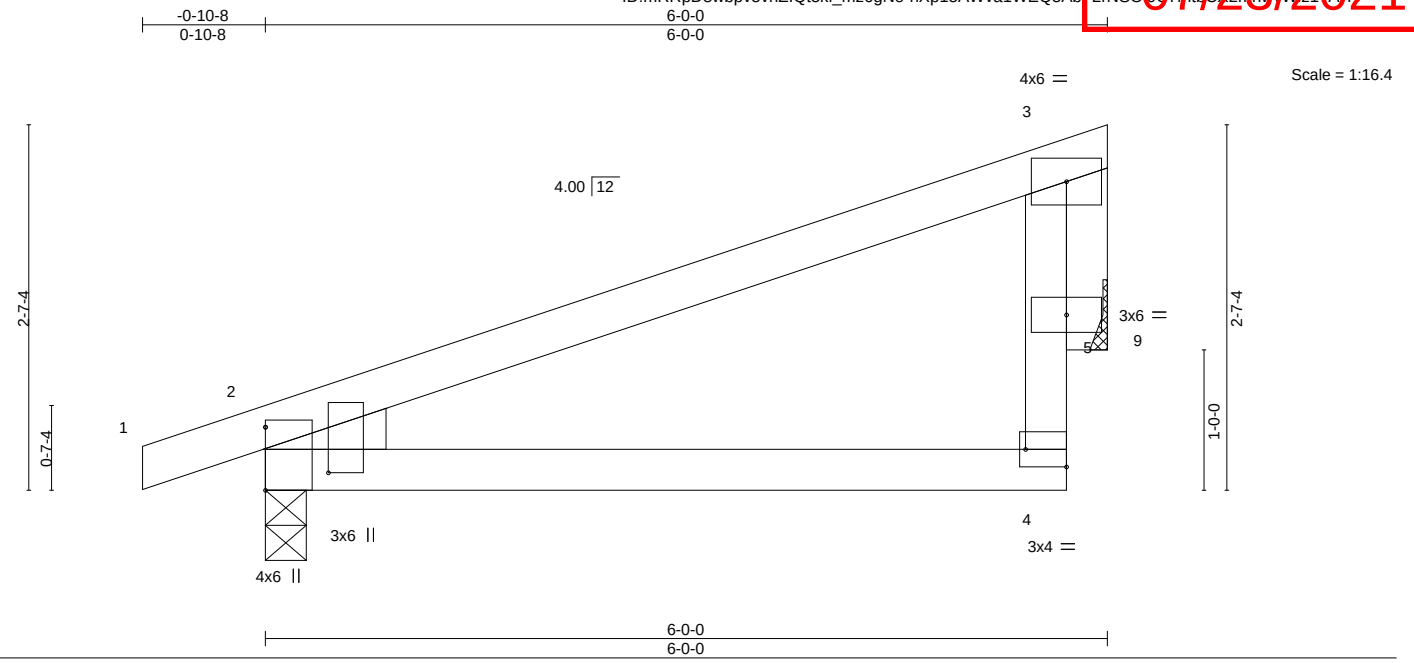


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6], [4:Edge,0-1-8]

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	0.29	Vert(LL)	-0.02	4-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.04	4-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=66(LC 8)
Max Uplift 2=-69(LC 8), 9=-54(LC 12)
Max Grav 2=332(LC 1), 9=230(LC 1)

