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

Re: 2547158
Summit/14 Woodside

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: I43817556 thru I43817618

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: Engineering 001193

December 1,2020

Vance, Jeff ,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/14 Woodside
2547158	A1	ROOF SPECIAL	1	1	I43817556
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:48:53 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-3Uwoan1HwFZtj9av3g6VoMe?3vElplshAkUQ5zyDJbO

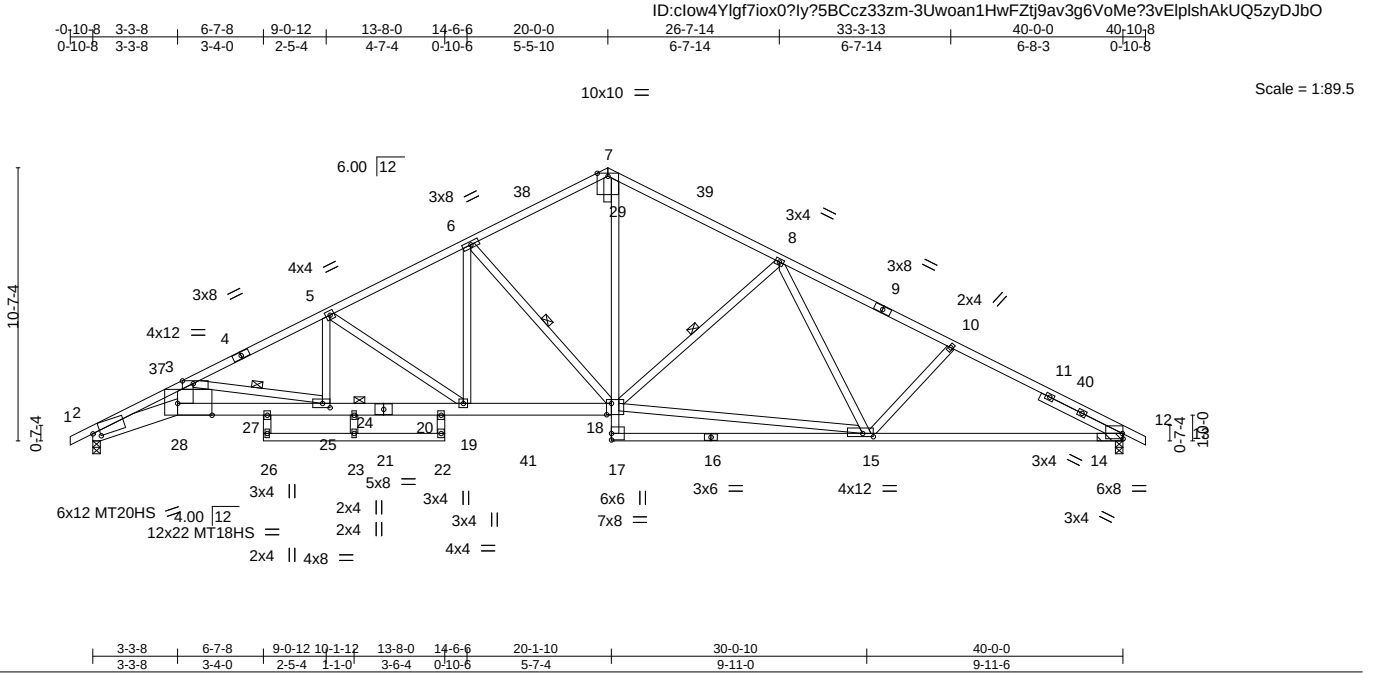


Plate Offsets (X,Y)-- [2:0-3-7,0-2-1], [3:0-5-1,0-1-5], [12:Edge,0-2-8], [15:0-4-15,0-1-8], [18:0-2-4,0-5-4], [25:0-3-8,0-2-0], [28:1-4-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.40	15-17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.86	15-17	>555	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.33	12	n/a	n/a	MT18HS	244/190
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 220 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-28: 2x8 SP 2400F 2.0E, 21-28: 2x6 SP 2400F 2.0E
	18-21: 2x6 SPF No.2, 12-16: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except*
	3-28: 2x8 SP 2400F 2.0E
SLIDER	Right 2x4 SPF No.2 3-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-18, 6-18, 3-25
JOINTS	1 Brace at Jt(s): 24

REACTIONS. (size) 2=0-3-8, 12=(0-3-8 + bearing block) (req. 0-3-11)
Max Horz 2=167(LC 12)
Max Uplift 2=-171(LC 12), 12=-170(LC 13)
Max Grav 2=2406(LC 2), 12=2361(LC 2)

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

TOP CHORD	2-3=-8067/631, 3-5=-5067/354, 5-6=-3875/278, 6-7=-2860/280, 7-8=-2949/280,
	8-10=-3704/271, 10-12=-3916/287
BOT CHORD	2-28=-691/7334, 27-28=-653/6705, 25-27=-649/6567, 24-25=-339/4347, 20-24=-339/4347,
	19-20=-344/4484, 18-19=-173/3374, 7-18=-117/2087, 15-17=0/377, 12-15=-162/3438
WEBS	3-28=-81/1624, 15-18=-120/2729, 8-18=-863/245, 8-15=-13/365, 10-15=-417/192,
	6-18=-1346/216, 6-19=-41/1063, 5-19=-1345/207, 5-25=-10/826, 3-25=-2265/315

NOTES-

1) 2x4 SPF 1650F 1.5E bearing block 12" long at jt. 12 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 1650F 1.5E.
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=6.0psf; 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 20-1-9, Exterior(2R) 20-1-9 to 23-1-9, Interior(1) 23-1-9 to 40-10-8 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
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 12=170.
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.

December 1,2020

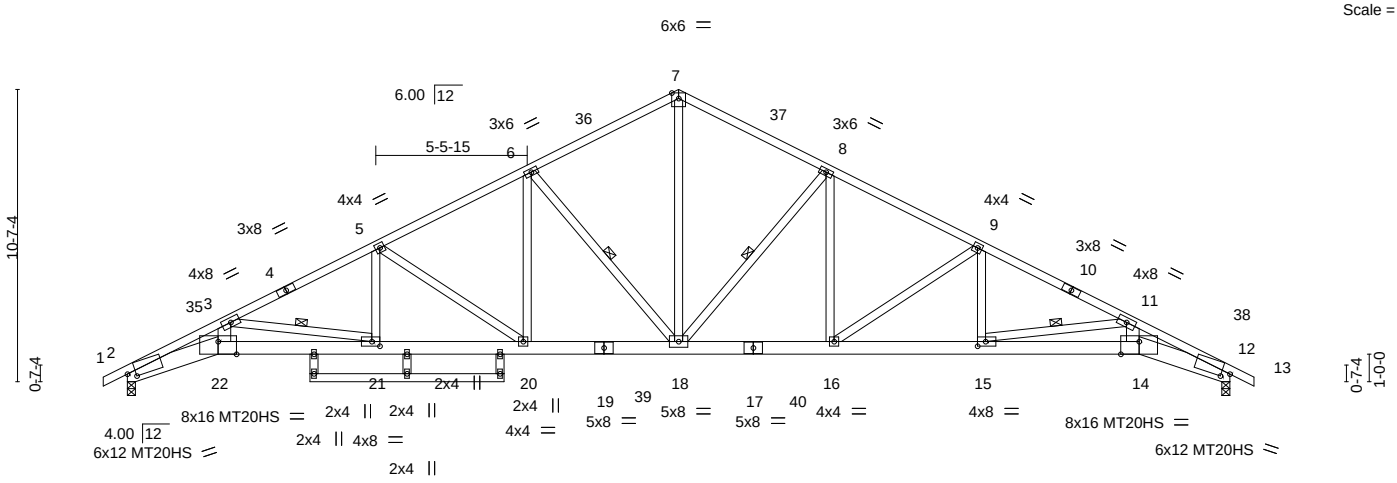
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside	I43817557
2547158	A2	Roof Special	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:48:54 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-YgUAn72whYikLJ96dNdkLZB9TIboYCCrPOD_dPyDJbN

-0-10-8	3-3-8	6-7-8	9-0-3	13-8-0	14-6-1	20-0-0	25-5-15	25-6-13	30-11-14	36-8-8	40-0-0	40-10-8
0-10-8	3-3-8	3-4-0	2-4-11	4-7-13	0-10-1	5-5-15	5-5-15	0-0-14	5-5-1	5-8-10	3-3-8	0-10-8

Scale = 1:83.6



3-3-8	6-7-8	9-0-3	10-1-12	13-8-0	14-6-1	20-0-0	25-5-15	29-0-5	30-11-14	36-8-8	40-0-0
3-3-8	3-4-0	2-4-11	1-1-9	3-6-4	0-10-1	5-5-15	5-5-15	3-6-6	1-11-9	5-8-10	3-3-8

Plate Offsets (X,Y)-- [2:0-3-11,0-2-1], [12:0-3-11,0-2-1], [14:0-8-0,Edge], [15:0-3-8,0-2-0], [21:0-3-8,0-2-0], [22:0-8-0,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	0.91	Vert(LL)	-0.36	18-20	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.77	18-20	>627	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.42	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 225 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-22,12-14: 2x8 SP 2400F 2.0E, 19-22,14-17: 2x6 SPF 2100F 1.8E
	17-19: 2x6 SPF No.2
WEBS	2x4 SPF No.2 *Except*
	3-22,11-14: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-18, 3-21, 8-18, 11-15

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=165(LC 16)
Max Uplift 2=-170(LC 12), 12=-170(LC 13)
Max Grav 2=2351(LC 2), 12=2351(LC 2)

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

TOP CHORD	2-3=-7917/642, 3-5=-4991/353, 5-6=-3803/277, 6-7=-2922/282, 7-8=-2923/281,
	8-9=-3803/274, 9-11=-4992/302, 11-12=-7916/468
BOT CHORD	2-22=-701/7200, 21-22=-666/6673, 20-21=-343/4417, 18-20=-171/3312, 16-18=-45/3312,
	15-16=-131/4418, 14-15=-364/6672, 12-14=-372/7200
WEBS	3-22=-86/1567, 7-18=-119/2107, 11-14=-9/1562, 6-18=-1211/220, 6-20=-45/898,
	5-20=-1335/208, 5-21=-9/811, 3-21=-2298/328, 8-16=-32/898, 8-18=-1211/210,
	9-15=0/811, 9-16=-1335/182, 11-15=-2290/237

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-10-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 2, 12 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) 2=170, 12=170.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A3	HIP	1	1	I43817558
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:48:56 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-U3bxCo4ADAySadIUkofCQ_GYj6F_0Aq8sii4iIyDJbL

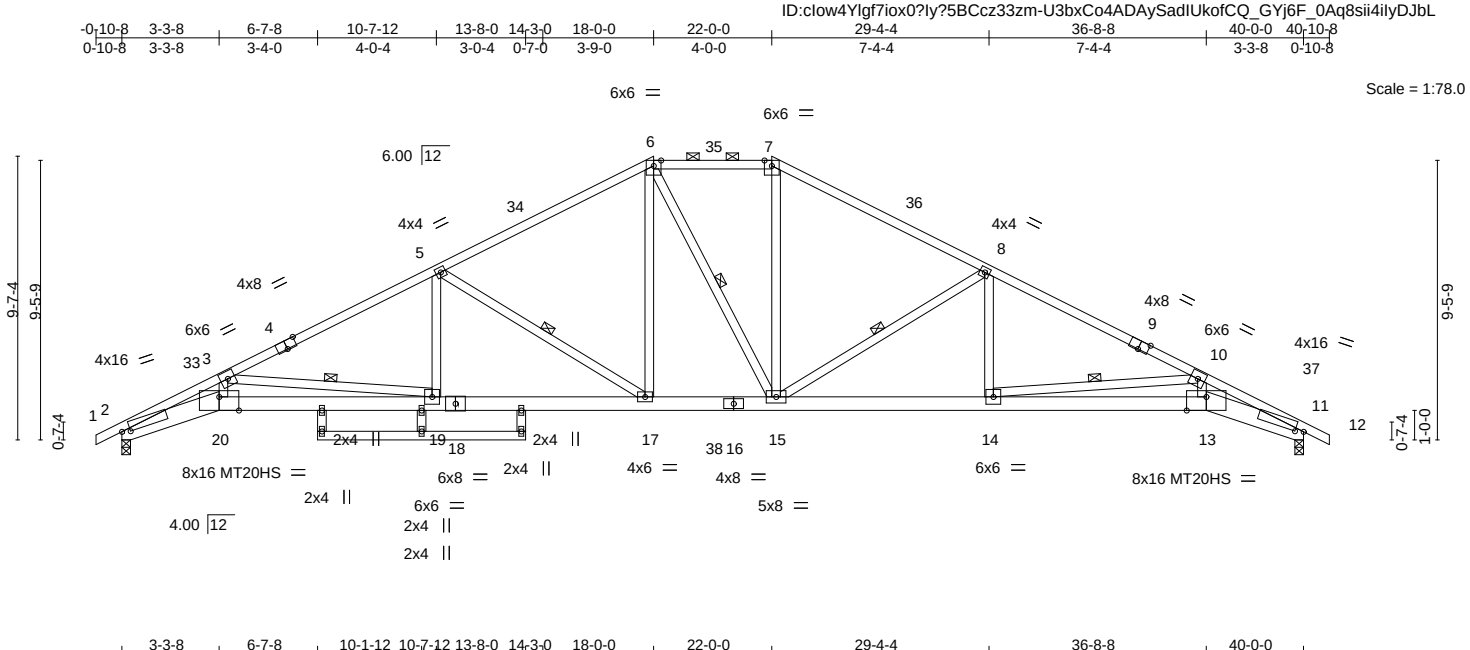


Plate Offsets (X,Y)-- [2:0-3-7,0-0-14], [4:0-4-0,Edge], [9:0-4-0,Edge], [11:0-3-7,0-0-14], [13:0-8-0,Edge], [20:0-8-0,Edge]

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	0.73	Vert(LL)	-0.35	19-20	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.75	19-20	>639	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.45	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 219 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-20,11-13: 2x8 SP 2400F 2.0E, 18-20,13-16: 2x6 SPF 2100F 1.8E
16-18: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-2-15 max.): 6-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-19, 6-15, 8-15, 10-14, 5-17

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=148(LC 12)
Max Uplift 2=-174(LC 12), 11=-174(LC 13)
Max Grav 2=2335(LC 2), 11=2333(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7960/648, 3-5=-4631/331, 5-6=-3273/282, 6-7=-2792/291, 7-8=-3272/280, 8-10=-4628/294, 10-11=-7952/493
BOT CHORD 2-20=-695/7252, 19-20=-676/6834, 17-19=-290/4078, 15-17=-70/2792, 14-15=-136/4076, 13-14=-402/6827, 11-13=-400/7245
WEBS 3-20=-57/1609, 3-19=-2778/390, 6-17=-67/981, 6-15=-242/253, 7-15=-46/977, 8-15=-1496/240, 8-14=0/788, 10-14=-2774/296, 10-13=0/1606, 5-17=-1499/258, 5-19=0/790

NOTES-

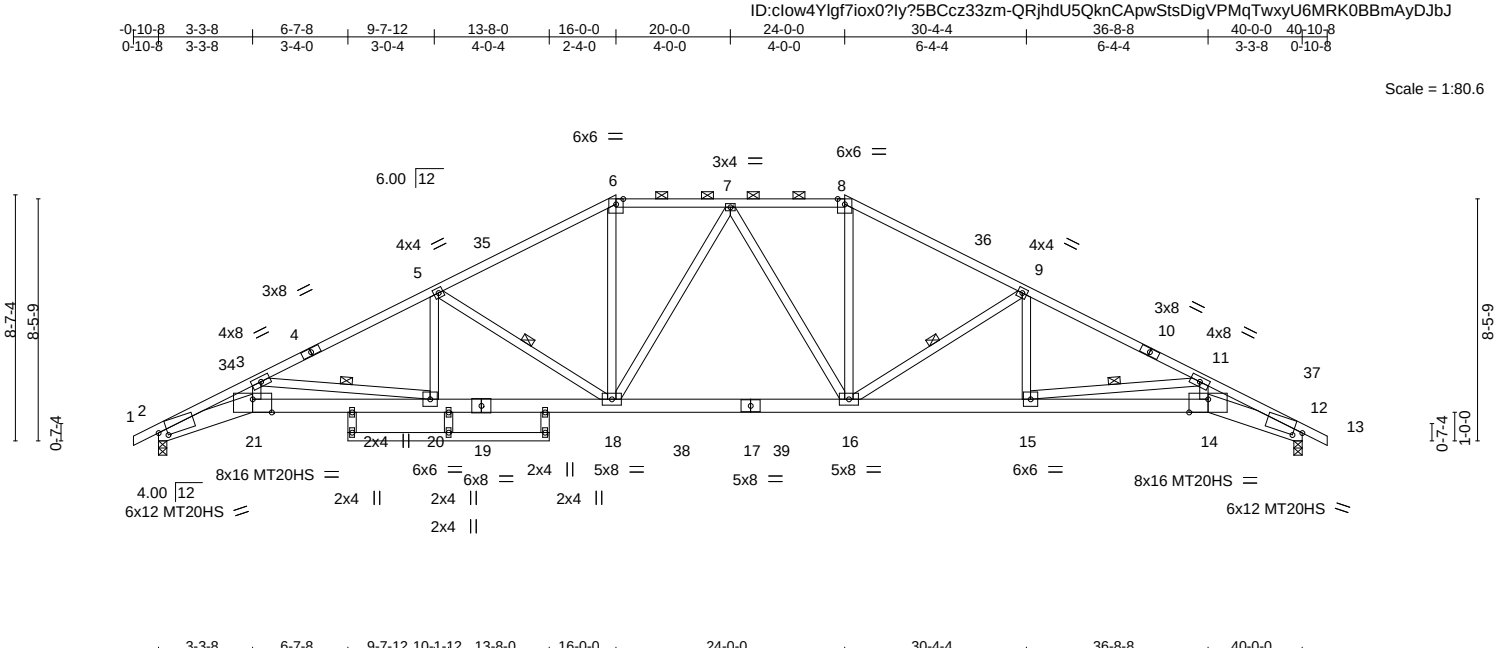
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-2-15, Interior(1) 26-2-15 to 40-10-8 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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=174, 11=174.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A4	Hip	1	1	I43817559
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:48:58 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-QRjhdU5QknCApwStsDigVPMqTwxyU6MRK0BBmAyDJbJ



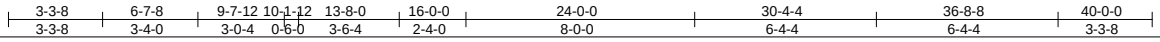


Plate Offsets (X,Y)-- [2:0-3-11,0-2-1], [12:0-3-11,0-2-1], [14:0-8-0,Edge], [21:0-8-0,Edge]

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	0.97	Vert(LL)	-0.40	16-18	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.82	16-18	>584	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.44	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 218 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-21,12-14: 2x8 SP 2400F 2.0E, 19-21,14-17: 2x6 SPF 2100F 1.8E 17-19: 2x6 SPF No.2
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-1-6 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 9-16, 11-15, 5-18, 3-20

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=132(LC 12)
Max Uplift 2=-178(LC 12), 12=-178(LC 13)
Max Grav 2=2344(LC 2), 12=2344(LC 2)

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

TOP CHORD	2-3=-7918/635, 3-5=-4835/356, 5-6=-3615/278, 6-7=-3116/282, 7-8=-3117/282, 8-9=-3616/277, 9-11=-4837/318, 11-12=-7915/498
BOT CHORD	2-21=-662/7204, 20-21=-640/6791, 18-20=-306/4272, 16-18=-78/3219, 15-16=-153/4274, 14-15=-397/6789, 12-14=-401/7201
WEBS	3-21=-63/1572, 6-18=-26/1188, 8-16=-35/1189, 9-16=-1354/221, 9-15=0/761, 11-15=-2543/259, 11-14=-2/1569, 5-18=-1352/238, 5-20=0/760, 3-20=-2547/338, 7-18=-431/125, 7-16=-431/127

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 20-0-0, Interior(1) 20-0-0 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 40-10-8 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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 12=178.
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.

December 1,2020

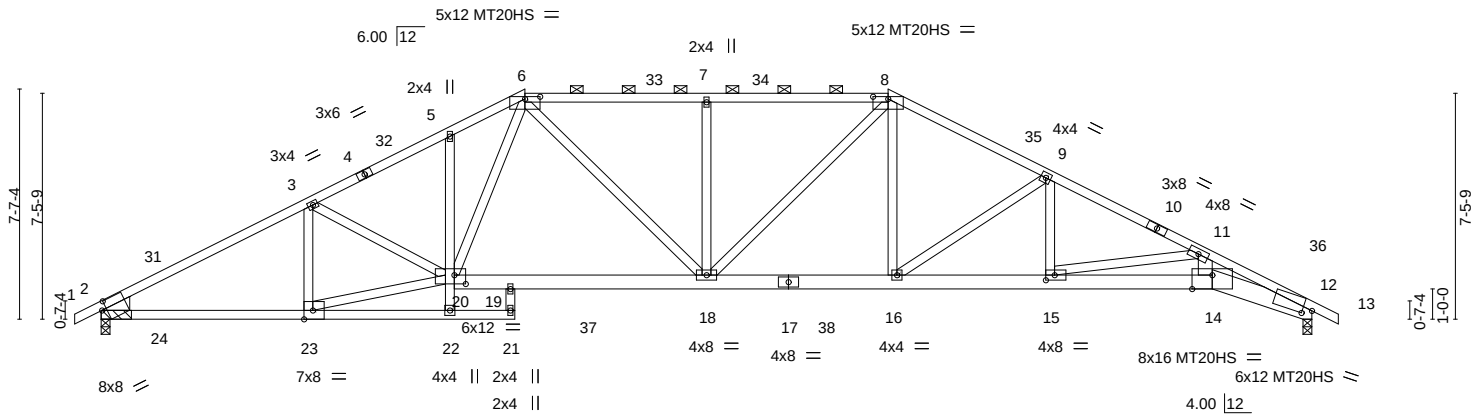
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A5	Hip	1	1	I43817560
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:00 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-MqrS2A7gGOSt3EcFzek8bqRB7jcCyvcjnKgIr3yDJbH

-0-10-8	6-10-3	11-8-0	14-0-0	20-0-0	26-0-0	31-4-4	36-8-8	40-0-0	40-10-8
0-10-8	6-10-3	4-9-13	2-4-0	6-0-0	6-0-0	5-4-4	5-4-4	3-3-8	0-10-8

Scale = 1:76.1



6-10-3	11-8-0	13-8-0	20-0-0	26-0-0	31-4-4	36-8-8	40-0-0
6-10-3	4-9-13	2-0-0	6-4-0	6-0-0	5-4-4	5-4-4	3-3-8

Plate Offsets (X,Y)-- [2:0-1-13,0-3-3], [2:0-4-9,0-2-1], [2:0-0-3,0-0-0], [6:0-6-0,0-0-15], [8:0-6-0,0-0-15], [12:0-3-11,0-2-1], [14:0-8-0,Edge], [15:0-3-8,0-2-0], [20:0-4-8,0-3-8], [23:0-3-8,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	0.90	Vert(LL)	-0.36	18-19	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.74	18-19	>647	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.31	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 205 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
5-22: 2x4 SPF No.2, 17-20: 2x6 SPF No.2, 12-14: 2x8 SP 2400F 2.0E
14-17: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2 *Except*
11-14: 2x6 SPF No.2
WEDGE
Left: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=(0-3-8 + bearing block) (req. 0-3-12), 12=0-3-8
Max Horz 2=116(LC 12)
Max Uplift 2=-181(LC 12), 12=-181(LC 13)
Max Grav 2=2375(LC 2), 12=2362(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4101/296, 3-5=-4384/318, 5-6=-4292/362, 6-7=-3890/302, 7-8=-3890/302, 8-9=-3961/287, 9-11=-5107/338, 11-12=-7929/505
BOT CHORD 2-23=-284/3550, 19-20=-157/3433, 18-19=-157/3433, 16-18=-66/3453, 15-16=-168/4527, 14-15=-390/6680, 12-14=-404/7206
WEBS 3-23=-707/114, 20-23=-234/3459, 3-20=-24/435, 6-20=-107/1135, 6-18=-104/770, 7-18=-657/171, 8-18=-115/752, 8-16=-39/874, 9-16=-1273/182, 9-15=0/809, 11-15=-2191/226, 11-14=-24/1552

NOTES-
1) 2x4 SPF 1650F 1.5E bearing block 12" long at jt. 2 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 1650F 1.5E.
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=6.0psf; 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 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 40-10-8 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

Continued on page 2

STATE OF MISSOURI
JEFF VANCE
NUMBER PE-2018003146
PROFESSIONAL ENGINEER

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=181, 12=181.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A6	Hip	1	1	I43817561
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:01 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-q0PqFW7J1iakhOBSXLFN72_Oz7_YhMrt0_QrNVyDJbG

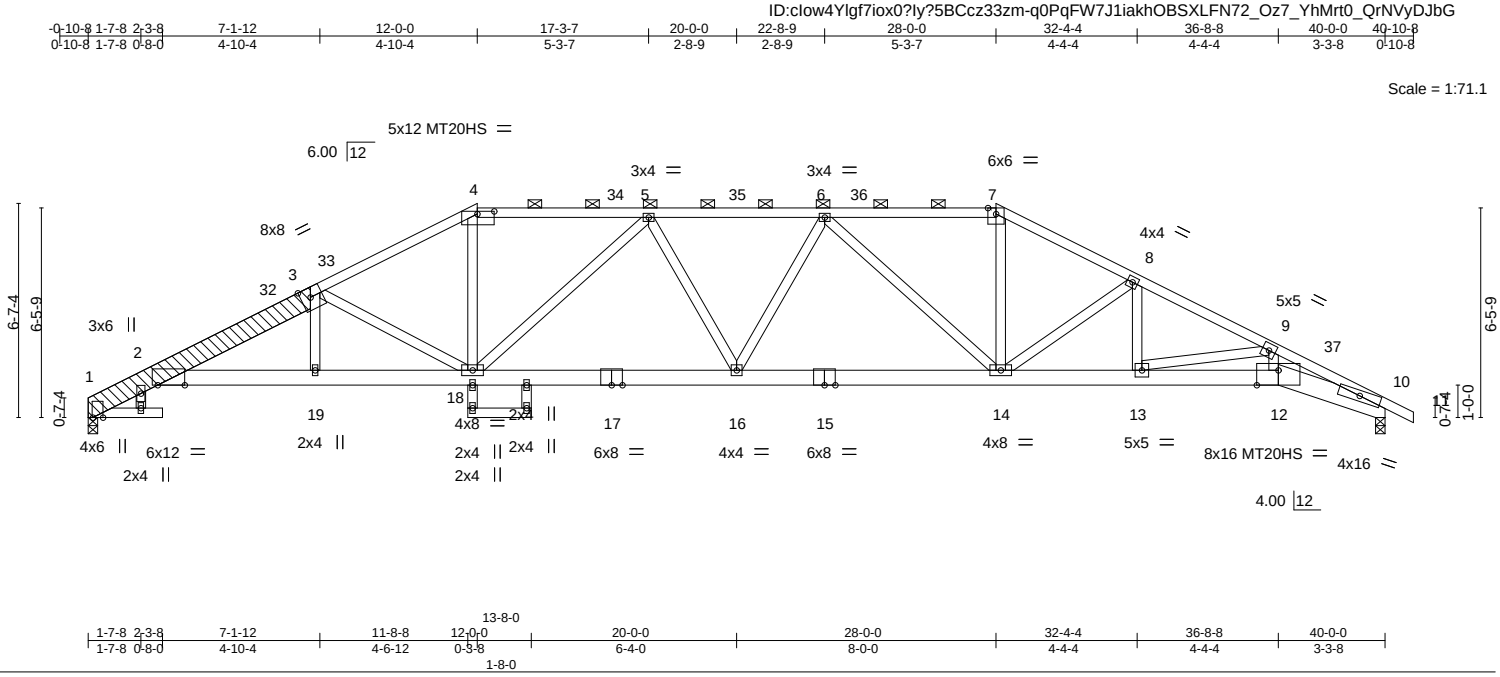


Plate Offsets (X,Y)-- [2:0-10-0,0-0-0], [3:0-3-8,Edge], [4:0-6-4,0-1-0], [12:0-8-0,Edge]

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	0.83	Vert(LL)	-0.33	16	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.74	14-16	>645	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.37	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 232 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-17,12-15: 2x6 SPF 2100F 1.8E, 10-12: 2x8 SP 2400F 2.0E 15-17: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	1-3 2x8 SP 2400F 2.0E one side

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-3-15 max.): 4-7.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-106(LC 17)
Max Uplift 1=-151(LC 12), 10=-183(LC 13)
Max Grav 1=2215(LC 1), 10=2273(LC 1)

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

TOP CHORD	1-2=-981/120, 2-3=-5127/391, 3-4=-4121/311, 4-5=-3573/310, 5-6=-4286/298, 6-7=-3587/296, 7-8=-4114/300, 8-9=-5119/365, 9-10=-7453/508
BOT CHORD	2-19=-365/4746, 18-19=-363/4761, 16-18=-202/4236, 14-16=-176/4243, 13-14=-205/4542, 12-13=-390/6395, 10-12=-405/6754
WEBS	4-18=-21/1350, 7-14=-33/1382, 9-12=-31/1323, 3-19=0/292, 3-18=-1303/208, 9-13=-1898/190, 8-13=-16/726, 8-14=-1133/171, 6-14=-1033/167, 5-18=-1044/170

NOTES-

1) Attached 7-11-3 scab 1 to 3, 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 3-2-15 from end at joint 3, nail 2 row(s) at 2" o.c. for 3-0-5; starting at 0-0-15 from end at joint 3, nail 2 row(s) at 7" o.c. for 2-0-0.
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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-0-11, Interior(1) 3-0-11 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 28-0-0, Exterior(2R) 28-0-0 to 32-4-4, Interior(1) 32-4-4 to 40-10-8 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 1, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=151, 10=183.

