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

Re: 2629082
Summit/woodside ridge #21/mo

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: I44616226 thru I44616302

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

Missouri COA: Engineering 001193

February 2,2021

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/woodside ridge #21/mo
2629082	A1	Half Hip Girder	1	2	I44616226
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:45 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-bb_ZuhgWTWC0Hkv0p9d66THXVL0l4T5gejxGSSzpWoO

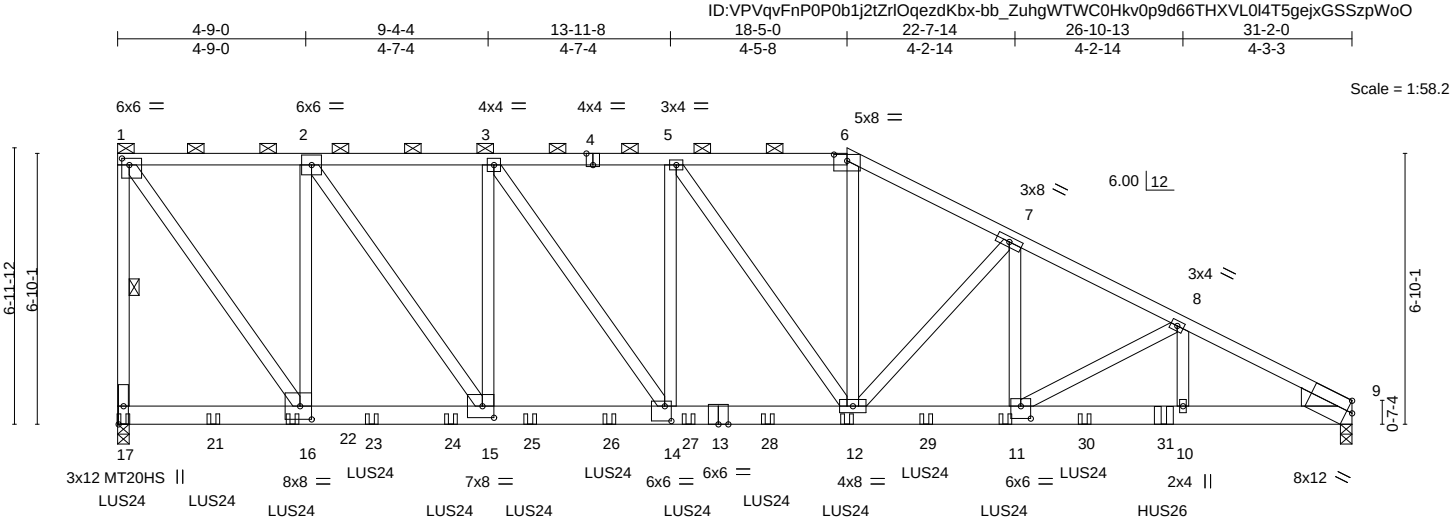


Plate Offsets (X,Y)-- [1:0-2-4,0-2-0], [4:0-2-0,Edge], [6:0-4-0,0-1-15], [9:Edge,0-3-7], [11:0-3-0,0-3-12], [14:0-2-0,0-4-8], [15:0-3-8,0-3-8], [16:0-3-8,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.18	12-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.40	12-14	>936	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 400 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 6-9: 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-17

REACTIONS. (size) 17=0-3-8, 9=0-3-8
Max Horz 17=-238(LC 6)
Max Uplift 17=-965(LC 4), 9=-861(LC 9)
Max Grav 17=7222(LC 1), 9=6155(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-17=-6199/852, 1-2=-4306/602, 2-3=-7034/933, 3-5=-8306/1095, 5-6=-8042/1089, 6-7=-9109/1196, 7-8=-10936/1480, 8-9=-11822/1672
BOT CHORD 15-16=-535/4306, 14-15=-866/7034, 12-14=-1008/8306, 11-12=-1202/9742, 10-11=-1437/10451, 9-10=-1437/10451
WEBS 1-16=-992/7378, 2-16=-4267/658, 2-15=-648/4702, 3-15=-2195/368, 3-14=-321/2193, 5-14=-264/283, 5-12=-622/106, 6-12=-462/3653, 7-12=-2399/492, 7-11=-384/2264, 8-11=-811/270, 8-10=-180/602

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 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=965, 9=861.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-3-4 oc max. starting at 0-1-12 from the left end to 24-5-0 to connect truss(es) to front face of bottom chord.
12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end 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

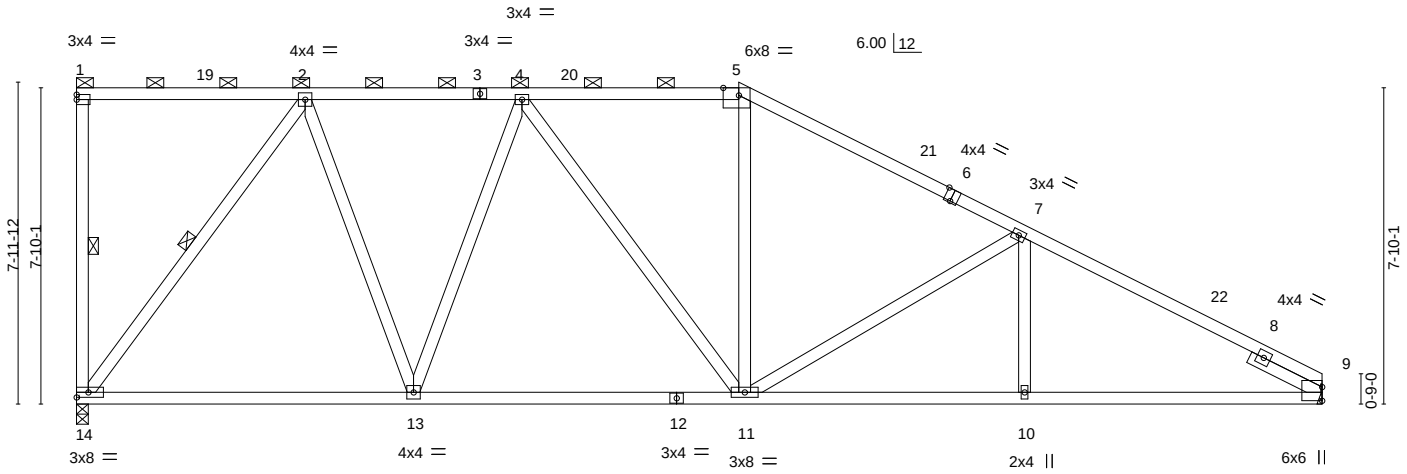
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-90, 6-9=-90, 17-18=-20
   Concentrated Loads (lb)
   Vert: 17=-687(F) 12=-680(F) 11=-670(F) 21=-680(F) 22=-680(F) 23=-680(F) 24=-680(F) 25=-680(F) 26=-680(F) 27=-680(F) 28=-680(F) 29=-670(F) 30=-670(F) 31=-1146(F)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A2	Half Hip	1	1	I44616227
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:48 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-?AgiWijPlRab8BdbUHBpk5v0jY_7Hrv6Kh9w3nzpWoL

5-8-0	11-0-8	16-5-0	23-6-0	30-10-8
5-8-0	5-4-8	5-4-8	7-1-0	7-4-8

Scale = 1:57.1



8-4-4	16-5-0	23-6-0	30-10-8
8-4-4	8-0-12	7-1-0	7-4-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.12	13-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.26	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 143 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 2-0-0

BRACING-

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

REACTIONS. (size) 14=0-3-8, 9=Mechanical
Max Horz 14=-276(LC 10)
Max Uplift 14=-236(LC 8), 9=-164(LC 13)
Max Grav 14=1690(LC 1), 9=1690(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1350/221, 4-5=-1752/265, 5-7=-2101/263, 7-9=-2765/276
BOT CHORD 13-14=-86/1042, 11-13=-103/1596, 10-11=-167/2368, 9-10=-167/2368
WEBS 2-14=-1733/262, 2-13=-64/917, 4-13=-733/152, 4-11=-83/289, 5-11=0/387, 7-11=-713/223

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 16-5-0, Exterior(2R) 16-5-0 to 20-7-15, Interior(1) 20-7-15 to 30-10-8 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) 14=236, 9=164.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A3	Hip	1	1	I44616228
					Job Reference (optional)

8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:49:51 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ngoH6iIExDlMO0BTzqMsjxqoh9Gz0LInAtwIEuzpUeU

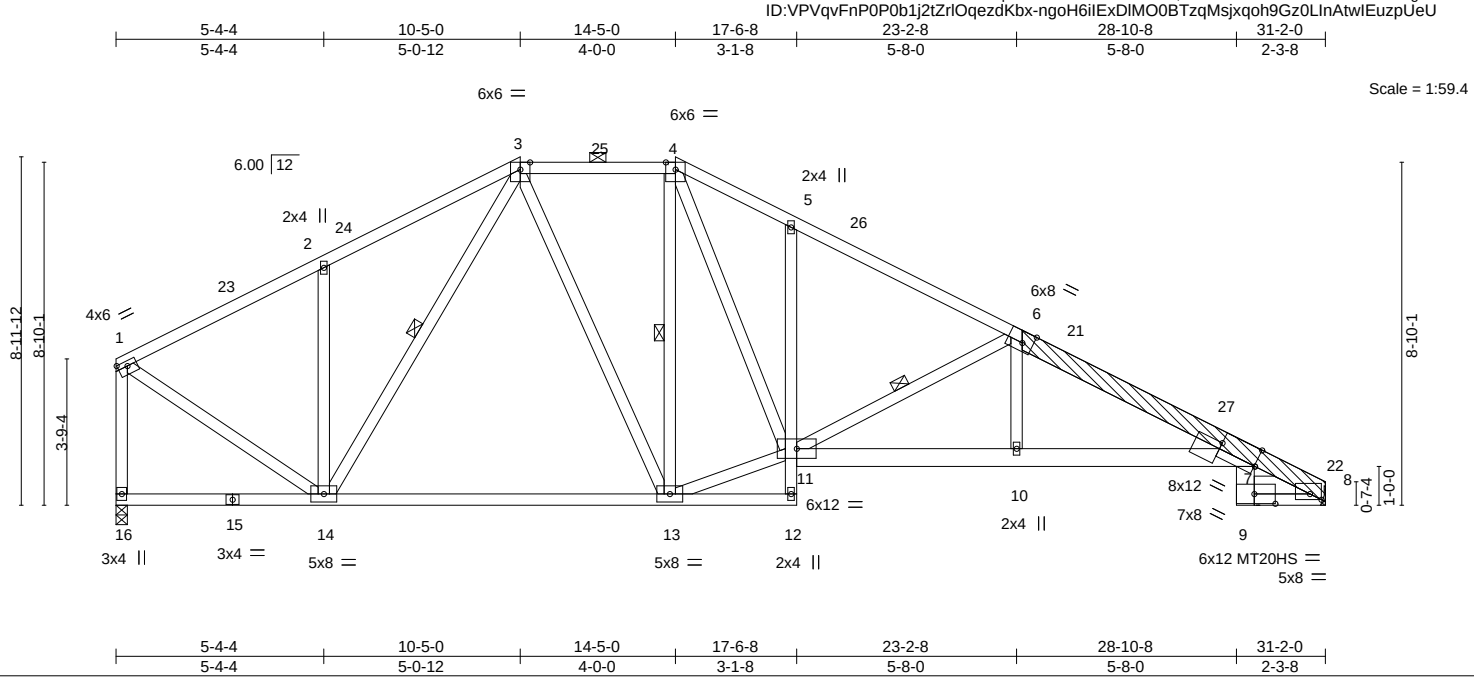


Plate Offsets (X,Y)-- [1:0-3-0,0-1-8], [6:0-3-4,Edge], [7:1-0-4,0-2-0], [7:0-0-4,0-5-7], [8:0-3-9,Edge], [9:0-6-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.23	7-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.51	7-10	>725	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.26	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 188 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-8: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 7-11: 2x6 SPF 2100F 1.8E, 7-9: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x6 SPF 2100F 1.8E
LBR SCAB	6-8 2x6 SPF 2100F 1.8E one side
SLIDER	Right 2x6 SPF No.2 1-5-3

BRACING-

TOP CHORD	Sheathed, except end verticals, and 2-0-0 oc purlins (4-6-7 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-14, 4-13, 6-11

REACTIONS. (lb/size) 16=1703/0-3-8, 8=1701/Mechanical
Max Horz 16=-188(LC 10)
Max Uplift 16=-153(LC 12), 8=-194(LC 13)

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

TOP CHORD	1-23=-1496/188, 2-23=-1375/203, 2-24=-1505/270, 3-24=-1396/293, 3-25=-1540/273, 4-25=-1540/273, 4-5=-2412/371, 5-26=-2338/302, 6-26=-2527/274, 6-21=-3519/398, 21-27=-3678/374, 7-27=-3715/372, 7-22=-1472/187, 8-22=-883/106, 1-16=-1664/192
BOT CHORD	13-14=-39/1363, 5-11=-318/145, 10-11=-268/3392, 7-10=-269/3372, 7-9=-92/888, 8-9=-59/547
WEBS	2-14=-496/194, 3-14=-342/78, 3-13=-87/537, 4-13=-761/121, 11-13=0/1466, 4-11=-226/1542, 6-11=-1415/248, 6-10=0/399, 1-14=-137/1475

NOTES-

1) Attached 8-11-9 scab 6 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 6, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-3-10 from end at joint 6, nail 3 row(s) at 2" o.c. for 4-4-5.
2) Unbalanced roof live loads have been considered for this design.
3) 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 10-5-0, Exterior(2E) 10-5-0 to 14-5-0, Exterior(2R) 14-5-0 to 18-7-15, Interior(1) 18-7-15 to 31-1-4 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
4) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 16 and 194 lb uplift at joint 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A3	Hip	1	1	I44616228
					Job Reference (optional)

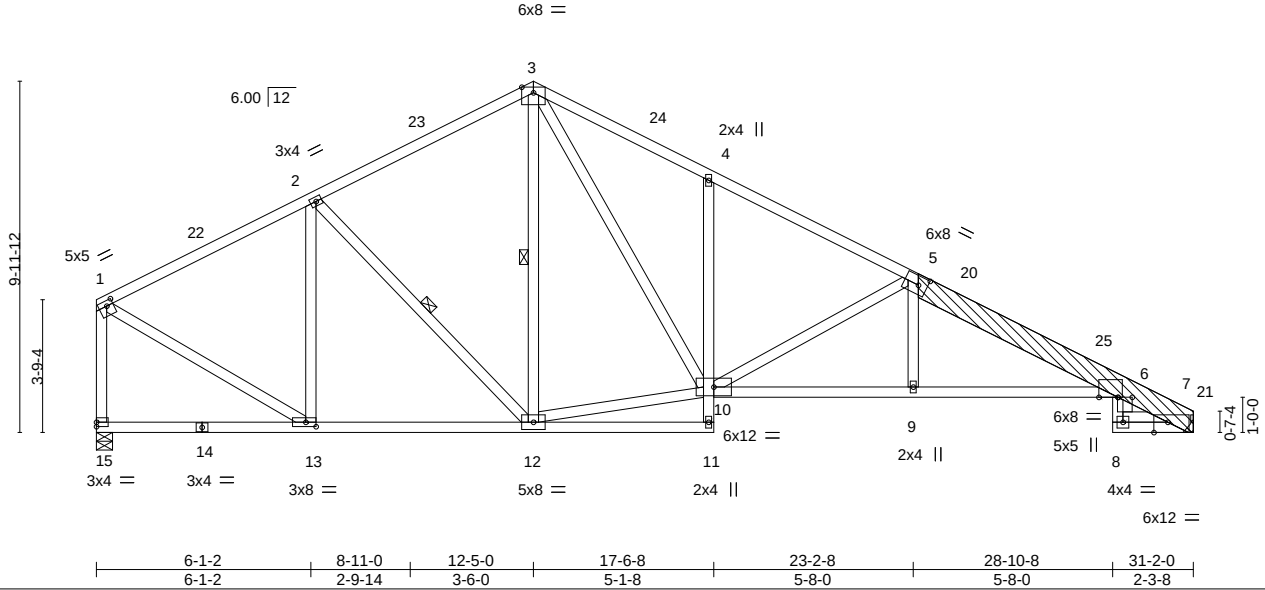
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A4	ROOF SPECIAL	3	1	I44616229
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:49 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TME4k2j1WliSmLCn2?i2GJSFqyK80H3GYLvTbDzpWoK

6-1-2	12-5-0	17-6-8	23-2-8	26-9-6	28-10-8	31-2-0
6-1-2	6-3-14	5-1-8	5-8-0	3-6-14	2-1-2	2-3-8

Scale = 1:65.5



6-1-2	8-11-0	12-5-0	17-6-8	23-2-8	28-10-8	31-2-0
6-1-2	2-9-14	3-6-0	5-1-8	5-8-0	5-8-0	2-3-8

Plate Offsets (X,Y)-- [1:0-2-4,0-1-12], [5:0-3-0,0-3-0], [6:0-0-0,0-4-14], [6:0-6-8,0-0-0], [7:0-4-12,Edge], [13:0-3-8,0-1-8]

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	0.53	Vert(LL)	-0.15	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.35	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.18	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 197 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-7: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	5-7 2x8 SP 2400F 2.0E one side
SLIDER	Right 2x4 SPF No.2 1-3-5

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-12, 2-12

REACTIONS. (size) 15=0-5-8, 7=Mechanical
Max Horz 15=-201(LC 10)
Max Uplift 15=-148(LC 12), 7=-185(LC 13)
Max Grav 15=1699(LC 1), 7=1705(LC 1)

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

TOP CHORD	1-2=-1572/206, 2-3=-1619/263, 3-4=-2461/393, 4-5=-2506/296, 5-6=-3490/354, 6-7=-754/104, 1-15=-1640/196
BOT CHORD	12-13=-97/1314, 4-10=-494/190, 9-10=-230/3173, 6-9=-232/3166, 6-8=-28/306, 7-8=-43/409
WEBS	5-10=-1182/218, 5-9=0/272, 3-10=-267/1575, 10-12=-5/1245, 2-13=-631/130, 1-13=-139/1474

NOTES-

1) Attached 9-0-1 scab 5 to 7, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-15 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-2-6 from end at joint 5, nail 2 row(s) at 2" o.c. for 4-4-7.
2) Unbalanced roof live loads have been considered for this design.
3) 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 12-5-0, Exterior(2R) 12-5-0 to 15-5-0 , Interior(1) 15-5-0 to 31-0-4 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
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=148, 7=185.
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.

February 2,2021

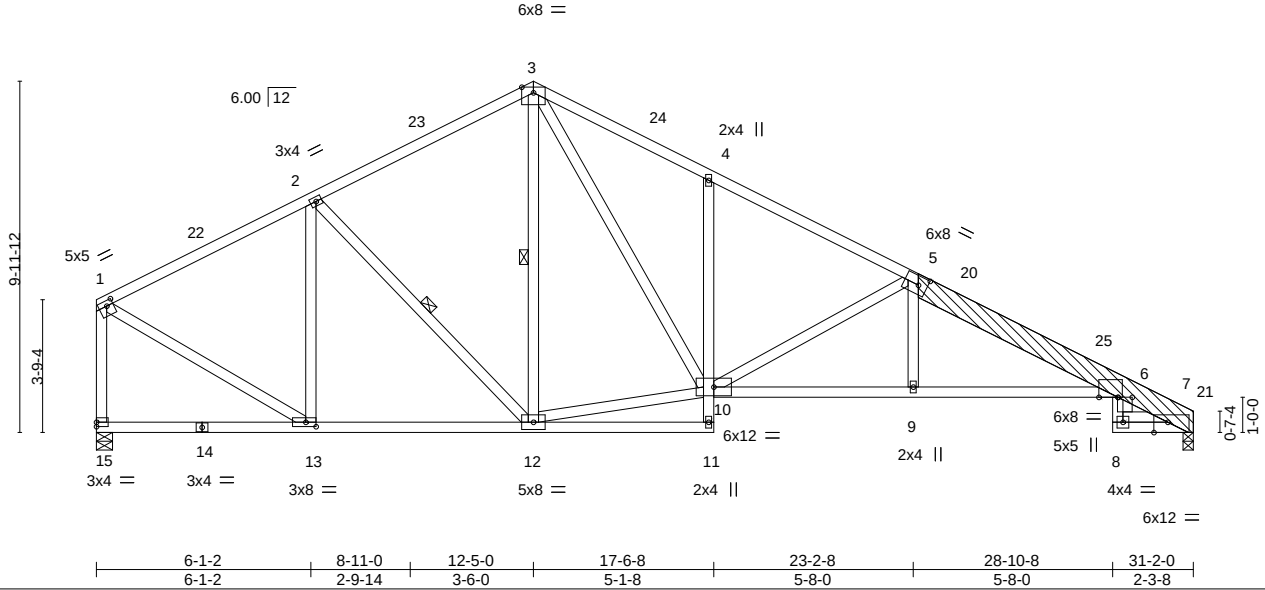
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A5	ROOF SPECIAL	1	1	I44616230
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:51 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-PkLq9klH2My9?fMA9QkWMkXbKm0cUBZZ0fOaf6zpWoI

6-1-2	12-5-0	17-6-8	23-2-8	26-9-6	28-10-8	31-2-0
6-1-2	6-3-14	5-1-8	5-8-0	3-6-14	2-1-2	2-3-8

Scale = 1:65.5



6-1-2	8-11-0	12-5-0	17-6-8	23-2-8	28-10-8	31-2-0
6-1-2	2-9-14	3-6-0	5-1-8	5-8-0	5-8-0	2-3-8

Plate Offsets (X,Y)-- [1:0-2-4,0-1-12], [5:0-3-0,0-3-0], [6:0-0-0,0-4-14], [6:0-6-8,0-0-0], [7:0-4-12,Edge], [13:0-3-8,0-1-8]

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	0.53	Vert(LL)	-0.15	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.35	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.18	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 197 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-7: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	5-7 2x8 SP 2400F 2.0E one side
SLIDER	Right 2x4 SPF No.2 1-3-5

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-12, 2-12

REACTIONS. (size) 15=0-5-8, 7=0-3-8
Max Horz 15=-201(LC 10)
Max Uplift 15=-148(LC 12), 7=-185(LC 13)
Max Grav 15=1699(LC 1), 7=1705(LC 1)

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

TOP CHORD	1-2=-1572/206, 2-3=-1619/263, 3-4=-2461/393, 4-5=-2506/296, 5-6=-3490/354, 6-7=-754/104, 1-15=-1640/196
BOT CHORD	12-13=-97/1314, 4-10=-494/190, 9-10=-230/3173, 6-9=-232/3166, 6-8=-28/306, 7-8=-43/409
WEBS	5-10=-1182/218, 5-9=0/272, 3-10=-267/1575, 10-12=-5/1245, 2-13=-631/130, 1-13=-139/1474

NOTES-

1) Attached 9-0-1 scab 5 to 7, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-15 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-2-6 from end at joint 5, nail 2 row(s) at 2" o.c. for 4-4-7.
2) Unbalanced roof live loads have been considered for this design.
3) 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 12-5-0, Exterior(2R) 12-5-0 to 15-5-0 , Interior(1) 15-5-0 to 31-0-4 zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=148, 7=185.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A6	Roof Special	3	1	I44616231
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:52 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-uxvCM4mvpg40dpxMj7Flux4jq9KJDfXiFJ77CYzpWoH

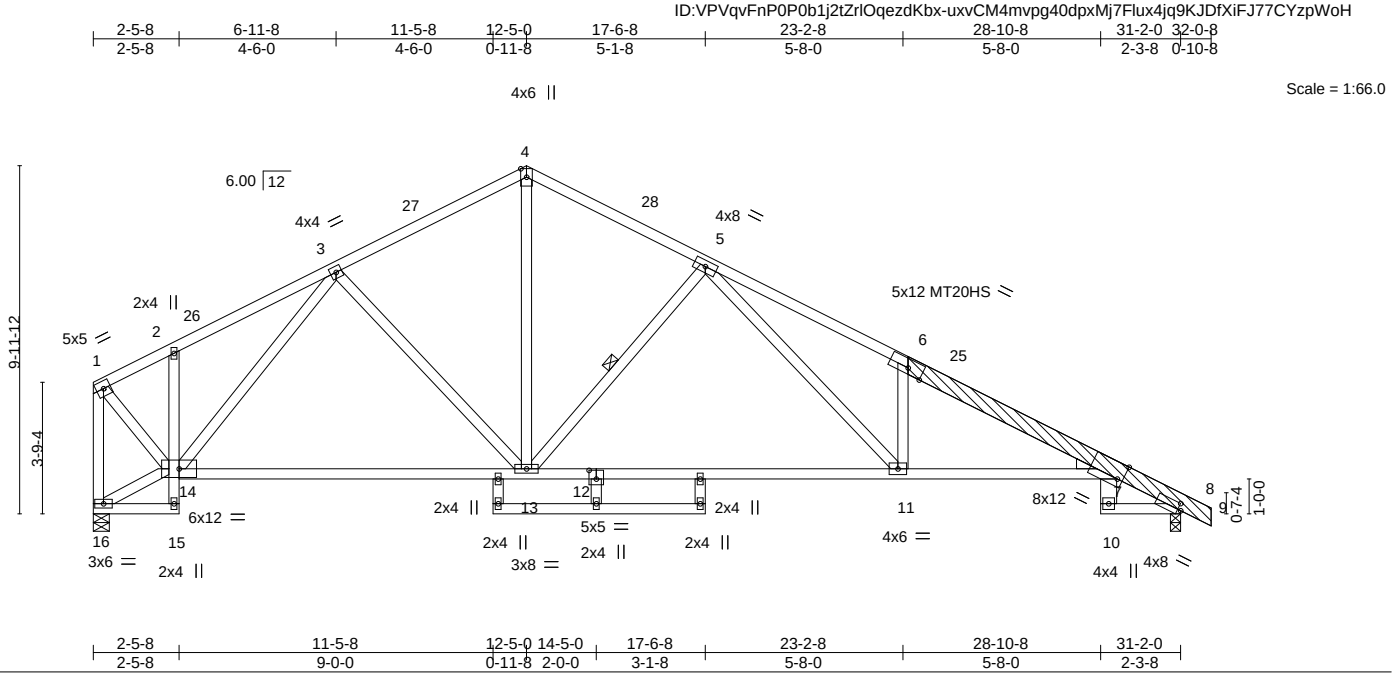


Plate Offsets (X,Y)-- [6:0-5-4,Edge], [7:0-1-13,0-5-7], [8:0-1-2,0-2-3], [12:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.29	7-11	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.62	7-11	>598	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.32	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 181 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	6-9: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except*
	7-12: 2x4 SP 2400F 2.0E, 7-10: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x6 SPF 2100F 1.8E
LBR SCAB	6-9 2x6 SPF 2100F 1.8E one side
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-13

REACTIONS. (size) 8=0-3-8, 16=0-5-8
Max Horz 16=-208(LC 10)
Max Uplift 8=-206(LC 13), 16=-148(LC 12)
Max Grav 8=1787(LC 1), 16=1705(LC 1)

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

TOP CHORD	1-2=-1128/127, 2-3=-1215/181, 3-4=-1788/254, 4-5=-1781/269, 5-6=-3737/478, 6-7=-3562/344, 7-8=-902/128, 1-16=-1697/135
BOT CHORD	2-14=-327/123, 13-14=-104/1542, 11-13=-69/2149, 7-11=-211/3275
WEBS	6-11=-1001/249, 4-13=-114/1040, 3-14=-865/132, 1-14=-120/1497, 14-16=-65/276, 5-13=-1013/263, 5-11=-236/1588

NOTES-

1) Attached 9-11-5 scab 6 to 9, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 6, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 6, nail 2 row(s) at 3" o.c. for 4-2-15.
2) Unbalanced roof live loads have been considered for this design.
3) 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 12-5-0, Exterior(2R) 12-5-0 to 15-5-0 , Interior(1) 15-5-0 to 32-0-8 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
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=206, 16=148.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616232
2629082	A7	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:53 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-M7TbaQnXazCtFyWYHqm_R9cucZj6y5DrTzthk_zpWoG

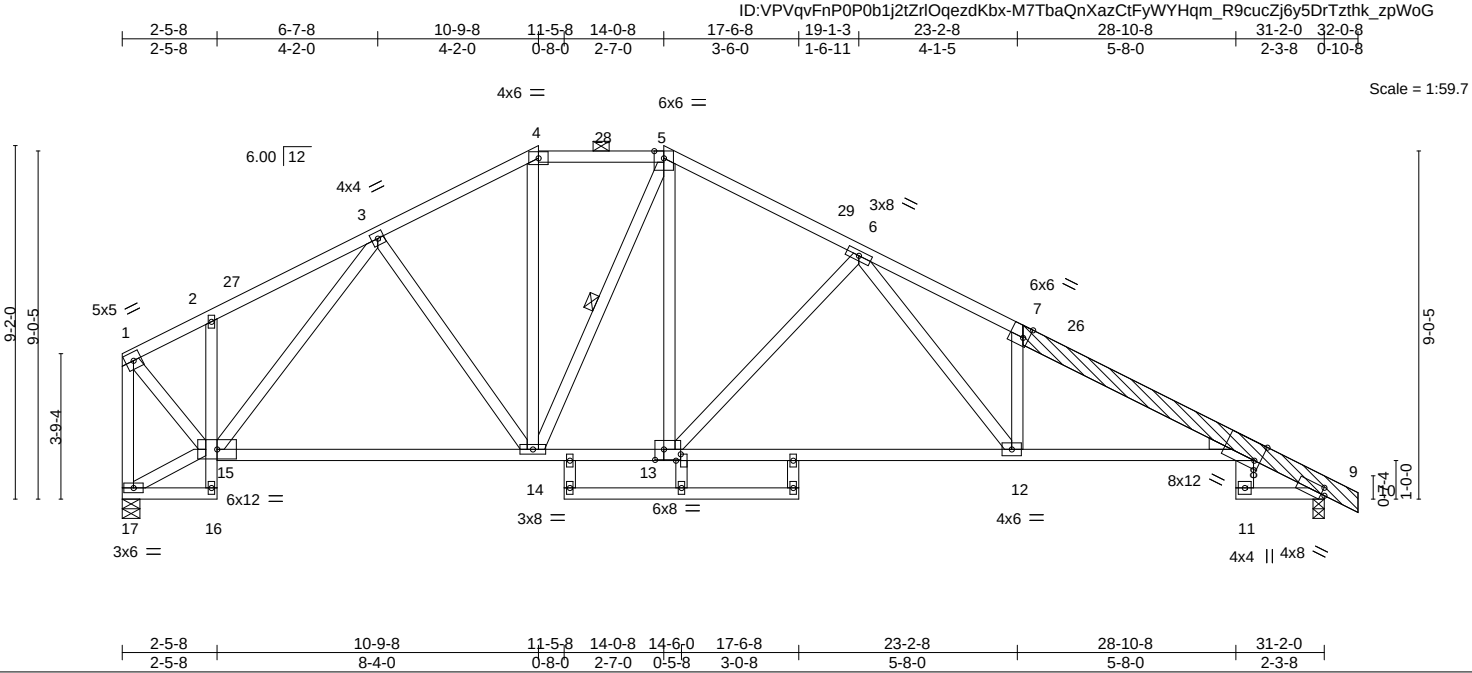


Plate Offsets (X,Y)-- [7:0-1-12,Edge], [8:0-1-13,0-5-7], [9:0-1-2,0-2-3], [13:0-2-12,0-3-4], [13:0-2-0,0-1-8]

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	0.73	Vert(LL)	-0.28	8-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.61	8-12	>606	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.32	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 *Except* 7-10: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 8-13: 2x4 SP 2400F 2.0E, 8-11: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x6 SPF 2100F 1.8E
LBR SCAB	7-10 2x6 SPF 2100F 1.8E one side
WEDGE	Right: 2x4 SP No.3

