



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/02/2021

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

Re: 2599350
Summit/20 Woodside ridge/MO

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

Pages or sheets covered by this seal: I44600062 thru I44600149

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

Missouri COA: Engineering 001193



February 1, 2021

Sevier, Scott ,Engineer

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

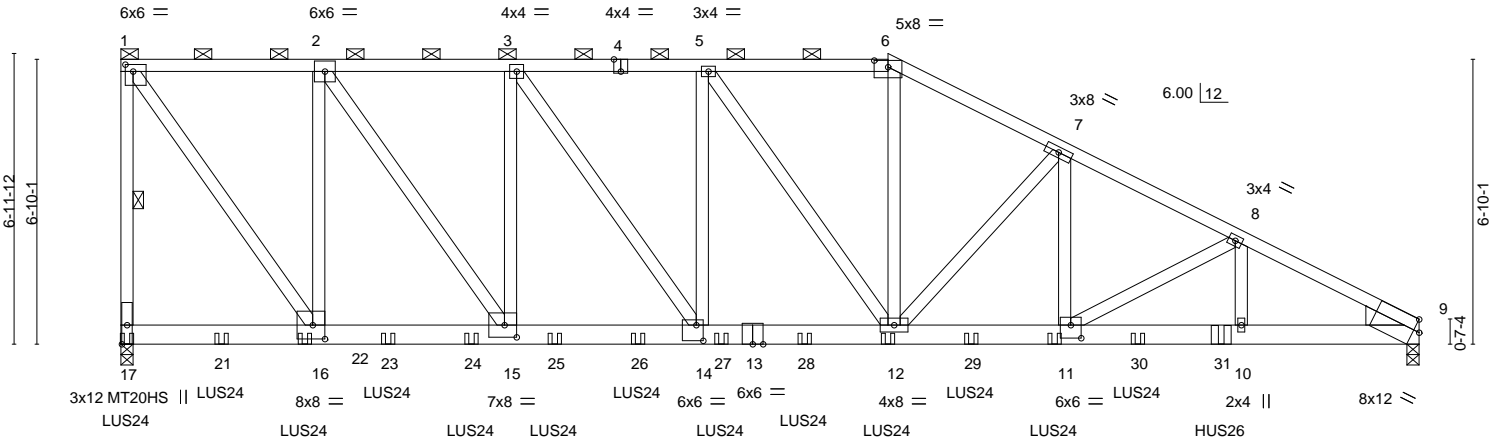
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600062
2599350	A1	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:35:54 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-UeJyqz7nCsmdwVWNJRiUd3UaZrkJmQVarfGESzqTFJ

4-9-0	9-4-4	13-11-8	18-5-0	22-7-14	26-10-13	31-2-0
4-9-0	4-7-4	4-7-4	4-5-8	4-2-14	4-2-14	4-3-3

Scale = 1:55.3



4-9-0	9-4-4	13-11-8	18-5-0	22-7-14	26-10-13	31-2-0
4-9-0	4-7-4	4-7-4	4-5-8	4-2-14	4-2-14	4-3-3

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

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

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 1-6.
6-9: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x6 SP 2400F 2.0E	WEBS 1 Row at midpt 1-17
WEBS 2x4 SPF No.2	
WEDGE	
Right: 2x6 SP No.2	

REACTIONS.	(size) 17=0-3-8, 9=0-3-8
	Max Horz 17=238(LC 27)
	Max Uplift 17=748(LC 4), 9=676(LC 9)
	Max Grav 17=7222(LC 1), 9=6155(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-17=6199/671, 1-2=4306/472, 2-3=7034/722, 3-5=8306/846, 5-6=8042/848, 6-7=9109/926, 7-8=10936/1155, 8-9=11822/1320
BOT CHORD	15-16=406/4306, 14-15=655/7034, 12-14=759/8306, 11-12=911/9742, 10-11=1124/10451, 9-10=1124/10451
WEBS	1-16=770/7378, 2-16=4267/544, 2-15=507/4702, 3-15=2195/314, 3-14=256/2193, 5-14=256/282, 5-12=622/92, 6-12=342/3653, 7-12=2399/422, 7-11=306/2264, 8-11=811/245, 8-10=159/602

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 748 lb uplift at joint 17 and 676 lb uplift at joint 9.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conforms to standard ANSI/TPI 1.



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Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600062
2599350	A1	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc.
Fri Jan 29 14:35:54 2021
Page 2
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- NOTES-**
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-3-4 oc max. starting at 0-1-12 from the left end to 24-5-0 to connect truss(es) to front face of bottom chord.
 - Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to front face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-6=-90, 6-9=-90, 17-18=-20

Concentrated Loads (lb)

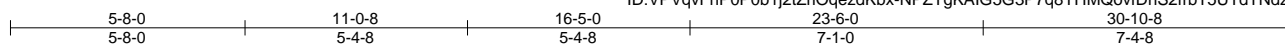
Vert: 17=-687(F) 12=-680(F) 11=-670(F) 21=-680(F) 22=-680(F) 23=-680(F) 24=-680(F) 25=-680(F) 26=-680(F) 27=-680(F) 28=-680(F) 29=-670(F) 30=-670(F) 31=-1146(F)

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600063
2599350	A2	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:35:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-NPZTgkAIG5G3P7q8YHMQovfDhS2frbT5UTdTNdzqTFF



Scale = 1:55.7

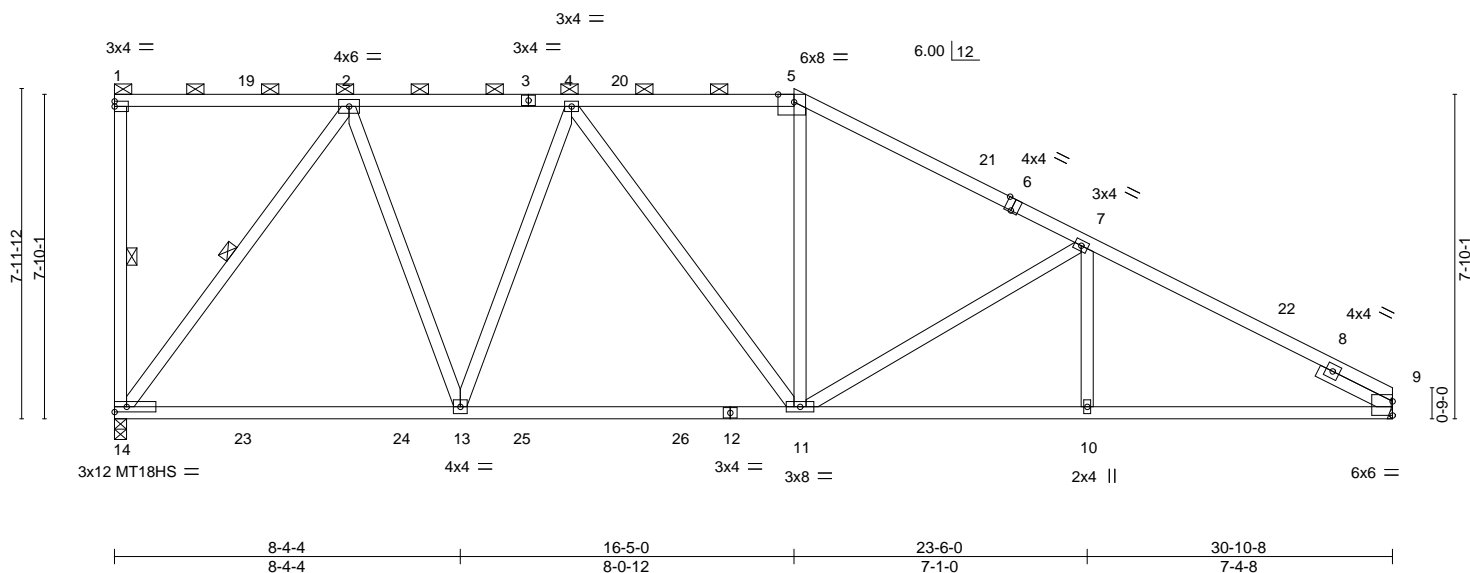


Plate Offsets (X,Y)--		[5:0-4-10,Edge], [6:0-2-0,Edge], [9:0-0-0,0-4-1]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.18	13-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.32	13-14	>999	180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 143 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 9-12: 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2
 SLIDER Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-0-9 max.): 1-5.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 1-14, 2-14

REACTIONS.

(size) 14=0-3-8, 9=Mechanical
 Max Horz 14=-276(LC 10)
 Max Uplift 14=-180(LC 8), 9=-109(LC 13)
 Max Grav 14=1813(LC 2), 9=1759(LC 2)

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

TOP CHORD 2-4=-1471/174, 4-5=-1856/207, 5-7=-2198/198, 7-9=-2868/189
 BOT CHORD 13-14=-54/1134, 11-13=-52/1696, 10-11=-91/2471, 9-10=-91/2471
 WEBS 2-14=-1832/209, 2-13=-18/1085, 4-13=-733/141, 4-11=-71/323, 5-11=0/445, 7-11=-729/202

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 16-5-0, Exterior(2R) 16-5-0 to 20-7-15, Interior(1) 20-7-15 to 30-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 180 lb uplift at joint 14 and 109 lb uplift at joint 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600064
2599350	A3	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

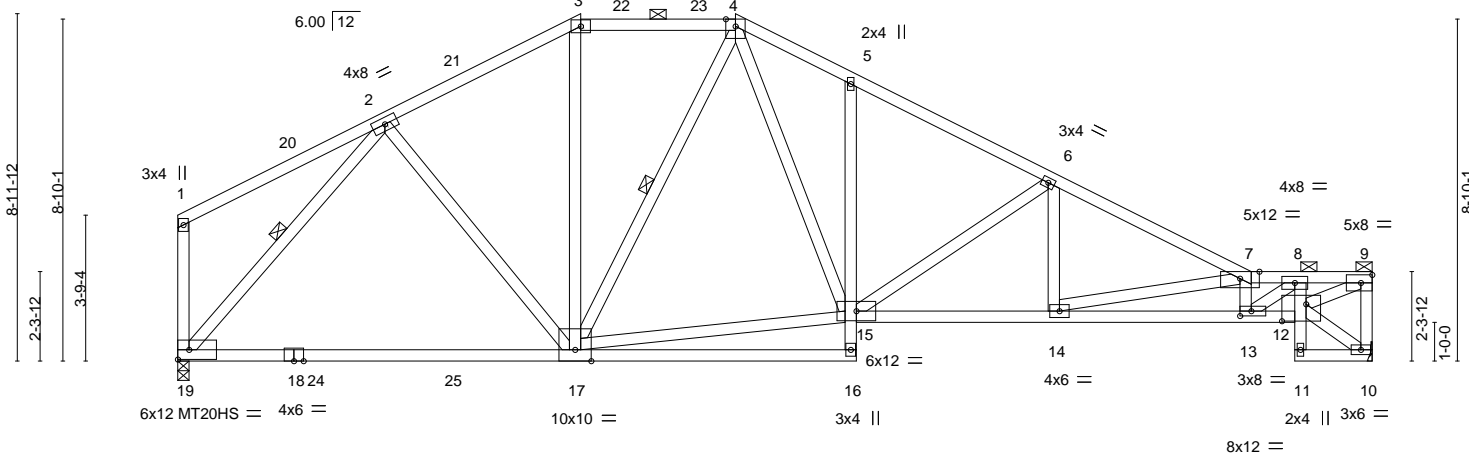
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:35:59 2021 Page 1
ID:VPVqVnP0P0b1j2tZrIQeqzdKbx-rc7rugAw0Oow1HPL6_tfK6BRusMMA3wEj7M1v4zqTFE

5-4-4	10-5-0	14-5-0	17-6-8	22-7-12	27-9-0	28-10-8	30-10-8
5-4-4	5-0-12	4-0-0	3-1-8	5-1-4	5-1-4	1-1-8	2-0-0

4x6 =

6x6 =

Scale = 1:59.6



5-4-4	10-5-0	14-5-0	17-6-8	22-7-12	27-9-0	28-10-8	30-10-8
5-4-4	5-0-12	4-0-0	3-1-8	5-1-4	5-1-4	1-1-8	2-0-0

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.41	17-19	>885	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.71	17-19	>520	180	MT20HS
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.23	10	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 166 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
12-15: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-5-14 max.): 3-4, 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-17, 2-19

REACTIONS.

(size) 10=Mechanical, 19=0-3-8
Max Horz 19=184(LC 8)
Max Uplift 10=124(LC 13), 19=77(LC 12)
Max Grav 10=1729(LC 2), 19=1765(LC 2)

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

TOP CHORD 2-3=-1689/220, 3-4=-1429/231, 4-5=-2389/305, 5-6=-2483/253, 6-7=-3387/255,
7-8=-4669/330, 8-9=-3103/227, 9-10=-1579/136, 1-19=-256/73
BOT CHORD 17-19=-128/1234, 5-15=-297/137, 14-15=-216/2988, 13-14=-332/4468, 12-13=-292/3583,
8-12=-800/56
WEBS 15-17=-88/1524, 4-15=-176/1278, 6-15=-1033/164, 6-14=0/536, 7-14=-1509/160,
7-13=-1439/167, 8-13=-107/1415, 9-12=-263/3359, 3-17=-20/364, 4-17=-617/110,
2-17=0/409, 2-19=-1757/196

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 3-1-12, Interior(1) 3-1-12 to 10-5-0, Exterior(2R) 10-5-0 to 13-5-0, Interior(1) 13-5-0 to 14-5-0, Exterior(2R) 14-5-0 to 17-5-9, Interior(1) 17-5-9 to 30-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 10 and 77 lb uplift at joint 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



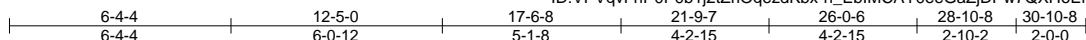
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600065
2599350	A4	Roof Special	3	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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6x6 =

Scale = 1:66.1

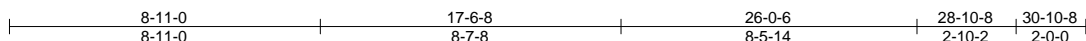
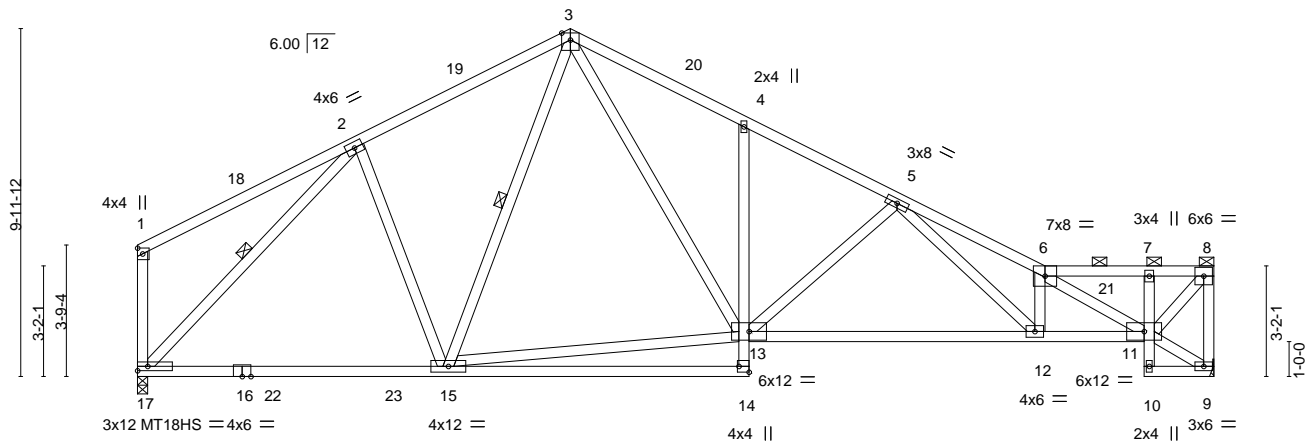


Plate Offsets (X,Y)-- [14:Edge,0-3-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.24 12-13	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.52 12-13	>705	180	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.16 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 164 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-8-2 max.): 6-8.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 3-15, 2-17

REACTIONS.

(size) 9=Mechanical, 17=0-3-8
 Max Horz 17=-194(LC 8)
 Max Uplift 9=-136(LC 13), 17=-92(LC 12)
 Max Grav 9=1729(LC 2), 17=1763(LC 2)

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

TOP CHORD 2-3=-1685/219, 3-4=-2471/308, 4-5=-2488/219, 5-6=-4144/303, 6-7=-1512/119,
 7-8=-1435/109, 8-9=-1637/154, 1-17=-278/88
 BOT CHORD 15-17=-136/1373, 4-13=-424/167, 12-13=-221/2742, 11-12=-273/3724
 WEBS 2-15=-52/295, 13-15=-82/1313, 3-13=-211/1503, 5-13=-805/166, 5-12=-63/1300,
 6-12=-696/142, 6-11=-2614/139, 8-11=-187/2112, 2-17=-1843/139

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 30-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 9 and 92 lb uplift at joint 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Scale = 1:64.9

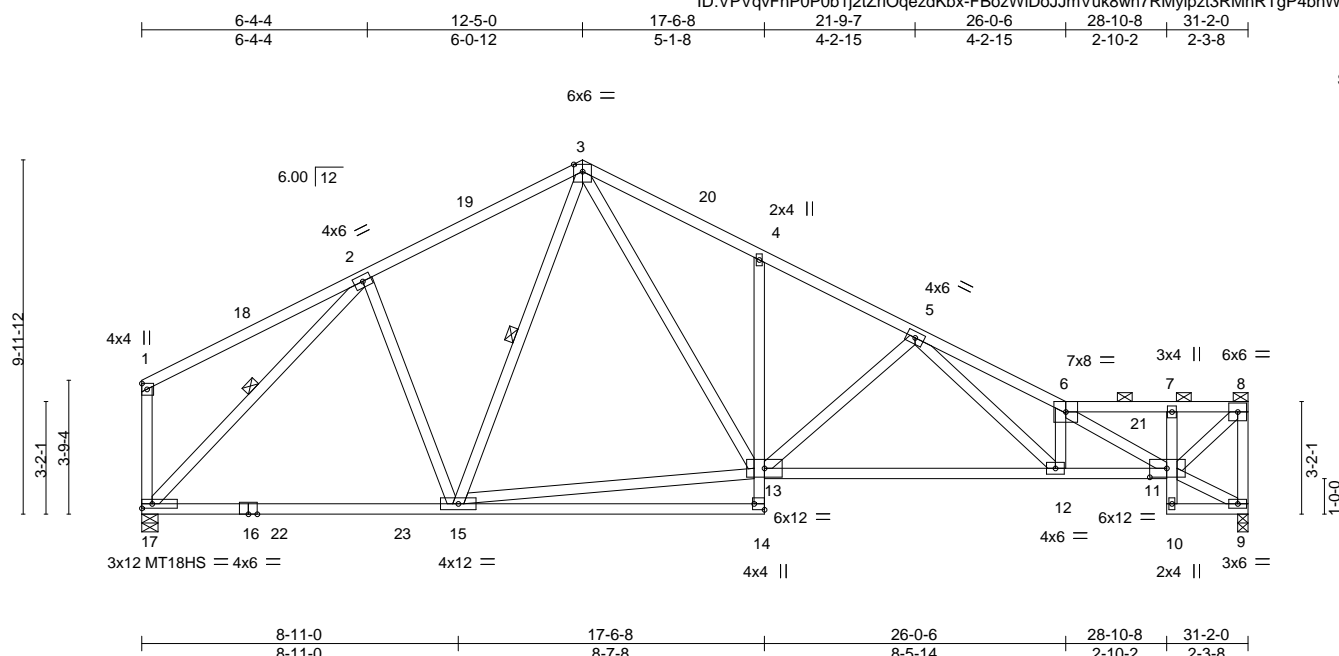


Plate Offsets (X,Y)--		[11:0-5-12,0-3-0], [14:Edge,0-3-8]		S.F.S		S.F.L		2-10-2		2-3-0	
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.25 12-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.55 12-13	>677	180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.17 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 165 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2 *Except*		2-0-0 oc purlins (4-3-13 max.): 6-8.
	11-13: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 3-15, 2-17

REACTIONS. (size) 9=0-3-8, 17=0-5-8
 Max Horz 17=-194(LC 8)
 Max Uplift 9=-139(LC 13), 17=-92(LC 12)
 Max Grav 9=1746(LC 2), 17=1780(LC 2)

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

TOP CHORD 2-3=-1705/220, 3-4=-2522/313, 4-5=-2540/222, 5-6=-4383/322, 6-7=-1763/139, 7-8=-1686/130, 8-9=-1655/157, 1-17=-2748/288

BOT CHORD 15-17=-137/1387, 4-13=-423/167, 12-13=-225/2831, 11-12=-290/3948

WEBS 2-15=-47/302, 13-15=-83/1333, 3-13=-215/1551, 5-13=-862/171, 5-12=-77/1473, 6-12=-814/152, 6-11=-2580/136, 8-11=-201/2290, 2-17=-1865/140

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=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 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 9 and 92 lb uplift at joint 17.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

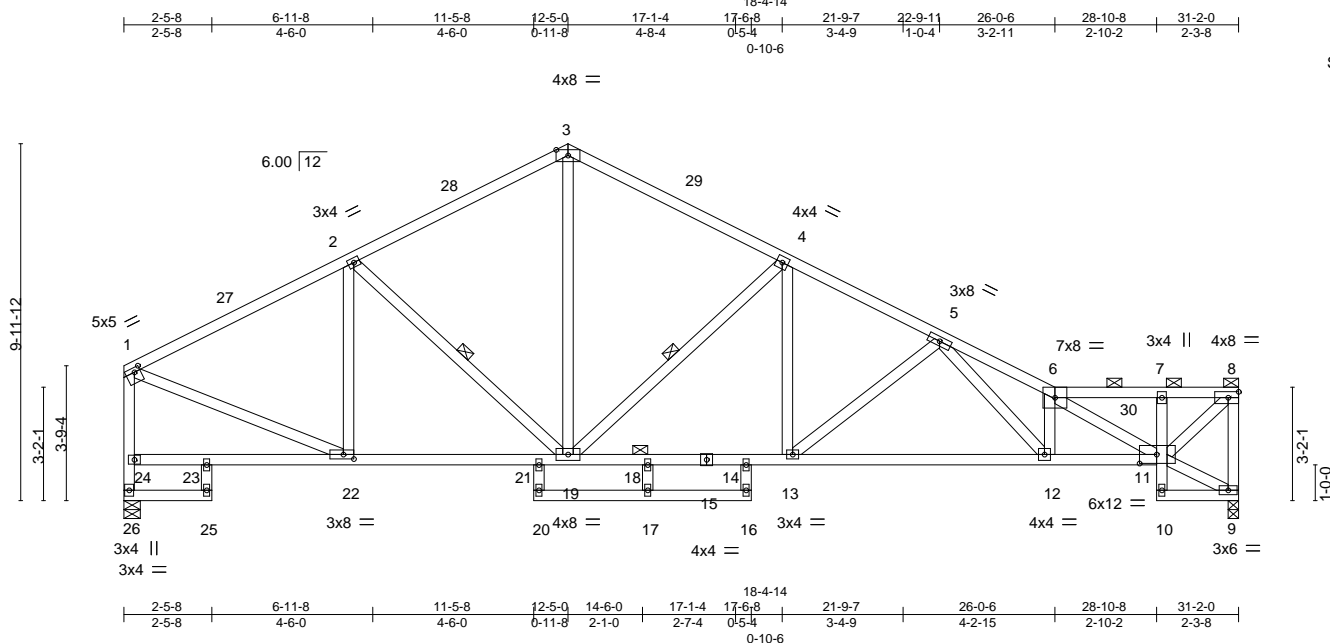


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [11:0-5-12,0-3-0], [22:0-3-8,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.15	12-13	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.39	12-13	>952	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.18	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 166 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-3-12 max.); 6-8.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 2-19, 4-19
		JOINTS	1 Brace at Jt(s): 8, 18

REACTIONS. (size) 9=0-3-8, 26=0-5-8
 Max Horz 26=-194(LC 8)
 Max Uplift 9=-139(LC 13), 26=-92(LC 12)
 Max Grav 9=1698(LC 1), 26=1698(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD
 1-2=1852/183, 2-3=1781/215, 3-4=1775/227, 4-5=2651/221, 5-6=4185/317,
 6-7=1736/138, 7-8=1651/129, 8-9=1631/155, 24-26=1663/123, 1-24=1630/137
BOT CHORD
 21-22=154/1557, 19-21=143/1515, 18-19=151/2266, 14-18=151/2266,
 13-14=162/2038, 12-13=240/2945, 11-12=296/3777, 7-11=257/75
WEBS
 1-22=79/1579, 2-22=483/140, 3-19=58/946, 6-12=768/131, 6-11=2411/144,
 8-11=200/2244, 4-13=6/670, 4-19=1128/197, 5-13=823/142, 5-12=69/1165

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; $V_{ult}=115\text{mph}$ (3-second gust) $V_{asd}=91\text{mph}$; $TCDL=6.0\text{psf}$; $BCDL=6.0\text{psf}$; $h=15\text{ft}$; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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 139 lb uplift at joint 9 and 92 lb uplift at joint 26.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600068
2599350	A7	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:05 2021 Page 1

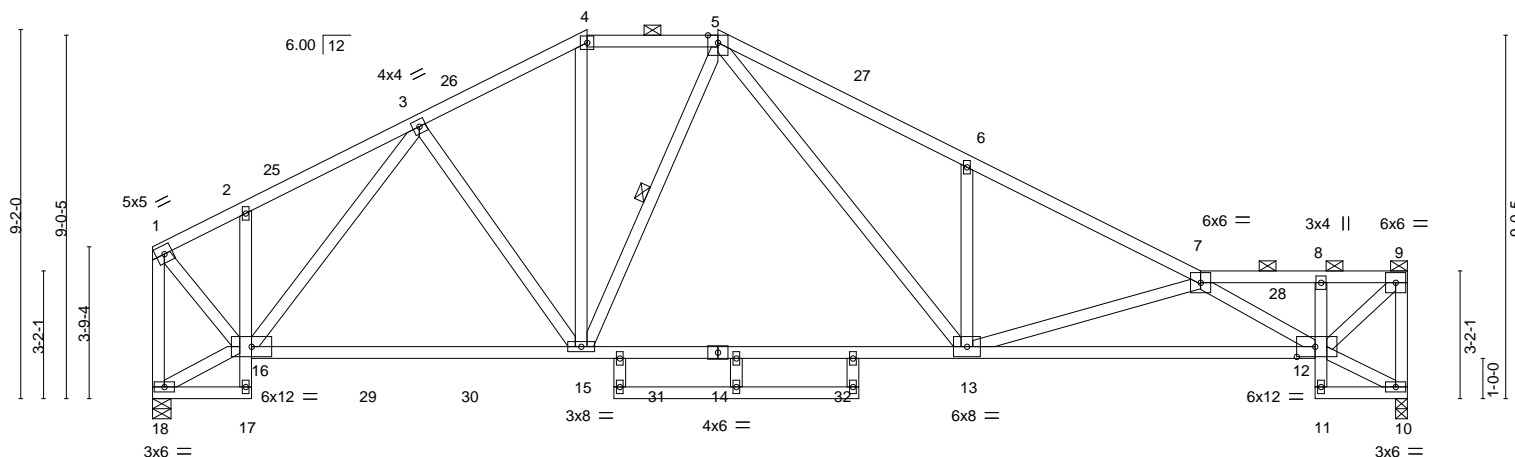
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2-5-8	6-7-8	10-9-8	11-5-8	14-0-8	17-6-8	20-2-12	21-9-7	26-0-6	28-10-8	31-2-0
2-5-8	4-2-0	4-2-0	0-8-0	2-7-0	3-6-0	2-8-4	1-6-11	4-2-15	2-10-2	2-3-8

4x4 =

6x6 =

Scale = 1:57.2



2-5-8	10-9-8	11-5-8	14-0-8	14-6-0	17-6-8	20-2-12	26-0-6	28-10-8	31-2-0
2-5-8	8-4-0	0-8-0	2-7-0	0-5-8	3-0-8	2-8-4	5-9-10	2-10-2	2-3-8

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

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 0.60	Vert(LL)	-0.32	13-15	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.57	13-15	>647		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.19	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 169 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (4-3-5 max.): 4-5, 7-9.
14-16,12-14: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 5-15

REACTIONS. (size) 10=0-3-8, 18=0-5-8
Max Horz 18=184(LC 8)
Max Uplift 10=132(LC 13), 18=80(LC 12)
Max Grav 10=1777(LC 2), 18=1803(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1188/154, 2-3=-1267/207, 3-4=-1941/246, 4-5=-1668/250, 5-6=-3198/343,
6-7=-3176/240, 7-8=-1854/95, 8-9=-1749/105, 9-10=-1726/133, 1-18=-1784/161
BOT CHORD 2-16=-322/123, 15-16=-183/1610, 13-15=-143/1779, 12-13=-343/3928
WEBS 7-12=-2450/244, 9-12=-167/2374, 1-16=-100/1581, 4-15=-45/560, 7-13=-1232/193,
6-13=-589/226, 5-13=-217/1591, 5-15=-449/138, 3-16=-907/98

- 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) 0-1-12 to 3-3-2, Interior(1) 3-3-2 to 10-9-8, Exterior(2E) 10-9-8 to 14-0-8, Exterior(2R) 14-0-8 to 17-1-14, Interior(1) 17-1-14 to 31-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 10 and 80 lb uplift at joint 18.
 - 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.



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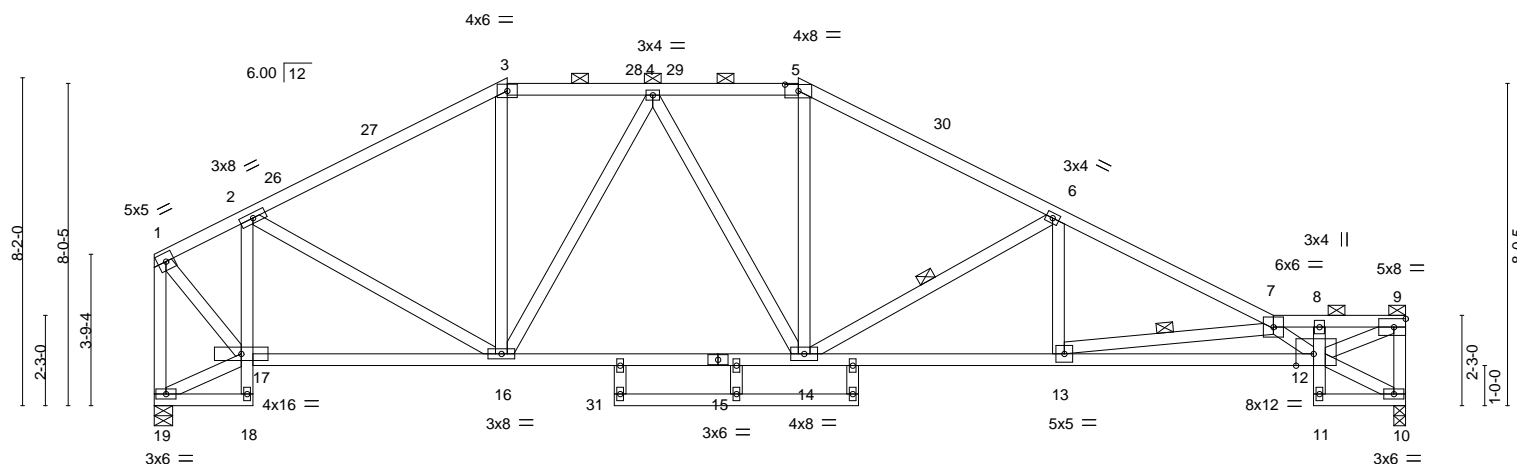
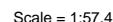
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
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ID:VPVqvEnP0P0b1j2tZrldQnezdKbx-c8cs7PHx8rOn_V0taq1XfoWpA45BShwQ7MISBczqTE6



2-5-8	8-9-8	11-5-8	14-6-0	16-0-8	17-6-8	22-4-8	22-8-8	27-10-8	28-10-8	31-2-0
2-5-8	6-4-0	2-8-0	3-0-8	1-6-8	1-6-0	4-10-0	0-4-0	5-2-0	1-0-0	2-3-8

Plate Offsets (X,Y)-- [5:0-4-0,0-1-15], [12:0-5-4,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	0.62	Vert(LL)	-0.22 14-16 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.44 12-13 >842	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.26 10 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 165 lb FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2 *Except*		2-0-0 oc purlins (3-0-6 max.): 3-5, 7-9.
	12-15: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 7-13, 6-14

REACTIONS. (size) 10=0-3-8, 19=0-5-8
 Max Horz 19=-175(LC 8)
 Max Uplift 10=-117(LC 13), 19=-63(LC 12)
 Max Grav 10=1755(LC 2), 19=1765(LC 2)

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

TOP CHORD 1-2=-1163/151, 2-3=-1980/220, 3-4=-1666/239, 4-5=-2064/252, 5-6=-2432/250,
6-7=-3520/265, 7-8=-3398/192, 8-9=-3076/203, 9-10=-1621/128, 11-9=-1711/148

BOT CHORD 2-17=-1082/191, 16-17=-142/1123, 14-16=-127/1940, 13-14=-223/3112, 12-13=-396/5029

WEBS 2-16=-64/705, 3-16=0/488, 7-13=-1948/211, 7-12=-2132/224, 9-12=-240/3357,
1-17=-114/1569, 5-14=0/648, 6-13=0/577, 6-14=-1192/204, 4-16=-668/100,
4-14=-68/301

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-2, Interior(1) 3-3-2 to 8-9-8, Exterior(2R) 8-9-8 to 11-10-14, Interior(1) 11-10-14 to 16-0-8, Exterior(2R) 16-0-8 to 19-1-14, Interior(1) 19-1-14 to 31-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 10 and 63 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) 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.