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

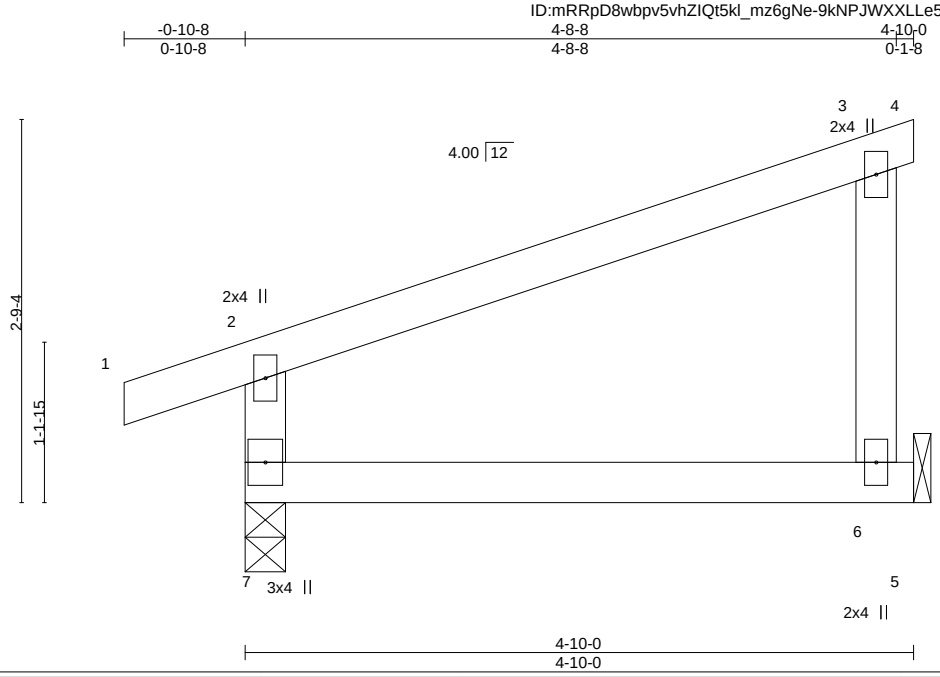
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810824
2847294	M5	Monopitch	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:33 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-9kNPJWXXLLe52FloplMc_cl3AX6qKiPC?bt529z17AG



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)	-0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 16 lb	FT = 20%

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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=0-3-8, 6=Mechanical
Max Horz 7=63(LC 9)
Max Uplift 7=-55(LC 8), 6=-59(LC 12)
Max Grav 7=278(LC 1), 6=202(LC 1)

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

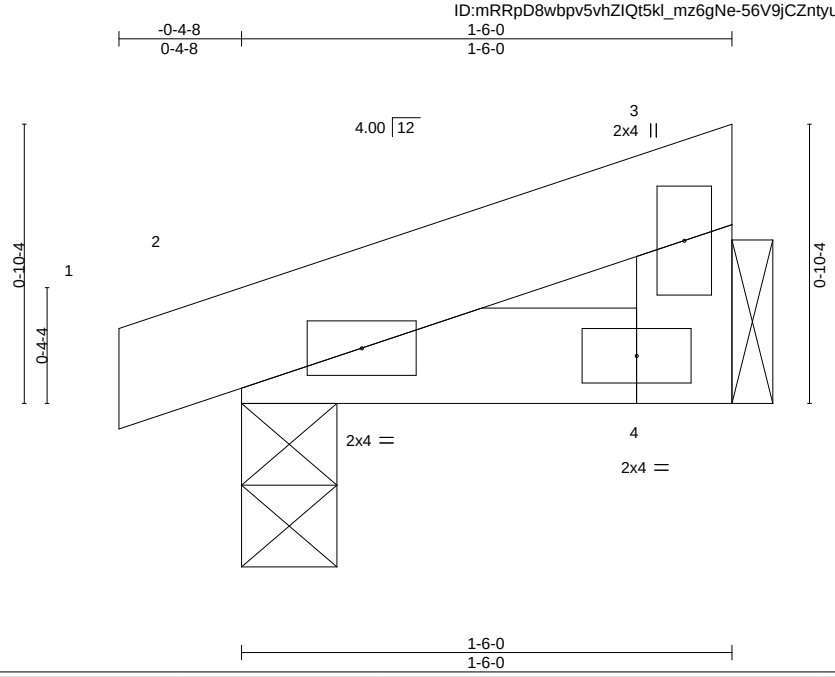
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810825
2847294	M6	Monopitch	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:35 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-56V9jCZntyupHZYAxAP4-1NbLqmoclVSh2T7z17AE



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	0.01	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
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-MP							Weight: 4 lb	FT = 20%