BRACING-

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

REACTIONS. (size) 9=0-3-8, 17=0-5-8
Max Horz 17=-198(LC 10)
Max Uplift 9=-210(LC 13), 17=-152(LC 12)
Max Grav 9=1787(LC 1), 17=1705(LC 1)

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

TOP CHORD	1-2=-1122/133, 2-3=-1205/186, 3-4=-1813/267, 4-5=-1545/262, 5-6=-1994/276, 6-7=-3675/459, 7-8=-3535/348, 8-9=-902/130, 1-17=-1688/136
BOT CHORD	2-15=-324/124, 14-15=-90/1524, 13-14=-3/1701, 12-13=-107/2372, 8-12=-212/3244
WEBS	7-12=-915/212, 1-15=-120/1489, 5-13=-115/807, 4-14=-65/445, 3-15=-873/121, 5-14=-501/121, 6-13=-975/234, 6-12=-183/1360

NOTES-

1) Attached 9-11-5 scab 7 to 10, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 7, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 7, nail 2 row(s) at 3" o.c. for 4-2-15.
2) Unbalanced roof live loads have been considered for this design.
3) 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 10-9-8, Exterior(2E) 10-9-8 to 14-0-8 , Exterior(2R) 14-0-8 to 18-3-7, Interior(1) 18-3-7 to 32-0-8 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=210, 17=152.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

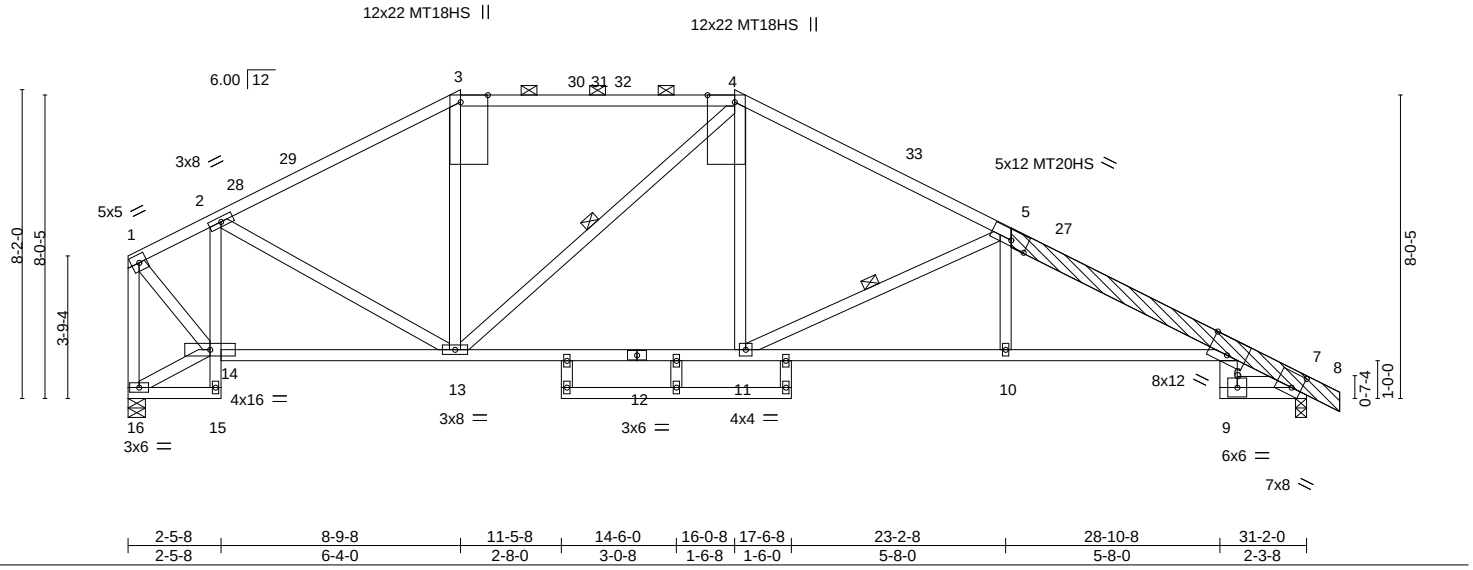
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A8	Hip	1	1	I44616233
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:54 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-qJ1znlnALHKks65lqYIDzM92qz08hgE?idcEGRzpWoF

2-5-8	8-9-8	11-5-8	16-0-8	17-6-8	23-2-8	28-10-8	31-2-0	32-0-8
2-5-8	6-4-0	2-8-0	4-7-0	1-6-0	5-8-0	5-8-0	2-3-8	0-10-8

Scale = 1:60.9



2-5-8	8-9-8	11-5-8	14-6-0	16-0-8	17-6-8	23-2-8	28-10-8	31-2-0
2-5-8	6-4-0	2-8-0	3-0-8	1-6-8	1-6-0	5-8-0	5-8-0	2-3-8

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

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)	-0.25	6-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.56	6-10	>656	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.30	7	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 173 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 3-4: 2x4 SPF 1650F 1.5E, 5-8: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 6-12: 2x4 SPF 1650F 1.5E, 6-9: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x6 SPF 2100F 1.8E
LBR SCAB	5-8 2x6 SPF 2100F 1.8E one side
SLIDER	Right 2x4 SPF No.2 1-5-3

BRACING-

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

REACTIONS. (size) 7=0-3-8, 16=0-5-8
Max Horz 16=-187(LC 10)
Max Uplift 7=-216(LC 13), 16=-156(LC 12)
Max Grav 7=1793(LC 1), 16=1697(LC 1)

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

TOP CHORD	1-2=-1107/141, 2-3=-1914/245, 3-4=-1602/258, 4-5=-2378/282, 5-6=-3515/392, 6-7=-1020/147, 1-16=-1655/136
BOT CHORD	2-14=-1085/197, 13-14=-71/1026, 11-13=-39/1978, 10-11=-255/3242, 6-10=-259/3240, 6-9=-51/570, 7-9=-114/1146
WEBS	2-13=-100/708, 3-13=-5/297, 4-11=-50/696, 5-11=-1368/279, 4-13=-614/143, 1-14=-142/1502

NOTES-

1) Attached 9-11-5 scab 5 to 8, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 5, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 5-5-15 from end at joint 5, nail 2 row(s) at 3" o.c. for 4-0-15.
2) Unbalanced roof live loads have been considered for this design.
3) 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 8-9-8, Exterior(2R) 8-9-8 to 13-0-7, Interior(1) 13-0-7 to 16-0-8, Exterior(2R) 16-0-8 to 20-3-7, Interior(1) 20-3-7 to 32-0-8 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) The Fabrication Tolerance at joint 3 = 12%, joint 4 = 12%
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=216, 16=156.
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.

Continued on page 2

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

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

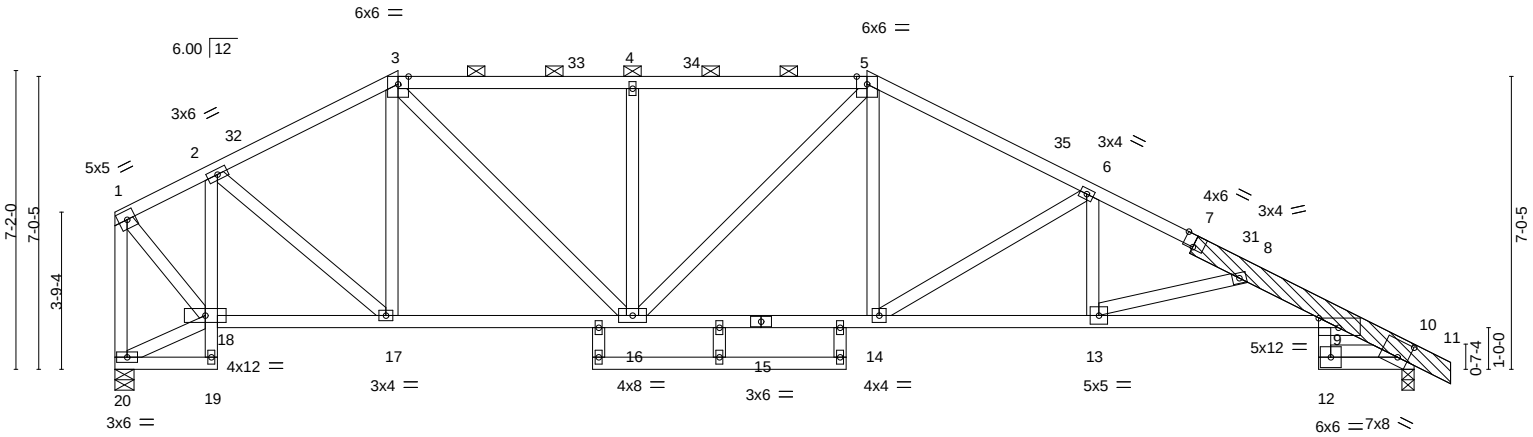
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A9	Hip	1	1	I44616234

Job Reference (optional)

8.240 s Apr 4 2020 MiTek Industries, Inc. Mon Feb 1 13:50:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-jKST5CX8T28gAx87aKCJ_x64Mpn6zsEaXK1oPHzpUeB

2-5-8	6-9-8	11-5-8	12-5-0	17-6-8	18-0-8	23-5-8	26-11-11	28-10-8	31-2-0	32-0-8
2-5-8	4-4-0	4-8-0	0-11-8	5-1-8	0-6-0	5-5-0	3-6-3	1-10-13	2-3-8	0-10-8

Scale = 1:55.3



2-5-8	6-9-8	11-5-8	12-5-0	14-6-0	17-6-8	18-0-8	23-5-8	28-10-8	31-2-0
2-5-8	4-4-0	4-8-0	0-11-8	2-1-0	3-0-8	0-6-0	5-5-0	5-5-0	2-3-8

Plate Offsets (X,Y)-- [7:0-3-0,Edge], [9:0-7-0,0-3-8], [9:0-5-11,0-2-12], [10:0-3-1,0-4-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.20	9-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.45	9-13	>830	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.26	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 181 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 7-11: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 9-15: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
OTHERS	2x6 SPF 2100F 1.8E
LBR SCAB	7-11 2x6 SPF 2100F 1.8E one side
SLIDER	Right 2x4 SPF No.2 1-7-3

BRACING-

TOP CHORD	Sheathed, except end verticals, and 2-0-0 oc purlins (3-5-2 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (lb/size) 10=1794/0-3-8, 20=1697/0-5-8
Max Horz 20=-175(LC 10)
Max Uplift 10=-219(LC 13), 20=-160(LC 12)

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

TOP CHORD	1-2=-1116/144, 2-32=-1809/209, 3-32=-1724/230, 3-33=-2241/292, 4-33=-2244/292, 4-34=-2244/292, 5-34=-2241/292, 5-35=-2506/319, 6-35=-2616/293, 6-7=-3515/407, 7-31=-3547/389, 8-31=-3569/388, 8-9=-4982/569, 9-10=-920/140, 1-20=-1656/142
BOT CHORD	2-18=-1051/177, 17-18=-73/995, 16-17=-85/1561, 15-16=-71/2237, 14-15=-71/2237, 13-14=-239/3157, 9-13=-486/4918, 9-12=-43/481, 10-12=-111/1090
WEBS	2-17=-114/748, 3-17=-380/116, 6-13=-17/516, 5-14=-57/642, 1-18=-123/1460, 4-16=-593/160, 3-16=-153/1033, 6-14=-1053/202, 8-13=-1834/256

NOTES-

1) Attached 7-0-0 scab 7 to 11, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-0 from end at joint 7, nail 2 row(s) at 4" o.c. for 2-6-12; starting at 2-8-0 from end at joint 7, nail 2 row(s) at 2" o.c. for 4-0-15.
2) Unbalanced roof live loads have been considered for this design.
3) 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 6-9-8, Exterior(2R) 6-9-8 to 11-0-7, Interior(1) 11-0-7 to 18-0-8, Exterior(2R) 18-0-8 to 22-3-7, Interior(1) 22-3-7 to 32-0-8 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) The Fabrication Tolerance at joint 9 = 8%, joint 9 = 0%, joint 9 = 8%
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 219 lb uplift at joint 10 and 160 lb uplift at joint 20.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A9	Hip	1	1	I44616234
					Job Reference (optional)

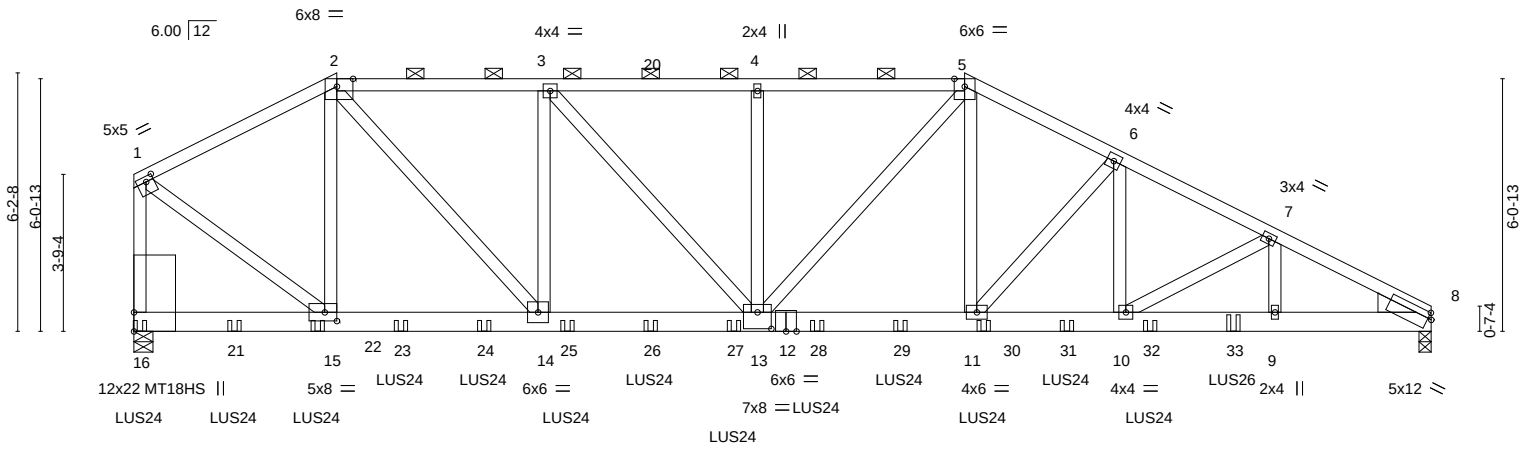
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	A10	Hip Girder	1	2	I44616235
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:47 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Xz6JJMin_7SkW13OwagaBuMr28doYRIz51QMWLzpWoM

4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1

Scale = 1:55.4



4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1

Plate Offsets (X,Y)-- [1:0-2-4,0-1-8], [2:0-4-10,Edge], [8:0-1-0,0-1-12], [13:0-4-0,0-4-12], [15:0-3-8,0-2-8]

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	0.80	Vert(LL)	-0.18	11-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.39	11-13	>962	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 359 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SP No.2

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

REACTIONS. (size) 8=0-3-8, 16=0-5-8
Max Horz 16=-153(LC 6)
Max Uplift 8=-825(LC 9), 16=-848(LC 8)
Max Grav 8=5602(LC 1), 16=6500(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4996/699, 2-3=-7477/1039, 3-4=-8648/1247, 4-5=-8651/1249, 5-6=-8893/1326, 6-7=-10229/1520, 7-8=-10565/1574, 1-16=-5629/766
BOT CHORD 14-15=-589/4456, 13-14=-980/7474, 11-13=-1004/7879, 10-11=-1251/9116, 9-10=-1355/9336, 8-9=-1355/9336
WEBS 2-15=-1691/256, 2-14=-658/4643, 3-14=-1879/338, 3-13=-330/1776, 4-13=-563/144, 5-13=-199/1309, 5-11=-436/2657, 6-11=-1744/352, 6-10=-263/1636, 7-10=-256/119, 1-15=-744/5450

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 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=825, 16=848.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 0-1-12 from the left end to 14-5-0 to connect truss(es) to back face of bottom chord.
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 12-0-0 oc max. starting at 4-5-0 from the left end to 24-5-0 to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

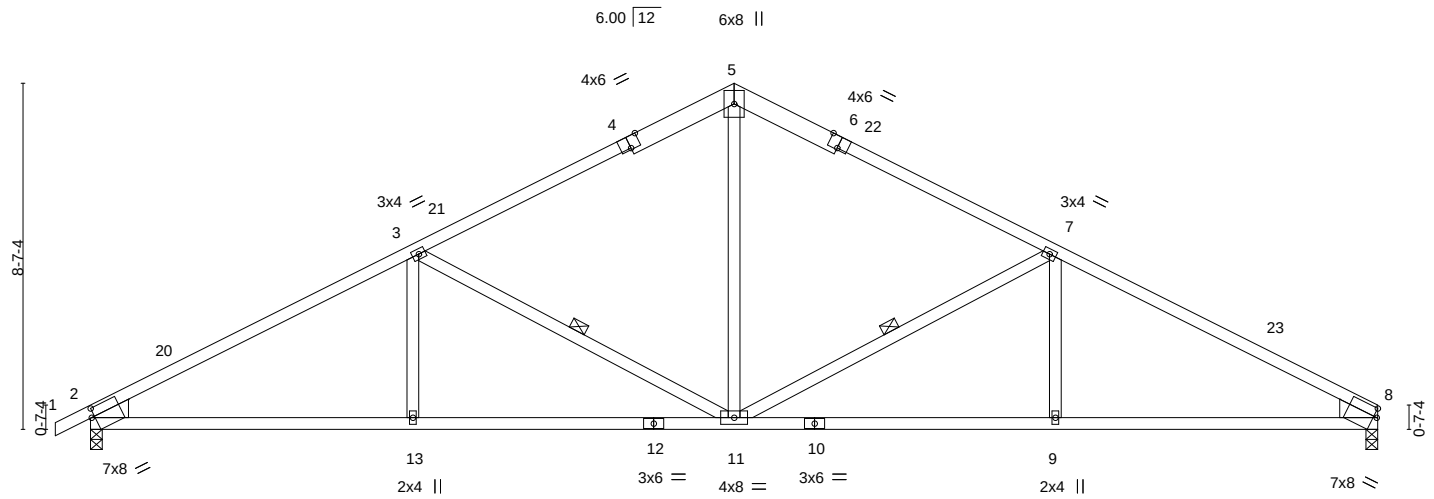
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-90, 2-5=-90, 5-8=-90, 16-17=-20
   Concentrated Loads (lb)
   Vert: 16=-601(B) 21=-593(B) 22=-558(B) 23=-595(B) 24=-595(B) 25=-595(B) 26=-595(B) 27=-595(B) 28=-595(B) 29=-595(B) 30=-558(B) 31=-585(B) 32=-585(B) 33=-1046(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B1	Common	2	1	I44616236
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:57 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Euj5Pnq2eCiJjapJWgrwb?naUA56u2aRObrutmzpWoC

-0-10-8 8-0-3 16-0-0 23-11-13 32-0-0
0-10-8 8-0-3 7-11-13 7-11-13 8-0-3

Scale = 1:57.3



8-0-3 16-0-0 23-11-13 32-0-0
8-0-3 7-11-13 7-11-13 8-0-3

Plate Offsets (X,Y)-- [2:0-0-15,0-2-10], [2:0-4-9,0-2-1], [2:0-0-3,0-0-0], [4:0-3-0,Edge], [6:0-3-0,Edge], [8:0-0-3,0-0-0], [8:0-4-9,0-2-1], [8:Edge,0-2-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.12	11-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.33	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 124 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 1-4,6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2, Right: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11, 3-11

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=139(LC 12)
Max Uplift 2=-197(LC 12), 8=-180(LC 13)
Max Grav 2=1840(LC 1), 8=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3008/305, 3-5=-2145/291, 5-7=-2145/293, 7-8=-3013/306
BOT CHORD 2-13=-306/2555, 11-13=-306/2555, 9-11=-187/2561, 8-9=-187/2561
WEBS 5-11=-65/1003, 7-11=-937/245, 7-9=0/302, 3-11=-930/243, 3-13=0/301

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 16-0-0, Exterior(2R) 16-0-0 to 19-0-0, Interior(1) 19-0-0 to 32-0-0 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) 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=197, 8=180.
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.

February 2,2021

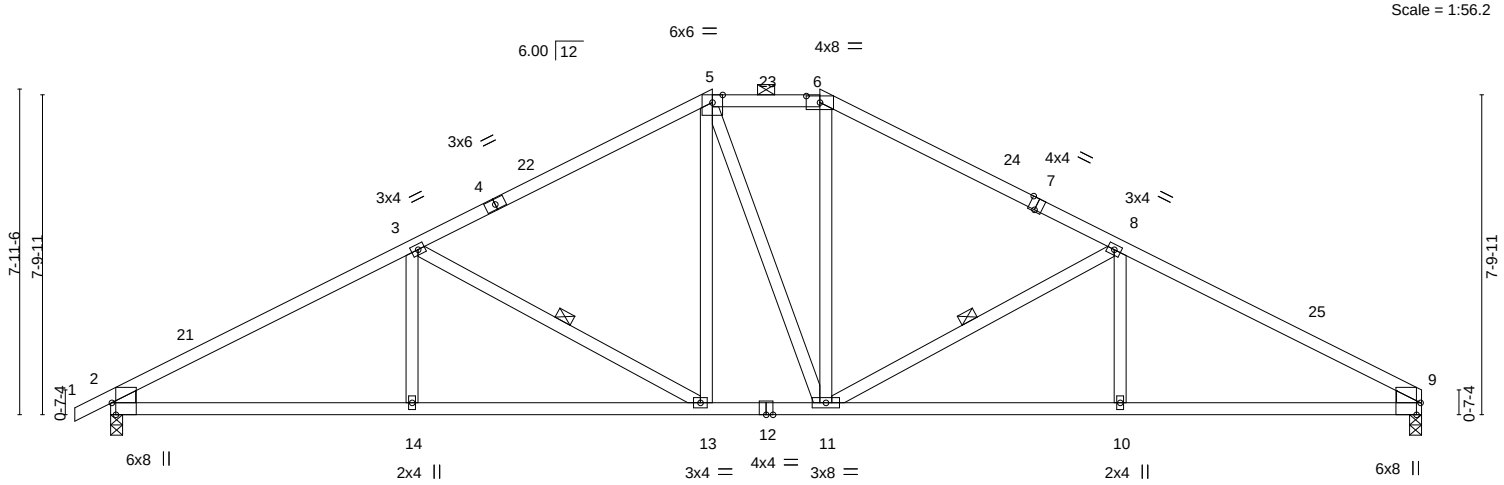
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B2	HIP	1	1	I44616237
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:58 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-i5GTd7qgPWrALkOW3OM98CKj5aQGdWBbdFaSPCzpWoB

-0-10-8 7-4-5 14-8-4 17-3-12 24-7-11 32-0-0
0-10-8 7-4-5 7-3-15 2-7-8 7-3-15 7-4-5

Scale = 1:56.2



7-4-5 14-8-4 17-3-12 24-7-11 32-0-0
7-4-5 7-3-15 2-7-8 7-3-15 7-4-5

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [6:0-4-0,0-1-15], [7:0-2-0,Edge], [9:0-0-1,0-0-3], [9:0-0-3,0-5-0], [9:0-3-8,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	0.81	Vert(LL)	-0.14	13-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.35	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 132 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 (3-9-7 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-13, 8-11

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=129(LC 16)
Max Uplift 2=-200(LC 12), 9=-182(LC 13)
Max Grav 2=1840(LC 1), 9=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3047/315, 3-5=-2262/290, 5-6=-1881/297, 6-8=-2263/293, 8-9=-3053/317
BOT CHORD 2-14=-313/2602, 13-14=-313/2602, 11-13=-115/1879, 10-11=-201/2609, 9-10=-201/2609
WEBS 3-14=0/275, 3-13=-841/225, 5-13=-65/506, 6-11=-70/512, 8-11=-847/227, 8-10=0/275

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 14-8-4, Exterior(2E) 14-8-4 to 17-3-12, Exterior(2R) 17-3-12 to 21-6-11, Interior(1) 21-6-11 to 32-0-0 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) except (jt=lb) 2=200, 9=182.
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.

February 2,2021

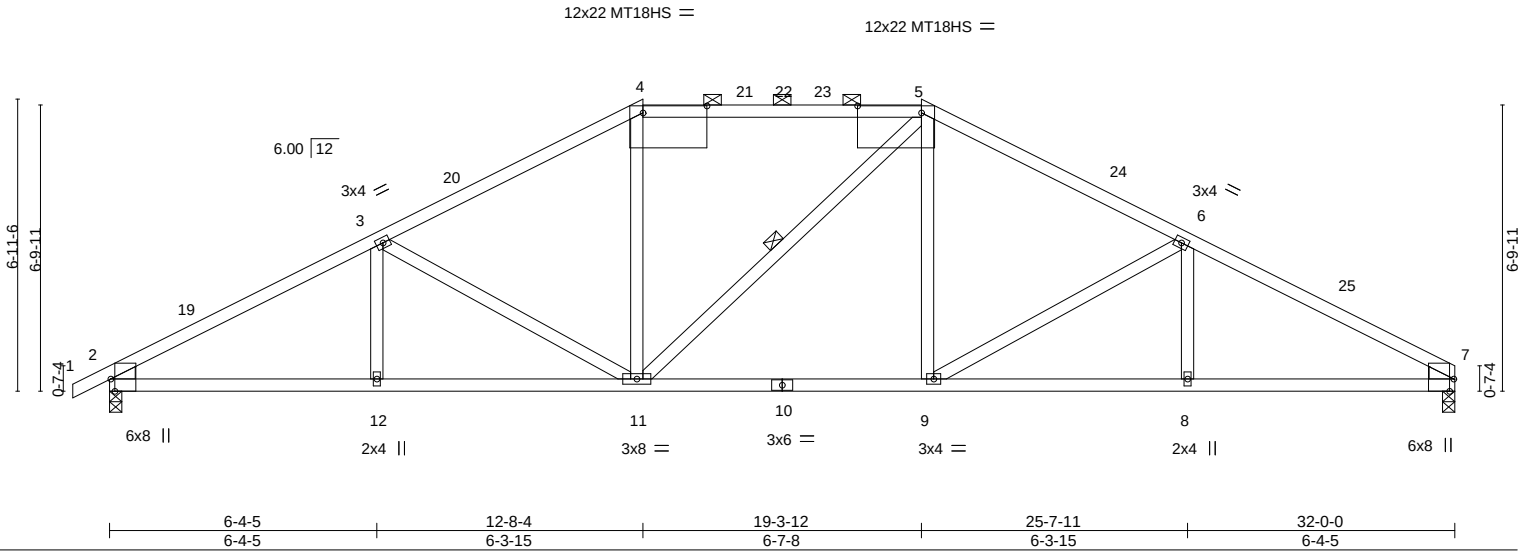
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B3	Hip	1	1	I44616238
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:22:59 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-AHqsqTrIApz1ztzid5tOgQst4_lLMvCksvK?yezpWoA

-0-10-8 6-4-5 12-8-4 19-3-12 25-7-11 32-0-0
0-10-8 6-4-5 6-3-15 6-7-8 6-3-15 6-4-5

Scale = 1:54.8



6-4-5 12-8-4 19-3-12 25-7-11 32-0-0
6-4-5 6-3-15 6-7-8 6-3-15 6-4-5

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.14	11-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.32	8-9	>999	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.13	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 127 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 (2-2-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-11

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=113(LC 12)
Max Uplift 2=-203(LC 12), 7=-186(LC 13)
Max Grav 2=1840(LC 1), 7=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3067/326, 3-4=-2470/305, 4-5=-2099/310, 5-6=-2470/306, 6-7=-3075/329
BOT CHORD 2-12=-318/2629, 11-12=-318/2629, 9-11=-116/2100, 8-9=-220/2638, 7-8=-220/2638
WEBS 3-11=-617/186, 4-11=-27/487, 5-9=-35/488, 6-9=-626/187

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 12-8-4, Exterior(2R) 12-8-4 to 16-11-3, Interior(1) 16-11-3 to 19-3-12, Exterior(2R) 19-3-12 to 23-6-11, Interior(1) 23-6-11 to 32-0-0 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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=203, 7=186.
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.