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ID:VPVavEnP0P0h1i2tZrIQeazdKhx-YXid_5lBaTfVdPaGh53?kDc6Qur0wepiQanZGVzqTE4

2-5-8	6-9-8	11-5-8	12-5-0	18-0-8	22-4-8	23-5-8	27-1-11	28-10-8	29-10-8	31-2-0
2-5-8	4-4-0	4-8-0	6-11-8	5-7-8	4-4-0	1-1-0	3-8-3	1-8-13	1-0-0	1-3-8

Scale = 1:55.8

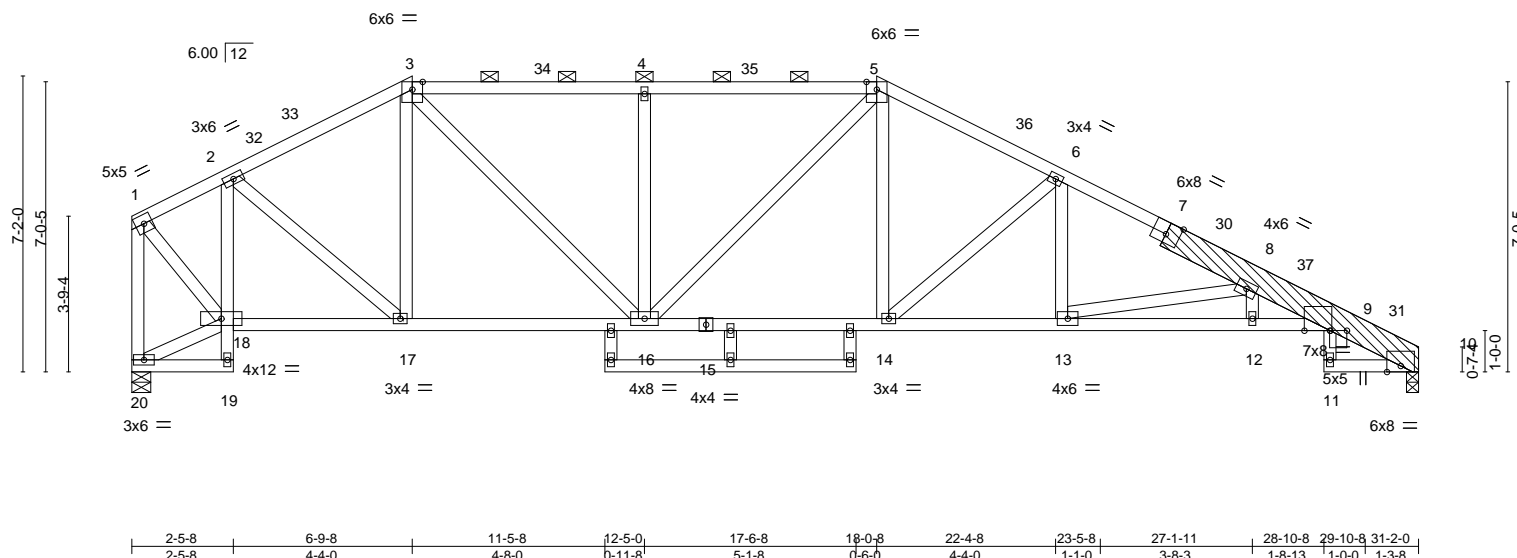


Plate Offsets (X,Y)-- [7:0-4,0,Edge], [9:0-7-8,0-0-0], [9:0-0-0,0-4-14]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.16 12-13 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.36 12-13 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.22 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 192 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 7-10: 2x8 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-12 max.): 3-5.
BOT CHORD	2x4 SPF No.2 *Except* 9-15: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
OTHERS	2x8 SP 2400F 2.0E		
LBR SCAB	7-10 2x8 SP 2400F 2.0E one side		

REACTIONS. (size) 20=0-5-8, 10=0-3-8
 Max Horz 20=-167(LC 10)
 Max Uplift 20=-43(LC 12), 10=-96(LC 13)
 Max Grav 20=1699(LC 1), 10=1706(LC 1)

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

TOP CHORD 1-2=-1117/127, 2-3=-1811/197, 3-4=-2250/248, 4-5=-2250/248, 5-6=-2600/251,
6-8=-3359/256, 8-9=-4536/313, 9-10=-762/72, 1-20=-1658/116

BOT CHORD 2-18=-1052/163, 17-18=-55/996, 16-17=-47/1562, 14-16=-48/2236, 13-14=-115/2966,
12-13=-257/4321, 9-12=-257/4321

WEBS 2-17=-87/749, 3-17=-381/118, 1-18=-74/1462, 5-14=-37/691, 3-16=-108/1039,
4-16=-602/159, 6-13=0/450, 6-14=-928/153, 8-13=-1395/186

NOTES-

- 1) Attached 6-11-10 scab 7 to 10, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-0 from end at joint 7, nail 2 row(s) at 3" o.c. for 5-10-9.
- 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 3-3-2, Interior(1) 3-3-2 to 6-9-8, Exterior(2R) 6-9-8 to 9-10-14, Interior(1) 9-10-14 to 18-0-8, Exterior(2R) 18-0-8 to 21-1-14, Interior(1) 21-1-14 to 31-0-5 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * 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) 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 43 lb uplift at joint 20 and 96 lb uplift at joint 10.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

Continued on page 2

 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personnel injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Code**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600070
2599350	A9	Roof Special	1	1	Job Reference (optional)	

- NOTES-**
- 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/20 Woodside ridge/MO	144600071
2599350	A10	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:35:56 2021 Page 1				
		ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-R1RiF82kT0LApqmRsKyiZUz5fLMNkdo198NJlZqTFH				
4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1
Scale = 1:55.4						

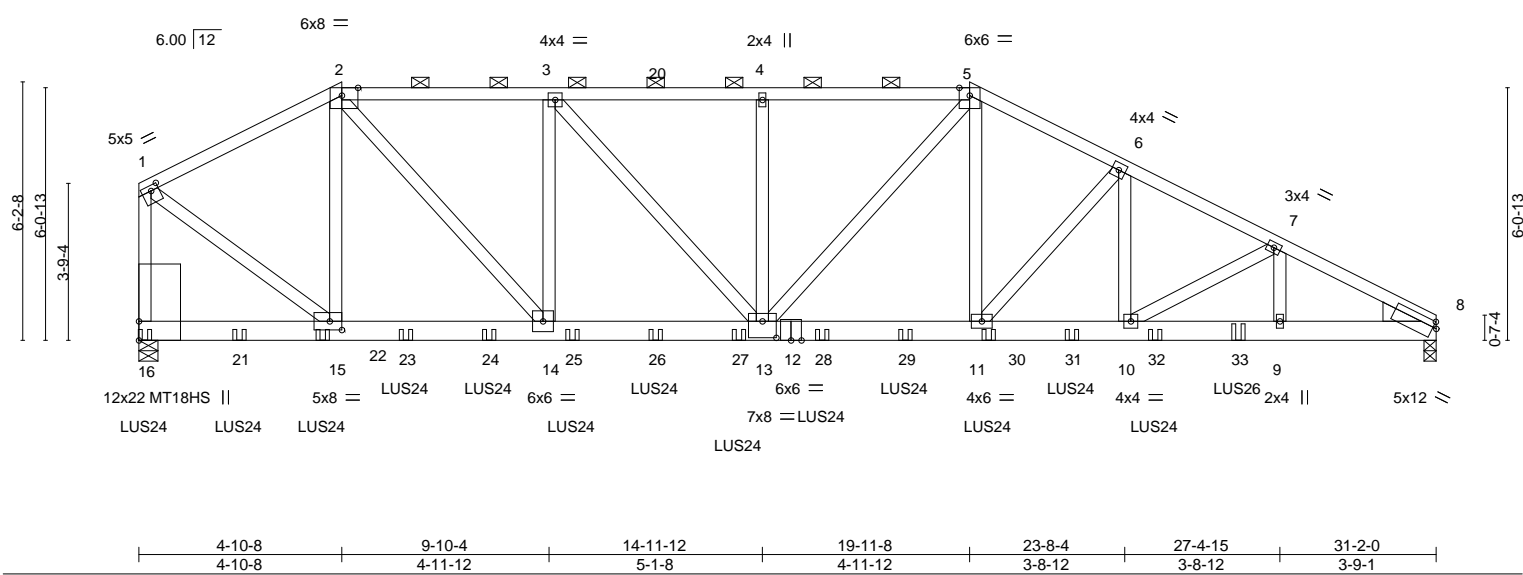


Plate Offsets (X,Y)-- [1:0-2-4,0-1-8], [2:0-4-10,Edge], [8:0-1-0,0-1-12], [13:0-4-0,0-4-12], [15:0-3-8,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.18 11-13 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.39 11-13 >962 180	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.08 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 359 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-8 max.): 2-5.
BOT CHORD 2x6 SPF No.2 *Except* 8-12: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
WEDGE	
Right: 2x6 SP No.2	

REACTIONS.	(size) 8=0-3-8, 16=0-5-8
	Max Horz 16=153(LC 6)
	Max Uplift 8=652(LC 9), 16=653(LC 8)
	Max Grav 8=5602(LC 1), 16=6500(LC 1)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-4996/551, 2-3=-7477/815, 3-4=-8648/987, 4-5=-8651/989, 5-6=-8893/1059, 6-7=-10229/1211, 7-8=-10565/1250, 1-16=-5629/602
BOT CHORD	14-15=-456/4456, 13-14=-756/7474, 11-13=-766/7879, 10-11=-974/9116, 9-10=-1067/9336, 8-9=-1067/9336
WEBS	2-15=-1691/219, 2-14=-520/4643, 3-14=-1879/296, 3-13=-276/1776, 4-13=-563/142, 5-13=-166/1309, 5-11=-343/2657, 6-11=-1744/297, 6-10=-201/1636, 7-10=-256/107, 1-15=-579/5450

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc. Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=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
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 652 lb uplift at joint 8 and 653 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 conforms to standard ANSI/TPI 1.



February 1,2021

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Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600071
2599350	A10	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:35:56 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-R1RiF82kT0LApgmRsKyiUZu5fLMNkdo198NJlqTFH

NOTES-

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 0-1-12 from the left end to 14-5-0 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 12-0-0 oc max. starting at 4-5-0 from the left end to 24-5-0 to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

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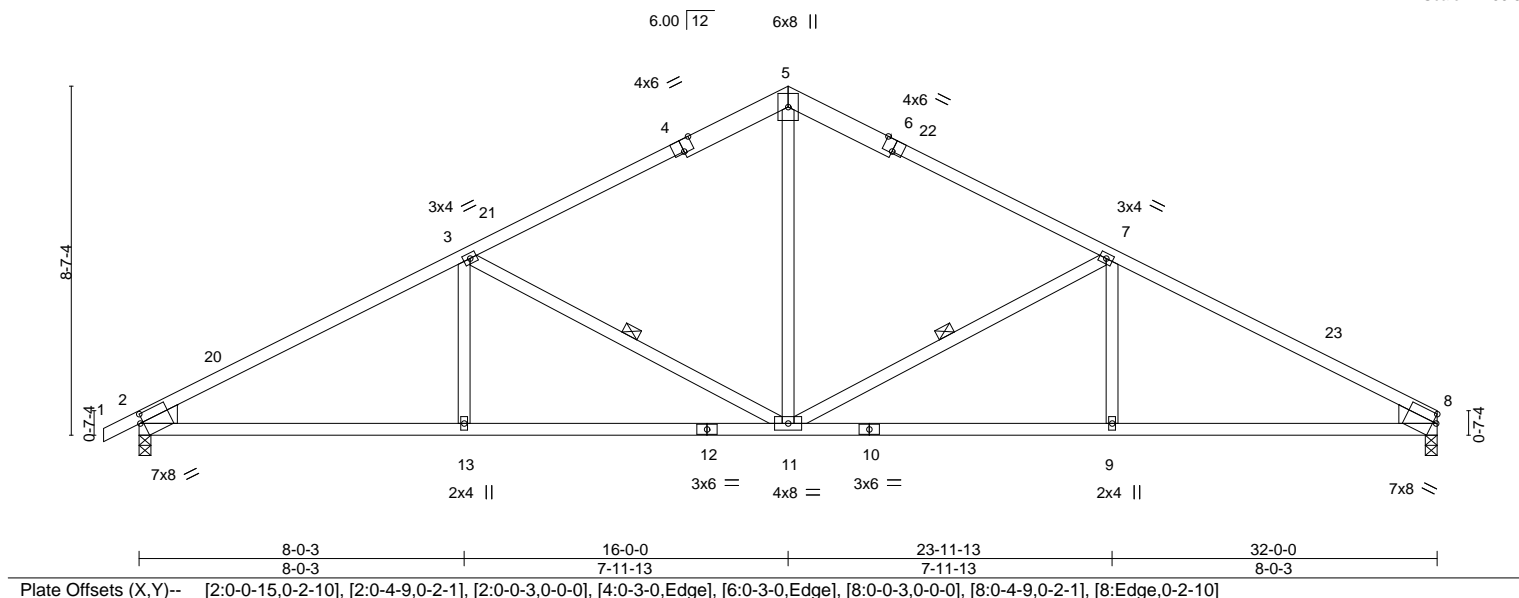
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss B1	Truss Type Common	Qty 2	Ply 1	Summit/20 Woodside ridge/MO 144600072
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-0jH?BRJqRmnMrziSFoaEHR8JWIAcf8usFKX6oxzqTF3

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

Scale = 1:56.8



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

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 1-4,6-8: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 7-11, 3-11
WEDGE			
Left: 2x6 SPF No.2, Right: 2x6 SPF No.2			

REACTIONS.	
(size)	2=0-3-8, 8=0-3-8
Max Horz	2=139(LC 12)
Max Uplift	2=139(LC 12), 8=122(LC 13)
Max Grav	2=1840(LC 1), 8=1759(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-3008/211, 3-5=-2145/226, 5-7=-2145/228, 7-8=-3013/212
BOT CHORD	2-13=-222/2555, 11-13=-222/2555, 9-11=-103/2561, 8-9=-103/2561
WEBS	5-11=-8/1003, 7-11=-937/216, 7-9=0/302, 3-11=-930/214, 3-13=0/301

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 19-0-0, Interior(1) 19-0-0 to 32-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * 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 139 lb uplift at joint 2 and 122 lb uplift at joint 8.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600073
2599350	B2	HIP	1	1	Job Reference (optional)	

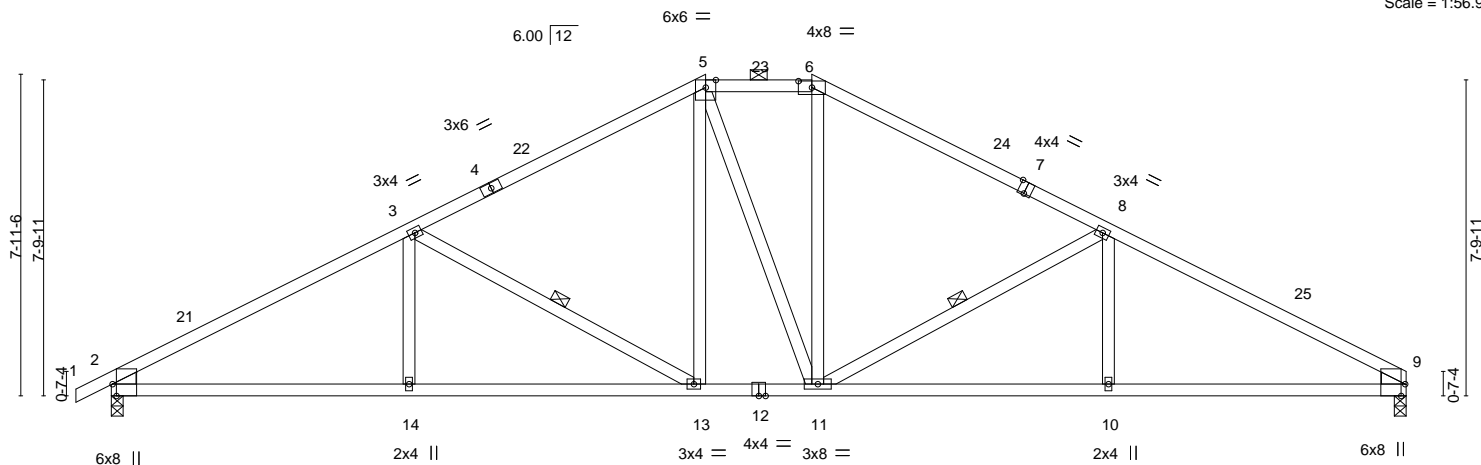
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:11 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-UvrNpNkKSC4vDT7KepV5TpehS8hVmOcV?U_GgKNzqTF2

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

Scale = 1:56.9



	7-4-5 7-4-5	14-8-4 7-3-15	17-3-12 2-7-8	24-7-11 7-3-15	32-0-0 7-4-5
Plate Offsets (X,Y)--	[2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [6:0-4-0,0-1-15], [7:0-2-0,Edge], [9:0-0-1,0-0-3], [9:0-0-3,0-5-0], [9:0-3-8,Edge]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.14 13-14	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.35 13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.13 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 132 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-9-7 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-13, 8-11

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
Max Horz 2=129(LC 16)
Max Uplift 2=-142(LC 12), 9=-125(LC 13)
Max Grav 2=1840(LC 1), 9=1759(LC 1)

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

TOP CHORD 2-3=-3047/219, 3-5=-2262/221, 5-6=-1881/235, 6-8=-2263/223, 8-9=-3053/221
BOT CHORD 2-14=-228/2602, 13-14=-228/2602, 11-13=-53/1879, 10-11=-116/2609, 9-10=-116/2609
WEBS 3-14=0/275, 3-13=-841/199, 5-13=-35/506, 6-11=-40/512, 8-11=-847/201, 8-10=0/275

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 14-8-4, Exterior(2E) 14-8-4 to 17-3-12, Exterior(2R) 17-3-12 to 21-6-11, Interior(1) 21-6-11 to 32-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 2 and 125 lb uplift at joint 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.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600074
2599350	B3	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:13 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Rlz8qTLijh9xiQT1ww8xv3mntV8asSmxlImPGzqTF0

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

Scale = 1:54.8

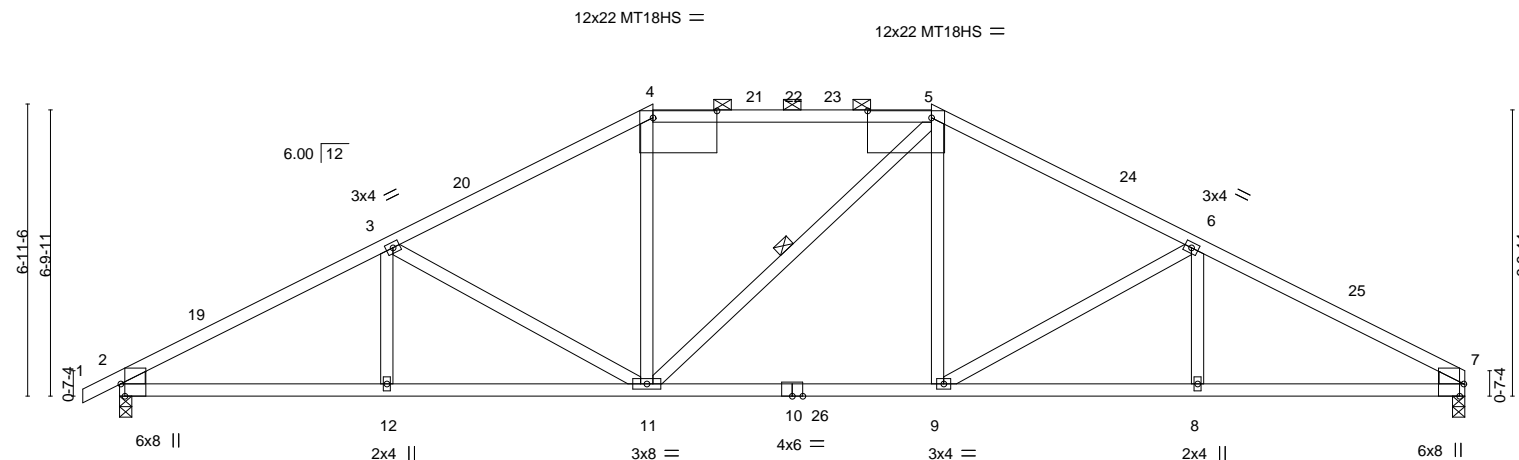


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:1-6-4,0-2-0], [5:1-6-4,0-2-0], [7:0-0-1,0-0-3], [7:0-0-3,0-5-0], [7:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.18	9-11	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.37	9-11	>999	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.13	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 127 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (2-2-0 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	WEBS 1 Row at midpt 5-11
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 7=0-3-8
	Max Horz 2=113(LC 12)
	Max Uplift 2=145(LC 12), 7=128(LC 13)
	Max Grav 2=1887(LC 2), 7=1823(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3155/230, 3-4=-2551/227, 4-5=-2186/241, 5-6=-2564/229, 6-7=-3173/232
BOT CHORD	2-12=-231/2721, 11-12=-231/2721, 9-11=-47/2197, 8-9=-134/2738, 7-8=-134/2738
WEBS	3-11=-623/167, 4-11=0/564, 5-9=-1/592, 6-9=-629/169

- 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 12-8-4, Exterior(2R) 12-8-4 to 16-11-3, Interior(1) 16-11-3 to 19-3-12, Exterior(2R) 19-3-12 to 23-6-11, Interior(1) 23-6-11 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are MT20 plates unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 145 lb uplift at joint 2 and 128 lb uplift at joint 7.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600075
2599350	B4	Hip	1	1		

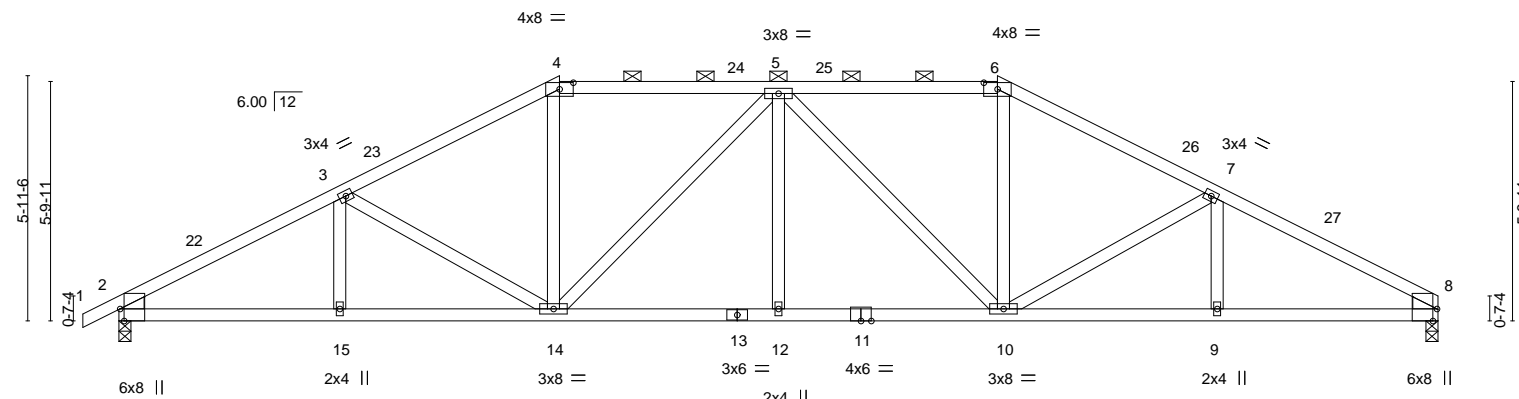
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:14 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-vUXW1oMKU?HoKa2DUefARHJ?avXwbu8RAyVKxizqTF?

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

Scale = 1:55.9



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

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.15	12	>999	240	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.32	10-12	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.13	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 133 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
11-13: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=96(LC 12)
Max Uplift 2=149(LC 12), 8=131(LC 13)
Max Grav 2=1840(LC 1), 8=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3075/236, 3-4=-2654/224, 4-5=-2282/231, 5-6=-2283/230, 6-7=-2657/227,
7-8=-3085/239
BOT CHORD 2-15=-231/2646, 14-15=-231/2646, 12-14=-89/2593, 10-12=-89/2593, 9-10=-151/2657,
8-9=-151/2657
WEBS 3-14=-423/130, 4-14=-11/659, 5-14=-582/97, 5-10=-580/97, 6-10=-10/661,
7-10=-433/132

- 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 10-8-4, Exterior(2R) 10-8-4 to 14-11-3, Interior(1) 14-11-3 to 21-3-12, Exterior(2R) 21-3-12 to 25-6-11, Interior(1) 25-6-11 to 32-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * 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 149 lb uplift at joint 2 and 131 lb uplift at joint 8.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600076
2599350	B5	ROOF SPECIAL	1	1	Job Reference (optional)	

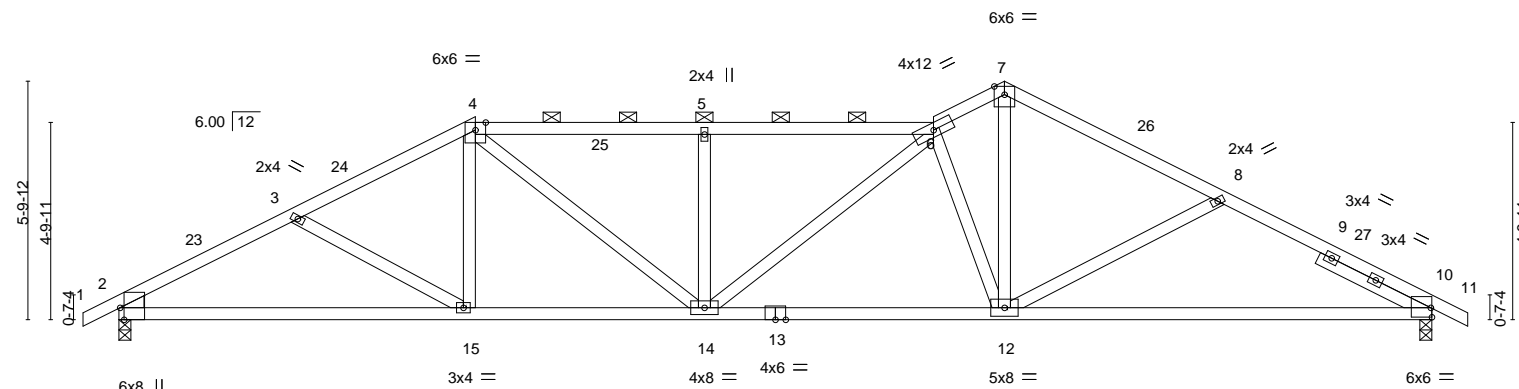
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Nh5uF8NyFJPfxkdQ2LAP_Us9lJr0KJ6bPcEtU8zqTF_

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

Scale = 1:56.2



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

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.19 12-21	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.91	Vert(CT)	-0.44 12-21	>865	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.75	Horz(CT)	0.13 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 131 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2
 SLIDER Right 2x4 SPF No.2 3-0-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=90(LC 12)
 Max Uplift 2=185(LC 12), 10=98(LC 13)
 Max Grav 2=1830(LC 1), 10=1844(LC 1)

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

TOP CHORD 2-3=-3067/335, 3-4=-2788/292, 4-5=-3122/337, 5-6=-3122/337, 6-7=-2577/247,
 7-8=-2623/220, 8-10=-2923/258
 BOT CHORD 2-15=-315/2638, 14-15=-215/2454, 12-14=-188/2875, 10-12=-160/2557
 WEBS 4-15=0/307, 4-14=-107/859, 5-14=-616/159, 6-14=-89/437, 7-12=-148/1956,
 6-12=-1743/259, 8-12=-410/173

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 8-8-4, Exterior(2R) 8-8-4 to 11-8-4, Interior(1) 11-8-4 to 21-7-0, Exterior(2R) 21-7-0 to 24-7-0, Interior(1) 24-7-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 2 and 98 lb uplift at joint 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.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1,2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600077
2599350	B6	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:16 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-rteGSUOa0cXVZuCCc3heWiOJ?iA93onkdG_Q?bzqTEz

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

Scale = 1:57.1

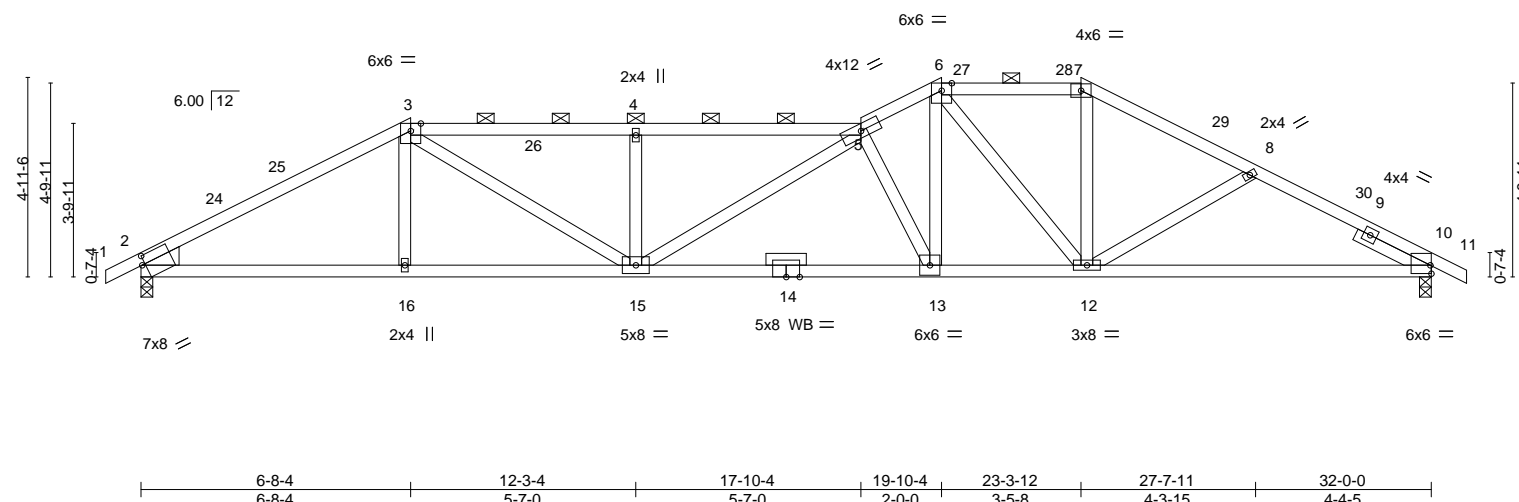


Plate Offsets (X,Y)--		[2:0-0-3,0-0-0], [2:0-4-9,0-2-1], [2:0-0-15,0-2-10], [10:Edge,0-2-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 20.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code IRC2018/TPI2014	
	CSI.	
	TC 0.74	
	BC 0.98	
	WB 0.59	
	Matrix-AS	
	DEFL.	
	in (loc)	l/defl L/d
	Vert(LL) -0.23 13-15	>999 240
	Vert(CT) -0.57 13-15	>672 180
	Horz(CT) 0.15 10	n/a n/a
	PLATES	GRIP
	MT20	197/144
	Weight: 131 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-75(LC 17)
Max Uplift 2=-178(LC 12), 10=-81(LC 13)
Max Grav 2=1830(LC 1), 10=1844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3059/287, 3-4=-3845/357, 4-5=-3845/357, 5-6=-3334/330, 6-7=-2401/277,
7-8=-2745/270, 8-10=-2945/291
BOT CHORD 2-16=-237/2624, 15-16=-240/2620, 13-15=-258/3851, 12-13=-150/2876, 10-12=-195/2537
WEBS 3-15=-146/1450, 4-15=-629/165, 5-13=-1984/262, 6-13=-171/1877, 6-12=-853/107,
7-12=-25/758

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 6-8-4, Exterior(2R) 6-8-4 to 9-8-4, Interior(1) 9-8-4 to 19-10-4, Exterior(2R) 19-10-4 to 22-10-4, Interior(1) 22-10-4 to 23-3-12, Exterior(2R) 23-3-12 to 26-3-12, Interior(1) 26-3-12 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * 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 178 lb uplift at joint 2 and 81 lb uplift at joint 10.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	B7	ROOF SPECIAL GIRDER	1	1	144600078

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:19 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-GSKP4WQTXv4QLxBHBEL8K0nDwCdG3SBKEC5cvzqTEw

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

Scale = 1:57.6

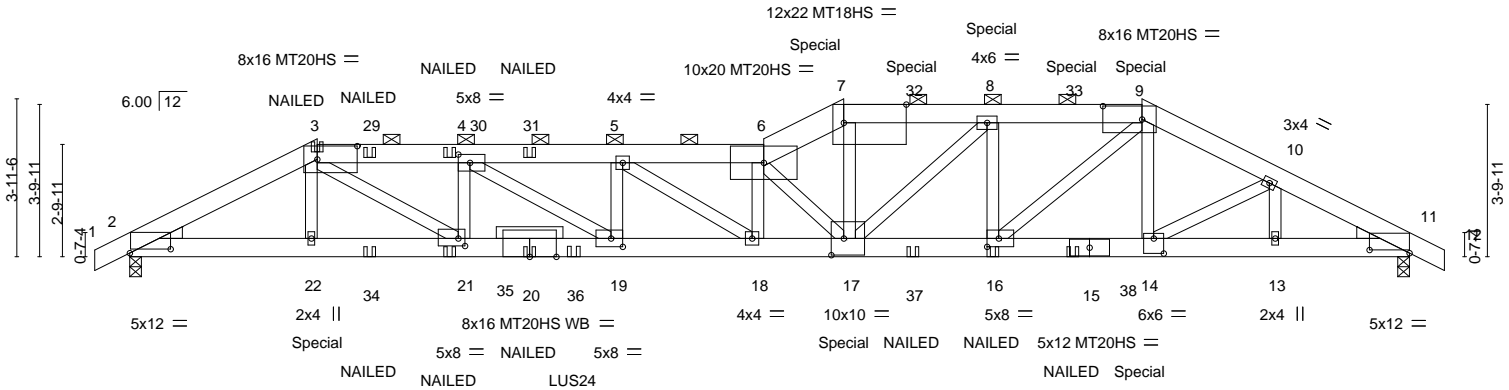


Plate Offsets (X, Y)--	[2:1-0-4,0-1-3], [3:1-0-0,0-4-0], [4:0-3-8,0-2-8], [7:1-6-12,Edge], [9:0-11-12,0-4-0], [11:1-0-0,0-0-15], [14:0-3-0,0-4-8], [16:0-3-8,0-2-8], [17:0-3-12,0-5-0], [19:0-3-8,0-2-8], [21:0-2-0,0-2-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.94	Vert(LL)	-0.44 18-19	>864	240	MT20	197/144
TCDL 20.0	Plate Grip DOL 1.15	BC 0.93	Vert(CT)	-0.97 18-19	>396	180	MT20HS	148/108
BCLL 0.0 *	Lumber DOL 1.15	WB 0.98	Horz(CT)	0.18 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Rep Stress Incr NO	Matrix-MS					Weight: 203 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 3-6: 2x6 SP 2400F 2.0E, 6-7: 2x8 SP 2400F 2.0E 7-9: 2x6 SP 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 2-2-10 oc purlins, except 2-0-0 oc purlins (2-1-15 max.): 3-6, 7-9.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 8-3-2 oc bracing.
WEBS 2x4 SPF No.2 *Except* 3-21,4-19: 2x4 SP 1650F 1.5E	
OTHERS 2x4 SPF No.2	
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8 Max Horz 2=-59(LC 30) Max Uplift 2=-477(LC 8), 11=-421(LC 9) Max Grav 2=3603(LC 1), 11=3817(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7096/941, 3-4=-9949/1318, 4-5=-12319/1585, 5-6=-13029/1635, 6-7=-10592/1323, 7-8=-9746/1231, 8-9=-8655/1073, 9-10=-7434/899, 10-11=-7138/802
BOT CHORD	2-22=-832/6301, 21-22=-833/6283, 19-21=-1279/9946, 18-19=-1548/12319, 17-18=-1604/13075, 16-17=-993/8653, 14-16=-745/6668, 13-14=-675/6282, 11-13=-675/6282
WEBS	3-22=0/324, 3-21=-571/4372, 4-21=-2044/362, 4-19=-332/2786, 5-19=-969/167, 6-17=-5184/688, 7-17=-402/3829, 8-17=-232/1532, 8-16=-1677/341, 9-16=-345/2736, 9-14=-38/766, 10-14=-200/635, 10-13=-326/74, 6-18=-767/120, 5-18=-107/926

NOTES-	
1) Unbalanced roof live loads have been considered for this design.	
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 477 lb uplift at joint 2 and 421 lb uplift at joint 11.	
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.	