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 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=Mechanical
Max Horz 2=22(LC 11)
Max Uplift 2=-25(LC 8), 4=-12(LC 12)
Max Grav 2=91(LC 1), 4=57(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

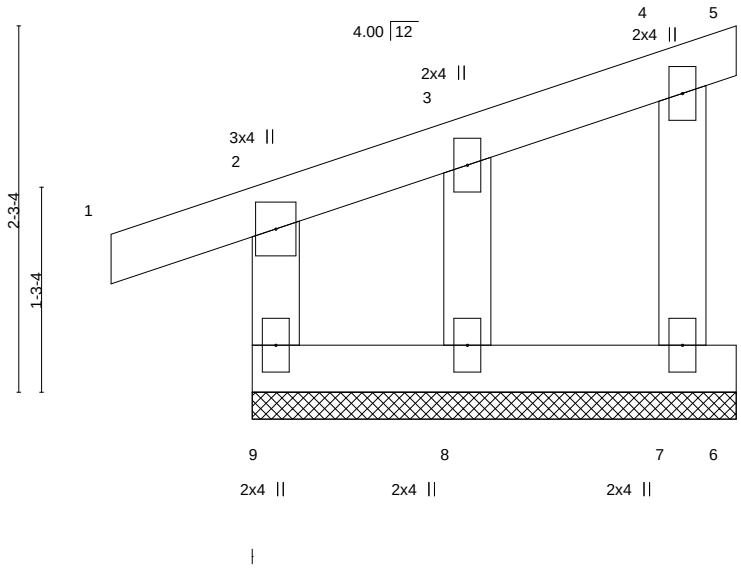
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810826
2847294	MG1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:37 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-2Vdw8ua1Pa8XXt3ZzbRY9Ss?vi3V?GWkowZtgBwz17AC

-0-10-8 2-10-8 3-0-0
0-10-8 2-10-8 0-1-8

Scale = 1:14.3



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	0.11	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

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 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 9=3-0-0, 5=3-0-0, 6=3-0-0, 8=3-0-0, 7=3-0-0
Max Horz 9=50(LC 9)
Max Uplift 9=-11(LC 8), 5=-3(LC 1), 6=-8(LC 9), 8=-67(LC 12), 7=-4(LC 8)
Max Grav 9=149(LC 1), 8=89(LC 1), 7=99(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 3-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 5, 6, 8, 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810827
2847294	MG2	Monopitch Structural Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:39 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-_ulgZacIxBOFmACyA0T0EtvEJyAakPQ4NRdGoz17AA

