



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

Re: 2623880
Summit/100 Stoney

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: I44681422 thru I44681461

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

Missouri COA: Engineering 001193



Scott Sevier

February 5, 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/100 Stoney	I44681422
2623880	A1	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:18 2021 Page 1
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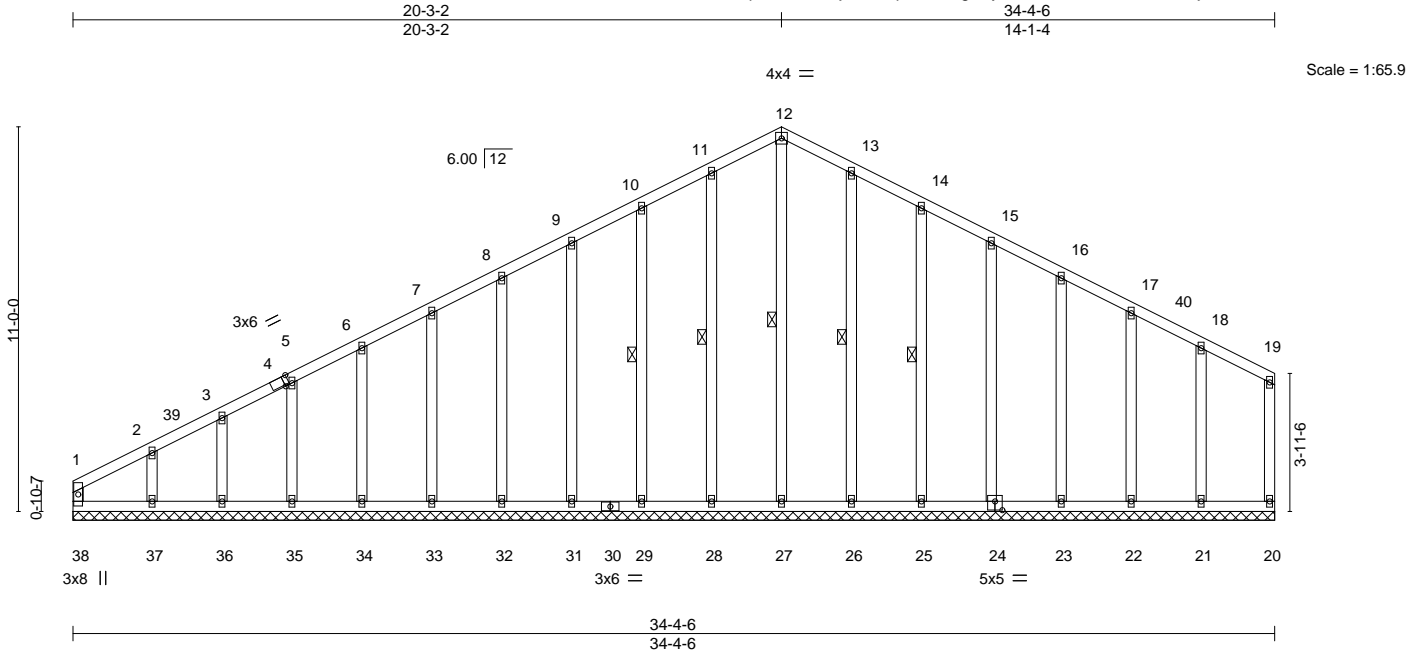


Plate Offsets (X,Y)--	[4:0-1-9,Edge], [24:0-2-8,0-3-0]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a -	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a -	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00 20	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R			
						PLATES GRIP
						MT20 197/144
						Weight: 203 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.
WEBS 1 Row at midpt 12-27, 11-28, 10-29, 13-26, 14-25

REACTIONS.

All bearings 34-4-6.
(lb) - Max Horz 38=217(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 20, 38, 28, 29, 31, 32, 33, 34, 35, 36, 26, 25, 24, 23, 22, 21 except 37=140(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 20, 38, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 26, 25, 24, 23, 22, 21

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-135/269, 10-11=-152/317, 11-12=-166/356, 12-13=-166/356, 13-14=-152/317, 14-15=-135/269

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 Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 20-3-2, Corner(3R) 20-3-2 to 23-3-2, Exterior(2N) 23-3-2 to 34-2-10 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- 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) 20, 38, 28, 29, 31, 32, 33, 34, 35, 36, 26, 25, 24, 23, 22, 21 except (jt=lb) 37=140.
- This truss 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 5, 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



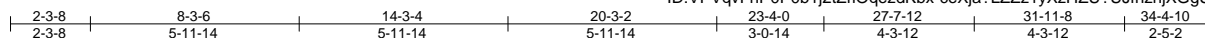
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681423
2623880	A2	Roof Special	5	1		

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

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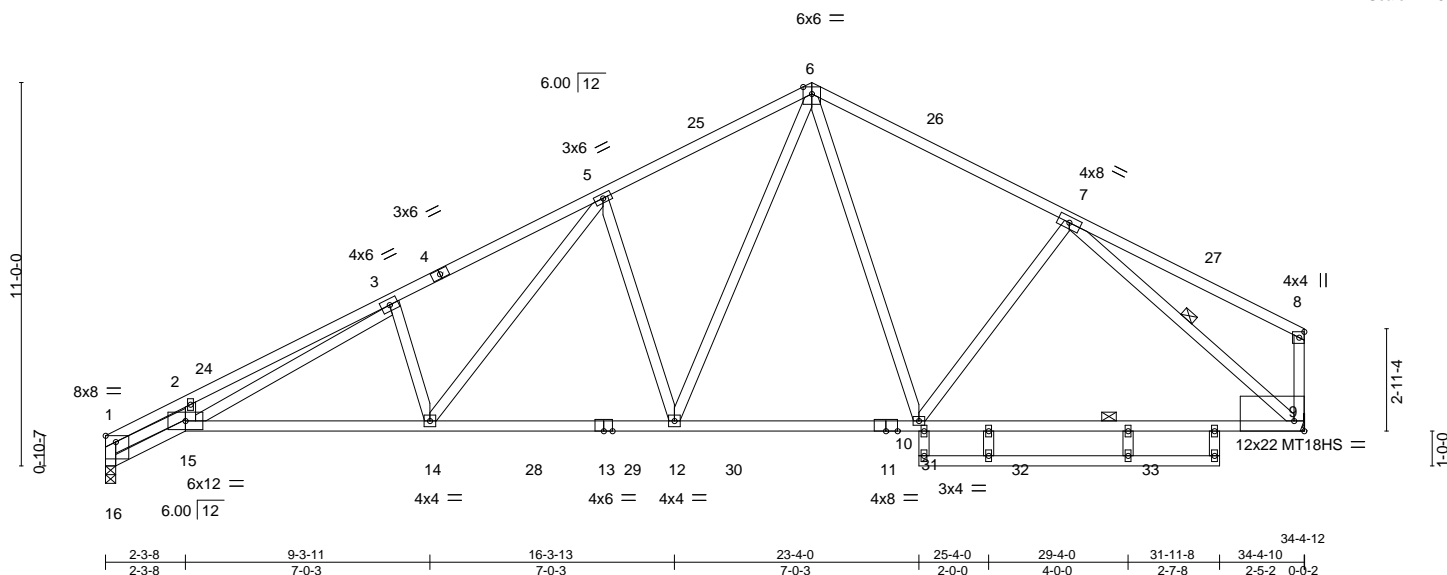


Plate Offsets (X,Y)-- [1:Edge,0-2-3], [9:Edge,0-3-8], [16:0-0-0,0-1-15]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.49 9-10	>831	240
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.84 9-10	>484	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.27 9	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES			GRIP
				MT20			197/144
				MT18HS			197/144
				Weight: 173 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
13-15,9-11: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 9-10
WEBS 1 Row at midpt 7-9

REACTIONS.

(size) 9=Mechanical, 16=0-3-8
Max Horz 16=203(LC 9)
Max Uplift 9=-105(LC 13), 16=-143(LC 12)
Max Grav 9=1675(LC 2), 16=1638(LC 2)

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

TOP CHORD 1-16=-1664/225, 1-2=-4827/640, 2-3=-4755/750, 3-5=-3116/388, 5-6=-2151/307,
6-7=-1844/235, 7-8=-273/88, 8-9=-257/75
BOT CHORD 15-16=-230/450, 14-15=-375/2883, 12-14=-198/2089, 10-12=-82/1453, 9-10=-147/1498
WEBS 1-15=-513/3936, 3-15=-435/1666, 3-14=-603/239, 5-14=-177/1056, 5-12=-817/274,
6-12=-206/1081, 6-10=-50/440, 7-10=-139/255, 7-9=-1819/188

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 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 34-2-14 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 MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 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.
- Bearing at joint(s) 16 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 100 lb uplift at joint(s) except (jt=lb) 9=105, 16=143.
- This truss 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 5, 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

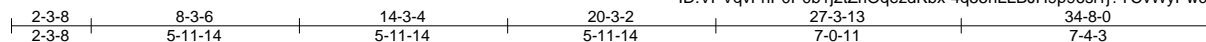


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681424
2623880	A3	Roof Special	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:21 2021 Page 1
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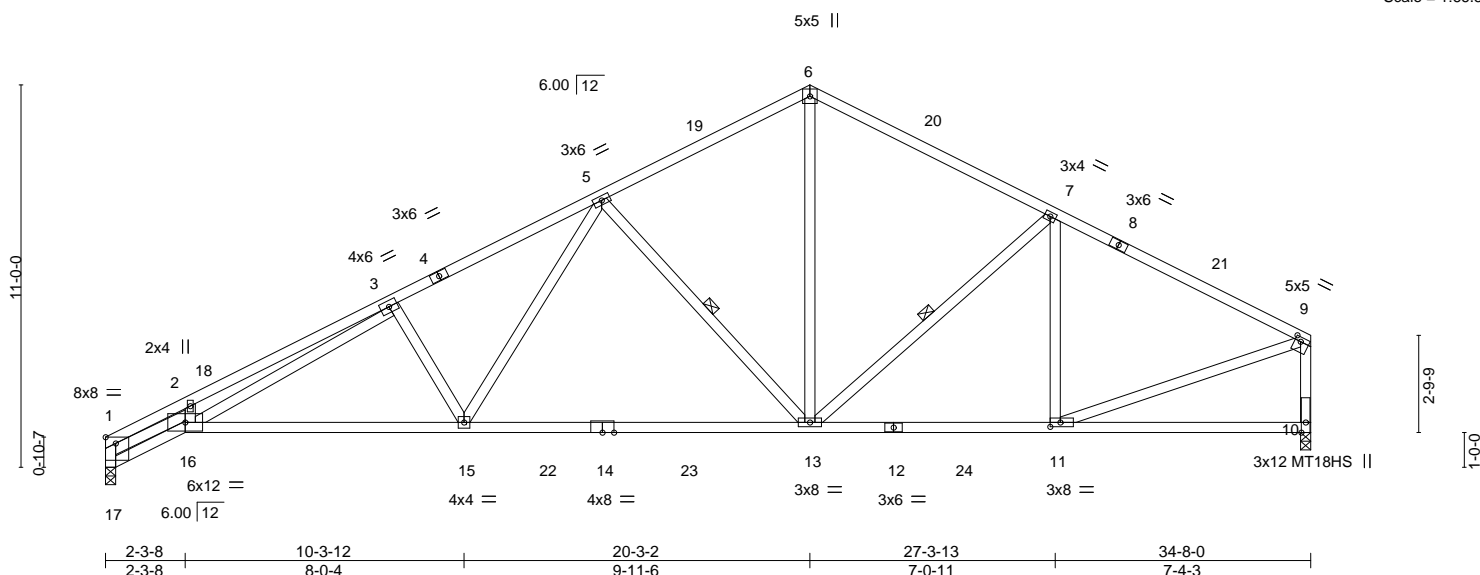


Plate Offsets (X,Y)--		[1:Edge,0-2-3], [9:0-2-0,0-1-8], [11:0-3-8,0-1-8], [17:0-0-0,0-1-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73
TCDL 10.0	Lumber DOL	1.15	BC 0.95
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.43 13-15 >954 240
			Vert(CT) -0.74 13-15 >558 180
			Horz(CT) 0.26 10 n/a n/a
			PLATES
			MT20 197/144
			MT18HS 197/144
			Weight: 157 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
14-16,10-12: 2x4 SPF 1650F 1.5E
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 5-13, 7-13

REACTIONS.