December 1,2020

Continued on page 2

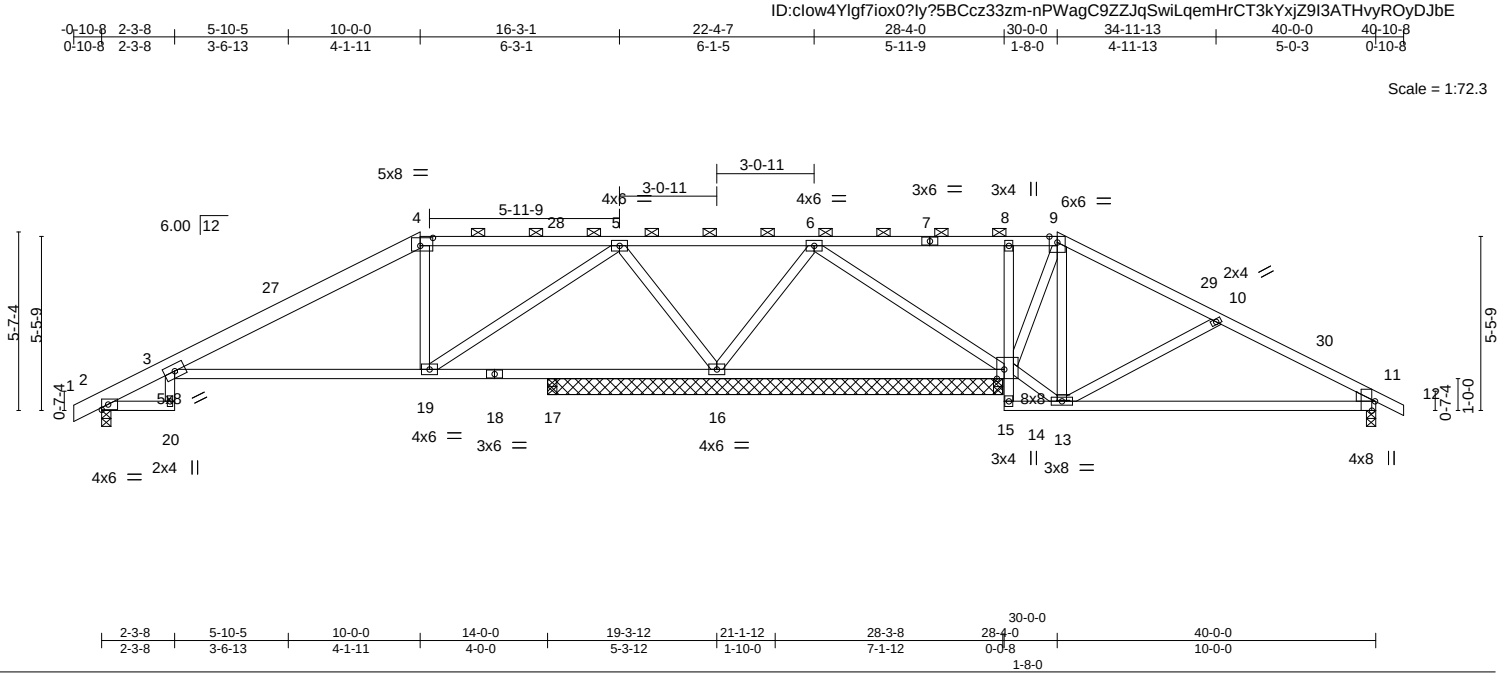
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A7	Hip	1	1	I43817562
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:03 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-nPWagC9ZZJqSwiLqemHrCT3kYxjZ9I3ATHvyROyDJbE



2-3-8	5-10-5	10-0-0	14-0-0	19-3-12	21-1-12	28-3-8	30-0-0 / 28-4-0	40-0-0
2-3-8	3-6-13	4-1-11	4-0-0	5-3-12	1-10-0	7-1-12	0-0-8 / 1-8-0	10-0-0

Plate Offsets (X,Y)-- [4:0-4-12,0-3-0], [11:0-0-1,0-0-3], [11:0-0-3,0-5-0], [11:0-3-8,Edge], [15:0-2-12,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	0.82	Vert(LL)	-0.25	3-19	>668	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.60	3-19	>282	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.22	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 162 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF No.2, 4-7: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

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

REACTIONS. All bearings 0-3-8 except (jt=length) 16=14-3-8, 15=14-3-8, 15=14-3-8.
(lb) - Max Horz 2=88(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11 except 16=-223(LC 9), 15=-179(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 17 except 2=586(LC 25), 11=590(LC 26), 16=3008(LC 25), 15=674(LC 26), 15=375(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-22=-269/98, 3-4=-159/283, 5-6=-276/2500, 6-8=-46/381, 8-9=-43/400, 10-11=-569/129
BOT CHORD 17-19=-1413/275, 16-17=-1413/275, 15-16=-1515/279, 8-15=-407/120, 13-14=-258/0, 11-13=-40/476
WEBS 4-19=-772/173, 5-19=-185/1669, 5-16=-1839/229, 6-16=-1706/178, 6-15=-151/1429, 13-15=-10/345, 9-15=-830/141, 9-13=-61/499, 10-13=-578/170

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 40-10-8 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11 except (jt=lb) 16=223, 15=179.
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.

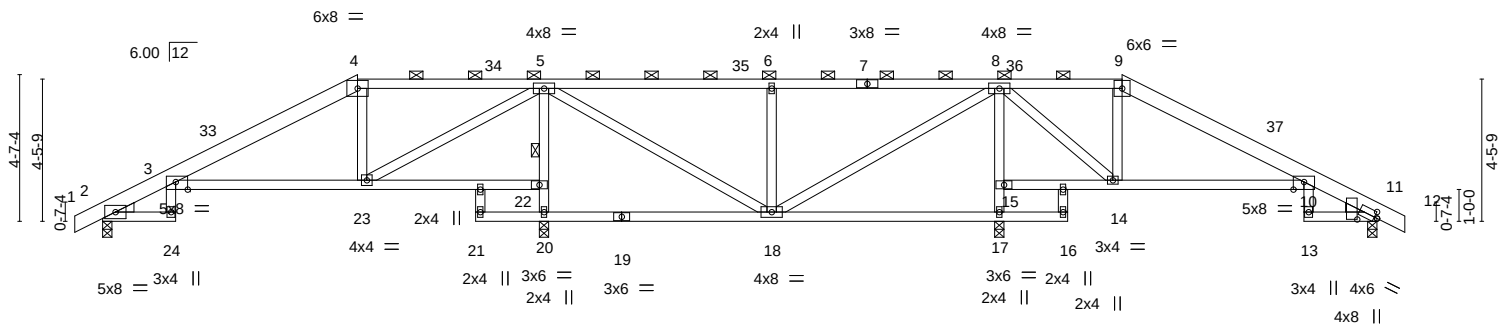
December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A8	Hip	1	1	I43817563
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:04 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-Fb4yuXABKdyJYrw1CTp4lgcuPK0rujtJixeV_qyDJbD

Scale = 1:72.3



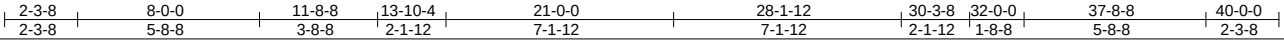


Plate Offsets (X,Y)-- [2:0-2-6,0-1-3], [2:0-9-7,0-2-6], [3:0-4-8,Edge], [10:0-4-0,Edge], [11:0-1-2,0-2-3], [11:0-0-6,0-7-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.18	3-23	>918	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.41	3-23	>406	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.16	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 169 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-7,7-9: 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 (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-20

REACTIONS. All bearings 0-3-8.
(lb) - Max Horz 2=-70(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 11 except 20=-155(LC 12), 17=-134(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 2=720(LC 25), 11=598(LC 26), 20=1754(LC 25), 17=1641(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-28=-415/79, 3-4=-692/97, 4-5=-591/120, 5-6=-444/180, 6-8=-444/180, 9-10=-334/95, 10-11=-319/85
BOT CHORD 3-24=-39/292, 3-23=-38/609, 22-23=-426/68, 18-20=-324/52, 17-18=-311/48, 14-15=-409/63, 10-14=0/268
WEBS 4-23=-387/124, 5-23=-114/1161, 20-22=-1646/218, 5-22=-1614/247, 5-18=-109/886, 6-18=-659/183, 8-18=-106/869, 15-17=-1533/197, 8-15=-1529/215, 8-14=-37/864, 9-14=-390/75

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 32-0-0, Exterior(2R) 32-0-0 to 36-2-15, Interior(1) 36-2-15 to 40-10-8 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11 except (jt=lb) 20=155, 17=134.
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.

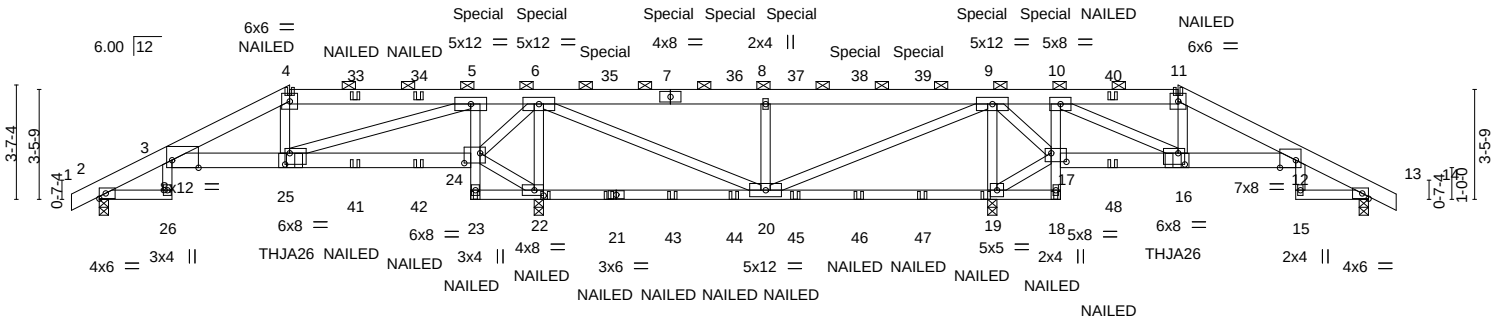
December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	A9	Hip Girder	1	1	I43817564
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:07 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-fAm5WZC3dYKuPJectcMnNJDOKY1N570lOvtAa9yDJbA

Scale = 1:72.6



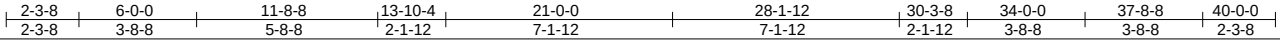


Plate Offsets (X,Y)-- [3:0-10-0,Edge], [12:0-6-0,Edge], [16:0-2-8,0-4-4], [17:0-5-12,0-3-4], [22:0-3-8,0-2-0], [24:0-6-0,0-3-12], [25:0-1-12,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.13	3-25	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.28	3-25	>586	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.19	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 195 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF 2100F 1.8E *Except* 4-7,7-11: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 3-24: 2x6 SPF 2100F 1.8E, 12-17: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-6 oc purlins, except 2-0-0 oc purlins (4-9-13 max.): 4-11.
BOT CHORD Rigid ceiling directly applied or 3-8-8 oc bracing.

REACTIONS. All bearings 0-3-8 except (jt=length) 22=0-6-0 (input: 0-3-8), 19=0-5-11 (input: 0-3-8).
(lb) - Max Horz 2=-53(LC 34)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-193(LC 8), 13=-149(LC 9), 22=-632(LC 8), 19=-588(LC 9)
Max Grav All reactions 250 lb or less at joint(s) except 2=1038(LC 21), 13=736(LC 22), 22=3822(LC 21), 19=3630(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-28=-510/142, 3-4=-2142/460, 4-5=-1953/462, 5-6=-219/1418, 6-8=-83/263, 8-9=-83/263, 9-10=-188/1499, 10-11=-1040/306, 11-12=-1138/296, 12-13=-334/104
BOT CHORD 3-25=-391/1946, 24-25=-1276/255, 5-24=-1638/391, 20-22=-2034/411, 19-20=-1904/373, 10-17=-1466/312, 16-17=-1421/288, 12-16=-202/1020
WEBS 4-25=-164/255, 5-25=-685/3389, 22-24=-2214/485, 6-24=-185/862, 6-22=-2284/526, 6-20=-319/2113, 8-20=-1151/393, 9-20=-275/1955, 9-19=-2157/497, 17-19=-2100/438, 9-17=-125/567, 10-16=-529/2737

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) WARNING: Required bearing size at joint(s) 22, 19 greater than input bearing size.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 2, 149 lb uplift at joint 13, 632 lb uplift at joint 22 and 588 lb uplift at joint 19.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 6-0-6 from the left end to connect truss(es) to front face of bottom chord.
11) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Right Hand Hip) or equivalent at 33-11-10 from the left end to connect truss(es) to front face of bottom chord.

Continued on page 2

STATE OF MISSOURI
JEFF VANCE
NUMBER PE-2018003146
PROFESSIONAL ENGINEER
December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

12) Fill all nail holes where hanger is in contact with lumber.
13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 143 lb down and 107 lb up at 12-0-12, 143 lb down and 107 lb up at 14-0-12, 143 lb down and 107 lb up at 16-0-12, 143 lb down and 107 lb up at 18-0-12, 143 lb down and 99 lb up at 20-0-0, 143 lb down and 107 lb up at 21-11-4, 143 lb down and 107 lb up at 23-11-4, 143 lb down and 107 lb up at 25-11-4, and 143 lb down and 107 lb up at 27-11-4, and 143 lb down and 107 lb up at 29-11-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
15) 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

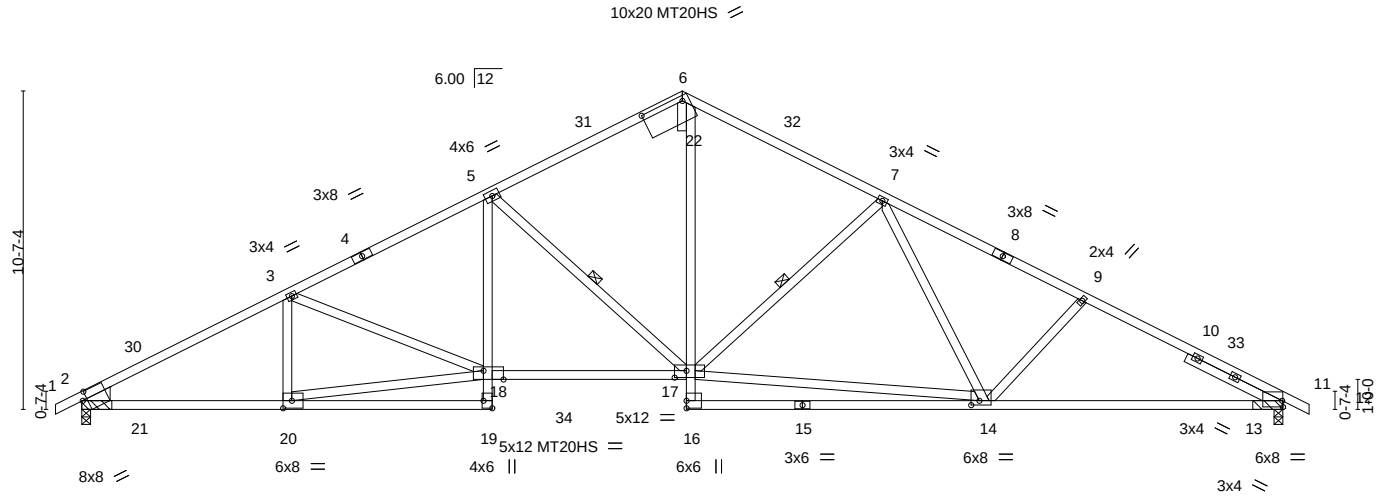
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-4=-90, 4-11=-90, 11-12=-90, 12-14=-90, 26-27=-20, 3-24=-20, 18-23=-20, 12-17=-20, 15-30=-20
   Concentrated Loads (lb)
   Vert: 4=-123(F) 7=-143(F) 5=-143(F) 21=-67(F) 18=-67(F) 10=-143(F) 25=-798(F) 22=-67(F) 24=-67(F) 6=-143(F) 19=-67(F) 9=-143(F) 16=-798(F) 11=-123(F) 33=-123(F) 34=-123(F) 35=-143(F) 36=-143(F) 37=-143(F) 38=-143(F) 39=-143(F) 40=-123(F) 41=-89(F) 42=-89(F) 43=-67(F) 44=-67(F) 45=-67(F) 46=-67(F) 47=-67(F) 48=-89(F)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B1	Roof Special	3	1	I43817565
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:09 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-bZurxFEK99bcedo_?1OGSkJmELhXZ1j2rDMGf2yDJb8

-0-10-8	6-10-3	13-8-0	20-0-0	26-7-14	33-3-13	40-0-0	40-10-8
0-10-8	6-10-3	6-9-13	6-4-0	6-7-14	6-7-14	6-8-3	0-10-8

Scale = 1:76.7



6-10-3	13-8-0	20-1-10	30-0-10	40-0-0
6-10-3	6-9-13	6-5-10	9-11-0	9-11-6

Plate Offsets (X,Y)-- [2:0-1-13,0-3-3], [2:0-4-9,0-2-1], [2:0-0-3,0-0-0], [6:1-5-4,0-2-0], [11:Edge,0-2-8], [14:0-3-5,0-1-12], [17:0-4-12,0-2-12], [18:0-8-0,Edge], [19:Edge,0-3-8], [20:0-3-8,0-3-0]

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)	-0.35	14-16	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.78	14-16	>615	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 191 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 1-4,8-12: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E *Except* 5-19,6-16,15-16: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2
SLIDER Right 2x4 SPF No.2 3-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 7-17

REACTIONS. (size) 2=(0-3-8 + bearing block) (req. 0-3-11), 11=(0-3-8 + bearing block) (req. 0-3-11)
Max Horz 2=-167(LC 17)
Max Uplift 2=-170(LC 12), 11=-170(LC 13)
Max Grav 2=2333(LC 2), 11=2335(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4045/274, 3-5=-3913/286, 5-6=-2833/277, 6-7=-2885/279, 7-9=-3652/271, 9-11=-3864/287
BOT CHORD 2-20=-318/3503, 5-18=-12/841, 17-18=-207/3422, 6-17=-102/2015, 11-14=-162/3393
WEBS 3-20=-427/124, 18-20=-302/3335, 5-17=-1330/239, 14-17=-108/2820, 7-17=-866/245, 7-14=-15/380, 9-14=-417/192

NOTES-
1) 2x4 SPF 1650F 1.5E bearing block 12" long at jt. 2 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 1650F 1.5E.
2) 2x4 SPF 1650F 1.5E bearing block 12" long at jt. 11 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 1650F 1.5E.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 20-1-9, Exterior(2R) 20-1-9 to 23-1-9, Interior(1) 23-1-9 to 40-10-8 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 170 lb uplift at joint 2 and 170 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

STATE OF MISSOURI
JEFF VANCE
NUMBER PE-2018003146
PROFESSIONAL ENGINEER

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

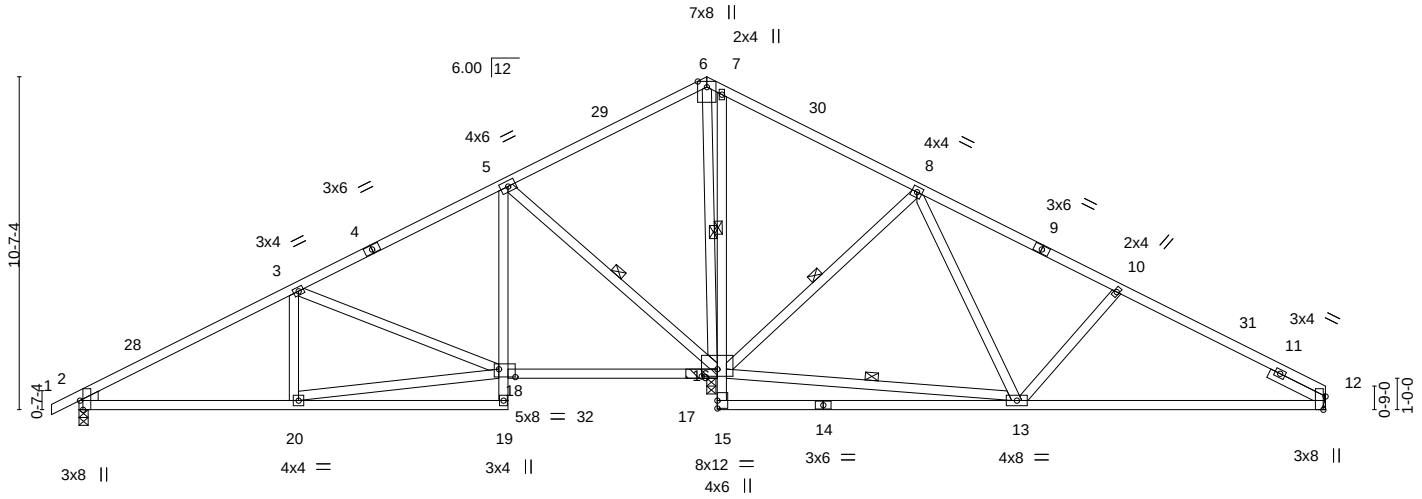
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B2	Roof Special	1	1	I43817566
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:11 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-Yx?cMxFagmrJtwyN6RRkX9O8S9Pi1zHLJXrNjwyDJb6

-0-10-8	6-10-3	13-8-0	20-0-0	20-4-0	26-8-5	33-0-11	39-8-8
0-10-8	6-10-3	6-9-13	6-4-0	0-4-0	6-4-5	6-4-5	6-7-13

Scale = 1:73.4



6-10-3	13-8-0	20-3-8	20-4-0	29-10-8	39-8-8
6-10-3	6-9-13	6-7-8	0-0-8	9-6-8	9-10-0

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

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	0.63	Vert(LL)	-0.14	13-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.29	13-15	>800	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.03	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 193 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 7-16
WEBS 1 Row at midpt 5-16, 6-16, 13-16, 8-16

REACTIONS. (size) 2=0-3-8, 16=(0-3-8 + bearing block) (req. 0-4-8), 12=Mechanical
Max Horz 2=175(LC 12)
Max Uplift 2=-96(LC 12), 16=-153(LC 12), 12=-102(LC 13)
Max Grav 2=992(LC 27), 16=2858(LC 2), 12=829(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1329/122, 3-5=-599/101, 5-6=0/763, 6-7=0/654, 7-8=0/806, 8-10=-731/176, 10-12=-1006/188
BOT CHORD 2-20=-192/1102, 5-18=-4/696, 16-18=-49/434, 7-16=-534/135, 12-13=-90/892
WEBS 18-20=-184/1071, 3-18=-761/155, 5-16=-1202/229, 6-16=-721/79, 8-16=-994/235, 8-13=-36/814, 10-13=-557/196

NOTES-
1) 2x4 SPF No.2 bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 39-8-8 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
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 2, 153 lb uplift at joint 16 and 102 lb uplift at joint 12.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B3	Hip	1	1	I43817567
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:13 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-UK7MncHqCO517E6lEsTCcaTUcz3HVqxemrKUopyDJb4