-0-10-8 5-0-0
0-10-8 5-0-0

Scale = 1:14.1

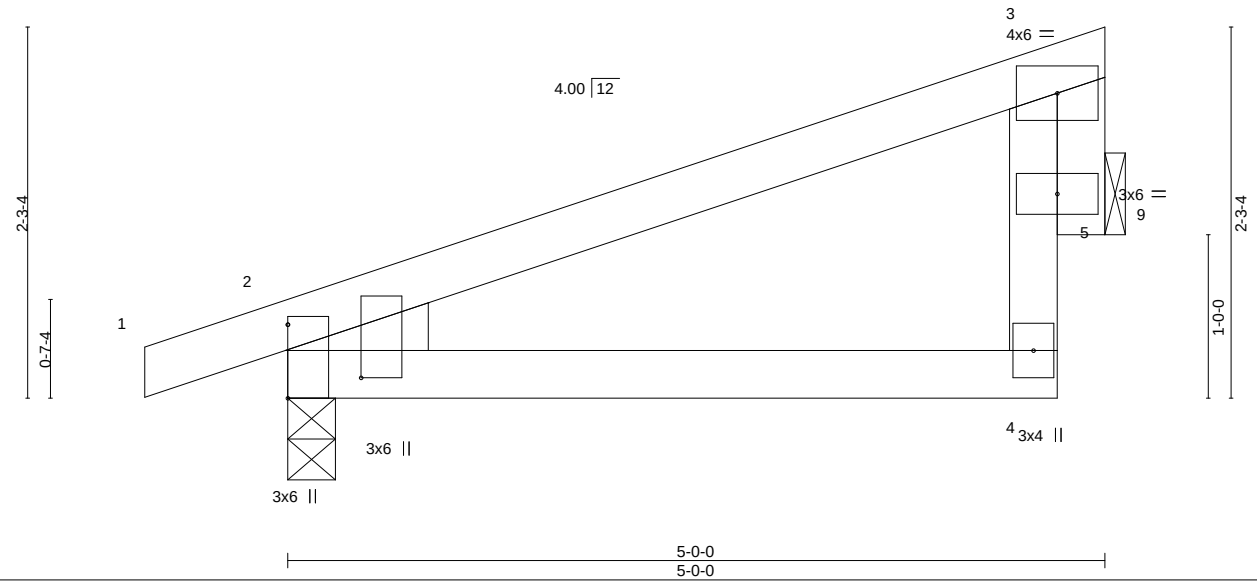


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6]

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	0.19	Vert(LL)	-0.01	4-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	4-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 9=Mechanical
Max Horz 2=57(LC 9)
Max Uplift 2=-64(LC 8), 9=-44(LC 12)
Max Grav 2=288(LC 1), 9=184(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=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 1-4-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

July 1,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810828
2847294	MG3	Monopitch Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:39 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-_ulgZacIxBOFmACyA0T0EtYEVyBYkOt4NFnGoz17AA

-0-10-8 4-10-8 5-0-0
0-10-8 4-10-8 0-1-8

Scale = 1:14.1

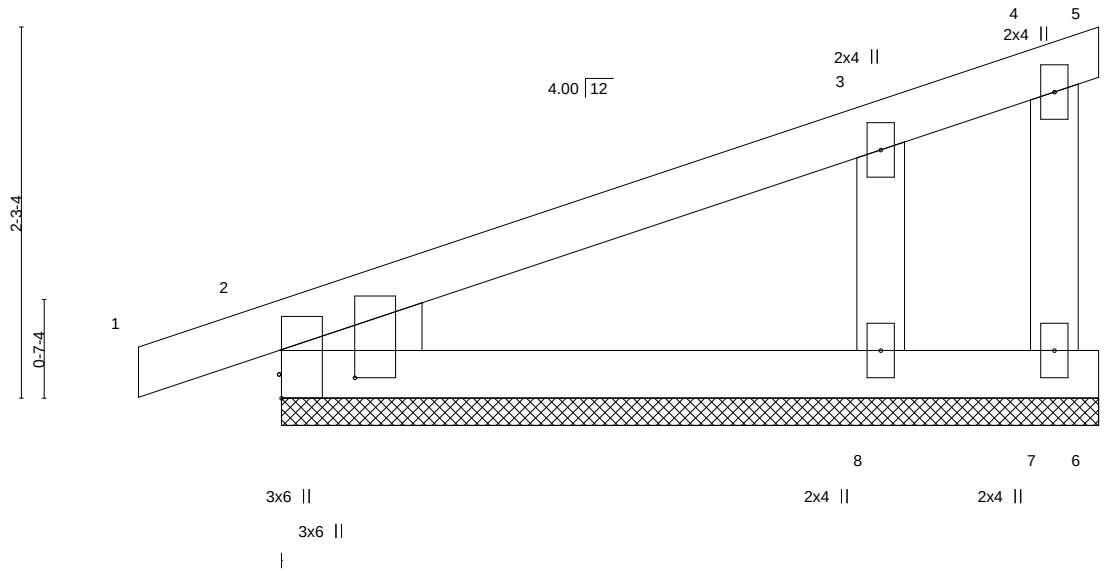


Plate Offsets (X,Y)-- [2:Edge,0-0-3], [2:0-0-4,0-5-9]

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	0.16	Vert(LL)	0.00	4	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	4	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 17 lb	FT = 20%

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

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

REACTIONS. (size) 6=5-0-0, 8=5-0-0, 2=5-0-0, 7=5-0-0
Max Horz 2=71(LC 12)
Max Uplift 8=-79(LC 12), 2=-41(LC 8), 7=-113(LC 3)
Max Grav 6=71(LC 3), 8=348(LC 1), 2=203(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-8=-258/362