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



February 1, 2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600078
2599350	B7	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)	

- NOTES-**
- 10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 11-1-4 from the left end to connect truss(es) to back face of bottom chord.
 - 11) Fill all nail holes where hanger is in contact with lumber.
 - 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 196 lb down and 113 lb up at 17-10-4, 173 lb down and 113 lb up at 19-7-0, 173 lb down and 113 lb up at 21-7-0, and 173 lb down and 113 lb up at 23-7-0, and 196 lb down and 113 lb up at 25-3-12 on top chord, and 381 lb down and 71 lb up at 4-8-4, and 689 lb down and 98 lb up at 17-10-4, and 689 lb down and 98 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-90, 3-6=-90, 6-7=-90, 7-9=-90, 9-12=-90, 23-26=-20

Concentrated Loads (lb)

Vert: 3=-87(B) 7=-173(B) 9=-173(B) 20=-49(B) 22=-381(B) 17=-689(B) 8=-173(B) 16=-76(B) 14=-689(B) 29=-87(B) 30=-87(B) 31=-87(B) 32=-173(B) 33=-173(B) 34=-49(B) 35=-49(B) 36=-392(B) 37=-76(B) 38=-76(B)

Job 2599350	Truss C1	Truss Type Jack-Closed	Qty 5	Ply 1	Summit/20 Woodside ridge/MO 144600079
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:20 2021 Page 1					
Job Reference (optional) ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-keunlsR54r1x2VWNrumahYZ3fKh0?arKYuye8MzqTEv					

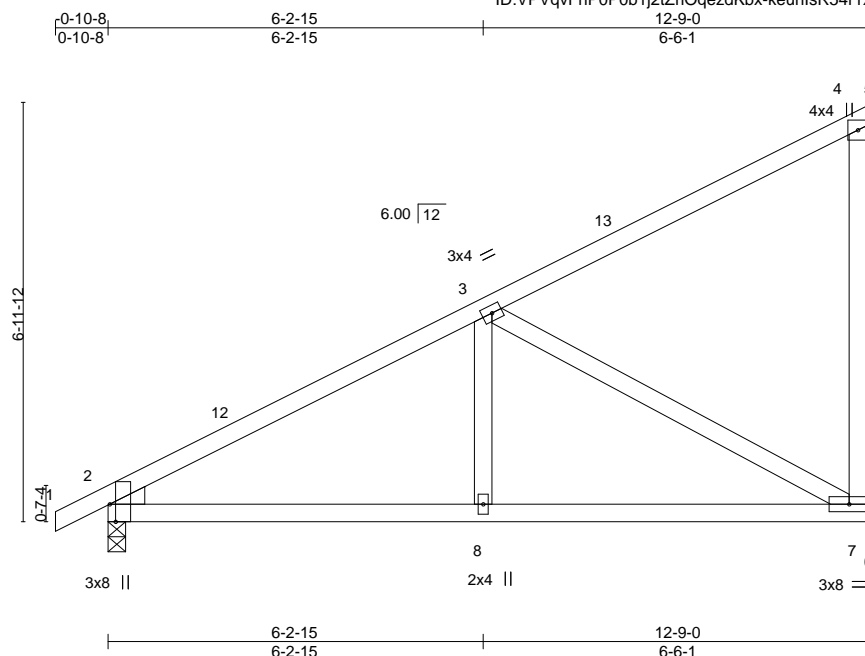


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.04	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.07	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 51 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
Max Horz 2=251(LC 11)
Max Uplift 2=-52(LC 12), 7=-53(LC 9)
Max Grav 2=768(LC 1), 7=700(LC 1)

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

TOP CHORD 2-3=-925/113
BOT CHORD 2-8=-232/742, 7-8=-232/742
WEBS 3-8=0/272, 3-7=-817/182

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 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 52 lb uplift at joint 2 and 53 lb uplift at joint 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	C2	Jack-Closed	1	1	144600080

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:21 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-CqS9VCRjr99ogf5ZOCpDI6DAj_bk6CTnYhBgozqTEu

0-10-8	2-11-8	6-4-0	12-9-0
0-10-8	2-11-8	3-4-8	6-5-0

Scale = 1:40.6

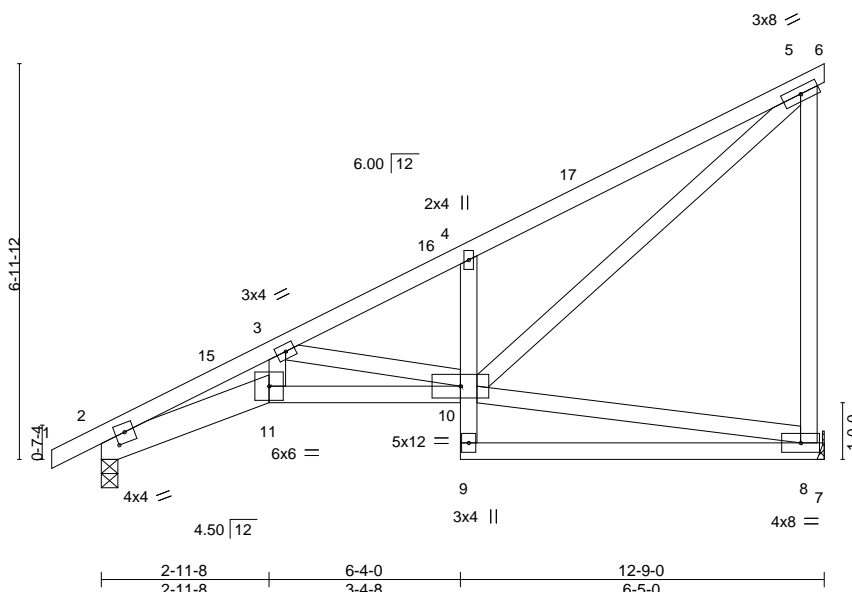


Plate Offsets (X,Y)--	[2:0-2-0,0-2-3]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.06 10-11	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.13 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 65 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-11: 2x6 SPF No.2
 WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
 Max Horz 2=251(LC 11)
 Max Uplift 8=54(LC 9), 2=51(LC 12)
 Max Grav 8=700(LC 1), 2=768(LC 1)

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

TOP CHORD 2-3=-2053/240, 3-4=-1061/118, 4-5=-1167/221, 5-8=-624/262
 BOT CHORD 2-11=-577/1835, 10-11=-522/1678, 4-10=-528/228
 WEBS 3-11=-139/517, 3-10=-766/219, 5-10=-346/1219

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 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 54 lb uplift at joint 8 and 51 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	C3	Jack-Closed	3	1	144600081

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:22 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-g10XjYSLcSHfHpfmyJo2mzeM07I6TZZd0CRICEzqTET



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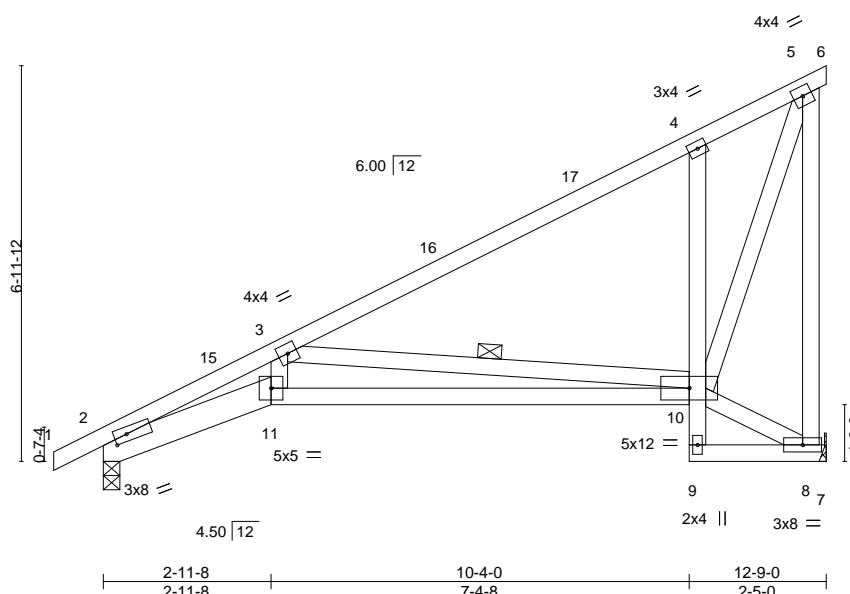


Plate Offsets (X,Y)--		[2:0-2-11,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.64	Vert(LL)	-0.11 10-11 >999 240	MT20	197/144		
TCDL	20.0	Lumber DOL 1.15		BC	0.69	Vert(CT)	-0.28 10-11 >528 180				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.44	Horz(CT)	0.12 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 65 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-11: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-10

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=251(LC 11)
Max Uplift 8=54(LC 9), 2=51(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

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

TOP CHORD 2-3=-2357/275, 3-4=-552/77, 4-5=-454/134, 5-8=-676/215
BOT CHORD 2-11=-618/2152, 10-11=-584/1988, 4-10=-565/273
WEBS 3-11=-85/627, 3-10=-1622/415, 5-10=-266/923

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 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 54 lb uplift at joint 8 and 51 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600082
2599350	C4	Jack-Closed	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:23 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-8DawwtTzNmPWvzEyW1JHJABTNXcIBZImEsAllhzqTES

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

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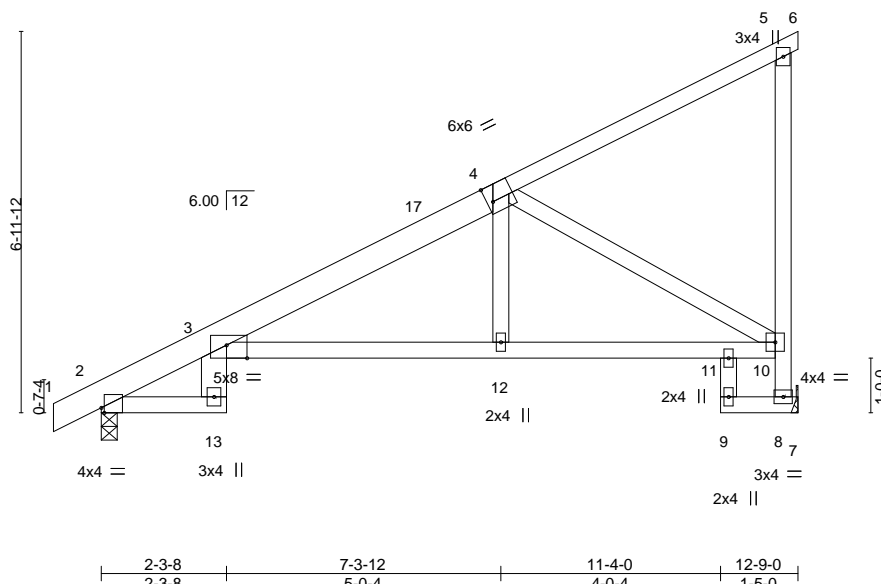


Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-1-4,Edge]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.15	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.34	3-12	>446	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.21	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 59 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=252(LC 11)
Max Uplift 8=53(LC 9), 2=51(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

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

TOP CHORD 3-15=-497/62, 3-4=-984/104, 8-10=-674/164
BOT CHORD 3-12=-256/882, 11-12=-251/889, 10-11=-270/890
WEBS 4-12=0/253, 4-10=-993/194

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 2-0-12, Interior(1) 2-0-12 to 12-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 53 lb uplift at joint 8 and 51 lb uplift at joint 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.



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Chesterfield, MO 63017

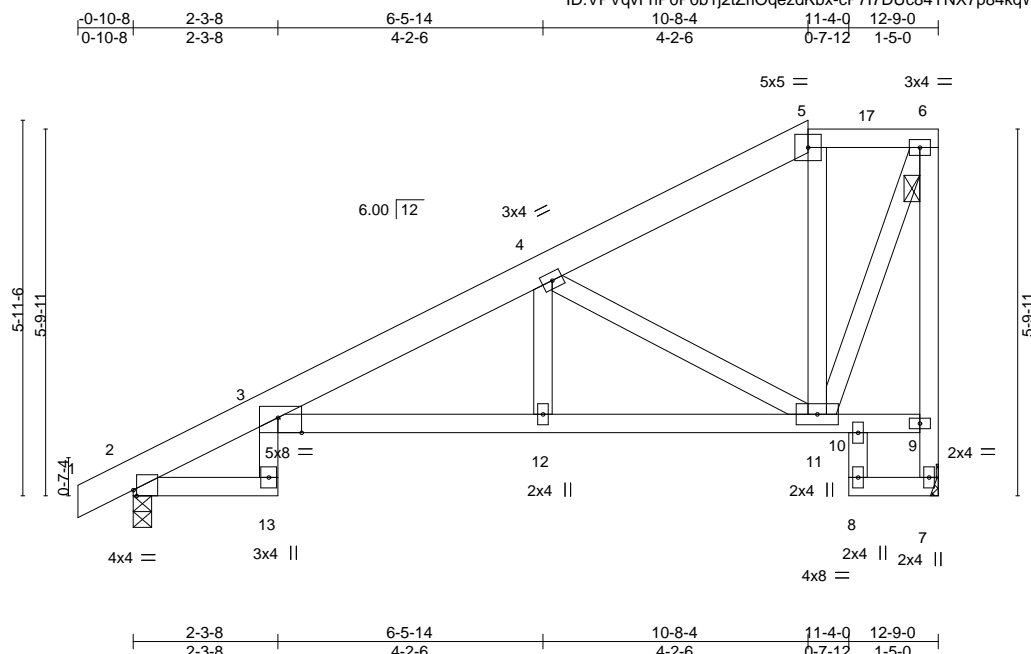


Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge]		42.0		42.0		37.12		10.0	
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.14 3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30 3-12	>499	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.21 7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 67 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	5-6: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-3-8
Max Horz 2=211(LC 11)
Max Uplift 7=-87(LC 12), 2=-74(LC 12)
Max Grav 7=690(LC 1), 2=775(LC 1)

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

TOP CHORD 3-15=-445/62, 3-4=-1155/120, 4-5=-382/85, 7-9=-671/176, 6-9=-655/151
BOT CHORD 3-12=-356/1077, 11-12=-355/1077
WEBS 6-11=-158/608, 4-11=-968/255

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=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 10-8-4, Exterior(2E) 10-8-4 to 12-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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 87 lb uplift at joint 7 and 74 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



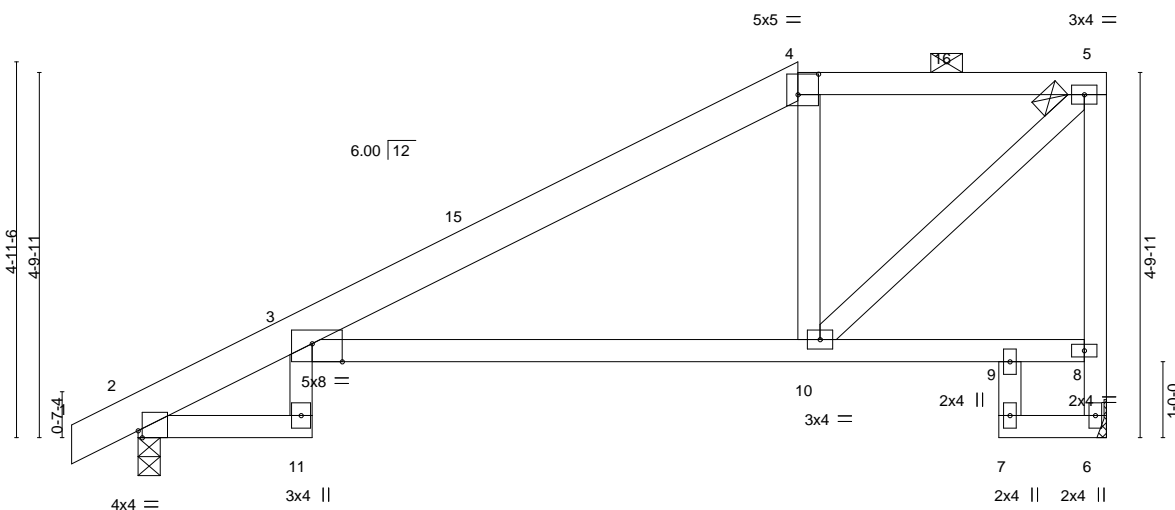
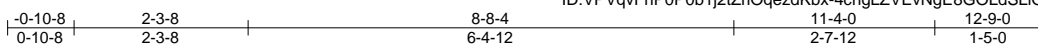
February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017



	2-3-8		8-8-4		11-4-0		12-9-0	
	2-3-8		6-4-12		2-7-12		1-5-0	
Plate Offsets (X Y)--	[2-0-0-10 Edge]	[3-0-4-12 Edge]	[4-0-3-4 0-3-4]					

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.97	Vert(LL) -0.22 3-10	>693	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.78	Vert(CT) -0.50 3-10	>303	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.27 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS				Weight: 56 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except*	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
	4-5: 2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 6=Mechanical, 2=0-3-8
 Max Horz 2=174(LC 11)
 Max Uplift 6=-67(LC 9), 2=-80(LC 12)
 Max Grav 6=-690(LC 1), 2=-775(LC 1)

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

TOP CHORD	3-13=-414/66, 3-4=-749/103, 4-5=-634/131, 6-8=-678/150, 5-8=-700/163
BOT CHORD	3-10=-223/652
WEBS	4-10=-401/197, 5-10=-217/868

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 8-8-4, Exterior(2E) 8-8-4 to 12-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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 67 lb uplift at joint 6 and 80 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600085
2599350	C7	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:26 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-YoF2YvVsgHo5mQzXB9s_wppzzkdhOQjDxpPyL0zqTEp

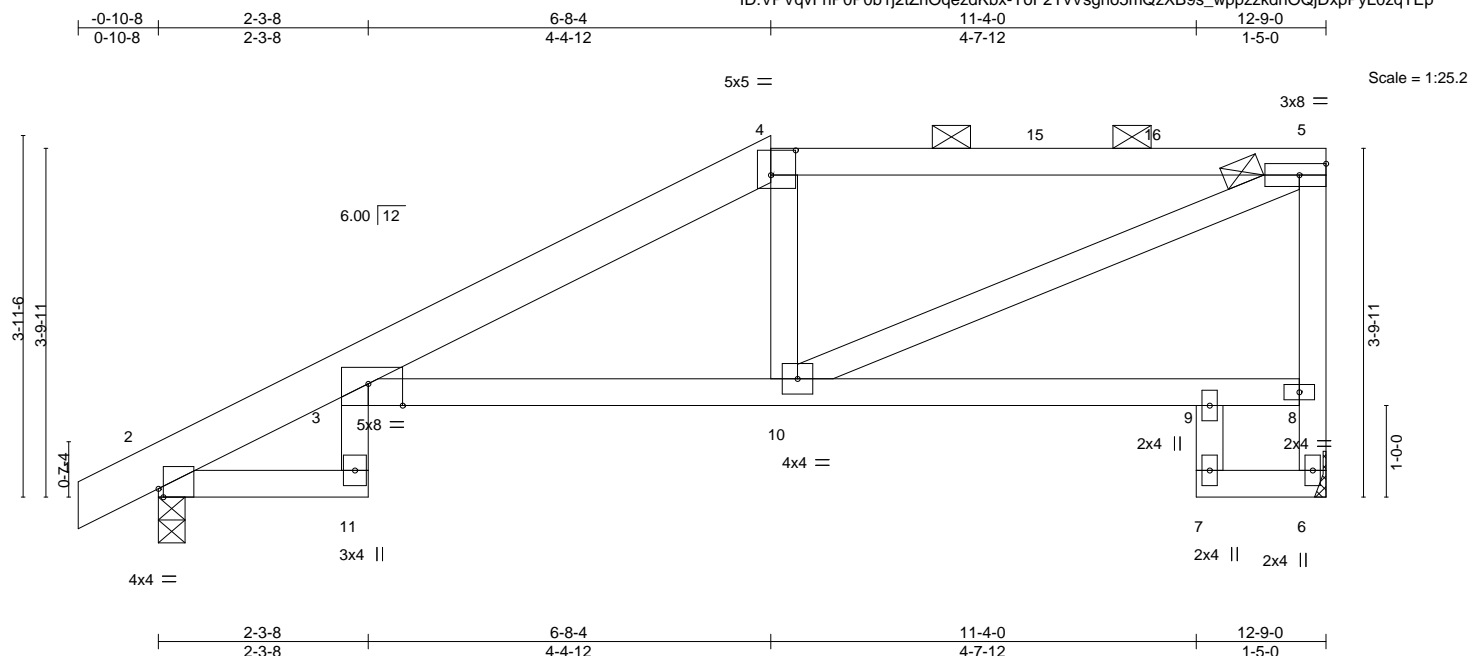


Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-3-4,0-3-4]									
		2-3-8	6-8-4	11-4-0	12-9-0						
		2-3-8	4-4-12	4-7-12	1-5-0						
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.15 3-10 >999 240	MT20		197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.33 3-10 >459 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.21 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 53 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=137(LC 11)
Max Uplift 6=73(LC 9), 2=83(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

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

TOP CHORD 3-13=-389/72, 3-4=-1087/160, 4-5=-985/197, 6-8=-667/126, 5-8=-639/150
BOT CHORD 3-10=-278/1001
WEBS 4-10=-267/152, 5-10=-239/984

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 6-8-4, Exterior(2R) 6-8-4 to 10-11-3, Interior(1) 10-11-3 to 12-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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 73 lb uplift at joint 6 and 83 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600086
2599350	C8	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-1_pQmFWUQ?wyOaYjltODT0L968_Q7p_M9T8WuSsqTEo

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

Scale = 1:23.1

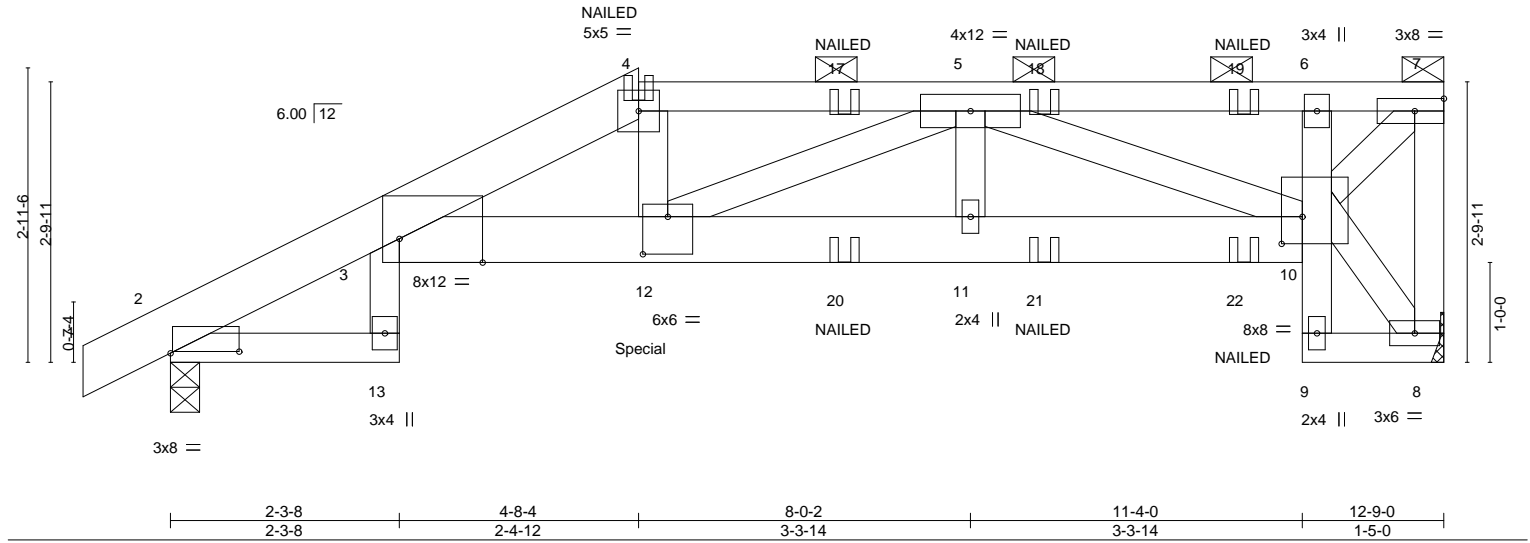


Plate Offsets (X,Y)--										[2:0-8-4,0-0-3], [3:0-10-0,Edge], [10:0-2-8,0-3-4], [12:0-3-0,0-4-8]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.94	Vert(LL)	-0.12	3-12	>999		240		MT20		197/144		
TCDL	20.0	Lumber DOL		1.15		BC	0.75	Vert(CT)	-0.26	3-12	>579		180						
BCLL	0.0 *	Rep Stress Incr		NO		WB	0.43	Horz(CT)	0.21	8	n/a		n/a						
BCDL	10.0	Code IRC2018/TPI2014				Matrix-MS										Weight: 64 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=99(LC 7)
Max Uplift 8=218(LC 5), 2=212(LC 8)
Max Grav 8=1166(LC 1), 2=1205(LC 1)

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

TOP CHORD 3-15=-596/103, 3-4=-3064/602, 4-5=-2948/600, 5-6=-992/189, 6-7=-870/164,
7-8=-1115/227
BOT CHORD 3-12=-604/2865, 11-12=-537/2587, 10-11=-537/2587, 6-10=-316/102
WEBS 4-12=-96/620, 5-12=-110/396, 5-10=-1726/346, 7-10=-295/1399

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 8 and 212 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 425 lb down and 134 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



February 1, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600086
2599350	C8	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:28 2021 Page 2
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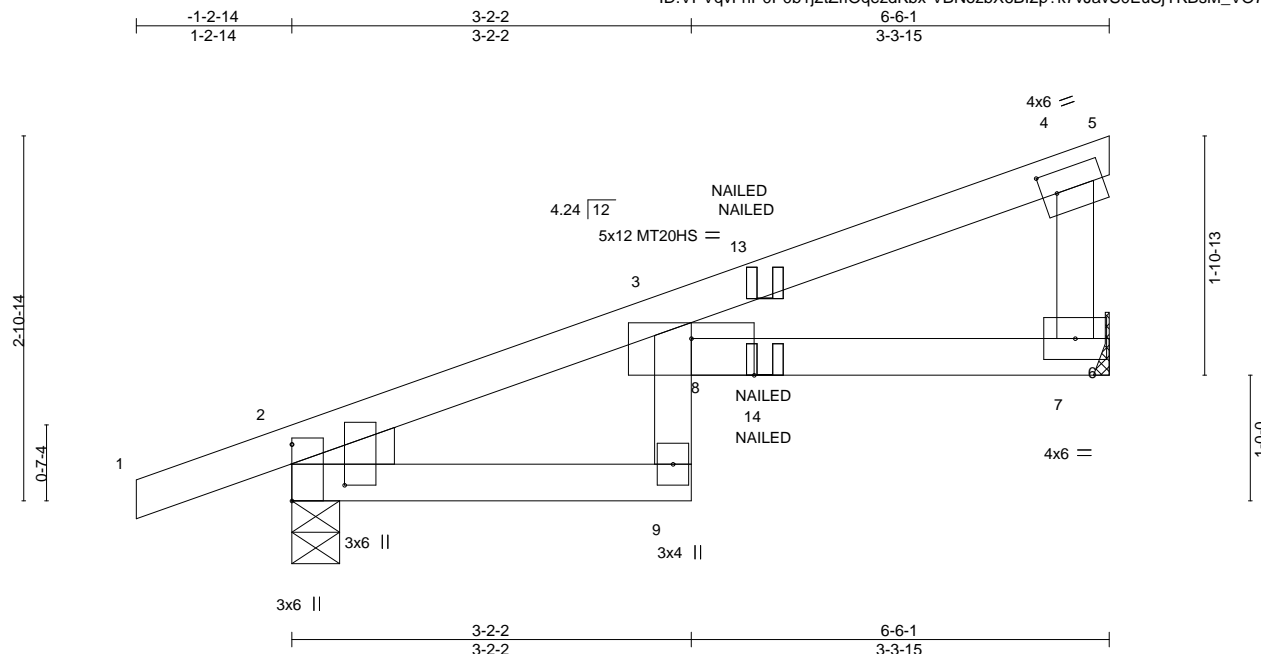
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-90, 4-7=-90, 13-14=-20, 3-10=-20, 8-9=-20
Concentrated Loads (lb)
Vert: 4=-67(F) 12=-425(F) 17=-67(F) 18=-67(F) 19=-67(F) 20=-71(F) 21=-71(F) 22=-71(F)



Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600087
2599350	CJ1	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:28 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-VBN0zbX6Bl2p?k7vJavS0EuSjYKBsM_VO7u3QuzqTEn