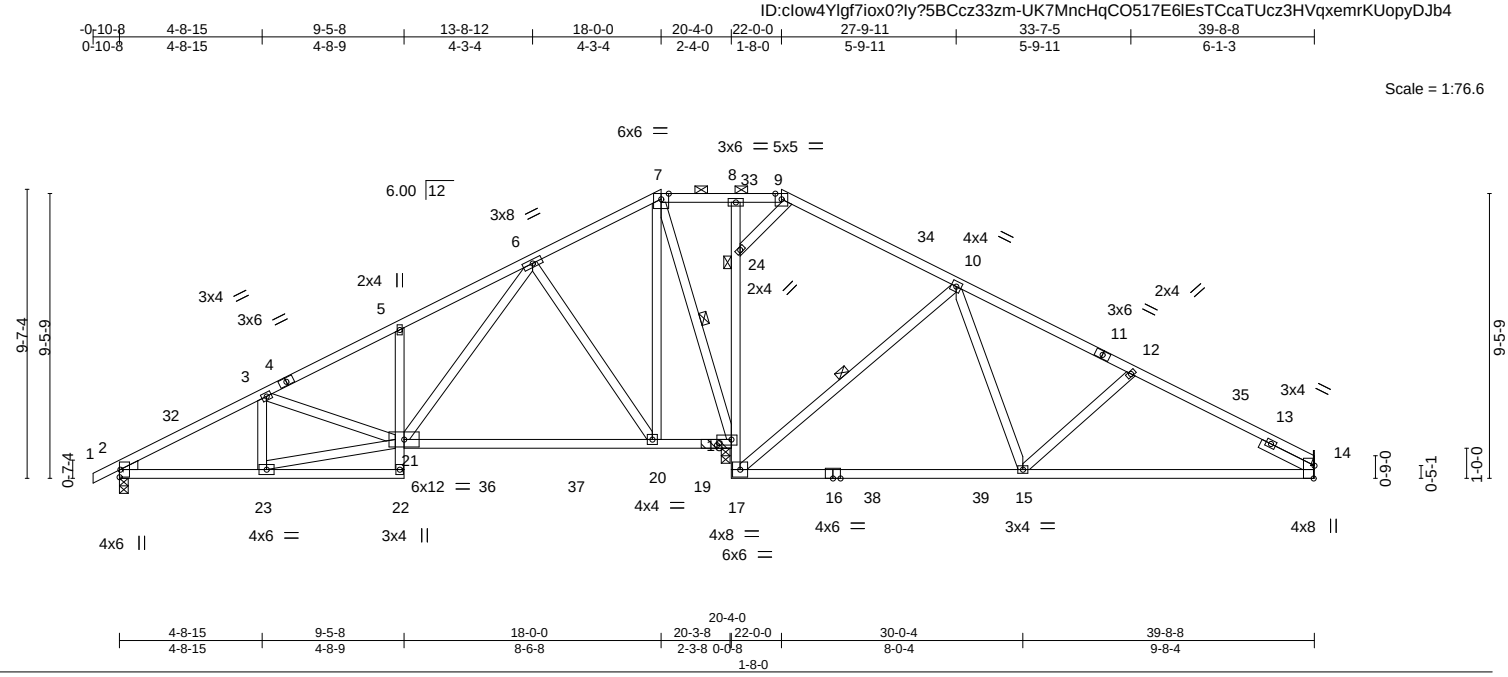


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [14:0-5-1,Edge], [18:0-5-12,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.30	15-17	>767	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.49	15-17	>468	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.04	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 191 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 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (10-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-18, 10-17
JOINTS 1 Brace at Jt(s): 24

REACTIONS. (size) 2=0-3-8, 18=(0-3-8 + bearing block) (req. 0-3-15), 14=Mechanical
Max Horz 2=157(LC 12)
Max Uplift 2=-104(LC 12), 18=-144(LC 12), 14=-136(LC 13)
Max Grav 2=1142(LC 27), 18=2523(LC 2), 14=1023(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1715/145, 3-5=-1578/161, 5-6=-1597/244, 6-7=-255/160, 7-8=-16/318, 8-9=0/463, 9-10=-36/332, 10-12=-1132/230, 12-14=-1379/259
BOT CHORD 2-23=-218/1469, 5-21=-408/146, 20-21=-44/656, 17-18=-81/851, 18-24=-658/75, 8-24=-339/52, 15-17=-31/692, 14-15=-157/1225
WEBS 21-23=-185/1526, 6-21=-168/1212, 6-20=-904/221, 7-20=-75/1011, 7-18=-1166/126, 10-17=-1045/205, 10-15=0/726, 12-15=-473/173, 9-24=-407/49

NOTES-
1) 2x4 SPF No.2 bearing block 12" long at jt. 18 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-2-15, Interior(1) 26-2-15 to 39-8-8 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2, 144 lb uplift at joint 18 and 136 lb uplift at joint 14.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

December 1,2020

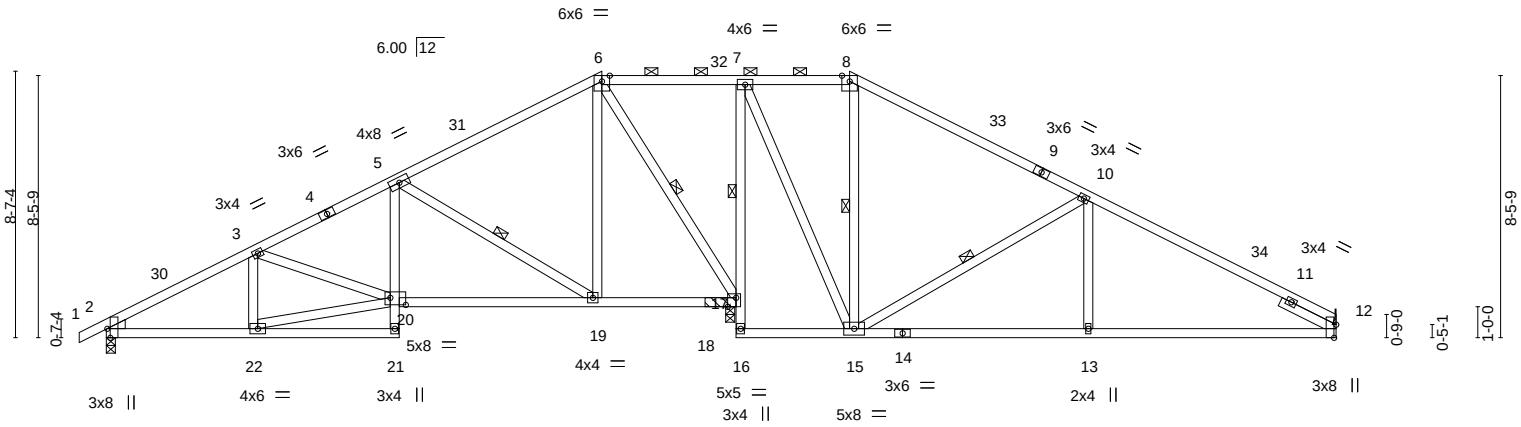
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B4	Hip	1	1	I43817568
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:14 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-yWhk_yISzhDukOgyoa_R9n0drMVGEOSn?V31KFyDJb3

-0-10-8 4-8-15 9-5-8 16-0-0 20-4-0 24-0-0 31-8-8 39-8-8
0-10-8 4-8-15 4-8-9 6-6-8 4-4-0 3-8-0 7-8-8 8-0-0

Scale = 1:74.4



4-8-15 9-5-8 16-0-0 20-3-8 20-4-0 24-0-0 31-8-8 39-8-8
4-8-15 4-8-9 6-6-8 4-3-8 0-0-8 3-8-0 7-8-8 8-0-0

Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [12:0-5-1,Edge], [17:0-3-4,Edge], [20:0-6-0,0-2-12]

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	0.75	Vert(LL)	-0.06	13-28	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.16	13-28	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.04	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 186 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 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 7-17
WEBS 1 Row at midpt 5-19, 6-17, 8-15, 10-15

REACTIONS. (size) 2=0-3-8, 17=(0-3-8 + bearing block) (req. 0-3-12), 12=Mechanical
Max Horz 2=142(LC 12)
Max Uplift 2=-136(LC 12), 17=-82(LC 12), 12=-165(LC 13)
Max Grav 2=1103(LC 25), 17=2409(LC 1), 12=979(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1627/205, 3-5=-1480/248, 5-6=-543/193, 6-7=0/359, 7-8=-271/281, 8-10=-466/263, 10-12=-1284/295
BOT CHORD 2-22=-253/1372, 5-20=-2/474, 19-20=-224/1299, 17-19=-28/347, 7-17=-1358/119, 15-16=-271/40, 13-15=-172/1115, 12-13=-172/1115
WEBS 20-22=-224/1305, 5-19=-1096/228, 6-19=-37/664, 6-17=-1172/130, 8-15=-392/41, 10-15=-995/204, 10-13=0/328, 7-15=-69/1143

NOTES-
1) 2x4 SPF No.2 bearing block 12" long at jt. 17 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 20-5-12, Interior(1) 20-5-12 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 39-8-8 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 2, 82 lb uplift at joint 17 and 165 lb uplift at joint 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

December 1,2020

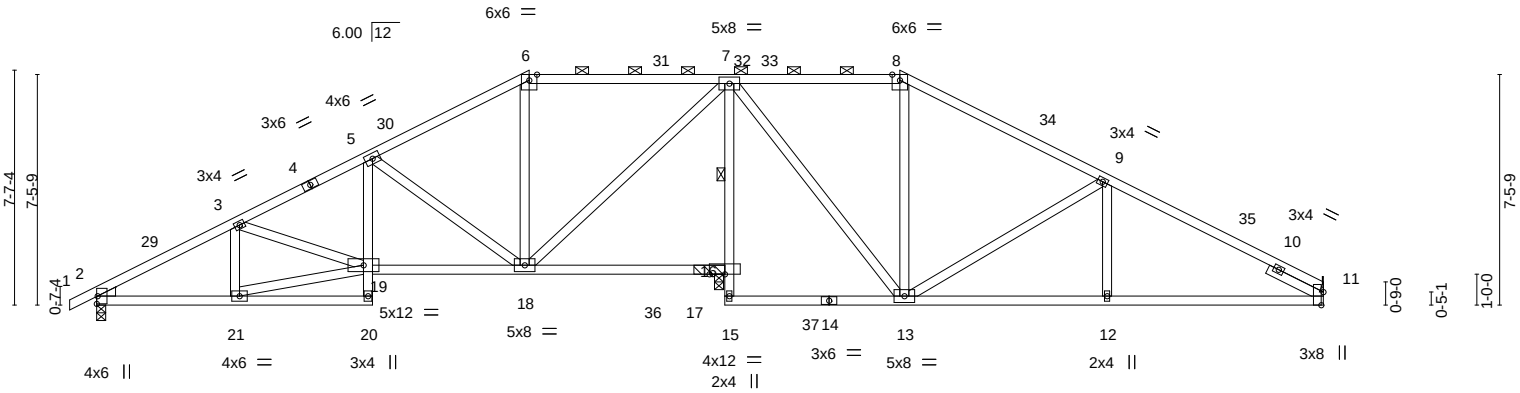
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B5	Hip	1	1	I43817569
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:16 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-uvpVPeJjVJTc_hqKv?0vEC5_wAAwiAD4SpY8P8yDJb1

-0-10-8	4-5-12	8-11-2	14-0-0	20-4-0	26-0-0	32-8-8	39-8-8
0-10-8	4-5-12	4-5-7	5-0-14	6-4-0	5-8-0	6-8-8	7-0-0

Scale = 1:74.6



4-5-12	8-11-2	14-0-0	20-3-8	20-4-0	26-0-0	32-8-8	39-8-8
4-5-12	4-5-7	5-0-14	6-3-8	0-0-8	5-8-0	6-8-8	7-0-0

Plate Offsets (X,Y)-- [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [11:0-5-1,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	0.65	Vert(LL)	-0.06	18-19	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.13	18-19	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.03	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 179 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 2-0-0

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

REACTIONS. (size) 11=Mechanical, 2=0-3-8, 16=(0-3-8 + bearing block) (req. 0-3-15)
Max Horz 2=126(LC 12)
Max Uplift 11=-154(LC 13), 2=-142(LC 12), 16=-79(LC 12)
Max Grav 11=1002(LC 28), 2=1135(LC 27), 16=2497(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1704/218, 3-5=-1623/270, 5-6=-849/203, 6-7=-689/217, 7-8=-495/265, 8-9=-686/250, 9-11=-1352/275
BOT CHORD 2-21=-252/1454, 5-19=-22/505, 18-19=-227/1413, 7-16=-2248/150, 12-13=-164/1190, 11-12=-164/1190
WEBS 3-21=-280/111, 19-21=-244/1376, 5-18=-909/189, 7-18=-127/1240, 7-13=-66/1108, 8-13=-276/48, 9-13=-823/173, 9-12=0/268

NOTES-
1) 2x4 SPF No.2 bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 39-8-8 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 11, 142 lb uplift at joint 2 and 79 lb uplift at joint 16.
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.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

December 1,2020

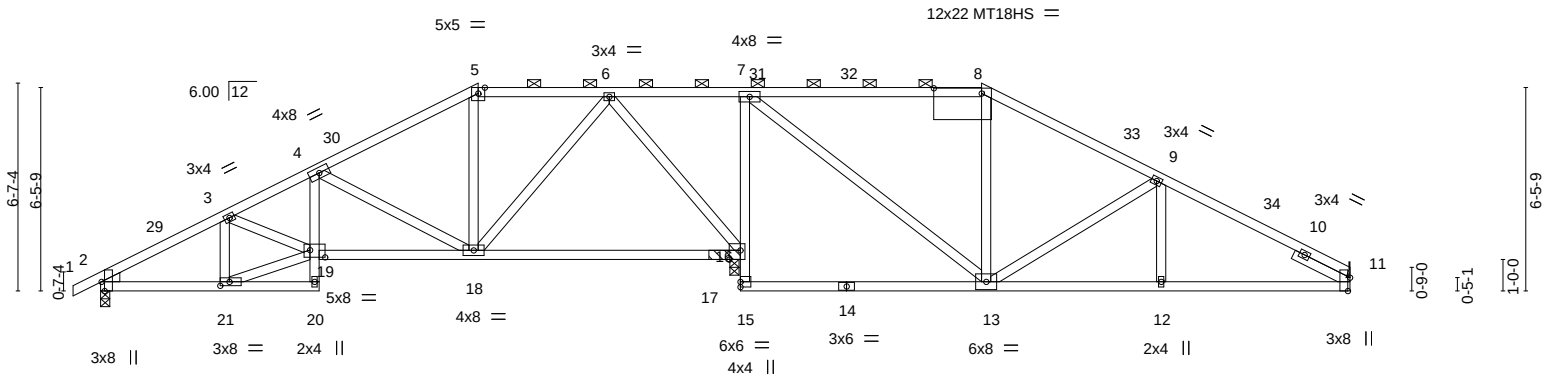
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B6	Hip	1	1	I43817570
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:17 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-M5Mtc_KLGcbTbrPXTiX8nQe63aSMRc0EhTIhxayDJb0

-0-10-8	3-11-6	6-11-6	12-0-0	16-2-0	20-4-0	28-0-0	33-8-8	39-8-8
0-10-8	3-11-6	3-0-0	5-0-10	4-2-0	4-2-0	7-8-0	5-8-8	6-0-0

Scale = 1:73.2



3-11-6	6-11-6	12-0-0	20-3-8	20-4-0	28-0-0	33-8-8	39-8-8
3-11-6	3-0-0	5-0-10	8-3-8	0-0-8	7-8-0	5-8-8	6-0-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [8:1-6-4,0-2-0], [11:0-5-1,Edge], [16:0-4-4,Edge], [19:0-5-12,0-2-12], [21:0-3-8,0-1-8]

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	0.88	Vert(LL)	-0.13	13-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.25	13-15	>926	180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.05	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 173 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 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 (5-3-13 max.): 5-8.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 11=Mechanical, 2=0-3-8, 16=(0-3-8 + bearing block) (req. 0-3-14)
Max Horz 2=110(LC 12)
Max Uplift 11=-140(LC 13), 2=-138(LC 12), 16=-118(LC 9)
Max Grav 11=993(LC 28), 2=1126(LC 27), 16=2484(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1674/209, 3-4=-1959/300, 4-5=-1143/201, 5-6=-945/212, 6-7=0/364, 7-8=-723/246, 8-9=-888/230, 9-11=-1363/249
BOT CHORD 2-21=-232/1427, 4-19=-37/492, 18-19=-278/1776, 16-18=-68/454, 7-16=-1348/190, 13-15=-274/38, 12-13=-151/1206, 11-12=-151/1206
WEBS 4-18=-942/211, 6-18=-37/778, 6-16=-1164/171, 7-13=-80/1212, 8-13=-259/93, 9-13=-597/141, 3-21=-471/120, 19-21=-224/1384, 3-19=-34/330

NOTES-
1) 2x4 SPF No.2 bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 12-0-0, Exterior(2R) 12-0-0 to 16-2-0, Interior(1) 16-2-0 to 28-0-0, Exterior(2R) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 39-8-8 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 140 lb uplift at joint 11, 138 lb uplift at joint 2 and 118 lb uplift at joint 16.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 1,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

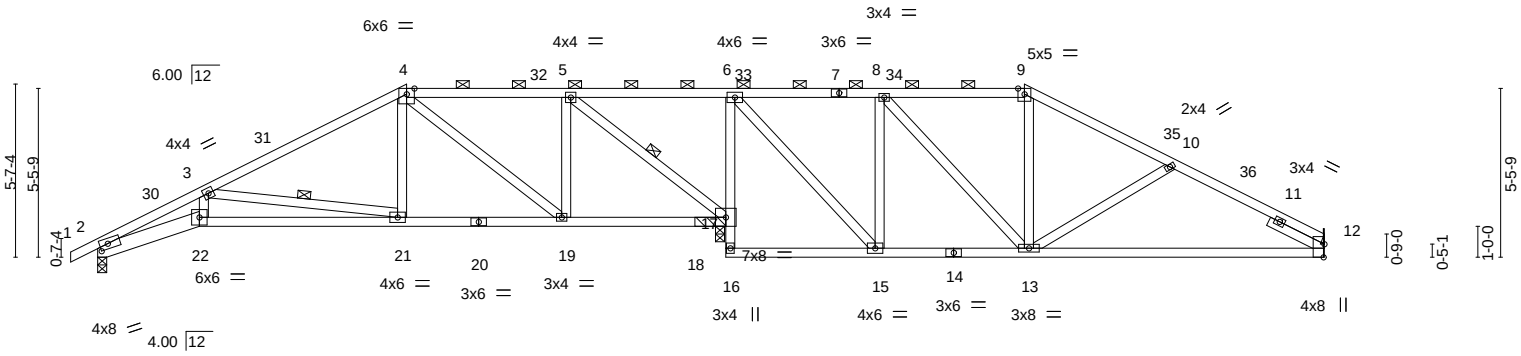
13) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B7	Hip	1	1	I43817571
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:19 2020 Page 1
ID:clow4Ylgf7iox0?Iy?5BCcz33zm-JUUd1gLboErBr9Zva7acsrjUzN6?vdEW9nno0TyDJb_

-0-10-8	3-3-8	10-0-0	15-2-0	20-4-0	25-3-12	30-0-0	34-8-8	39-8-8
0-10-8	3-3-8	6-8-8	5-2-0	5-2-0	4-11-12	4-8-4	4-8-8	5-0-0

Scale = 1:74.6



3-3-8	10-0-0	15-2-0	20-3-8	20-4-0	25-3-12	30-0-0	39-8-8
3-3-8	6-8-8	5-2-0	5-1-8	0-0-8	4-11-12	4-8-4	9-8-8

Plate Offsets (X,Y)-- [2:0-3-3,0-2-0], [12:0-5-1,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	0.73	Vert(LL)	-0.14	13-25	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.33	21-22	>752	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.13	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 170 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-22: 2x6 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 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-21, 5-17

REACTIONS. (size) 12=Mechanical, 2=0-3-8, 17=(0-3-8 + bearing block) (req. 0-3-13)
Max Horz 2=94(LC 12)
Max Uplift 12=-133(LC 13), 2=-129(LC 12), 17=-169(LC 9)
Max Grav 12=952(LC 26), 2=1088(LC 25), 17=2442(LC 1)

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

TOP CHORD	2-3=-3263/446, 3-4=-1428/197, 4-5=-677/158, 5-6=0/526, 6-8=-485/218, 8-9=-831/224, 9-10=-1017/214, 10-12=-1318/264
BOT CHORD	2-22=-458/2942, 21-22=-443/2768, 19-21=-120/1158, 17-19=-58/674, 6-17=-1417/174, 15-16=-465/71, 13-15=-45/485, 12-13=-170/1179
WEBS	3-22=-28/712, 3-21=-1616/328, 4-21=0/464, 4-19=-637/79, 5-19=0/463, 5-17=-1493/173, 6-15=-112/1277, 8-15=-811/125, 8-13=-14/542, 10-13=-418/141

NOTES-

1) 2x4 SPF No.2 bearing block 12" long at jt. 17 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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=6.0psf; 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 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 39-8-8 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 12, 129 lb uplift at joint 2 and 169 lb uplift at joint 17.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

December 1,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

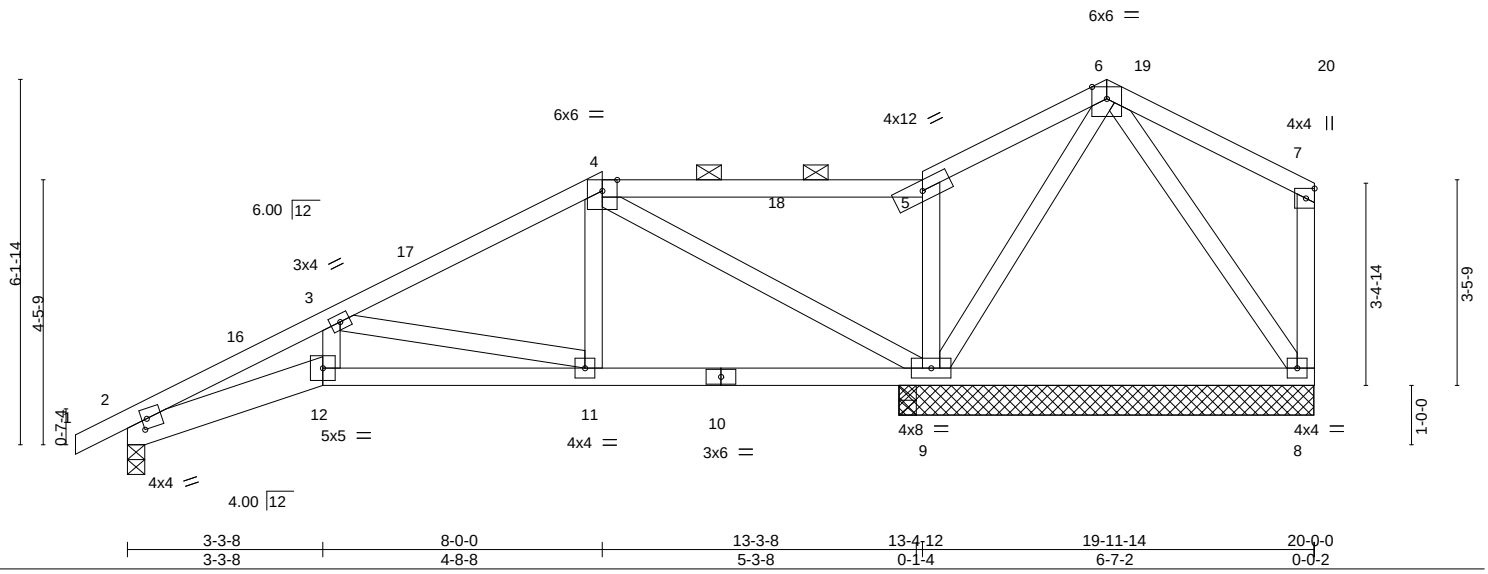
13) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B8	Roof Special	1	1	I43817572
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:20 2020 Page 1
ID:clow4Ylgf7iox0?Iy?5BCcz33zm-ng20F0MDZXz2SJ858q5rO2GjGnZFe_ygNRWMXvyDJaz

0-10-8	3-3-8	8-0-0	13-4-12	16-6-0	20-0-0
0-10-8	3-3-8	4-8-8	5-4-12	3-1-4	3-6-0

Scale = 1:38.8



3-3-8	8-0-0	13-3-8	13-4-12	19-11-14	20-0-0
3-3-8	4-8-8	5-3-8	0-1-4	6-7-2	0-0-2

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

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	0.50	Vert(LL)	-0.05	11-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 87 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-12: 2x6 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 (10-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. All bearings 6-11-14 except (jt=length) 2=0-3-8.
(lb) - Max Horz 2=161(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 7, 2 except 9=-203(LC 12), 8=-199(LC 25)
Max Grav All reactions 250 lb or less at joint(s) 7, 8 except 2=664(LC 1), 9=1598(LC 1), 9=1598(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1583/233, 3-4=-557/84, 4-5=-154/601, 5-6=-145/728
BOT CHORD 2-12=-397/1407, 11-12=-372/1307, 9-11=-124/416
WEBS 3-12=-54/383, 3-11=-899/255, 4-11=-0/360, 4-9=-1171/250, 6-9=-909/206, 6-8=-67/308

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 16-6-0, Exterior(2R) 16-6-0 to 19-6-0, Interior(1) 19-6-0 to 19-10-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 7, 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) 7, 2 except (jt=lb) 9=203, 8=199.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	B9	Half Hip Girder	1	1	I43817573
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:21 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-FtcOSLNrKr5v4TjIiYc4xGpsKBp0NXWpc5Gv3LyDJay

-0-10-8 3-3-8 6-0-0 9-8-8 13-0-0
0-10-8 3-3-8 2-8-8 3-8-8 3-3-8

Scale = 1:25.2

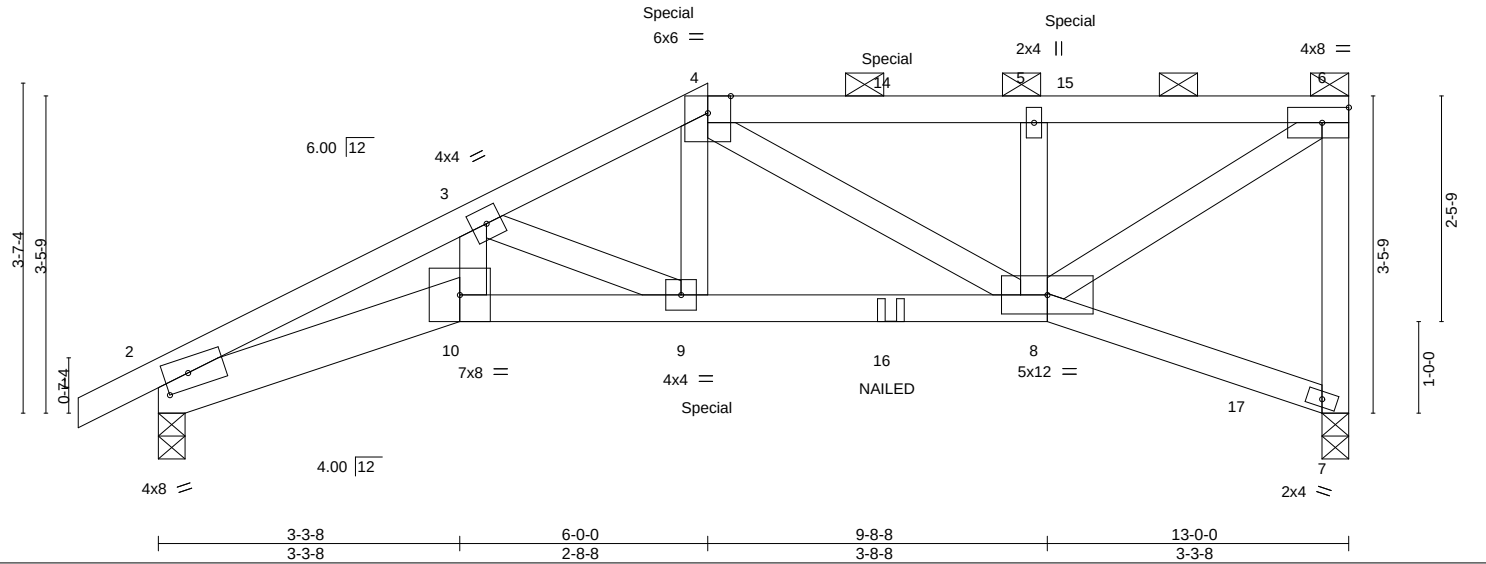


Plate Offsets (X,Y)-- [2:0-3-3,0-2-0]