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2 except (jt=lb) 7=113.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

July 1,2021

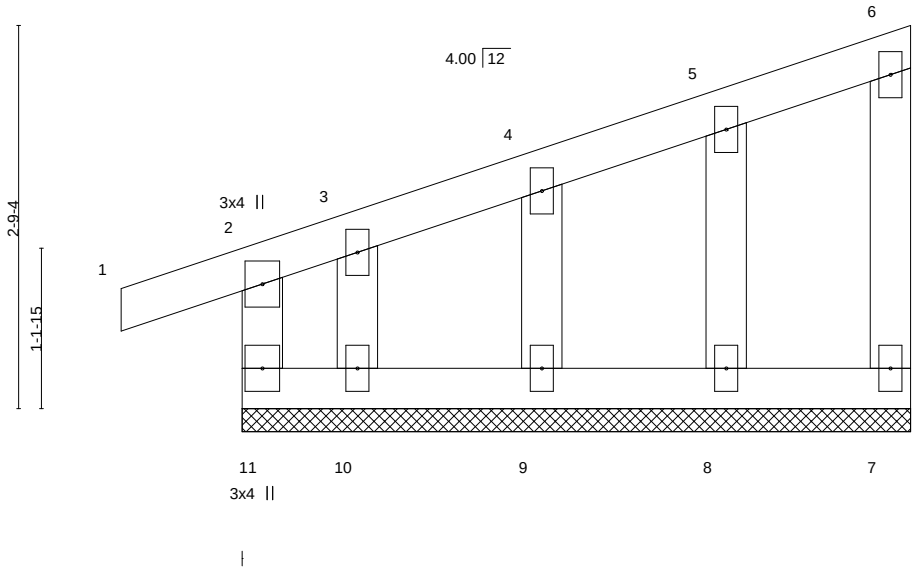
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/128 Manor	I46810829
2847294	MG4	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 30 10:25:40 2021 Page 1
ID:mRRpD8wbpv5vhZIQt5kl_mz6gNe-S4I2nvdwiVW5OKo8jj_Fn44PZNWVTzEcxsKoPz17A9

-0-10-8 4-10-0
0-10-8 4-10-0

Scale = 1:16.7



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	0.14	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 20 lb	FT = 20%

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

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

REACTIONS. All bearings 4-10-0.
(lb) - Max Horz 11=98(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 11, 7, 8, 9 except 10=-108(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 11, 7, 8, 9, 10

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

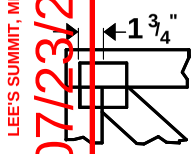
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-2-0, Exterior(2N) 2-2-0 to 4-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7, 8, 9 except (jt=lb) 10=108.
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.

July 1,2021

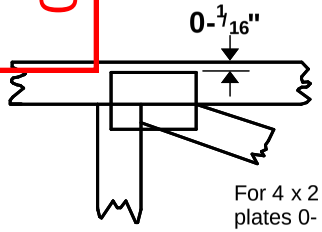
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

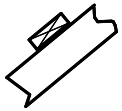
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

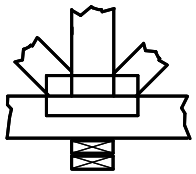
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

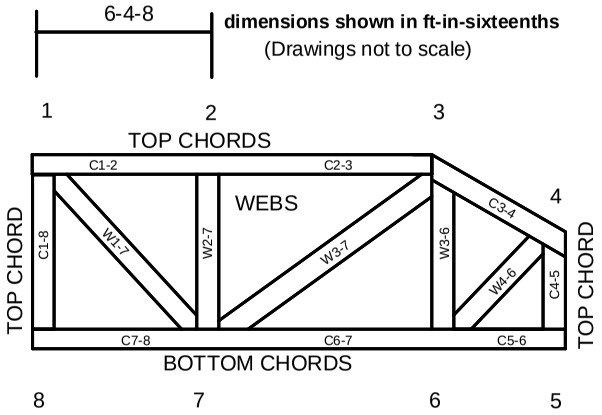


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.