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

February 2,2021

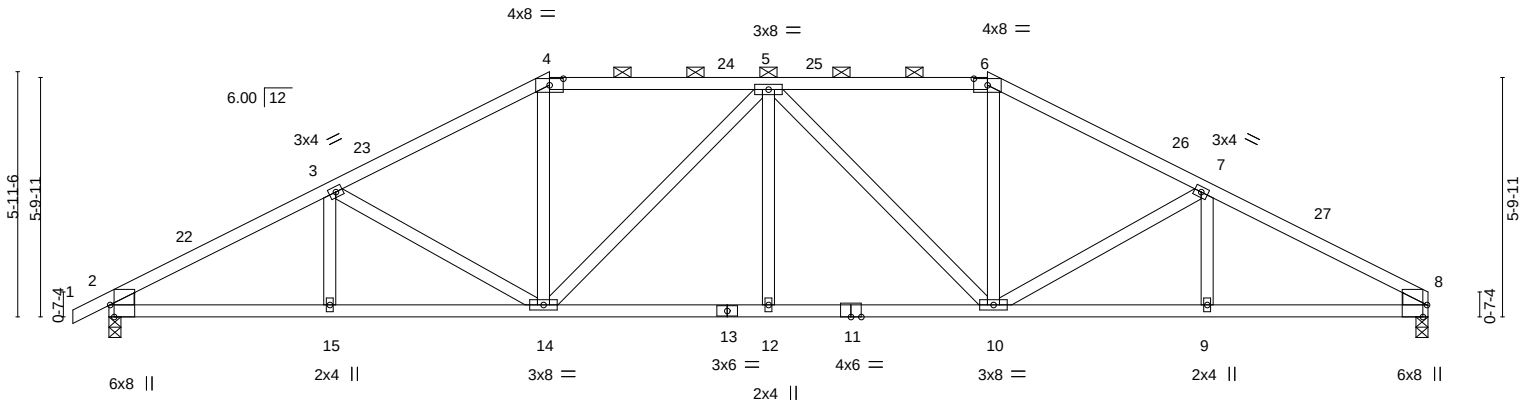
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B4	Hip	1	1	I44616239
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:00 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-fTOE2psww75ua1YuBpOdDdP6nO5B5Lat4Z3YU4zpWo9

-0-10-8	5-4-5	10-8-4	16-0-0	21-3-12	26-7-11	32-0-0
0-10-8	5-4-5	5-3-15	5-3-12	5-3-12	5-3-15	5-4-5

Scale = 1:55.9



5-4-5	10-8-4	16-0-0	21-3-12	26-7-11	32-0-0
5-4-5	5-3-15	5-3-12	5-3-12	5-3-15	5-4-5

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:0-4-0,0-1-15], [6:0-4-0,0-1-15], [8:0-0-1,0-0-3], [8:0-0-3,0-5-0], [8:0-3-8,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	0.61	Vert(LL)	-0.15	12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.32	10-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.13	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 133 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
11-13: 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.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=96(LC 12)
Max Uplift 2=-206(LC 12), 8=-189(LC 13)
Max Grav 2=1840(LC 1), 8=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3075/334, 3-4=-2654/308, 4-5=-2282/306, 5-6=-2283/305, 6-7=-2657/311, 7-8=-3085/337
BOT CHORD 2-15=-317/2646, 14-15=-317/2646, 12-14=-174/2593, 10-12=-174/2593, 9-10=-237/2657, 8-9=-237/2657
WEBS 3-14=-423/142, 4-14=-47/659, 5-14=-582/111, 5-10=-580/111, 6-10=-47/661, 7-10=-433/145

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 10-8-4, Exterior(2R) 10-8-4 to 14-11-3, Interior(1) 14-11-3 to 21-3-12, Exterior(2R) 21-3-12 to 25-6-11, Interior(1) 25-6-11 to 32-0-0 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) except (jt=lb) 2=206, 8=189.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B5	ROOF SPECIAL	1	1	I44616240

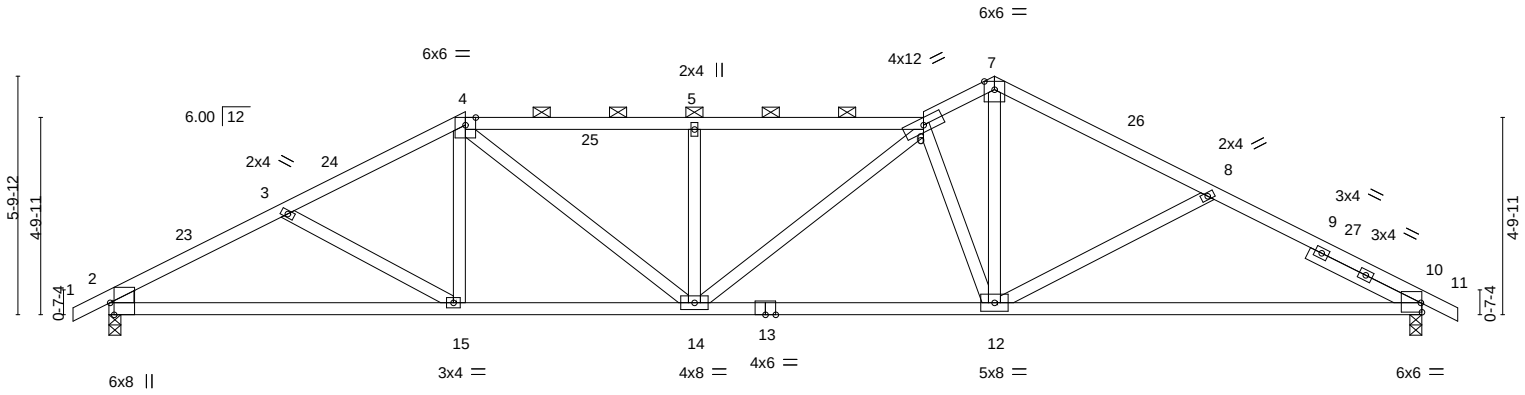
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7gycF9tZhRDlCB75lWwsmrxGWoPHqlY1JDp60XzpWo8

-0-10-8	4-4-5	8-8-4	14-3-4	19-10-4	21-7-0	25-10-15	26-9-5	32-0-0	32-10-8
0-10-8	4-4-5	4-3-15	5-7-0	5-7-0	1-8-12	4-3-15	0-10-6	5-2-11	0-10-8

Scale = 1:56.2



8-8-4	14-3-4	19-10-4	21-7-0	25-10-15	32-0-0
8-8-4	5-7-0	5-7-0	1-8-12	4-3-15	6-1-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19	12-21	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.44	12-21	>865	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 131 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
SLIDER Right 2x4 SPF No.2 3-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-7-4 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=90(LC 12)
Max Uplift 2=-242(LC 12), 10=-155(LC 13)
Max Grav 2=1830(LC 1), 10=1844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3067/427, 3-4=-2788/384, 4-5=-3122/439, 5-6=-3122/439, 6-7=-2577/334, 7-8=-2623/306, 8-10=-2923/345
BOT CHORD 2-15=-398/2638, 14-15=-297/2454, 12-14=-282/2875, 10-12=-239/2557
WEBS 4-15=0/307, 4-14=-132/859, 5-14=-616/161, 6-14=-99/437, 7-12=-227/1956, 6-12=-1743/308, 8-12=-410/175

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 8-8-4, Exterior(2R) 8-8-4 to 11-8-4, Interior(1) 11-8-4 to 21-7-0, Exterior(2R) 21-7-0 to 24-7-0, Interior(1) 24-7-0 to 32-10-8 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=242, 10=155.
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.

February 2,2021

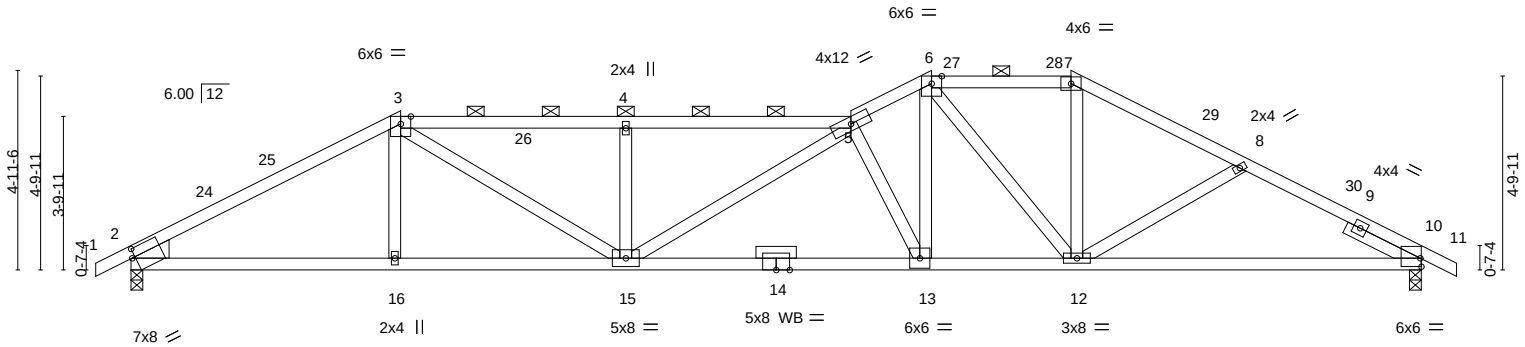
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B6	ROOF SPECIAL	1	1	I44616241
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:02 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-bsW_TVuBSkLbqLiHIDR5I2UQDBkQZEDAYtYfYzzpWo7

-0-10-8 6-8-4 12-3-4 17-10-4 19-10-4 23-3-12 27-7-11 32-0-0 32-10-8
0-10-8 6-8-4 5-7-0 5-7-0 2-0-0 3-5-8 4-3-15 4-4-5 0-10-8

Scale = 1:57.1



6-8-4 12-3-4 17-10-4 19-10-4 23-3-12 27-7-11 32-0-0
6-8-4 5-7-0 5-7-0 2-0-0 3-5-8 4-3-15 4-4-5

Plate Offsets (X,Y)-- [2:0-0-3,0-0-0], [2:0-4-9,0-2-1], [2:0-0-15,0-2-10], [10:Edge,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.23	13-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.57	13-15	>672	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 131 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: 2x6 SPF No.2
SLIDER Right 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-75(LC 17)
Max Uplift 2=-235(LC 12), 10=-139(LC 13)
Max Grav 2=1830(LC 1), 10=1844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3059/384, 3-4=-3845/484, 4-5=-3845/484, 5-6=-3334/440, 6-7=-2401/357, 7-8=-2745/360, 8-10=-2945/380
BOT CHORD 2-16=-324/2624, 15-16=-326/2620, 13-15=-382/3851, 12-13=-246/2876, 10-12=-274/2537
WEBS 3-15=-195/1450, 4-15=-629/167, 5-13=-1984/317, 6-13=-239/1877, 6-12=-853/132, 7-12=-64/758

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 6-8-4, Exterior(2R) 6-8-4 to 9-8-4, Interior(1) 9-8-4 to 19-10-4, Exterior(2R) 19-10-4 to 22-10-4, Interior(1) 22-10-4 to 23-3-12, Exterior(2R) 23-3-12 to 26-3-12, Interior(1) 26-3-12 to 32-10-8 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=235, 10=139.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	B7	ROOF SPECIAL GIRDER	1	1	I44616242

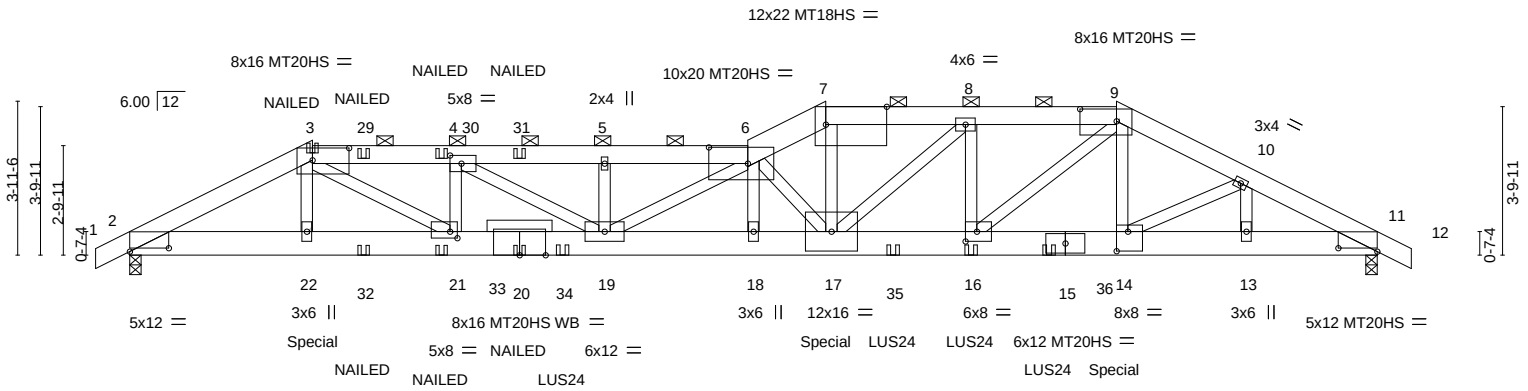
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:04 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-XFeltAvR_MbJ3fsgQeTZNTZiG?SX13lT?B1mdszpWo5

-0-10-8	4-8-4	8-4-5	12-2-3	15-10-4	17-10-4	21-7-0	25-3-12	28-7-11	32-0-0	32-10-8
0-10-8	4-8-4	3-8-1	3-9-13	3-8-1	2-0-0	3-8-12	3-8-12	3-3-15	3-4-5	0-10-8

Scale = 1:59.1



4-8-4	8-4-5	12-2-3	15-10-4	17-10-4	21-7-0	25-3-12	28-7-11	32-0-0
4-8-4	3-8-1	3-9-13	3-8-1	2-0-0	3-8-12	3-8-12	3-3-15	3-4-5

Plate Offsets (X,Y)-- [2:1-0-0,0-1-1], [3:0-11-4,0-3-12], [4:0-3-8,0-2-8], [6:1-0-0,0-5-0], [7:1-6-12,Edge], [9:0-11-4,0-3-12], [11:1-0-0,0-1-1], [14:0-3-8,0-6-0], [16:0-3-8,0-3-0], [21:0-2-4,0-2-0]

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	0.96	Vert(LL)	-0.45	18-19	>849	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.99	18-19	>390	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.15	11	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 224 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 3-6: 2x6 SP 2400F 2.0E, 6-7: 2x8 SP 2400F 2.0E 7-9: 2x6 SPF 2100F 1.8E
BOT CHORD	2x8 SP 2400F 2.0E
WEBS	2x4 SPF No.2 *Except* 3-21,4-19,7-17,8-16,6-19: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-59(LC 30)
Max Uplift 2=-645(LC 8), 11=-646(LC 4)
Max Grav 2=3755(LC 1), 11=4140(LC 1)

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

TOP CHORD	2-3=-7631/1321, 3-4=-10738/1849, 4-5=-13343/2267, 5-6=-13343/2267, 6-7=-11749/2036, 7-8=-10807/1880, 8-9=-9650/1704, 9-10=-8336/1450, 10-11=-7918/1309
BOT CHORD	2-22=-1175/6811, 21-22=-1173/6786, 19-21=-1811/10735, 18-19=-2381/14331, 17-18=-2373/14292, 16-17=-1624/9649, 14-16=-1234/7450, 13-14=-1129/7019, 11-13=-1129/7019
WEBS	3-22=-28/397, 3-21=-821/4670, 4-21=-2148/460, 4-19=-519/3036, 5-19=-465/123, 6-17=-5380/923, 7-17=-804/4616, 8-17=-311/1611, 8-16=-1352/246, 9-16=-522/3002, 9-14=-241/1266, 10-14=-216/702, 10-13=-441/107, 6-18=-611/131, 6-19=-1214/236

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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=645, 11=646.
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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 8-5-12 oc max. starting at 11-1-4 from the left end to 23-7-0 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

Continued on page 2

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

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down and 106 lb up at 4-8-4, and 957 lb down and 237 lb up at 17-10-4, and 957 lb down and 237 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-6=-90, 6-7=-90, 7-9=-90, 9-12=-90, 23-26=-20
Concentrated Loads (lb)
Vert: 3=-87(B) 20=-49(B) 22=-381(B) 17=-957(B) 16=-344(B) 14=-957(B) 29=-87(B) 30=-87(B) 31=-87(B) 32=-49(B) 33=-49(B) 34=-392(B) 35=-344(B) 36=-344(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C1	Jack-Closed	5	1	I44616243
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:04 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-XFeltAvR_MbJ3fsgQeTZNTZqN?ap16oT?B1mdszpWo5

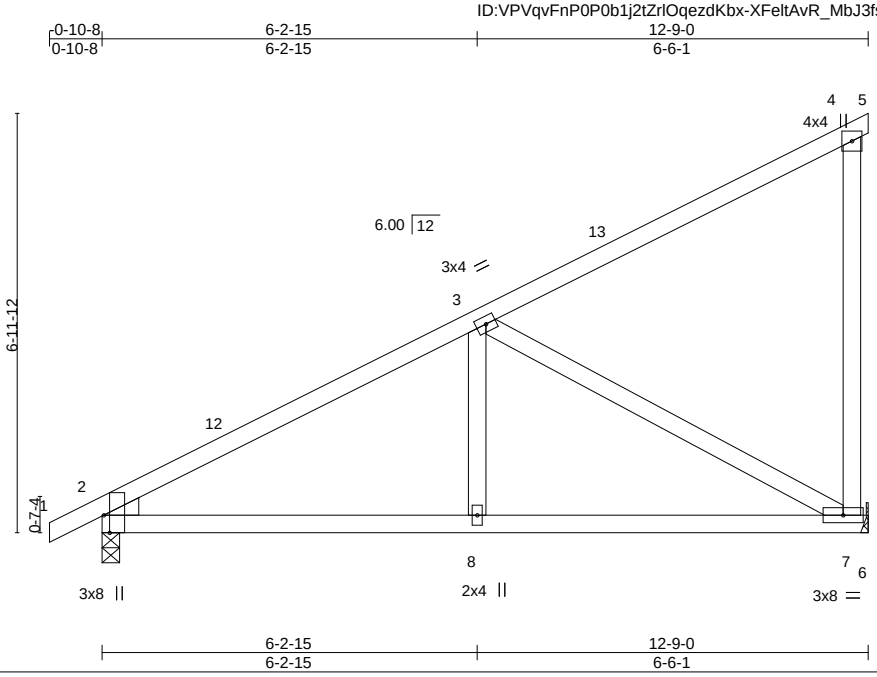


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.51	Vert(LL)	-0.04	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.07	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 51 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, 7=Mechanical
Max Horz 2=251(LC 11)
Max Uplift 2=-75(LC 12), 7=-77(LC 9)
Max Grav 2=768(LC 1), 7=700(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-925/140
BOT CHORD 2-8=-257/742, 7-8=-257/742
WEBS 3-8=0/272, 3-7=-817/209

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 12-9-0 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
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, 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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C2	Jack-Closed	1	1	I44616244

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:05 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-?RC75Ww3lfjAhoRs_M_owg6_uPtOmeXdErnJ9IzpWo4

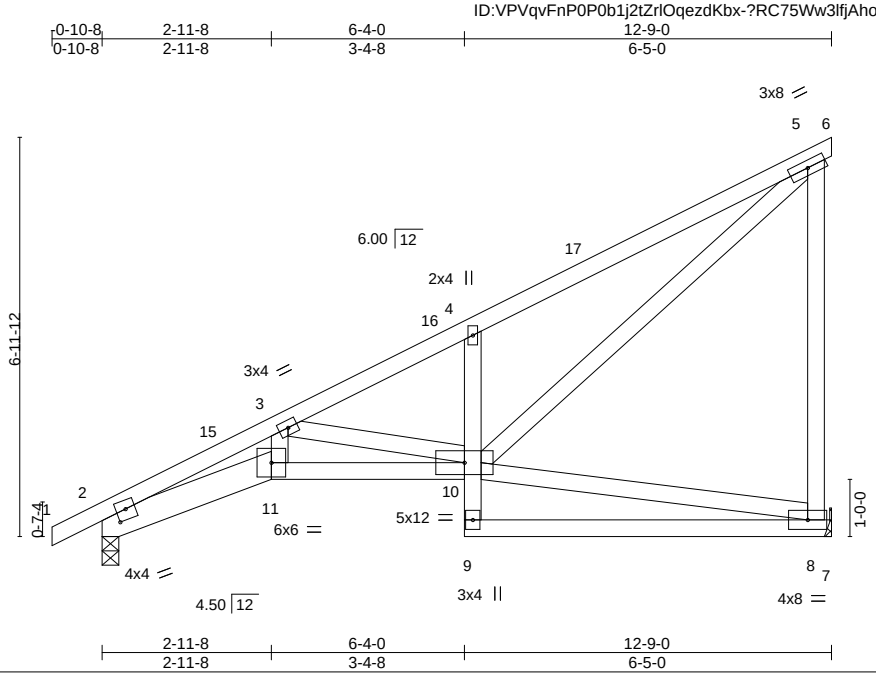


Plate Offsets (X,Y)-- [2:0-2-0,0-2-3]

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	0.52	Vert(LL)	-0.06	10-11	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.13	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 65 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-11: 2x6 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) 8=Mechanical, 2=0-3-8
Max Horz 2=251(LC 11)
Max Uplift 8=-77(LC 9), 2=-74(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2053/309, 3-4=-1061/150, 4-5=-1167/251, 5-8=-624/273
BOT CHORD 2-11=-639/1835, 10-11=-578/1678, 4-10=-528/228
WEBS 3-11=-166/517, 3-10=-766/247, 5-10=-381/1219

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 12-9-0 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
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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C3	Jack-Closed	3	1	I44616245
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:06 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TdlVIsxhWzr1Iy02X3V1Suf7kpBvV5VmTVWthkzpWo3

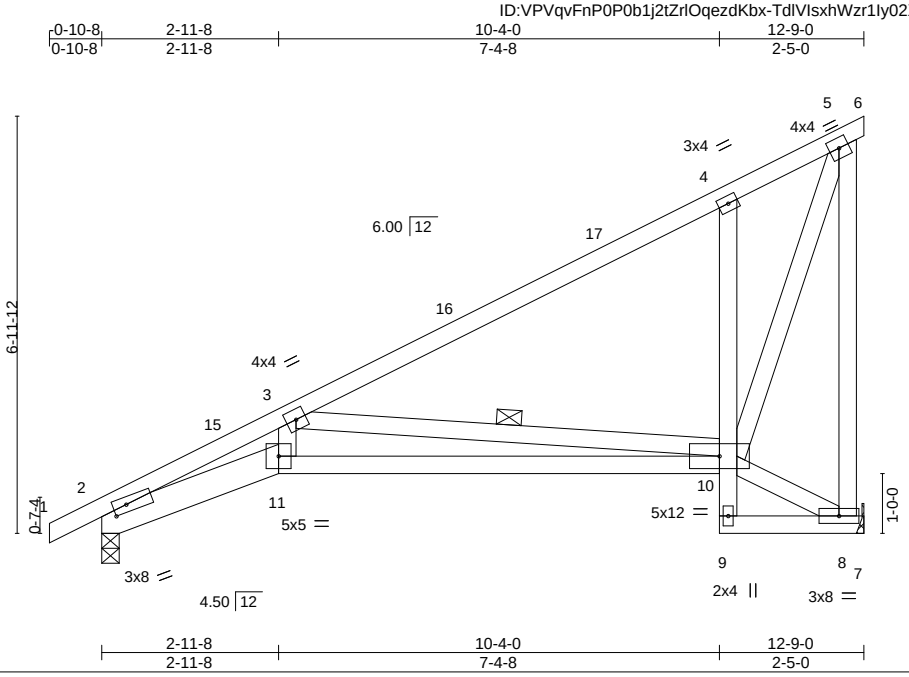


Plate Offsets (X,Y)-- [2:0-2-11,0-1-8]

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	0.64	Vert(LL)	-0.11	10-11	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.28	10-11	>528	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 65 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-11: 2x6 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.
WEBS 1 Row at midpt 3-10

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=251(LC 11)
Max Uplift 8=-77(LC 9), 2=-74(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2357/357, 3-4=-552/90, 4-5=-454/145, 5-8=-676/238
BOT CHORD 2-11=-692/2152, 10-11=-648/1988, 4-10=-565/273
WEBS 3-11=-127/627, 3-10=-1622/467, 5-10=-297/923

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 12-9-0 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
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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C4	Jack-Closed	1	1	I44616246
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:07 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-xpJtWCxKHHzuw6aE5n1G?5BE5CVYEVEvh9GQEAzpWo2

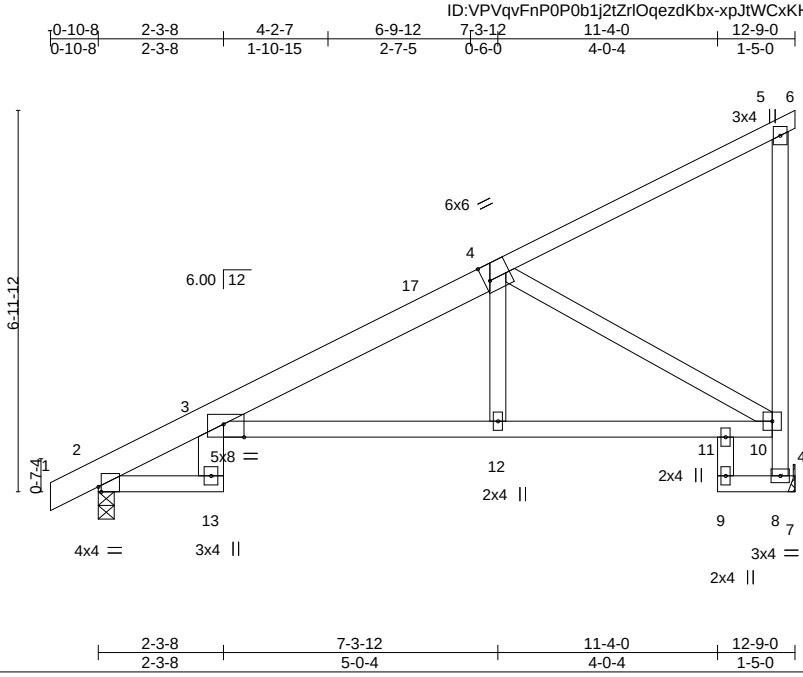


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-1-4,Edge]

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	0.93	Vert(LL)	-0.15	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.34	3-12	>446	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.21	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x6 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) 8=Mechanical, 2=0-3-8
Max Horz 2=252(LC 11)
Max Uplift 8=-77(LC 9), 2=-74(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-497/75, 3-4=-984/132, 8-10=-674/183
BOT CHORD 3-12=-284/882, 11-12=-280/889, 10-11=-299/890
WEBS 4-12=0/253, 4-10=-993/227

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 2-0-12, Interior(1) 2-0-12 to 12-9-0 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
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) 8, 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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C5	Half Hip	1	1	I44616247

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:08 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Q0tFjYyy2a5lYG9RfUYVYJkOBcqxz?Z3wo?zmdzpWo1

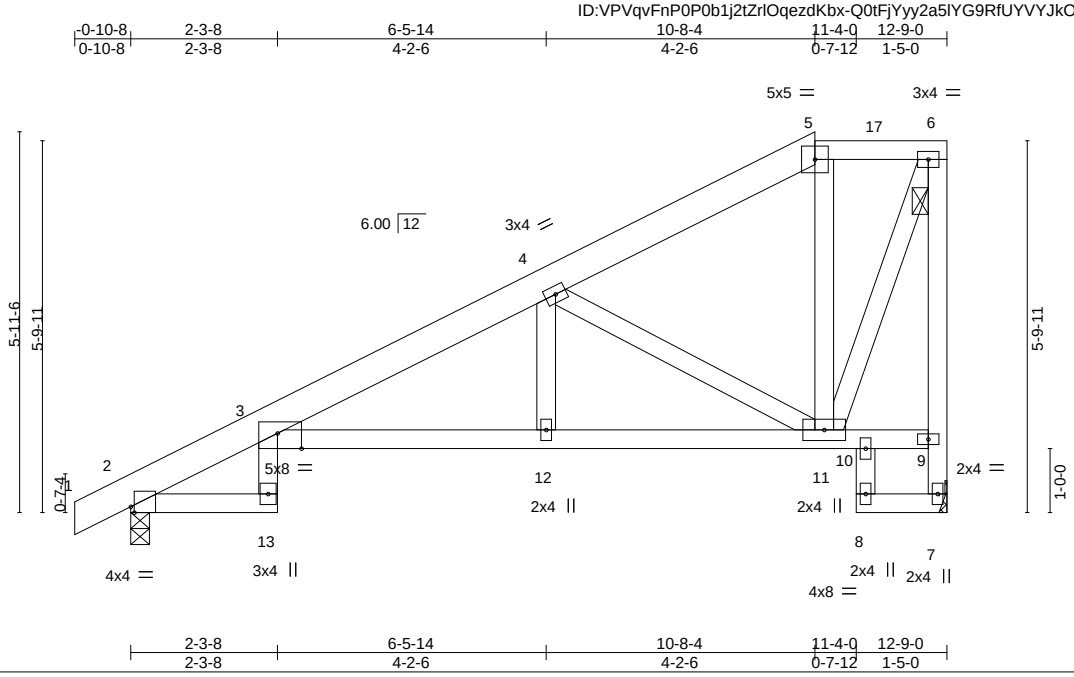


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-8,Edge]

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	0.97	Vert(LL)	-0.14	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30	3-12	>499	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.21	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 67 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except* 5-6: 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, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=211(LC 11)
Max Uplift 7=-110(LC 12), 2=-97(LC 12)
Max Grav 7=690(LC 1), 2=775(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-445/74, 3-4=-1155/155, 4-5=-382/94, 7-9=-671/196, 6-9=-655/172
BOT CHORD 3-12=-391/1077, 11-12=-391/1077
WEBS 6-11=-180/608, 4-11=-968/287

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 2-1-12, Interior(1) 2-1-12 to 10-8-4, Exterior(2E) 10-8-4 to 12-7-4 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
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) 2 except (jt=lb) 7=110.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C6	Half Hip	1	1	I44616248
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:08 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Q0tFjYyy2a5lYG9RfUYVYJkOBcqyz2d3wo?zmdzpWo1

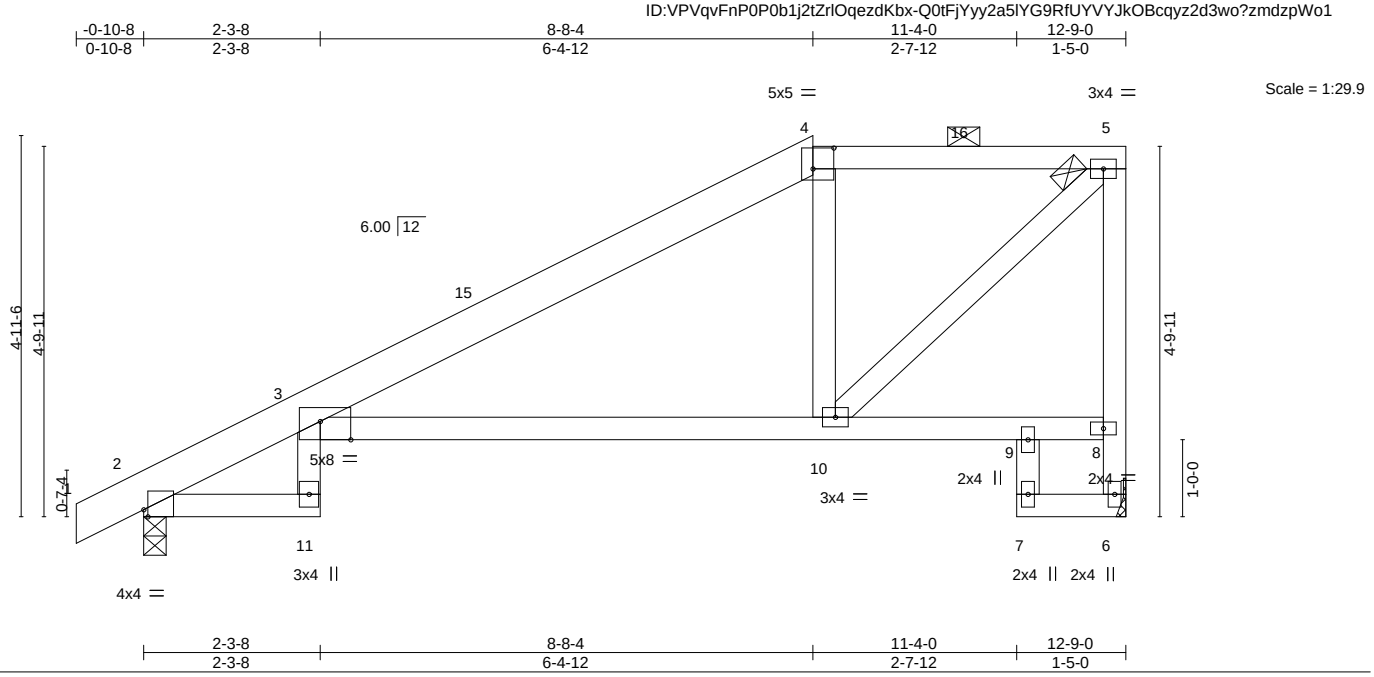


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-12,Edge], [4:0-3-4,0-3-4]

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	0.97	Vert(LL)	-0.22	3-10	>693	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.50	3-10	>303	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.27	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 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, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=174(LC 11)
Max Uplift 6=-90(LC 9), 2=-102(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-13=-414/78, 3-4=-749/125, 4-5=-634/154, 6-8=-678/171, 5-8=-700/183
BOT CHORD 3-10=-245/652
WEBS 4-10=-401/195, 5-10=-247/868

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 2-1-12, Interior(1) 2-1-12 to 8-8-4, Exterior(2E) 8-8-4 to 12-7-4 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
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) 6 except (jt=lb) 2=102.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	C7	Half Hip	1	1	I44616249
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:09 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-uCRexuzapuDc9QkdDC3k4WHZx0AFiVQC9SlXI3zpWo0

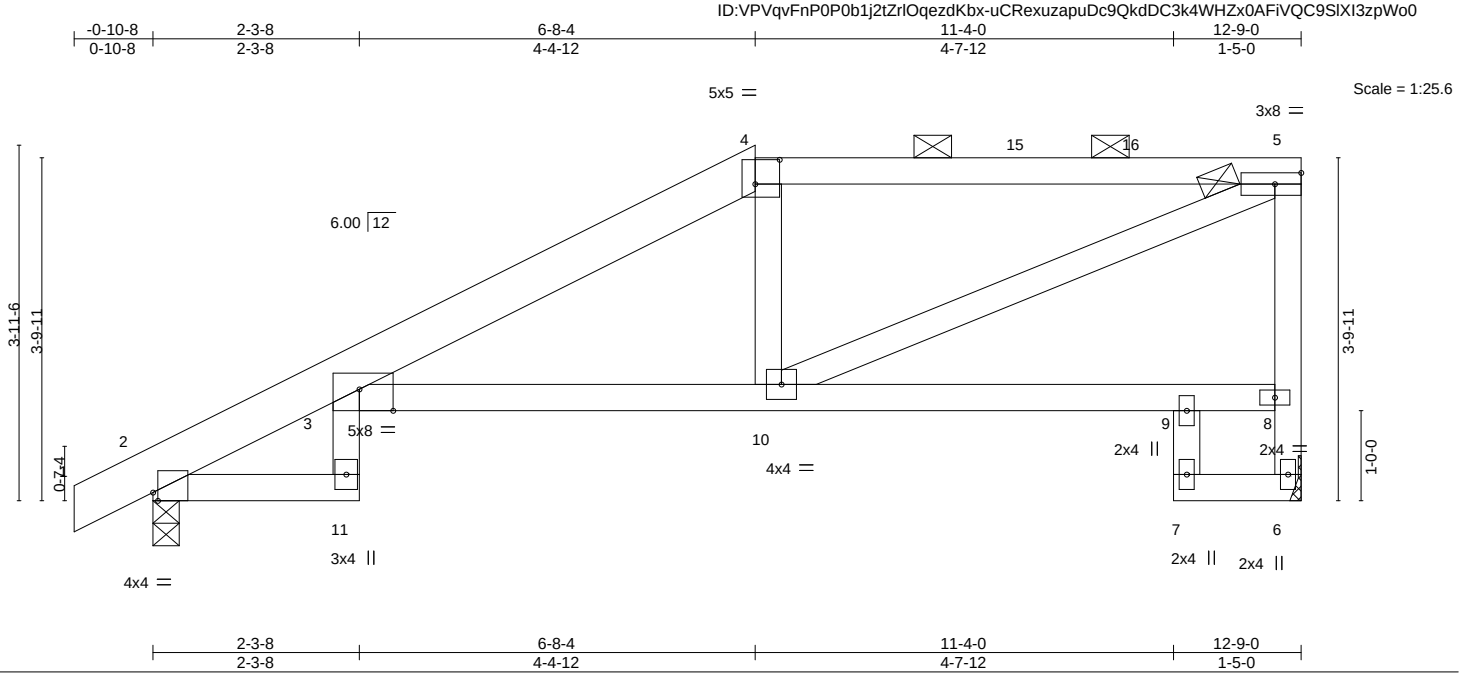


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-3-4,0-3-4]

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	0.97	Vert(LL)	-0.15	3-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.33	3-10	>459	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.21	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 53 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 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, and 2-0-0 oc purlins (5-2-9 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=137(LC 11)
Max Uplift 6=-95(LC 9), 2=-105(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-13=-389/84, 3-4=-1087/193, 4-5=-985/231, 6-8=-667/145, 5-8=-639/163
BOT CHORD 3-10=-310/1001
WEBS 4-10=-267/144, 5-10=-272/984

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 2-1-12, Interior(1) 2-1-12 to 6-8-4, Exterior(2R) 6-8-4 to 10-11-3, Interior(1) 10-11-3 to 12-7-4 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
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) 6 except (jt=lb) 2=105.
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.