Scale = 1:18.3

Plate Offsets (X,Y)--										[2:0-3-14,0-5-0], [3:0-6-0,Edge], [3:0-1-12,0-0-10], [4:0-1-6,0-2-0], [8:0-0-0,0-1-12]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC 0.44		Vert(LL)		-0.06 7-8		>999		240		MT20		197/144	
TCDL	20.0	Lumber DOL		1.15		BC 0.71		Vert(CT)		-0.12 7-8		>622		180		MT20HS		148/108	
BCLL	0.0 *	Rep Stress Incr		NO		WB 0.00		Horz(CT)		0.05 7		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-MR										Weight: 21 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
Max Horz 2=89(LC 5)
Max Uplift 7=81(LC 8), 2=97(LC 4)
Max Grav 7=382(LC 1), 2=487(LC 1)

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

TOP CHORD 2-3=-486/78, 3-4=-279/55
BOT CHORD 2-9=-96/401, 7-8=-56/263

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) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * 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 81 lb uplift at joint 7 and 97 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 14=-55(F=-28, B=-28)



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss CJ2	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600088
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:30 2021 Page 1					
Job Reference (optional) ID:VPVqvFnP0P0b1j2tZrIQezdKbx-RZVZOHYNjwIWF2HIQ?xw5fzmM9tKFRorRNAUnzqTEI					

-1-2-14	2-10-10	5-9-3
1-2-14	2-10-10	2-10-10

Scale = 1:16.5

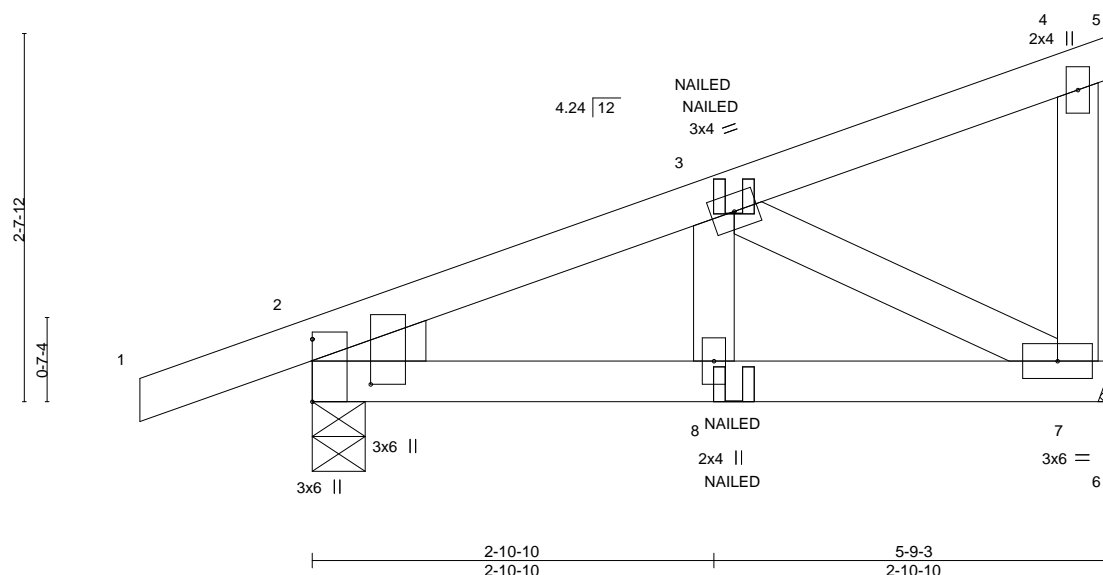


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.00	8	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.07	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 23 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 5-9-3 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=97(LC 24)
Max Uplift 7=44(LC 8), 2=76(LC 4)
Max Grav 7=314(LC 1), 2=432(LC 1)

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

TOP CHORD 2-3=-382/31
BOT CHORD 2-8=-42/334, 7-8=-42/334
WEBS 3-7=-375/65

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 44 lb uplift at joint 7 and 76 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-14(F=-7, B=-7)



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

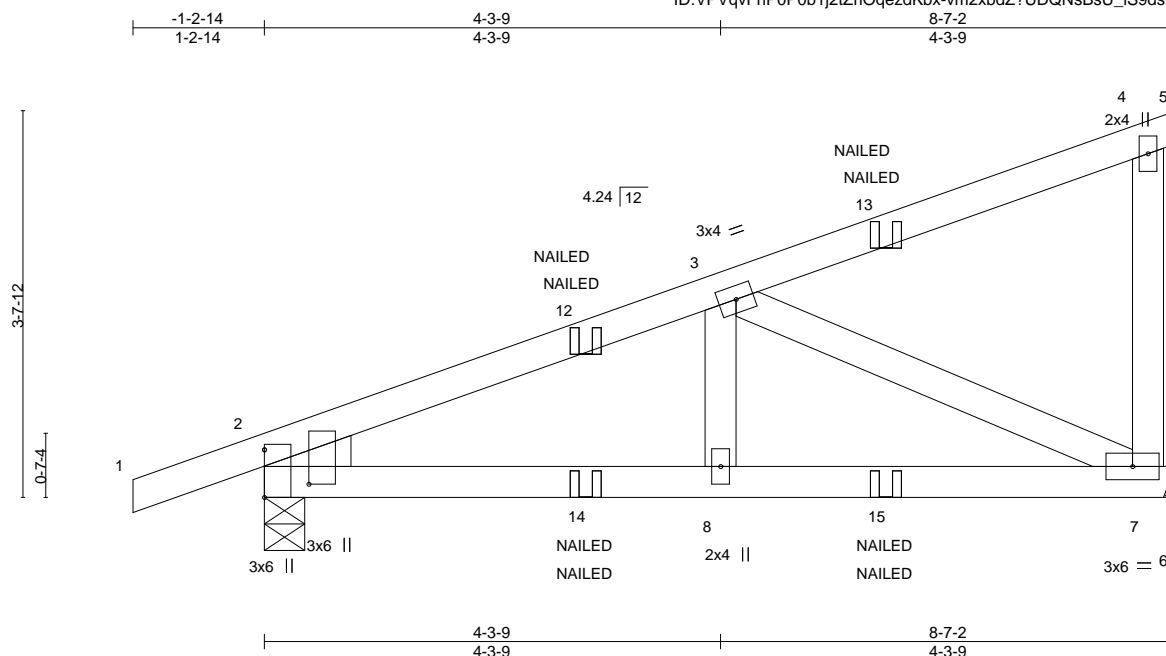


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.04	7-8	>999	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	7	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 33 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
Max Horz 2=137(LC 7)
Max Uplift 7=-86(LC 8), 2=-98(LC 4)
Max Grav 7=536(LC 1), 2=612(LC 1)

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

TOP CHORD 2-3=-760/83
BOT CHORD 2-8=-114/674, 7-8=-114/674
WEBS 3-7=-740/137

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=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 86 lb uplift at joint 7 and 98 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-41(F=-24, B=-16) 14=-10(F=-7, B=-3) 15=-53(F=-32, B=-20)



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

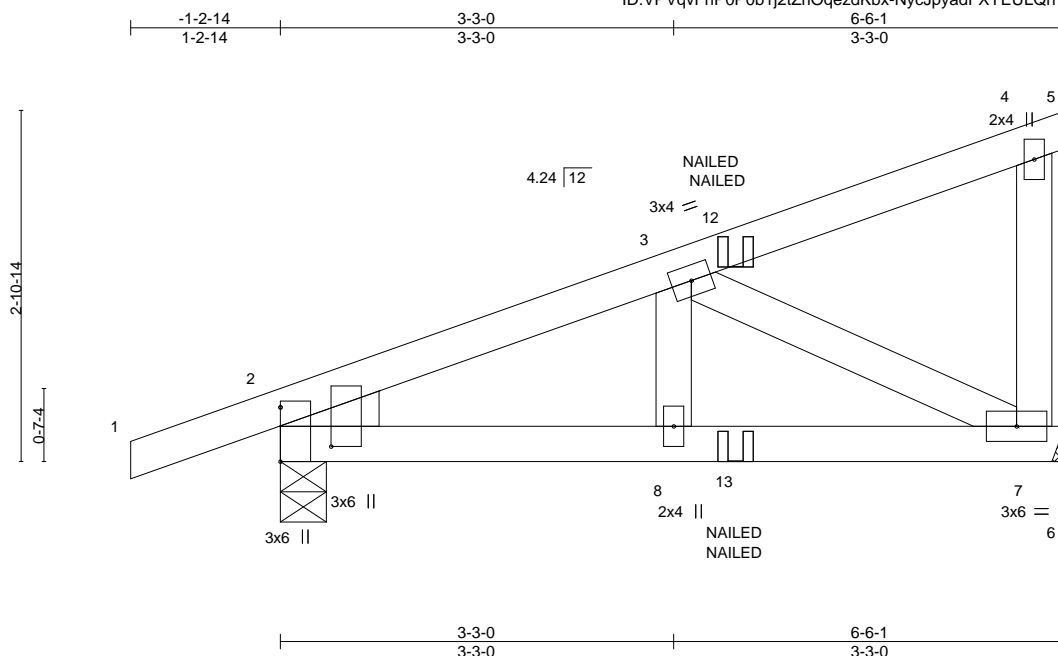
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600090
2599350	CJ4	Diagonal Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:32 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-NycJpyadFXEULQhYQzOA43B29qpo9V5JlSHZfzqTEj



Scale = 1:19.1

Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.			PLATES		GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	in	(loc)	l/defl	L/d	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.16	Vert(LL)	-0.01	8	>999		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Vert(CT)	-0.01	7-8	>999		
BCDL	10.0	Code IRC2018/TPI2014				Horz(CT)	0.00	7	n/a	n/a	
										Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
 Max Horz 2=107(LC 7)
 Max Uplift 7=50(LC 8), 2=79(LC 4)
 Max Grav 7=360(LC 1), 2=473(LC 1)

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

TOP CHORD 2-3=-464/38
 BOT CHORD 2-8=-65/407, 7-8=-65/407
 WEBS 3-7=-453/77

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 50 lb uplift at joint 7 and 79 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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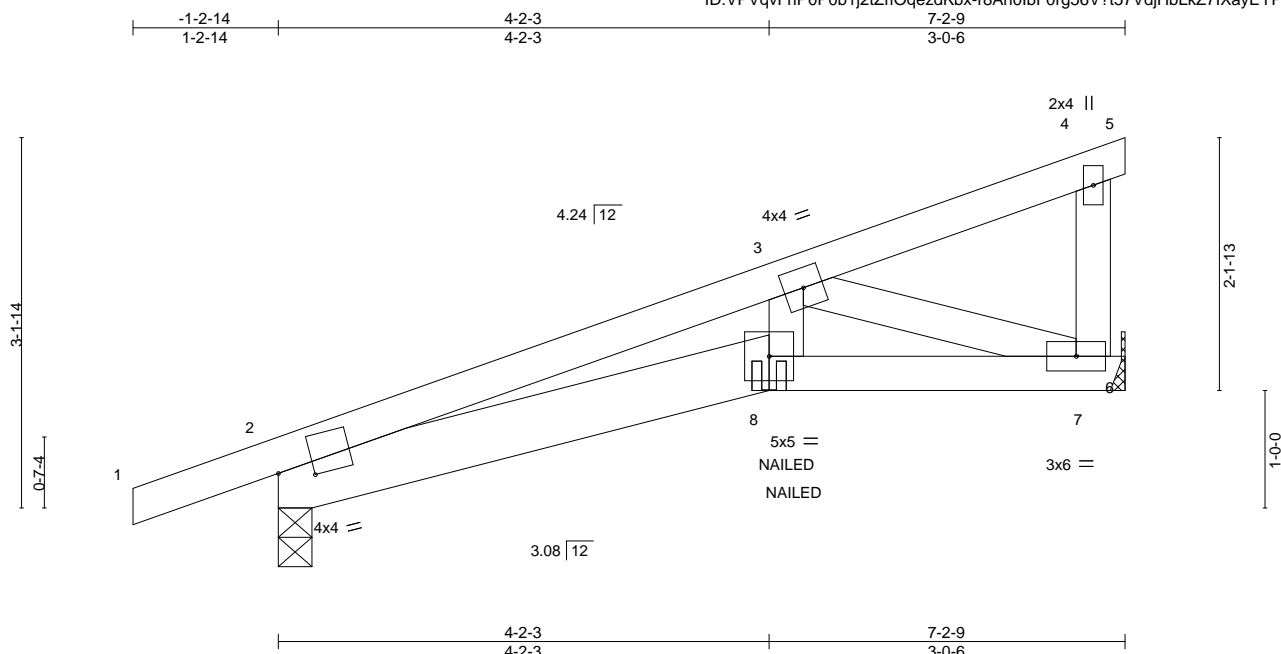


Plate Offsets (X,Y)--		[2:0-3-10,0-1-1]										
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 27 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-9-7 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except*		
	2-8: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 2=0-3-7, 7=Mechanical
Max Horz 2=99(LC 5)
Max Uplift 2=-128(LC 4), 7=-127(LC 8)
Max Grav 2=600(LC 1), 7=536(LC 1)

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

TOP CHORD 2-3=-1427/360
BOT CHORD 2-8=-371/1329, 7-8=-329/1187
WEBS 3-8=-167/602, 3-7=-1246/362

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 128 lb uplift at joint 2 and 127 lb uplift at joint 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 8=-244(F=-122, B=-122)



February 1, 2021



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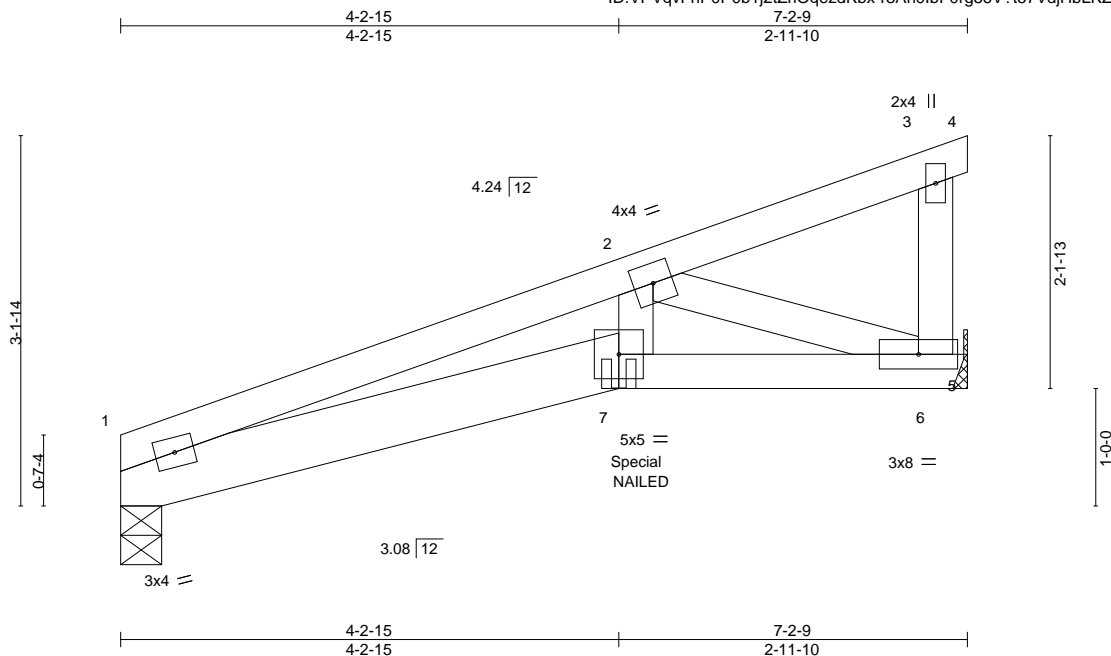
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600092
2599350	CJ6	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:33 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-r8Ah0lbF0rg56V?t57VdjHbLKZ7GXayEYPbq56zqTEi



Scale = 1:19.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.03	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.05	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-4-3, 6=Mechanical
 Max Horz 1=90(LC 5)
 Max Uplift 1=-79(LC 4), 6=-132(LC 8)
 Max Grav 1=481(LC 1), 6=555(LC 1)

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

TOP CHORD 1-2=-1449/362
 BOT CHORD 1-7=-371/1348, 6-7=-330/1203
 WEBS 2-7=-170/624, 2-6=-1269/364

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) 1 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 79 lb uplift at joint 1 and 132 lb uplift at joint 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600093
2599350	CJ7	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:34 2021 Page 1
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-1-2-14
1-2-14
5-3-15
5-3-15

Scale = 1:16.4

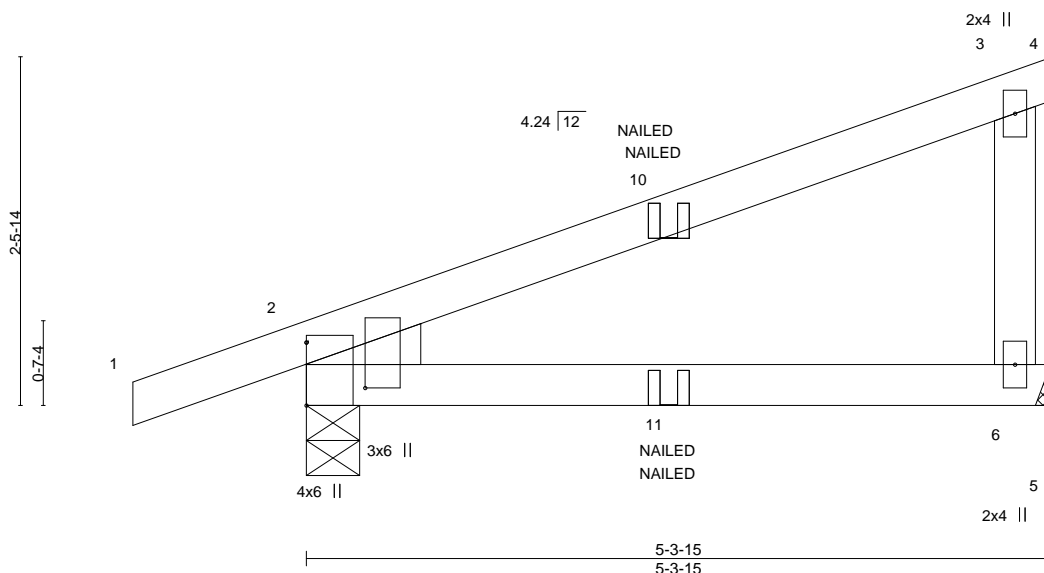


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.04	6-9	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.09	6-9	>705		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.02	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-4-9
Max Horz 2=90(LC 7)
Max Uplift 6=45(LC 8), 2=79(LC 4)
Max Grav 6=285(LC 1), 2=406(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 45 lb uplift at joint 6 and 79 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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: 11=-7(F=-5, B=-1)



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600094
2599350	CJ8	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:35 2021 Page 1
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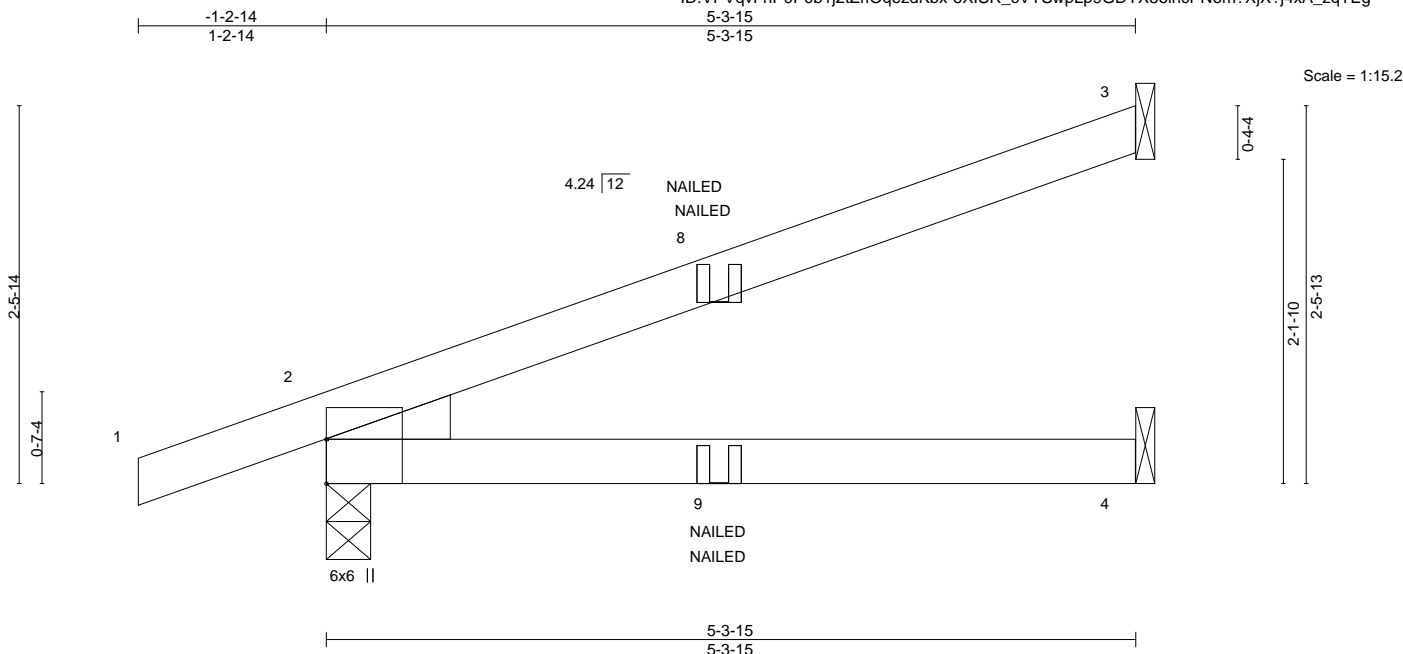


Plate Offsets (X,Y)-- [2:0-1-14,0-6-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.04 4-7 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10 4-7 >609 180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.02 4 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 2=0-3-8
Max Horz 3=90(LC 4)
Max Uplift 3=28(LC 8), 2=110(LC 4)
Max Grav 3=198(LC 1), 4=104(LC 3), 2=419(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 28 lb uplift at joint 3 and 110 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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, 4-5=-20
Concentrated Loads (lb)
Vert: 9=-11(F=-5, B=-5)



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	CJ9	Diagonal Hip Girder	2	1	144600095
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:36 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-GjsqfKd7Jm2gzzkSnG2KKwDpnm7skvphENqUiQzqTEf

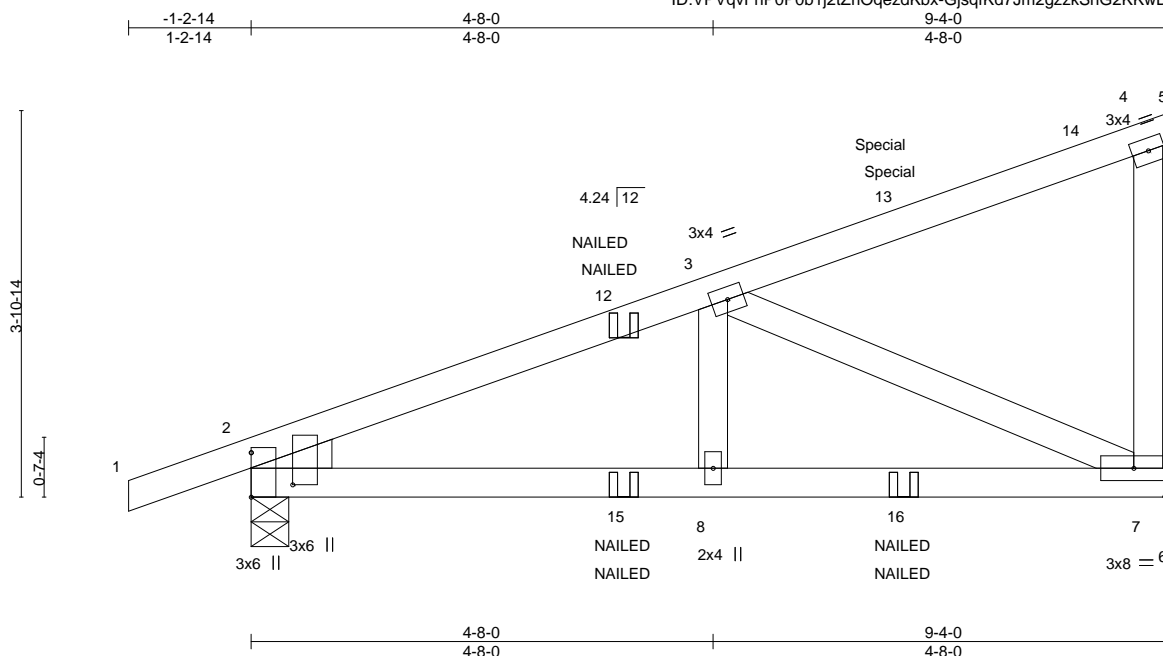


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.02	7-8	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.04	7-8	>999
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.01	7	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS				
				PLATES	MT20	GRIP	197/144
				Weight: 35 lb FT = 20%			

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
Max Horz 2=132(LC 7)
Max Uplift 7=88(LC 8), 2=101(LC 4)
Max Grav 7=641(LC 1), 2=676(LC 1)

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

TOP CHORD 2-3=-897/86
BOT CHORD 2-8=-129/798, 7-8=-129/798
WEBS 3-7=-825/141

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 88 lb uplift at joint 7 and 101 lb uplift at joint 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 80 lb up at 6-7-2, and 85 lb down and 80 lb up at 6-7-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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: 1-4=-90, 4-5=-40, 6-9=-20



February 1, 2021

Continued on page 2

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600095
2599350	CJ9	Diagonal Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:36 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-GjsqfKd7Jm2gzzkSnG2KKwDpnm7skvphENqUiQzqTEf

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 13=-93(F=-46, B=-46) 15=-19(F=-10, B=-10) 16=-80(F=-40, B=-40)

Job 2599350	Truss D1	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600096
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:38 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-C6_a30fOrNIOCGuqug4oQLJ9UaiTCo_hhJbnJzqTED

-0-10-8 0-10-8	4-8-4 4-8-4	7-9-10 3-1-6	11-2-8 3-4-14
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Scale = 1:23.2

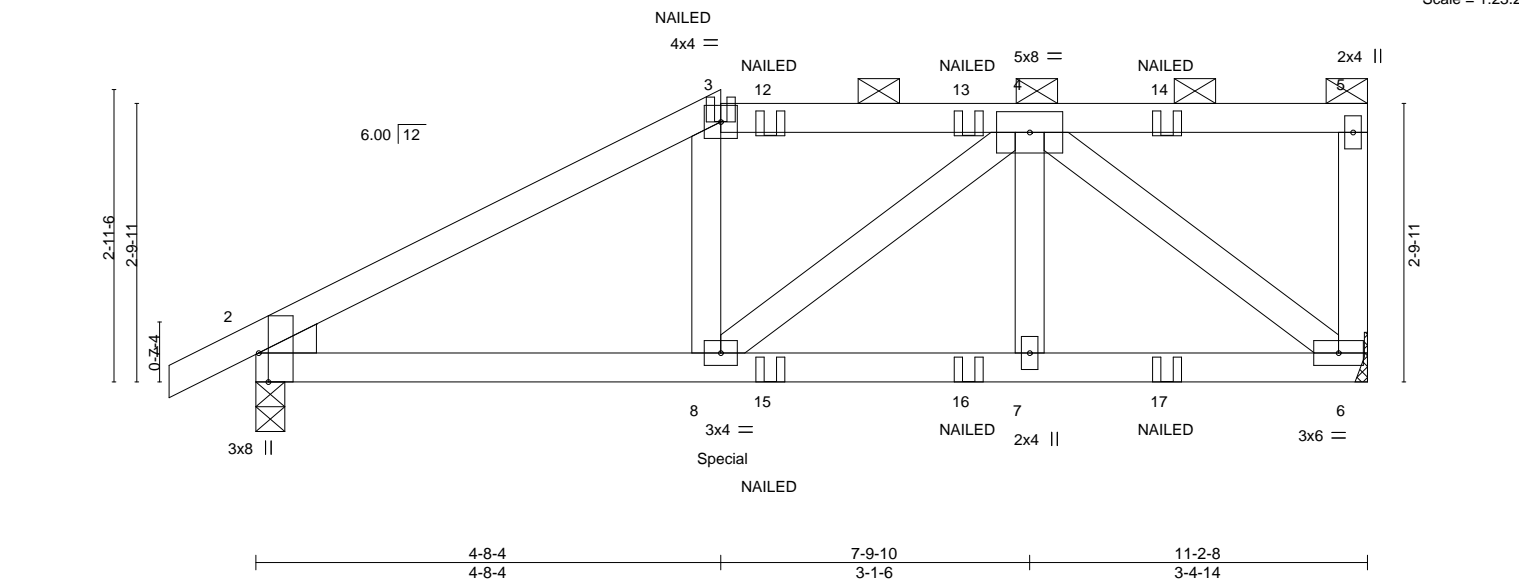


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-148(LC 8), 6=-152(LC 5)
Max Grav 2=1109(LC 1), 6=1066(LC 1)

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

TOP CHORD 2-3=-1661/229, 3-4=-1399/234
BOT CHORD 2-8=-225/1410, 7-8=-187/1142, 6-7=-187/1142
WEBS 3-8=0/295, 4-8=-86/318, 4-6=-1411/208

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 2 and 152 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down and 71 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



February 1, 2021

Continued on page 2

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ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600096
2599350	D1	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:38 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-C6_a30fOrNIOCGuqug4oQLJ9UaITCo__hhJbnJzqTEd

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 6-9=-20
Concentrated Loads (lb)
Vert: 3=-87(B) 8=-381(B) 12=-87(B) 13=-87(B) 14=-87(B) 15=-49(B) 16=-49(B) 17=-49(B)

Job 2599350	Truss D2	Truss Type Half Hip	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600097
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:39 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-glXzHMf0chQFqQT1SOB1yYrJq_9QxGu7wL28JlZqTEc

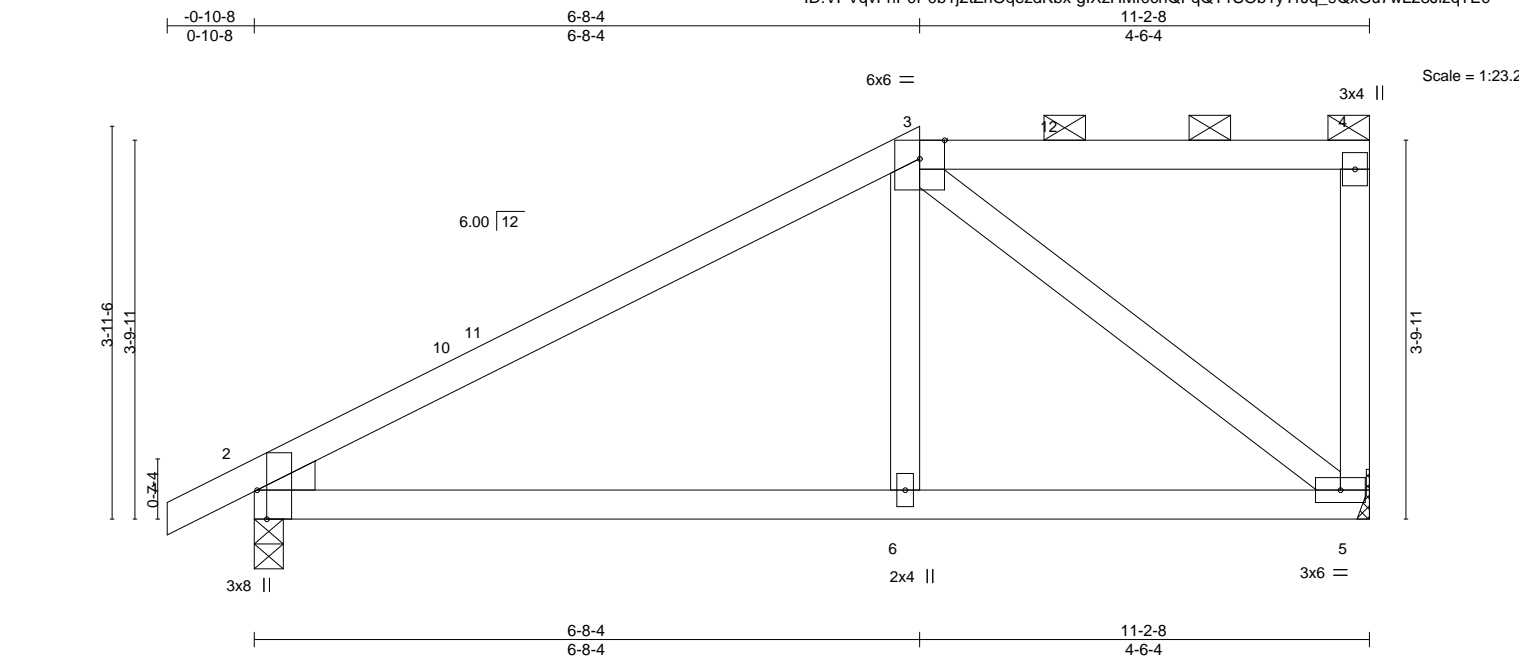


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51
TCDL 20.0	Lumber DOL	1.15	BC 0.42
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.37
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
DEFL.	in	(loc)	l/defl
Vert(LL)	0.05	6-9	>999
Vert(CT)	-0.11	6-9	>999
Horz(CT)	0.02	2	n/a
PLATES	GRIP		
MT20	197/144		
Weight: 42 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=135(LC 11)
Max Uplift 2=63(LC 12), 5=62(LC 9)
Max Grav 2=690(LC 1), 5=605(LC 1)