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	0.61	Vert(LL)	-0.08	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.19	9-10	>829	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 54 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-10: 2x6 SPF 2100F 1.8E, 8-10: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=123(LC 7)
Max Uplift 2=-194(LC 8), 7=-214(LC 5)
Max Grav 2=1313(LC 1), 7=1363(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3854/615, 3-4=-2773/462, 4-5=-1776/307, 5-6=-1724/292, 6-7=-1307/249
BOT CHORD 2-10=-608/3443, 9-10=-572/3247, 8-9=-460/2434
WEBS 3-10=-106/755, 3-9=-812/171, 4-9=-129/996, 4-8=-773/154, 5-8=-707/205, 6-8=-383/2075

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 2, 7 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) 2=194, 7=214.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 228 lb down and 115 lb up at 6-0-0, and 204 lb down and 115 lb up at 8-0-0, and 202 lb down and 116 lb up at 10-0-0 on top chord, and 527 lb down and 113 lb up at 6-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

December 1,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

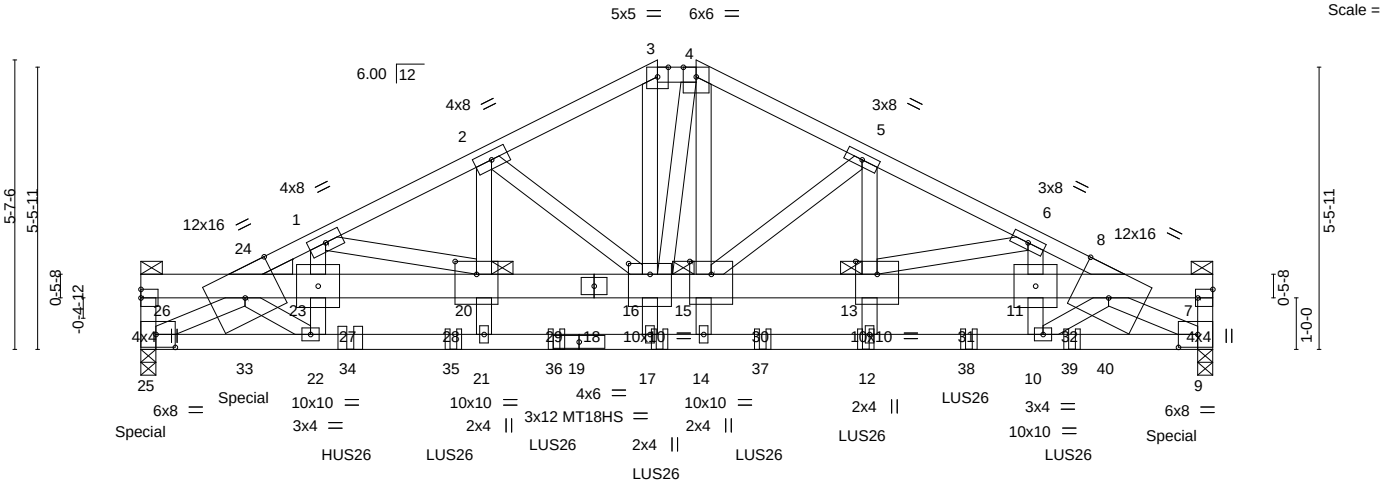
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-6=-90, 10-11=-20, 8-10=-20, 7-8=-20
   Concentrated Loads (lb)
   Vert: 4=-204(B) 8=-9 9=-527(B) 14=-204(B) 15=-202(B) 16=-6(B) 17=-30

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	C1	Roof Special Girder	1	2	I43817575
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:24 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-fSIW4NPkcmTTxwRtNgAnZuRIkOo7arzFI3UZggyDJav

2-0-4	3-3-8	6-7-14	10-0-4	10-9-4	14-1-10	17-6-0	18-9-4	20-9-8
2-0-4	1-3-4	3-4-6	3-4-6	0-9-0	3-4-6	3-4-6	1-3-4	2-0-4

Scale = 1:44.7



2-0-4	3-3-8	6-7-14	10-0-4	10-9-4	14-1-10	17-6-0	18-9-4	20-9-8
2-0-4	1-3-4	3-4-6	3-4-6	0-9-0	3-4-6	3-4-6	1-3-4	2-0-4

Plate Offsets (X,Y)-- [7:Edge,0-3-8], [8:0-8-0,Edge], [9:0-4-8,0-3-0], [13:0-5-0,0-3-0], [15:0-5-0,0-3-0], [16:0-5-0,0-2-8], [20:0-5-0,0-3-0], [24:0-8-4,Edge], [25:0-4-8,0-3-0]

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	0.92	Vert(LL)	-0.14	13-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.29	13-15	>845	180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 288 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 19-25,9-19: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-11-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-5 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 24-26, 7-8
JOINTS 1 Brace at Jt(s): 26, 7, 20, 16, 13

REACTIONS. (size) 25=0-3-8, 9=0-3-8
Max Horz 25=78(LC 28)
Max Uplift 25=-736(LC 8), 9=-803(LC 9)
Max Grav 25=6483(LC 1), 9=6585(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 25-26=-1317/137, 1-24=-12184/1591, 1-2=-9187/1194, 2-3=-6603/906, 3-4=-5824/828, 4-5=-6424/899, 5-6=-8517/1248, 6-8=-10527/1539, 7-9=-1301/144
BOT CHORD 24-26=-461/46, 23-24=-183/1501, 20-23=-183/1501, 16-20=-1017/258, 15-16=-3398/489, 13-15=-1563/189, 11-13=-582/338, 8-11=-582/338, 7-8=-456/50, 22-25=-1146/8869, 21-22=-1189/9063, 17-21=-1189/9063, 14-17=-1189/9061, 12-14=-1189/9061, 10-12=-1189/9061, 9-10=-1211/9090
WEBS 1-23=-364/2968, 1-20=-2235/335, 2-20=-298/2799, 2-16=-2971/399, 3-16=-367/2562, 4-16=-94/889, 4-15=-335/1881, 5-15=-2419/477, 5-13=-376/2233, 6-13=-1446/244, 6-11=-280/2089, 22-23=-367/370, 10-11=-155/380, 8-10=-478/265, 8-9=-9954/1341, 22-24=-219/614, 24-25=-9694/1219

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 0-5-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 8-9 2x4 - 1 row at 0-7-0 oc, member 24-25 2x4 - 1 row at 0-7-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

Continued on page 2

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) Bearing at joint(s) 25, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=736, 9=803.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie HUS26 (14-16d Girder, 6-16d Truss) or equivalent at 4-0-12 from the left end to connect truss(es) to front face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 8-0-12 to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 6-0-0 oc max. starting at 10-0-12 from the left end to 16-0-12 to connect truss(es) to front face of bottom chord.
16) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 12-0-12 from the left end to 18-0-12 to connect truss(es) to front face of bottom chord.
17) Fill all nail holes where hanger is in contact with lumber.
18) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 2 lb up at 0-0-12, and 829 lb down and 103 lb up at 20-0-12 on top chord, and 128 lb down and 52 lb up at 2-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

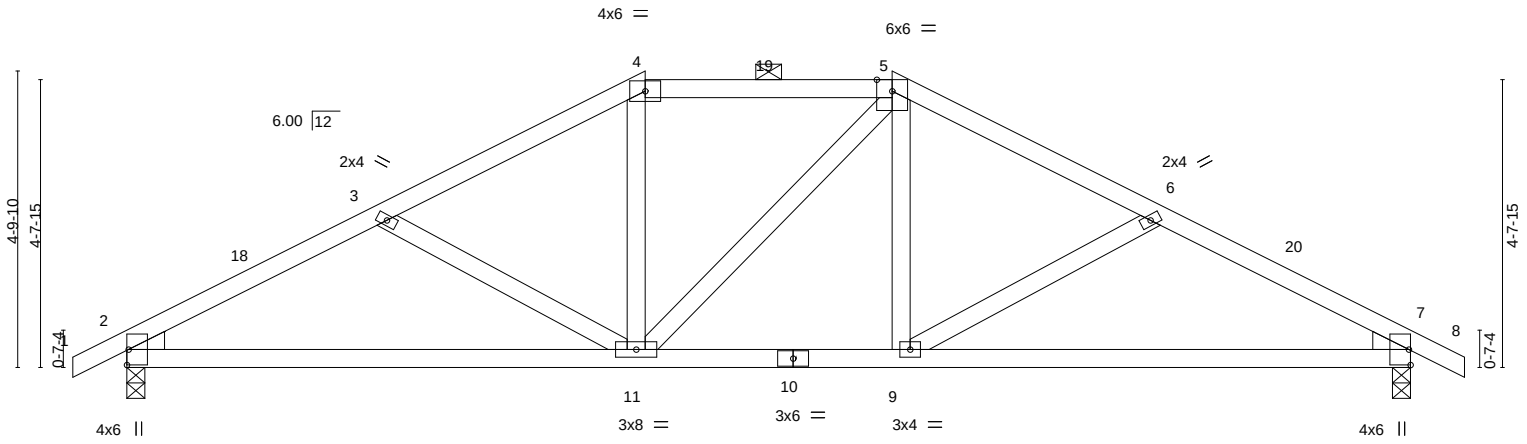
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 3-24=-90, 3-4=-90, 4-8=-90, 24-26=-160, 7-8=-160, 25-33=-160, 22-33=-110, 10-22=-20, 10-40=-110, 9-40=-160
Concentrated Loads (lb)
Vert: 16=-892(F) 13=-927(F) 8=-825(F) 24=-133(F) 27=-2253(F) 28=-1024(F) 29=-1024(F) 30=-904(F) 31=-919(F) 32=-864(F)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	C2	Hip	1	1	I43817575
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:25 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-7ervljQMN4cKZ403xOh056zbqoDiJQQPXiE7C6yDJau

0-10-8	4-2-9	8-4-12	12-4-12	16-6-15	20-9-8	21-8-0
0-10-8	4-2-9	4-2-3	4-0-0	4-2-3	4-2-9	0-10-8

Scale = 1:37.3



8-4-12	12-4-12	20-9-8
8-4-12	4-0-0	8-4-12

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

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	0.32	Vert(LL)	-0.08	9-17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.18	9-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 80 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 (4-11-8 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-72(LC 17)
Max Uplift 2=-100(LC 12), 7=-100(LC 13)
Max Grav 2=1222(LC 1), 7=1222(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1874/217, 3-4=-1556/181, 4-5=-1319/195, 5-6=-1555/181, 6-7=-1874/217
BOT CHORD 2-11=-155/1602, 9-11=-47/1319, 7-9=-136/1602
WEBS 3-11=-328/130, 4-11=0/310, 5-9=0/310, 6-9=-328/130

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 8-4-12, Exterior(2E) 8-4-12 to 12-4-12, Exterior(2R) 12-4-12 to 16-8-14, Interior(1) 16-8-14 to 21-8-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=100, 7=100.
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.

December 1,2020

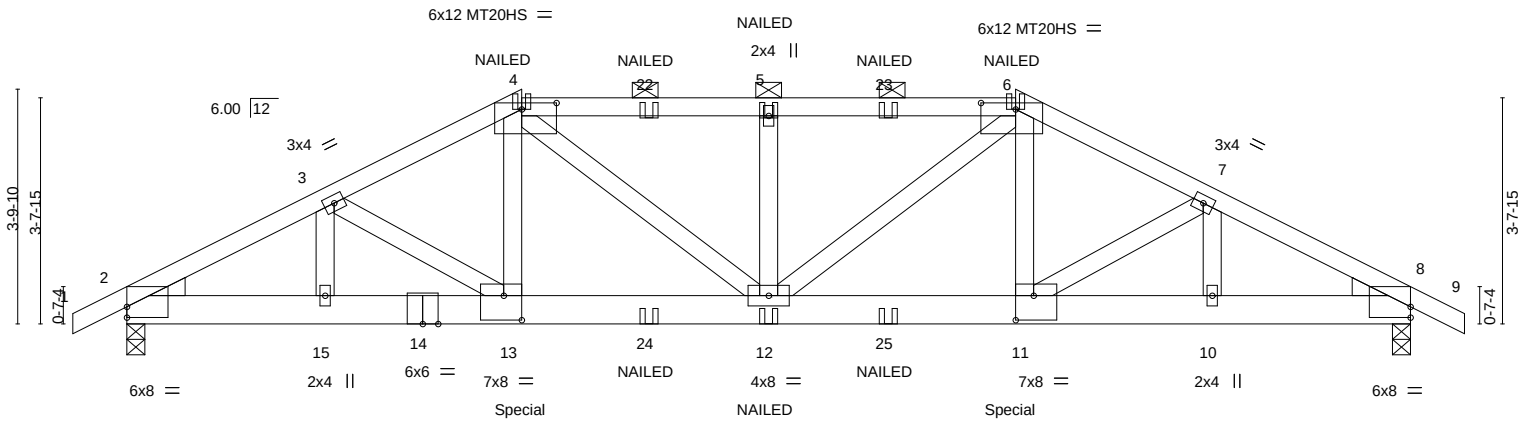
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	C3	Hip Girder	1	1	I43817576
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:27 2020 Page 1
ID:clow4Ylgf7iox0?Iy?5BCcz33zm-40zfjPScvhs2oOAS2pjUBX3sfcwxnIti_0jDH?yDJas

0-10-8	3-2-9	6-4-12	10-4-12	14-4-12	17-6-15	20-9-8	21-8-0
0-10-8	3-2-9	3-2-3	4-0-0	4-0-0	3-2-3	3-2-9	0-10-8

Scale = 1:37.3



3-2-9	6-4-12	10-4-12	14-4-12	17-6-15	20-9-8
3-2-9	3-2-3	4-0-0	4-0-0	3-2-3	3-2-9

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

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	0.68	Vert(LL)	-0.13	12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.27	12	>909	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 99 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 4-6: 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-1 oc purlins, except 2-0-0 oc purlins (2-9-4 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-56(LC 34)
Max Uplift 2=-456(LC 8), 8=-456(LC 9)
Max Grav 2=2614(LC 1), 8=2614(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4462/799, 3-4=-4709/891, 4-5=-4795/893, 5-6=-4795/893, 6-7=-4709/892, 7-8=-4462/800
BOT CHORD 2-15=-714/3917, 13-15=-714/3917, 12-13=-745/4168, 11-12=-690/4168, 10-11=-659/3917, 8-10=-659/3917
WEBS 3-15=-420/116, 3-13=-243/487, 4-13=-199/1067, 4-12=-172/881, 5-12=-770/201, 6-12=-172/881, 6-11=-199/1067, 7-11=-244/487, 7-10=-420/115

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=456, 8=456.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 929 lb down and 243 lb up at 6-4-12, and 929 lb down and 243 lb up at 14-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

December 1,2020

Continued on page 2

LOAD CASE(S) Standard

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

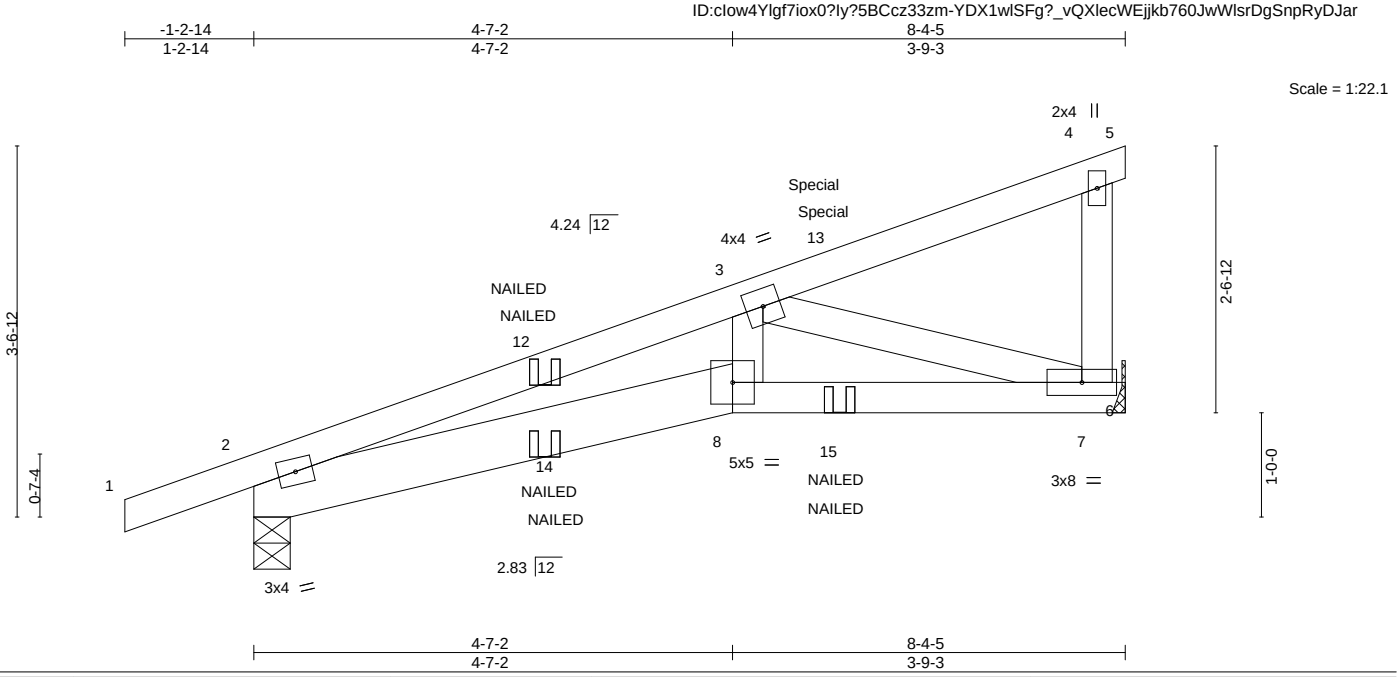
LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-90, 4-6=-90, 6-9=-90, 16-19=-20
   Concentrated Loads (lb)
   Vert: 4=-114(B) 6=-114(B) 13=-929(B) 12=-119(B) 5=-114(B) 11=-929(B) 22=-114(B) 23=-114(B) 24=-119(B) 25=-119(B)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	CJ1	Diagonal Hip Girder	1	1	I43817577

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:28 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-YDX1wlSFg?_vQXlecWEjjkb760JwWlsrDgSnpRyDJar



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	0.32	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.06	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 31 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 4-11-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-3, 7=Mechanical
Max Horz 2=116(LC 5)
Max Uplift 2=-96(LC 4), 7=-85(LC 8)
Max Grav 2=606(LC 1), 7=549(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1349/187
BOT CHORD 2-8=-213/1245, 7-8=-202/1168
WEBS 3-8=-4/335, 3-7=-1217/231

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (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) 110 lb down and 83 lb up at 5-7-7, and 110 lb down and 83 lb up at 5-7-7 on top 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: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 13=-140(F=-70, B=-70) 14=2(F=1, B=1)

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	CJ2	Diagonal Hip Girder	2	1	I43817578
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:29 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-0P5P85TtRI6m2hKqADlyGy8B9PX4EGf?SKCKLtyDJaq

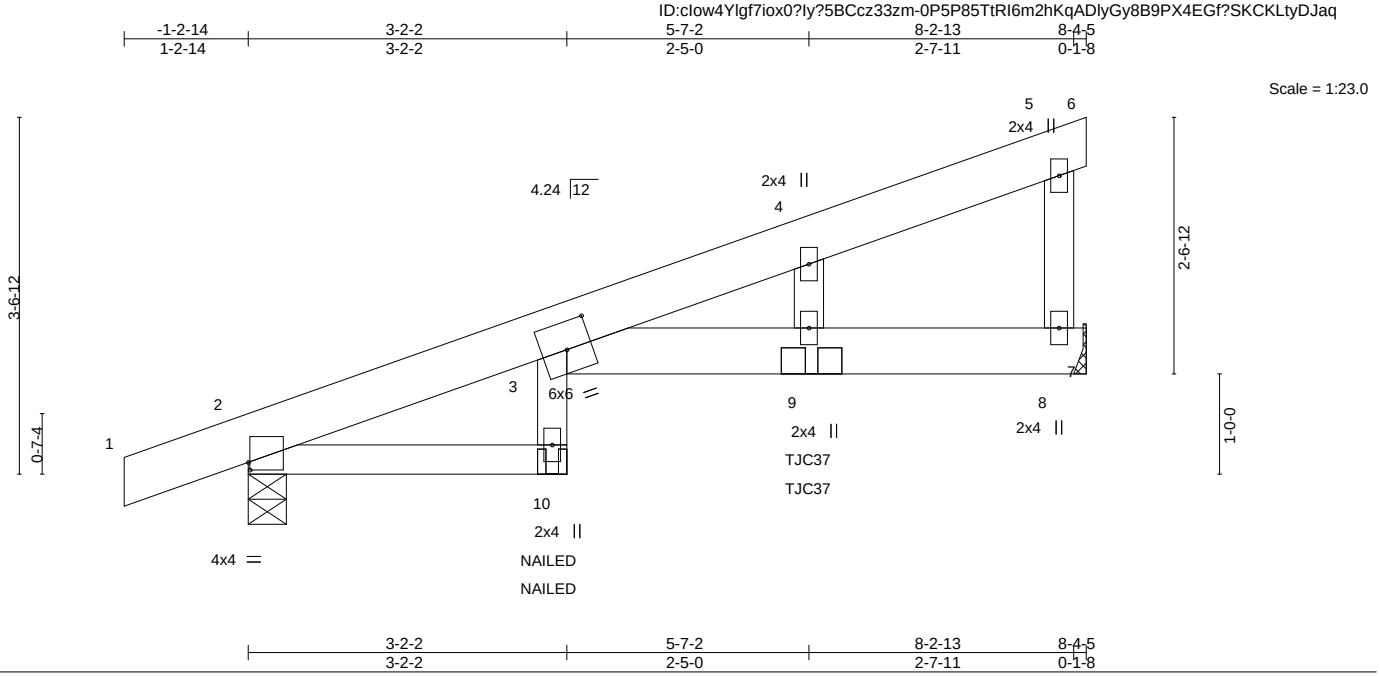


Plate Offsets (X,Y)-- [2:0-0-3,0-0-15], [3:0-3-0,0-3-4]

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	0.75	Vert(LL)	-0.16	10	>613	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.34	10	>288	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 35 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x6 SPF No.2
WEBS 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 9-0-12 oc bracing.