February 2,2021

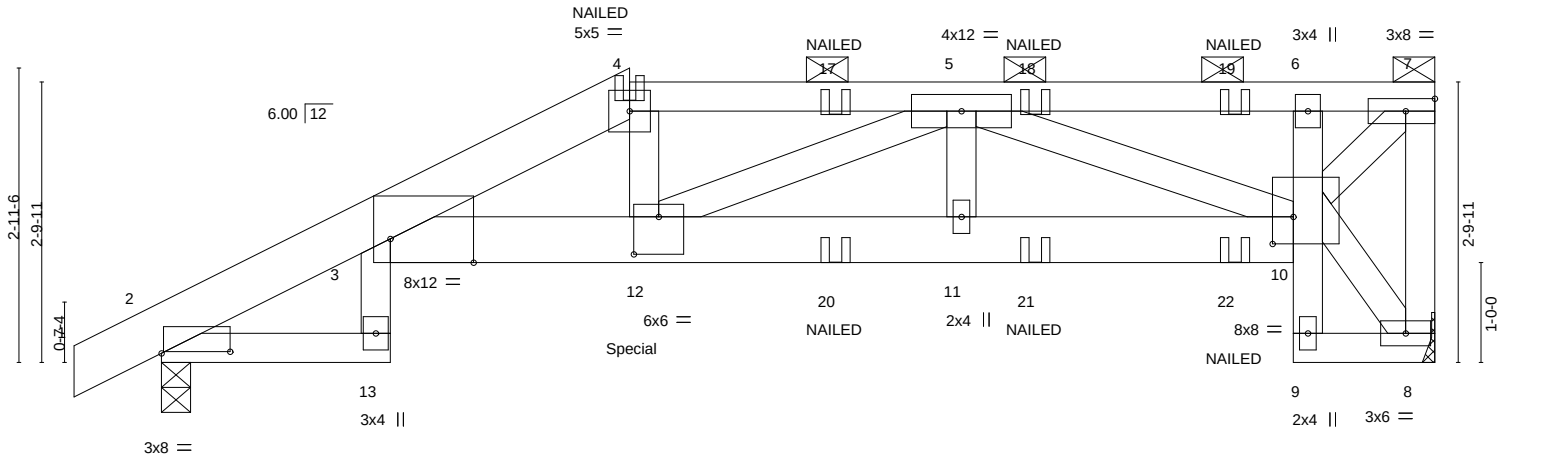
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo	I44616250
2629082	C8	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-MO?08E_CaCLTnaJpmvazdkpl4QX_RvhMO6U4qVzpWo?

-0-10-8	2-3-8	4-8-4	8-0-2	11-4-0	12-9-0
0-10-8	2-3-8	2-4-12	3-3-14	3-3-14	1-5-0

Scale = 1:23.1



2-3-8	4-8-4	8-0-2	11-4-0	12-9-0
2-3-8	2-4-12	3-3-14	3-3-14	1-5-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.12	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.26	3-12	>579	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.21	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 64 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 3-10: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=99(LC 7)
Max Uplift 8=-255(LC 5), 2=-247(LC 8)
Max Grav 8=1166(LC 1), 2=1205(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-596/121, 3-4=-3064/694, 4-5=-2948/691, 5-6=-992/220, 6-7=-870/191, 7-8=-1115/262
BOT CHORD 3-12=-691/2865, 11-12=-619/2587, 10-11=-619/2587, 6-10=-316/104
WEBS 4-12=-122/620, 5-12=-120/396, 5-10=-1726/401, 7-10=-339/1399

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) 8=255, 2=247.
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) 425 lb down and 152 lb up at 4-8-4 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=-90, 3-4=-90, 4-7=-90, 13-14=-20, 3-10=-20, 8-9=-20

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

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

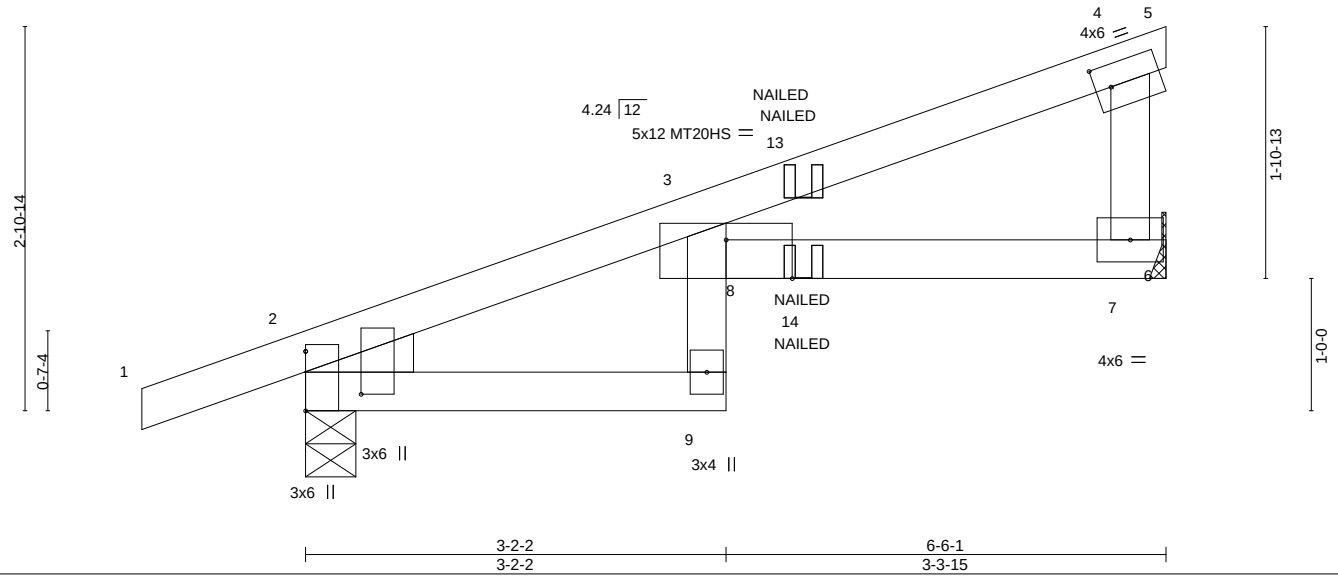
Vert: 4=-67(F) 12=-425(F) 17=-67(F) 18=-67(F) 19=-67(F) 20=-71(F) 21=-71(F) 22=-71(F)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ1	Diagonal Hip Girder	1	1	I44616251
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:11 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-qbZOLZ?qLVTKPju0Kc5C9xM1iqtlASgVcmEeNyzpWo_

-1-2-14 / 1-2-14 | 3-2-2 / 3-2-2 | 6-6-1 / 3-3-15

Scale = 1:17.4



3-2-2 / 3-2-2 | 6-6-1 / 3-3-15

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

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	0.44	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.12	7-8	>622	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 21 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=89(LC 5)
Max Uplift 7=-93(LC 8), 2=-109(LC 4)
Max Grav 7=382(LC 1), 2=487(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-486/92, 3-4=-279/62
BOT CHORD 2-9=-109/401, 7-8=-63/263

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
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) 7 except (jt=lb) 2=109.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 14=-55(F=-28, B=-28)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ2	Diagonal Hip Girder	2	1	I44616252

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:12 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-In7mZv?S6pbB0tTCuKcRi9vEGDIvvwerQzBuOzpWnz

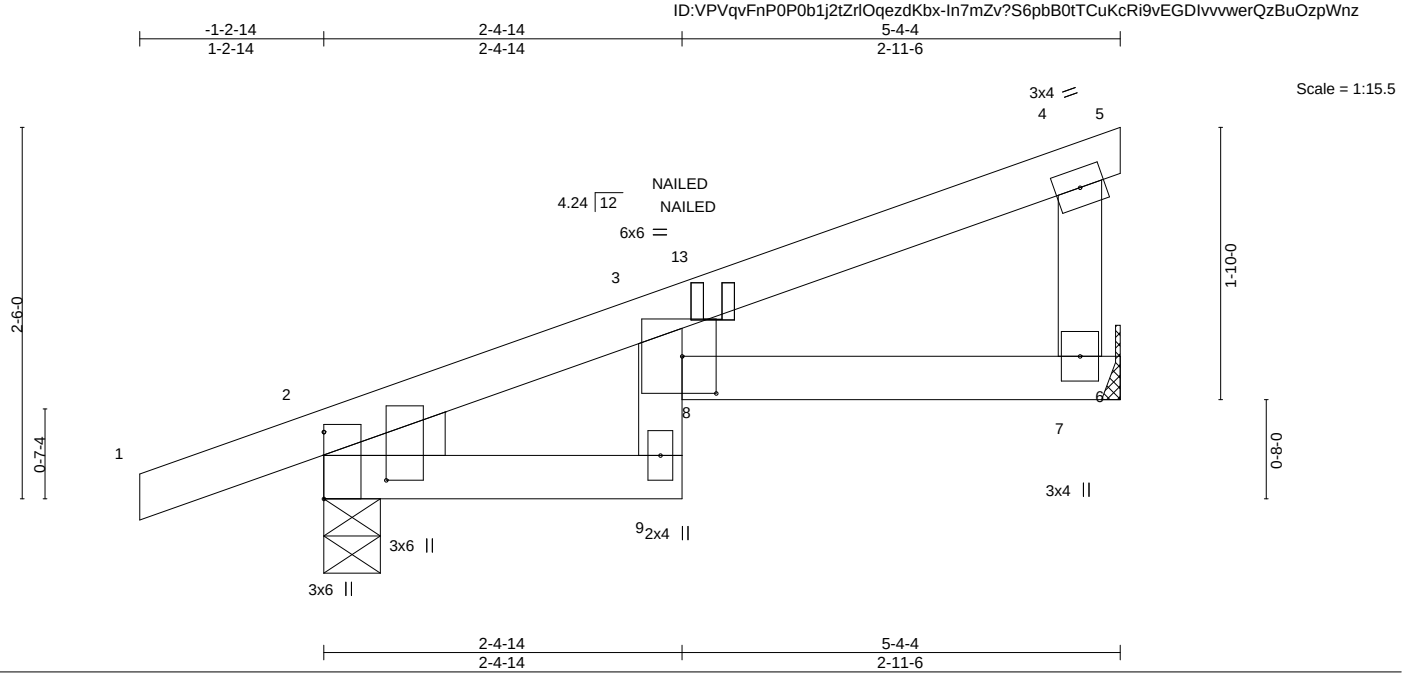


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0], [3:0-2-12,0-3-0], [3:0-1-12,0-0-10], [8:0-0-0,0-1-12]

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	0.26	Vert(LL)	-0.02	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 17 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 or 5-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=78(LC 5)
Max Uplift 7=-52(LC 8), 2=-83(LC 4)
Max Grav 7=283(LC 1), 2=404(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-330/39
BOT CHORD 2-9=-56/271

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) 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, 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.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20

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

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ4	Diagonal Hip Girder	2	1	I44616253
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:13 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-mzg8mF04t7j2e12OS17gFMRRWdhveLio44jkQqzpWny

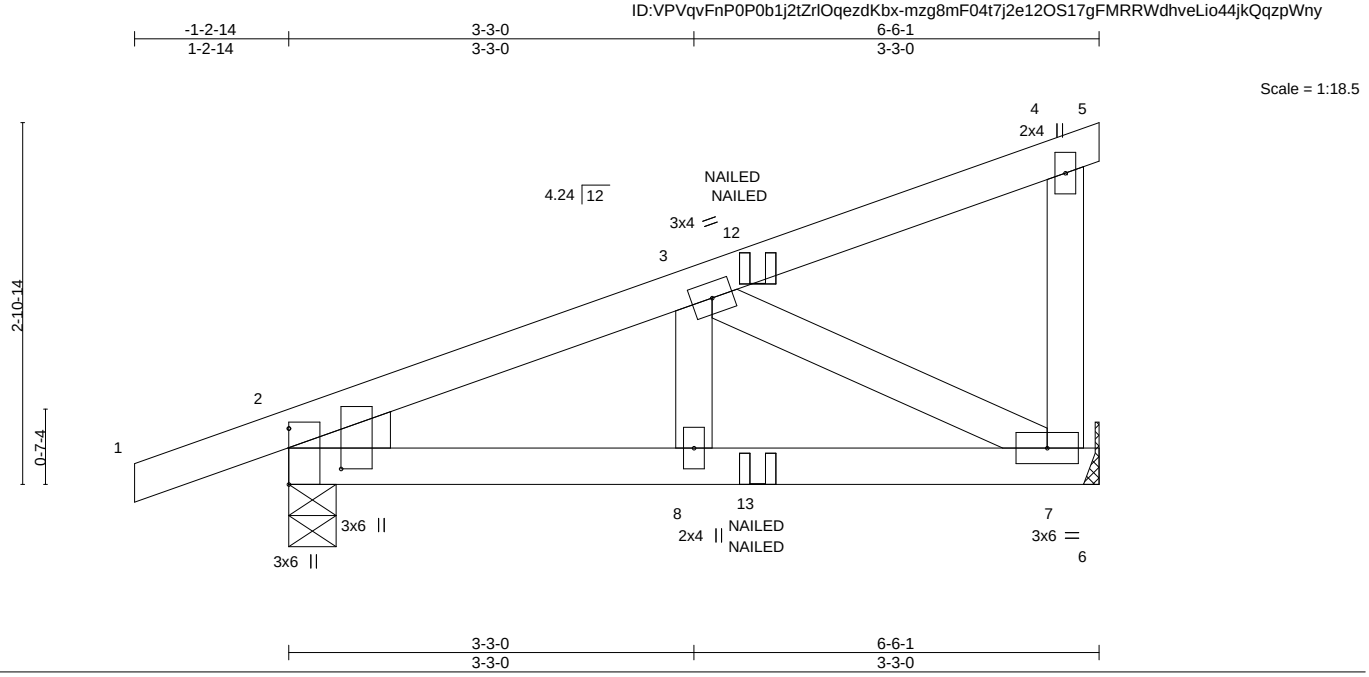


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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	0.16	Vert(LL)	-0.01	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 25 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=107(LC 7)
Max Uplift 7=-78(LC 8), 2=-101(LC 4)
Max Grav 7=360(LC 1), 2=473(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-464/79
BOT CHORD 2-8=-103/407, 7-8=-103/407
WEBS 3-7=-453/119

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) 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 except (jt=lb) 2=101.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-19(F=-10, B=-10)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ5	Diagonal Hip Girder	1	1	I44616254
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:14 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-EAEX_b1jdQsuGBdb?lfvna_bC1_ONm9xIkSIyGzpWnx

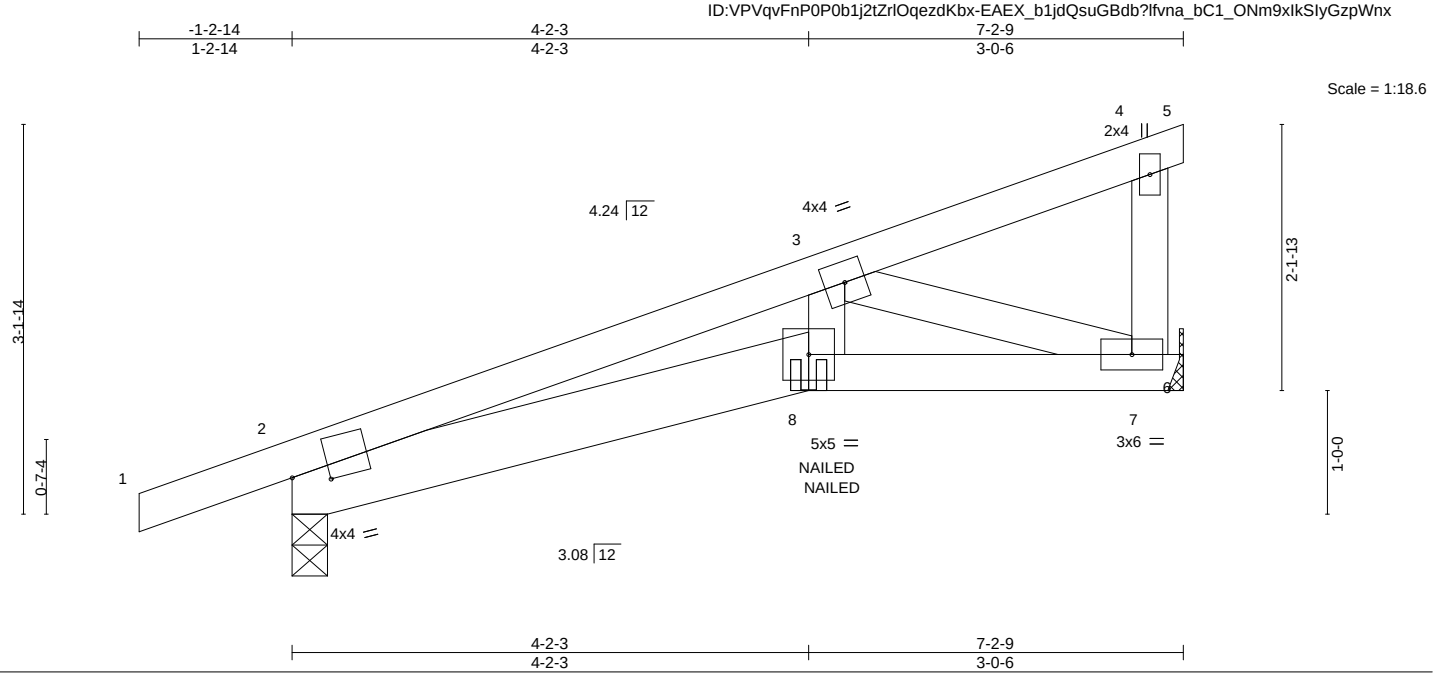


Plate Offsets (X,Y)-- [2:0-3-10,0-1-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 27 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-11-12 oc bracing.

REACTIONS. (size) 2=0-3-7, 7=Mechanical
Max Horz 2=99(LC 5)
Max Uplift 2=-141(LC 4), 7=-141(LC 8)
Max Grav 2=600(LC 1), 7=536(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1427/387
BOT CHORD 2-8=-396/1329, 7-8=-352/1187
WEBS 3-8=-184/602, 3-7=-1246/386

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 7=141.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 8=-244(F=-122, B=-122)

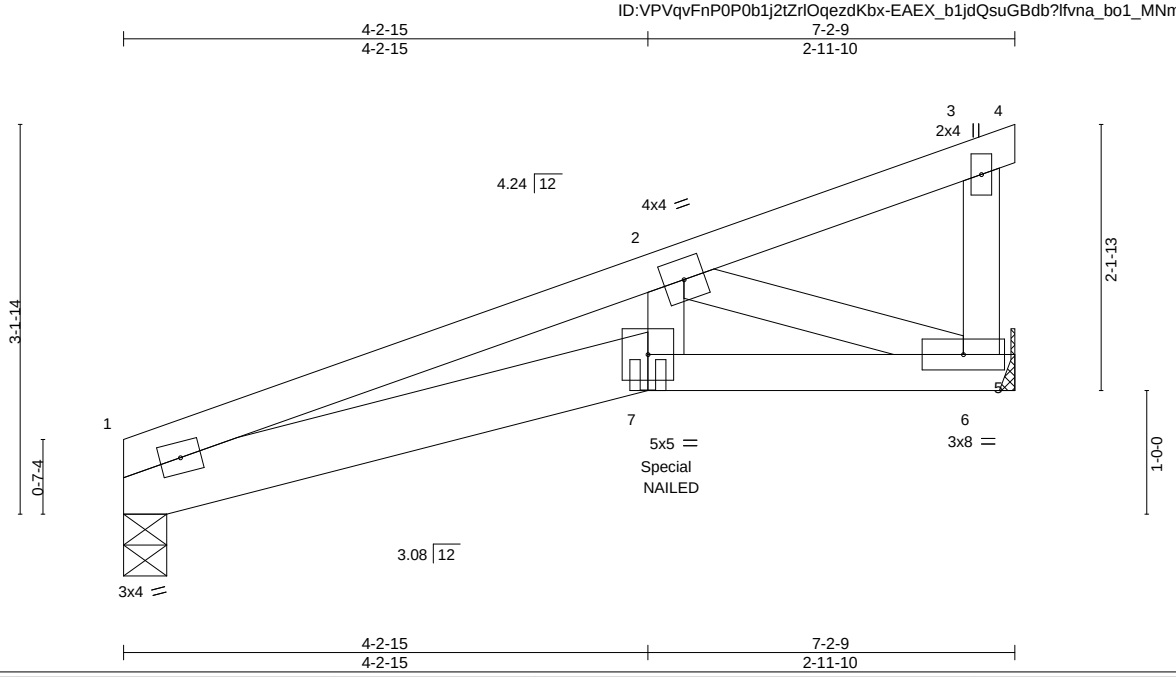
February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ6	Diagonal Hip Girder	1	1	I44616255

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:14 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-EAEX_b1jdQsuGBdb?lfvna_bo1_MNm9xIkSIyGzpWnx



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)	-0.03	7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.05	7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-11-14 oc bracing.

REACTIONS. (size) 1=0-4-3, 6=Mechanical
Max Horz 1=90(LC 5)
Max Uplift 1=-91(LC 4), 6=-145(LC 8)
Max Grav 1=481(LC 1), 6=555(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1449/387
BOT CHORD 1-7=-396/1348, 6-7=-352/1203
WEBS 2-7=-186/624, 2-6=-1269/387

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=145.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-40, 7-8=-20, 5-7=-20
Concentrated Loads (lb)
Vert: 7=-256(F=-134, B=-122)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ7	Diagonal Hip Girder	2	1	I44616256
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:15 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-iMovBx2LOk_ltLCnZSA8KnXi?RKD6Gg5XOCrVjzpWnw

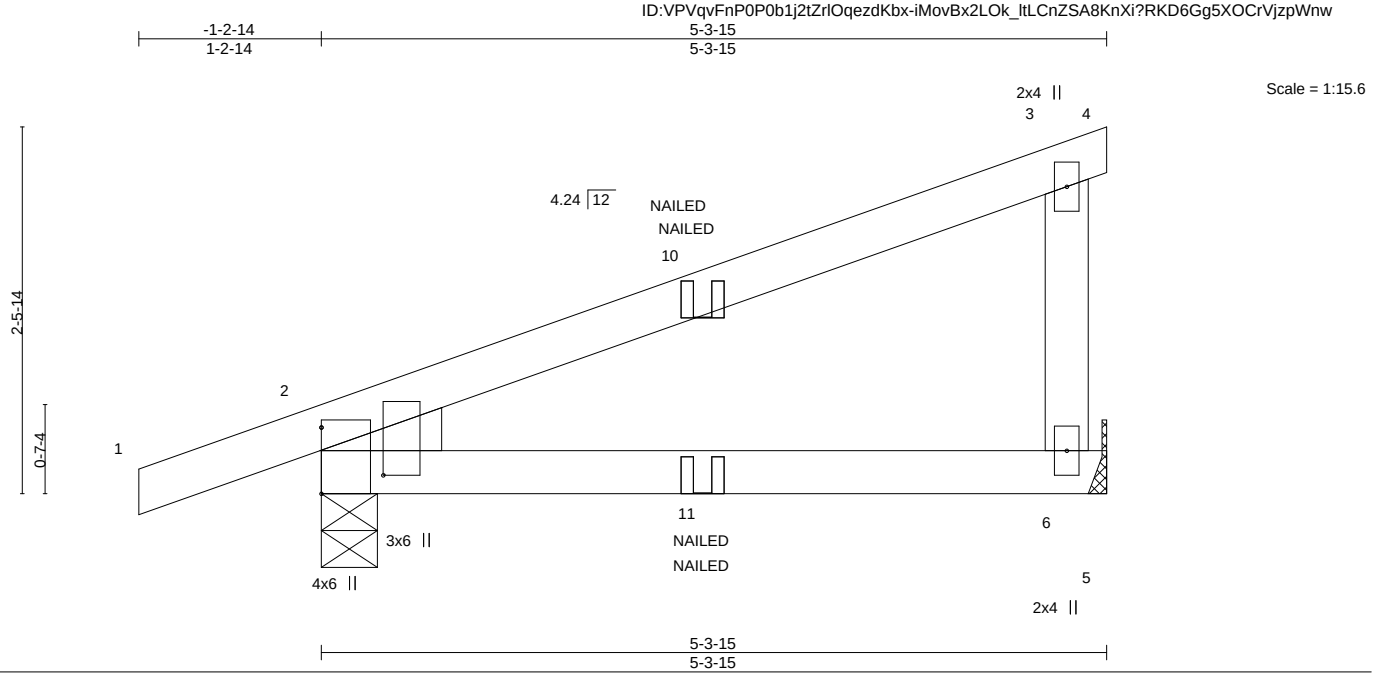


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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	0.48	Vert(LL)	-0.04	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	6-9	>705	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 17 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 or 5-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-4-9
Max Horz 2=90(LC 7)
Max Uplift 6=-55(LC 8), 2=-88(LC 4)
Max Grav 6=285(LC 1), 2=406(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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) 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) 6, 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.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-7(F=-5, B=-1)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	CJ9	Diagonal Hip Girder	2	1	I44616257
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:16 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-BYMHPH2z926cVVmz7AhNs?3uWrfjremEm2xP19zpWnv

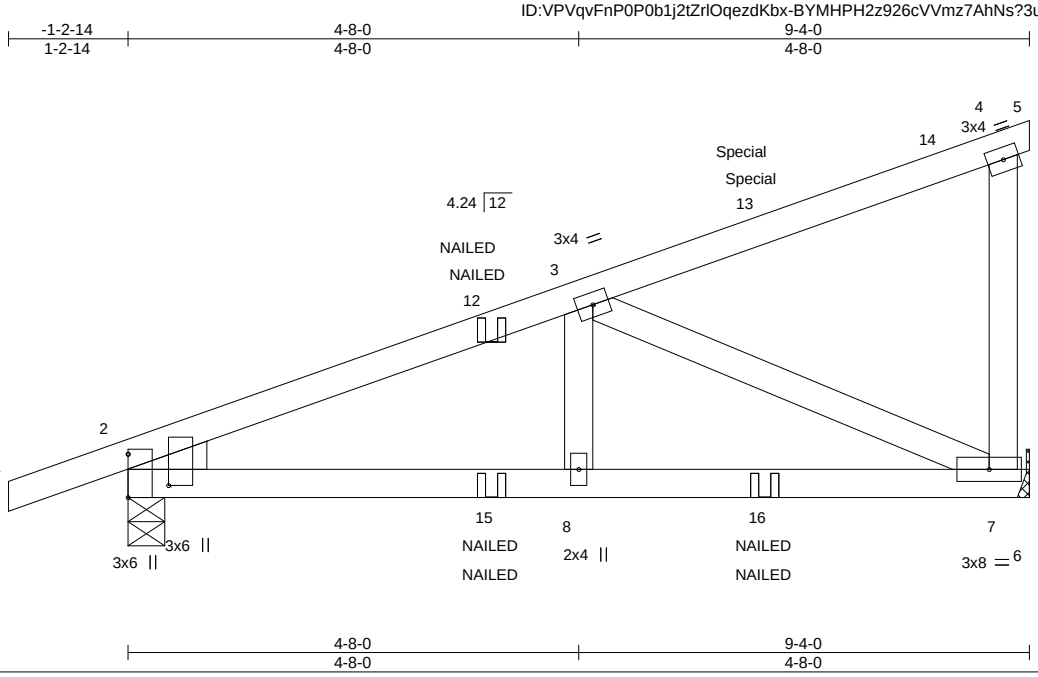


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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	0.43	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 35 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=132(LC 7)
Max Uplift 7=-121(LC 8), 2=-134(LC 4)
Max Grav 7=641(LC 1), 2=676(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-897/143
BOT CHORD 2-8=-183/798, 7-8=-183/798
WEBS 3-7=-825/199

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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) 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) except (jt=lb) 7=121, 2=134.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 80 lb up at 6-7-2, and 85 lb down and 80 lb up at 6-7-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-93(F=-46, B=-46) 15=-19(F=-10, B=-10) 16=-80(F=-40, B=-40)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	D1	Half Hip Girder	1	1	I44616258
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:17 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-flwfcd3bwLET7eLAhtCdPCc3TEx5a4hO?ihyZbzpWnu