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

TOP CHORD 2-3=-717/126
BOT CHORD 2-6=-198/542, 5-6=-200/535
WEBS 3-6=0/263, 3-5=-668/210

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 6-8-4, Exterior(2E) 6-8-4 to 11-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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 63 lb uplift at joint 2 and 62 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600098
2599350	D3	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:40 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-8U5LUhgeN_Z6Ra2D057GVmOXUOVtglyG9?oirCzqTEb

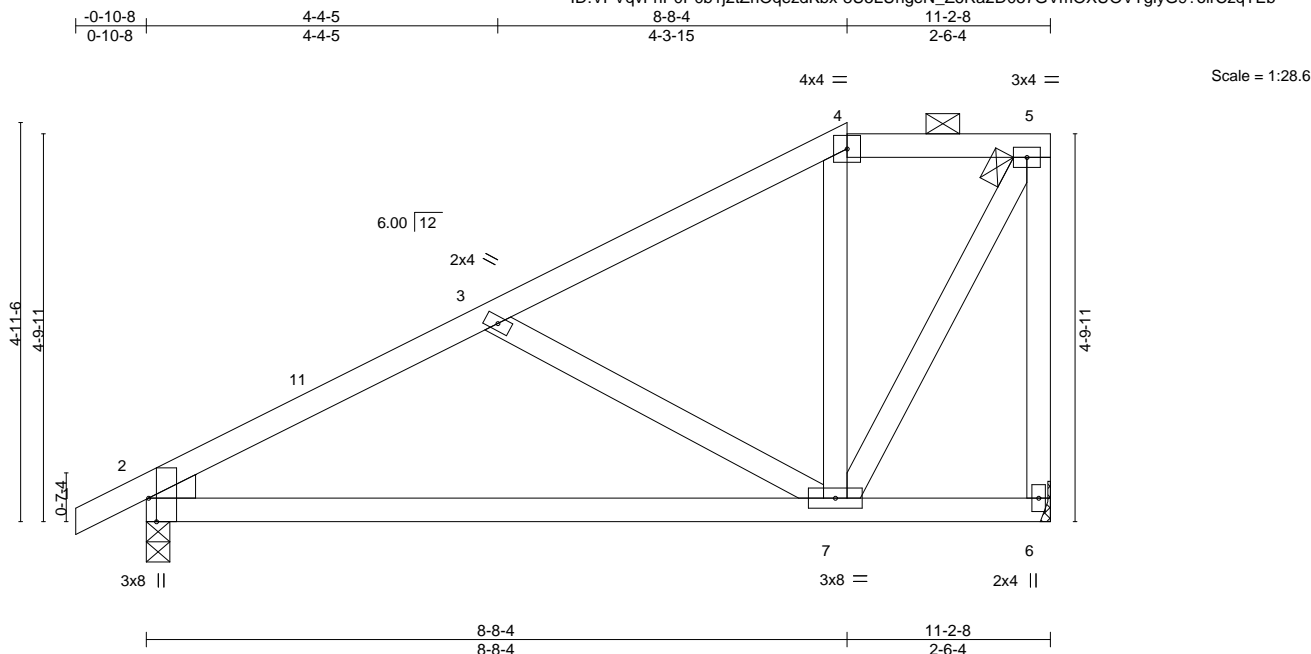


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.09	7-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.18	7-10	>748	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 49 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=172(LC 11)
Max Uplift 6=55(LC 9), 2=66(LC 12)
Max Grav 6=605(LC 1), 2=690(LC 1)

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

TOP CHORD 2-3=-810/150, 3-4=-421/92, 4-5=-300/110, 5-6=-613/172
BOT CHORD 2-7=-295/689
WEBS 3-7=-454/187, 5-7=-179/607

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 8-8-4, Exterior(2E) 8-8-4 to 11-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 6 and 66 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

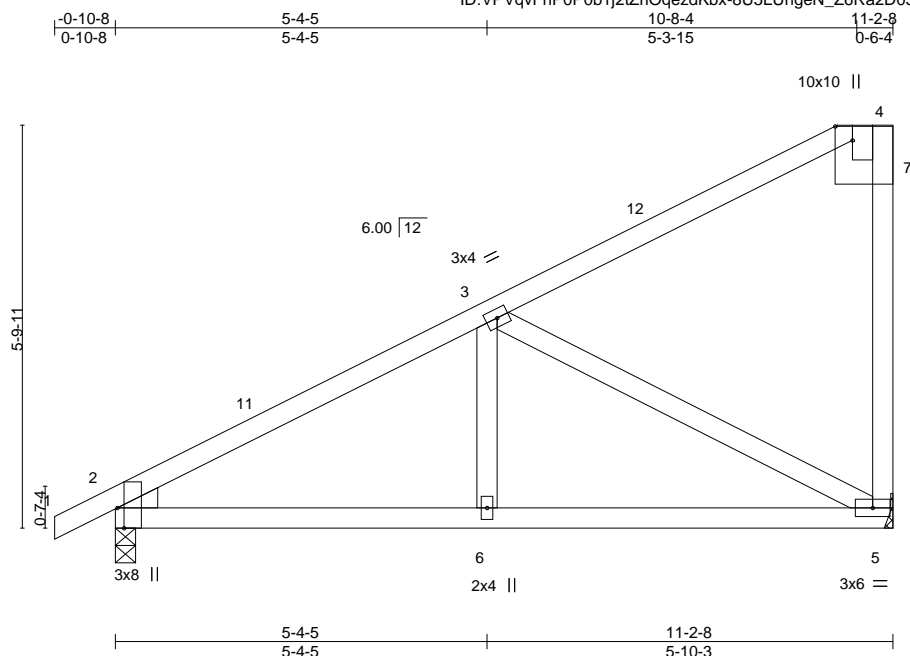


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [4:Edge,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 45 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=216(LC 11)
Max Uplift 2=-60(LC 12), 5=-94(LC 12)
Max Grav 2=690(LC 1), 5=578(LC 1)

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

TOP CHORD 2-3=-817/110
BOT CHORD 2-6=-223/659, 5-6=-223/659
WEBS 3-5=-707/173

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 10-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 60 lb uplift at joint 2 and 94 lb uplift at joint 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.



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	D5	Jack-Closed	7	1	144600100
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:41 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-chfj1hG7Ihy3kcPZpeV1zXgBnt8P8qQNfXFNzqTEa

0-10-8 5-5-11 11-2-8
0-10-8 5-5-11 5-8-13

Scale = 1:34.5

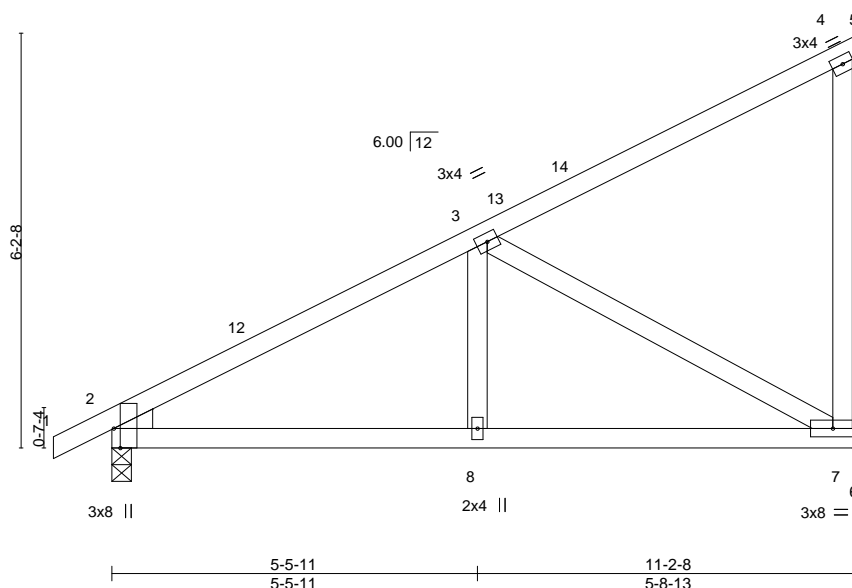


Plate Offsets (X,Y)--									
[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.02 7-8 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.04 7-8 >999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
Max Horz 2=222(LC 11)
Max Uplift 2=-50(LC 12), 7=-50(LC 12)
Max Grav 2=683(LC 1), 7=615(LC 1)

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

TOP CHORD 2-3=-795/110
BOT CHORD 2-8=-228/637, 7-8=-228/637
WEBS 3-7=-702/184

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 11-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 50 lb uplift at joint 2 and 50 lb uplift at joint 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:42 2021 Page 1
ID:VPVvFnP0P0b1j2tZrOgezdkBx-4tD5vNiuucpphuBc7W9kaBTumBBA8fnZcJHpw4zgTEZ

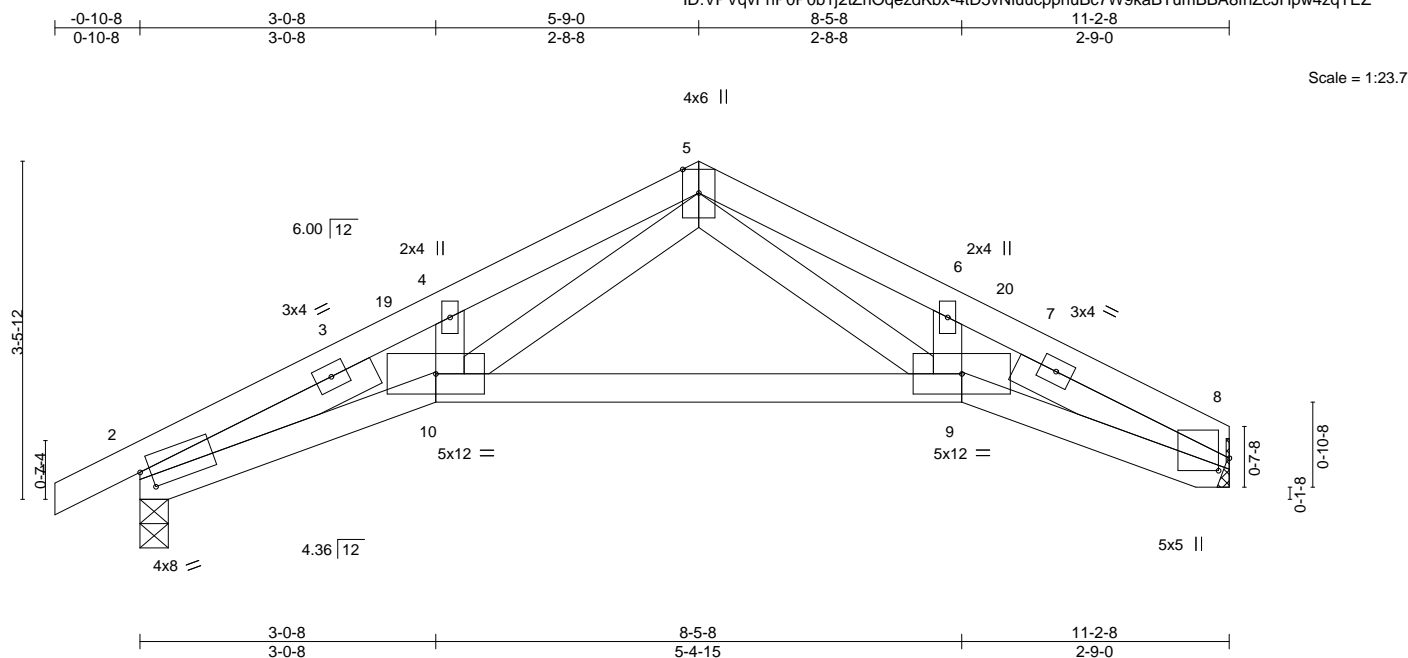


Plate Offsets (X,Y)-- [2:0-1-4,0-2-5], [8:0-1-9,0-1-5]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.15	9-10	>886	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 43 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 2-8-1, Right 2x4 SPF No.2 2-5-5

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
 Max Horz 2=62(LC 12)
 Max Uplift 8=-40(LC 13), 2=-60(LC 12)
 Max Grav 8=613(LC 1), 2=698(LC 1)

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

TOP CHORD 2-4=-1785/417, 4-5=-1741/493, 5-6=-1645/443, 6-8=-1727/379
BOT CHORD 2-10=-350/1656, 9-10=-141/801, 8-9=-292/1566
WEBS 5-10=-268/959, 5-9=-228/849

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * 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) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 8 and 60 lb uplift at joint 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600102
2599350	E2	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrOqezdKbx-Z3nT7jjWfvxgl1mohEgz6O03LbWlt6tjrZ0MSWzqTEY

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

Scale = 1:22.9

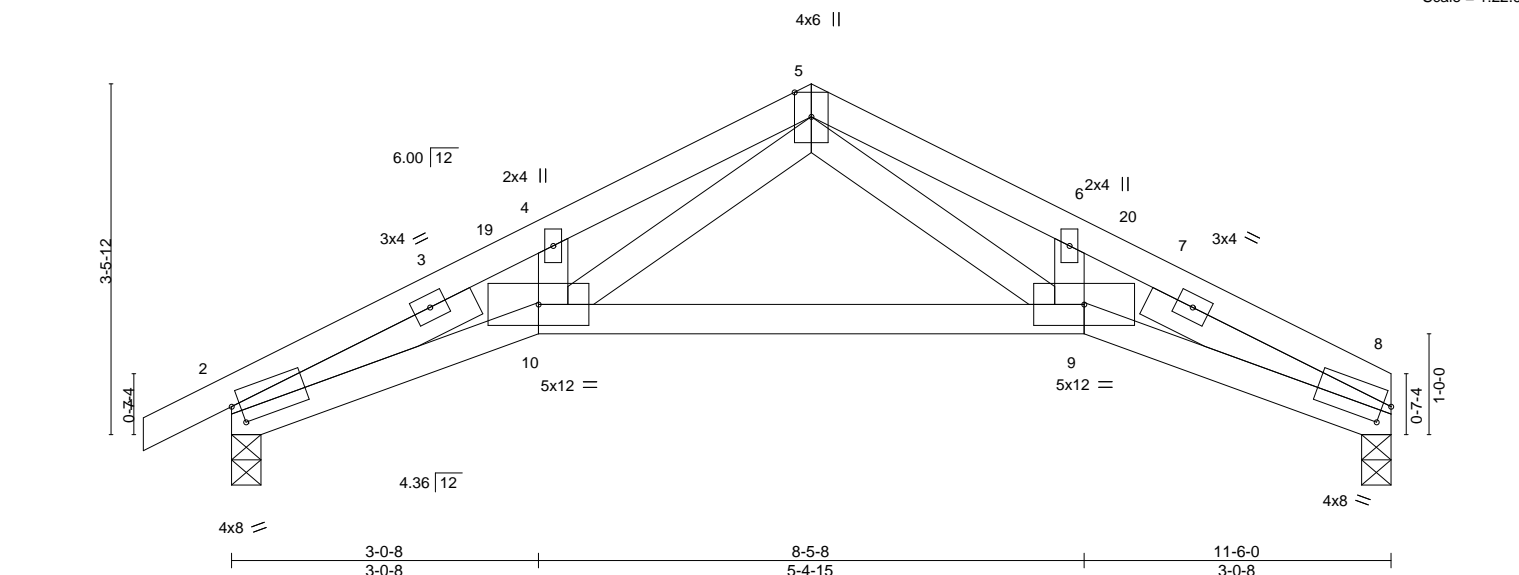


Plate Offsets (X,Y)--		[2:0-1-0,0-2-5], [8:0-1-0,0-2-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.22	Vert(LL)	-0.06 9-10	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL 1.15		BC	0.39	Vert(CT)	-0.17 9-10	>820	180		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.24	Horz(CT)	0.09 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 44 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 2-8-1, Right 2x4 SPF No.2 2-8-1

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 2=0-3-8
 Max Horz 2=59(LC 16)
 Max Uplift 8=43(LC 13), 2=60(LC 12)
 Max Grav 8=630(LC 1), 2=714(LC 1)

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

TOP CHORD 2-4=-1848/413, 4-5=-1798/489, 5-6=-1822/468, 6-8=-1876/405
 BOT CHORD 2-10=-339/1712, 9-10=-138/844, 8-9=-315/1741
 WEBS 5-9=-252/998, 5-10=-259/970

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Bearing at joint(s) 8, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 8 and 60 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600103
2599350	E3	Hip Girder	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

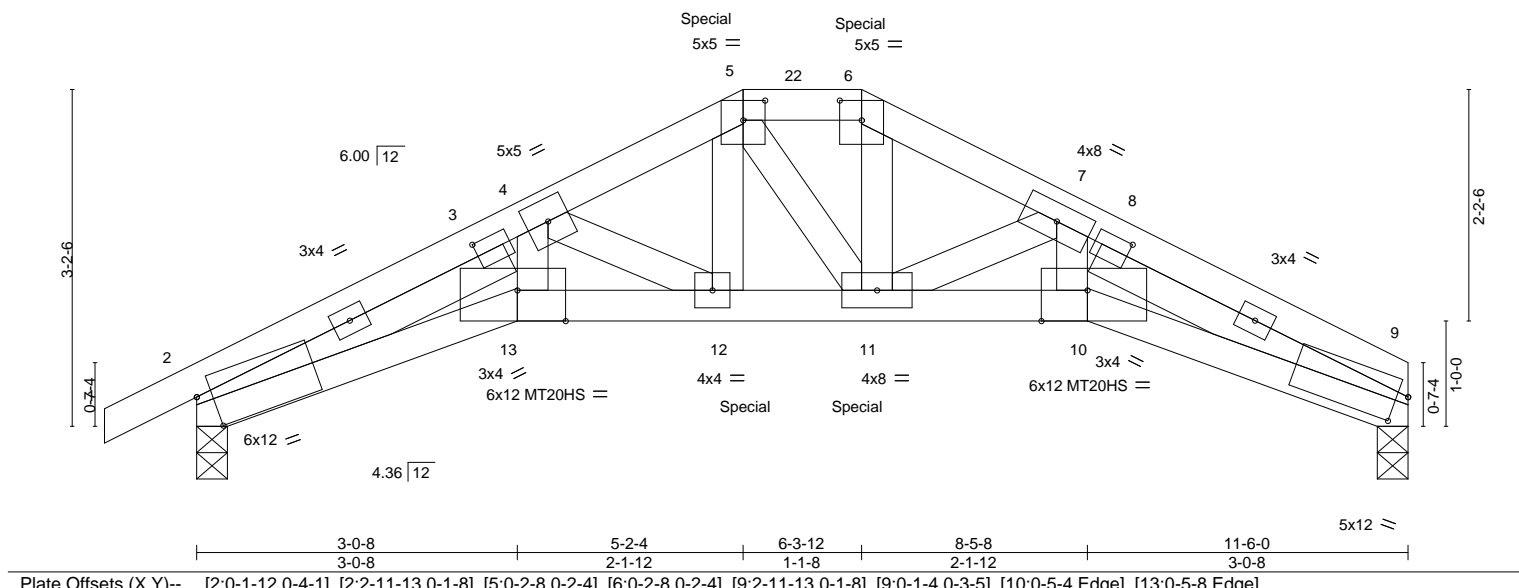
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:45 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlQeqzdKbx-VSvEYPknBXBOYLwBoeiRCp5JfP54Lzz0IHVTWPzqTEW

Job Reference (optional)

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

Scale = 1:21.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.11	12	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.24	12	>585	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.19	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 48 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 3-3-6, Right 2x4 SPF No.2 3-3-6

BRACING-

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

REACTIONS.

(size) 9=0-3-8, 2=0-3-8
 Max Horz 2=55(LC 29)
 Max Uplift 9=246(LC 9), 2=263(LC 8)
 Max Grav 9=1313(LC 1), 2=1395(LC 1)

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

TOP CHORD 2-4=-4626/976, 4-5=-3182/693, 5-6=-2783/608, 6-7=-3212/687, 7-9=-4663/927
 BOT CHORD 2-13=-883/4228, 12-13=-794/3793, 11-12=-566/2757, 10-11=-713/3817, 9-10=-796/4265
 WEBS 4-13=-257/1337, 4-12=-1061/234, 5-12=-230/1035, 6-11=-219/1053, 7-11=-1058/211, 7-10=-233/1362

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Bearing at joint(s) 9, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 246 lb uplift at joint 9 and 263 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 188 lb down and 99 lb up at 5-2-4, and 188 lb down and 99 lb up at 6-3-12 on top chord, and 508 lb down and 156 lb up at 5-2-4, and 527 lb down and 160 lb up at 6-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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



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Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600103
2599350	E3	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:45 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-VsEYPknBXBOYLwBoeiRCp5JfP54Lzz0IHVTWPzqTEW

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-90, 5-6=-90, 6-9=-90, 13-18=-20, 10-13=-20, 10-14=-20
Concentrated Loads (lb)
Vert: 6=-164(F) 12=-508(F) 5=-164(F) 11=-527(F)

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600104
2599350	F1	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:47 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-Rr0_y5m1j8R6nf4Zw3lvHEAbZCvppkKlmb_ZblzqTEU

0-10-8 4-2-0 9-5-0 14-8-0 16-8-0 18-8-0 21-8-13 24-10-0 25-8-8
0-10-8 4-2-0 5-3-0 5-3-0 2-0-0 2-0-0 3-0-13 3-1-3 0-10-8

Scale = 1:44.7

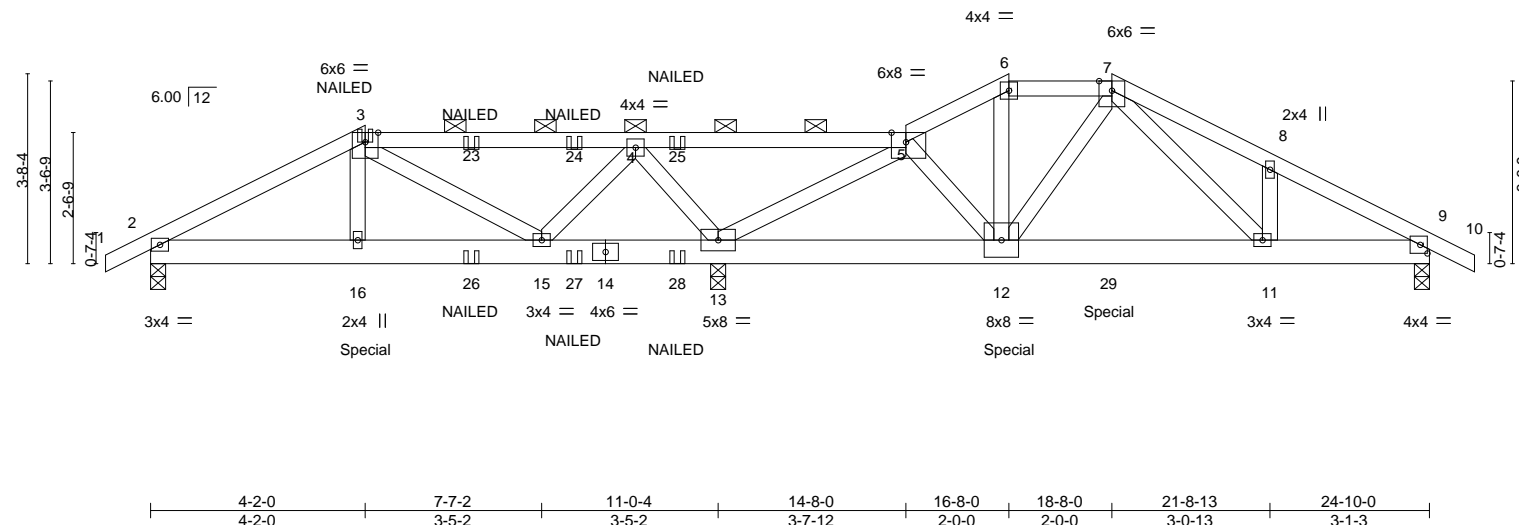


Plate Offsets (X,Y)--		[5:0-3-6,Edge], [9:0-1-11,0-2-0]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP					
TCLL	25.0	Plate Grip DOL 1.15		TC 0.78		Vert(LL) -0.05 11-12 >999 240		MT20		197/144					
TCDL	20.0	Lumber DOL 1.15		BC 0.38		Vert(CT) -0.11 11-12 >999 180									
BCLL	0.0 *	Rep Stress Incr NO		WB 0.92		Horz(CT) 0.02 9 n/a n/a									
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS								Weight: 119 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SPF No.2 *Except*
9-14: 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-15 oc purlins, except
2-0-0 oc purlins (5-1-2 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-15.

REACTIONS.

(size) 2=0-3-8, 13=0-3-8, 9=0-3-8
Max Horz 2=55(LC 12)
Max Uplift 2=118(LC 8), 13=328(LC 8), 9=125(LC 9)
Max Grav 2=770(LC 21), 13=2810(LC 1), 9=1167(LC 1)

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

TOP CHORD 2-3=-1048/174, 4-5=-141/1278, 5-6=-1560/176, 6-7=-1324/159, 7-8=-1880/254,
8-9=-1923/196
BOT CHORD 2-16=-148/876, 15-16=-148/851, 13-15=-363/73, 12-13=-80/1012, 11-12=-65/1252,
9-11=-123/1657
WEBS 3-16=-1/378, 3-15=-807/149, 4-15=-27/751, 4-13=-1587/300, 5-13=-2681/295,
5-12=-35/604, 6-12=-65/540, 7-11=-108/596

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 2, 328 lb uplift at joint 13 and 125 lb uplift at joint 9.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 327 lb down and 69 lb up at 4-2-0, and 565 lb down and 100 lb up at 16-8-0, and 565 lb down and 100 lb up at 18-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600104
2599350	F1	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:47 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Rr0_y5m1j8R6nf4Zw3lvHEAbZCvppkKlmb_ZblzqTEU

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-3=-90, 3-5=-90, 5-6=-90, 6-7=-90, 7-10=-90, 17-20=-20
- Concentrated Loads (lb)
 - Vert: 3=-65(F) 16=-327(F) 12=-565(F) 23=-65(F) 24=-65(F) 25=-65(F) 26=-42(F) 27=-42(F) 28=-42(F) 29=-565(F)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:48 2021 Page 1
ID:VPVvEnP0P0b1i2tZrQeozdKbx-v1aMARmflJSZzPpfItG8nRipzcDlY ITS_EkZZkzoTET

0-10-8	6-2-0	11-5-0	16-8-0	17-8-0	24-10-0	25-8-8
0-10-8	6-2-0	5-3-0	5-8-0	1-0-0	7-2-0	0-10-8

Scale = 1:44.0

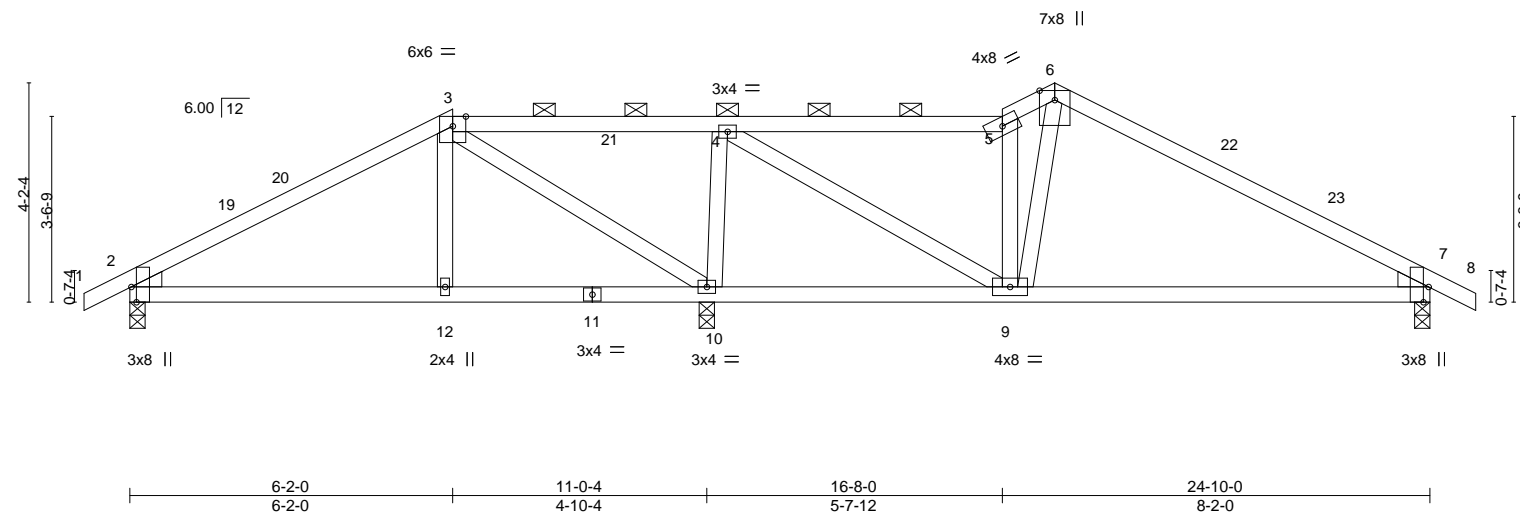


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [7:0-0-1,0-0-3], [7:0-0-3,0-5-0], [7:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.07	9-18	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.20	9-18	>820	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 91 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 (5-10-7 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 10=0-3-8, 7=0-3-8
 Max Horz 2=-64(LC 13)
 Max Uplift 2=-87(LC 12), 10=-120(LC 12), 7=-98(LC 13)
 Max Grav 2=693(LC 1), 10=1365(LC 1), 7=831(LC 1)

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

TOP CHORD 2-3=-756/129, 4-5=-823/159, 5-6=-848/160, 6-7=-944/145
BOT CHORD 2-12=-69/584, 10-12=-71/578, 7-9=-38/734
WEBS 3-10=-656/78, 4-10=-951/153, 4-9=-41/836, 5-9=-564/125, 6-9=-42/380

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) -0-10-0 to 2-1-8, Interior(1) 2-1-8 to 6-2-0, Exterior(R2R) 6-2-0 to 9-2-0, Interior(1) 9-2-0 to 17-8-0, Exterior(2R) 17-8-0 to 20-8-0, Interior(1) 20-8-0 to 25-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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 87 lb uplift at joint 2, 120 lb uplift at joint 10 and 98 lb uplift at joint 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R202.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	I44600106
2599350	F3	Half Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:49 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ND8INmnHFIhq1yEy1UnNMfG2r0a6HjGbDuTgFAzqTES

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, 5-8=-20
Concentrated Loads (lb)
Vert: 11=-1670(B) 12=-1662(B) 13=-1662(B) 14=-1662(B) 15=-1662(B)

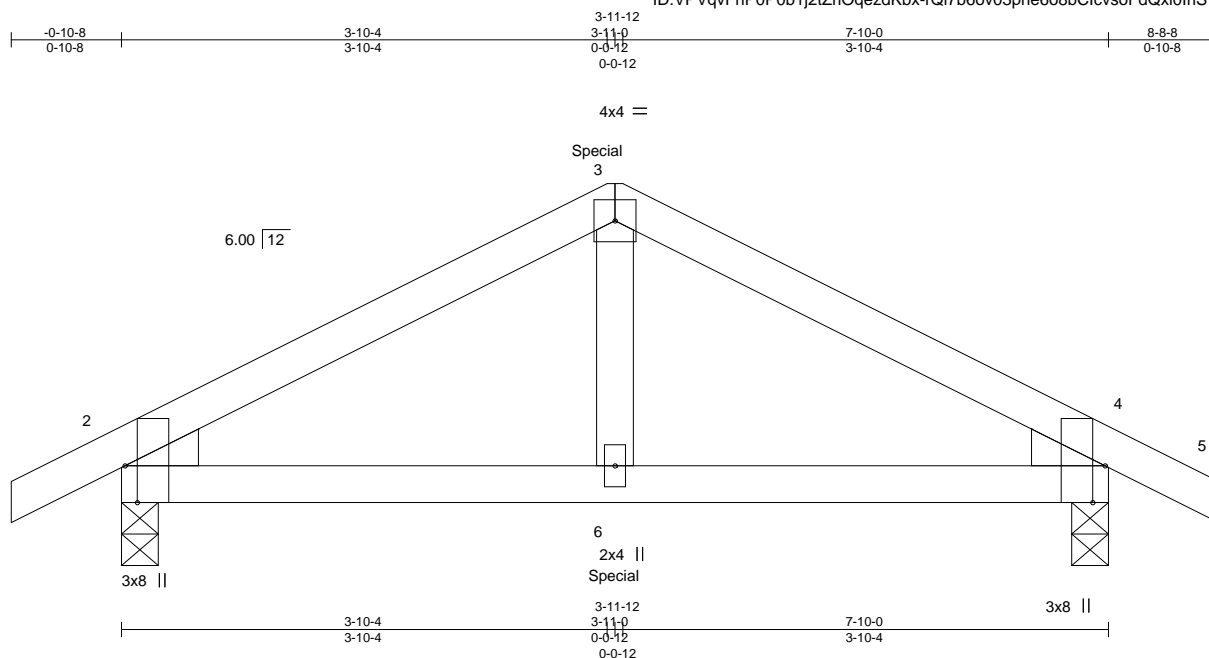


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	6-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.02	6-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
 Max Horz 2=38(LC 8)
 Max Uplift 2=-84(LC 8), 4=-85(LC 9)
 Max Gray 2=745(LC 1), 4=745(LC 1)