REACTIONS. (size) 2=0-4-9, 8=Mechanical
Max Horz 2=129(LC 4)
Max Uplift 2=-153(LC 4), 8=-175(LC 8)
Max Grav 2=734(LC 1), 8=738(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 5-8=-374/103

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=153, 8=175.
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) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 5-7-7 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
8) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 5-7-7 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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, 5-6=-40, 10-11=-20, 3-7=-20
Concentrated Loads (lb)
Vert: 10=-93(F=-46, B=-46) 9=-361(F=-181, B=-181)

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	CJ3	Diagonal Hip Girder	2	1	I43817579
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:30 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-UbfnLQUVCcEdfrv0kxGBo9gS2ptFzcg8g_xutKyDJap

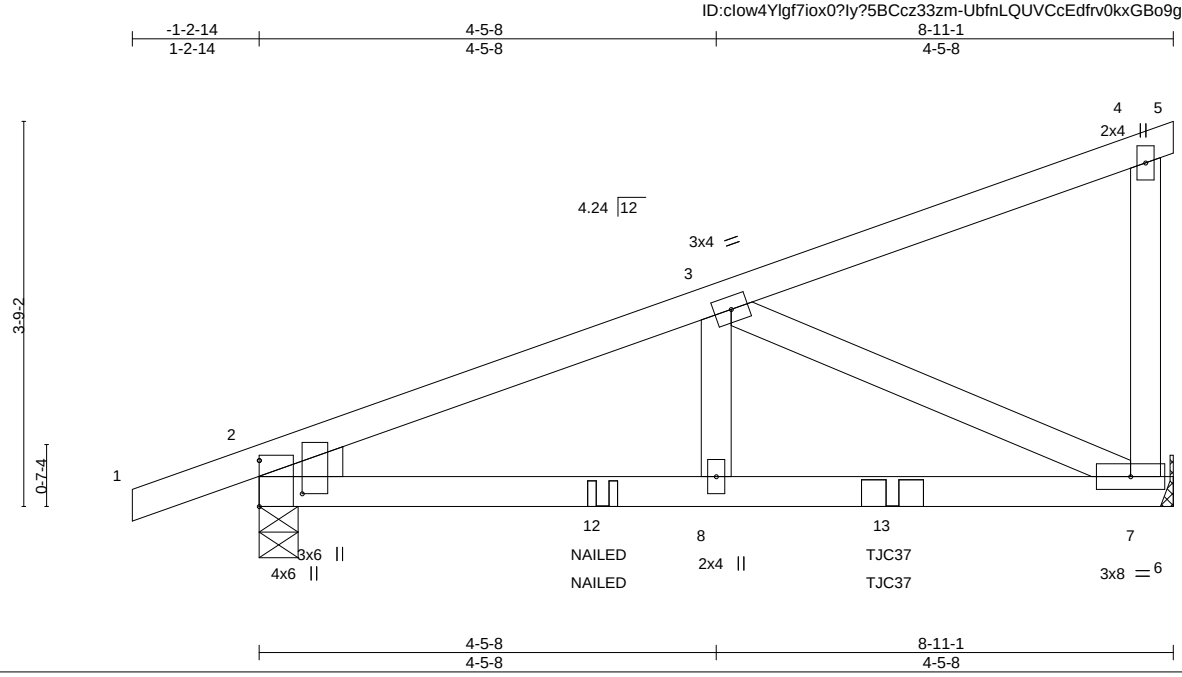


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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	0.35	Vert(LL)	-0.05	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.12	7-8	>887	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 34 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-4 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=128(LC 7)
Max Uplift 7=-180(LC 8), 2=-170(LC 4)
Max Grav 7=838(LC 1), 2=813(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1242/242
BOT CHORD 2-8=-256/1118, 7-8=-256/1118
WEBS 3-8=-96/523, 3-7=-1226/306

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=180, 2=170.
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) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 6-2-3 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
8) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 6-2-3 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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

December 1,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-90, 4-5=-40, 6-9=-20

Concentrated Loads (lb)

Vert: 12=-168(F=-84, B=-84) 13=-404(F=-202, B=-202)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	CJ4	Diagonal Hip Girder	2	1	I43817580
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:31 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-yoDAYmV7zwMUH?UDHeoQLNDeXDCAi5kHvehRQmyDJao

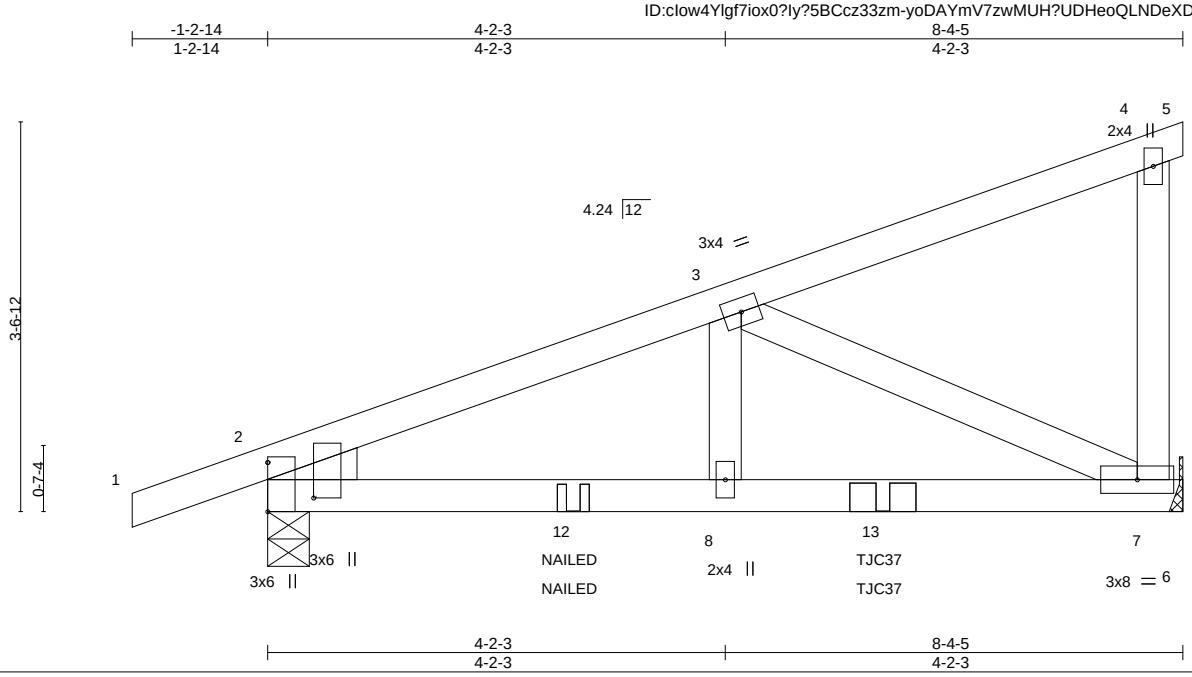


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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	0.31	Vert(LL)	-0.04	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.09	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-MP							Weight: 32 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 5-7-5 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=134(LC 7)
Max Uplift 7=-161(LC 8), 2=-163(LC 4)
Max Grav 7=722(LC 1), 2=727(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1046/219
BOT CHORD 2-8=-220/937, 7-8=-220/937
WEBS 3-8=-82/412, 3-7=-1030/273

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=161, 2=163.
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) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 5-7-7 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
8) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 5-7-7 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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

December 1,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-90, 4-5=-40, 6-9=-20

Concentrated Loads (lb)

Vert: 12=-87(F=-46, B=-41) 13=-344(F=-179, B=-165)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	CJ5	Diagonal Hip Girder	2	1	I43817581 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:32 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-Q_nYm6VlkDULv93PrMJfuammddfzRdBR8IQ_yCyDJan

-1-2-14 5-1-13
1-2-14 5-1-13

Scale: 3/4"=1'

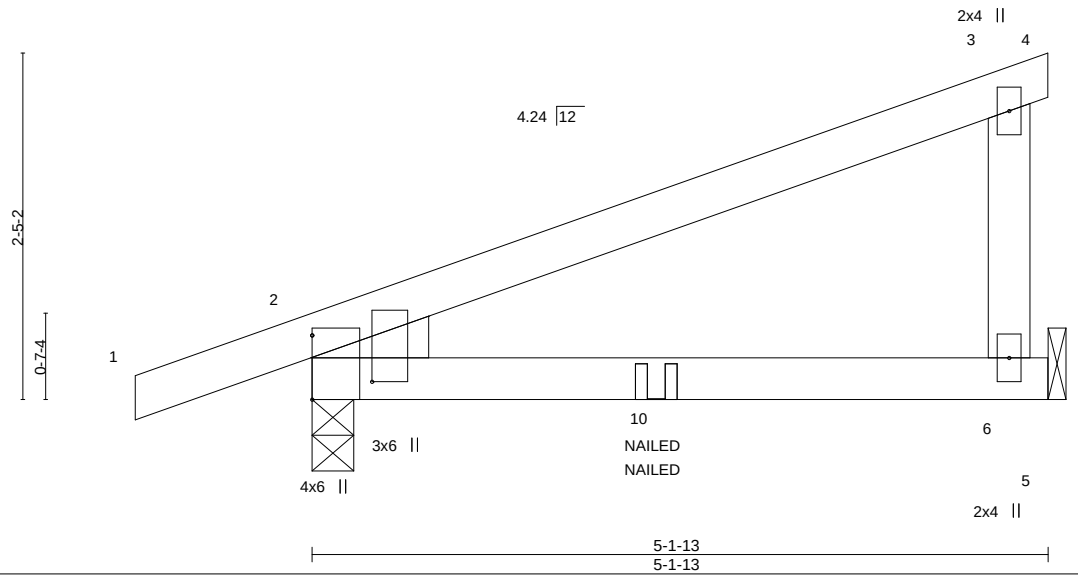


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]

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)	0.05	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.09	6-9	>642	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 5-1-13 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 6=88(LC 7)
Max Uplift 6=-68(LC 8), 2=-103(LC 4)
Max Grav 6=299(LC 1), 2=422(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=103.
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, 5-7=-20
Concentrated Loads (lb)
Vert: 10=-57(F=-29, B=-29)

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	D1	Common	1	1	I43817582
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:33 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-uAKwzSWNVXcCWJdbP3quQoI_x0wDA0paNyAYUfyDJam

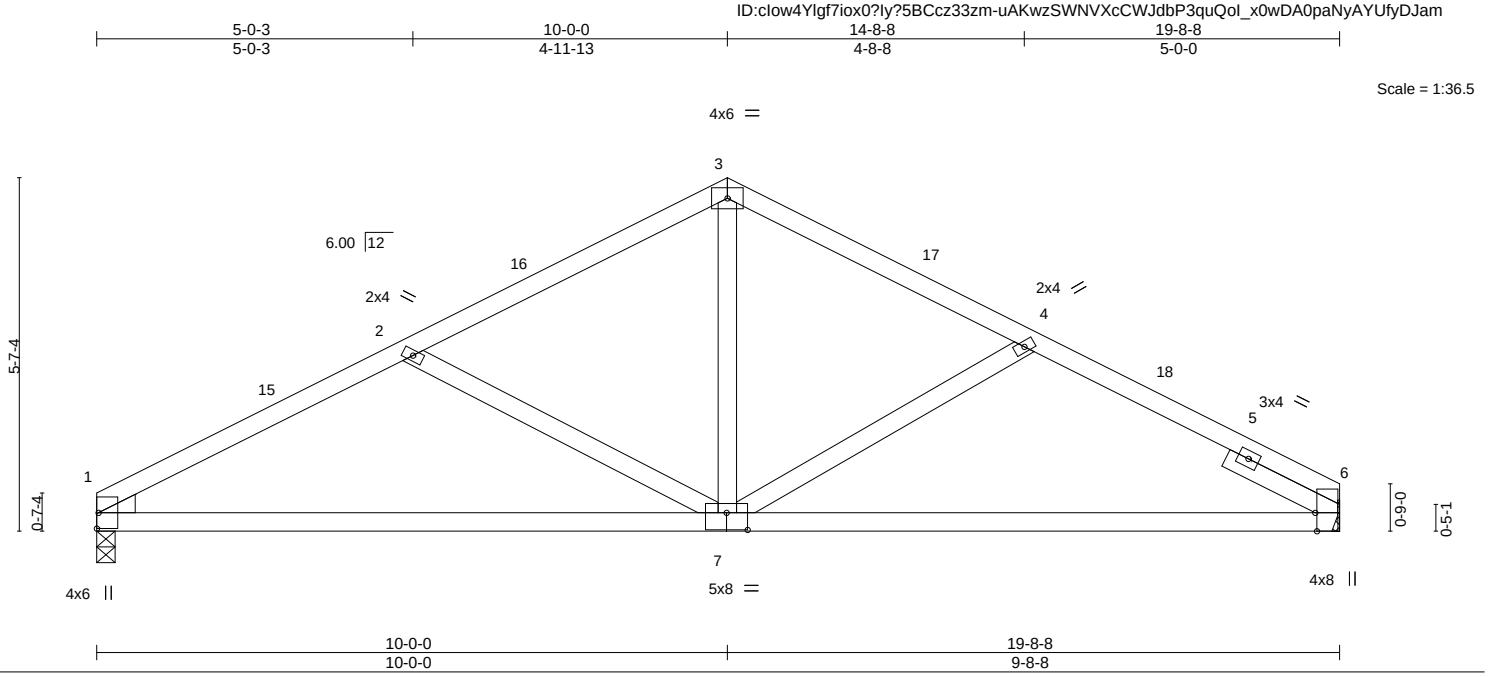


Plate Offsets (X,Y)-- [1:0-0-3,0-5-0], [1:0-0-1,0-0-3], [6:0-3-8,Edge], [7:0-4-0,0-3-4]

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	0.31	Vert(LL)	-0.13	7-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.29	7-14	>829	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 69 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 1=0-3-8
Max Horz 1=82(LC 12)
Max Uplift 6=-73(LC 13), 1=-75(LC 12)
Max Grav 6=1084(LC 1), 1=1084(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1742/260, 2-3=-1293/198, 3-4=-1280/200, 4-6=-1625/249
BOT CHORD 1-7=-177/1486, 6-7=-156/1396
WEBS 2-7=-509/174, 3-7=-26/614, 4-7=-428/163

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=6.0psf; 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 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-8-8 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) 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, 1.
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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

December 1,2020

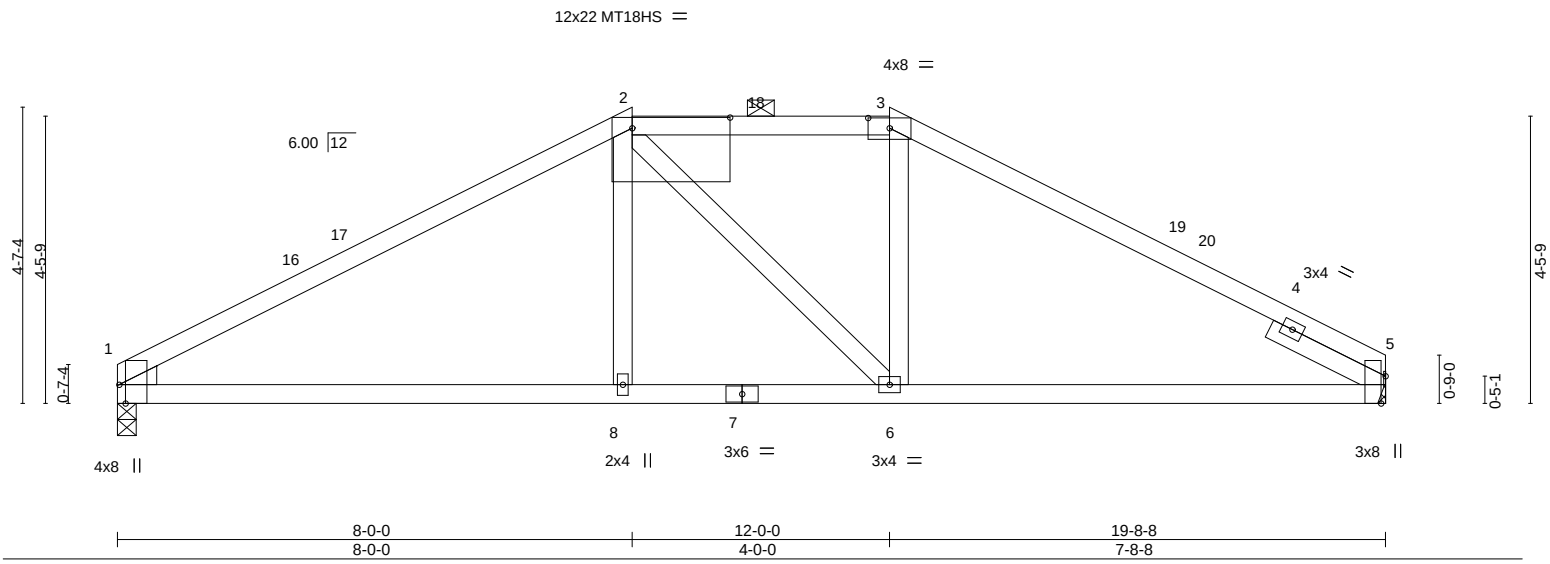
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	D2	Hip	1	1	I43817583
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:34 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-NNuIBoX?Grk38SCoznL7z?r0gQI2vUWkbcv505yDJal

8-0-0 12-0-0 19-8-8
8-0-0 4-0-0 7-8-8

Scale = 1:35.8



8-0-0 12-0-0 19-8-8
8-0-0 4-0-0 7-8-8

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [1:0-0-3,0-5-0], [1:0-0-1,0-0-3], [2:1-6-4,0-2-0], [3:0-4-0,0-1-15], [5:0-5-1,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	0.89	Vert(LL)	-0.09	8-15	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.22	8-15	>999	180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.03	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 66 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 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-8-4 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=Mechanical, 1=0-3-8
Max Horz 1=65(LC 12)
Max Uplift 5=-77(LC 13), 1=-80(LC 12)
Max Grav 5=1084(LC 1), 1=1084(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1605/186, 2-3=-1265/214, 3-5=-1471/184
BOT CHORD 1-8=-92/1308, 6-8=-94/1303, 5-6=-82/1271
WEBS 2-8=0/254, 3-6=0/250

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 19-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

December 1,2020

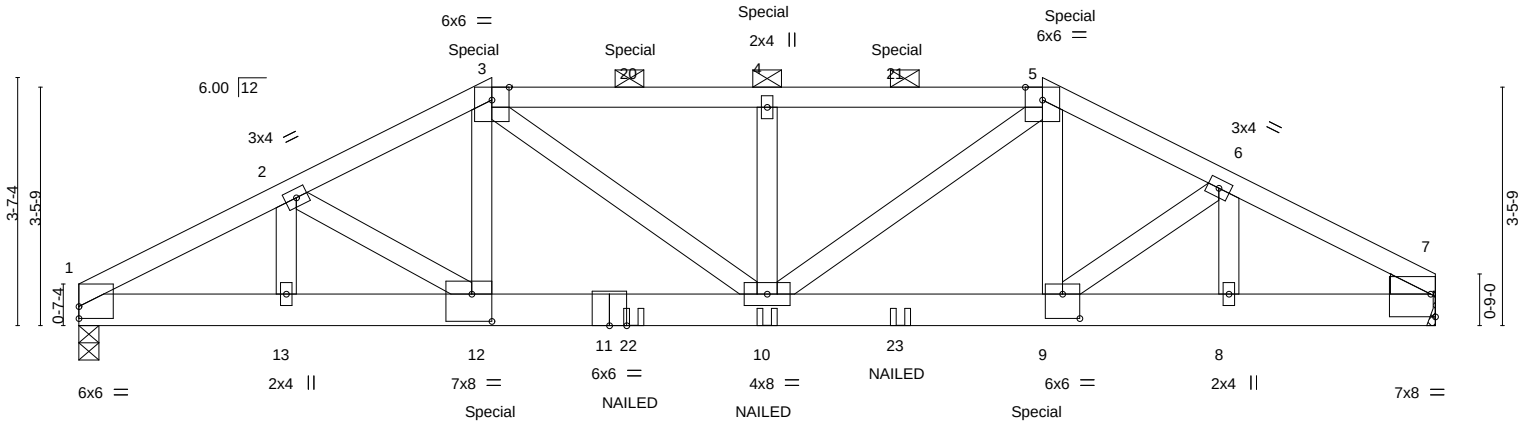
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	D3	Hip Girder	1	1	I43817584
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:35 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-rZSgO8Ye18swmcn_WUsMVDOEGqgFewUtqGfeZXyDJak

3-0-3	6-0-0	10-0-0	14-0-0	16-8-8	19-8-8
3-0-3	2-11-13	4-0-0	4-0-0	2-8-8	3-0-0

Scale = 1:33.5



3-0-3	6-0-0	10-0-0	14-0-0	16-8-8	19-8-8
3-0-3	2-11-13	4-0-0	4-0-0	2-8-8	3-0-0

Plate Offsets (X,Y)-- [1:0-0-0,0-2-1], [7:Edge,0-3-15], [7:0-5-8,0-0-7], [7:0-0-7,0-0-3], [9:0-3-0,0-4-4], [12:0-3-8,0-4-12]

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	0.64	Vert(LL)	-0.11	10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.23	10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 90 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 3-5: 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

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

REACTIONS. (size) 1=0-3-8, 7=Mechanical
Max Horz 1=49(LC 8)
Max Uplift 1=-357(LC 8), 7=-363(LC 9)
Max Grav 1=2287(LC 1), 7=2323(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3987/646, 2-3=-4218/716, 3-4=-4323/706, 4-5=-4323/706, 5-6=-4105/698, 6-7=-3707/607
BOT CHORD 1-13=-586/3496, 12-13=-586/3496, 10-12=-603/3738, 9-10=-545/3654, 8-9=-499/3238, 7-8=-499/3238
WEBS 2-13=-390/93, 2-12=-209/464, 3-12=-114/877, 3-10=-128/805, 4-10=-829/260, 5-10=-140/904, 5-9=-97/760, 6-9=-196/667, 6-8=-551/110

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=357, 7=363.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 167 lb down and 107 lb up at 6-0-0, 143 lb down and 107 lb up at 8-0-12, 143 lb down and 99 lb up at 10-0-0, and 143 lb down and 107 lb up at 11-11-4, and 167 lb down and 107 lb up at 14-0-0 on top chord, and 761 lb down and 174 lb up at 6-0-0, and 761 lb down and 174 lb up at 13-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

STATE OF MISSOURI
JEFF VANCE
NUMBER PE-2018003146
PROFESSIONAL ENGINEER

December 1,2020

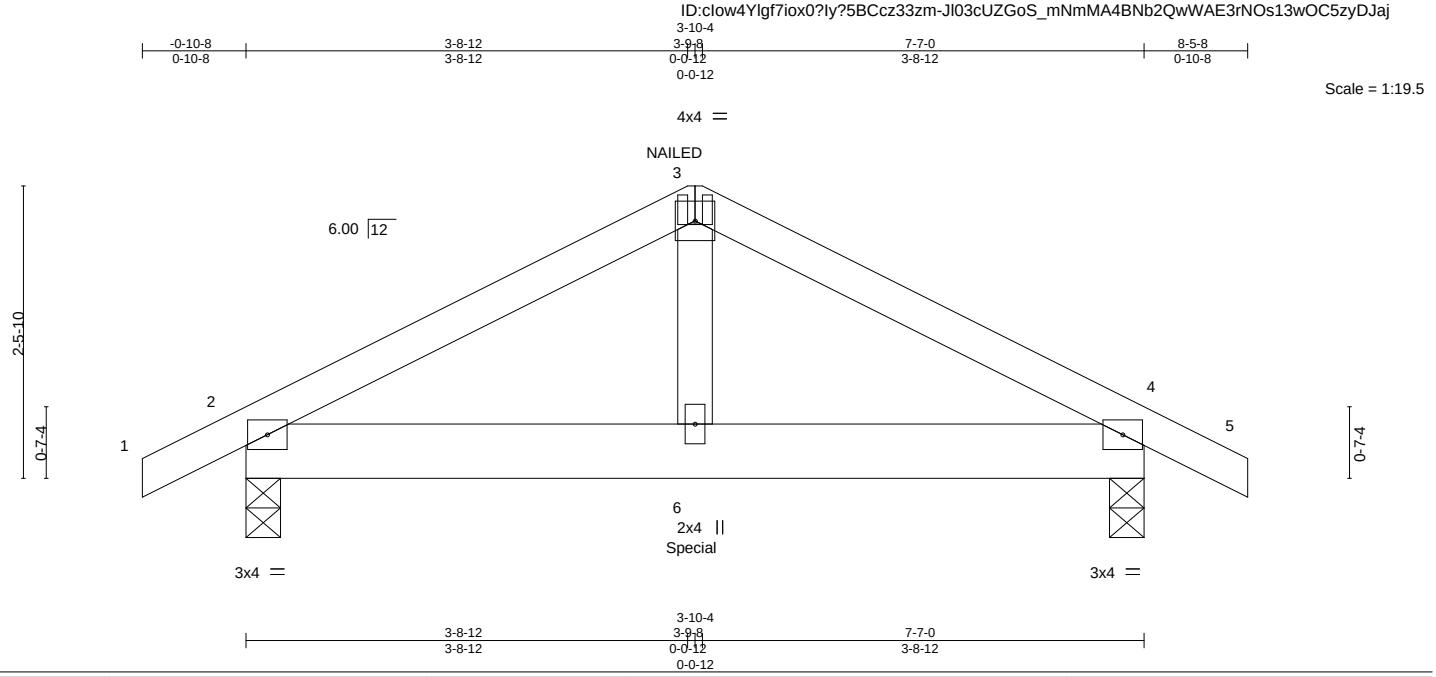
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-90, 3-5=-90, 5-7=-90, 14-17=-20
   Concentrated Loads (lb)
   Vert: 3=-143(B) 5=-143(B) 12=-761(B) 4=-143(B) 10=-67(B) 9=-761(B) 20=-143(B) 21=-143(B) 22=-67(B) 23=-67(B)

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	E1	Hip Girder	1	1	I43817585
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:36 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-Jl03cUZGoS_mNmMA4BNb2QwWAE3rNOs13wOC5zyDJaj



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)	-0.01	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	6	>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: 28 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 5-5-4 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=-37(LC 13)
Max Uplift 2=-142(LC 8), 4=-142(LC 9)
Max Grav 2=808(LC 1), 4=808(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1089/219, 3-4=-1089/218
BOT CHORD 2-6=-158/901, 4-6=-158/901
WEBS 3-6=-108/606

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=142, 4=142.
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 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 579 lb down and 191 lb up at 3-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 7-10=-20
Concentrated Loads (lb)
Vert: 3=-45(B) 6=-579(B)

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	E2	Common	1	1	I43817586
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:37 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-nyaRpqZuZm6d?wxNevuqbeTi3eQ06trAHa8ldQyDJai

-0-10-8 3-9-8 7-7-0 8-5-8
0-10-8 3-9-8 3-9-8 0-10-8

Scale = 1:17.7

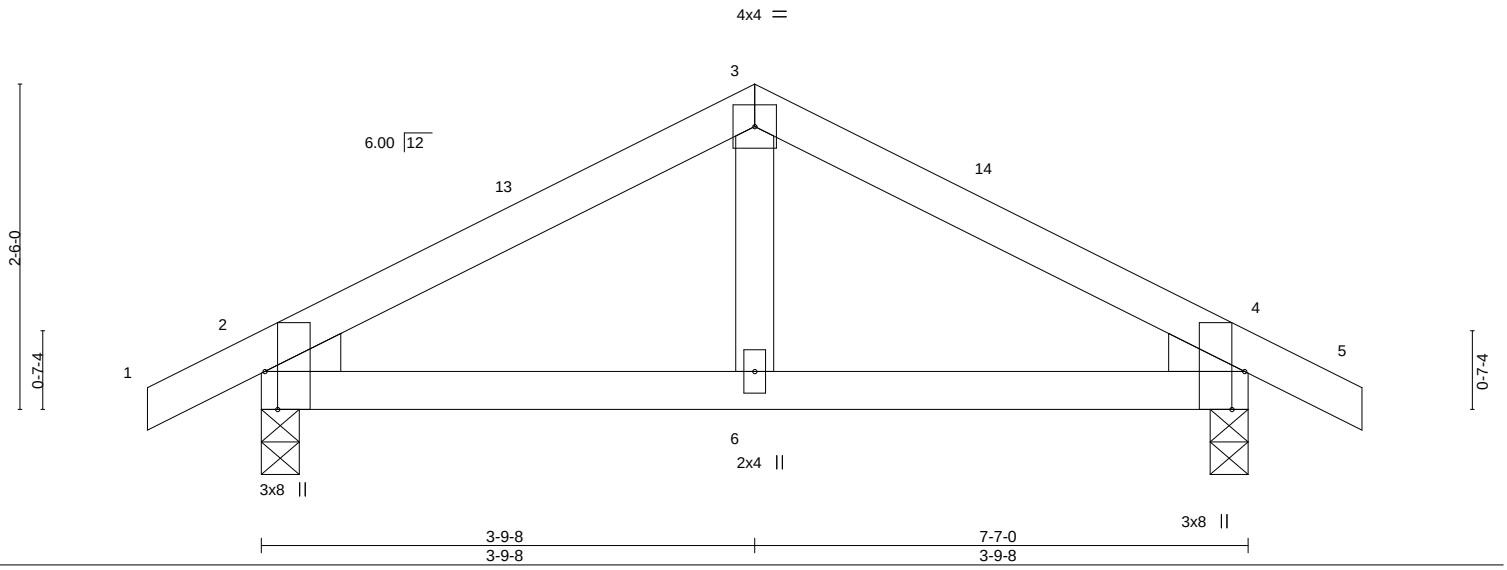


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]

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	0.18	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.01	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: 24 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=37(LC 12)
Max Uplift 2=-46(LC 12), 4=-46(LC 13)
Max Grav 2=496(LC 1), 4=496(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-484/176, 3-4=-484/176
BOT CHORD 2-6=-54/368, 4-6=-54/368

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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, Exterior(2R) 3-9-8 to 6-11-11, Interior(1) 6-11-11 to 8-5-8 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J1	Jack-Open	15	1	I43817587
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:38 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-F88p09aWJ3EUd4WZCcQ37r0mN1i?rKgJWEtJAsyDJah