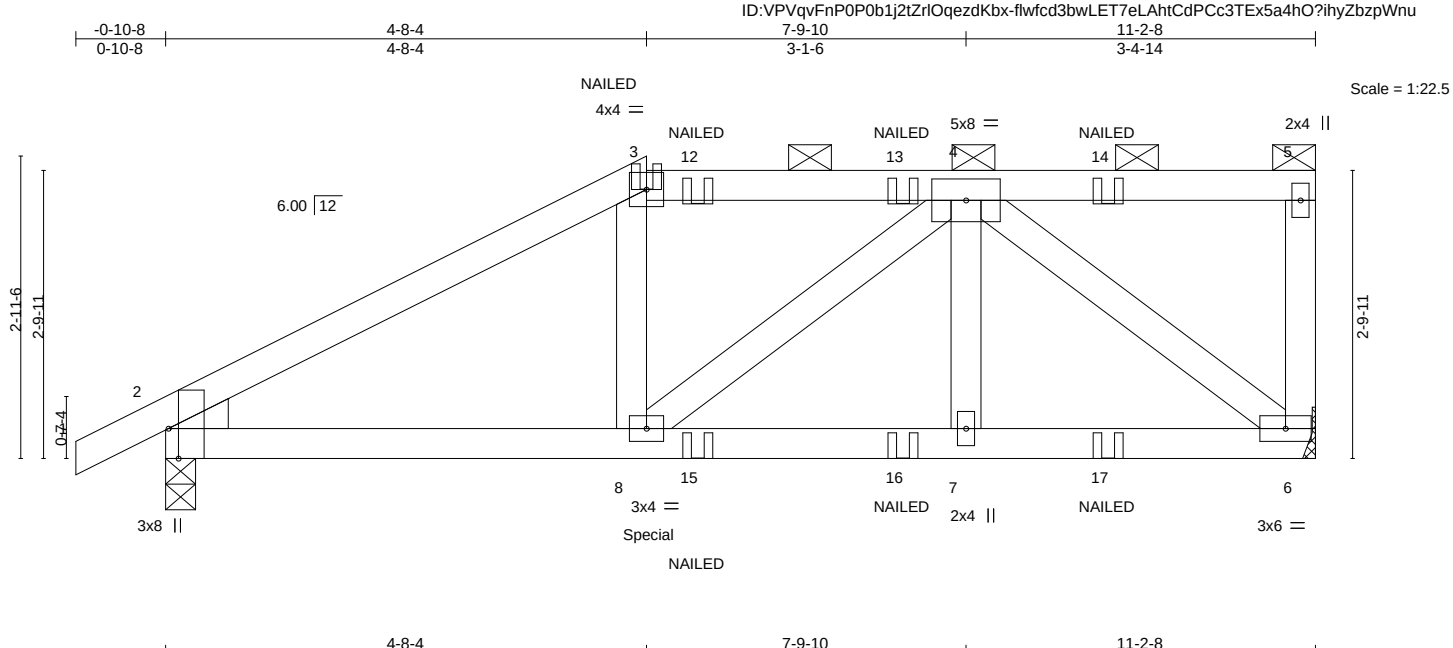


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.42	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 44 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 or 4-3-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-13 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-189(LC 8), 6=-192(LC 5)
Max Grav 2=1109(LC 1), 6=1066(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1661/297, 3-4=-1399/293
BOT CHORD 2-8=-286/1410, 7-8=-232/1142, 6-7=-232/1142
WEBS 3-8=-1/295, 4-8=-104/318, 4-6=-1411/264

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) 2=189, 6=192.
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) 381 lb down and 106 lb up at 4-8-4 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=-90, 3-5=-90, 6-9=-20

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-87(B) 8=-381(B) 12=-87(B) 13=-87(B) 14=-87(B) 15=-49(B) 16=-49(B) 17=-49(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	D2	Half Hip	1	1	I44616259
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:18 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7xU1pz4DhfMKkowMEbjsyQ9DoeL2JYbXDMQV62zpWnt

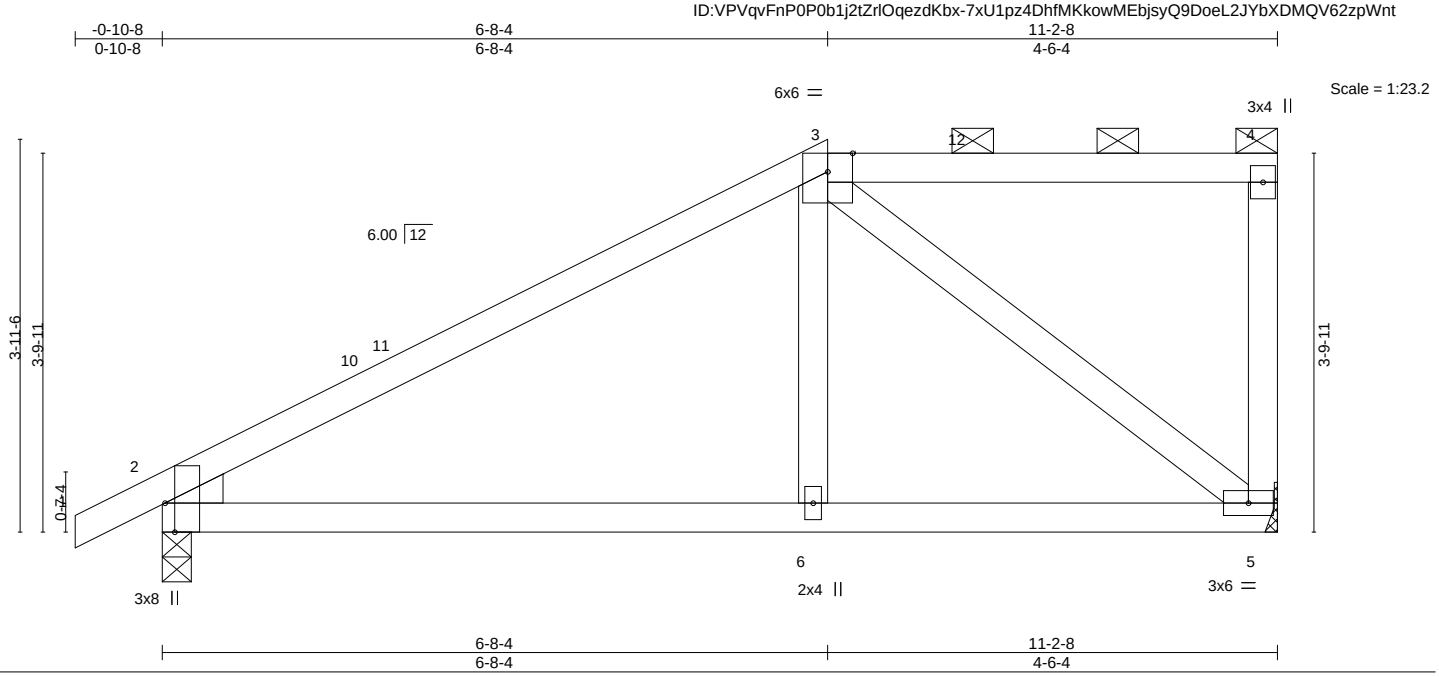


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.51	Vert(LL)	0.05	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.11	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 42 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, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=135(LC 11)
Max Uplift 2=-83(LC 12), 5=-82(LC 9)
Max Grav 2=690(LC 1), 5=605(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-717/147
BOT CHORD 2-6=-217/542, 5-6=-218/535
WEBS 3-6=0/263, 3-5=-668/232

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 6-8-4, Exterior(2E) 6-8-4 to 11-0-12 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) 2, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	D3	Half Hip	1	1	I44616260
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:18 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7xU1pz4DhfMKkowMEbjsyQ9GieLsJaPXDMQV62zpWnt

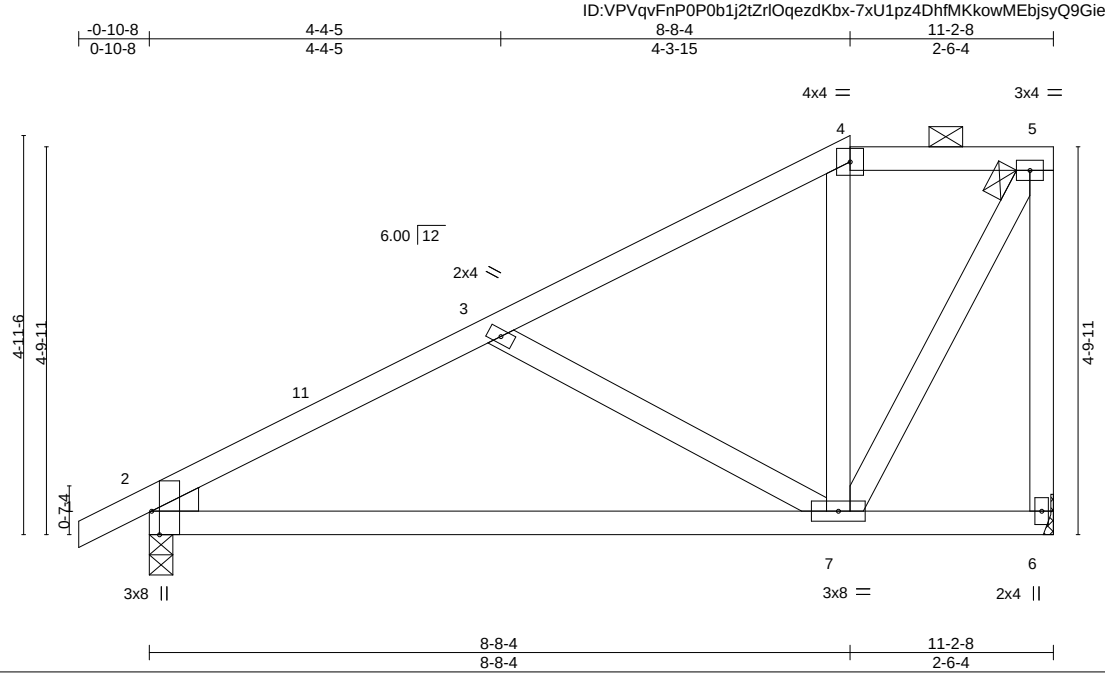


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.26	Vert(LL)	-0.09	7-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.18	7-10	>748	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: 49 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, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=172(LC 11)
Max Uplift 6=-75(LC 9), 2=-86(LC 12)
Max Grav 6=605(LC 1), 2=690(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-810/168, 3-4=-421/106, 4-5=-300/122, 5-6=-613/194
BOT CHORD 2-7=-313/689
WEBS 3-7=-454/194, 5-7=-204/607

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 8-8-4, Exterior(2E) 8-8-4 to 11-0-12 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) 6, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	D4	Half Hip	2	1	I44616261
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:19 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-b72Q1J5rSzUBMyVYoIE5UdhPU2jO2yngS0A3eUzpWns

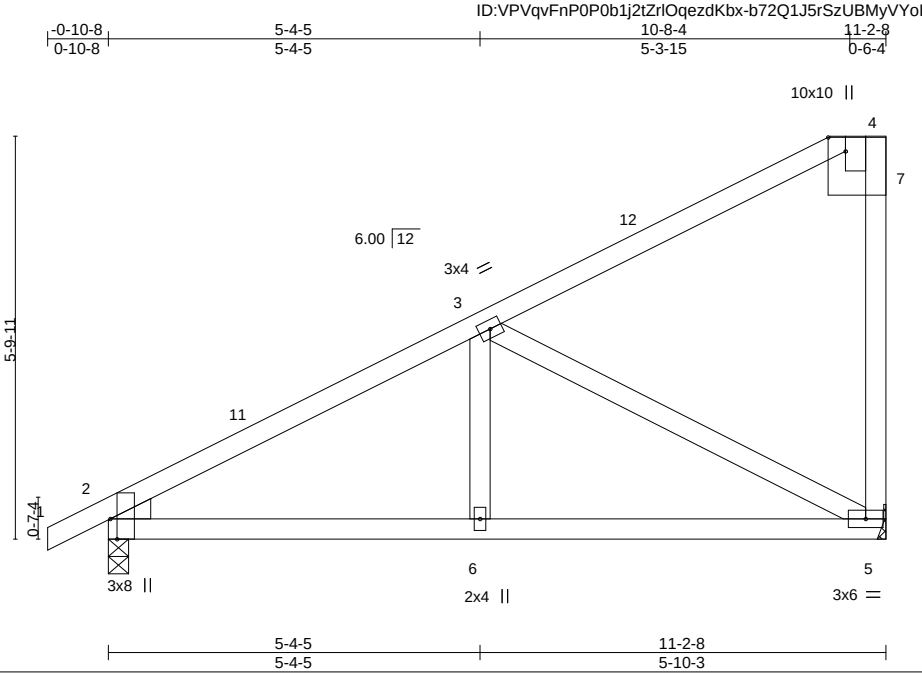


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:Edge,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 45 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=216(LC 11)
Max Uplift 2=-80(LC 12), 5=-114(LC 12)
Max Grav 2=690(LC 1), 5=578(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-817/134
BOT CHORD 2-6=-245/659, 5-6=-245/659
WEBS 3-5=-707/197

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 10-9-0 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
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 except (jt=lb) 5=114.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	D5	Jack-Closed	7	1	I44616262
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:20 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-3KcoEe5TDGc2_64kM?lK1rEaAS2nnPXqhgvcAwzpWnr

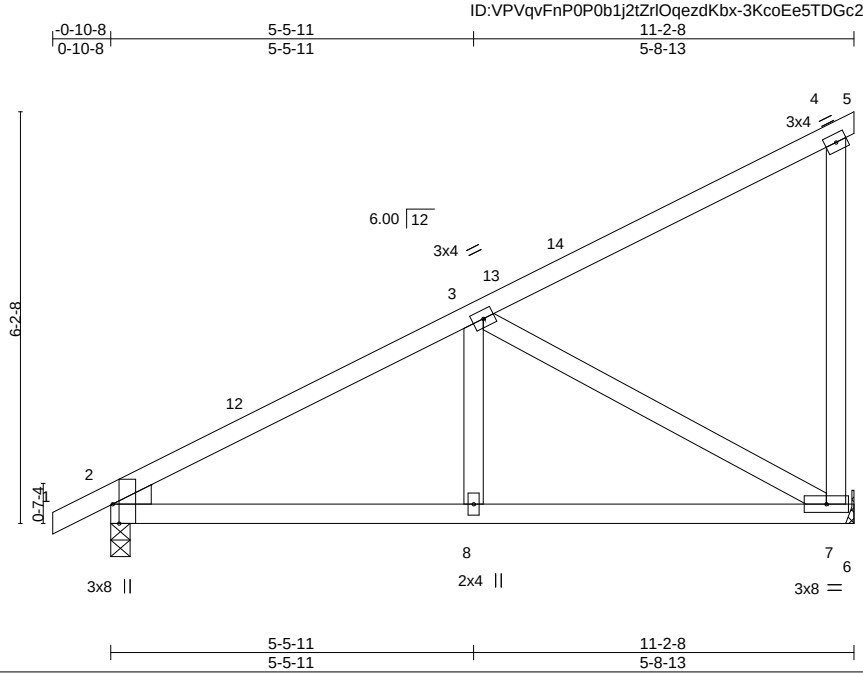


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.39	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 45 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, 7=Mechanical
Max Horz 2=222(LC 11)
Max Uplift 2=-69(LC 12), 7=-70(LC 12)
Max Grav 2=683(LC 1), 7=615(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-795/133
BOT CHORD 2-8=-249/637, 7-8=-249/637
WEBS 3-7=-702/207

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 11-2-8 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
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, 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.
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.

February 2,2021

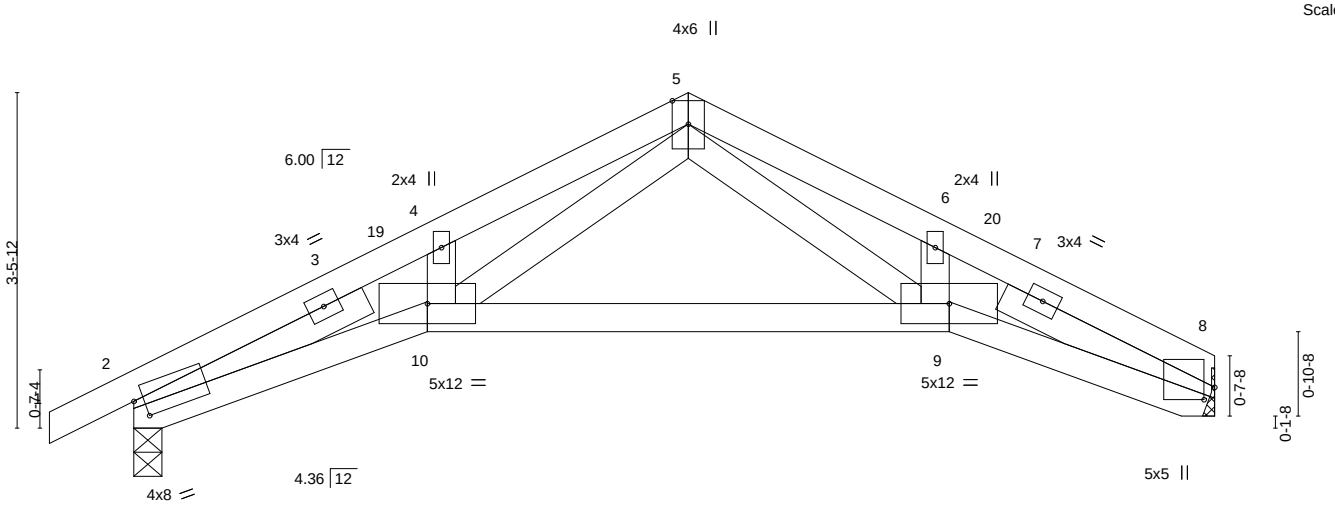
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	E1	Roof Special	2	1	I44616263
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:20 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-3KcoEe5TDGc2_64kM?lK1rEd?S1anTEqhgvcAwzpWnr

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

Scale: 1/2"=1'



3-0-8 | 8-5-8 | 11-2-8
3-0-8 | 5-4-15 | 2-9-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.15	9-10	>886	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 43 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 2-8-1, Right 2x4 SPF No.2 2-5-5

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=62(LC 12)
Max Uplift 8=-60(LC 13), 2=-80(LC 12)
Max Grav 8=613(LC 1), 2=698(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1785/482, 4-5=-1741/552, 5-6=-1645/498, 6-8=-1727/441
BOT CHORD 2-10=-410/1656, 9-10=-165/801, 8-9=-348/1566
WEBS 5-10=-306/959, 5-9=-262/849

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 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-2-8 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) 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	E2	Roof Special	1	1	I44616264
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:21 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-XW9AS_66_akvcGfxwjHZZ2moasM9WwLzvKf9iNzpWnq

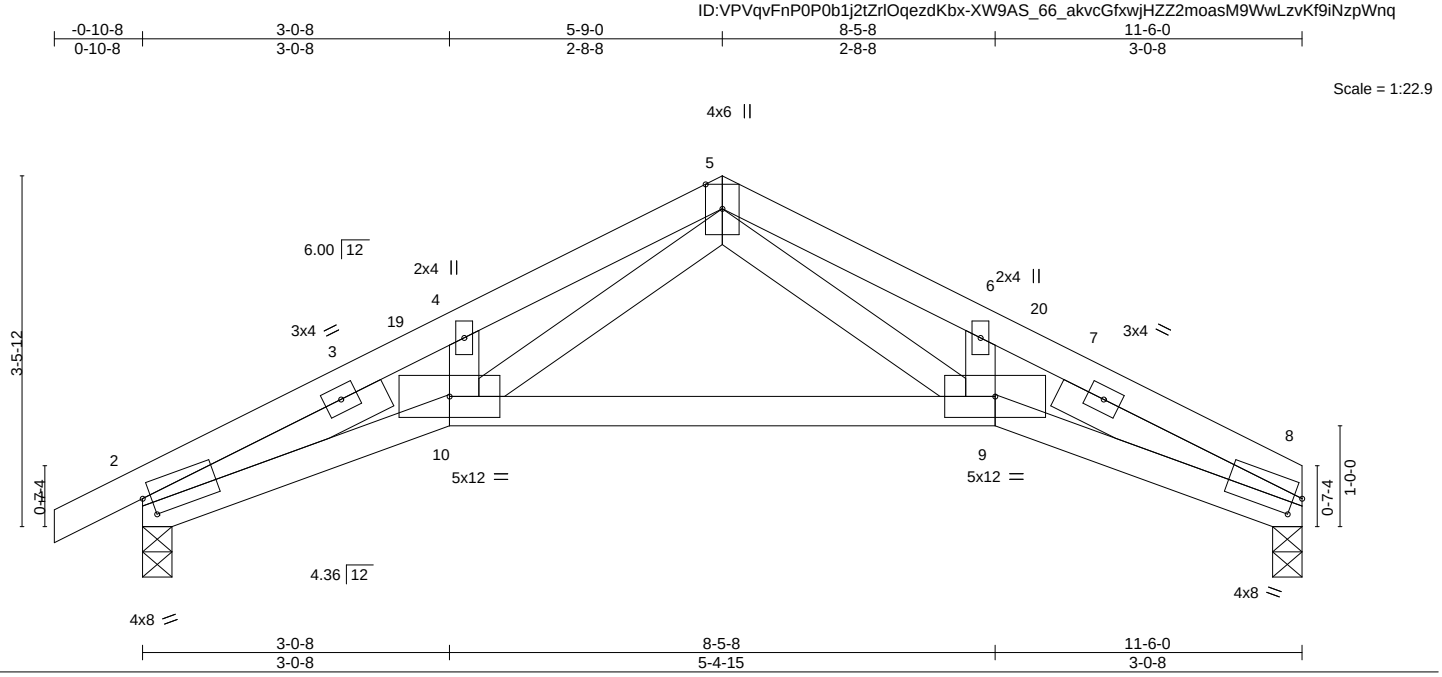


Plate Offsets (X,Y)-- [2:0-1-0,0-2-5], [8:0-1-0,0-2-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.17	9-10	>820	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 44 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 2-8-1, Right 2x4 SPF No.2 2-8-1

BRACING-

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

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=59(LC 16)
Max Uplift 8=-63(LC 13), 2=-81(LC 12)
Max Grav 8=630(LC 1), 2=714(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1848/481, 4-5=-1798/550, 5-6=-1822/528, 6-8=-1876/473
BOT CHORD 2-10=-401/1712, 9-10=-163/844, 8-9=-376/1741
WEBS 5-9=-291/998, 5-10=-298/970

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 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-6-0 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) Bearing at joint(s) 8, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

February 2,2021

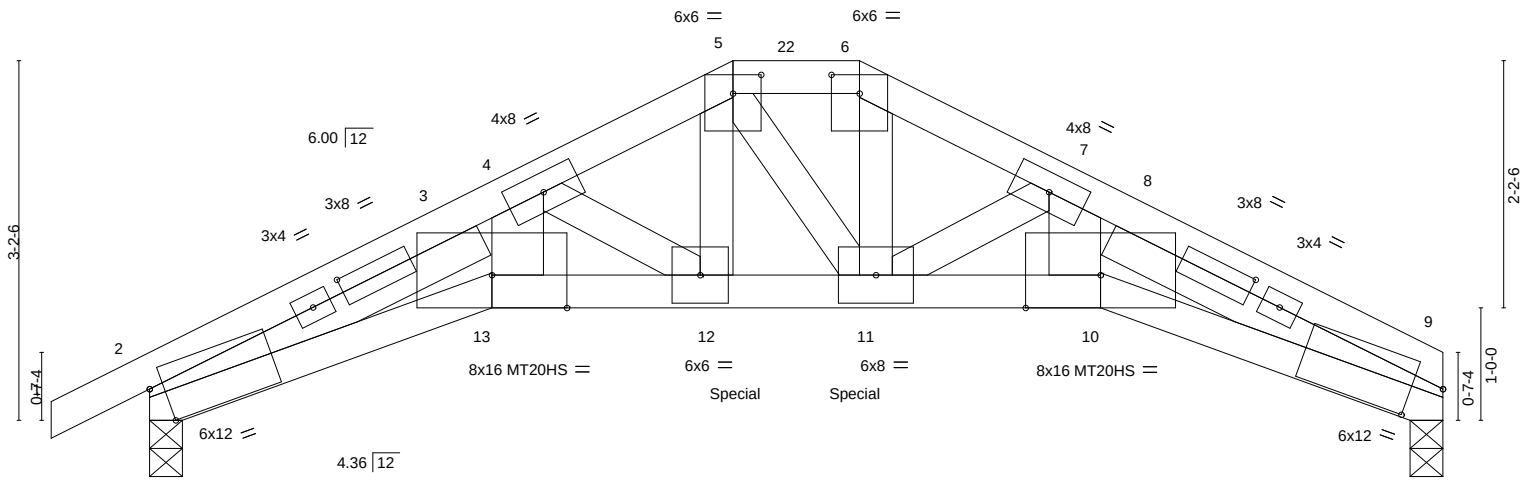
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	E3	Hip Girder	1	1	I44616265
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:23 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-TuHwtg8MWB_drZpJ18J1fTs0BfwK_oYGNe8GnFzpWno

-0-10-8 | 3-0-8 | 5-2-4 | 6-3-12 | 8-5-8 | 11-6-0
0-10-8 | 3-0-8 | 2-1-12 | 1-1-8 | 2-1-12 | 3-0-8

Scale = 1:20.5



3-0-8 | 5-2-4 | 6-3-12 | 8-5-8 | 11-6-0
3-0-8 | 2-1-12 | 1-1-8 | 2-1-12 | 3-0-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.12	12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.26	12	>539	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.20	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 49 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except* 4-13,7-10: 2x6 SPF No.2
SLIDER	Left 2x4 SPF No.2 3-3-6, Right 2x4 SPF No.2 3-3-6

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-1-12 oc purlins, except 2-0-0 oc purlins (3-3-5 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 7-1-11 oc bracing.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=55(LC 33)
Max Uplift 9=-289(LC 9), 2=-306(LC 8)
Max Grav 9=1408(LC 1), 2=1491(LC 1)

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

TOP CHORD	2-4=-5034/1133, 4-5=-3469/795, 5-6=-3025/693, 6-7=-3499/788, 7-9=-5071/1083
BOT CHORD	2-13=-1026/4601, 12-13=-898/4016, 11-12=-650/2994, 10-11=-818/4037, 9-10=-937/4638
WEBS	4-13=-312/1470, 4-12=-1041/251, 5-12=-328/1318, 6-11=-320/1335, 7-11=-1029/227, 7-10=-287/1492

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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 9, 2 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) 9=289, 2=306.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 768 lb down and 250 lb up at 5-2-4, and 787 lb down and 254 lb up at 6-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-90, 5-6=-90, 6-9=-90, 13-18=-20, 10-13=-20, 10-14=-20
   Concentrated Loads (lb)
   Vert: 12=-768(F) 11=-787(F)

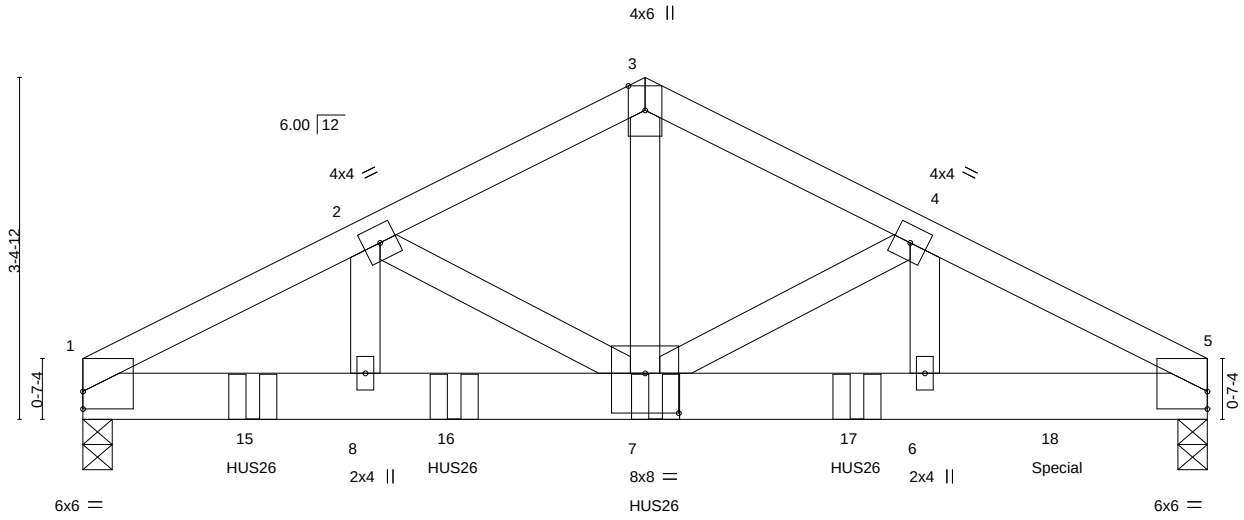
Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	F1	Common Girder	1	2	I44616266

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:24 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-y5rJ409_HV6UTjOWbrqGBhOHU3NOjBeQcItqJhzpWnn

2-9-11	5-7-0	8-4-5	11-2-0
2-9-11	2-9-5	2-9-5	2-9-11

Scale = 1:22.9



2-9-11	5-7-0	8-4-5	11-2-0
2-9-11	2-9-5	2-9-5	2-9-11

Plate Offsets (X,Y)-- [1:0-0-0,0-2-1], [5:Edge,0-2-1], [7:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.05	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.11	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-10 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=-44(LC 30)
Max Uplift 1=-538(LC 8), 5=-541(LC 9)
Max Grav 1=4761(LC 1), 5=4874(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7569/858, 2-3=-5842/679, 3-4=-5843/679, 4-5=-7523/850
BOT CHORD 1-8=-774/6684, 7-8=-774/6684, 6-7=-723/6648, 5-6=-723/6648
WEBS 3-7=-540/4827, 4-7=-1687/240, 4-6=-172/1501, 2-7=-1729/247, 2-8=-180/1553

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 0-5-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=538, 5=541.
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) 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 1-8-4 from the left end to 7-8-4 to connect truss(es) to front face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1670 lb down and 184 lb up at 9-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-90, 3-5=-90, 9-12=-20

Concentrated Loads (lb)

Vert: 7=-1685(F) 15=-1685(F) 16=-1685(F) 17=-1681(F) 18=-1670(F)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	F2	Roof Special	1	1	I44616267
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:25 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-QHPhHM9c2pEL4tyi9ZLVkuxSFTfbSm2ZqydNr8zpWnm

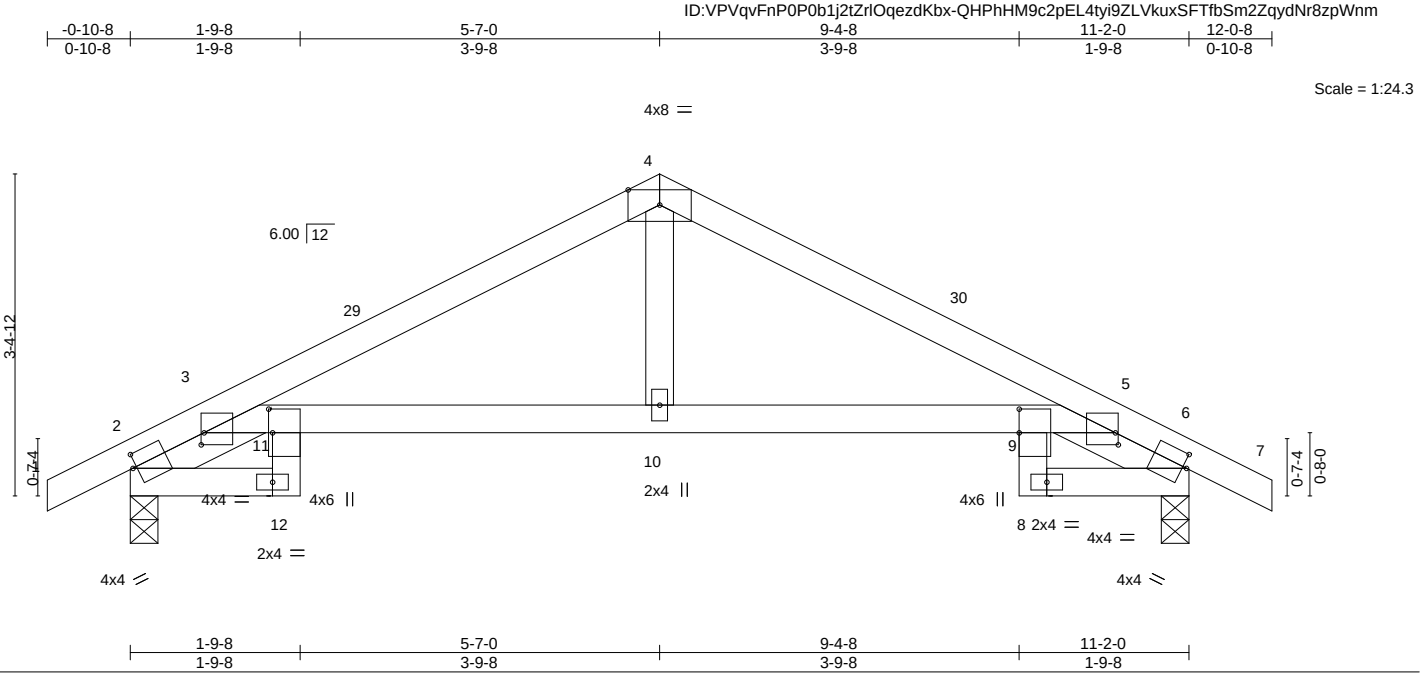


Plate Offsets (X,Y)-- [2:0-0-8,0-1-11], [3:0-0-6,0-1-8], [5:0-0-6,0-1-8], [6:0-0-8,0-1-11], [9:0-3-0,0-0-0], [11:0-3-0,0-0-8]

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	0.37	Vert(LL)	-0.05	10-11	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.12	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 38 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 1-5-1, Right 2x4 SPF No.2 1-5-1

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 9-10

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=51(LC 12)
Max Uplift 2=-80(LC 12), 6=-80(LC 13)
Max Grav 2=690(LC 1), 6=690(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-14=-650/167, 3-4=-916/260, 4-5=-916/260, 5-6=-650/166
BOT CHORD 2-12=-95/331, 3-11=-476/47, 10-11=-117/807, 9-10=-117/807, 5-9=-476/48, 6-8=-94/331
WEBS 4-10=-29/310

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 2-0-2, Interior(1) 2-0-2 to 5-7-0, Exterior(2R) 5-7-0 to 8-7-0, Interior(1) 8-7-0 to 12-0-8 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) 2, 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.