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

TOP CHORD 2-3=-946/114, 3-4=-946/113
BOT CHORD 2-6=-62/776, 4-6=-62/776
WEBS 3-6=-6/412

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=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 84 lb uplift at joint 2 and 85 lb uplift at joint 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 200 lb down and 116 lb up at 3-11-0 on top chord, and 351 lb down and 68 lb up at 3-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 7-10=-20
Concentrated Loads (lb)
Vert: 6=-351(B) 3=-121(B)



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

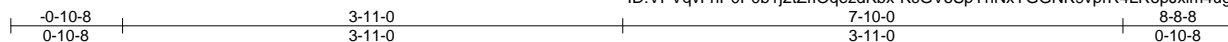
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600108
2599350	G2	Common	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:51 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-KcGVoSpYnNxYGGNK9vprR4LRopJxlm4ugCynk3zqTEQ



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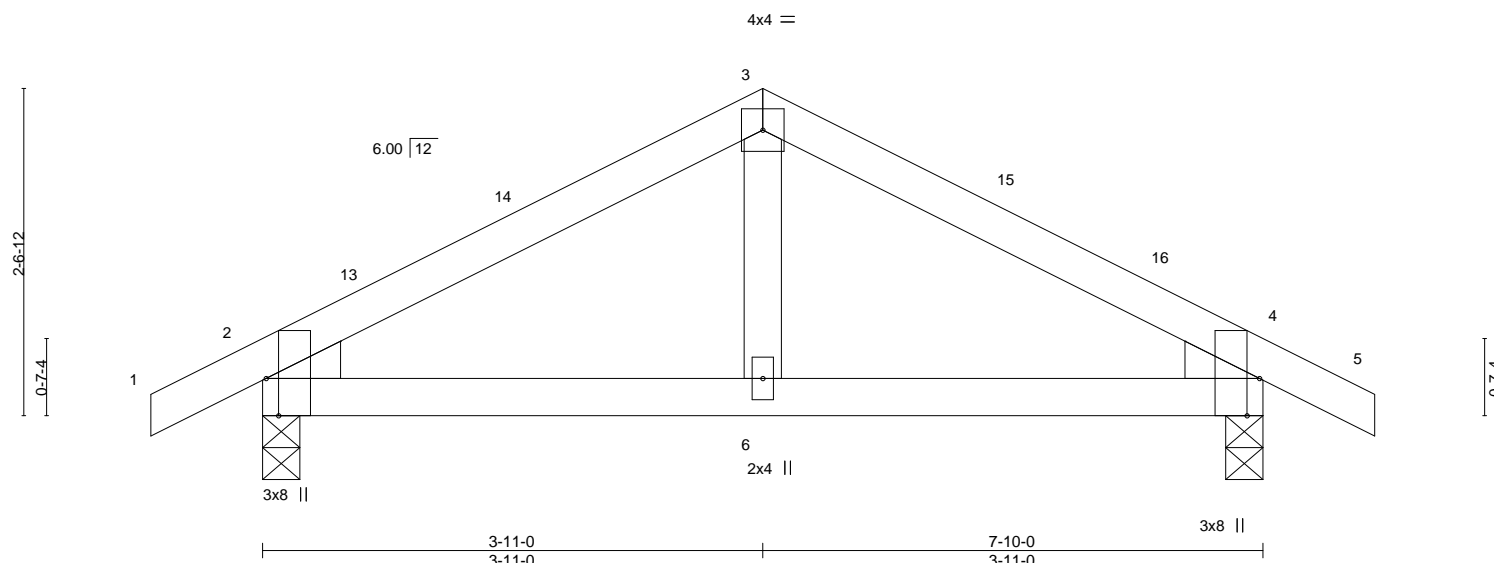


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19
TCDL 20.0	Lumber DOL	1.15	BC 0.18
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 6-9 >999 240
			Vert(CT) -0.02 6-9 >999 180
			Horz(CT) 0.00 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 25 lb FT = 20%

LUMBER-

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

Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=38(LC 12)
Max Uplift 2=-47(LC 12), 4=-47(LC 13)
Max Grav 2=510(LC 1), 4=510(LC 1)

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

TOP CHORD 2-3=-504/177, 3-4=-504/177
BOT CHORD 2-6=-54/383, 4-6=-54/383

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior(1) 6-11-0 to 8-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * 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 47 lb uplift at joint 2 and 47 lb uplift at joint 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.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

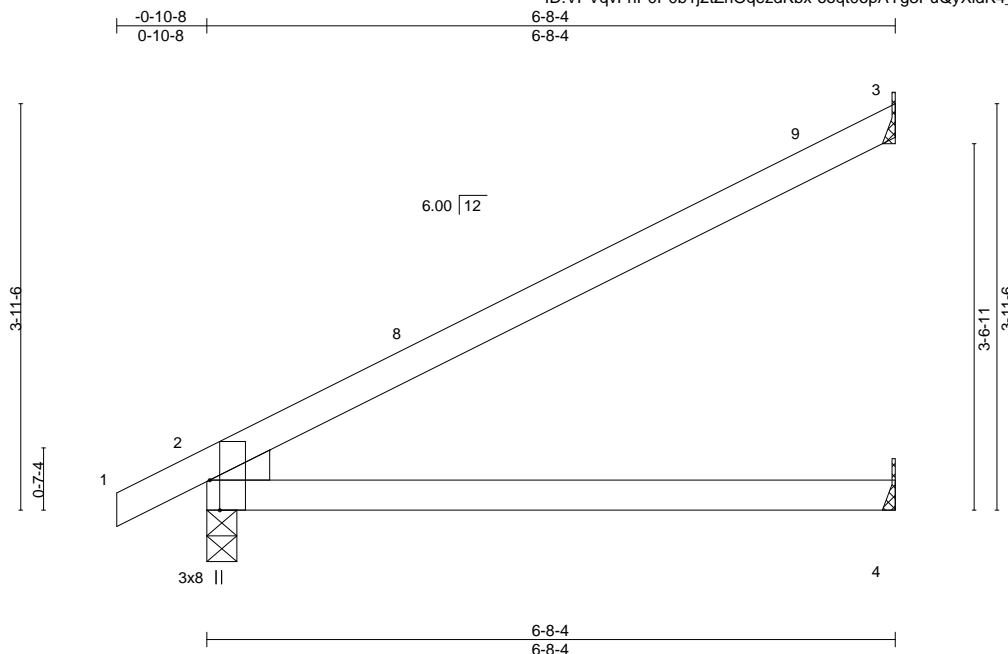
Job 2599350	Truss J1	Truss Type Jack-Open	Qty 5	Ply 1	Summit/20 Woodside ridge/MO 144600109
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:52 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-ooqt0opAYg3PuQyXidK4_HuTzDZTUDw1vsiKGVzqTEP



Scale = 1:22.4

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
TCLL 25.0		Plate Grip DOL	1.15
TCDL 20.0		Lumber DOL	1.15
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2018/TPI2014
		CSI.	
		TC	0.74
		BC	0.54
		WB	0.00
		Matrix-AS	
		DEFL.	
		in (loc)	l/defl
		Vert(LL)	0.11 4-7 >753 240
		Vert(CT)	-0.24 4-7 >333 180
		Horz(CT)	0.04 2 n/a n/a
		PLATES	GRIP
		MT20	197/144
		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) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=132(LC 12)

Max Uplift 3=-83(LC 12), 2=-26(LC 12)

Max Grav 3=263(LC 1), 2=448(LC 1), 4=129(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 6-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 83 lb uplift at joint 3 and 26 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

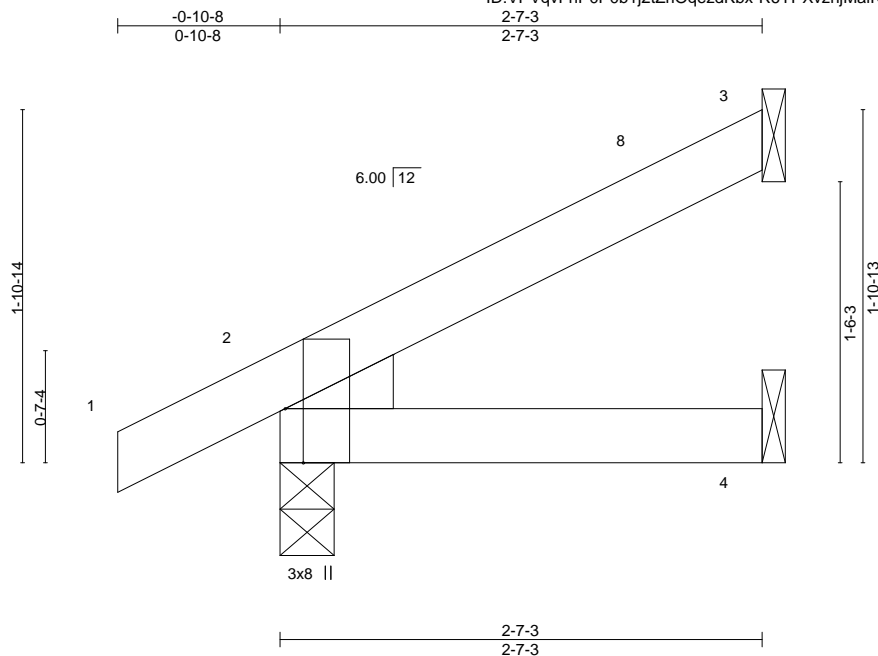
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J3	Truss Type Jack-Open	Qty 7	Ply 1	Summit/20 Woodside ridge/MO 144600111
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:04 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-R6YPXvzhjMaiKGtqP8YuTpOgD3mgleuogkczhpzqTED



Scale = 1:12.4

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.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 20.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 4-7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 8 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 3=32(LC 12), 2=18(LC 12)
Max Grav 3=88(LC 1), 2=232(LC 1), 4=49(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 32 lb uplift at joint 3 and 18 lb uplift at joint 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

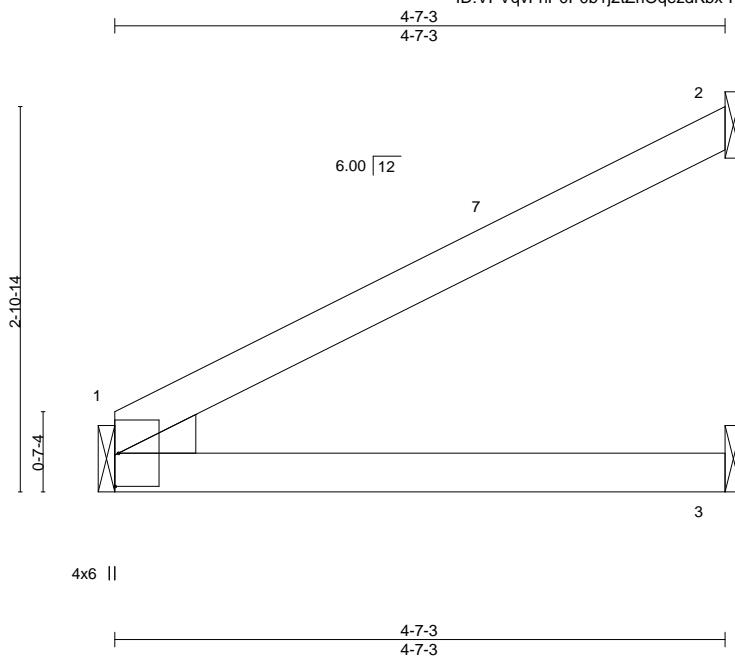
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J4	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600112
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:04 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-R6YPXvzhjMaiKGtqP8YUtpOcA3jLleuogkczhpzqTED



Scale = 1:17.4

Plate Offsets (X,Y)--		[1:0-0-1,0-0-3], [1:0-0-3,0-5-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34
TCDL 20.0	Lumber DOL	1.15	BC 0.28
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 3-6 >999 240
			Vert(CT) -0.06 3-6 >915 180
			Horz(CT) 0.01 1 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 12 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical
Max Horz 1=83(LC 12)
Max Uplift 2=62(LC 12), 1=2(LC 12)
Max Grav 2=177(LC 1), 3=91(LC 3), 1=250(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 4-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 62 lb uplift at joint 2 and 2 lb uplift at joint 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

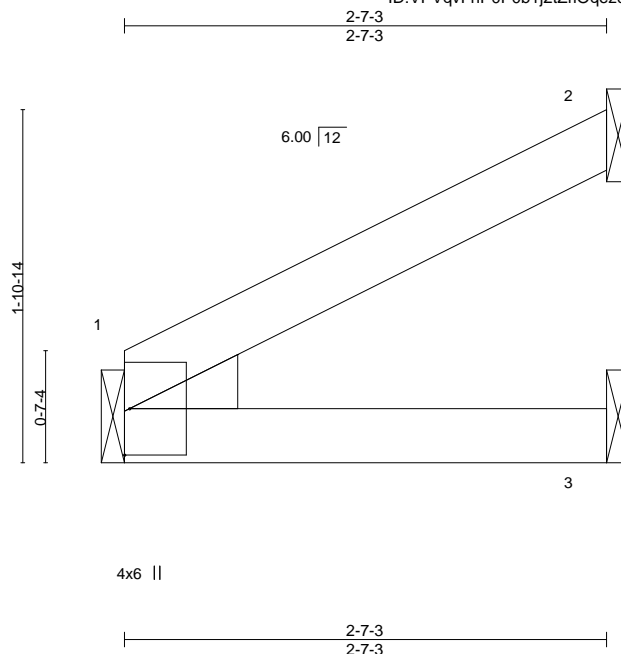
Job 2599350	Truss J5	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO I44600113
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:05 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-vl6okF_KUgiZxQS1zr3701wmT6U158yvOLWEFzqTEC



Scale = 1:12.4

Plate Offsets (X,Y)--		[1:0-0-1,0-0-3], [1:0-0-3,0-5-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09
TCDL 20.0	Lumber DOL	1.15	BC 0.10
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 6 >999 240
			Vert(CT) -0.01 3-6 >999 180
			Horz(CT) 0.00 1 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 7 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-7-3 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical

Max Horz 1=46(LC 12)

Max Uplift 2=33(LC 12)

Max Grav 2=94(LC 1), 3=52(LC 3), 1=140(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 33 lb uplift at joint 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.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

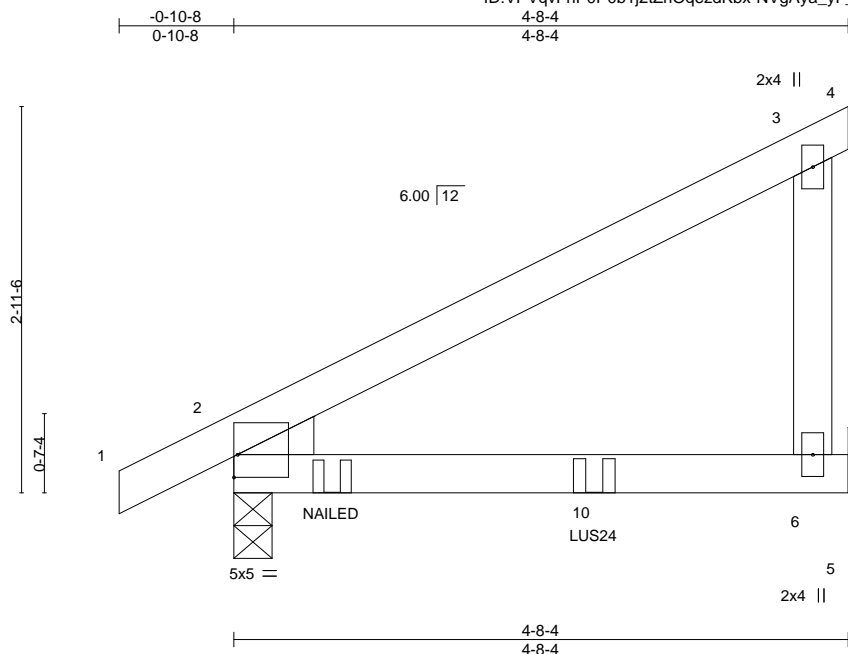
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600114
2599350	J6	Jack-Closed Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:06 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-NVgAya_yF_qPZa1DXZaMYETvgsI5mYO57254mhzqTEB



Scale = 1:17.6

Plate Offsets (X,Y)--		[2:0-0-3,0-0-1], [2:0-5-0,0-0-3], [2:Edge,0-2-1]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53
TCDL 20.0	Lumber DOL	1.15	BC 0.71
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.05 6-9 >969 240
			Vert(CT) -0.12 6-9 >443 180
			Horz(CT) 0.02 2 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 16 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
 Max Horz 2=100(LC 7)
 Max Uplift 6=50(LC 8), 2=19(LC 8)
 Max Grav 6=412(LC 1), 2=521(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 50 lb uplift at joint 6 and 19 lb uplift at joint 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-9-0 from the left end to connect truss(es) to back face of bottom chord.
- 8) Fill all nail holes where hanger is in contact with lumber.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



February 1, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2599350	Truss J7	Truss Type Jack-Open	Qty 8	Ply 1	Summit/20 Woodside ridge/MO 144600115
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:07 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-shEY9w?aoHyGBjcP5G6b5S?7PGIKV?eFMiqdl7zqTEA

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

Scale = 1:17.6

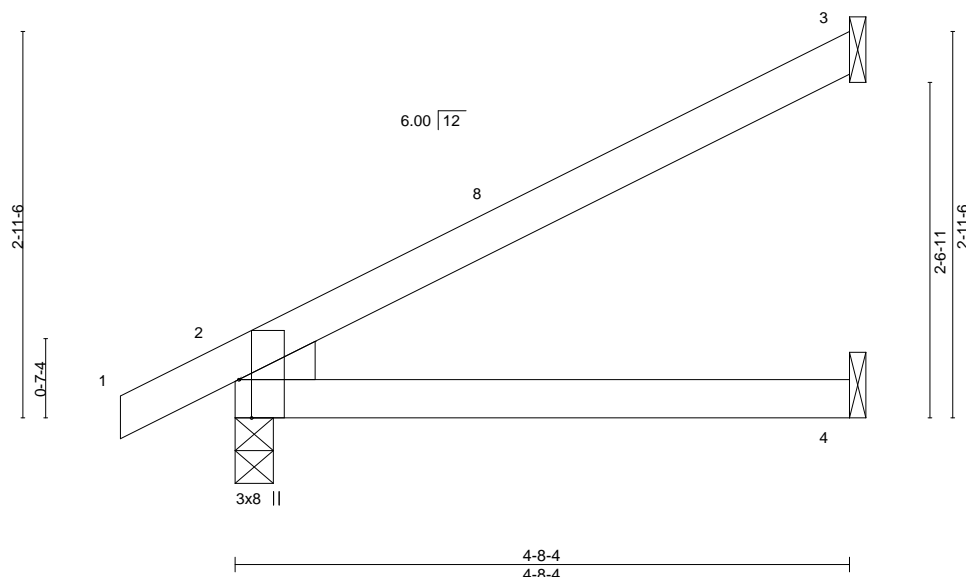


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34
TCDL 20.0	Lumber DOL	1.15	BC 0.26
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 4-7 >999 240
			Vert(CT) -0.06 4-7 >942 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 13 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=98(LC 12)
Max Uplift 3=62(LC 12), 2=21(LC 12)
Max Grav 3=177(LC 1), 2=341(LC 1), 4=91(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 4-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 62 lb uplift at joint 3 and 21 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J8	Truss Type Jack-Open	Qty 4	Ply 1	Summit/20 Woodside ridge/MO I44600116
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:08 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-KtowMG0Cmb47otBbe_dqdfYgZg3HESuObMaBqazqTE9

-0-10-8	2-3-8	4-8-4
0-10-8	2-3-8	2-4-12

Scale = 1:17.6

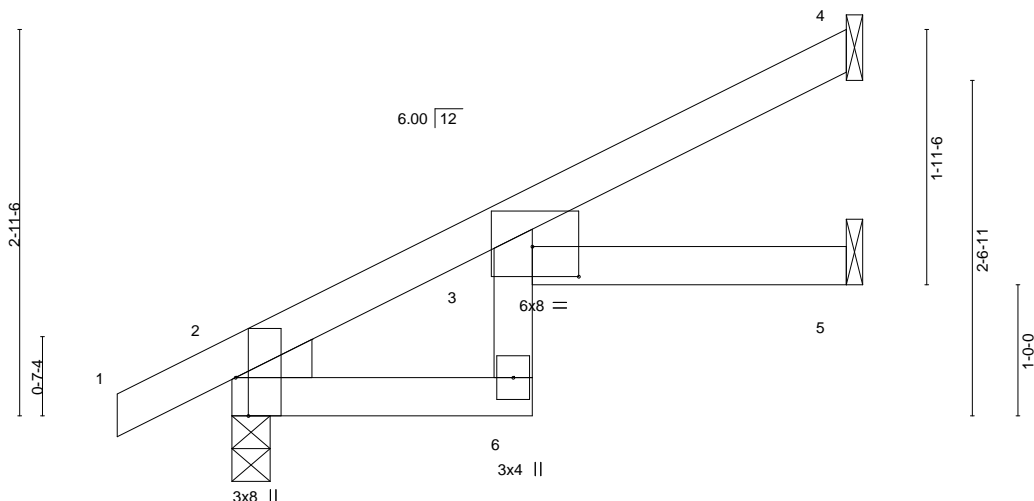


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-4,0-2-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	0.05	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.09	6	>609	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.07	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 15 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical

Max Horz 2=98(LC 12)

Max Uplift 4=-49(LC 12), 2=-20(LC 12), 5=-5(LC 12)

Max Grav 4=157(LC 1), 2=342(LC 1), 5=93(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 4-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 49 lb uplift at joint 4, 20 lb uplift at joint 2 and 5 lb uplift at joint 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.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	Summit/20 Woodside ridge/MO 144600117
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:09 2021 Page 1

ID:VPVqvFnP0P0b1j2Zr1OqezdKbx-o3Llac1qXvc_Q1loCh83At5Xj4Tnzv7Yp0JkN0zqTE8



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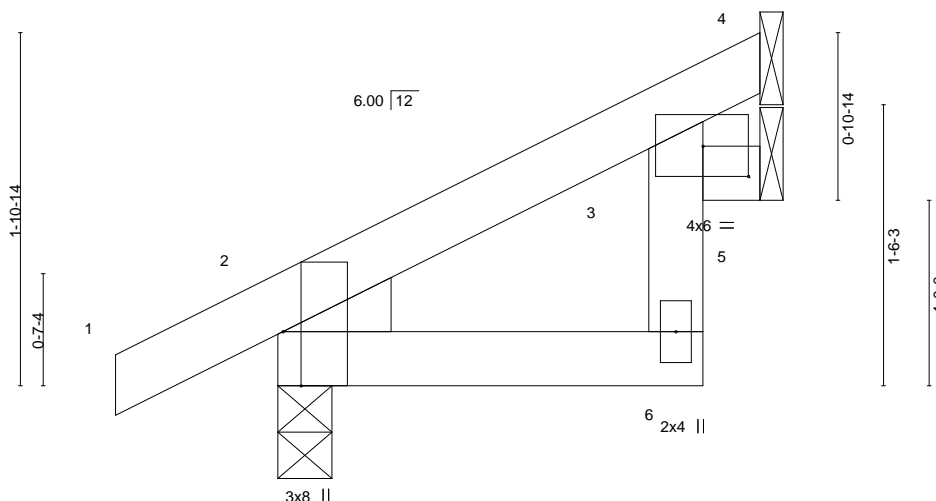


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-2-15,0-1-15]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.10		Vert(LL)	-0.00	9	>999
TCDL 20.0		Lumber DOL	1.15	BC 0.07		Vert(CT)	-0.01	6	>999
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.01	5	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MR					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 10 lb	FT = 20%		

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-7-3 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical

Max Horz 2=60(LC 12)

Max Uplift 4=-19(LC 12), 2=-18(LC 12), 5=-10(LC 12)

Max Grav 4=72(LC 1), 2=232(LC 1), 5=56(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 19 lb uplift at joint 4, 18 lb uplift at joint 2 and 10 lb uplift at joint 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

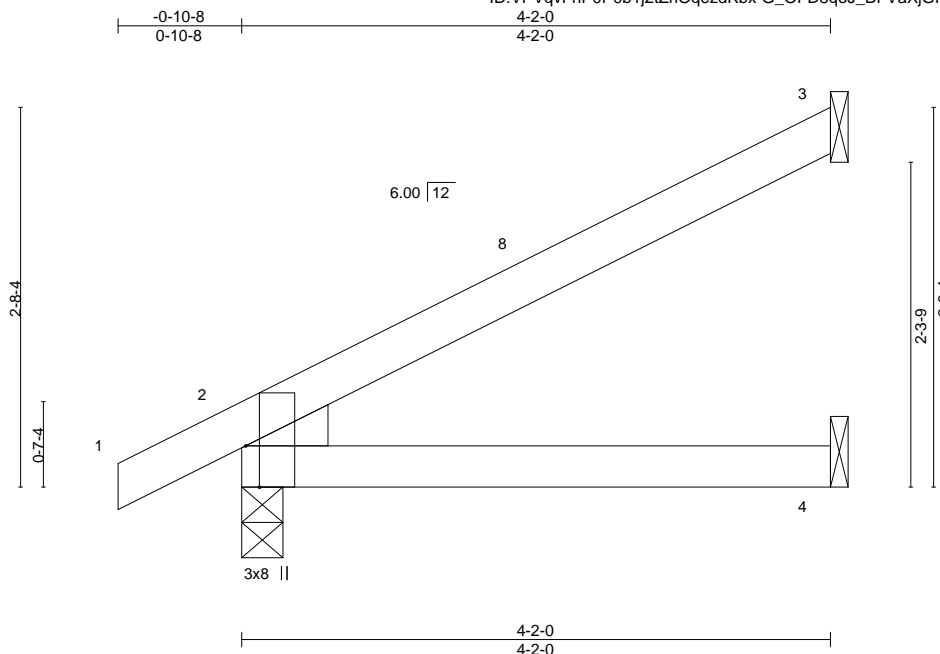
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	Summit/20 Woodside ridge/MO 144600118
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:53 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-G_OFD8qoJ_BFVaXjGKrJWVQIDd_zDgAB8WRuoxzqTEO



Scale = 1:16.3

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.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26
TCDL 20.0	Lumber DOL	1.15	BC 0.21
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.04 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 12 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=89(LC 12)
Max Uplift 3=55(LC 12), 2=20(LC 12)
Max Grav 3=155(LC 1), 2=313(LC 1), 4=80(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 4-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 55 lb uplift at joint 3 and 20 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J11	Truss Type Jack-Open	Qty 5	Ply 1	Summit/20 Woodside ridge/MO 144600119
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:53 2021 Page 1

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-0-10-8
0-10-8

2-0-15
2-0-15

Scale = 1:11.1

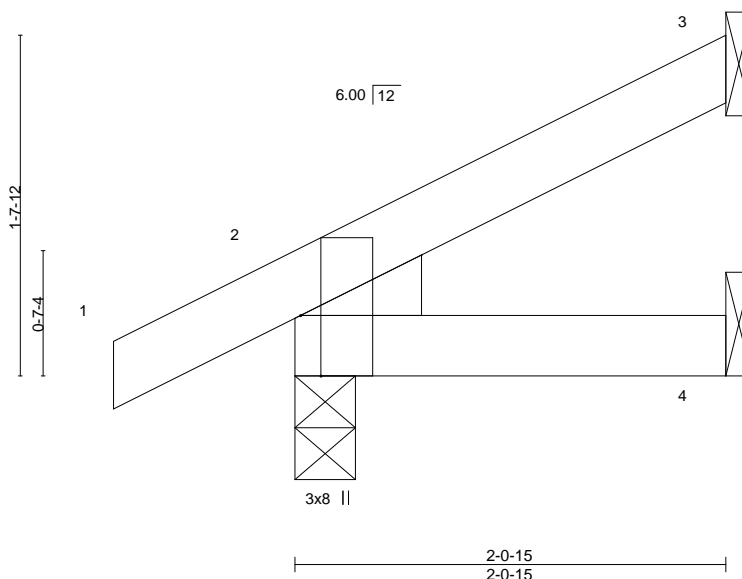


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 7 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-0-15 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=51(LC 12)

Max Uplift 3=24(LC 12), 2=18(LC 12)

Max Grav 3=65(LC 1), 2=207(LC 1), 4=37(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 24 lb uplift at joint 3 and 18 lb uplift at joint 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.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

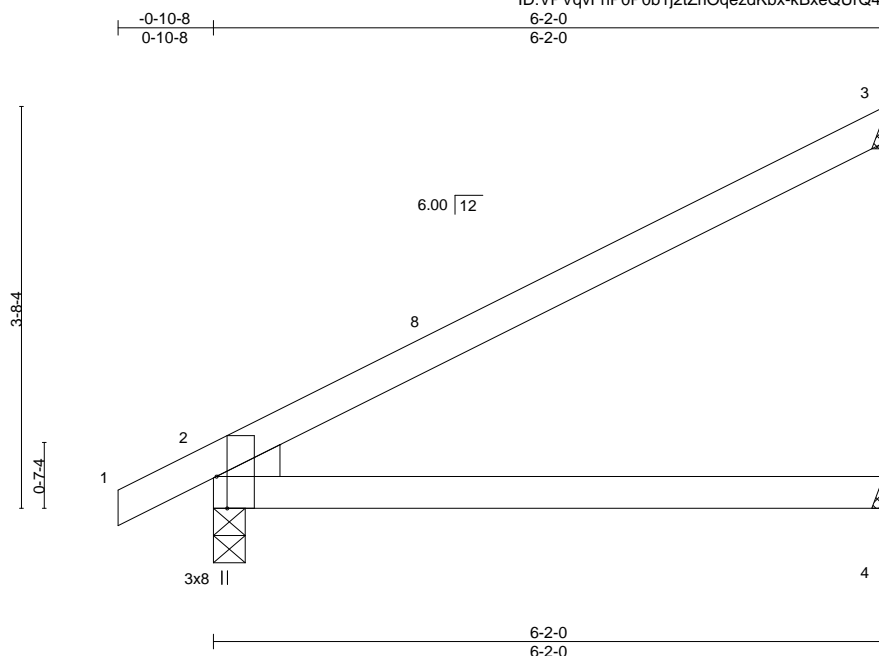


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	0.06	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.14	4-7	>539	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	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
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 3=-461(LC 1), 2=461(LC 1)
Max Uplift 2=-111(LC 12)
Max Grav 2=673(LC 1), 4=112(LC 3)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-633/273

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=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 6-1-4 zone; cantilever left and right exposed; and 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 111 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J13	Truss Type Jack-Open	Qty 3	Ply 1	Summit/20 Woodside ridge/MO 144600121
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:55 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-CNV0eqs2qbRzIth6OluncwW6vRfahagUbwq?tzqTEM



Scale: 3/4"=1'

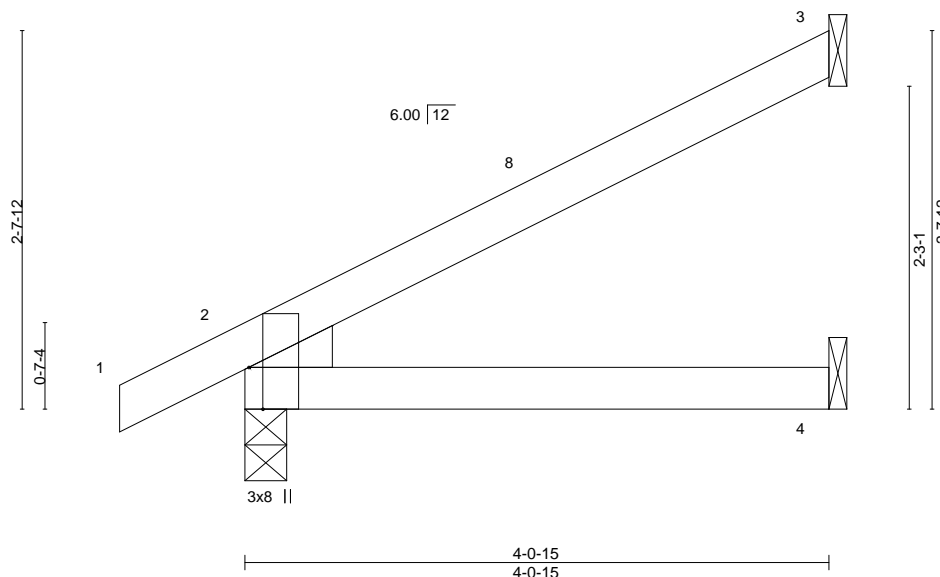


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25
TCDL 20.0	Lumber DOL	1.15	BC 0.20
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.03 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 12 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=87(LC 12)
Max Uplift 3=54(LC 12), 2=20(LC 12)
Max Grav 3=152(LC 1), 2=308(LC 1), 4=79(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 4-0-3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 3 and 20 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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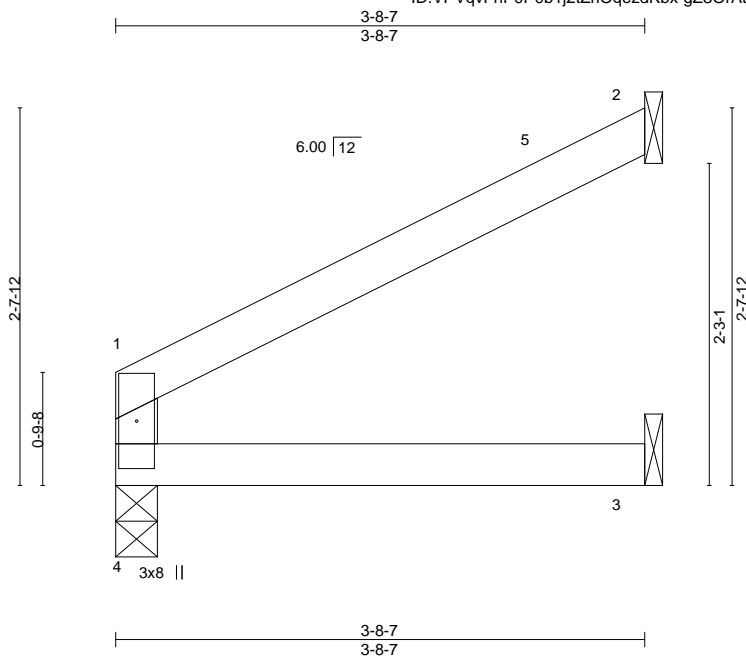
Job 2599350	Truss J14	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600122
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-gZ3OrAtgbvaqM1GlxSP0872Hmq0nQ1vdqUgYPGzqTEL