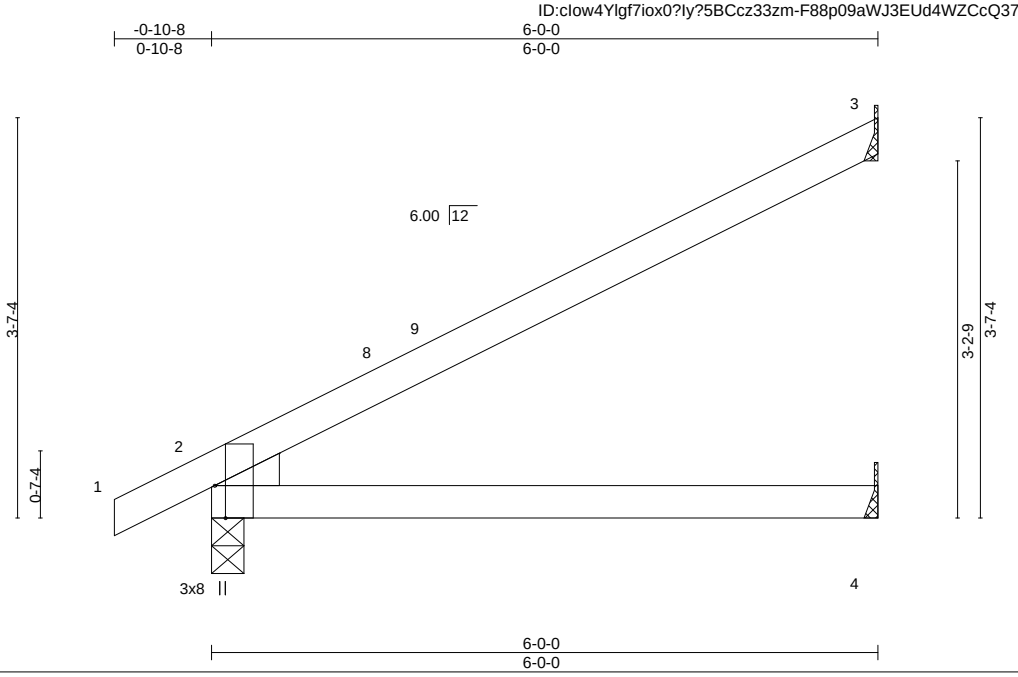


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.59	Vert(LL)	0.07	4-7	>956	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.16	4-7	>454	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=123(LC 12)
Max Uplift 3=-82(LC 12), 2=-23(LC 12)
Max Grav 3=233(LC 1), 2=411(LC 1), 4=116(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-11-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J2	Jack-Open	5	1	I43817588
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:47 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-UtBDvEh9CqNDCSiID?4A_luGqgkeSPveb8ZH_ryDJaY

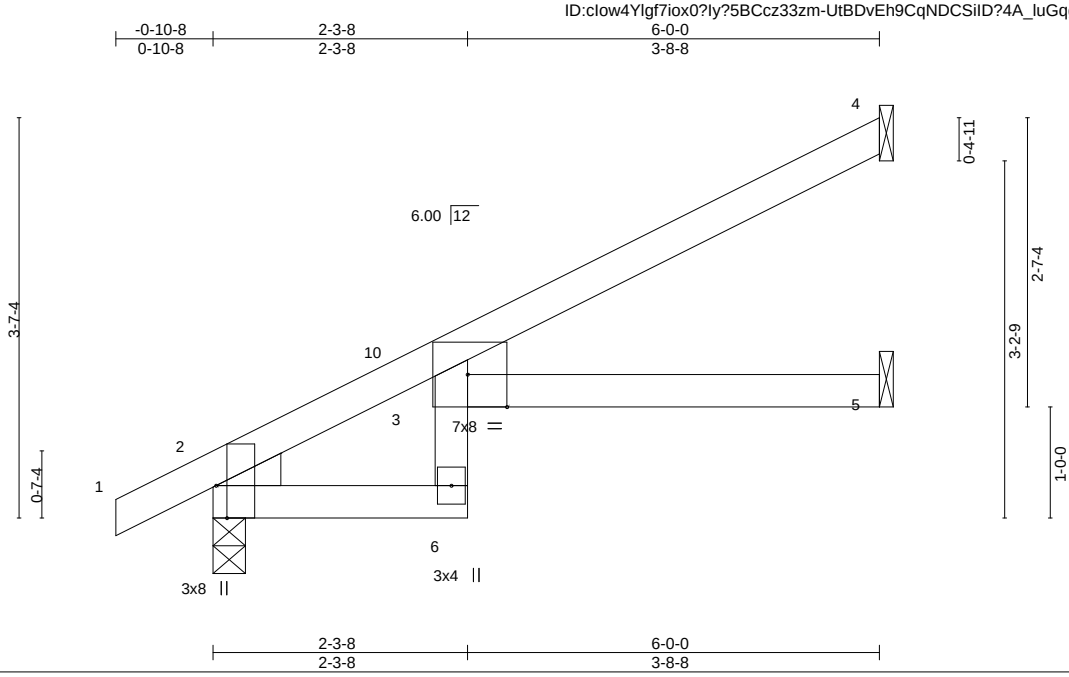


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-4,Edge]

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	0.73	Vert(LL)	0.11	3-5	>645	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.21	3-5	>333	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.15	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 18 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=123(LC 12)
Max Uplift 4=-68(LC 12), 2=-22(LC 12), 5=-1(LC 12)
Max Grav 4=213(LC 1), 2=413(LC 1), 5=118(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-11-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J3	Jack-Closed	4	1	I43817589
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:48 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-y3kb7ainz8V3pcHUnjbPXyQYO395Bs9opoIqWHyDJaX

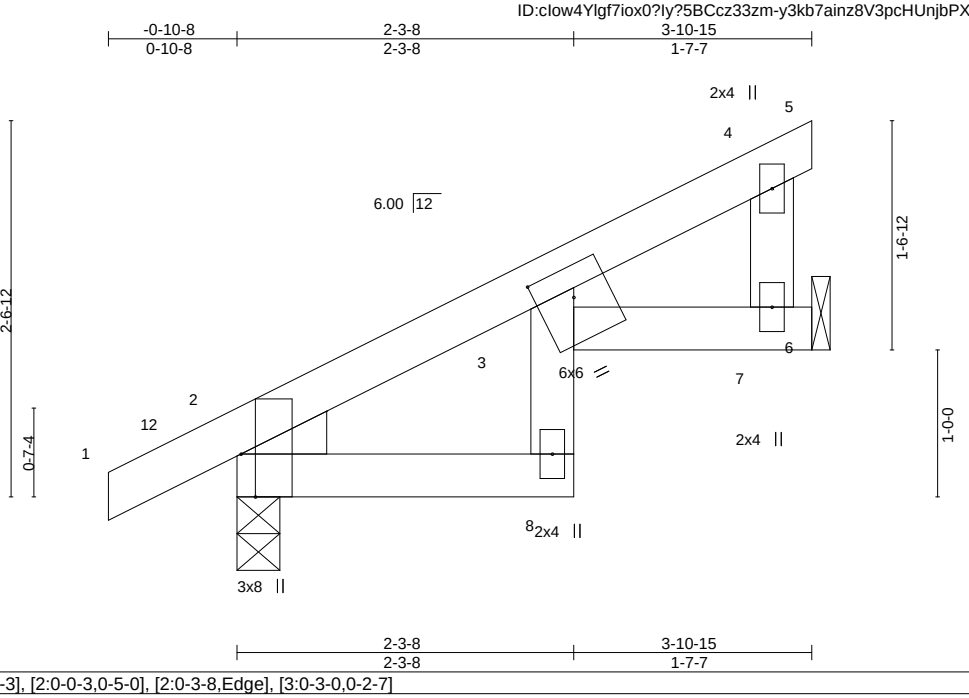


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-3-0,0-2-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.02	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 14 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 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=67(LC 9)
Max Uplift 7=-39(LC 12), 2=-25(LC 12)
Max Grav 7=209(LC 1), 2=289(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-10-15 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J4	Jack-Closed	6	1	I43817590
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:49 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-RFIzKwjQkSdwRmsgLQ6e4AzmjTYrwJOx2R2O2jyDJaW

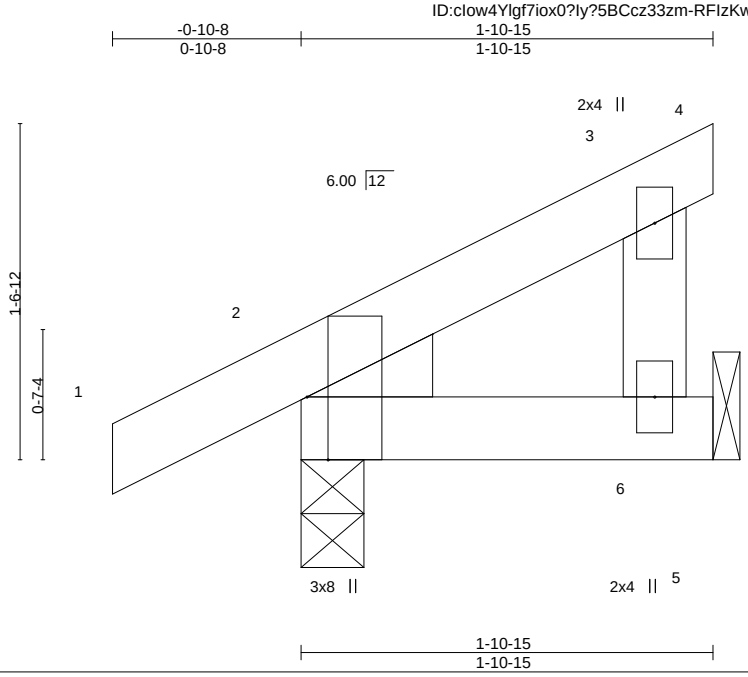


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 8 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 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=48(LC 11)
Max Uplift 2=-24(LC 12), 5=-16(LC 12)
Max Grav 2=200(LC 1), 5=75(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J5	Jack-Closed	4	1	I43817591
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:50 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-vSsLYGj2Vlln3wRsv8dtcNVxTtu3fme4H5nxbAyDJaV

-0-10-8 2-3-11
0-10-8 2-3-11

Scale = 1:11.7

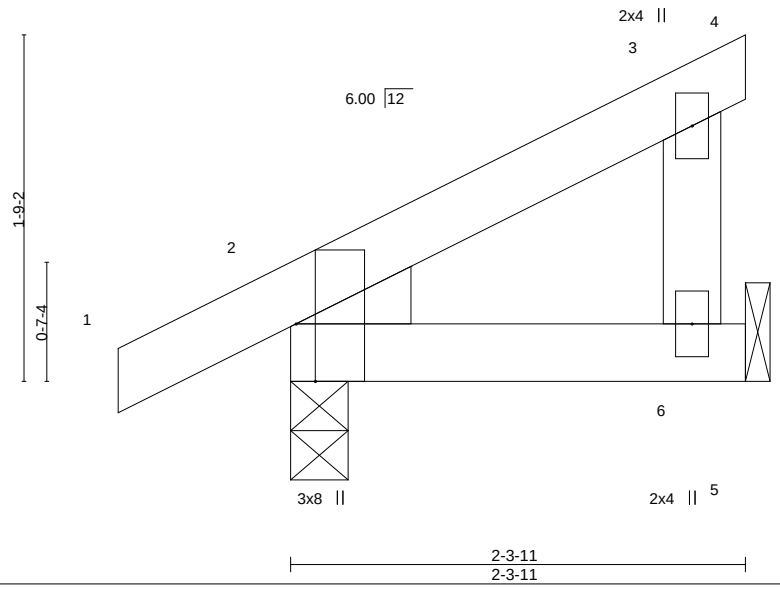


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 9 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 2-3-11 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=55(LC 11)
Max Uplift 6=-22(LC 12), 2=-23(LC 12)
Max Grav 6=112(LC 1), 2=207(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J6	Jack-Closed	4	1	I43817592
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:51 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-NeQklckgG3teg403Sr969b24PHBnODuEWlXV7cyDJaU

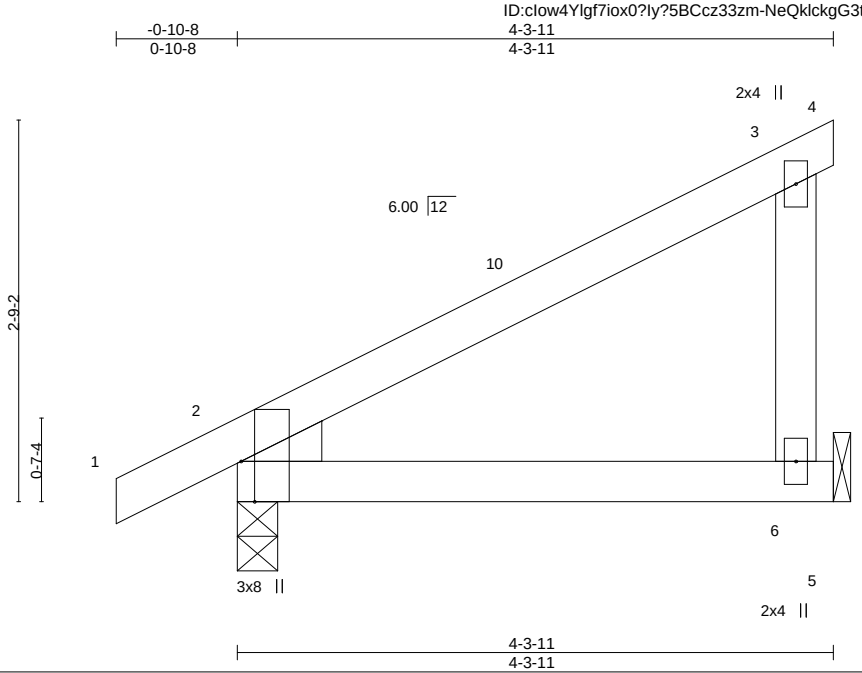


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.25	Vert(LL)	0.02	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	6-9	>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-AS							Weight: 15 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=93(LC 11)
Max Uplift 6=-41(LC 12), 2=-29(LC 12)
Max Grav 6=230(LC 1), 2=309(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 4-3-11 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.

December 1,2020

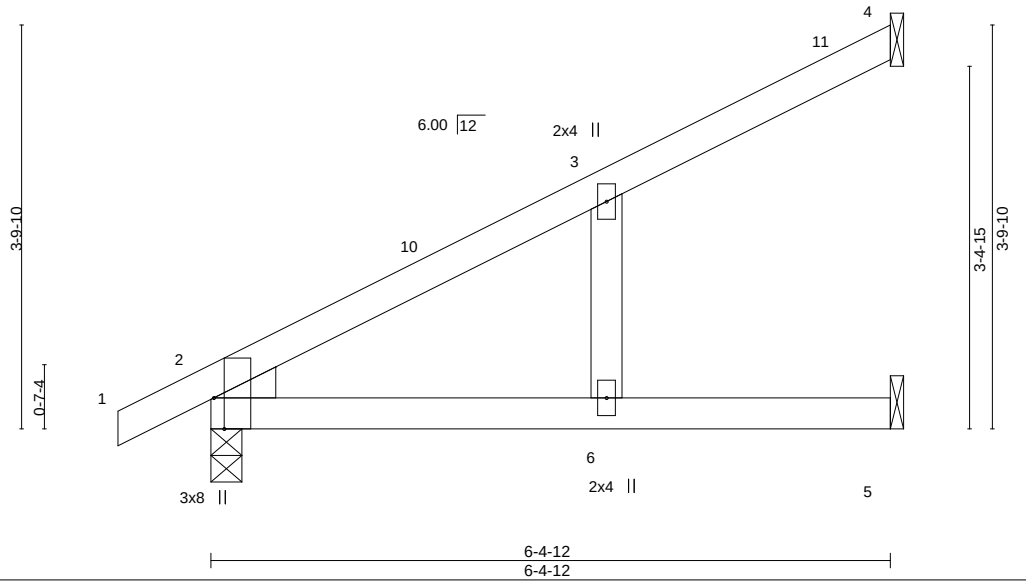
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J7	Jack-Open	5	1	I43817593
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:51 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-NeQklckgG3teg403Sr969b20JH50ODZEWlXV7cyDJaU

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

Scale = 1:21.7



6-4-12
6-4-12

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)	0.13	6-9	>592	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.26	6-9	>294	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
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=128(LC 12)
Max Uplift 4=-54(LC 12), 2=-24(LC 12), 5=-15(LC 12)
Max Grav 4=204(LC 1), 2=433(LC 1), 5=139(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 6-4-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J8	Jack-Closed	2	1	I43817594
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:52 2020 Page 1
ID:clow4Ylgf7iox0?Iy?5BCcz33zm-rq_6zyII0N?VIDaF0ZgLhobFshYX7f8NkPG2f2yDJaT

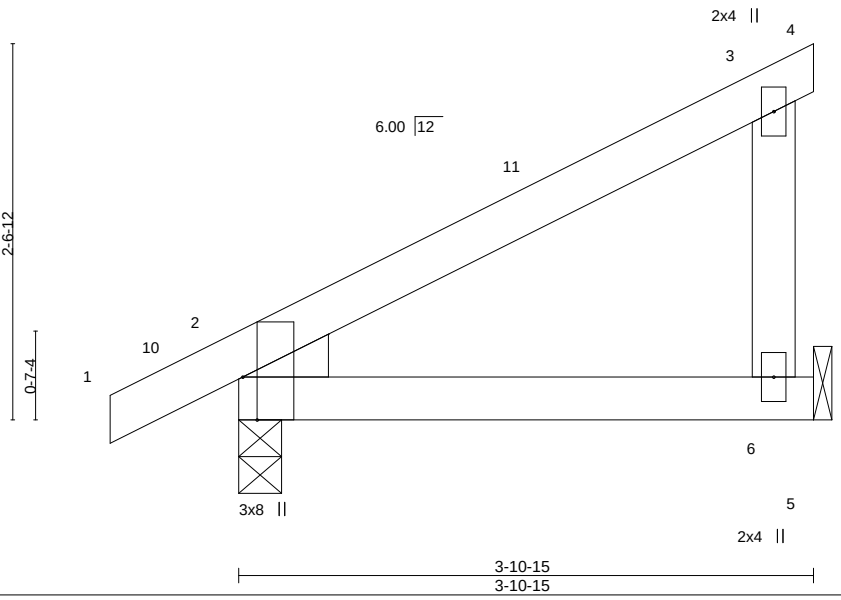


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.20	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	6-9	>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: 14 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 3-10-15 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=85(LC 11)
Max Uplift 6=-37(LC 12), 2=-28(LC 12)
Max Grav 6=208(LC 1), 2=288(LC 1)

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

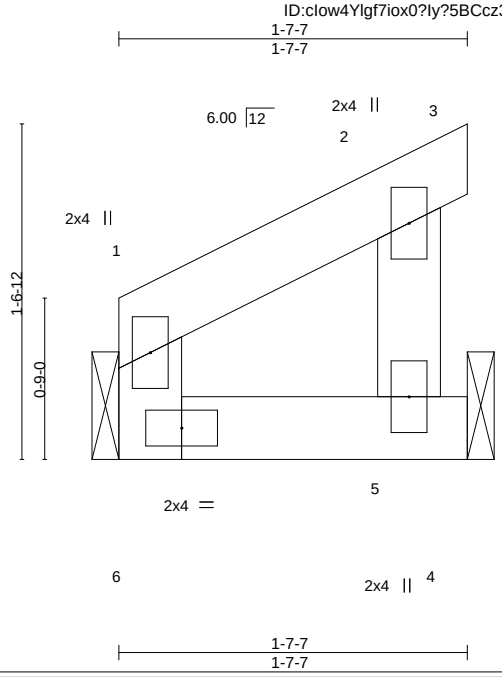
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J9	Jack-Closed	1	1	I43817595
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:53 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-J1YUAlmwng7MwN9RaGBaE07TE4wss6OXz30bBUyDJaS



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	0.03	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	6	>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-MR							Weight: 5 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-7-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 6=Mechanical
Max Horz 6=42(LC 9)
Max Uplift 4=-15(LC 12), 6=-2(LC 12)
Max Grav 4=69(LC 1), 6=79(LC 1)

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

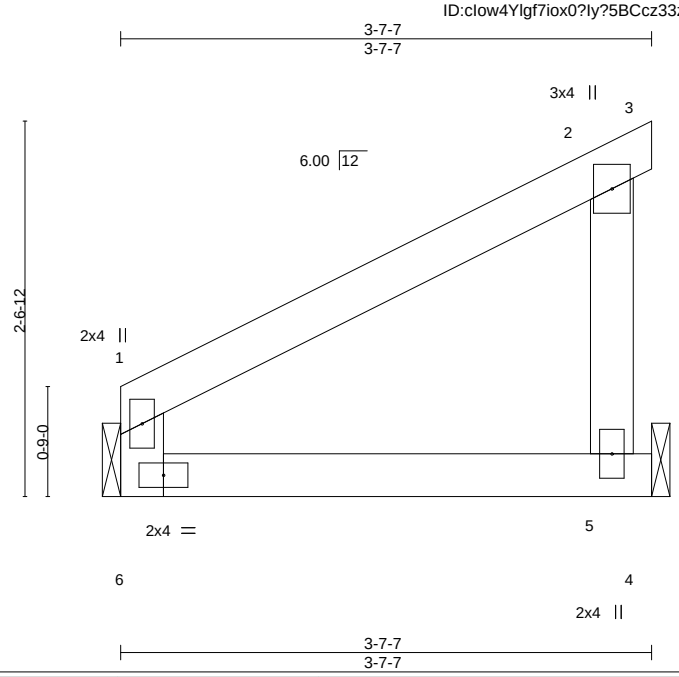
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 6.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J10	Jack-Closed	1	1	I43817596
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:39 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-jKiBEVb84NMLEE5llKxIg3Y2yR7sanwTludsiIyDJag



Scale = 1:15.7

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	5-6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 6=Mechanical
Max Horz 6=80(LC 9)
Max Uplift 5=-36(LC 12), 6=-6(LC 12)
Max Grav 5=193(LC 1), 6=175(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J11	Jack-Open	1	1	I43817597
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:40 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-BXFZRrcmrhUCsNgxJ1SXCG5E_rUpJEAc_YMPElyDJaf

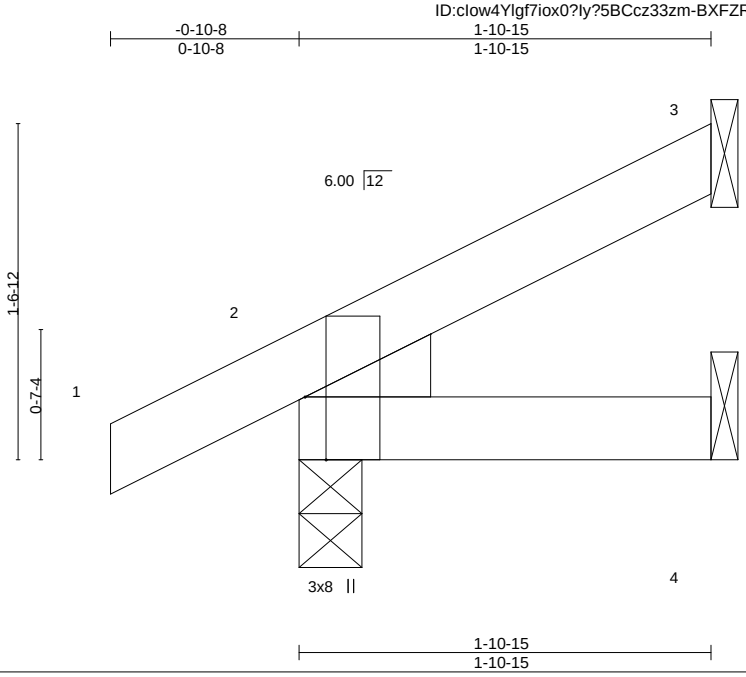


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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: 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 1-10-15 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=49(LC 12)
Max Uplift 3=-23(LC 12), 2=-18(LC 12)
Max Grav 3=60(LC 1), 2=201(LC 1), 4=35(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J12	Jack-Closed	1	1	I43817598
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:40 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-BXFZRrcmrhUCsNgxJ1SXCG5CfrREJEAc_YMPElyDJaf

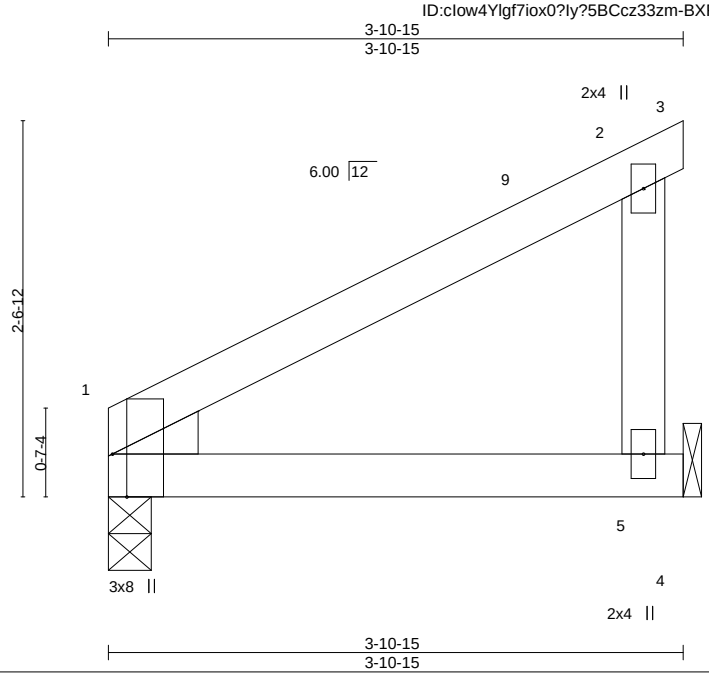


Plate Offsets (X,Y)-- [1:0-0-1,0-0-3], [1:0-0-3,0-5-0], [1:0-3-8,Edge]

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	0.22	Vert(LL)	0.02	5-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	5-8	>999	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-MP							Weight: 12 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 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 1=0-3-8
Max Horz 1=78(LC 11)
Max Uplift 5=-39(LC 12), 1=-9(LC 12)
Max Grav 5=217(LC 1), 1=200(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-10-15 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 1.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J13	Jack-Open	1	1	I43817599
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:41 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-gjpyfBcOc_d3UXF8tlzmlUeMYFov2hQmCC6zmByDJae