February 2,2021

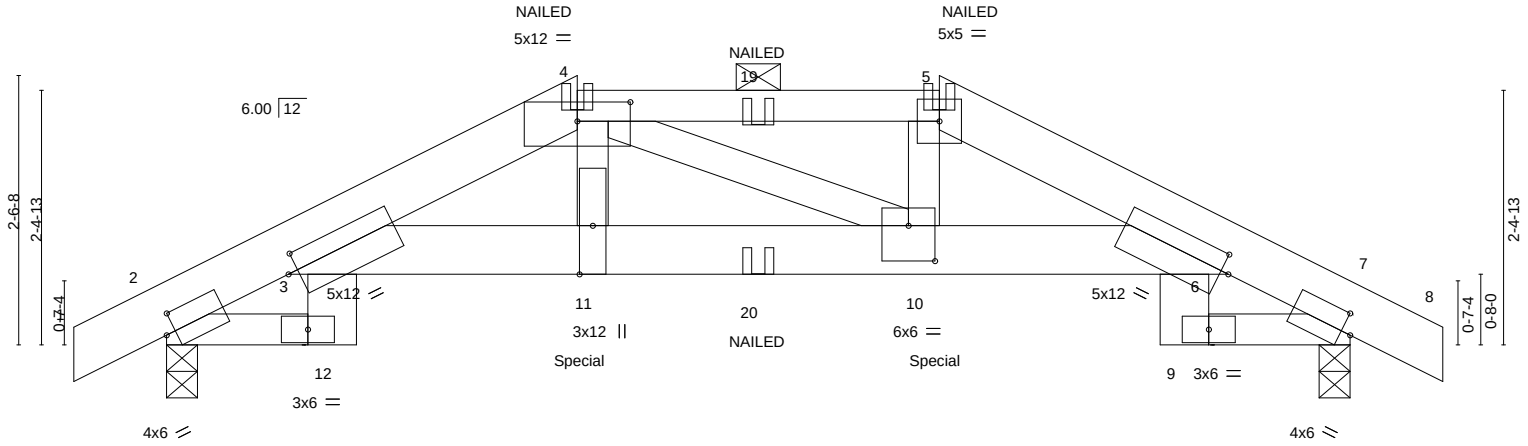
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	F3	Hip Girder	1	1	I44616268
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:26 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-uTz3ViAEp6MCi1XuiGskG6UY2t1IBCNi3cMwOazpWnl

-0-10-8	1-9-8	3-10-8	7-3-8	9-4-8	11-2-0	12-0-8
0-10-8	1-9-8	2-1-0	3-5-0	2-1-0	1-9-8	0-10-8

Scale = 1:21.7



1-9-8	3-10-8	7-3-8	9-4-8	11-2-0
1-9-8	2-1-0	3-5-0	2-1-0	1-9-8

Plate Offsets (X,Y)-- [2:0-1-2,0-2-3], [3:0-1-2,0-2-1], [4:0-6-0,0-2-3], [6:0-0-14,0-2-1], [7:0-1-2,0-2-3], [10:0-3-0,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.15	10	>894	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.14	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 51 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=37(LC 8)
Max Uplift 2=-209(LC 8), 7=-209(LC 9)
Max Grav 2=1085(LC 1), 7=1085(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-14=-572/141, 3-4=-2476/514, 4-5=-2312/477, 5-6=-2426/481, 6-7=-572/136
BOT CHORD 3-11=-452/2289, 10-11=-465/2359, 6-10=-410/2247
WEBS 4-11=-96/526, 5-10=-88/487

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 7=209.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 310 lb down and 108 lb up at 3-10-8, and 310 lb down and 108 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-90, 4-5=-90, 5-6=-90, 6-8=-90, 12-13=-20, 3-6=-20, 9-16=-20

February 2,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 4=-35(B) 5=-35(B) 11=-310(B) 10=-310(B) 19=-35(B) 20=-56(B)

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	G1	Hip Girder	1	1	I44616269
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:27 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-MgXRi2BsaQU2KB65GzNzpJ0poGQCwfNsIG6Uw0zpWnk

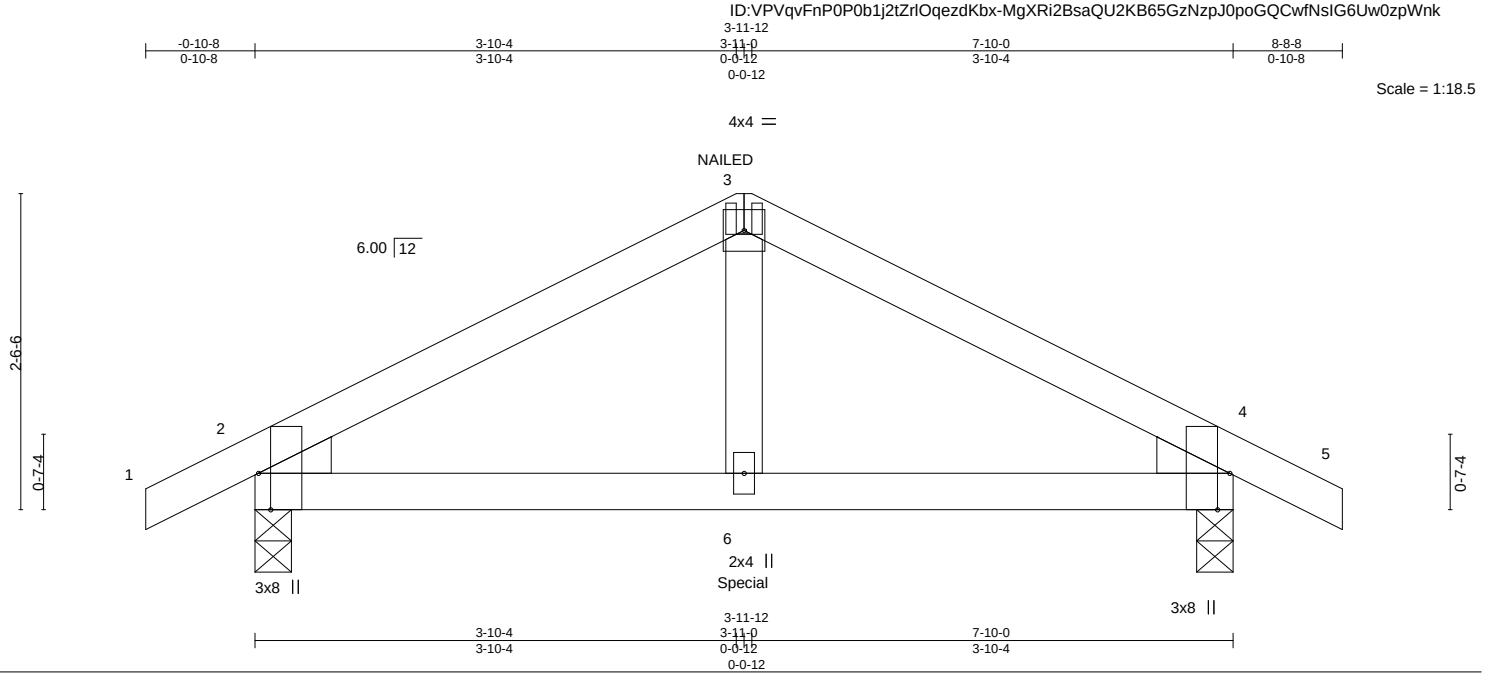


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]

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	0.24	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.02	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 25 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 5-6-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=38(LC 29)
Max Uplift 2=-150(LC 8), 4=-150(LC 9)
Max Grav 2=811(LC 1), 4=811(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1067/225, 3-4=-1067/224
BOT CHORD 2-6=-161/884, 4-6=-161/884
WEBS 3-6=-111/594

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) 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=150, 4=150.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 551 lb down and 185 lb up at 3-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 7-10=-20
Concentrated Loads (lb)
Vert: 6=-551(B) 3=-51(B)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	G2	Common	3	1	I44616270
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:27 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-MgXRi2BsaQU2KB65GzNzpJ0qXGTtwh2sIG6Uw0zpWnk

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

Scale = 1:18.2

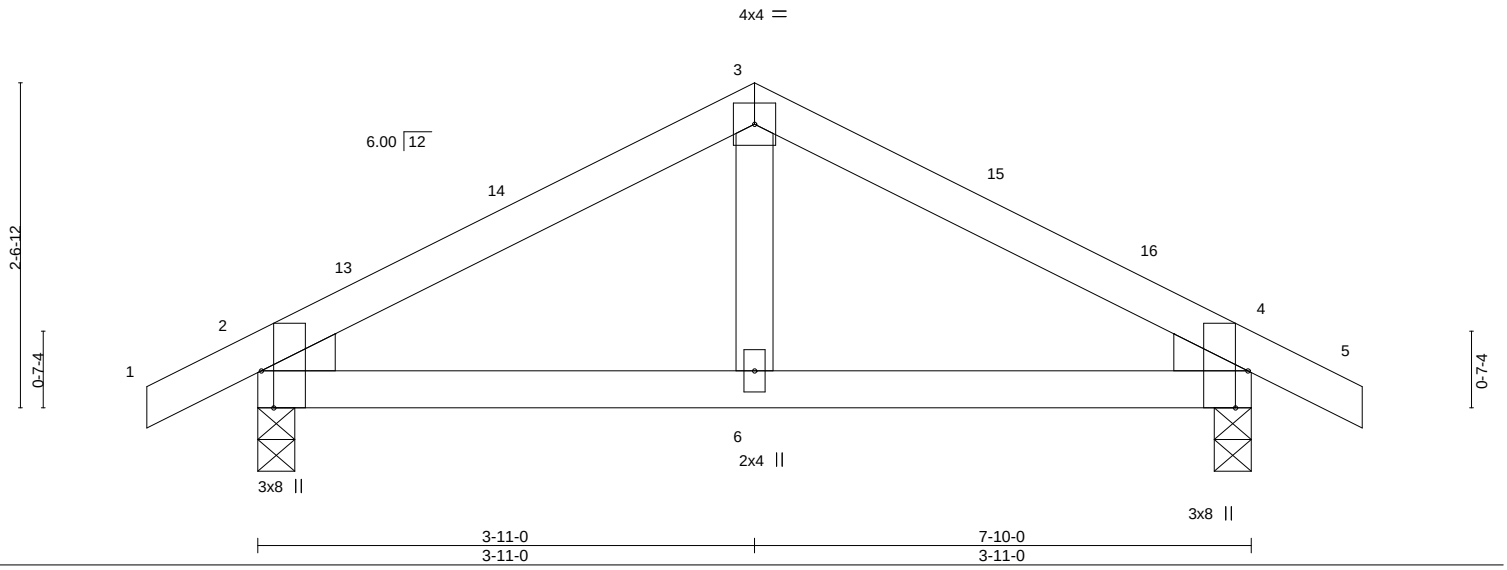


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]

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	0.19	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 25 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.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=38(LC 12)
Max Uplift 2=-61(LC 12), 4=-61(LC 13)
Max Grav 2=510(LC 1), 4=510(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-504/193, 3-4=-504/193
BOT CHORD 2-6=-68/383, 4-6=-68/383

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 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior(1) 6-11-0 to 8-8-8 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) 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) 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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J1	Jack-Closed	5	1	I44616271
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:28 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-qs4pwOCVKkcvxLhHqhvCMXZtTgkwf8u?Wwr1STzpWnj

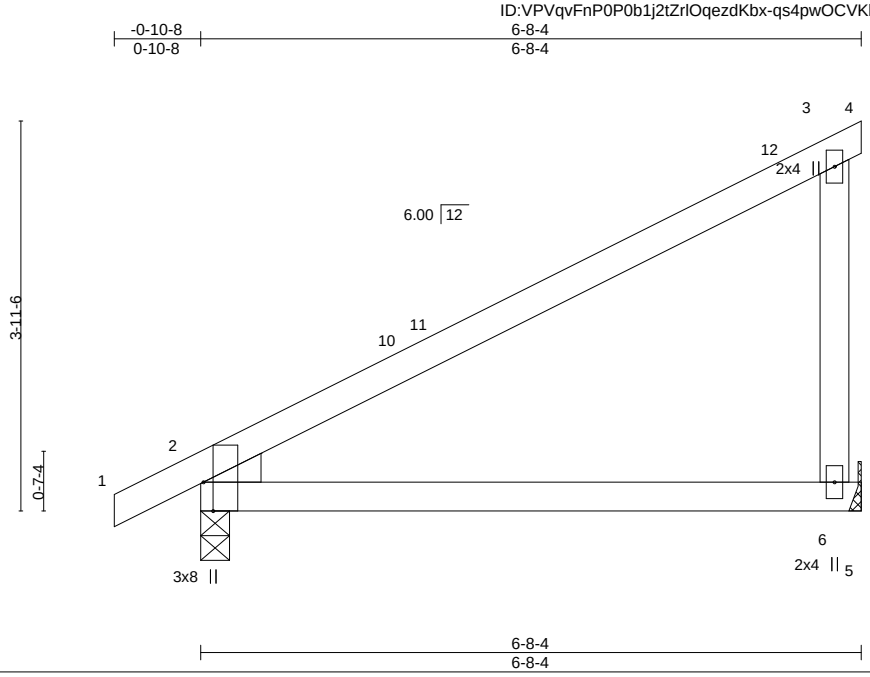


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.69	Vert(LL)	0.09	6-9	>819	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.21	6-9	>365	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 22 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) 6=Mechanical, 2=0-3-8
Max Horz 2=137(LC 11)
Max Uplift 6=-69(LC 12), 2=-48(LC 12)
Max Grav 6=364(LC 1), 2=437(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-6=-265/202

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 6-8-4 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) 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) 6, 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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J2	Jack-Open	3	1	I44616272
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:32 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-jdKKllF?Oy7LQy?23Xz8WNke9H9sbytbRXpFbEzpWnf

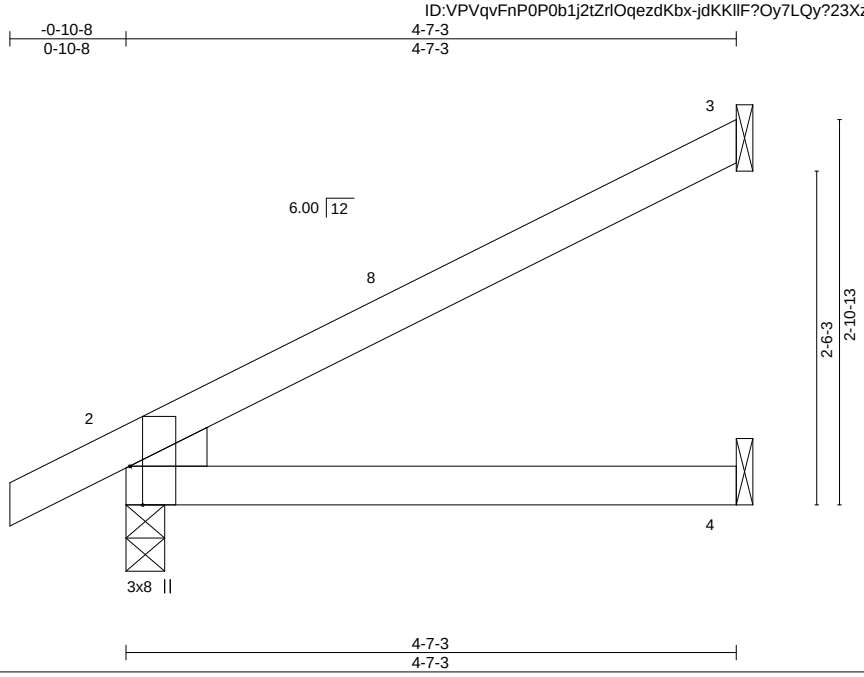


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.33	Vert(LL)	0.03	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	4-7	>997	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=97(LC 12)
Max Uplift 3=-63(LC 12), 2=-29(LC 12)
Max Grav 3=174(LC 1), 2=336(LC 1), 4=89(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 Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-7 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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J3	Jack-Open	7	1	I44616273
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:35 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7C0TOnHuhtVwHPjdkfXr8?MDDVDQoJd17V2vCZzpWnc

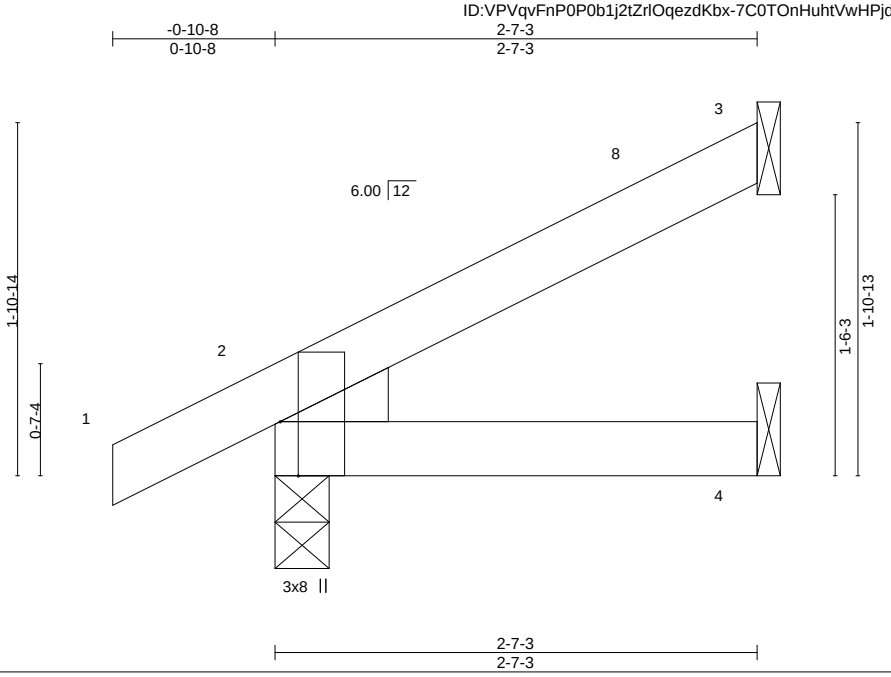


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	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: 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 2-7-3 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=60(LC 12)
Max Uplift 3=-33(LC 12), 2=-23(LC 12), 4=-2(LC 12)
Max Grav 3=88(LC 1), 2=232(LC 1), 4=49(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 Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-7 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, 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J4	Jack-Open	1	1	I44616274
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:35 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-7C0TOnHuhtVwHPjdkfXr8?M9AVA5oJd17V2vCZzpWnc

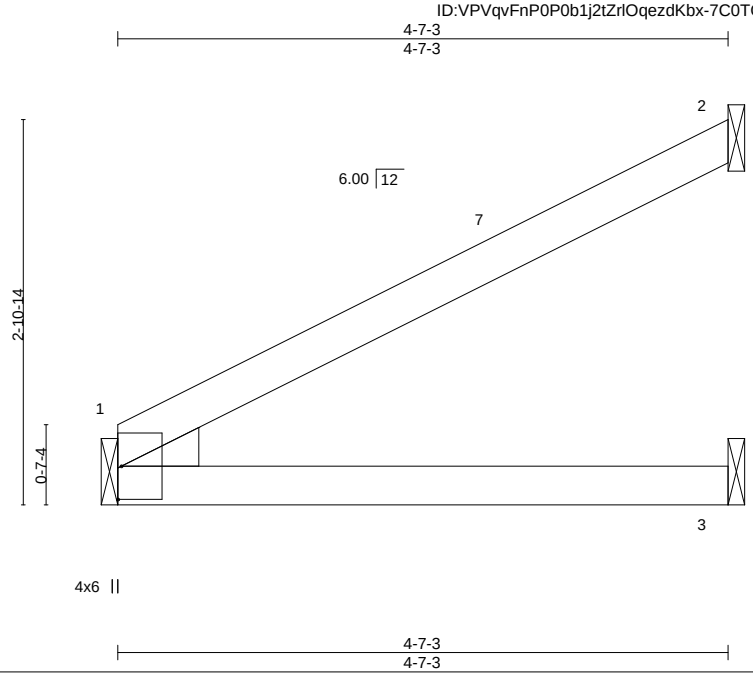


Plate Offsets (X,Y)-- [1:0-0-1,0-0-3], [1:0-0-3,0-5-0]

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	0.34	Vert(LL)	0.03	3-6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	3-6	>915	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 12 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical
Max Horz 1=83(LC 12)
Max Uplift 2=-63(LC 12), 1=-11(LC 12)
Max Grav 2=177(LC 1), 3=91(LC 3), 1=250(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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-6-7 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, 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J5	Jack-Open	1	1	I44616275
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:36 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-bPZrb7IWSBdnvZIpIM24gDuOnvZEXmtBM9nSk?zpWnb

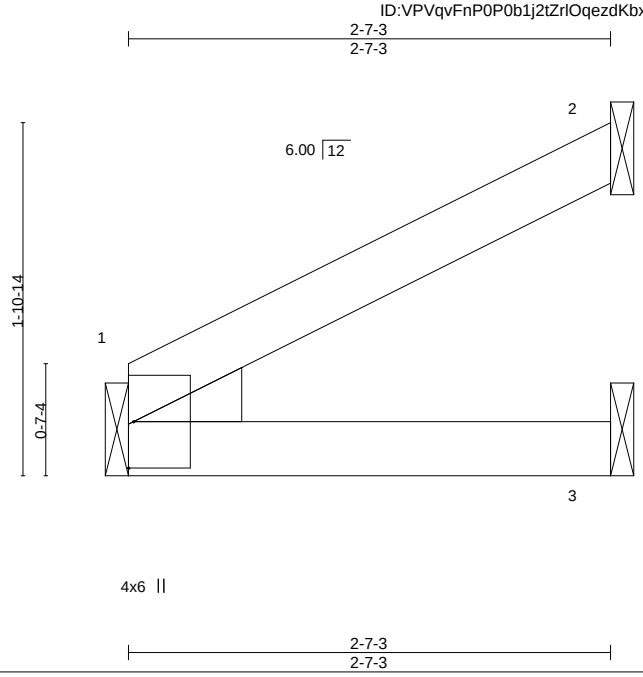


Plate Offsets (X,Y)-- [1:0-0-1,0-0-3], [1:0-0-3,0-5-0]

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	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	3-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	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 2-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical
Max Horz 1=46(LC 12)
Max Uplift 2=-34(LC 12), 3=-3(LC 12), 1=-4(LC 12)
Max Grav 2=94(LC 1), 3=52(LC 3), 1=140(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, 3, 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J6	Jack-Closed Girder	1	1	I44616276

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:36 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-bPZrb7IWSBdnvZIpIM24gDuHwvPcXmtBM9nSk?zpWnb

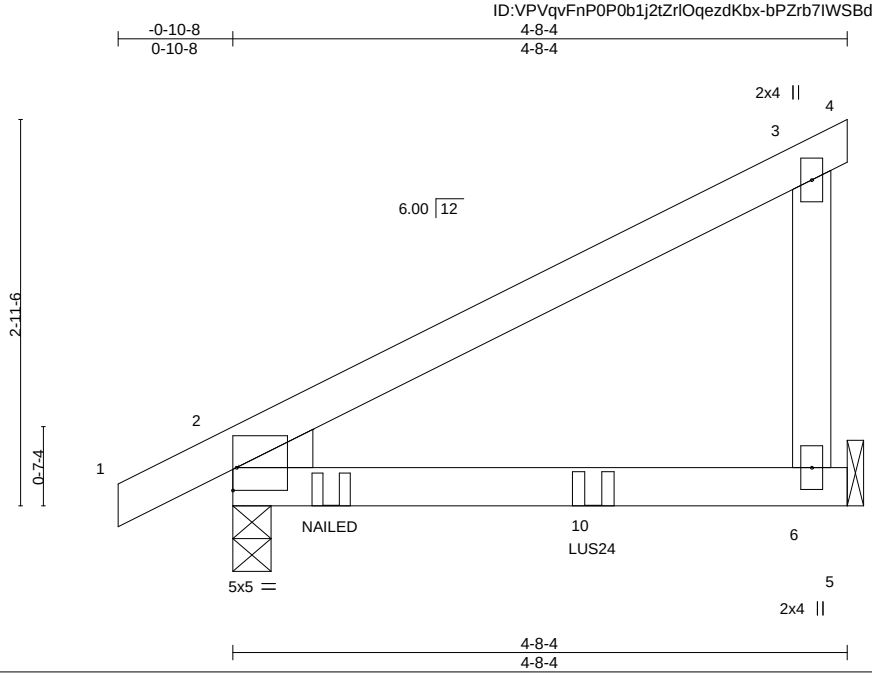


Plate Offsets (X,Y)-- [2:0-0-3,0-0-1], [2:0-5-0,0-0-3], [2:Edge,0-2-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	6-9	>969	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.12	6-9	>443	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 16 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 or 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=100(LC 24)
Max Uplift 6=-66(LC 8), 2=-55(LC 8)
Max Grav 6=412(LC 1), 2=521(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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) 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) 6, 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.
6) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-9-0 from the left end to connect truss(es) to back face of bottom chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-4=-40, 5-7=-20
   Concentrated Loads (lb)
   Vert: 9=-122(B) 10=-230(B)

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J7	Jack-Open	8	1	I44616277
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:37 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-3b7DpSJ8DVIeWjt0s4ZJDQRVgIsrGD6KbpX0GRzpWna

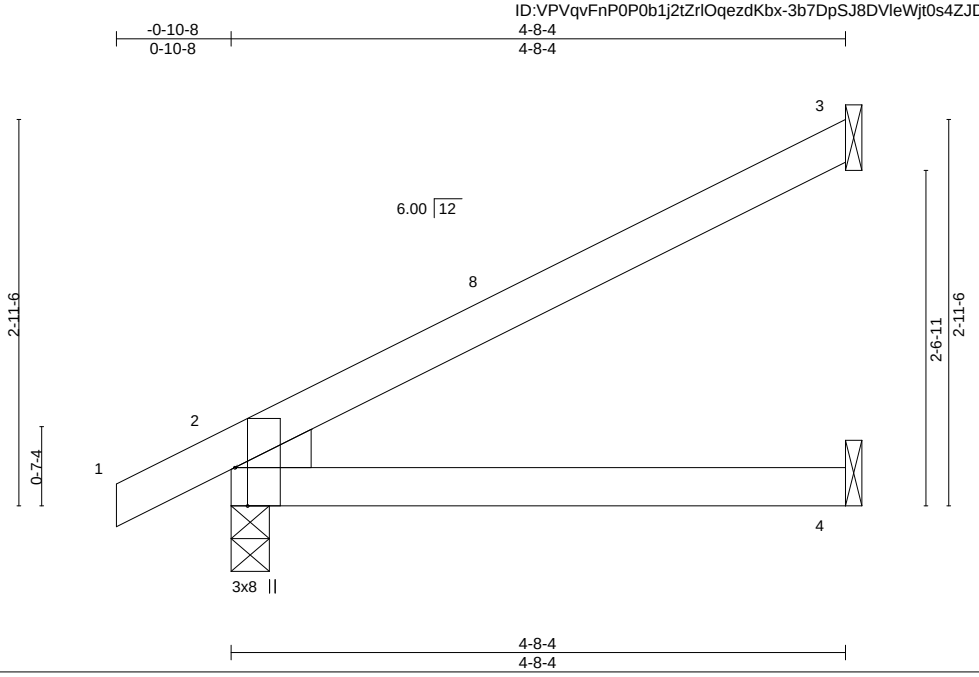


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	0.03	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.06	4-7	>942	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=98(LC 12)
Max Uplift 3=-64(LC 12), 2=-29(LC 12)
Max Grav 3=177(LC 1), 2=341(LC 1), 4=91(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 Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-8 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
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.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J8	Jack-Open	4	1	I44616278
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:38 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Xnhb0oJm_otV8tSCPn4Yle_eDiBo?fMTqTGZptzpWnZ

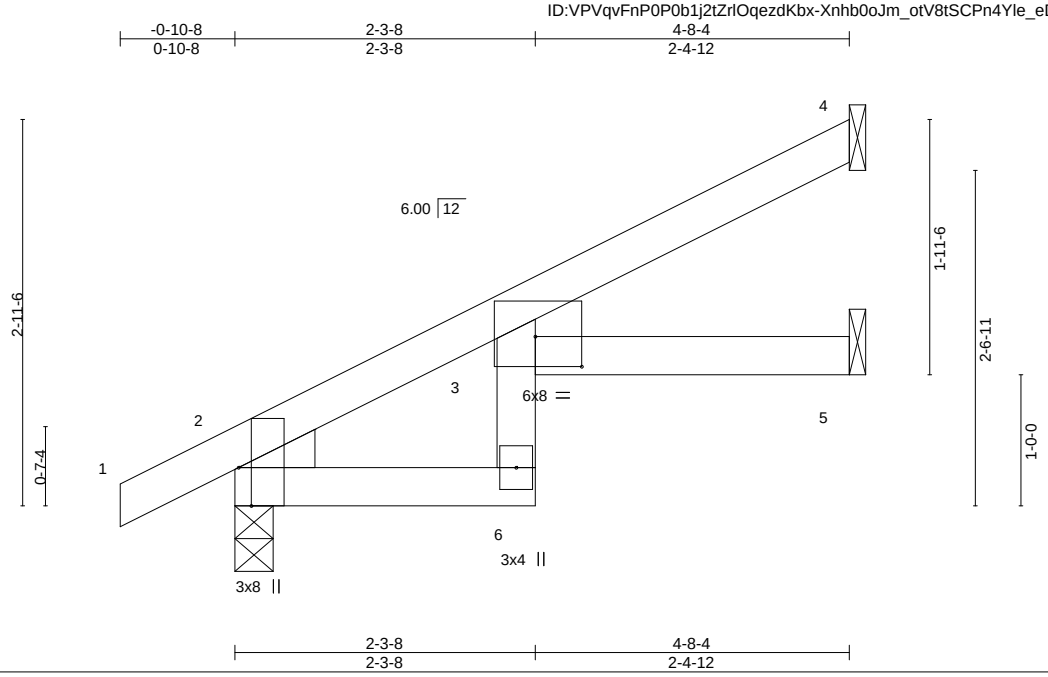


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-4,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	0.05	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.09	6	>609	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 15 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=98(LC 12)
Max Uplift 4=-51(LC 12), 2=-29(LC 12), 5=-11(LC 12)
Max Grav 4=157(LC 1), 2=342(LC 1), 5=93(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 Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 4-7-8 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
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) 4, 2, 5.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J9	Jack-Open	2	1	I44616279
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:38 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Xnhb0oJm_otV8tSCPn4Yle_kDiF3?fMTqTGZptzpWnZ