Scale: 3/4"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.01	3-4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	3-4	>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-MR						Weight: 9 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 3-8-7 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 2=Mechanical, 3=Mechanical

Max Horz 4=57(LC 12)

Max Uplift 2=55(LC 12)

Max Grav 4=192(LC 1), 2=144(LC 1), 3=71(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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-7-11 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 55 lb uplift at joint 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.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

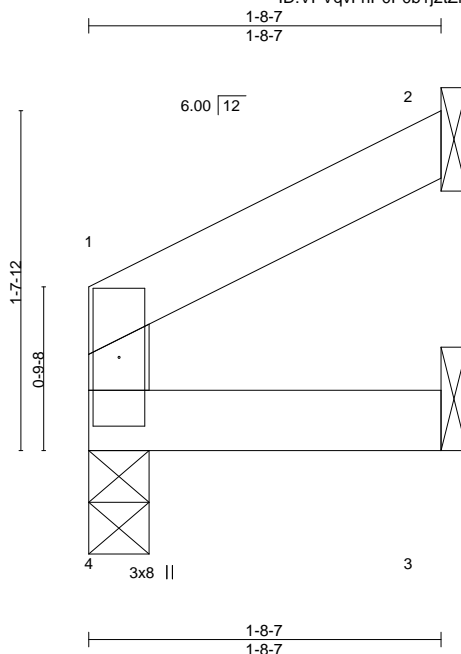
Job 2599350	Truss J15	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO I44600123
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:57 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-8mdm3VtIMDih_BrUVAwFhLbVbEOa9U9n38P5jzqTEK



Scale = 1:11.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4	>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-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 1-8-7 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 2=Mechanical, 3=Mechanical

Max Horz 4=28(LC 9)

Max Uplift 2=27(LC 12)

Max Grav 4=85(LC 1), 2=65(LC 1), 3=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 27 lb uplift at joint 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



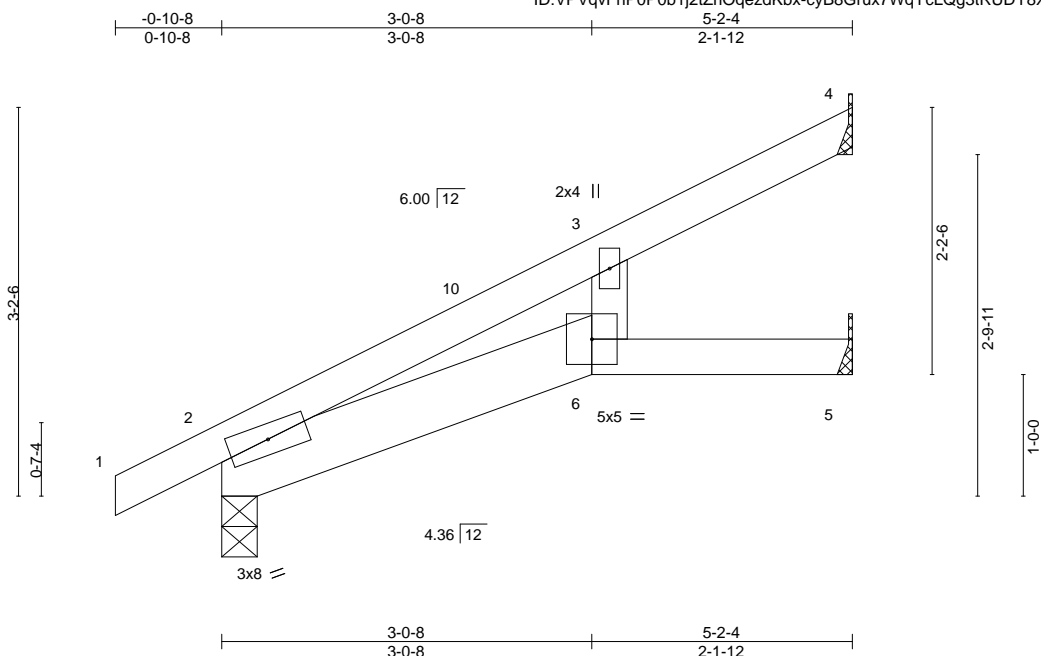
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600124
2599350	J16	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:58 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-cyB8Grux7WqYcLQg3tRUDY8XUehUuxlwHo9fU9zqTEJ



Scale = 1:19.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	0.08	6	>751	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.15	6	>423	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.05	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 17 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 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=108(LC 12)
Max Uplift 4=73(LC 12), 2=22(LC 12)
Max Grav 4=254(LC 1), 2=367(LC 1), 5=42(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 5-1-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 73 lb uplift at joint 4 and 22 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J17	Truss Type Jack-Open	Qty 3	Ply 1	Summit/20 Woodside ridge/MO 144600125
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-cyB8Grux7WqYcLQg3tRUDY8fhej7ux9wHo9fU9zqTEJ

Job Reference (optional)

-0-10-8 3-0-8 3-1-3
0-10-8 3-0-8 0-0-11

Scale = 1:13.7

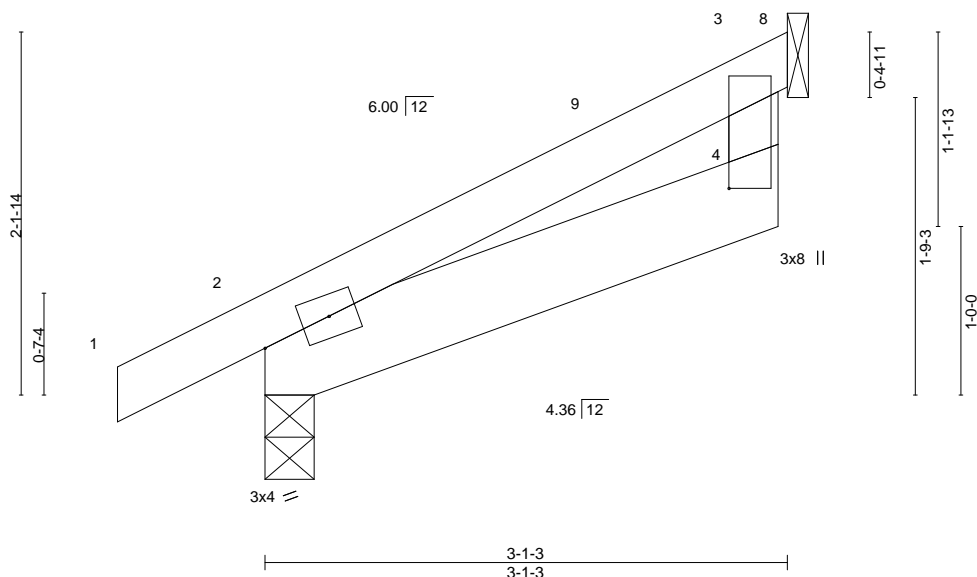


Plate Offsets (X,Y)-- [3:0-0-14,0-1-12], [4:0-11-6,2-9-0], [4:0-0-10,0-1-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	7	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	7	>999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 3=Mechanical
Max Horz 2=70(LC 12)
Max Uplift 2=-17(LC 12), 3=-42(LC 12)
Max Grav 2=254(LC 1), 3=150(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 3-1-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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 17 lb uplift at joint 2 and 42 lb uplift at joint 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.
- 8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J18	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600126
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

3-0-8
3-0-8
3-1-3
0-0-11

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:36:59 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-58IXUBvZuqyPDV?tdbyjmmgqN234dON3WSuCo0bzqTEI

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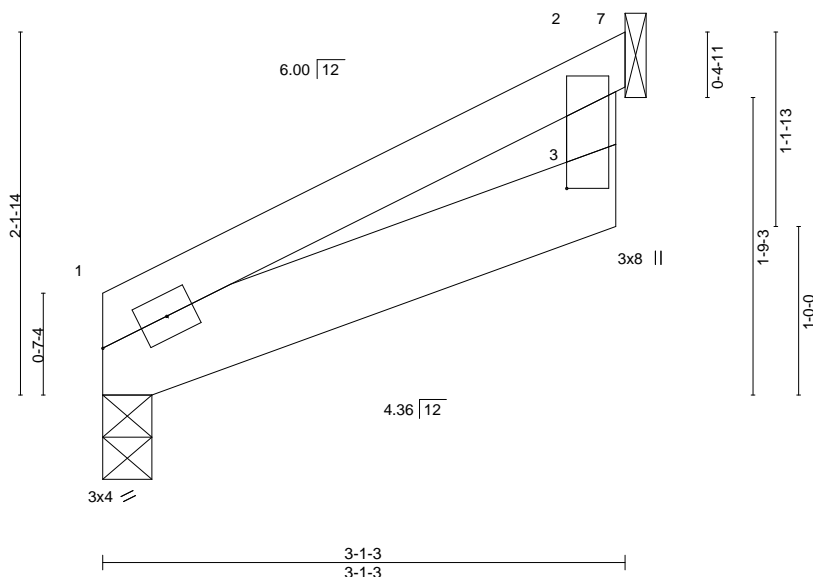


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-11-6,2-9-0], [3:0-0-10,0-1-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	3-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 2=Mechanical
Max Horz 1=56(LC 12)
Max Uplift 2=44(LC 12)
Max Grav 1=164(LC 1), 2=162(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) 1 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 44 lb uplift at joint 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J19	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600127
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:00 2021 Page 1					
Job Reference (optional) ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-ZLJvhXwBf84GrfZ3AIUyJzDz_SOzMrvDI6elY1zqTEH					

-0-10-8 3-10-4
0-10-8 3-10-4

Scale = 1:15.5

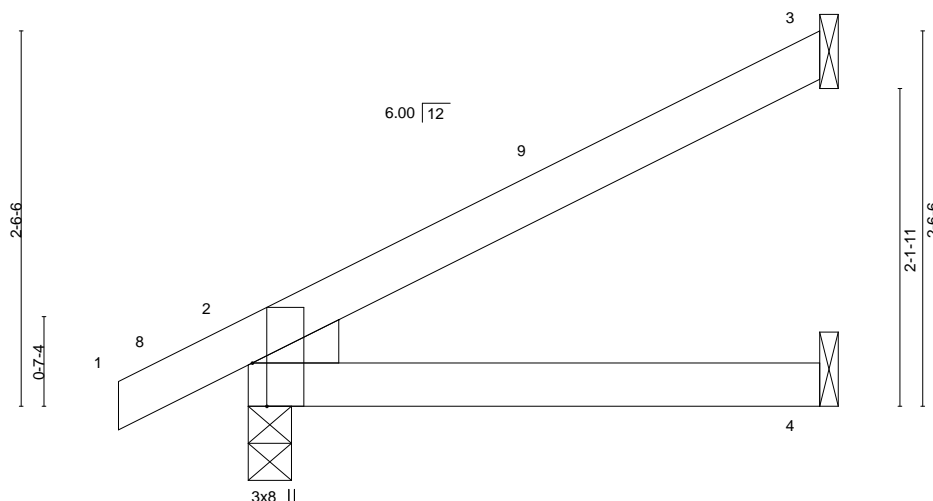


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	0.02	4-7	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.03	4-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=83(LC 12)
Max Uplift 3=50(LC 12), 2=20(LC 12)
Max Grav 3=141(LC 1), 2=296(LC 1), 4=75(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 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 50 lb uplift at joint 3 and 20 lb uplift at joint 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.



February 1, 2021

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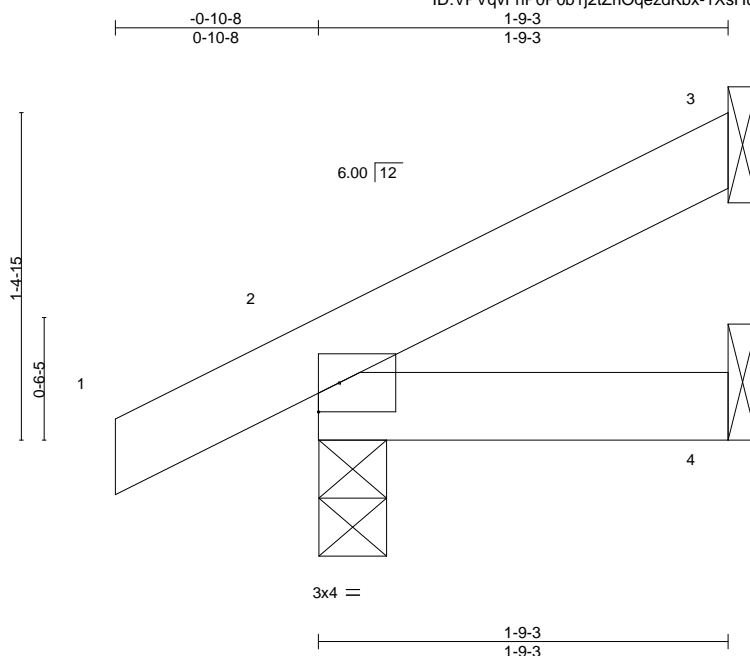
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J20	Truss Type Jack-Open	Qty 1	Ply 1	Summit/20 Woodside ridge/MO I44600128
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:01 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-1XsHutwpQRC7To8Fk0?BrBmABrik5I9M_mNJ5UzqTEG



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=46(LC 12)
Max Uplift 3=23(LC 12), 2=20(LC 12)
Max Grav 3=59(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 3 and 20 lb uplift at joint 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss J21	Truss Type Jack-Open	Qty 2	Ply 1	Summit/20 Woodside ridge/MO 144600129
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:02 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-VjQf6DxRBIK_4yJSljWQOOIKx5tqlOWCQ7sdwzqTEF

-0-10-8
0-10-8

1-9-3
1-9-3

Scale = 1:10.3

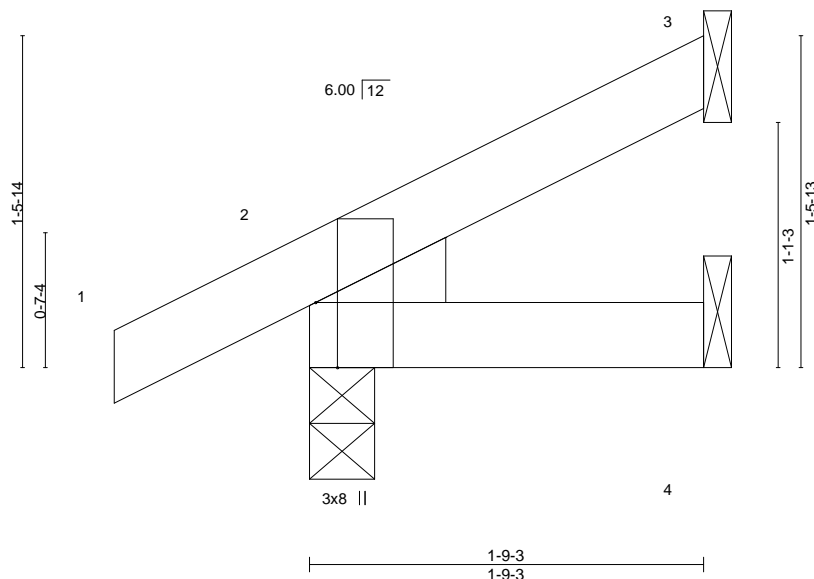


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 6 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-9-3 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=46(LC 12)

Max Uplift 3=21(LC 12), 2=18(LC 12)

Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 21 lb uplift at joint 3 and 18 lb uplift at joint 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.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	J22	Jack-Open	1	1	I44600130
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:03 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOeqzdKbx-zw_1JZy3y3Sri6lesQ1fwcrVhfR8ZBefR4sQ9MzqTEE

-0-10-8
0-10-8

1-9-3
1-9-3

Scale = 1:10.3

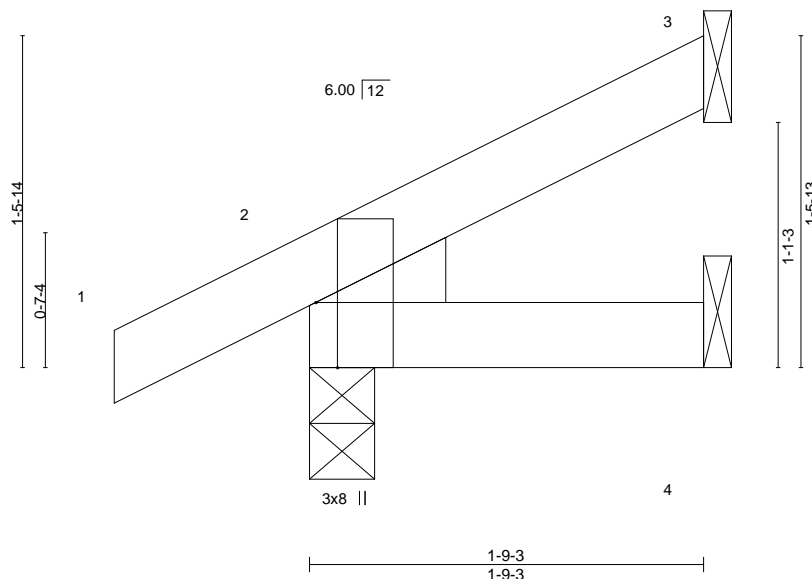


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) -0.00 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 6 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-9-3 oc purlins.

BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 3=46(LC 12)

Max Uplift 2=49(LC 12)

Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 49 lb uplift at joint 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.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	LG1	GABLE	1	1	I44600131
Job Reference (optional)					

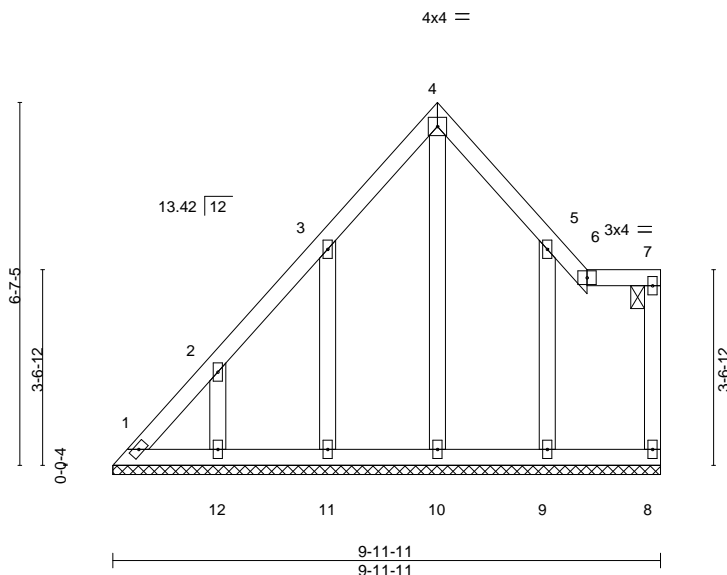
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-GGvny1SICKr2BK_mPflj4dihUqciK0h2g3HvSzqTE7



Scale = 1:42.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 48 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 9-11-11.

(lb) - Max Horz 1=189(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 9 except 1=107(LC 8), 11=123(LC 12), 12=116(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 12 except 11=260(LC 19), 9=282(LC 20)

FORCES.

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

WEBS

5-9=-264/160

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 5-10-15, Exterior(2E) 5-10-15 to 8-7-10, Interior(1) 8-7-10 to 9-9-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 9 except (jt=lb) 1=107, 11=123, 12=116.
- 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.



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	LG2	Lay-In Gable	1	1	144600132
Job Reference (optional)					

Builders FirstSource (Valley Center),

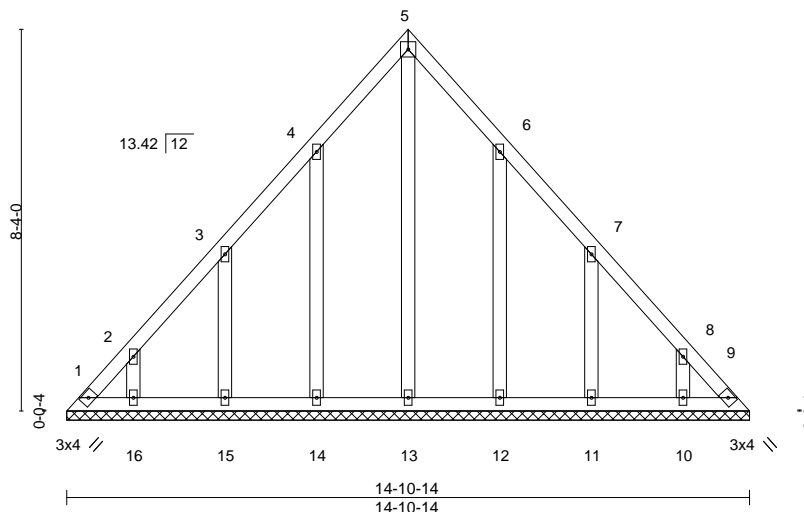
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:11 2021 Page 1
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7-5-7 7-5-7 14-10-14 7-5-7

4x4 =

Scale = 1:50.3



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 0.06	Vert(LL)	n/a	-	n/a	999	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 73 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-10-14.
(lb) - Max Horz 1=-193(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-119(LC 12), 15=-121(LC 12), 16=-102(LC 12), 12=-118(LC 13), 11=-122(LC 13), 10=-102(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=253(LC 19), 12=252(LC 20)

FORCES.

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 3-5-7, Interior(1) 3-5-7 to 7-5-7, Exterior(2R) 7-5-7 to 10-5-7, Interior(1) 10-5-7 to 14-6-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- 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=121, 16=102, 12=118, 11=122, 10=102.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

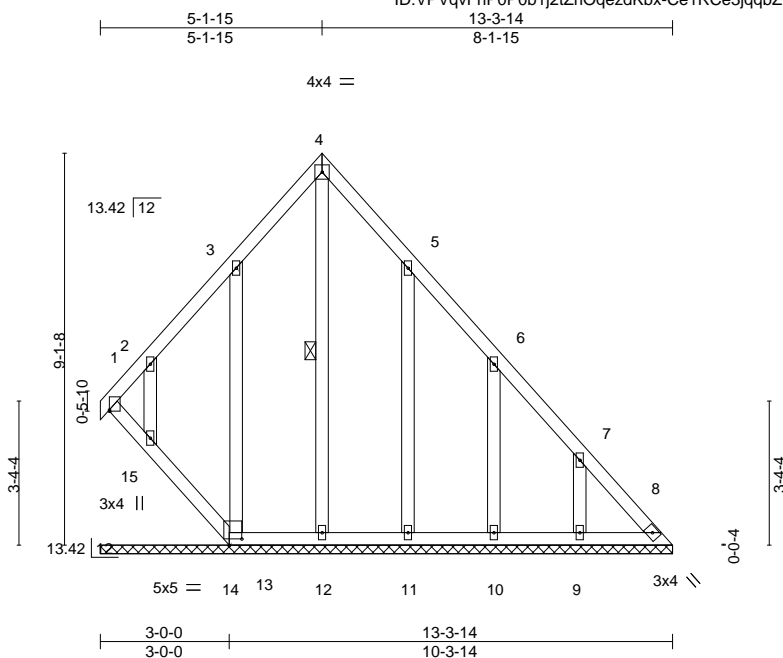


Plate Offsets (X,Y)-- [13:0-1-12,0-0-0], [14:0-3-8,0-1-12], [14:0-0-0,0-1-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 72 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2	WEBS	1 Row at midpt 4-12

REACTIONS. All bearings 13-3-14.
(lb) - Max Horz 1=-202(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 1 except 14=-212(LC 13), 13=-130(LC 12), 15=-155(LC 12), 11=-117(LC 13), 10=-118(LC 13), 9=-125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 8, 14, 12, 15, 10 except 1=265(LC 12), 13=258(LC 19), 11=253(LC 20), 9=261(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 1-15=-209/289. 14-15=-212/304

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) 0-4-11 to 3-1-15, Interior(1) 3-1-15 to 5-1-15, Exterior(2R) 5-1-15 to 8-1-15, Interior(1) 8-1-15 to 12-11-15 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) 8, 1 except (jt=lb) 14=212, 13=130, 15=155, 11=117, 10=118, 9=125.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 15.
- 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.



February 1, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	LG4	GABLE	1	1	144600134
Job Reference (optional)					

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc.
Fri Jan 29 14:37:13 2021
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4x4 =

Scale = 1:76.0

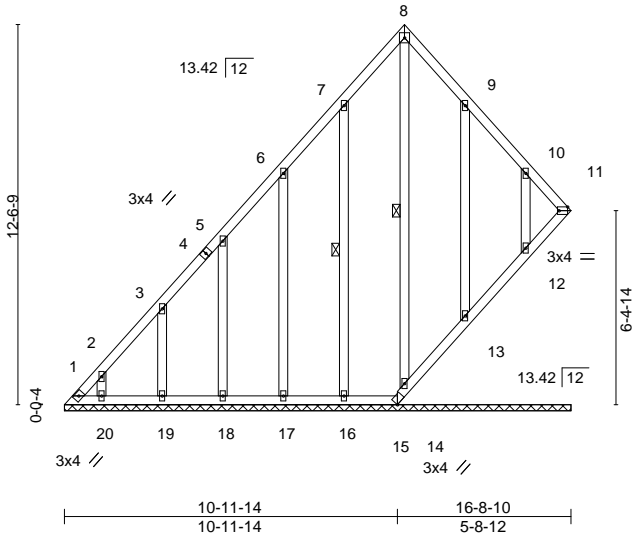


Plate Offsets (X,Y)--	[11:Edge,0-1-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.01	11	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 105 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 8-14, 7-16

REACTIONS.

All bearings 16-8-10.
(lb) - Max Horz 1=323(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 11, 20 except 1=153(LC 10), 15=139(LC 13), 16=115(LC 12), 17=121(LC 12), 18=115(LC 12), 19=120(LC 12), 13=116(LC 13), 12=112(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 11, 15, 14, 17, 18, 19, 20, 12 except 1=365(LC 12), 16=252(LC 19), 13=258(LC 20)

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

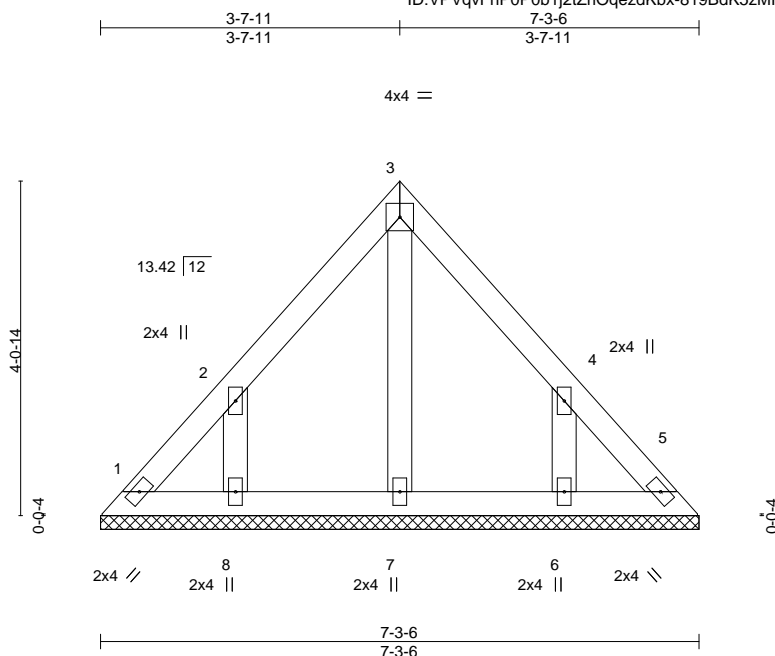
TOP CHORD 1-2=-491/353, 2-3=-398/281, 3-5=-272/177

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 3-2-11, Interior(1) 3-2-11 to 11-2-11, Exterior(2R) 11-2-11 to 14-2-11, Interior(1) 14-2-11 to 16-6-4 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
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 20 except (jt=lb) 1=153, 15=139, 16=115, 17=121, 18=115, 19=120, 13=116, 12=112.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 14, 13, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1,2021



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.03	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

ONS. All bearings 7-3-6.
(lb) - Max Horz 1=90(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=127(LC 12), 6=127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=252(LC 19), 6=252(LC 20)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=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 3-7-11, Exterior(2R) 3-7-11 to 6-7-11, Interior(1) 6-7-11 to 6-11-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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=127, 6=127.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

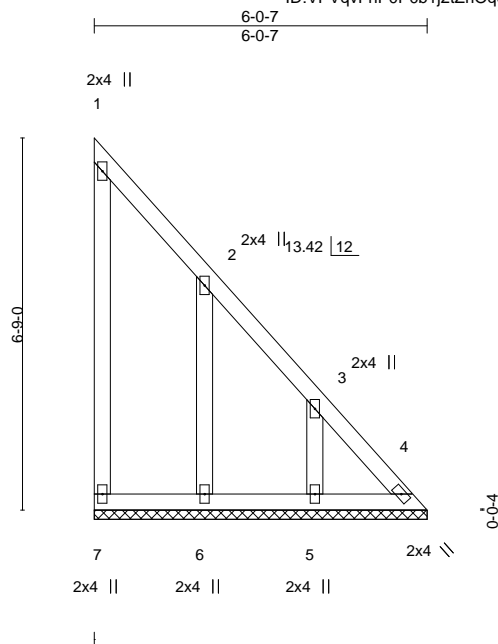
Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	LG6	GABLE	1	1	I44600136
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:15 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-dDjaqf5b7iz88yDyZyFTP8LVAVXUNcUQCxm2agzqTE2



Scale = 1:41.8

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 0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-0-7.
(lb) - Max Horz 7=-222(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 7, 4 except 6=-123(LC 13), 5=-120(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 5 except 6=259(LC 20)

FORCES.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 5-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * 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) 7, 4 except (jt=lb) 6=123, 5=120.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

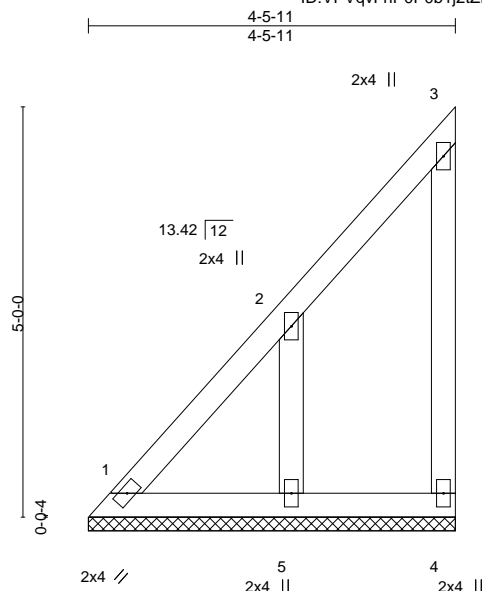
Job 2599350	Truss LG7	Truss Type GABLE	Qty 1	Ply 1	Summit/20 Woodside ridge/MO I44600137
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:16 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-5QGy2?6Du25?m6o86fmiyLjtqt264EaQbWc76zqTE1



Scale = 1:28.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-5-11, 4=4-5-11, 5=4-5-11
Max Horz 1=160(LC 11)
Max Uplift 1=-39(LC 8), 4=-52(LC 9), 5=-145(LC 12)
Max Grav 1=154(LC 20), 4=97(LC 19), 5=303(LC 19)

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

TOP CHORD 1-2=-285/313
WEBS 2-5=-294/229

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * 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, 4 except (jt=lb) 5=145.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

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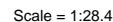
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
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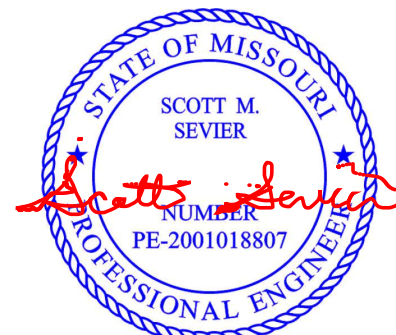
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MITek Industries, Inc. Fri Jan 29 14:37:17 2021 Page 1
 ID:VPVqvFnP0P0b1j2tZrIOqezdKxb-ZcqKFL7rMDsNGNKGnHxvZQqplBdrW_jfFF9yZqTE0
 1-1-8 10-2-12
 1-1-8 9-1-4
 6.00 [12] 4x4 = Scale = 1:28.4