(size) 10=0-3-8, 17=0-3-8
Max Horz 17=200(LC 9)
Max Uplift 10=107(LC 13), 17=143(LC 12)
Max Grav 10=1646(LC 2), 17=1635(LC 2)

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

TOP CHORD 1-17=-1667/226, 1-2=-4837/642, 2-3=-4764/752, 3-5=-2974/337, 5-6=-1722/243,
6-7=-1744/238, 7-9=-1875/179, 9-10=-1523/168
BOT CHORD 16-17=-229/449, 15-16=-378/2866, 13-15=-204/2064, 11-13=-125/1602
WEBS 1-16=-515/3950, 3-16=-434/1694, 3-15=-603/237, 5-15=-106/1030, 5-13=-890/257,
6-13=-88/1116, 7-13=-307/166, 7-11=-366/119, 9-11=-98/1597

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 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 34-6-4 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 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.
- Bearing at joint(s) 17 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 100 lb uplift at joint(s) except (jt=lb) 10=107, 17=143.
- This truss 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 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2623880	Truss B1	Truss Type ROOF SPECIAL	Qty 2	Ply 1	Summit/100 Stoney Job Reference (optional)	144681425
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:22 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Z1fT?gMp4aHfnGRybQWnk635sKxvyNdJAPZjiSzoU2Z

-0-11-0 2-3-8 8-3-6 14-3-4 20-3-2 27-3-13 34-8-0
0-11-0 2-3-8 5-11-14 5-11-14 5-11-14 7-0-11 7-4-3

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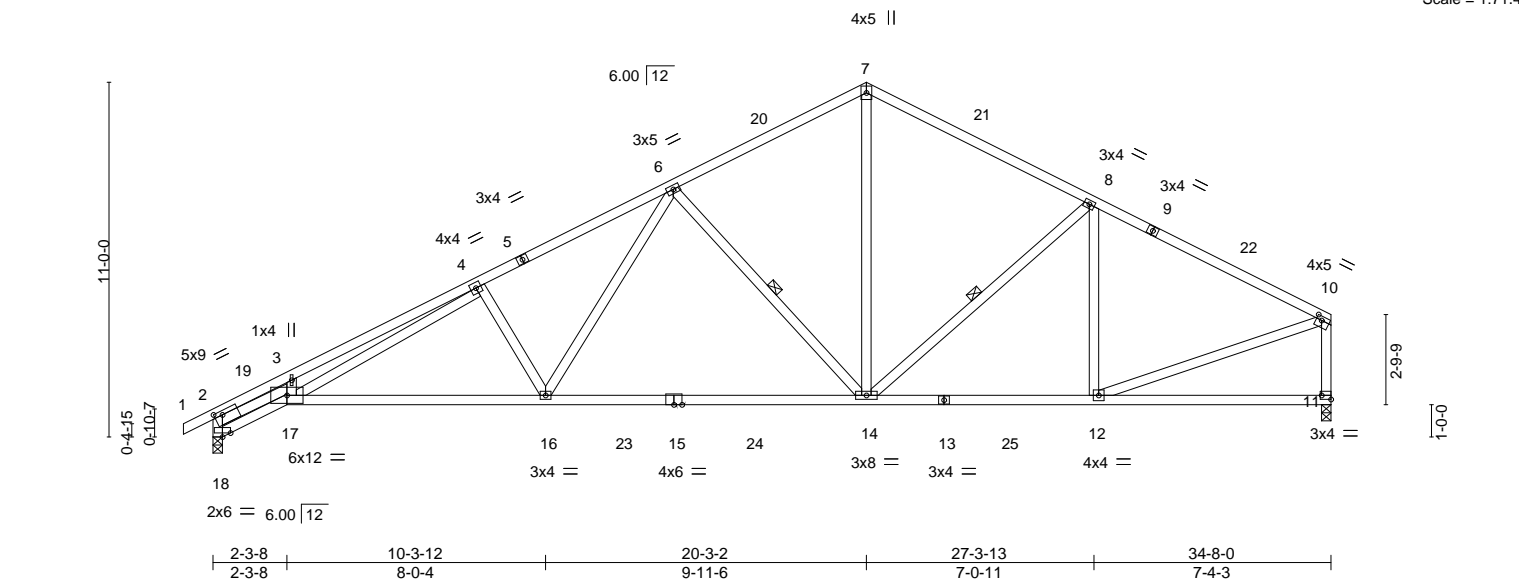


Plate Offsets (X,Y)--		[2:0-3-0,0-1-8], [10:0-2-0,0-1-8], [11:Edge,0-1-8], [18:0-3-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88
TCDL 10.0	Lumber DOL	1.15	BC 0.96
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.95
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
		DEFL.	PLATES
		in (loc) l/defl L/d	MT20
		Vert(LL) -0.40 14-16 >999 240	GRIP
		Vert(CT) -0.68 14-16 >604 180	244/190
		Horz(CT) 0.24 11 n/a n/a	
		Weight: 207 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-5: 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except*
17-18: 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-14, 8-14

REACTIONS.

(size) 11=0-3-8, 18=0-3-8
Max Horz 18=209(LC 9)
Max Uplift 11=107(LC 13), 18=164(LC 12)
Max Grav 11=1645(LC 2), 18=1697(LC 2)

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

TOP CHORD 2-18=-1738/249, 2-3=-4793/636, 3-4=-4702/742, 4-6=-2968/336, 6-7=-1721/241,
7-8=-1743/238, 8-10=-1873/177, 10-11=-1522/168
BOT CHORD 17-18=-234/466, 16-17=-377/2859, 14-16=-203/2061, 12-14=-125/1601
WEBS 2-17=-503/3885, 4-17=-424/1639, 4-16=-599/237, 6-16=-106/1026, 6-14=-887/256,
7-14=-87/1115, 8-14=-307/167, 8-12=-366/119, 10-12=-98/1596

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 34-6-4 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
- 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.
- Bearing at joint(s) 18 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 100 lb uplift at joint(s) except (jt=lb) 11=107, 18=164.
- This truss 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 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2623880	Truss B1A	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/100 Stoney Job Reference (optional)	144681426
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:24 2021 Page 1

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1-11-0 1-11-0	2-3-8 2-3-8	8-3-6 5-11-14	14-3-4 5-11-14	20-3-2 5-11-14	27-3-13 7-0-11	34-8-0 7-4-3
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Scale = 1:72.1

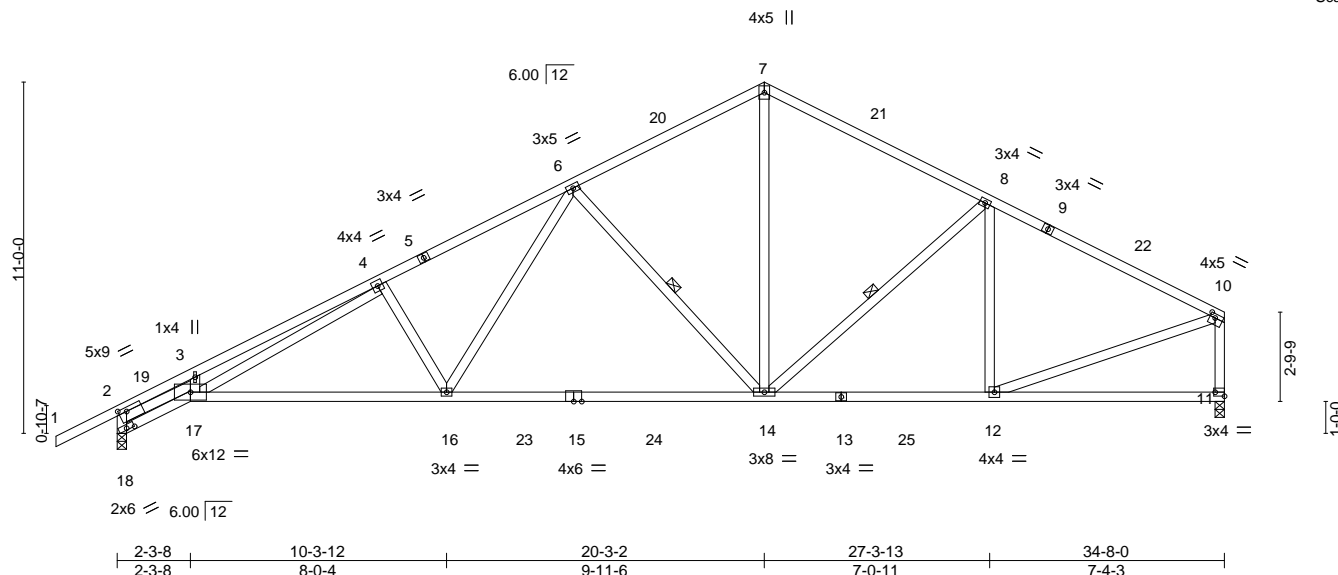


Plate Offsets (X,Y)-- [2:0-3-0,0-1-8], [10:0-2-0,0-1-8], [11:Edge,0-1-8], [18:0-3-0,0-0-11]												
LOADING (psf)		SPACING- 2-0-0		CSI		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.85	Vert(LL)	-0.40	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL 1.15		BC	0.96	Vert(CT)	-0.68	14-16	>607	180		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.95	Horz(CT)	0.24	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 208 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-5: 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except*
17-18: 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-14, 8-14

REACTIONS.