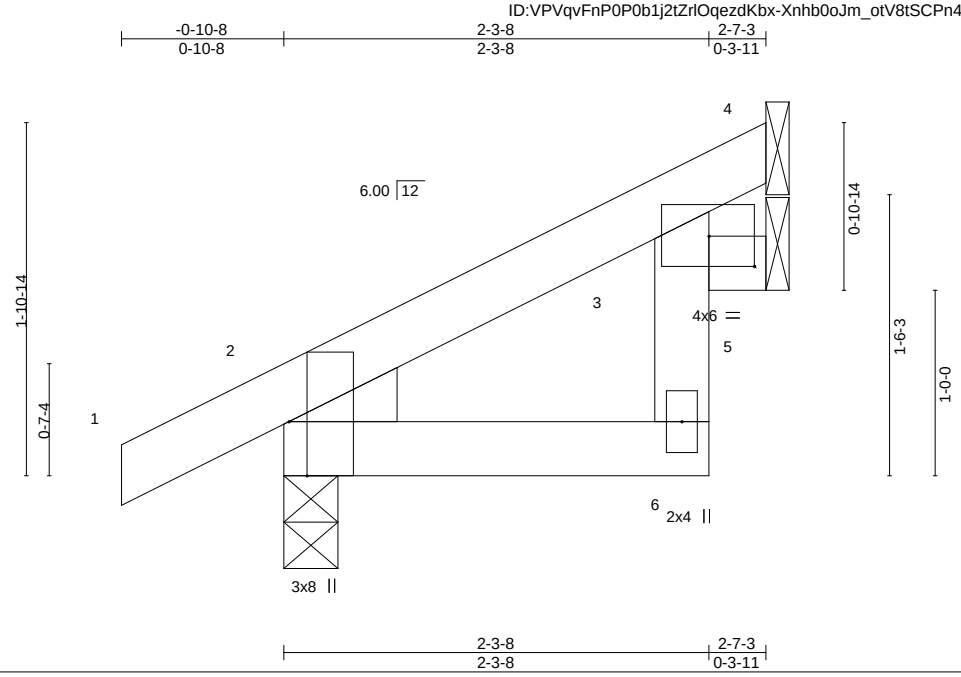


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-2-15,0-1-15]

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	9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 10 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 2-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 4=-21(LC 12), 2=-23(LC 12), 5=-13(LC 12)
Max Grav 4=72(LC 1), 2=232(LC 1), 5=56(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 2-0-5, Interior(1) 2-0-5 to 2-6-7 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) 4, 2, 5.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J10	Jack-Open	3	1	I44616280
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:29 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-I2eC7jC751lmZUGTOOQRuk6AN48WOb89labb_vzpWni

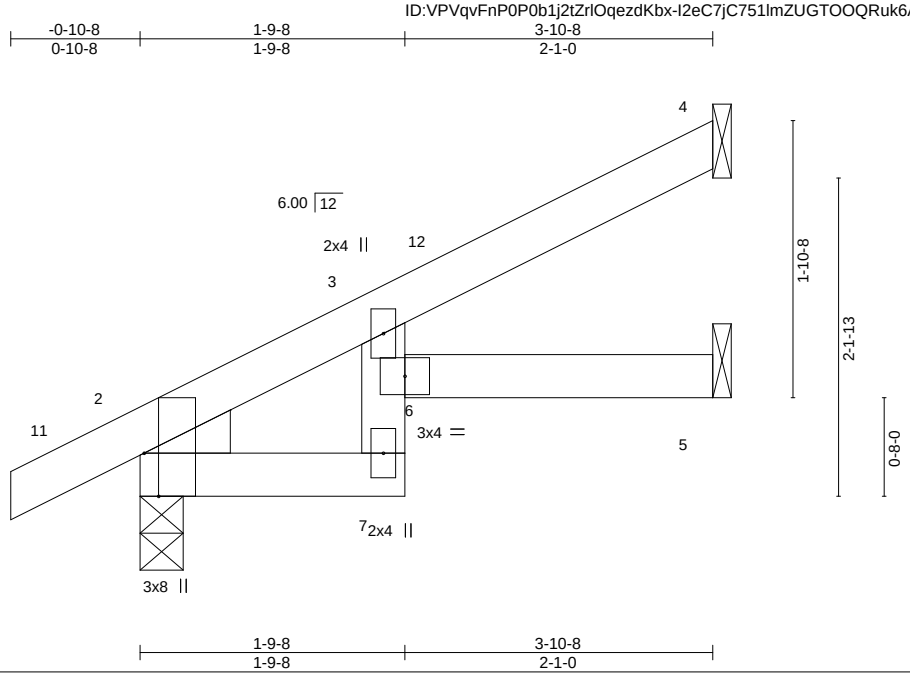


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.17	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 12 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 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=84(LC 12)
Max Uplift 4=-42(LC 12), 2=-27(LC 12), 5=-10(LC 12)
Max Grav 4=125(LC 1), 2=297(LC 1), 5=79(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 Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-12 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) 4, 2, 5.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J11	Jack-Open	4	1	I44616281
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:29 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-I2eC7jC751lmZUGTOOQRuk6By4BhOb89labb_vzpWni

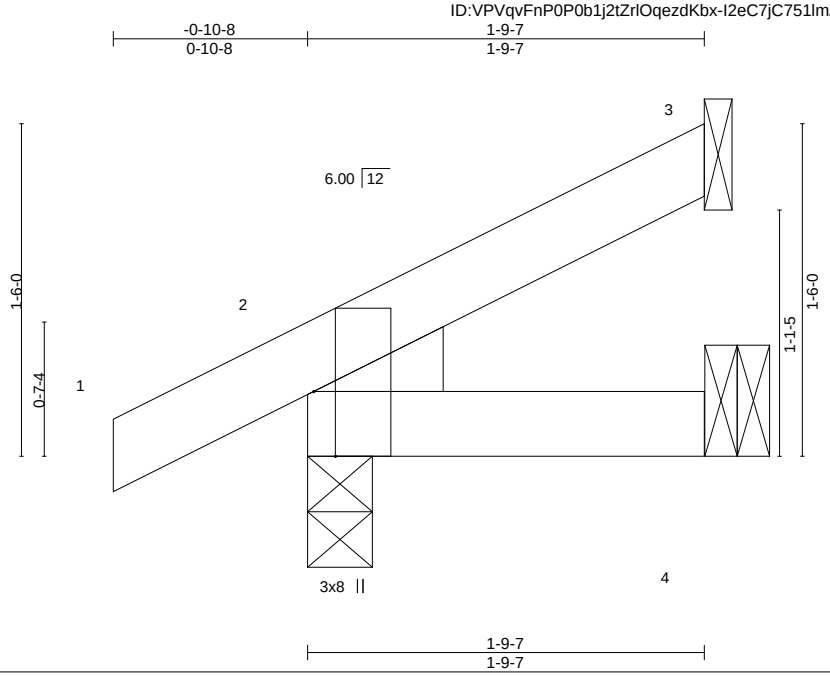


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	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: 6 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 1-9-7 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=46(LC 12)
Max Uplift 3=-22(LC 12), 2=-21(LC 12), 4=-3(LC 12)
Max Grav 3=54(LC 1), 2=196(LC 1), 4=32(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 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) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J16	Jack-Open	2	1	I44616282
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:30 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-mFCaL3DlsLtdBerfx6xgRyeIWUKA72VI_EK8XLzpWnh

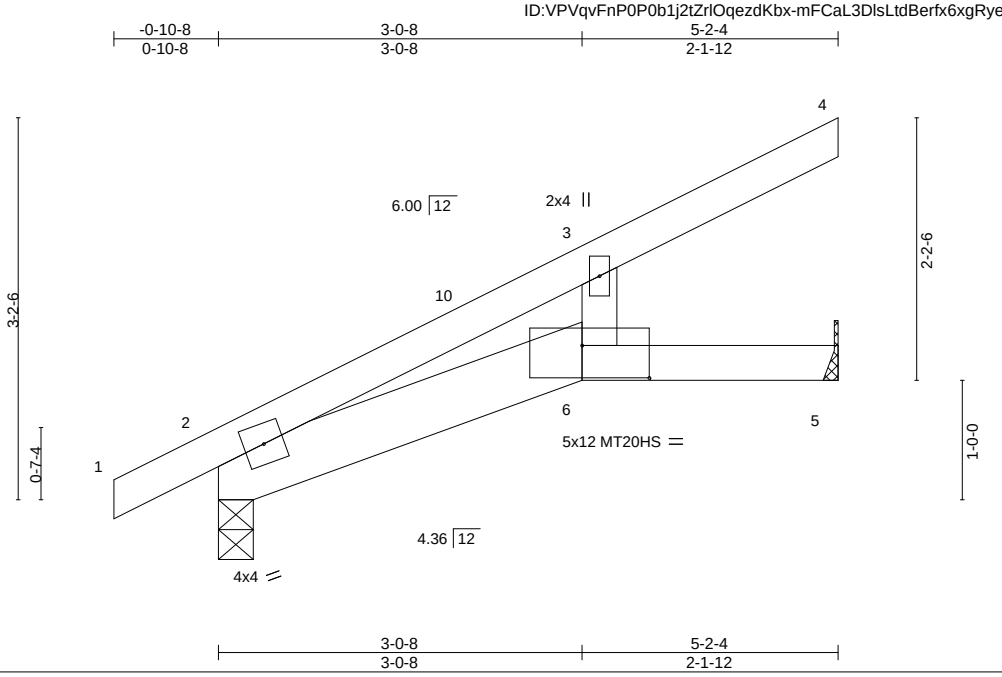


Plate Offsets (X,Y)-- [6:0-6-12,0-3-4]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	0.08	6	>794	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.14	6	>430	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.05	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=103(LC 12)
Max Uplift 2=-31(LC 12), 5=-61(LC 12)
Max Grav 2=367(LC 1), 5=281(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-446/308

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 5-2-4 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) All plates are MT20 plates unless otherwise indicated.
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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J17	Jack-Open	3	1	I44616283
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:31 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ERmyYPENdf?UooQsVpSvz9BXBusMsVNRDt4h3nzpWng

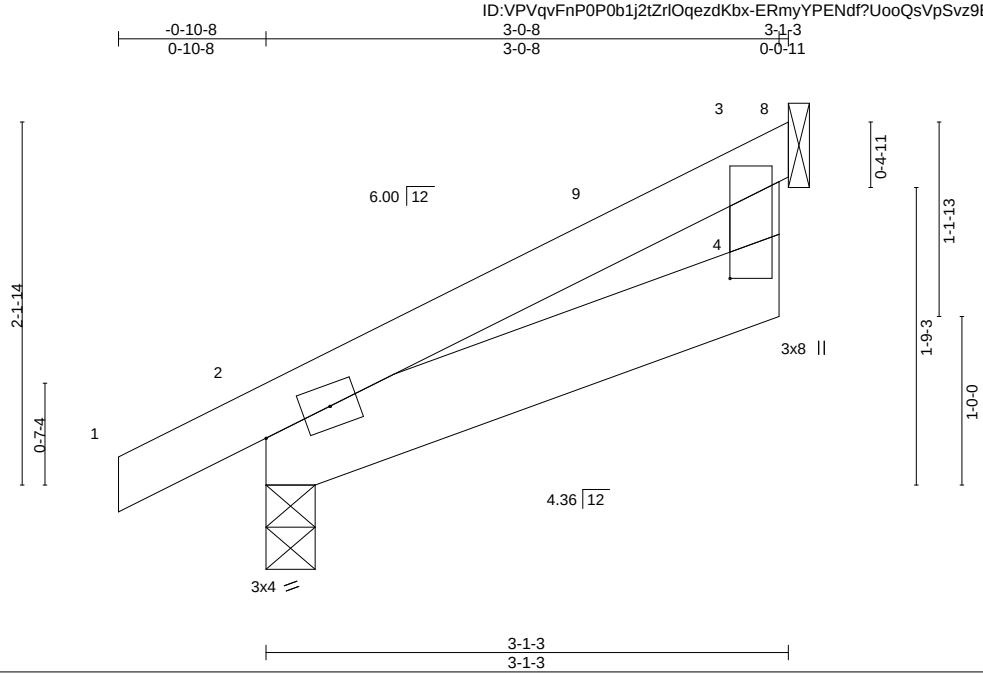


Plate Offsets (X,Y)-- [3:0-0-14,0-1-12], [4:0-11-6,2-9-0], [4:0-0-10,0-1-12]

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	0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 3=Mechanical
Max Horz 2=70(LC 12)
Max Uplift 2=-23(LC 12), 3=-47(LC 12)
Max Grav 2=254(LC 1), 3=150(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 3-1-3 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J18	Jack-Open	1	1	I44616284
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:31 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ERmyYPENdf?UooQsVpSvz9BX7us4sVLRDt4h3nzpWng

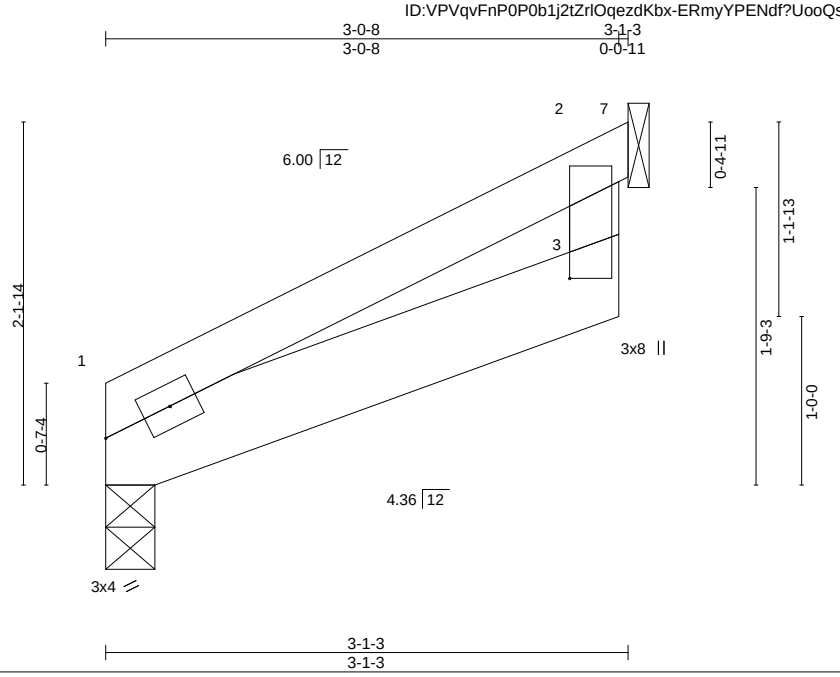


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-11-6,2-9-0], [3:0-0-10,0-1-12]

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	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	3-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-3-8, 2=Mechanical
Max Horz 1=56(LC 12)
Max Uplift 1=-4(LC 12), 2=-49(LC 12)
Max Grav 1=164(LC 1), 2=162(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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J19	Jack-Open	1	1	I44616285
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:32 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-jdKKllF?Oy7LQy?23Xz8WNkgjHAzbytbRXpFbEzpWnf

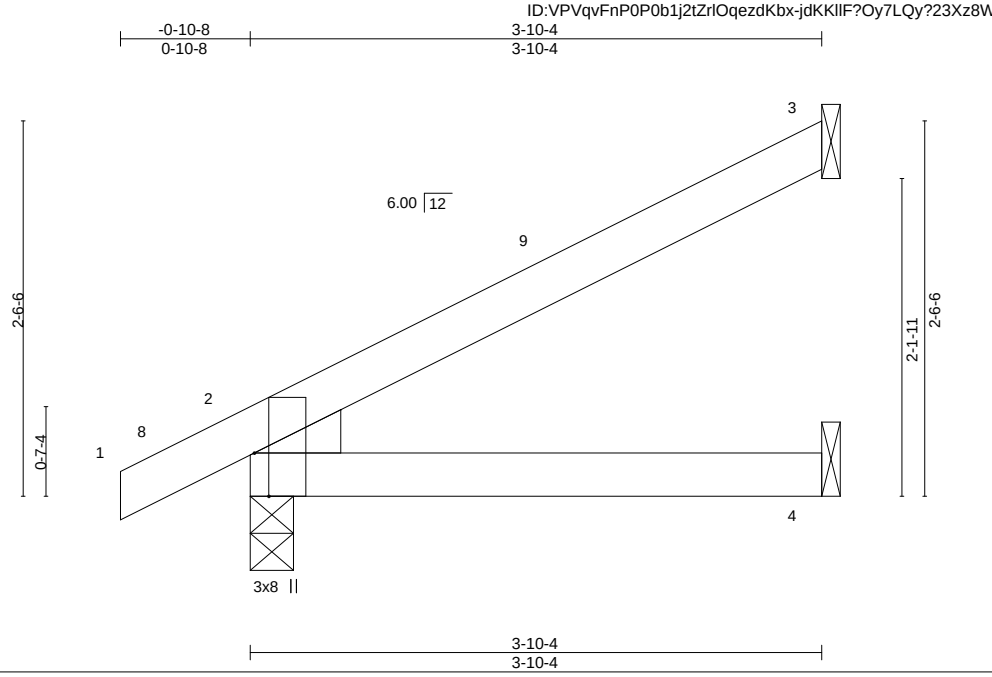


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.23	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 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 3-10-4 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=83(LC 12)
Max Uplift 3=-51(LC 12), 2=-27(LC 12), 4=-1(LC 12)
Max Grav 3=141(LC 1), 2=296(LC 1), 4=75(LC 3)

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

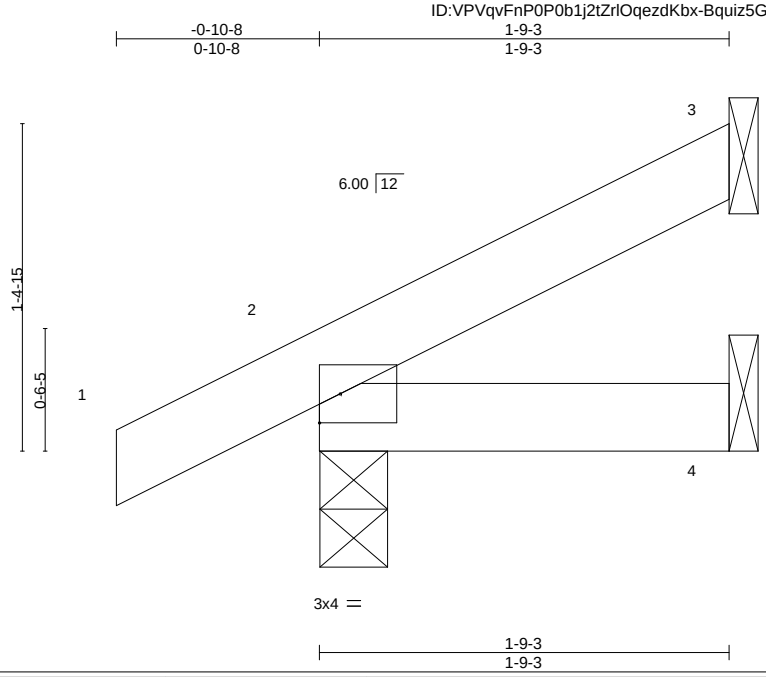
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J20	Jack-Open	1	1	I44616286
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:33 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Bquiz5Gd9GFC26aEdEUN3aGtxhYkKP7kgBZo7gzpWne



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	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	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 6 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-3 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=46(LC 12)
Max Uplift 3=-24(LC 12), 2=-23(LC 12)
Max Grav 3=59(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J21	Jack-Open	2	1	I44616287
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:33 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Bquiz5Gd9GFC26aEdEUN3aGtxhYeKP7kgBZo7gzpWne

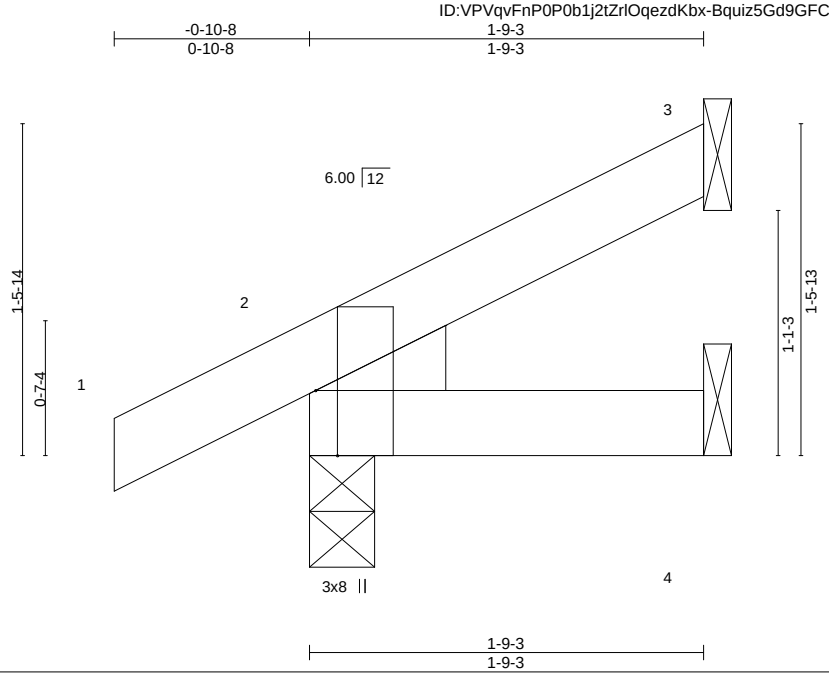


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	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: 6 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 1-9-3 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=46(LC 12)
Max Uplift 3=-21(LC 12), 2=-21(LC 12), 4=-3(LC 12)
Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) 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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	J22	Jack-Open	1	1	I44616288
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:34 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-f0S5ARGFwaN3fG9RAy0cbop2h5uu3sNuvrILg6zpWnd

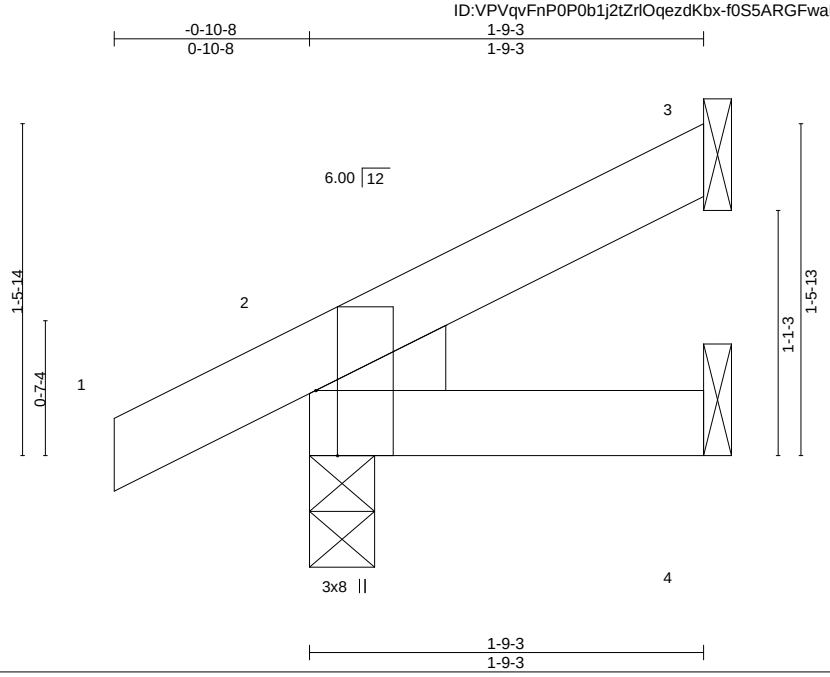


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	20.0	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: 6 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 1-9-3 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 3=46(LC 12)
Max Uplift 2=-52(LC 12)
Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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.
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.

February 2,2021

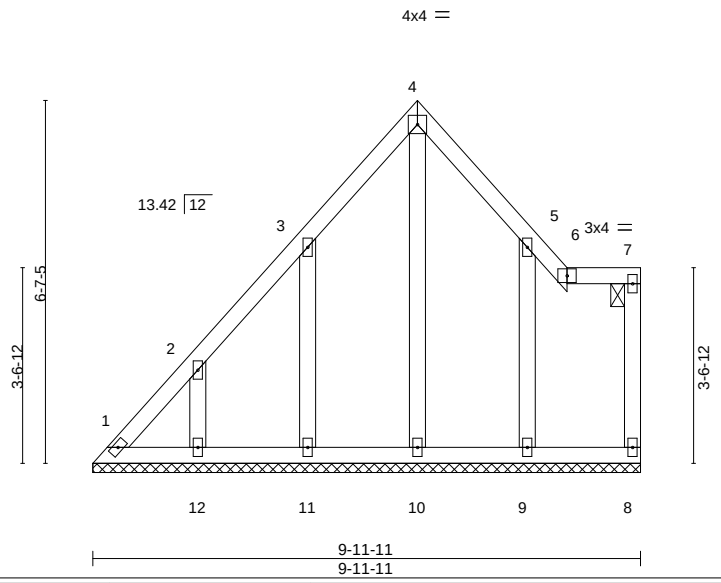
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG1	GABLE	1	1	I44616289
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:39 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-?zFzE8KOl6?Lm11OzVbnIrWvB6btk4Fd2706LKzpWnY

5-10-15 / 5-10-15 | 8-7-10 / 2-8-11 | 9-11-11 / 1-4-1

Scale = 1:42.0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 48 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 9-11-11.
(lb) - Max Horz 1=189(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9 except 1=-109(LC 8), 11=-130(LC 12), 12=-123(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 12 except 11=260(LC 19), 9=282(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-9=-264/160

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) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-15, Exterior(2E) 5-10-15 to 8-7-10, Interior(1) 8-7-10 to 9-9-15 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 9 except (jt=lb) 1=109, 11=130, 12=123.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

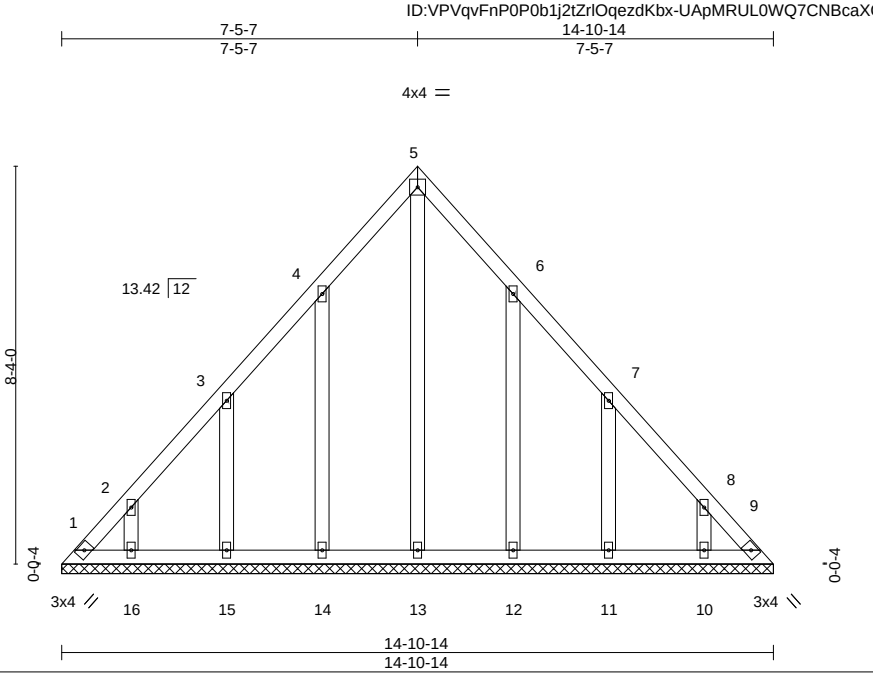
February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG2	Lay-In Gable	1	1	I44616290

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:40 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-UApMRUL0WQ7CNBcaXC60r335FWxATXDmHnlgtmzpWnX



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 73 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 14-10-14.
(lb) - Max Horz 1=193(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-126(LC 12), 15=-128(LC 12), 16=-109(LC 12), 12=-125(LC 13), 11=-129(LC 13), 10=-108(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=253(LC 19), 12=252(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-275/174

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) 0-3-15 to 3-5-7, Interior(1) 3-5-7 to 7-5-7, Exterior(2R) 7-5-7 to 10-5-7, Interior(1) 10-5-7 to 14-6-15 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) 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, 9 except (jt=lb) 14=126, 15=128, 16=109, 12=125, 11=129, 10=108.
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.