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-5=-452/245

- 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) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 9-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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) 7, 6 except (jt=lb) 5=114.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	V3	Valley	1	1	144600140
Job Reference (optional)					

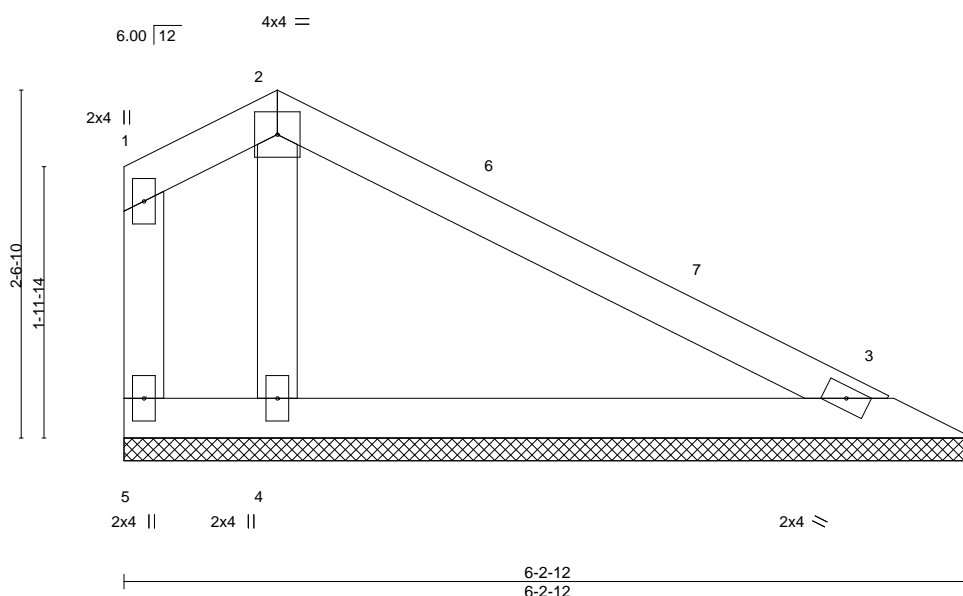
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:21 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-RN4r5jAMbjHstg5vCMtfPbUYvYZnKYJatDNnKzqTDy

1-1-8 1-1-8 6-2-12 5-1-4

Scale = 1:16.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
BCLL 20.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=6-2-4, 3=6-2-4, 4=6-2-4
Max Horz 5=-71(LC 8)
Max Uplift 5=-46(LC 3), 3=-26(LC 13)
Max Grav 5=14(LC 19), 3=237(LC 1), 4=352(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 5-7-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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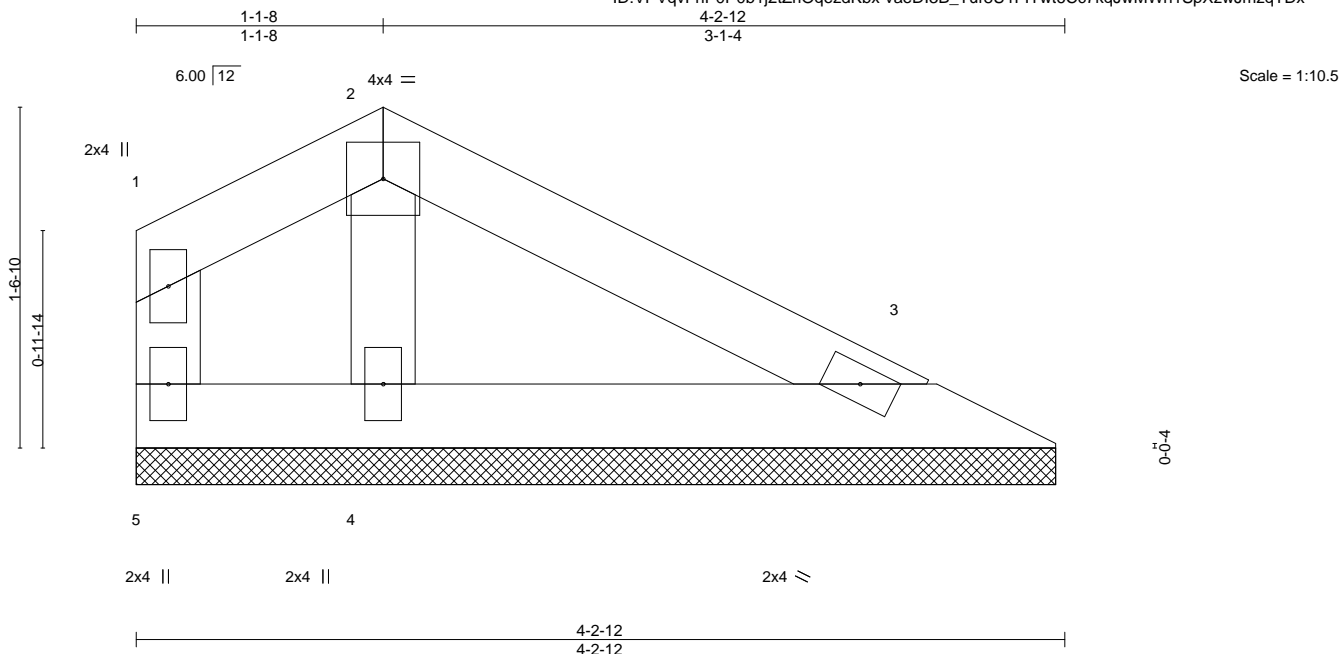
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600141
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:22 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-vaeDI3B_Tur8U1FITwt6Cc7kqJwMWn1SpXzwJmzqTDx



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=4-2-4, 3=4-2-4, 4=4-2-4
Max Horz 5=-34(LC 10)
Max Uplift 5=-15(LC 12), 3=-16(LC 13), 4=-1(LC 13)
Max Grav 5=42(LC 1), 3=131(LC 1), 4=207(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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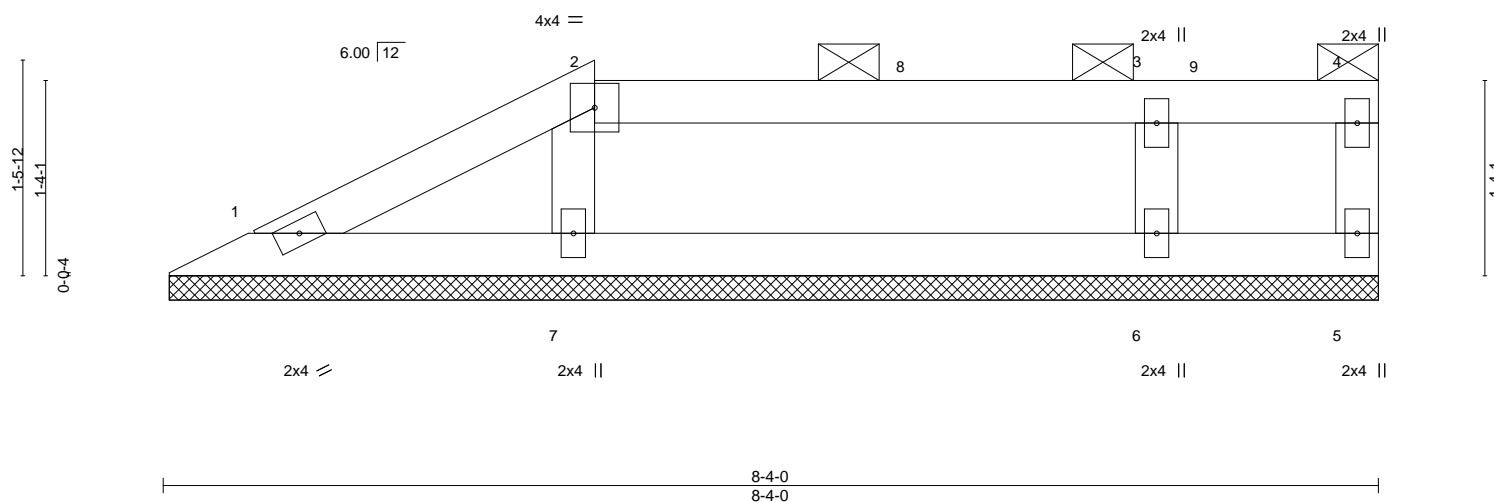


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8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:23 2021 Page 1
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2-11-8	8-4-0
2-11-8	5-4-8

Scale = 1:15.8



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.08	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) -0.00 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 21 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 8-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

ONS. All bearings 8-3-8.
(lb) - Max Horz 1=38(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=334(LC 1), 6=431(LC 1)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-264/133, 3-6=-361/170

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=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 2-11-8, Exterior(2R) 2-11-8 to 7-2-7, Interior(1) 7-2-7 to 8-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * 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, 5, 7, 6.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600143
2599350	V6	Valley	1	1	Job Reference (optional)	

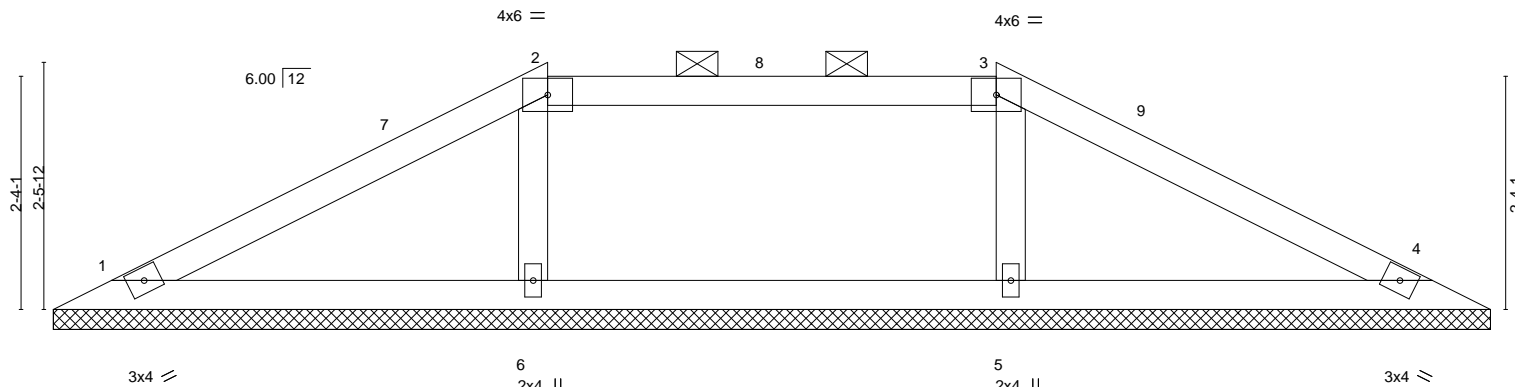
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:24 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-sylzjkCE?W5sjLPgaLvaH1D2c7aC_hwlGrS1OeqzTDv

4-11-8	9-5-8	14-5-0
4-11-8	4-6-0	4-11-8

Scale = 1:23.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	MT20		197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 37 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 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 14-5-0.

(lb) - Max Horz 1=33(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 6, 5

Max Grav All reactions 250 lb or less at joint(s) 1, 4 except 6=528(LC 25), 5=528(LC 26)

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

WEBS 2-6=-414/143, 3-5=-414/141

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) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 4-11-8, Exterior(2E) 4-11-8 to 13-9-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * 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, 4, 6, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

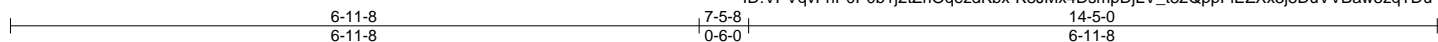


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600144
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:25 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-K8JmX4DsmPDLV_t82QppFIEZXx3j8DuVVBaw5zqTDu



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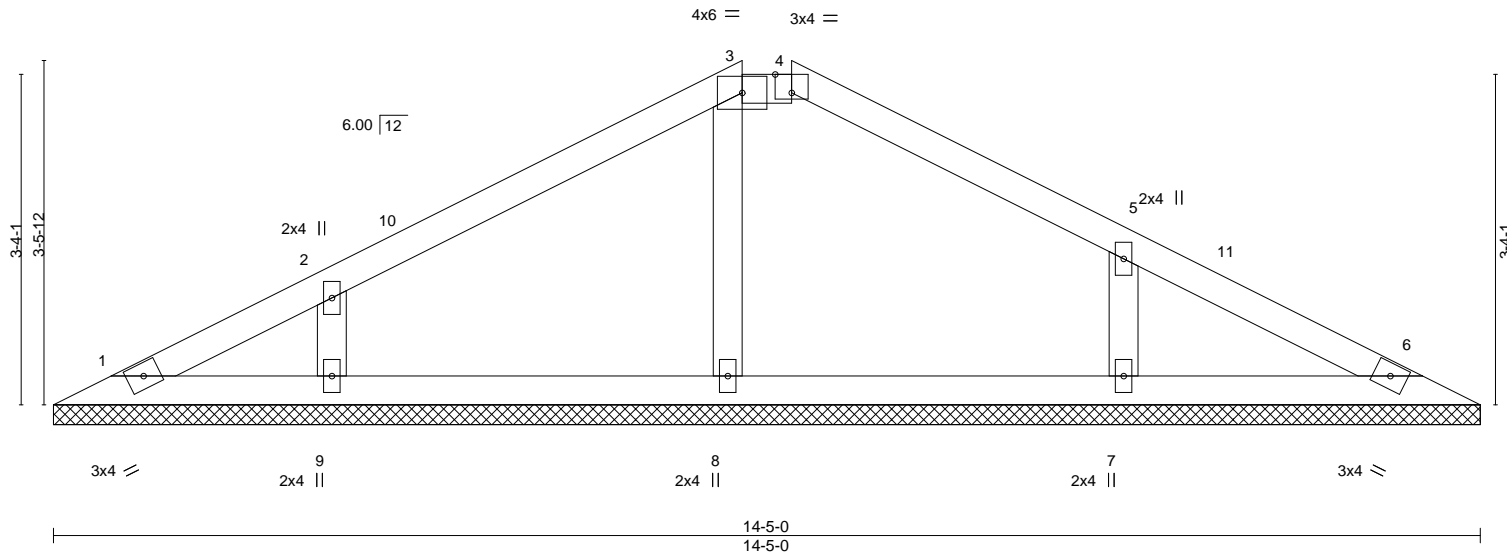


Plate Offsets (X,Y)-- [4:0-2-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	6	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 39 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 14-5-0.

(lb) - Max Horz 1=49(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 9, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 8=370(LC 1), 9=427(LC 25), 7=433(LC 26)

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

WEBS 3-8=-289/70, 2-9=-359/157, 5-7=-351/148

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) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 6-11-8, Exterior(2E) 6-11-8 to 7-5-8, Exterior(2R) 7-5-8 to 11-8-7, Interior(1) 11-8-7 to 13-9-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 8, 9, 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

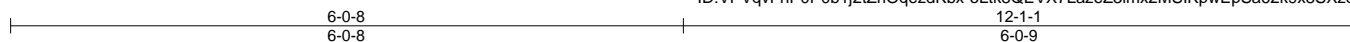
Job 2599350	Truss V8	Truss Type VALLEY	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600145
Job Reference (optional)					

Builders FirstSource (Valley Center),

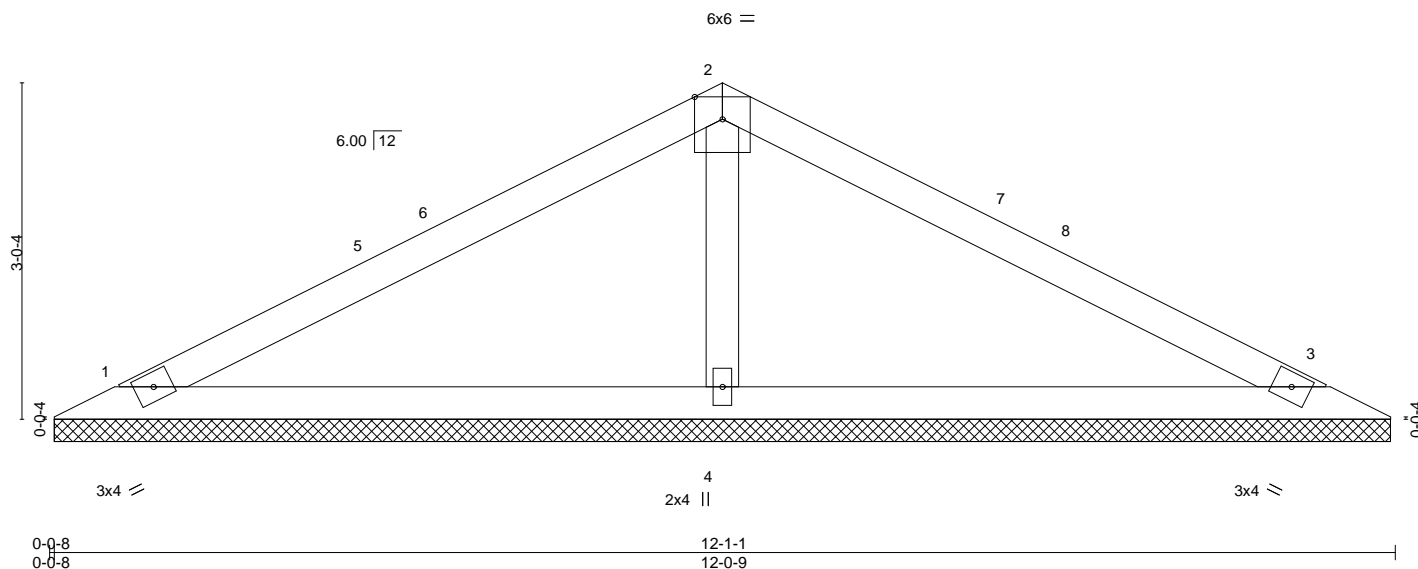
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:26 2021 Page 1

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Scale = 1:20.7



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 0.52	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 30 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=12-0-1, 3=12-0-1, 4=12-0-1
Max Horz 1=43(LC 16)
Max Uplift 1=-35(LC 12), 3=-43(LC 13), 4=-14(LC 12)
Max Grav 1=277(LC 25), 3=277(LC 26), 4=644(LC 1)

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

WEBS 2-4=-470/171

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 6-0-8, Exterior(2R) 6-0-8 to 9-0-8, Interior(1) 9-0-8 to 11-5-8 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) 1, 3, 4.
- 6) Non Standard bearing condition. Review required.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

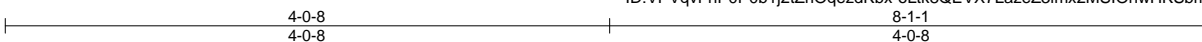
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



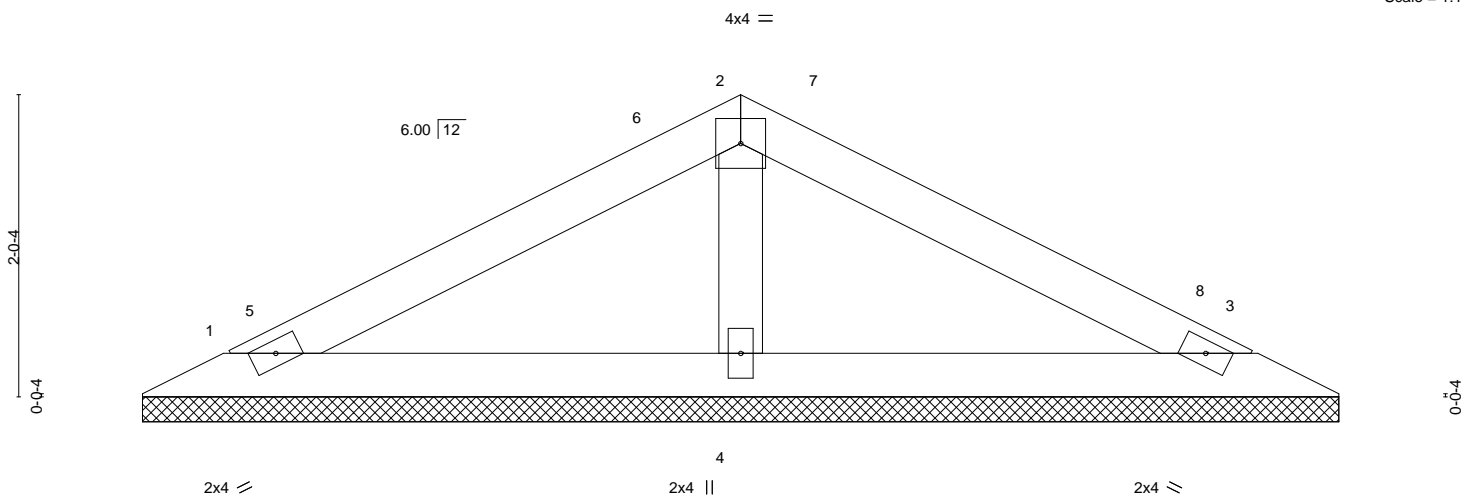
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO
2599350	V9	Valley	1	1	144600146
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:26 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-oLtk8QEVX7LazeZ3imx2MSIOhwHKSBm2k9x8SXzqTdt



Scale = 1:15.4



0-0-8				8-1-1						
0-0-8				8-0-9						
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	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		
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=8-0-1, 3=8-0-1, 4=8-0-1
Max Horz 1=-27(LC 17)
Max Uplift 1=-28(LC 12), 3=-33(LC 13)
Max Grav 1=194(LC 1), 3=194(LC 1), 4=363(LC 1)

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

WEBS 2-4=-278/136

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 4-0-8, Exterior(2R) 4-0-8 to 7-0-8, Interior(1) 7-0-8 to 7-5-8 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) 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.



February 1, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600147
2599350	V10	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:17 2021 Page 1
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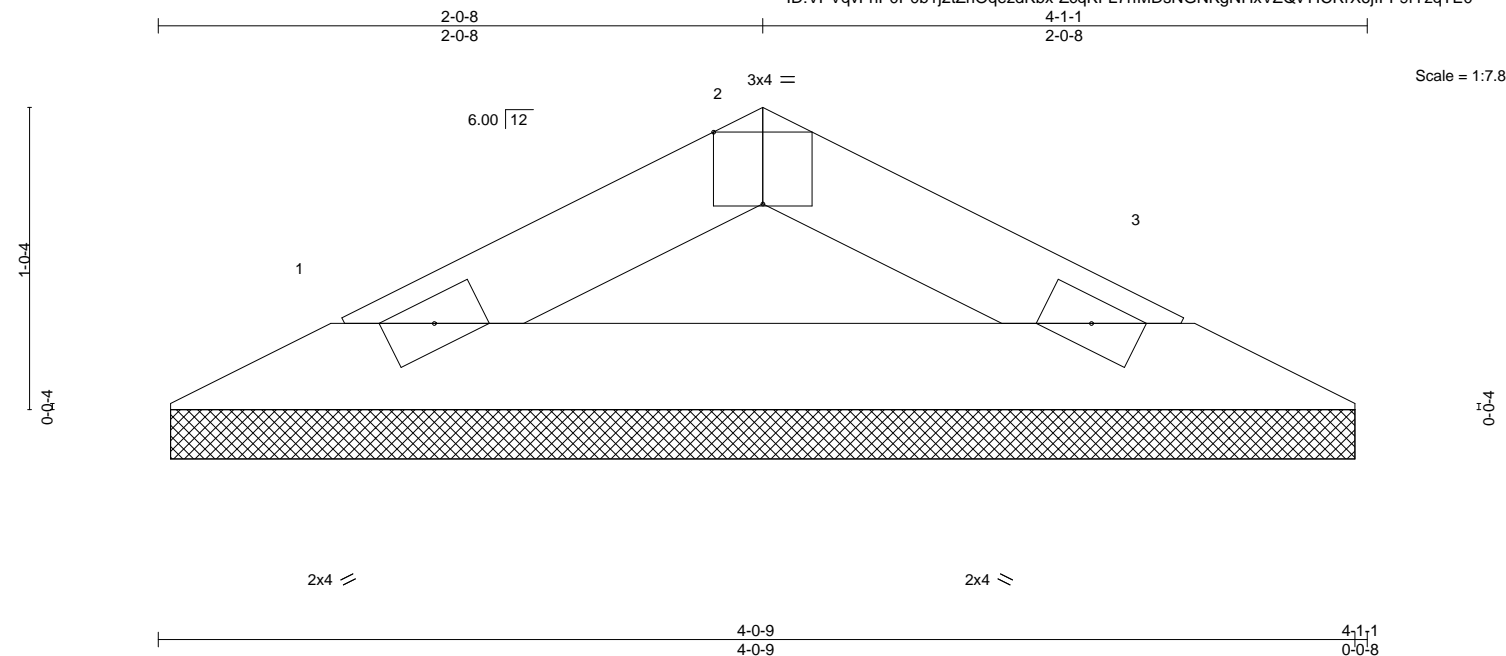


Plate Offsets (X,Y)-- [2:0-2-0,Edge]		4-0-9		4-1-1	
		4-0-9		0-0-8	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	in (loc) l/defl L/d	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(LL) n/a - n/a 999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Horz(CT) 0.00 3 n/a n/a	
				Weight: 8 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 4-1-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-0-1, 3=4-0-1
Max Horz 1=11(LC 16)
Max Uplift 1=11(LC 12), 3=11(LC 13)
Max Grav 1=155(LC 1), 3=155(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



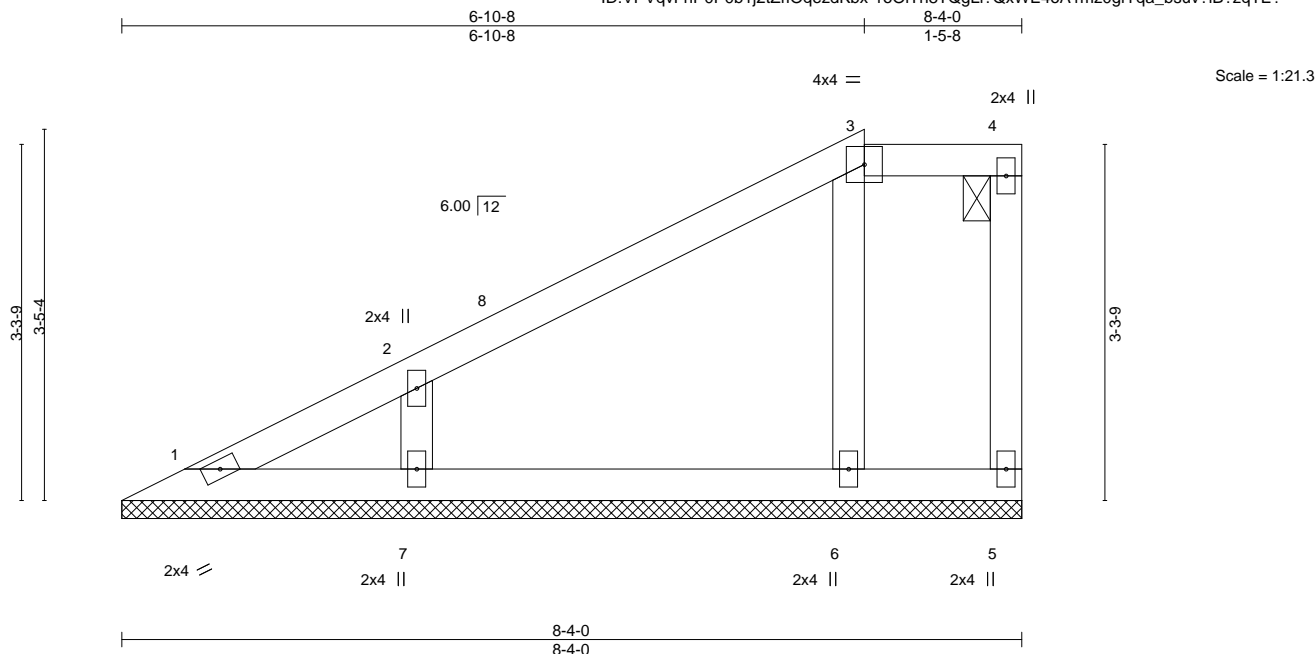
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2599350	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/20 Woodside ridge/MO 144600148
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:18 2021 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-4-0.

(lb) - Max Horz 1=112(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=100(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=286(LC 1), 7=457(LC 1)

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

WEBS 2-7=385/222

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 6-10-8, Exterior(2E) 6-10-8 to 8-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * 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) 5, 6 except (jt=lb) 7=100.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/20 Woodside ridge/MO	144600149
2599350	V12	Valley	1	1	Job Reference (optional)	

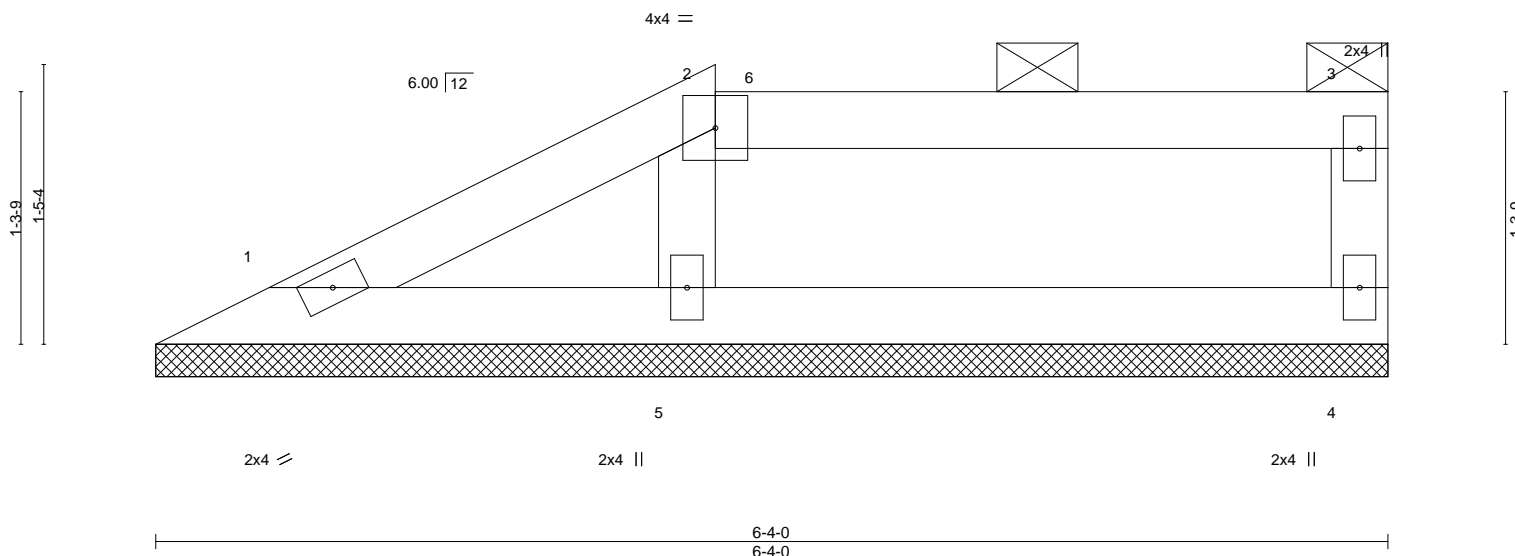
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Jan 29 14:37:19 2021 Page 1
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Scale = 1:11.8



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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-4-0, 4=6-4-0, 5=6-4-0
Max Horz 1=37(LC 9)
Max Uplift 1=-14(LC 12), 4=-24(LC 8), 5=-21(LC 9)
Max Grav 1=95(LC 1), 4=177(LC 1), 5=341(LC 1)

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

WEBS 2-5=-271/163

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 1, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

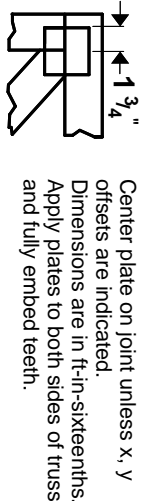
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



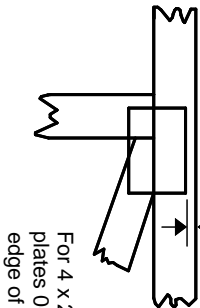
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



0-¹/₁₆"



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.

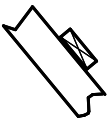
* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

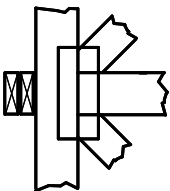
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



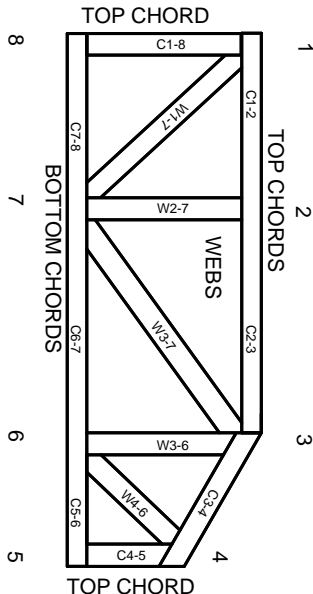
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.