(size) 11=0-3-8, 18=0-3-8
Max Horz 18=217(LC 9)
Max Uplift 11=107(LC 13), 18=184(LC 12)
Max Grav 11=1642(LC 2), 18=1757(LC 2)

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

TOP CHORD 2-18=-1755/256, 2-3=-4682/597, 3-4=-4585/701, 4-6=-2952/331, 6-7=-1717/237,
7-8=-1739/237, 8-10=-1870/174, 10-11=-1519/167
BOT CHORD 17-18=-201/367, 16-17=-371/2841, 14-16=-201/2054, 12-14=-124/1598
WEBS 2-17=-498/3879, 4-17=-388/1546, 4-16=-586/233, 6-16=-102/1015, 6-14=-881/254,
7-14=-86/1111, 8-14=-307/167, 8-12=-365/119, 10-12=-97/1593

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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 34-6-4 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
- 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.
- Bearing at joint(s) 18 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 100 lb uplift at joint(s) except (jt=lb) 11=107, 18=184.
- This truss 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 5, 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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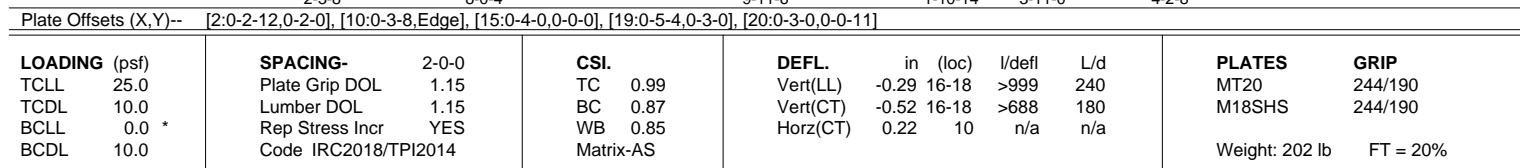
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:25 2021 Page 1

ID:VPVqvFnPOP0b1j2IzrIQeqzdKbx-zbKcdiOINvEekAXGZ4UMIhaMY?09I2mtNoNJnzoU2W

-0-11-0 2-3-8 | 8-3-6 | 14-3-4 | 20-3-2 | 22-2-0 | 26-1-0 | 30-3-8 |
0-11-0 2-3-8 | 5-11-14 | 5-11-14 | 5-11-14 | 1-10-14 | 3-11-0 | 4-2-8 |

4x5 = Scale = 1:73.5




REACTIONS. (size) 10=0-3-8, 20=0-3-8
 Max Horz 20=280(LC 9)
 Max Uplift 10=-91(LC 12), 20=-153(LC 12)
 Max Grav 10=1621(LC 2), 20=1514(LC 2)

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

TOP CHORD	2-20=-1543/230, 2-3=-4257/583, 3-4=-4190/693, 4-6=-2519/307, 6-7=-1307/208, 7-8=-1303/204, 10-12=-1470/159
BOT CHORD	19-20=-330/416, 18-19=-369/2475, 16-18=-255/1704, 15-16=-154/761, 13-15=-227/587, 12-13=-227/587, 11-14=0/484, 10-11=0/484
WEBS	2-19=-461/3458, 4-19=-405/1565, 4-18=-577/233, 6-18=-105/990, 6-16=-872/257, 7-16=-64/765, 8-12=-1457/181, 8-16=-1/559

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 30-1-12 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 20=153.
- 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 5, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681428
2623880	C1A	ROOF SPECIAL	2	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:26 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Rou_q2PK8pn5FuljqGbjvyDk2xJWuCvx51XxrDzoU2V

-1-11-0	2-3-8	8-3-6	14-3-4	20-3-2	21-8-8	24-0-0	30-3-8
1-11-0	2-3-8	5-11-14	5-11-14	5-11-14	1-5-6	2-3-8	6-3-8

4x4 =

Scale = 1:69.0

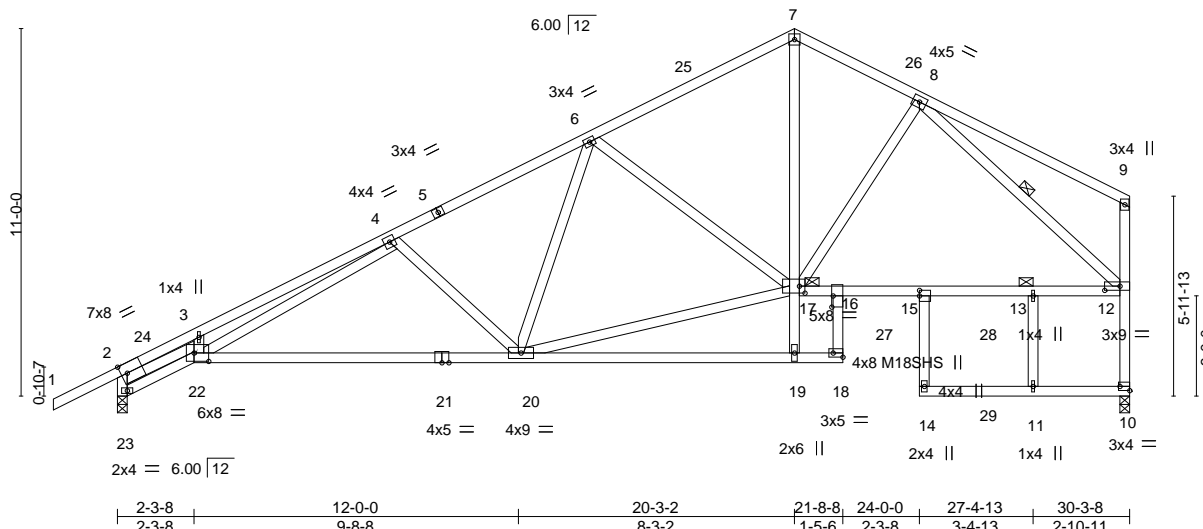


Plate Offsets (X,Y)--	[2:0-2-3,Edge], [10:Edge,0-1-8], [12:0-5-8,0-1-8], [15:0-2-0,0-0-0], [16:0-4-0,0-0-8], [17:0-2-0,0-2-8], [18:Edge,0-1-8], [22:0-5-4,0-3-0]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.41	20-22	>869	MT20	244/190	
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.80	20-22	>448	M18SHS	244/190	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.31	10	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 220 lb	FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except*
 21-22,18-21: 2x4 SP No.1
 WEBS 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 8-12
 JOINTS 1 Brace at Jt(s): 17, 13

REACTIONS.

(size) 10=0-3-8, 23=0-3-8
 Max Horz 23=289(LC 9)
 Max Uplift 10=-89(LC 12), 23=-173(LC 12)
 Max Grav 10=1537(LC 2), 23=1538(LC 2)

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

TOP CHORD 2-23=-1572/224, 2-3=-4213/509, 3-4=-4135/620, 4-6=-2155/249, 6-7=-1562/195,
 7-8=-1556/223, 10-12=-1422/155, 9-12=-256/102
 BOT CHORD 22-23=-310/346, 20-22=-380/2314, 16-18=-304/0, 16-17=-160/1434, 15-16=-203/1247,
 13-15=-209/1184, 12-13=-209/1184
 WEBS 2-22=-419/3555, 4-22=-328/1697, 4-20=-616/236, 17-19=0/503, 7-17=-74/1070,
 8-17=-65/317, 8-12=-1571/148, 6-20=-13/310, 17-20=-233/2013, 6-17=-646/228

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) -1-11-0 to 1-1-0, Interior(1) 1-1-0 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 30-1-12 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
- 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.
- Bearing at joint(s) 23 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 100 lb uplift at joint(s) 10 except (jt=lb) 23=173.
- This truss 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 5,2021

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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/100 Stoney	144681429
2623880	C2	Roof Special	2	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:28 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-NA0kFkRagQ1pVbV6yhdB_NJ8YI?1MCvCZL02w5zoU2T

0-11-0	6-7-4	12-11-0	20-3-2	22-2-0	26-1-0	30-3-8
0-11-0	6-7-4	6-3-12	7-4-2	1-10-14	3-11-0	4-2-8

4x8 =

Scale = 1:72.8

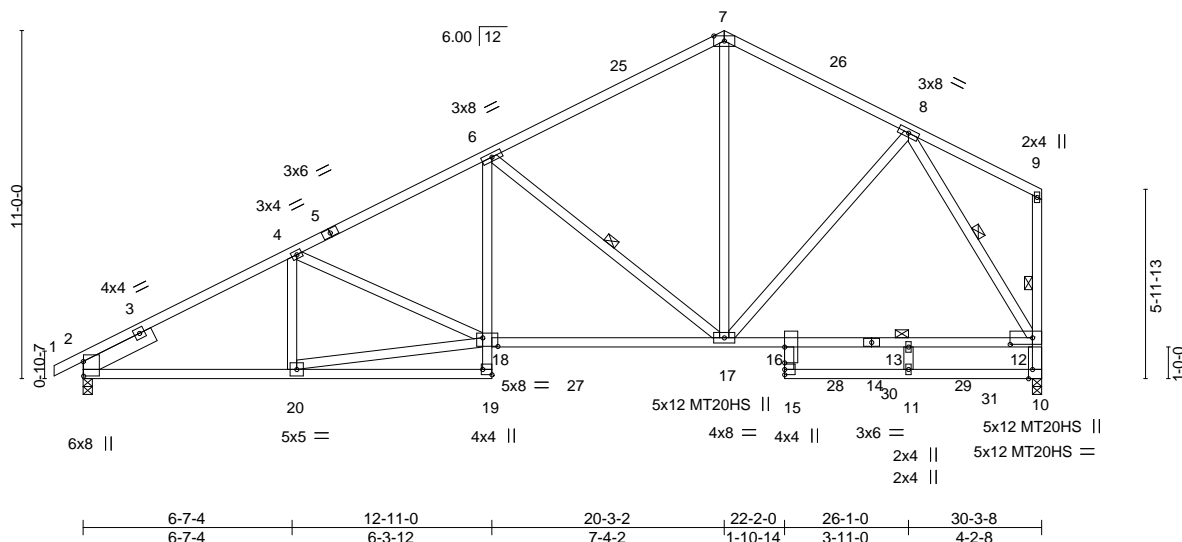


Plate Offsets (X,Y)-- [2:0-5-8,0-0-2], [10:0-3-8,Edge], [12:0-8-8,0-2-8], [16:0-6-0,0-0-0], [18:0-5-12,0-3-4], [19:Edge,0-3-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.24	13-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.32	13-16	>999	180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 161 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-17, 9-10, 8-12
JOINTS 1 Brace at Jt(s): 13

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=273(LC 11)
Max Uplift 2=151(LC 12), 10=91(LC 12)
Max Grav 2=1502(LC 2), 10=1618(LC 2)

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

TOP CHORD 2-4=-2283/224, 4-6=-2157/248, 6-7=-1324/207, 7-8=-1292/208, 10-12=-1458/160
BOT CHORD 2-20=-295/1992, 6-18=-9/600, 17-18=-274/1933, 16-17=-154/753, 13-16=-236/580,
12-13=-236/580, 11-15=0/523, 10-11=0/523
WEBS 18-20=-273/1881, 6-17=-1045/259, 7-17=-41/721, 8-17=-8/560, 8-12=-1444/181

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 30-1-12 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) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=151.
- 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 5, 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/100 Stoney	144681430
2623880	C3	Roof Special	4	1		