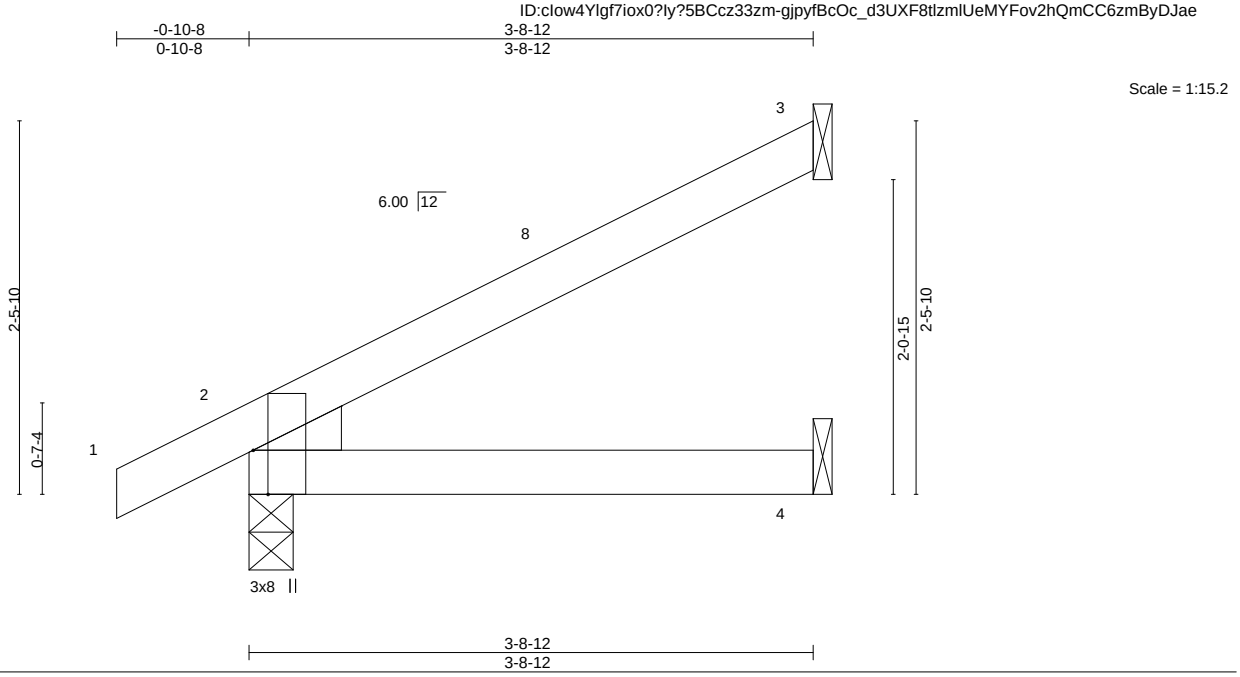


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	0.21	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	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 3-8-12 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=81(LC 12)
Max Uplift 3=-48(LC 12), 2=-20(LC 12)
Max Grav 3=135(LC 1), 2=290(LC 1), 4=73(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-8-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J14	Jack-Closed	2	1	I43817600
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:42 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-8vNKsXd1NIlw5hpKRSU?HhAZUf9Nn8gvRsrWJdyDJad

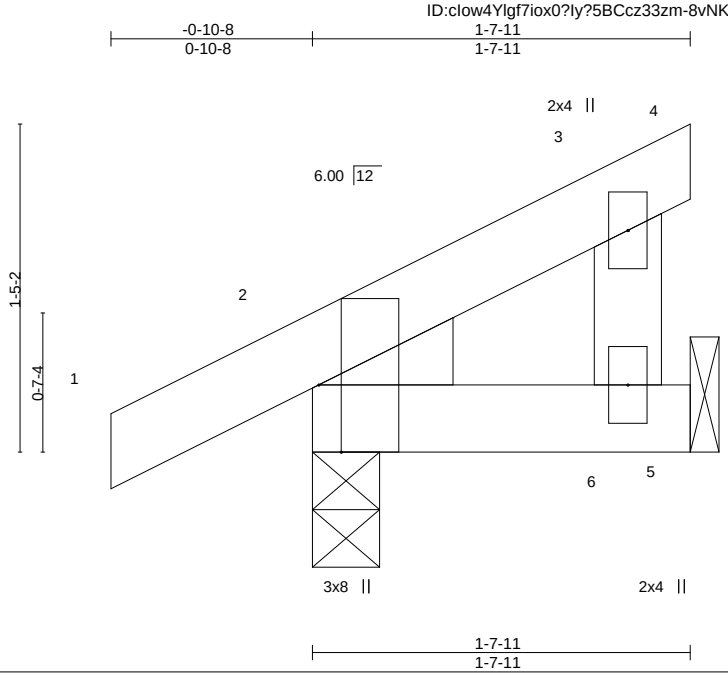


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=43(LC 11)
Max Uplift 2=-24(LC 12), 5=-13(LC 12)
Max Grav 2=188(LC 1), 5=57(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J15	Jack-Closed	2	1	I43817601
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:43 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-c5xi4tef8ctnjrOW_A?EqvjkE2VTWbv2gWb4r4yDJac

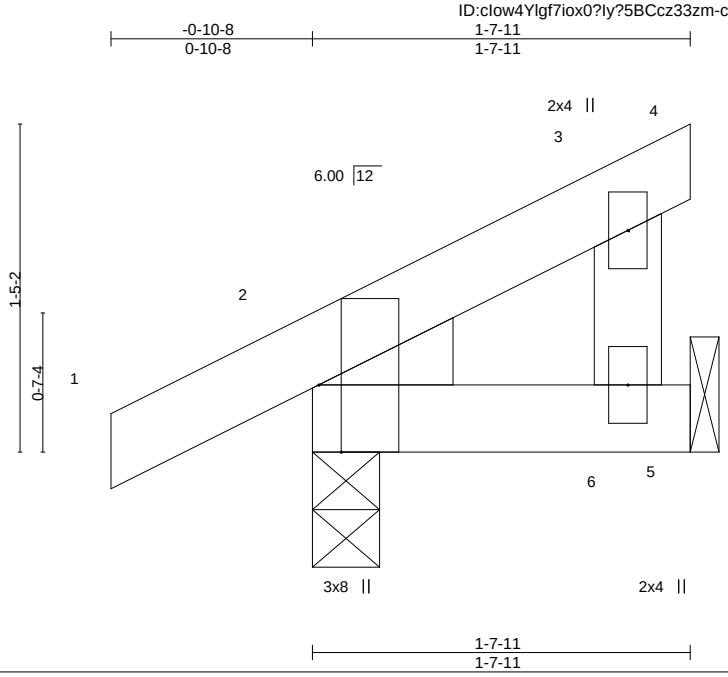


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

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	9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-7-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 5=43(LC 11)
Max Uplift 2=-24(LC 12), 5=-13(LC 12)
Max Grav 2=188(LC 1), 5=57(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J16	Jack-Open	1	1	I43817602
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:43 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-c5xi4tef8ctnjrOW_A?EqvjZo2S8WaE2gWb4r4yDJac

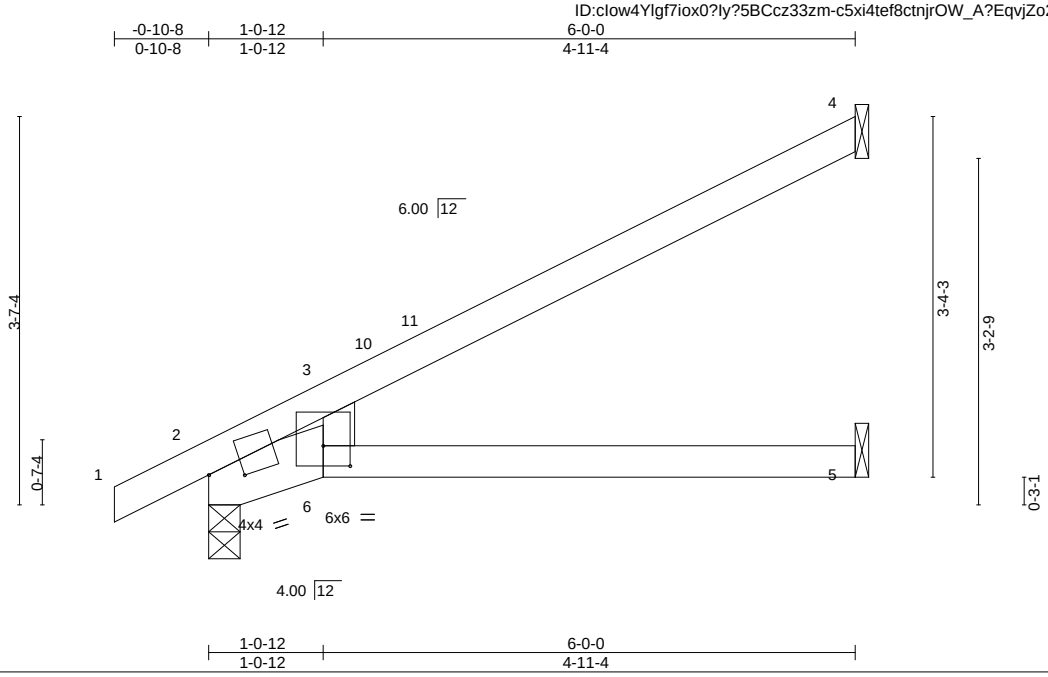


Plate Offsets (X,Y)-- [2:0-3-13,0-1-5], [3:0-1-12,0-0-14], [6:0-3-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	0.10	6	>725	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.17	6	>422	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.05	2	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 2x4 SPF No.2 *Except*
2-6: 2x6 SPF No.2
WEBS 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=123(LC 12)
Max Uplift 4=-98(LC 12), 2=-23(LC 12)
Max Grav 4=272(LC 1), 2=411(LC 1), 5=98(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-370/44
WEBS 3-6=-243/449

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 5-11-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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) 4, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J17	Jack-Open	1	1	I43817603
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:44 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-4IV4HDfHvv?eL?zjYtWTN6GjFSnVF2OCuAKdNWyDJab

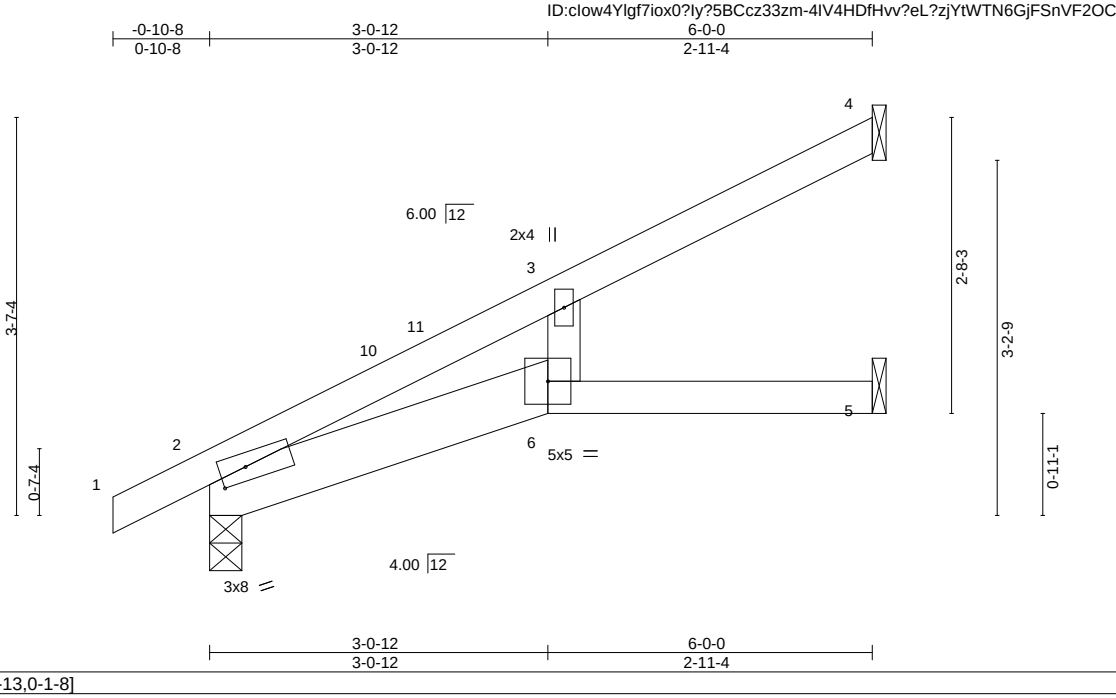


Plate Offsets (X,Y)-- [2:0-2-13,0-1-8]

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	0.88	Vert(LL)	0.16	6	>444	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.30	6	>235	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-6: 2x6 SPF No.2
WEBS 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=123(LC 12)
Max Uplift 4=-86(LC 12), 2=-23(LC 12)
Max Grav 4=292(LC 1), 2=411(LC 1), 5=58(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 5-11-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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) 4, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J18	Jack-Open	2	1	I43817604
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:45 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-YU3SUZgvgD7Vy9Yv6a2ivKouFs7Z_VgL7q4AvyyDJaa

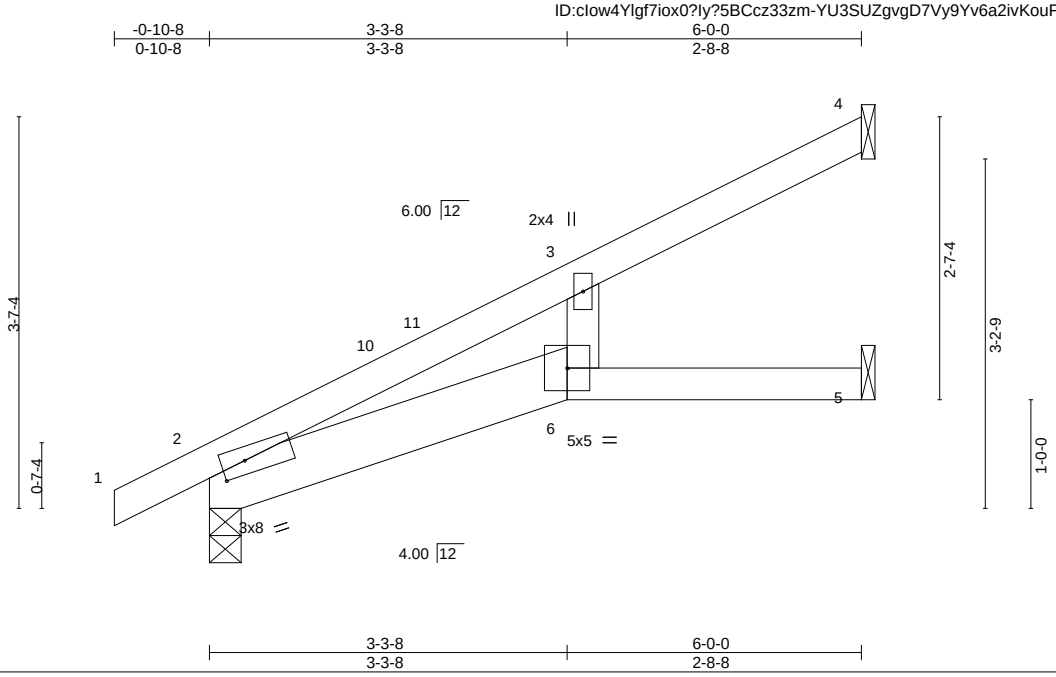


Plate Offsets (X,Y)-- [2:0-2-9,0-1-8]

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	0.87	Vert(LL)	0.15	6	>464	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.29	6	>245	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-6: 2x6 SPF No.2
WEBS 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=123(LC 12)
Max Uplift 4=-85(LC 12), 2=-23(LC 12)
Max Grav 4=294(LC 1), 2=411(LC 1), 5=53(LC 3)

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

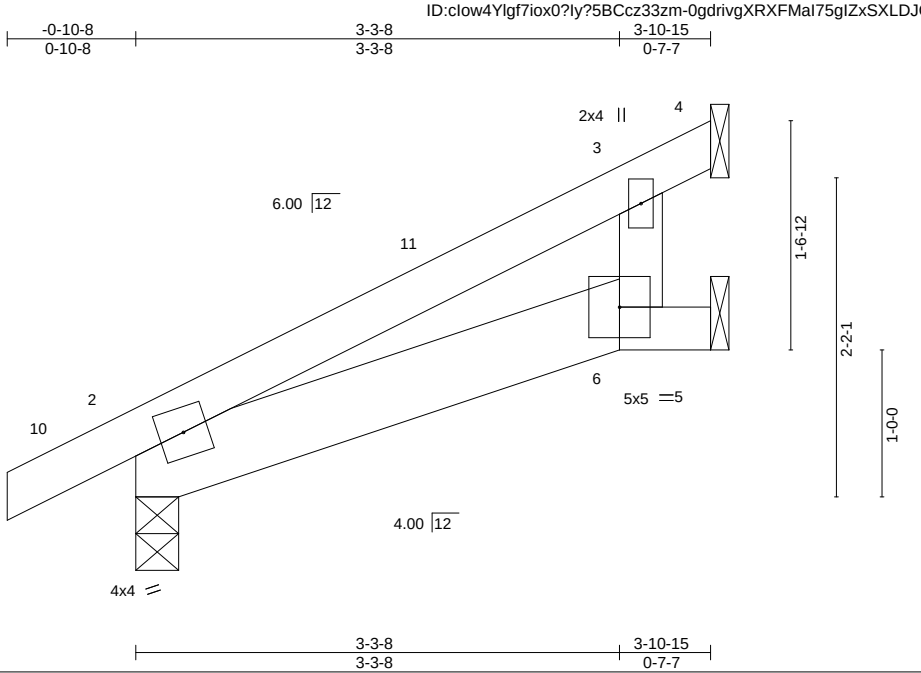
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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) 4, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J19	Jack-Open	2	1	I43817605
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:46 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-0gdrivgXRXFMaI75gIZxSXLDJGVWjyIVMUpkSOyDJaZ



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)	-0.01	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 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=-49(LC 12), 2=-20(LC 12)
Max Grav 4=197(LC 1), 2=299(LC 1), 5=11(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 3-10-3 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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) 4, 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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	J20	Jack-Open	2	1	I43817606
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:47 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-UtBDvEh9CqNDCSiID?4A_luQsgtXSPveb8ZH_ryDJaY

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

Scale = 1:10.7

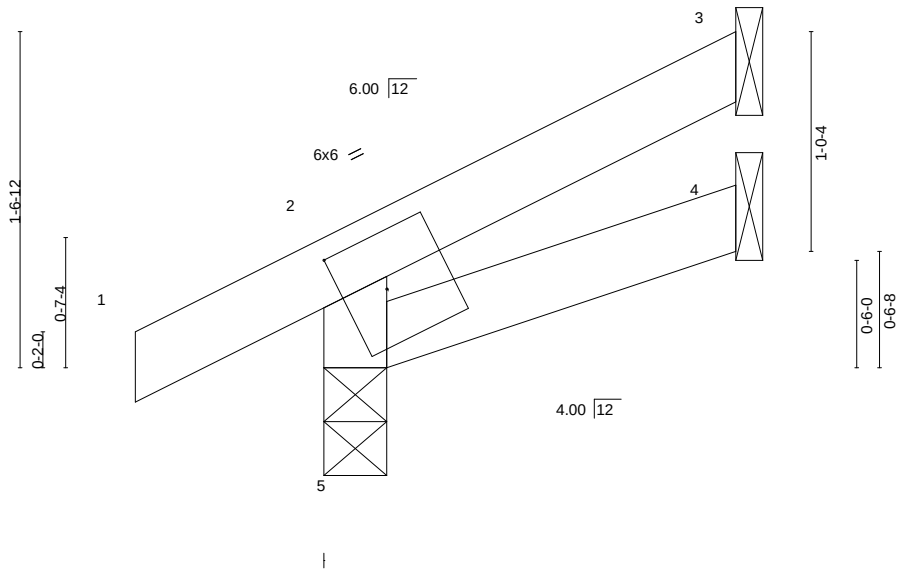


Plate Offsets (X,Y)-- [2:0-1-15,0-0-0], [2:0-2-7,0-3-0], [5:0-0-13,0-1-10]

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	0.09	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5	>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-MR							Weight: 6 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=43(LC 12)
Max Uplift 3=-26(LC 12), 5=-20(LC 12)
Max Grav 3=57(LC 1), 4=31(LC 3), 5=215(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.

December 1,2020

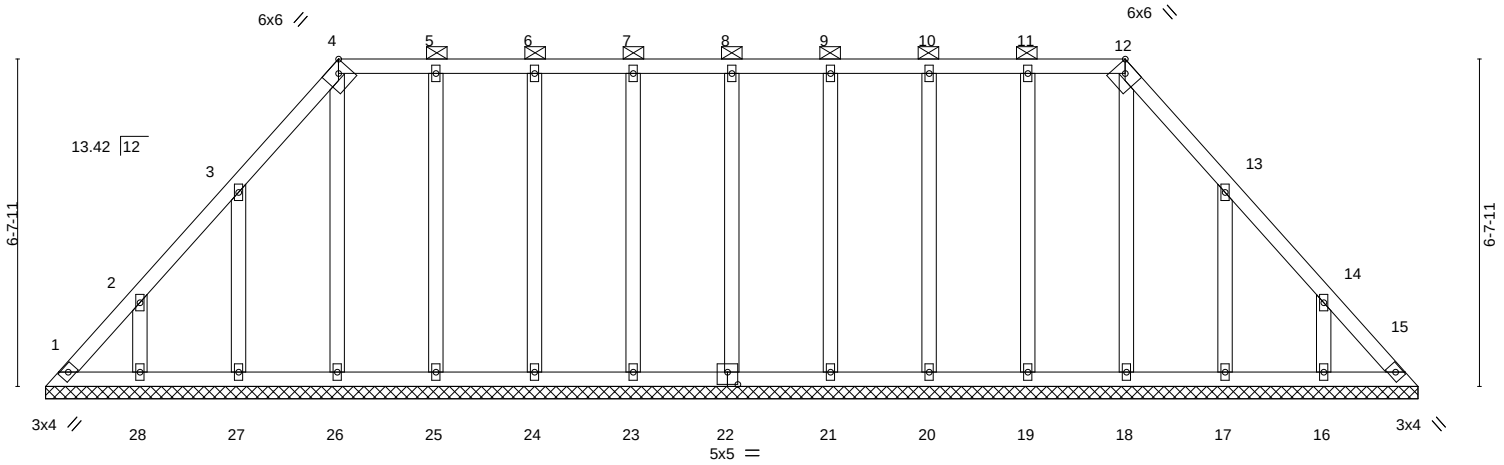
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG1	GABLE	1	1	I43817607
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:54 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-nD6sNenYY_FDXXke8zipnDgdUUGAbXXgCjl9kxyDJaR

5-11-4 | 21-10-10 | 27-9-14
5-11-4 | 15-11-6 | 5-11-4

Scale = 1:46.7



27-9-14
27-9-14

Plate Offsets (X,Y)-- [4:0-2-10,Edge], [12:0-2-10,Edge], [22:0-2-8,0-3-0]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 144 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.): 4-12.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 27-9-14.
(lb) - Max Horz 1=-153(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except 27=-128(LC 12), 28=-115(LC 12), 17=-127(LC 13), 16=-115(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 28, 21, 20, 19, 18, 16 except 27=259(LC 19), 17=258(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=6.0psf; 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 5-11-4, Exterior(2R) 5-11-4 to 9-10-15, Interior(1) 9-10-15 to 21-10-10, Exterior(2R) 21-10-10 to 25-10-15, Interior(1) 25-10-15 to 27-5-15 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except (jt=lb) 27=128, 28=115, 17=127, 16=115.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

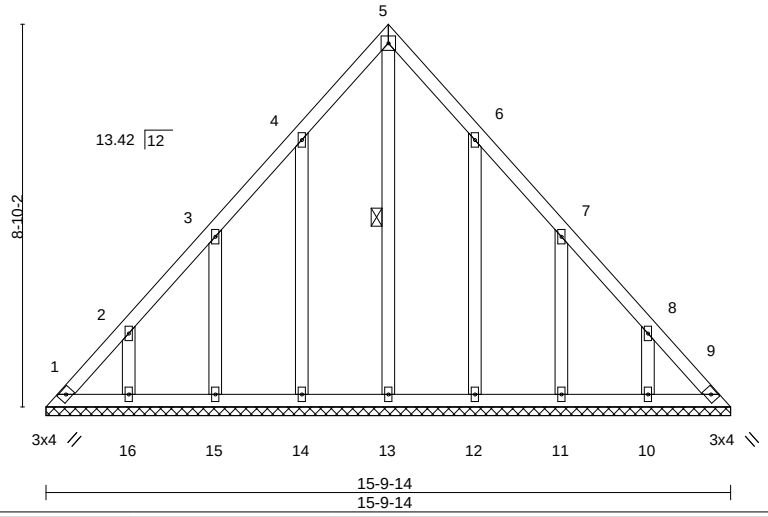
Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG2	GABLE	1	1	I43817608
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:56 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-jcDdoJop4bVxnru0FOkHselzwlxS3Ruzf1EGopyDJaP

7-10-15 15-9-14
7-10-15 7-10-15

4x4 =

Scale = 1:53.3



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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS. All bearings 15-9-14.
(lb) - Max Horz 1=205(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-119(LC 12), 15=-119(LC 12), 16=-116(LC 12), 12=-117(LC 13), 11=-120(LC 13), 10=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=255(LC 19), 12=253(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-281/183, 8-9=-252/178

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 7-10-15, Exterior(2R) 7-10-15 to 10-10-15, Interior(1) 10-10-15 to 15-5-15 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=119, 15=119, 16=116, 12=117, 11=120, 10=116.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG3	GABLE	1	1	I43817609
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:57 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-Con?0fpRrveoO?TDp6FWOsI7XiHYouA6uh_pKGyDJaO

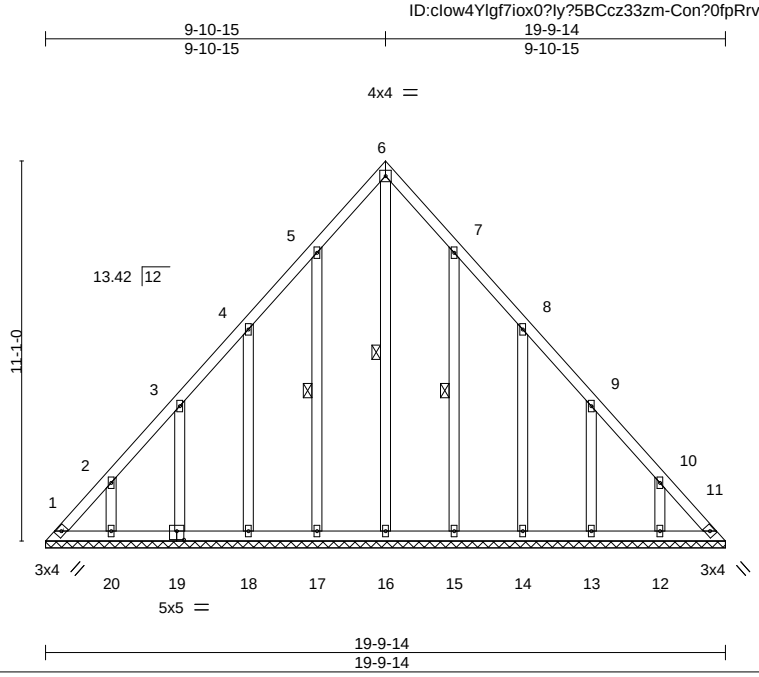


Plate Offsets (X,Y)-- [19:0-2-8,0-3-0]