February 2,2021

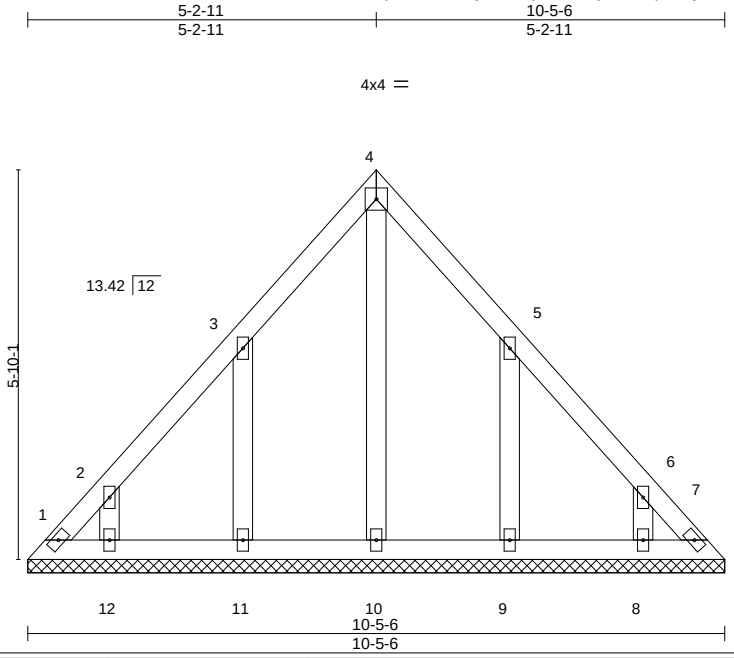
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG3	GABLE	1	1	I44616291

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:41 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-yMNkeqMeHjF3?KBn5weFNGbG?wHVC09wWRVDQCzpWnW



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 43 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 10-5-6.
(lb) - Max Horz 1=-133(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-134(LC 12), 12=-104(LC 12), 9=-134(LC 13), 8=-104(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 8 except 11=263(LC 19), 9=263(LC 20)

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 Exterior(2E) 0-3-15 to 3-2-11, Interior(1) 3-2-11 to 5-2-11, Exterior(2R) 5-2-11 to 8-2-11 , Interior(1) 8-2-11 to 10-1-7 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) 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=134, 12=104, 9=134, 8=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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG4	GABLE	1	1	I44616292
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:42 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-QYx6sANH11NwdUmzed9UwU8QOJdQxRB3k5EnyfzpWnV

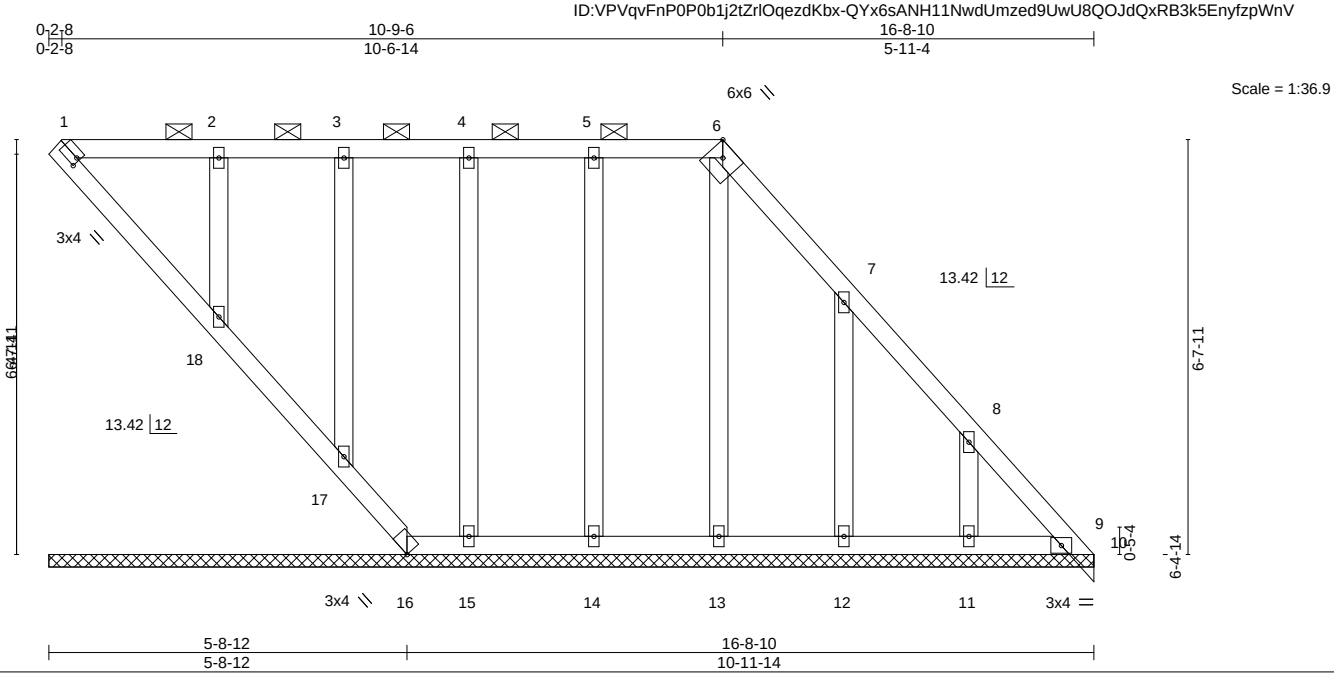


Plate Offsets (X,Y)-- [1:0-0-10,0-1-8], [6:0-2-10,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	9	n/r	120	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	9	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 80 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, except 2-0-0 oc purlins (6-0-0 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 16-8-10.
(lb) - Max Horz 1=-238(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 15, 17, 18 except 16=-105(LC 13), 11=-126(LC 13), 12=-130(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 16, 9, 11, 13, 14, 15, 17 except 12=253(LC 20), 18=280(LC 25)

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

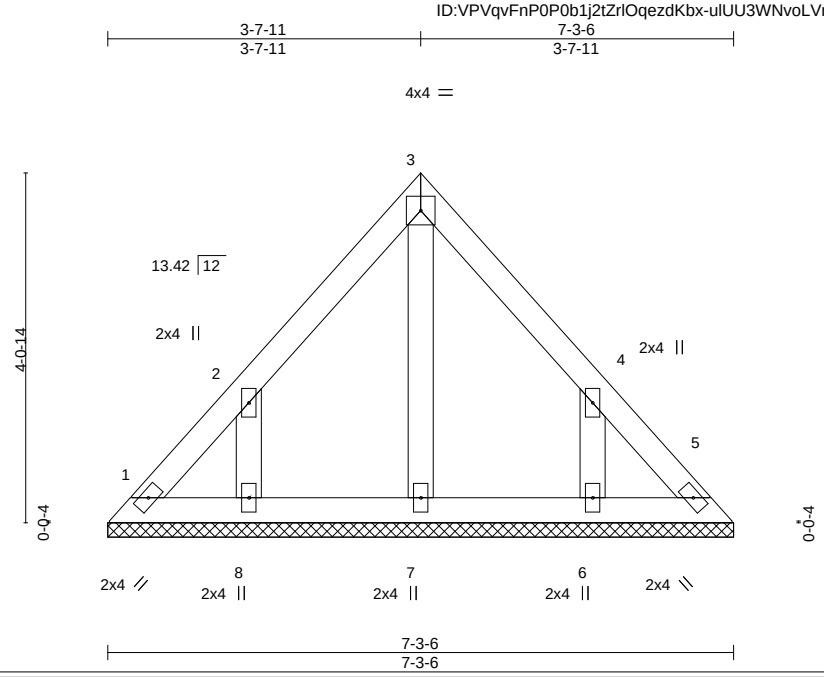
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-2 to 3-4-2, Interior(1) 3-4-2 to 10-9-6, Exterior(2R) 10-9-6 to 15-0-5, Interior(1) 15-0-5 to 16-8-10 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 14, 15, 17, 18 except (jt=lb) 16=105, 11=126, 12=130.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 17, 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG5	GABLE	1	1	I44616293
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:43 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ulUU3WNvoLVnEeL9CLgjShhaTjzzgwBDzI_KU5zpWnU



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 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 7-3-6.
(lb) - Max Horz 1=-90(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-133(LC 12), 6=-133(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=252(LC 19), 6=252(LC 20)

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

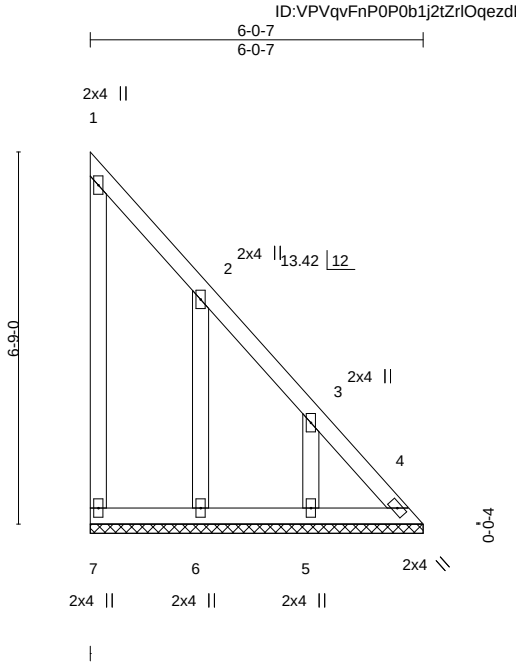
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-7-11, Exterior(2R) 3-7-11 to 6-7-11 , Interior(1) 6-7-11 to 6-11-7 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=133, 6=133.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG6	GABLE	1	1	I44616294
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:43 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ulUU3WNvoLVnEeL9CLgjShhWxjzZgvTDzl_KU5zpWnU



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 30 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 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-0-7.
(lb) - Max Horz 7=-222(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 4 except 6=-131(LC 13), 5=-127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 5 except 6=259(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-298/319, 3-4=-420/436
BOT CHORD 6-7=-295/304, 5-6=-295/304, 4-5=-295/304
WEBS 2-6=-250/153

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) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 5-8-8 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
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4 except (jt=lb) 6=131, 5=127.
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.

February 2,2021

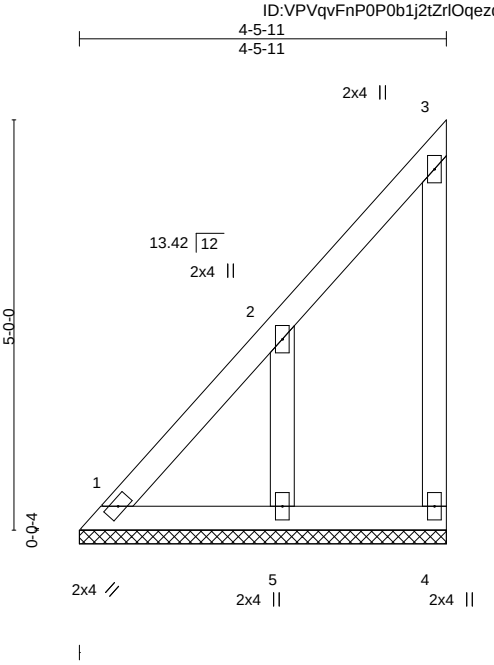
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	LG7	GABLE	1	1	I44616295

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:44 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Mx2sHsOXZedesovMm2By?vDkb7J5PNDMCPjt0XzpWnT



Scale = 1:28.1

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							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 4-5-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-5-11, 4=4-5-11, 5=4-5-11
Max Horz 1=160(LC 11)
Max Uplift 1=-42(LC 8), 4=-55(LC 9), 5=-154(LC 12)
Max Grav 1=154(LC 20), 4=97(LC 19), 5=303(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-285/313
WEBS 2-5=-294/229

NOTES-

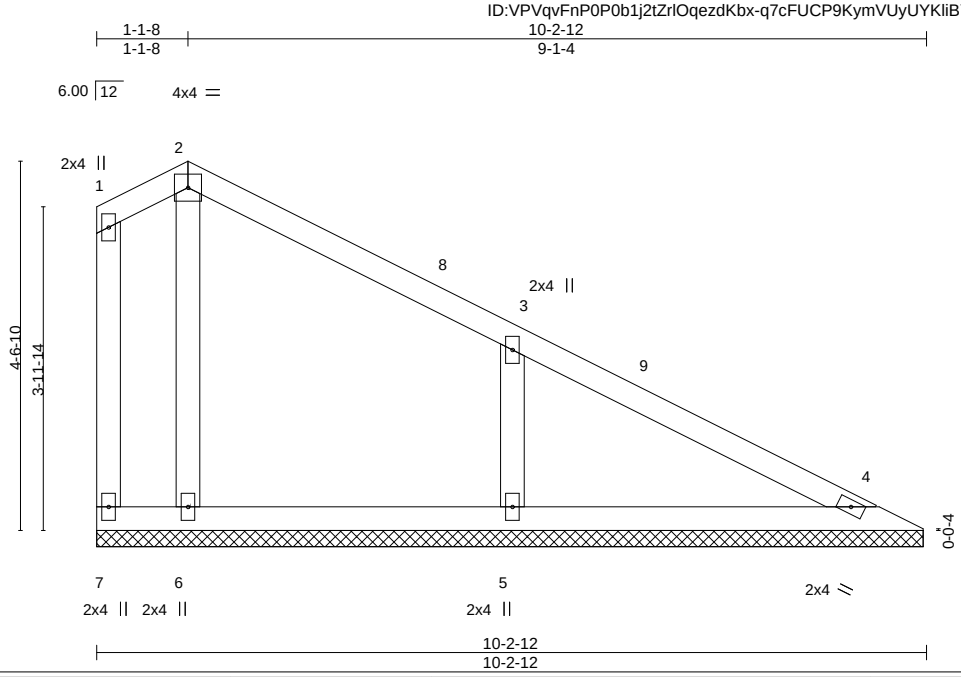
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=154.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V1	Valley	1	1	I44616296
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:45 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-q7cFUCP9KymVUyUYKliBY6msZXcg8pzVR3TRZzzpWnS



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 35 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 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 10-2-4.
(lb) - Max Horz 7=-146(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=-132(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=276(LC 1), 5=566(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-5=-452/246

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 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 9-7-3 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
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=132.
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.

February 2,2021

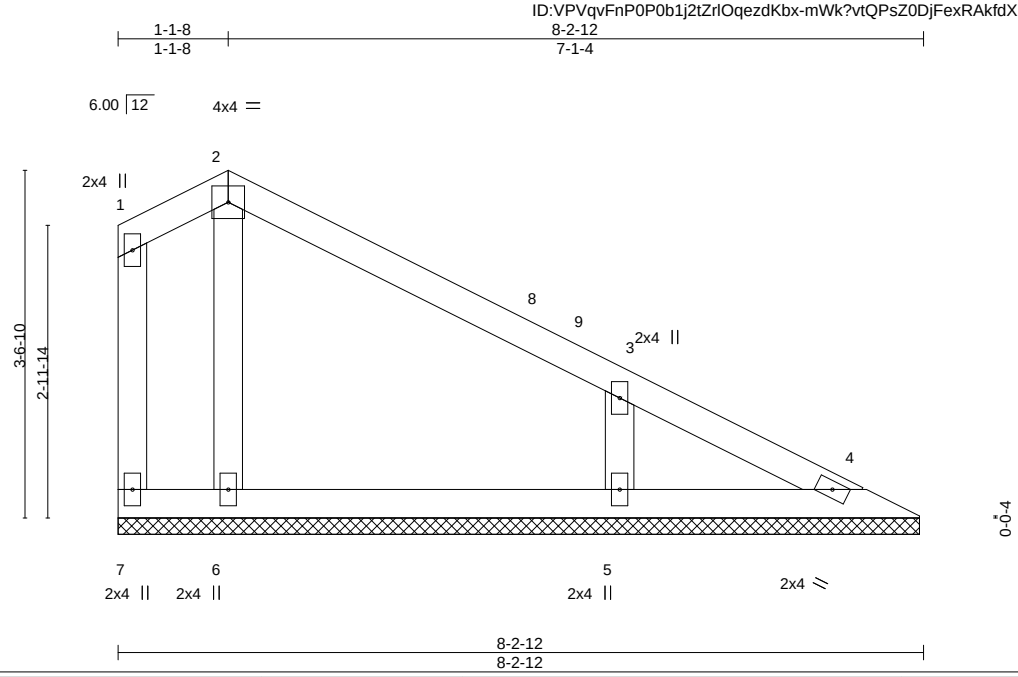
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V2	Valley	1	1	I44616297

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:47 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-mWk?vtQPsZ0DjFexRAkfdXrEUKJ5ckqouNyXdszpWnQ



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 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 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 8-2-4.
(lb) - Max Horz 7=-109(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=-112(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=263(LC 1), 5=455(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-5=-381/248

NOTES-

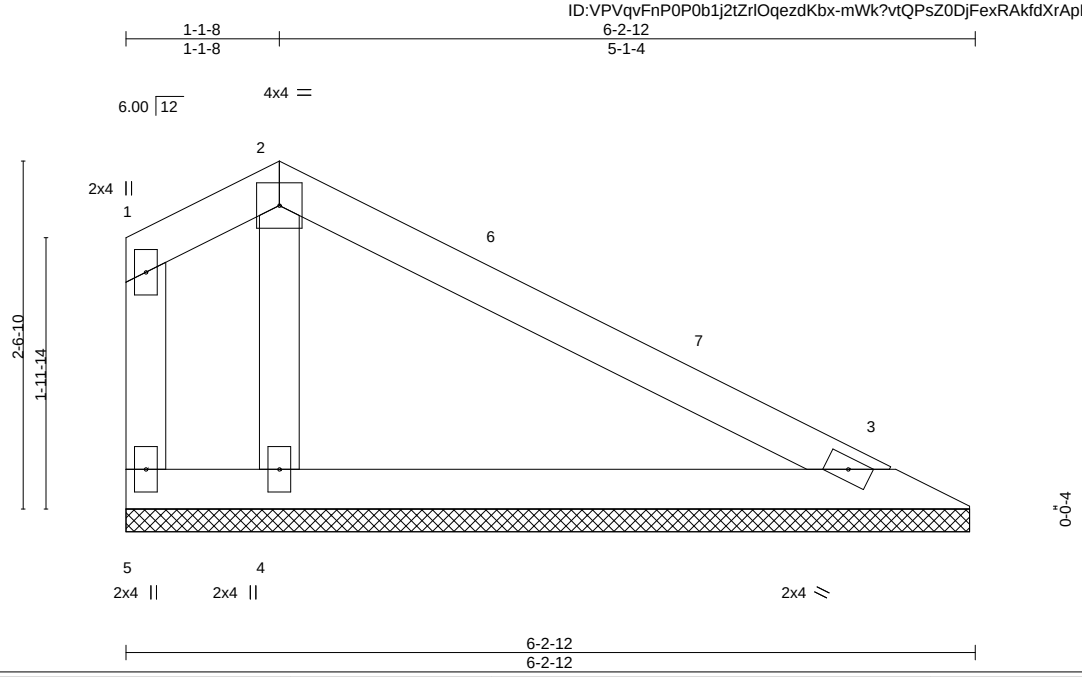
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 7-7-3 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
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V3	Valley	1	1	I44616298
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:47 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-mWk?vtQPsZ0DjFexRAkfdXrApKI9ck1ouNyXdszpWnQ



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	0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 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 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=6-2-4, 3=6-2-4, 4=6-2-4
Max Horz 5=-71(LC 8)
Max Uplift 5=-46(LC 3), 3=-33(LC 13), 4=-12(LC 13)
Max Grav 5=14(LC 19), 3=237(LC 1), 4=352(LC 1)

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

NOTES-

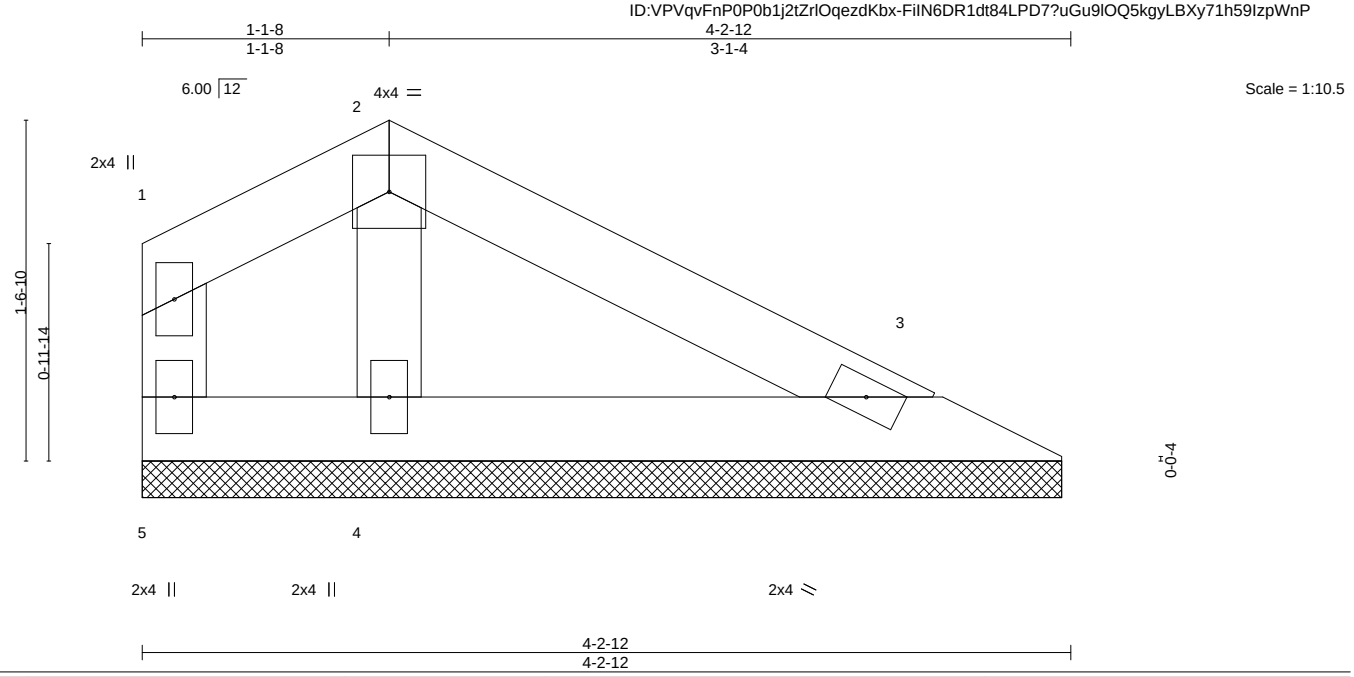
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 5-7-3 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
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V4	Valley	1	1	I44616299
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:48 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-FiIN6DR1dt84LPD7?uGu9lOQ5kgyLBXy71h59IzpWnP



Scale = 1:10.5

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 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 4-2-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=4-2-4, 3=4-2-4, 4=4-2-4
Max Horz 5=-34(LC 10)
Max Uplift 5=-15(LC 12), 3=-19(LC 13), 4=-10(LC 13)
Max Grav 5=42(LC 1), 3=131(LC 1), 4=207(LC 1)

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

NOTES-

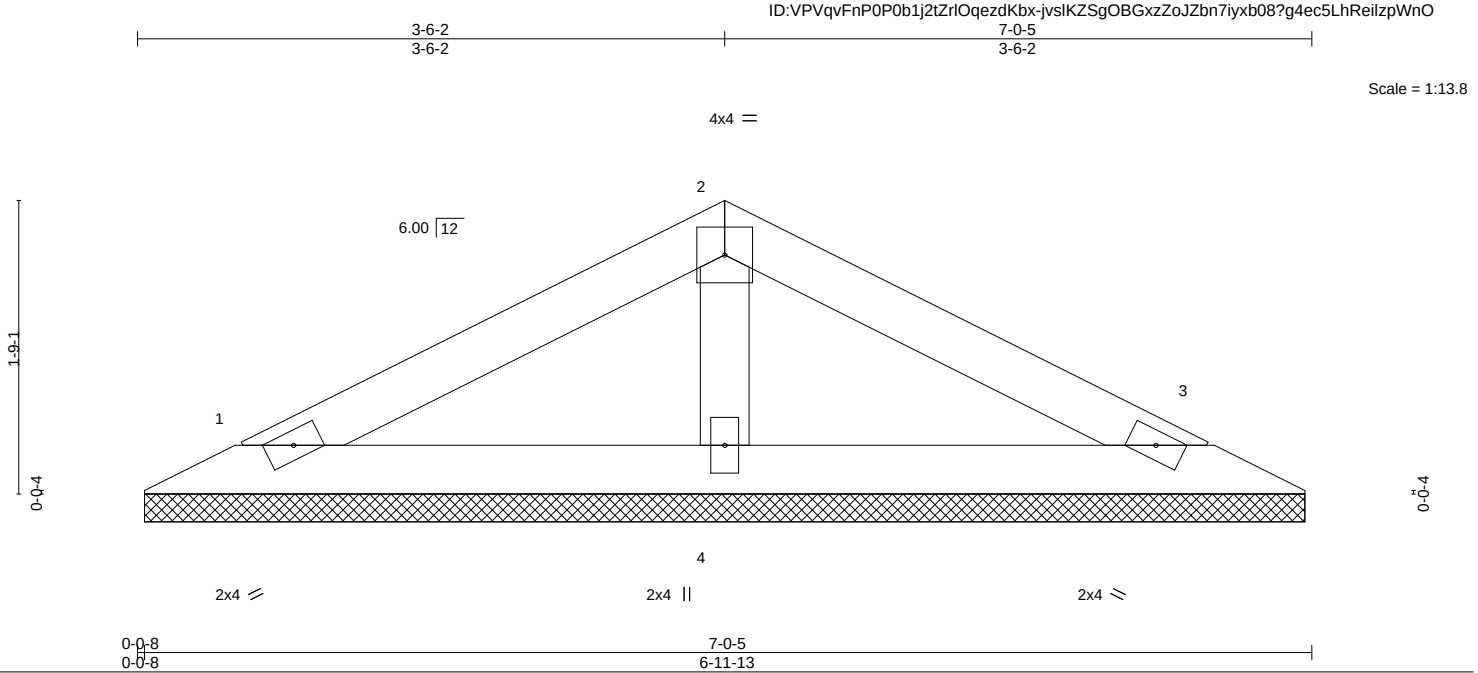
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V5	Valley	1	1	I44616300
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:49 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-jvslKZSgOBGxzZoJZbn7iyxb08?g4ec5LhReilzpWnO



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)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	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
OTHERS 2x4 SPF No.2

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

REACTIONS. (size) 1=6-11-5, 3=6-11-5, 4=6-11-5
Max Horz 1=23(LC 16)
Max Uplift 1=-28(LC 12), 3=-32(LC 13), 4=-10(LC 12)
Max Grav 1=164(LC 1), 3=164(LC 1), 4=307(LC 1)

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

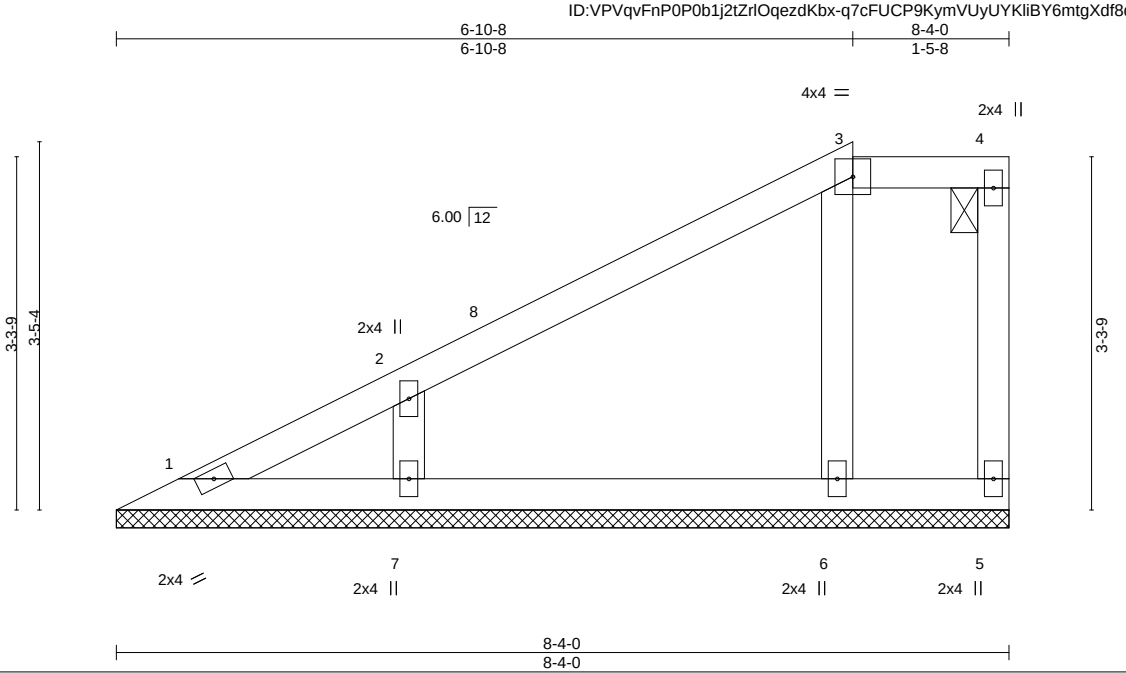
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V11	Valley	1	1	I44616301
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:45 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-q7cFUCP9KymVUyUYKliBY6mtgXdf8qKVR3TRZzzpWnS



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 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 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 8-4-0.
(lb) - Max Horz 1=112(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=-113(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=286(LC 1), 7=457(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-385/222

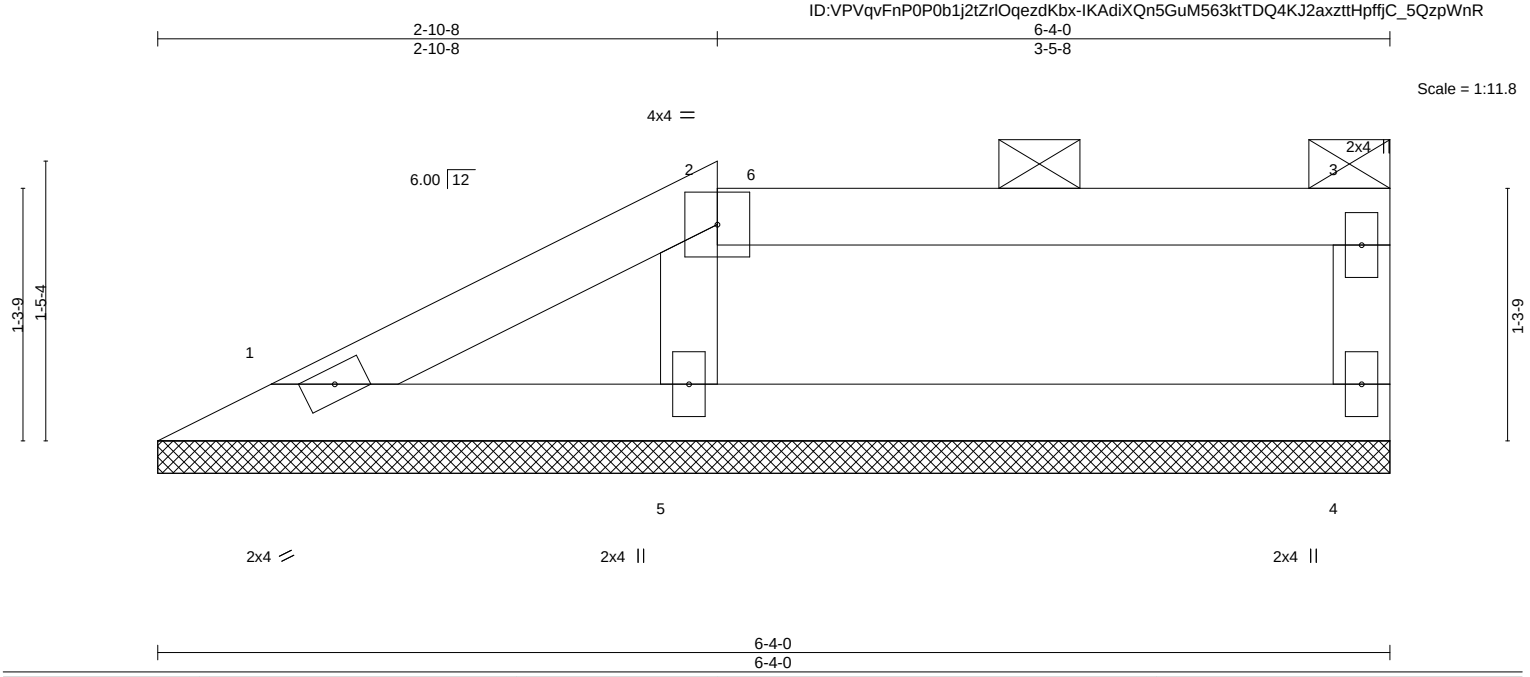
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 6-10-8, Exterior(2E) 6-10-8 to 8-2-4 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
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=113.
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.

February 2,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/woodside ridge #21/mo
2629082	V12	Valley	1	1	I44616302
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Feb 1 11:23:46 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-IKAdiXQn5GuM563ktTDQ4KJ2axzttHpffjC_5QzpWnR



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							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

BRACING-

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

REACTIONS. (size) 1=6-4-0, 4=6-4-0, 5=6-4-0
Max Horz 1=37(LC 9)
Max Uplift 1=-16(LC 12), 4=-29(LC 8), 5=-34(LC 9)
Max Grav 1=95(LC 1), 4=177(LC 1), 5=341(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-271/163

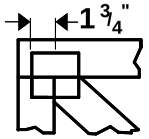
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical 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) 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, 4, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 2,2021

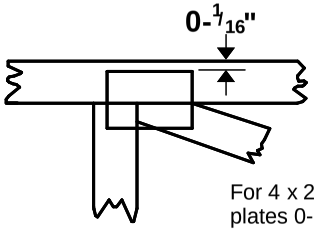
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

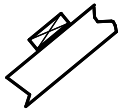
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

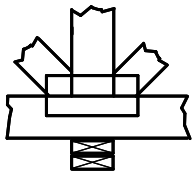
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

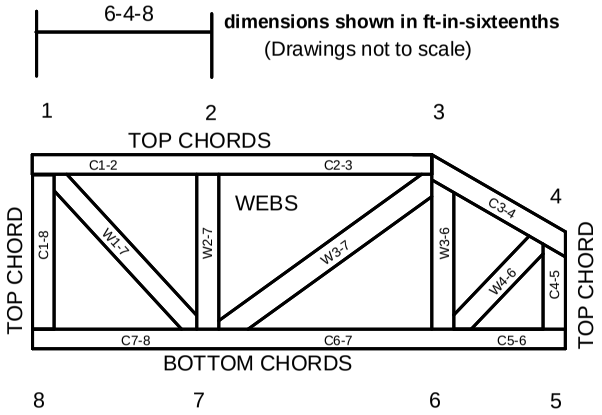


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.