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

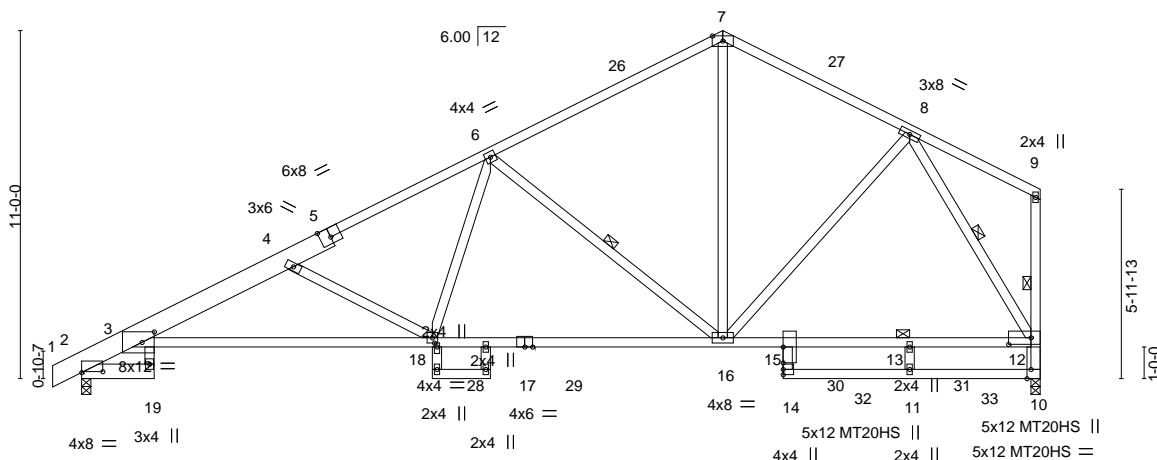
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:29 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-rNa6T4SCRk9g6LTIVO8QXbrLA9Lq5fLn?mbSYzoU2S

0-11-0 2-3-8	6-8-4	11-1-0	12-11-0	20-3-2	22-2-0	26-2-0	30-3-8
0-11-0 2-3-8	4-4-12	4-4-12	1-10-0	7-4-2	1-10-14	4-0-0	4-1-8

4x8 =

Scale = 1:72.8



2-3-8	11-1-0	12-11-0	20-3-2	22-2-0	26-2-0	30-3-8
2-3-8	8-9-8	1-10-0	7-4-2	1-10-14	4-0-0	4-1-8

Plate Offsets (X,Y)--	[2:0-8-0,0-0-6], [3:0-4-10,0-4-0], [5:0-4-0,Edge], [10:0-3-8,Edge], [12:0-8-8,0-2-8], [15:0-6-0,0-0-0], [18:0-1-8,0-1-0]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.30	3-18	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.56	3-18	>641	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.24	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 170 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-19: 2x6 SPF No.2, 3-17: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 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 6-16, 9-10, 8-12
JOINTS 1 Brace at Jt(s): 13

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=275(LC 11)
Max Uplift 2=148(LC 12), 10=90(LC 12)
Max Grav 2=1517(LC 2), 10=1621(LC 2)

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

TOP CHORD 3-24=823/90, 3-4=-3120/393, 4-6=-2431/261, 6-7=-1322/205, 7-8=-1298/206,
10-12=-1462/159
BOT CHORD 3-19=-41/283, 3-18=-476/3002, 16-18=-271/1896, 15-16=-153/746, 13-15=-230/572,
12-13=-230/572, 11-14=0/512, 10-11=0/512
WEBS 4-18=-1009/305, 6-18=-24/794, 6-16=-1003/260, 7-16=-40/713, 8-16=-7/570,
8-12=-1447/180

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) -0-11-0 to 1-9-11, Interior(1) 1-9-11 to 20-3-2, Exterior(2R) 20-3-2 to 23-3-2, Interior(1) 23-3-2 to 30-1-12 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=148.
- This truss 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 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

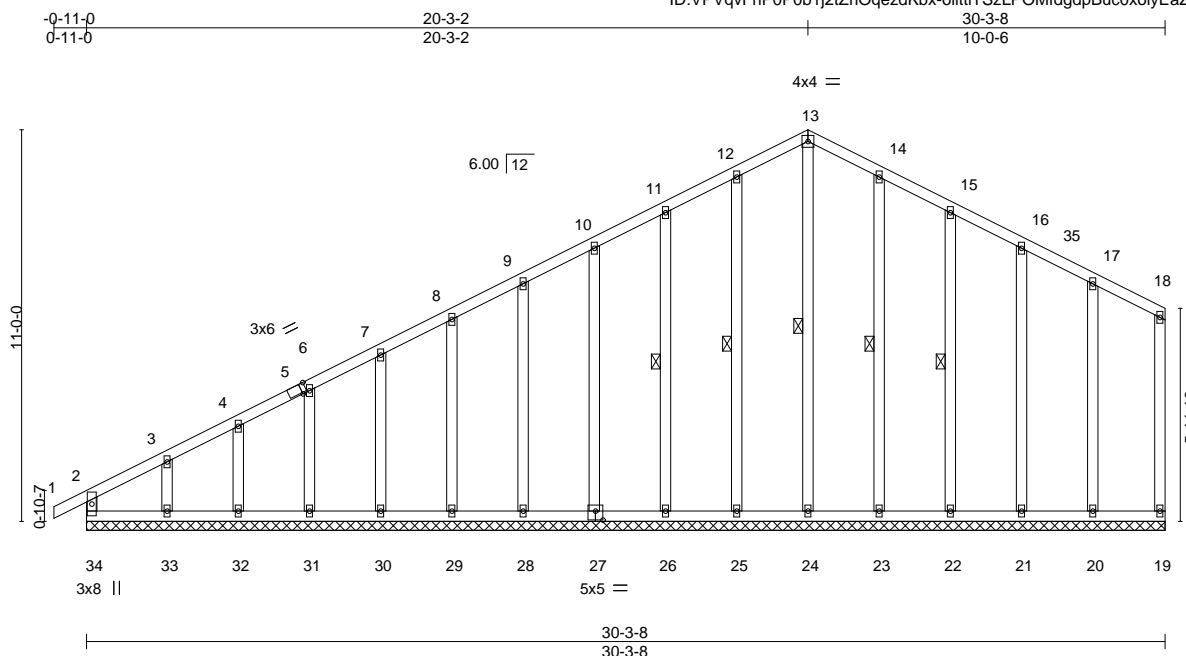


Plate Offsets (X,Y)-- [5:0-1-9,Edge], [27:0-2-8,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	19	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 186 lb	FT = 20%

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	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 13-24, 12-25, 11-26, 14-23, 15-22
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 30-3-8.
(lb) - Max Horz 34=279(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 19, 34, 24, 25, 26, 27, 28, 29, 30, 31, 32, 23, 22, 21, 20
except 33=149(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 19, 34, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 23, 22, 21, 20

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-258/158, 11-12=-150/262, 12-13=-164/303, 13-14=-164/303, 14-15=-150/262

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 Corner(3E) -0-11-0 to 2-3-2, Exterior(2N) 2-3-2 to 20-3-2, Corner(3R) 20-3-2 to 23-3-2, Exterior(2N) 23-3-2 to 30-1-12 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 34, 24, 25, 26, 27, 28, 29, 30, 31, 32, 23, 22, 21, 20 except (jt=lb) 33=149.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:33 2021 Page 1
 ID:VPVqvFnPOP0b1j2lZrIQezdKbx-k8pdlRVjVzf6byn3kEDMhR07UmtH1YkxickobJzoU2O
 -0-11-0 2-0-0 6-0-0 10-0-0 12-11-0
 0-11-0 2-0-0 4-0-0 4-0-0 2-0-0 0-11-0
 Scale = 1:23.7

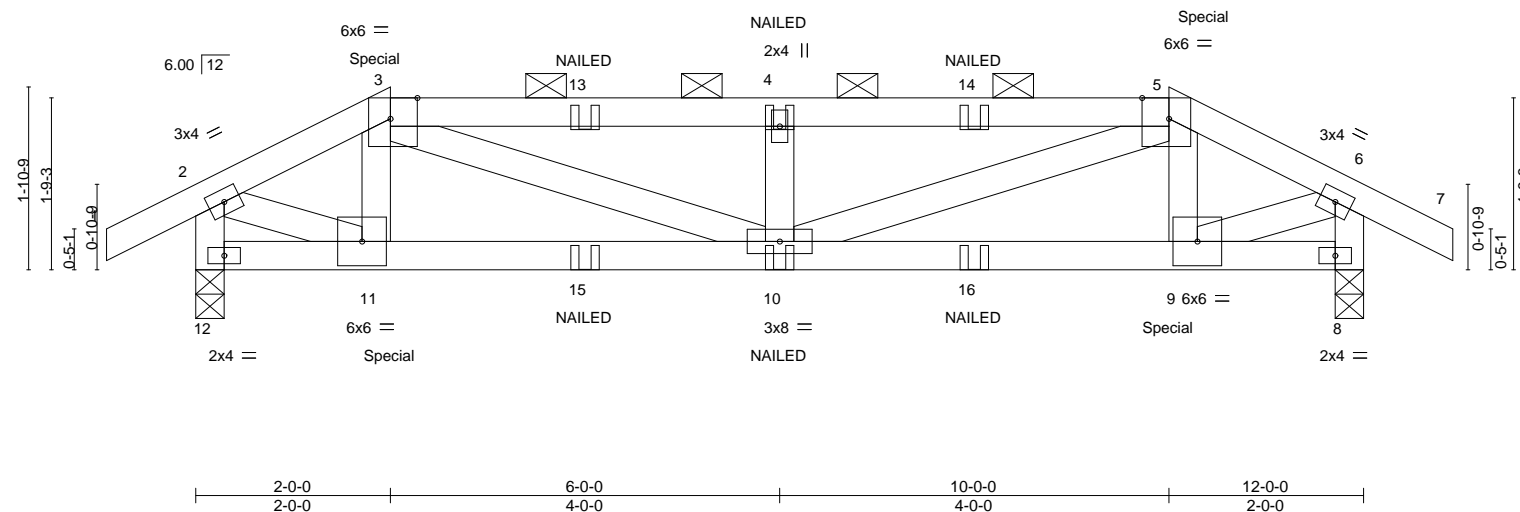


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.05	10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.05	10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(CT)	-0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 48 lb	FT = 20%

LUMBER-		BRACING-
TOP CHORD	2x4 SPF No.2	TOP CHORD
BOT CHORD	2x4 SPF No.2	Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-3 max.): 3-5.
WEBS	2x4 SPF No.2	BOT CHORD
		Rigid ceiling directly applied or 7-1-5 oc bracing.