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 112 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.
WEBS 1 Row at midpt 6-16, 5-17, 7-15

REACTIONS. All bearings 19-9-14.
(lb) - Max Horz 1=-260(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 11 except 1=-113(LC 10), 17=-115(LC 12), 18=-120(LC 12), 19=-119(LC 12), 20=-118(LC 12), 15=-112(LC 13), 14=-121(LC 13), 13=-116(LC 13), 12=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 11, 16, 18, 19, 20, 14, 13, 12 except 1=270(LC 12), 17=254(LC 19), 15=251(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-374/238, 2-3=-259/194, 10-11=-333/231

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 9-10-15, Exterior(2R) 9-10-15 to 12-10-15, Interior(1) 12-10-15 to 19-5-15 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=113, 17=115, 18=120, 19=119, 20=118, 15=112, 14=121, 13=116, 12=116.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG4	GABLE	1	1	I43817610
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:58 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-g_LND?q3cDmf082PNpnlx3rHL5d7XNfG7LjMtiyDJaN

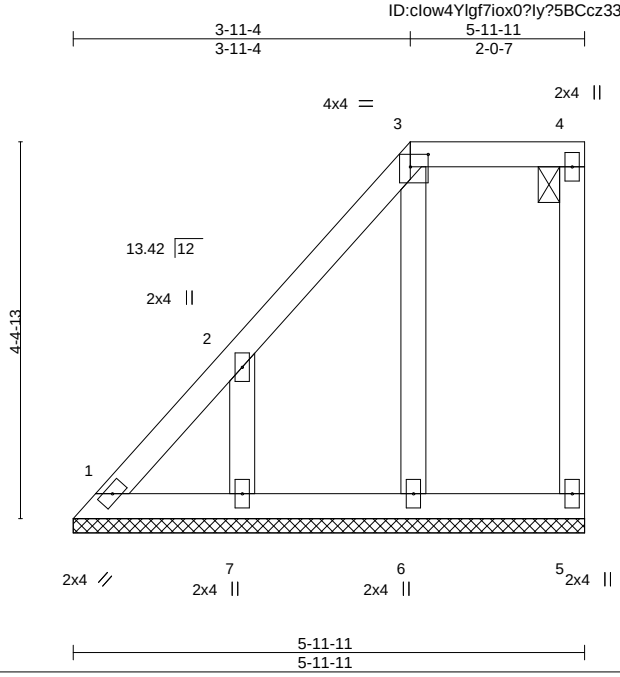


Plate Offsets (X,Y)-- [3:0-2-8,0-1-12]

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	0.14	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	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 5-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-11-11.
(lb) - Max Horz 1=147(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=-135(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=269(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-268/289
WEBS 2-7=-265/162

NOTES-

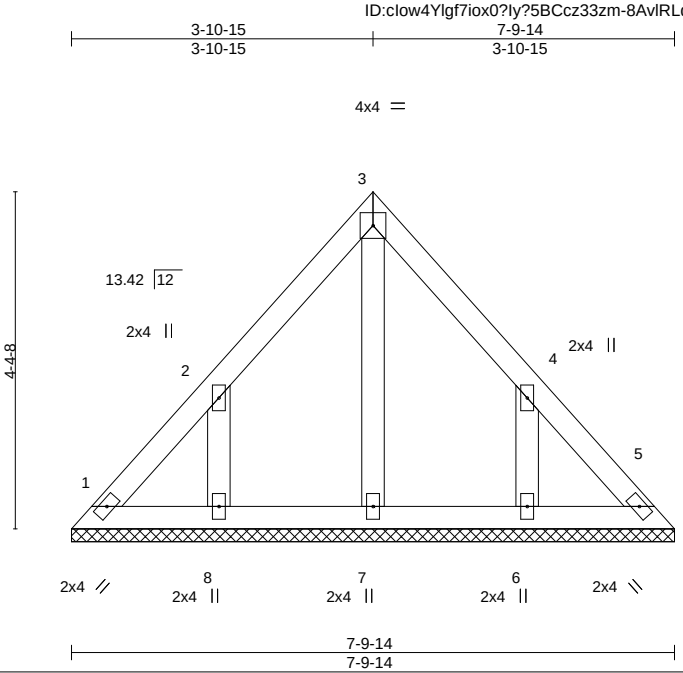
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-11-4, Exterior(2E) 3-11-4 to 5-9-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 7=135.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG5	GABLE	1	1	I43817611
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:49:59 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-8AvlRLqhNWuWeldbwXI_UHNTBVzNGqSPL?TwP8yDJaM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	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: 29 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 7-9-14.
(lb) - Max Horz 1=97(LC 9)
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=267(LC 19), 6=267(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-256/157, 4-6=-256/157

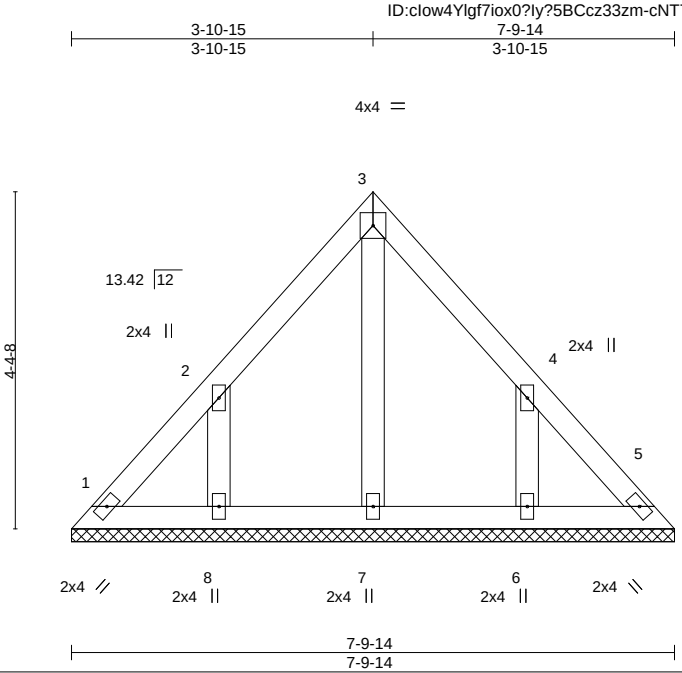
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-15, Exterior(2R) 3-10-15 to 6-10-15, Interior(1) 6-10-15 to 7-5-15 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=133, 6=133.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	LG6	GABLE	1	1	I43817612
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:00 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-cNT7ehrJ8q0MGSCnUEpD0UwewvJc?HiZafCTxayDJaL



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.02	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: 29 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 7-9-14.
(lb) - Max Horz 1=97(LC 11)
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=267(LC 19), 6=267(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-256/157, 4-6=-256/157

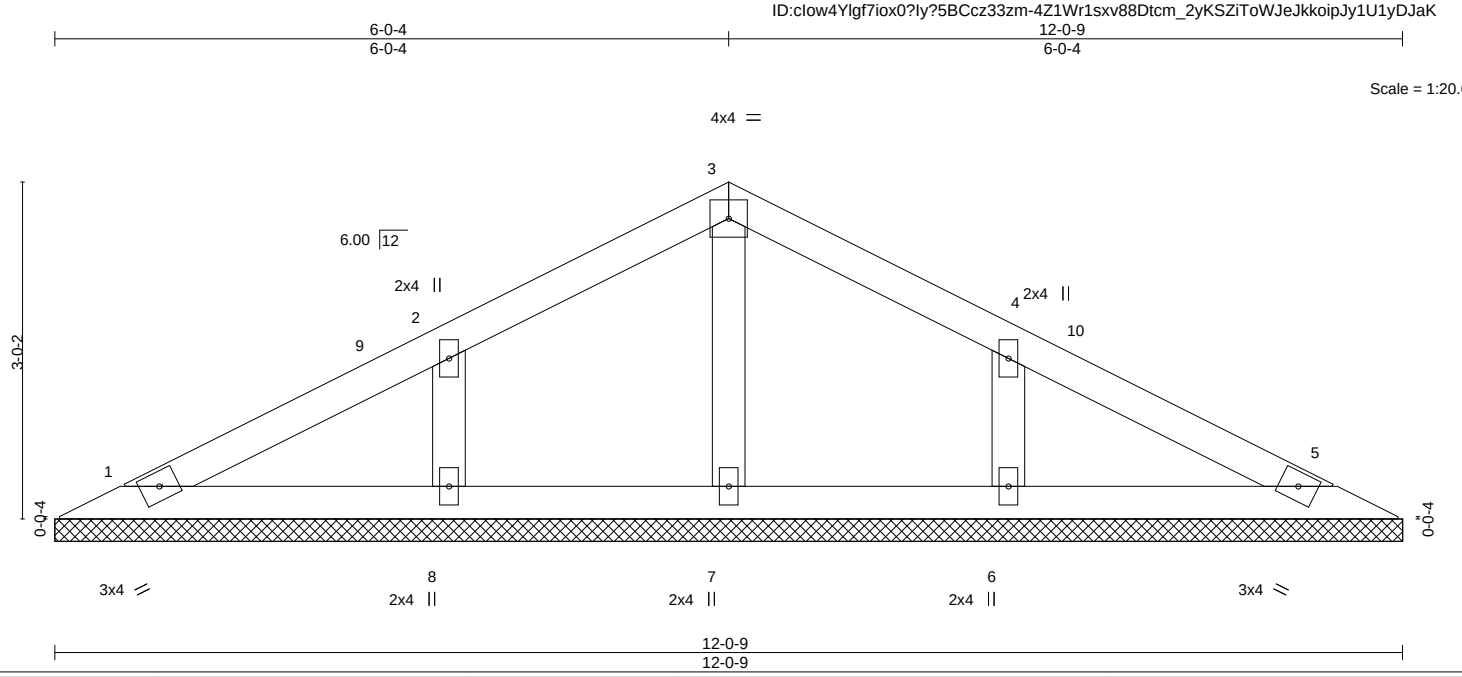
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-15, Exterior(2R) 3-10-15 to 6-10-15, Interior(1) 6-10-15 to 7-5-15 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=133, 6=133.
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.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V1	GABLE	1	1	I43817613
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:01 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-4Z1Wr1sxv88Dtcm_2yKSZiToWJeJkkoipJy1U1yDJaK



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	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 33 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 12-0-9.
(lb) - Max Horz 1=-43(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=361(LC 25), 6=361(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-288/162, 4-6=-288/162

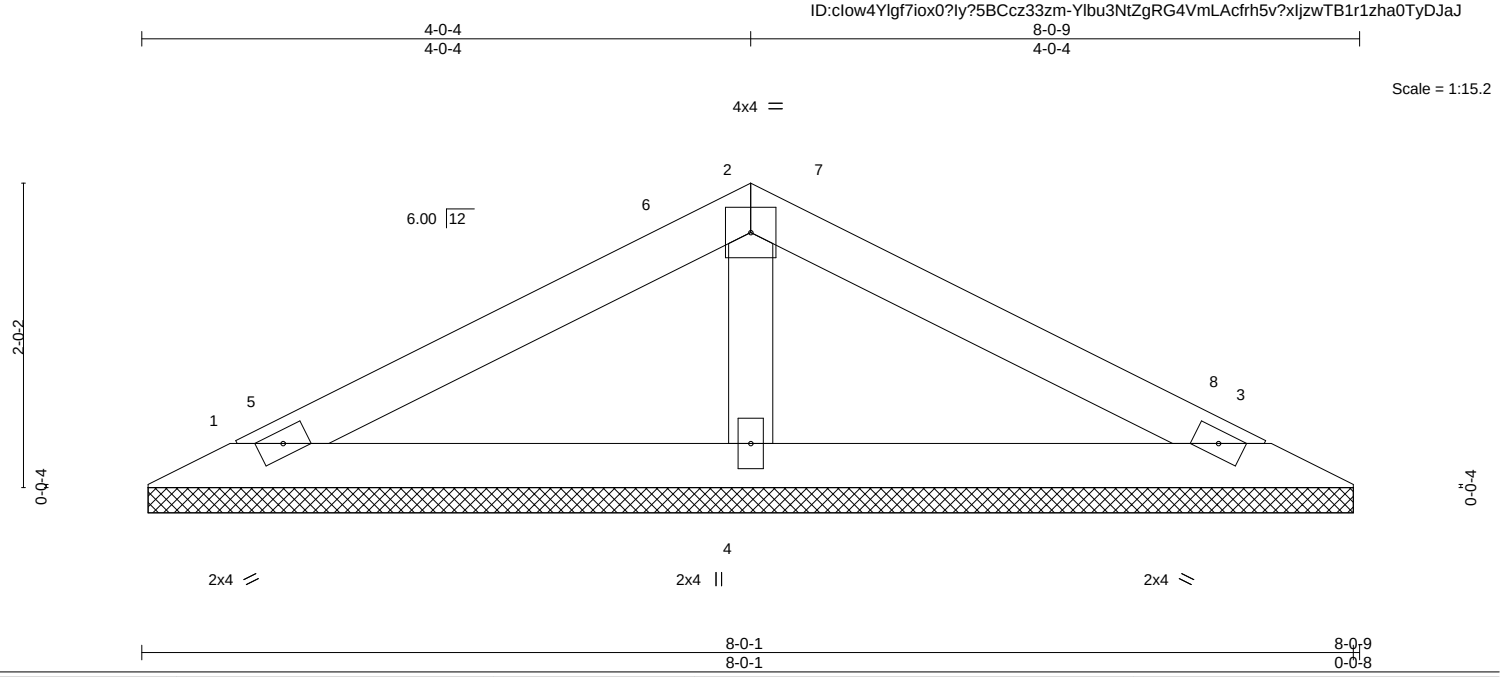
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-6-4, Interior(1) 3-6-4 to 6-0-4, Exterior(2R) 6-0-4 to 9-0-4, Interior(1) 9-0-4 to 11-5-0 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V2	Valley	1	1	I43817614
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:02 2020 Page 1
ID:cIow4Ylgf7iox0?ly?5BCcz33zm-Ylbu3NtZgRG4VmLAcfrh5v?xIjzwTB1r1zha0TyDJaJ



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	0.10	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: 19 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=7-11-9, 3=7-11-9, 4=7-11-9
Max Horz 1=-27(LC 17)
Max Uplift 1=-28(LC 12), 3=-33(LC 13)
Max Grav 1=193(LC 1), 3=193(LC 1), 4=361(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-276/135

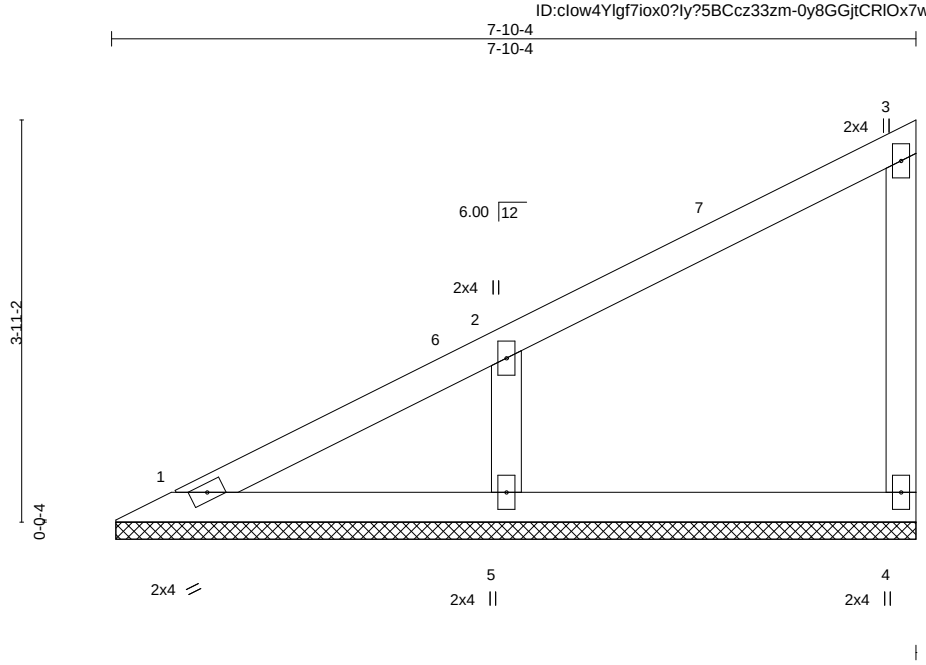
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-0-4, Exterior(2R) 4-0-4 to 7-0-4, Interior(1) 7-0-4 to 7-5-0 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V3	Valley	1	1	I43817615
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:03 2020 Page 1
ID:clow4Ylgf7iox0?ly?5BCcz33zm-0y8GGjtCRlOx7wwM9MMwe7Y626J0Ce1?GdR7YvyDJaI



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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) 1=7-9-12, 4=7-9-12, 5=7-9-12
Max Horz 1=133(LC 9)
Max Uplift 4=-19(LC 9), 5=-89(LC 12)
Max Grav 1=129(LC 20), 4=166(LC 1), 5=489(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-400/232

NOTES-

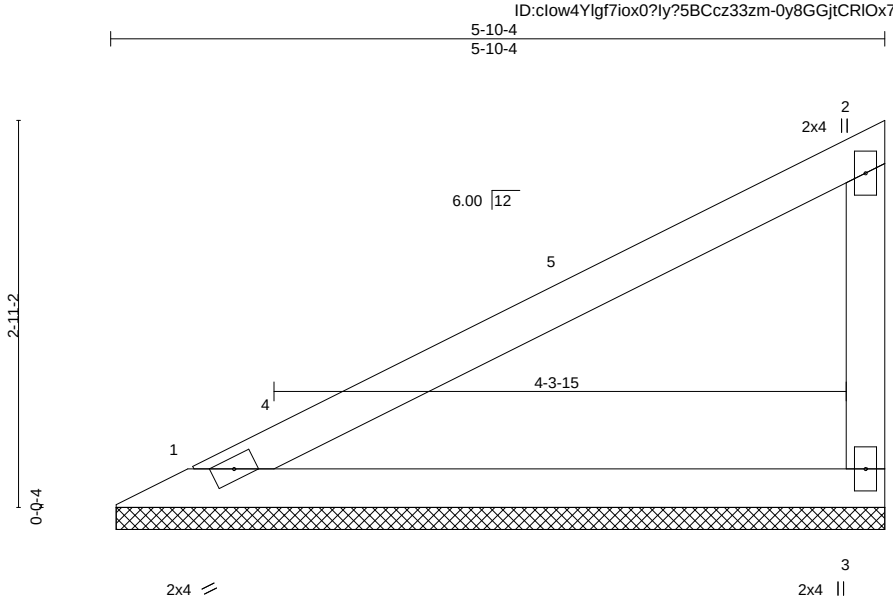
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-10-4, Interior(1) 3-10-4 to 7-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V4	Valley	1	1	I43817616
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:03 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-0y8GGjtCRlOx7wwM9MMwe7Y0A6GTCes?GdR7YvyDJaI



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)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=5-9-12, 3=5-9-12
Max Horz 1=95(LC 9)
Max Uplift 1=-20(LC 12), 3=-44(LC 12)
Max Grav 1=279(LC 1), 3=279(LC 1)

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

NOTES-

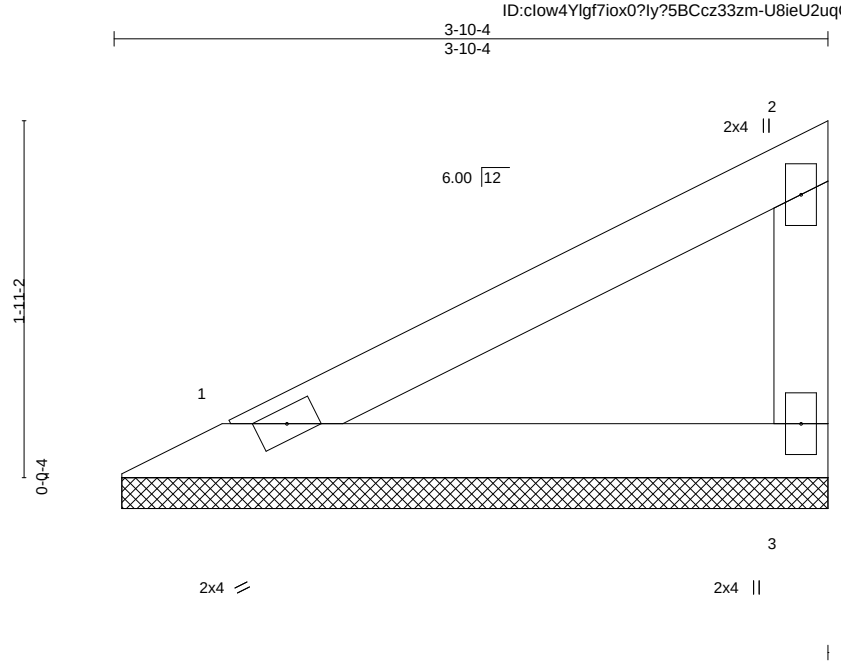
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V5	Valley	1	1	I43817617
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:04 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-U8ieU2uqC3Wok3VZj4t9BK5IbWfVx568VHAh4MyDJaH



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)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb	FT = 20%

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

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

REACTIONS. (size) 1=3-9-12, 3=3-9-12
Max Horz 1=58(LC 9)
Max Uplift 1=-12(LC 12), 3=-27(LC 12)
Max Grav 1=169(LC 1), 3=169(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/14 Woodside
2547158	V6	Valley	1	1	I43817618
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Dec 1 13:50:05 2020 Page 1
ID:cIow4Ylgf7iox0?Iy?5BCcz33zm-zKG0hOvSzMefMD4lHnPOjYdWzw?YgYMIkxwEdoyDJaG

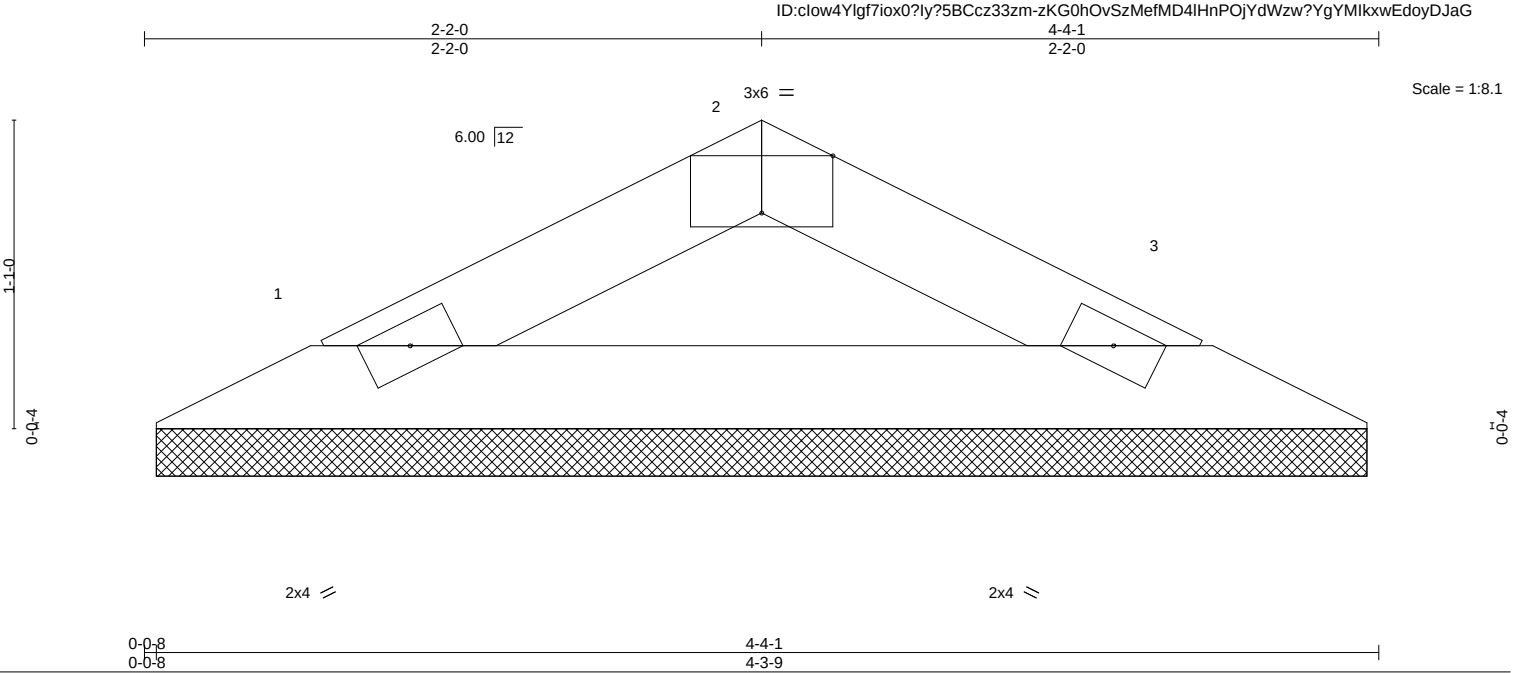


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 9 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 4-4-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-3-1, 3=4-3-1
Max Horz 1=-12(LC 13)
Max Uplift 1=-12(LC 12), 3=-12(LC 13)
Max Grav 1=169(LC 1), 3=169(LC 1)

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

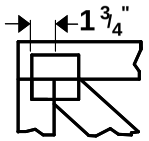
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

December 1,2020

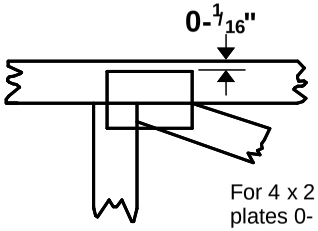
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

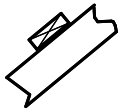
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

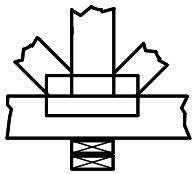
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

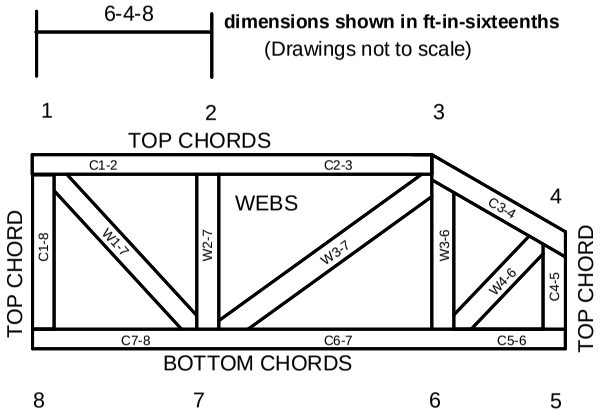


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.