REACTIONS. (size) 12=0-3-8, 8=0-3-8
 Max Horz 12=38(LC 7)
 Max Uplift 12=-598(LC 8), 8=-598(LC 9)
 Max Grav 12=852(LC 38), 8=852(LC 37)

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

TOP CHORD	2-3=991/747, 3-4=1247/808, 4-5=1247/808, 5-6=991/747, 2-12=830/585, 6-8=830/585
BOT CHORD	10-11=694/876, 9-10=683/875
WEBS	3-11=131/355, 3-10=121/584, 4-10=332/132, 5-10=121/584, 5-9=131/356, 2-11=661/912, 6-9=662/912

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 12, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=598, 8=598.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4 lb down and 549 lb up at 2-0-0, and 4 lb down and 549 lb up at 10-0-0 on top chord, and 557 lb down and 0 lb up at 2-0-0, and 557 lb down and 0 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



February 5, 2021

Continued on page 2



WARNING: Velly design parameters and READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM1473 (rev. 3/15/2020) 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 BCS1 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/100 Stoney	I44681432
2623880	D1	Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:33 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-k8pdlRVjVzf6byn3kEDMhR07UmtH1YkxickobJzoU2O

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-12=-20
Concentrated Loads (lb)
Vert: 11=0(F) 10=1(F) 9=0(F) 15=1(F) 16=1(F)

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681433
2623880	D2	Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:34 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-CKN?WnVLFgnzD6MFlykbEeZlrADom1z5xGTM8IzoU2N

Job Reference (optional)

-0-11-0	4-0-0	8-0-0	12-0-0	12-11-0
0-11-0	4-0-0	4-0-0	4-0-0	0-11-0

Scale = 1:22.9

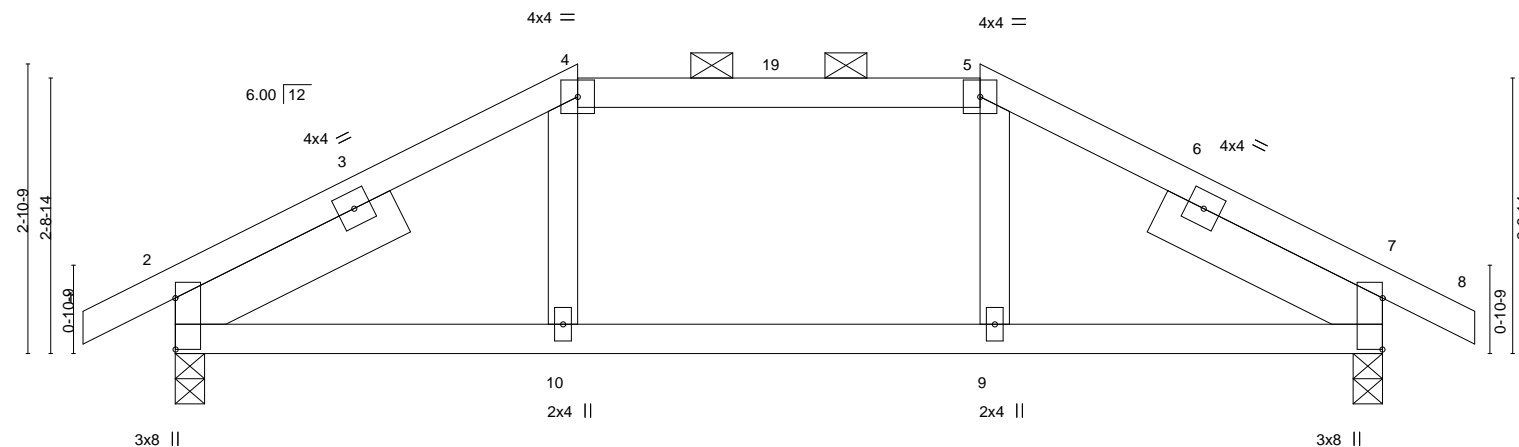


Plate Offsets (X,Y)--	[2:Edge,0-0-0], [7:Edge,0-0-0]
-----------------------	--------------------------------

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.04	9	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.06	9	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.02	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 45 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 (6-0-0 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=38(LC 16)
Max Uplift 2=66(LC 12), 7=66(LC 13)
Max Grav 2=604(LC 1), 7=604(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-680/195, 4-5=-584/198, 5-7=-680/195
BOT CHORD 2-10=-89/587, 9-10=-91/584, 7-9=-88/587

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 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 100 lb uplift at joint(s) 2, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	I44681434
2623880	D3	Common	3	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:35 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-gXxOj7Wz0awpqGxSsfFqms5SkaYwVUvEawDvgCzoU2M

-0-11-0	6-0-0	12-0-0	12-11-0
0-11-0	6-0-0	6-0-0	0-11-0

Scale = 1:25.6

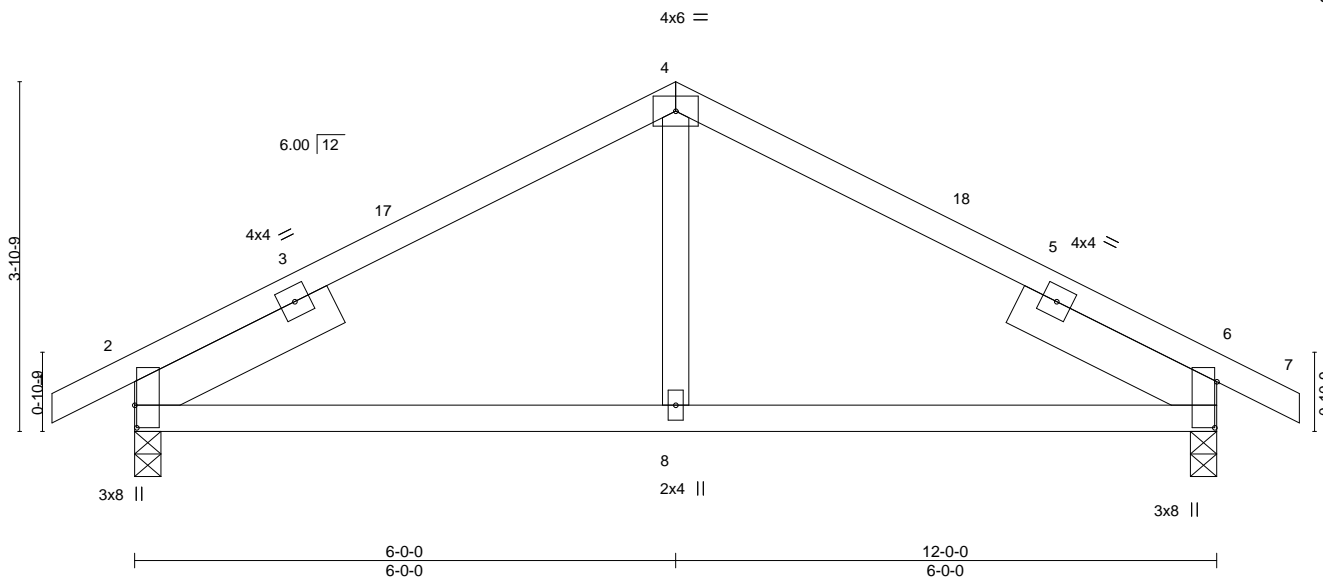


Plate Offsets (X,Y)-- [2:0-3-0,0-0-4], [6:0-6-2,0-0-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.04	8-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.06	8-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.02	2	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 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
 Max Horz 2=55(LC 12)
 Max Uplift 2=62(LC 12), 6=62(LC 13)
 Max Grav 2=604(LC 1), 6=604(LC 1)

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

TOP CHORD 2-4=-579/208, 4-6=-579/208
 BOT CHORD 2-8=-68/506, 6-8=-68/506

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 5, 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/100 Stoney	I44681435
2623880	E3	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

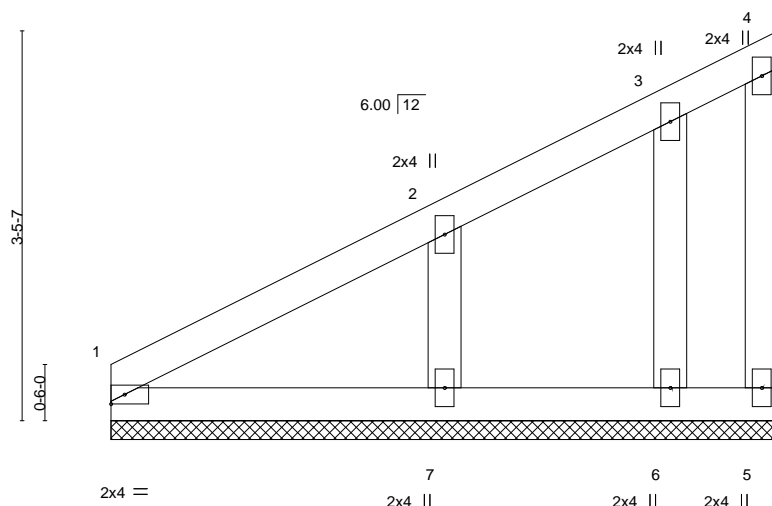
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:36 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-8jVmxTXbnu2gSQWeQMm3J3egFzyOEx8NOayTCezoU2L

5-10-15
5-10-15

Scale = 1:20.4



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 0.12	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 5-10-15.

(lb) - Max Horz 1=115(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 5, 7, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=282(LC 1)

FORCES.

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

TOP CHORD 1-2=-276/148

WEBS 2-7=-220/309

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(3E) 0-0-0 to 2-11-8, Exterior(2N) 2-11-8 to 5-9-3 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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, 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.



February 5, 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

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681436
2623880	F1	GABLE	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:37 2021 Page 1
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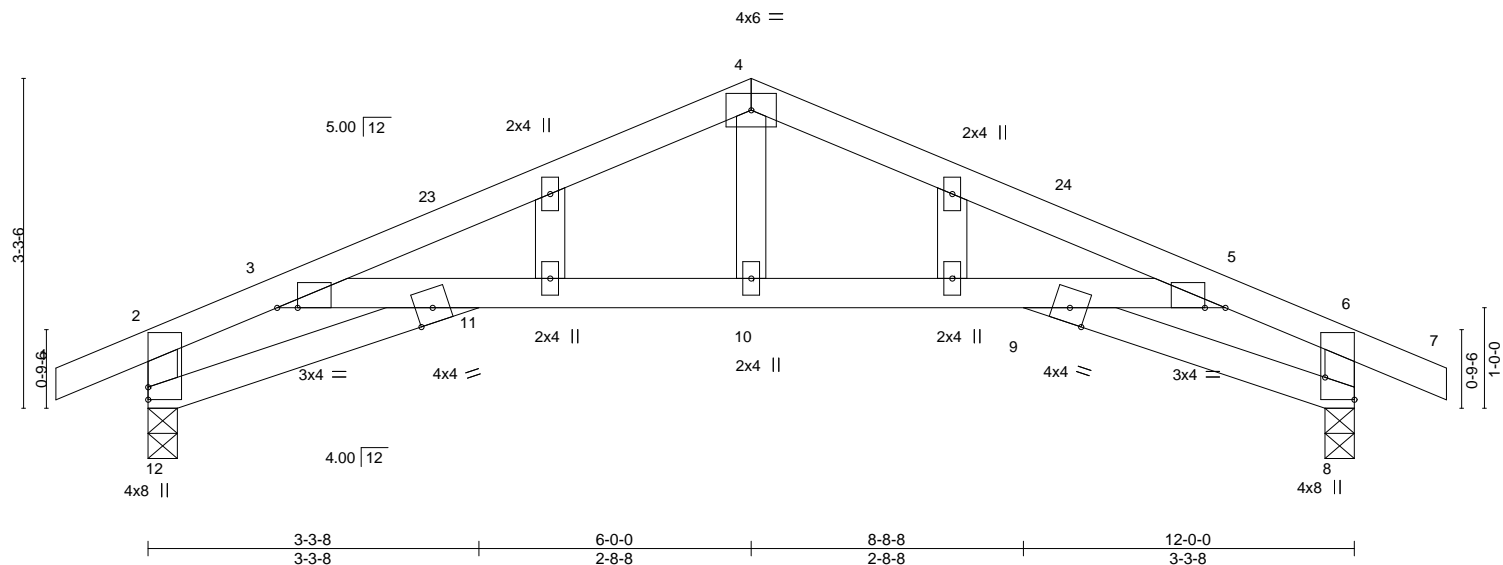
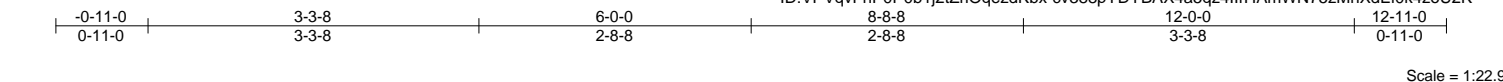


Plate Offsets (X,Y)-- [2:0-0-12,0-1-12], [3:0-2-7,Edge], [5:0-2-7,Edge], [6:0-0-12,0-1-12], [8:Edge,0-3-8], [8:0-0-9,0-1-12], [12:0-0-9,0-1-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.08	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.15	10-11	>923	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 41 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, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 9-10

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=28(LC 16)
Max Uplift 12=66(LC 12), 8=66(LC 13)
Max Grav 12=601(LC 1), 8=601(LC 1)

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

TOP CHORD 2-3=-670/204, 3-4=-1039/272, 4-5=-1039/283, 5-6=-670/191, 2-12=-666/217,
6-8=-666/229
BOT CHORD 11-12=-145/495, 3-11=-63/462, 10-11=-169/941, 9-10=-169/941, 5-9=-76/462,
8-9=-102/495
WEBS 4-10=-31/379

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) -0-11-0 to 1-11-13, Interior(1) 1-11-13 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 2-0-0 oc.
- 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) 12, 8 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 100 lb uplift at joint(s) 12, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 5, 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

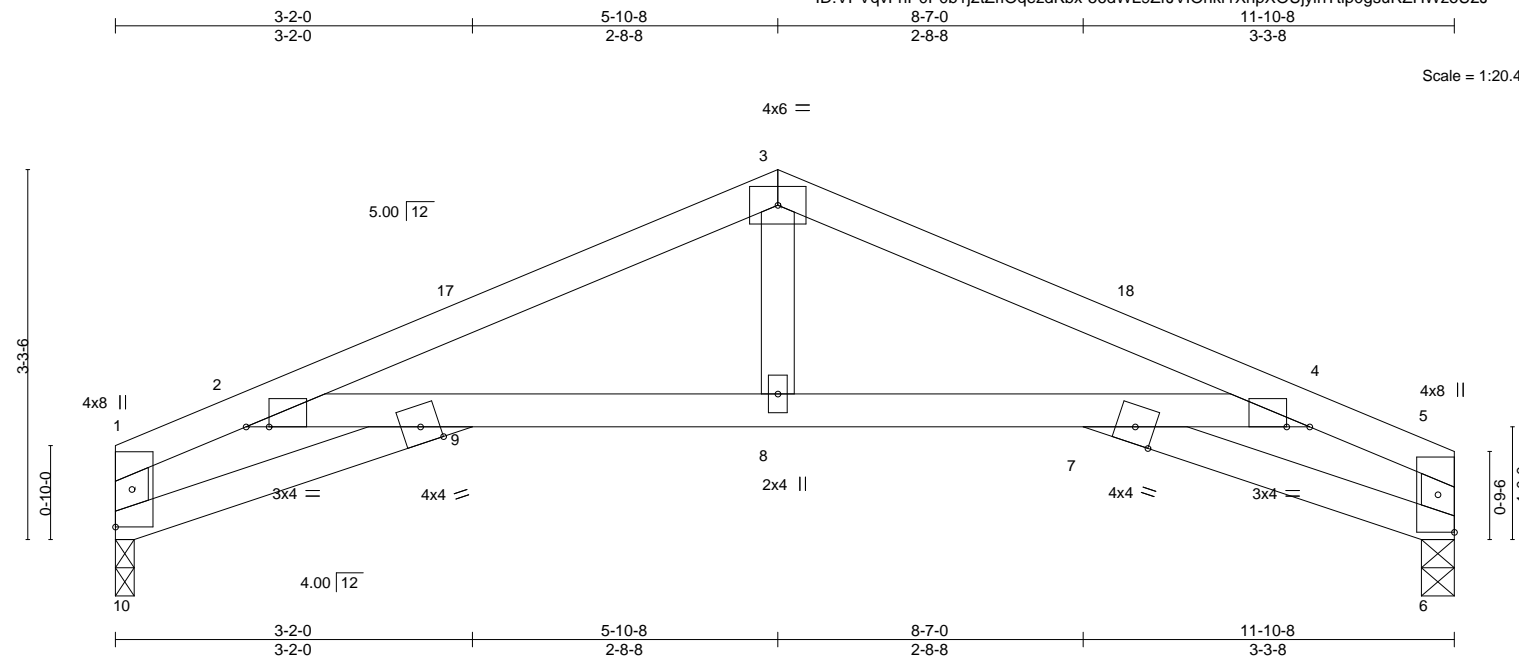


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681437
2623880	F2	Roof Special	3	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:38 2021 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-56dWL9ZrJV1Ohk1XnpXOUjyinTip0gsuRZHWzoU2J



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.76	Vert(LL) -0.09 7 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Vert(CT) -0.16 7-8 >881 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.11 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 36 lb	FT = 20%

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

REACTIONS. (size) 10=0-2-0, 6=0-3-8
Max Horz 10=-22(LC 13)
Max Uplift 10=-44(LC 12), 6=-45(LC 13)
Max Grav 10=521(LC 1), 6=521(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-652/206, 2-3=-1044/299, 3-4=-1042/309, 4-5=-697/208, 1-10=-580/179,
5-6=-591/189
BOT CHORD 9-10=-169/478, 2-9=-67/480, 8-9=-221/945, 7-8=-221/945, 4-7=-67/436, 6-7=-160/525
WEBS 3-8=-47/381

- 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 5-10-8, Exterior(2R) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 11-8-12 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
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 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) 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 5, 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 2623880	Truss F3	Truss Type Roof Special	Qty 1	Ply 1	Summit/100 Stoney	144681438
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:39 2021 Page 1
ID:VPVqFnP0P0b1j2tZrIQezdKbx-ZlBuZU4pQFJtED5VKmwIG60BoZRGHq5YB7pzzoU2l
-0-11-0 3-3-8 6-0-0 8-8-8 12-0-0 12-11-0
0-11-0 3-3-8 2-8-8 2-8-8 3-3-8 0-11-0
Scale = 1:22.9

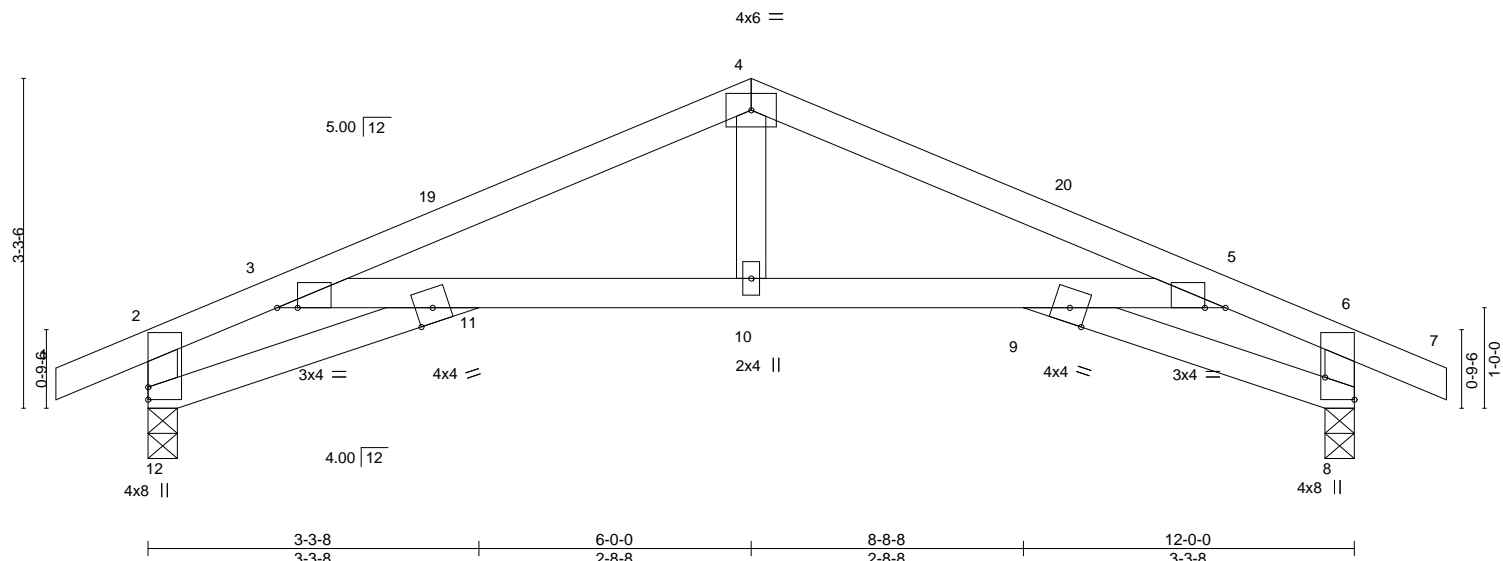


Plate Offsets (X,Y)--										[2:0-0-12,0-1-12], [3:0-2-7,Edge], [5:0-2-7,Edge], [6:0-0-12,0-1-12], [8:Edge,0-3-8], [8:0-0-9,0-1-12], [12:0-0-9,0-1-12]													
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.				in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL		1.15		TC 0.40		Vert(LL)				-0.08 11		>999		240		MT20		197/144			
TCDL	10.0	Lumber DOL		1.15		BC 0.73		Vert(CT)				-0.15 10-11		>923		180							
BCLL	0.0 *	Rep Stress Incr		YES		WB 0.09		Horz(CT)				0.11 8		n/a		n/a							
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS														Weight: 39 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 9-10

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=28(LC 17)
Max Uplift 12=66(LC 12), 8=66(LC 13)
Max Grav 12=601(LC 1), 8=601(LC 1)

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

TOP CHORD 2-3=-670/204, 3-4=-1039/272, 4-5=-1039/283, 5-6=-670/191, 2-12=-666/217,
6-8=-666/229
BOT CHORD 11-12=-145/495, 3-11=-63/462, 10-11=-169/941, 9-10=-169/941, 5-9=-76/462,
8-9=-102/495
WEBS 4-10=-31/379

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) -0-11-0 to 1-11-13, Interior(1) 1-11-13 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 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) 12, 8 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 100 lb uplift at joint(s) 12, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 5, 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/100 Stoney	144681439
2623880	GR1	Roof Special Girder	1	2	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:40 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-1UkHmq6r6Y6x1pPfCr?TvoHkbAKAa6zJCwglPzoU2H

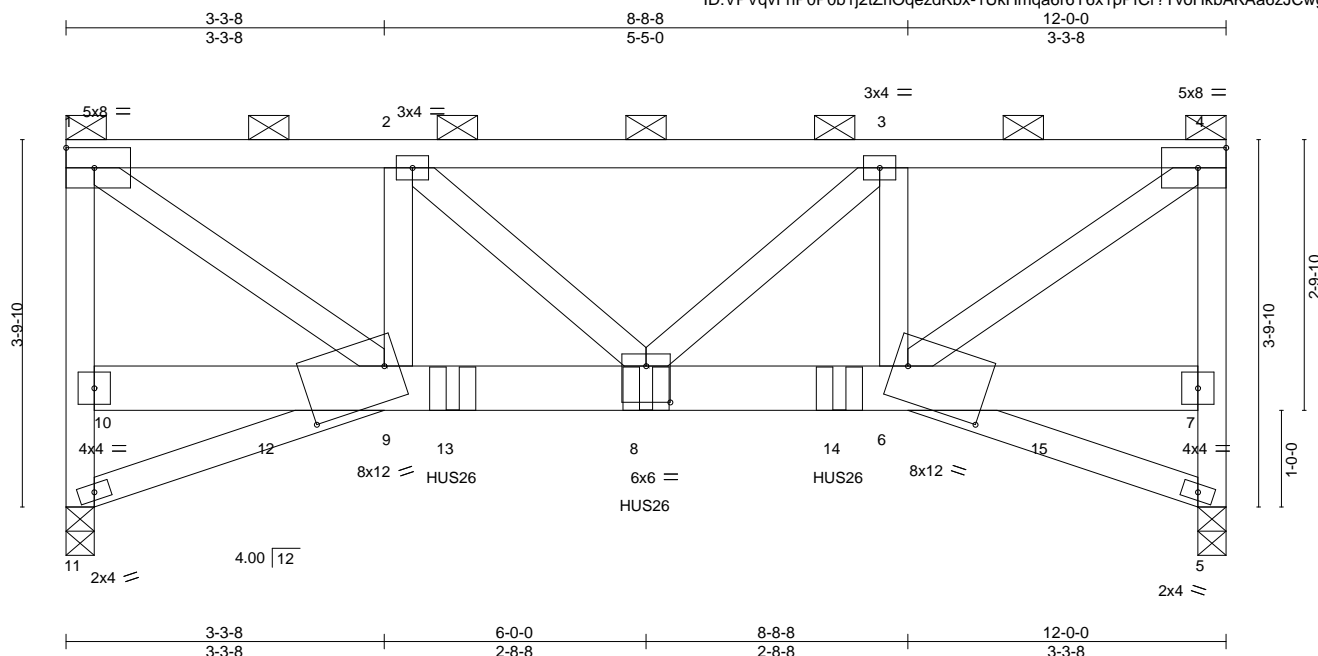


Plate Offsets (X,Y)-- [6:0-10-4,0-4-4], [8:0-3-0,0-4-8], [9:0-10-4,0-4-4]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.06	8	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.10	8	>999	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.07	5	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 139 lb	FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-10: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD 2-0-0 oc purlins (4-10-13 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 5=0-3-8
Max Horz 11=-122(LC 4)
Max Uplift 11=-451(LC 4), 5=-459(LC 5)
Max Grav 11=3916(LC 1), 5=3973(LC 1)

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

TOP CHORD 10-11=-3884/469, 1-10=-3476/413, 1-2=-4666/551, 2-3=-5655/593, 3-4=-4605/504,
5-7=-3947/478, 4-7=-3428/403
BOT CHORD 8-9=-604/4666, 6-8=-557/4605
WEBS 1-9=-640/5667, 2-9=-1230/273, 3-6=-1289/200, 4-6=-627/5586, 2-8=-345/1361,
3-8=-243/1445

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 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-5-0 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.
- 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.
- Bearing at joint(s) 11, 5 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 100 lb uplift at joint(s) except (jt=lb) 11=451, 5=459.
- This truss 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.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-0-0 from the left end to 8-0-0 to connect truss(es) to front face of bottom chord.

2) Full on page 2 where hanger is in contact with lumber.



February 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	I44681439
2623880	GR1	Roof Special Girder	1	2	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:41 2021 Page 2
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-VgIf_AbkcQgzZBObCwME07LSU_WZv1M6YsgEtrzoU2G

NOTES-
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 9-11=-20, 6-9=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 8=-1514(F) 12=-1146(F) 13=-1514(F) 14=-1514(F) 15=-1146(F)

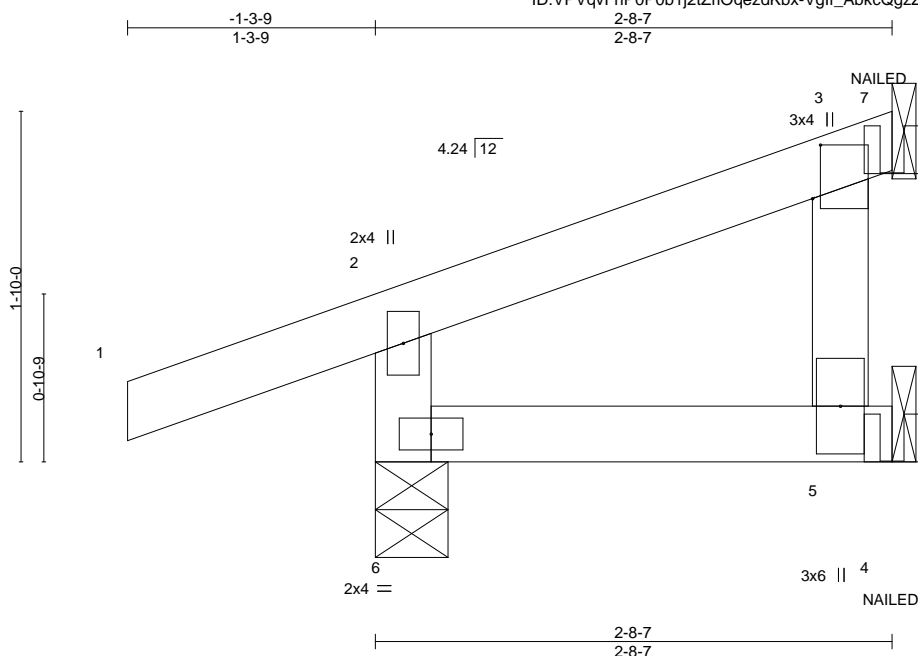


Plate Offsets (X,Y)-- [3:0-3-6,0-0-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

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

REACTIONS. (size) 6=0-4-9, 5=Mechanical, 3=Mechanical
 Max Horz 6=48(LC 8)
 Max Uplift 6=-100(LC 8), 3=-554(LC 8)
 Max Grav 6=239(LC 1), 5=568(LC 29), 3=55(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-5=-1189/456

NOTES-

- 1) 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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=100, 3=554.
- 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.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (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: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 5=1(F)



February 5, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

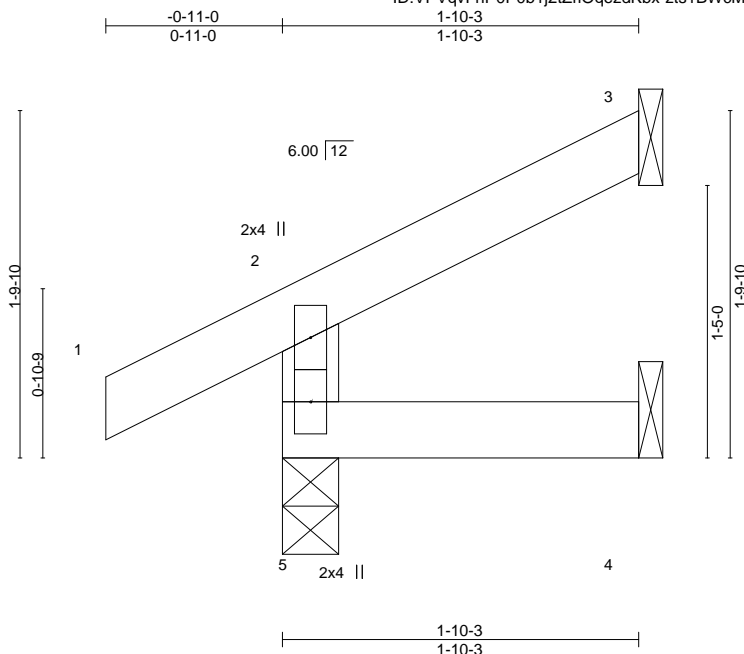
Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	I44681441
2623880	JD2	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-zts1BWcMnkoqALzomdtTYKuhMO?0eeTGnWPnQlzoU2F



Scale: 1"=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 0.08	Vert(LL)	-0.00	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
								Weight: 6 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-3 oc purlins, except end verticals.

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

REACTIONS.

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

Max Horz 5=41(LC 9)

Max Uplift 5=-16(LC 12), 3=-27(LC 12)

Max Grav 5=174(LC 1), 3=40(LC 1), 4=30(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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/100 Stoney	I44681442
2623880	JD3	Jack-Open	3	1		

Builders FirstSource (Valley Center),

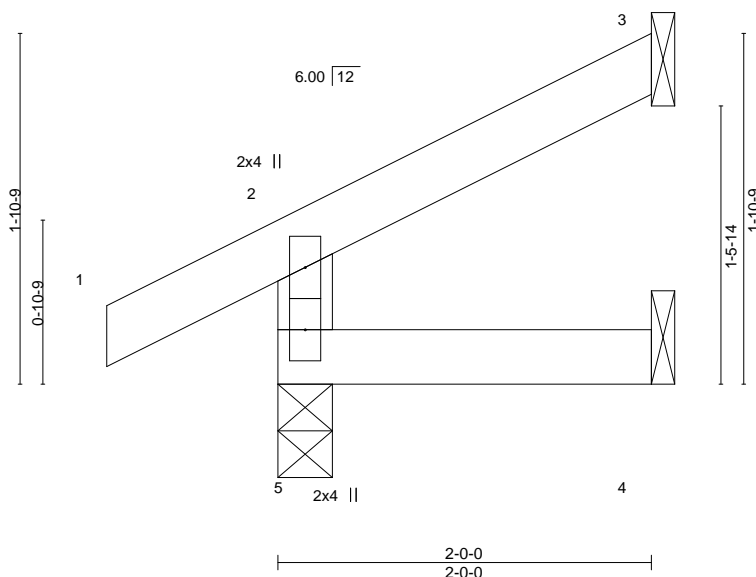
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:43 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-R3QPPsc_81whoVY_KLOi5YQs6oLAN5iP?A9KykzoU2E



Scale = 1:12.3



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 0.08	Vert(LL)	-0.00	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
								Weight: 7 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 2-0-0 oc purlins, except end verticals.

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

REACTIONS.

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

Max Horz 5=42(LC 12)

Max Uplift 5=-16(LC 12), 3=-30(LC 12)

Max Grav 5=179(LC 1), 3=46(LC 1), 4=33(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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

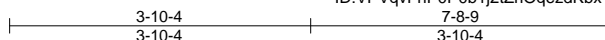
Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681443
2623880	LG1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

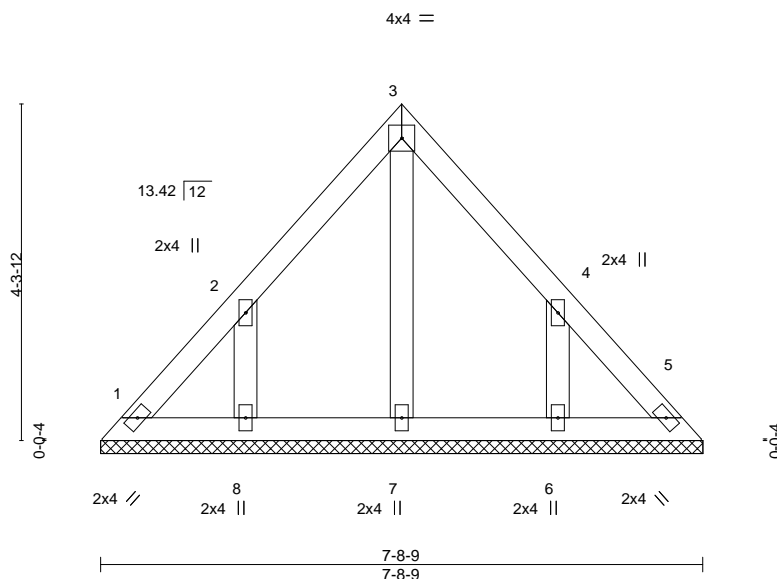
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:44 2021 Page 1

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Scale = 1:29.5



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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 29 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-8-9.
(lb) - Max Horz 1=96(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=132(LC 12), 6=132(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- 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 3-3-15, Interior(1) 3-3-15 to 3-10-4, Exterior(2R) 3-10-4 to 6-10-4, Interior(1) 6-10-4 to 7-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 5 except (jt=lb) 8=132, 6=132.
- This truss 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 5, 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/100 Stoney	144681444
2623880	M1	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:45 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-OSYApYeEgAP1oiNRIRAAzWCpc?Mr?ciTUeR0czoU2C

-0-11-0
0-11-0

9-11-8
9-11-8

Scale = 1:27.0

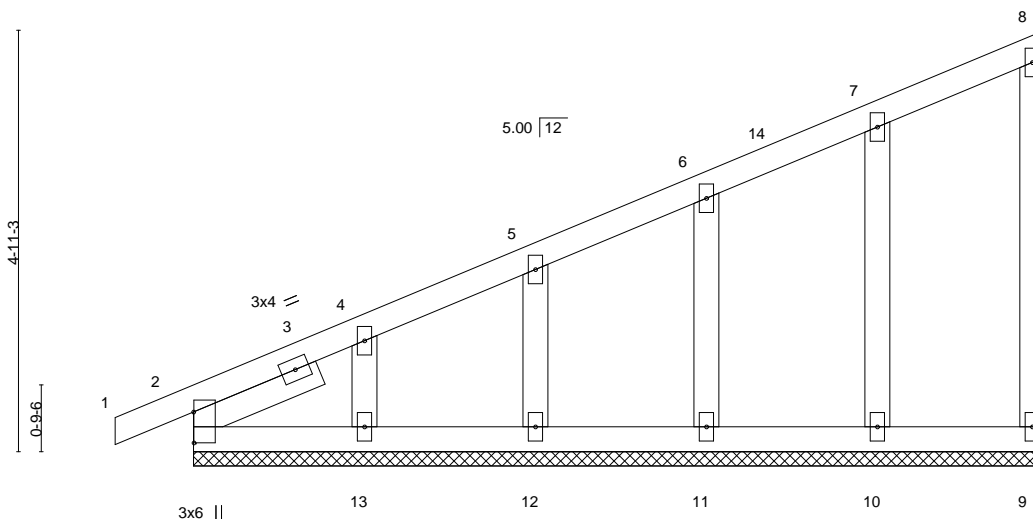


Plate Offsets (X,Y)-- [2:0-4-5,0-0-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-7-6

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 9-11-8.
(lb) - Max Horz 2=177(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 9, 13, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 9, 2, 13, 12, 11, 10

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-354/176, 4-5=-250/141

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 and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 9-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 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) 9, 13, 12, 11, 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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/100 Stoney	144681445
2623880	M2	Common	5	1		

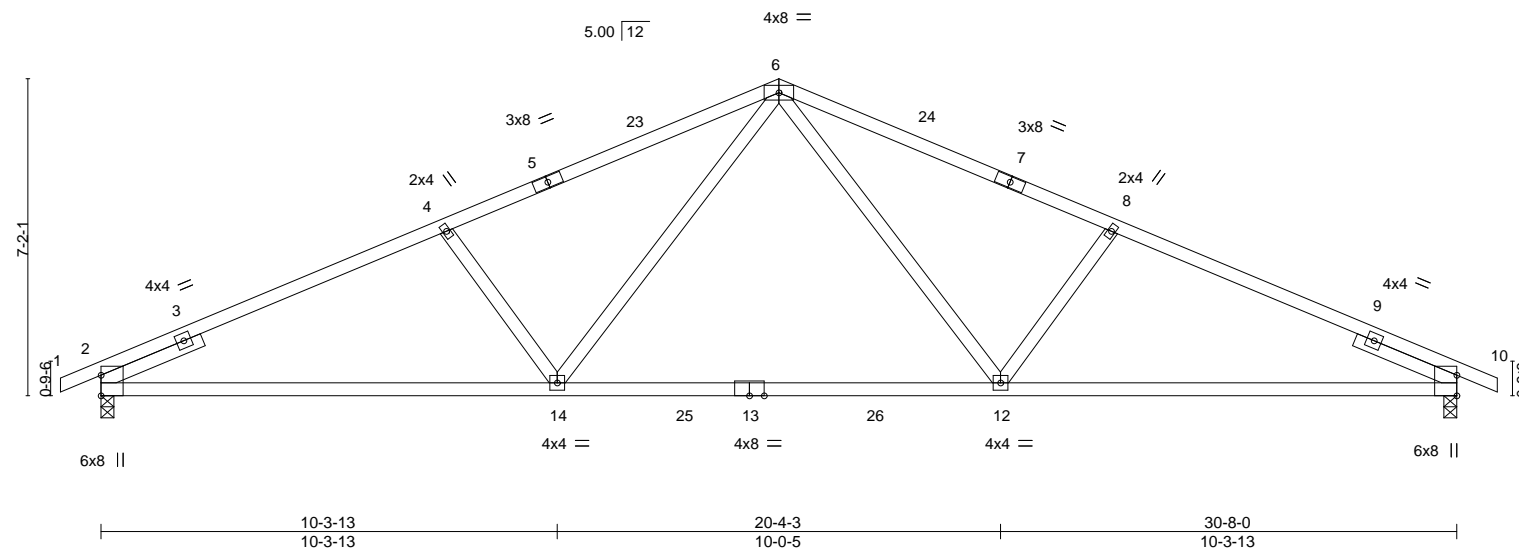
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:46 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-se6Y1uftRyIGfyHZ?TyPjA2Cv?AhaPCsi8N_Z3zoU2B

0-11-0	7-9-12	15-4-0	22-10-4	30-8-0	31-7-0
0-11-0	7-9-12	7-6-4	7-6-4	7-9-12	0-11-0

Scale = 1:52.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCCL	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.46 12-14	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.72 12-14				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.11 10				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 110 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 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=-107(LC 17)
 Max Uplift 2=-139(LC 12), 10=-139(LC 13)
 Max Grav 2=1503(LC 2), 10=1503(LC 2)

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

TOP CHORD 2-4=-2579/242, 4-6=-2380/229, 6-8=-2380/229, 8-10=-2579/242
 BOT CHORD 2-14=-241/2318, 12-14=-58/1644, 10-12=-134/2318
 WEBS 6-12=-86/851, 8-12=-477/231, 6-14=-86/851, 4-14=-477/231

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-0, Interior(1) 18-4-0 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 10=139.
- This truss 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 5, 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/100 Stoney	144681446
2623880	M4	GABLE	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:48 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-o1DISZg7yaYzuGQy7u_tob8cppxd2Gh89Ss5dxzoU29

0-11-0 7-9-12 15-4-0 22-10-4 30-8-0 31-7-0
0-11-0 7-9-12 7-6-4 7-6-4 7-9-12 0-11-0

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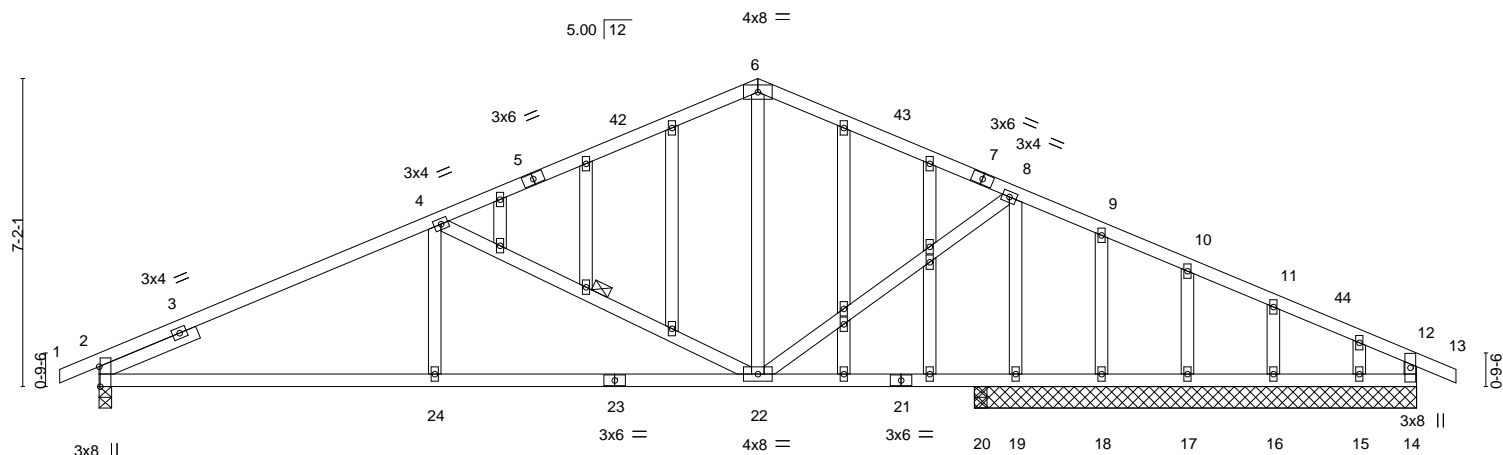


Plate Offsets (X,Y)--	[2:0-5-9,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.07	22-24	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.16	22-24	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.03	20	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 143 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-22

REACTIONS.

All bearings 10-3-8 except (jt=length) 2=0-3-8, 20=0-3-8.
(lb) - Max Horz 2=103(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 19, 17, 16 except 2=129(LC 12), 14=102(LC 25)
Max Grav All reactions 250 lb or less at joint(s) 18, 17, 16, 15, 14, 20 except 2=976(LC 1), 19=1130(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1306/200, 4-6=-683/163, 6-8=-654/159, 8-9=0/254
BOT CHORD 2-24=-195/1275, 22-24=-195/1275
WEBS 4-22=-851/205, 4-24=0/306, 8-19=-1172/114, 8-22=-40/881

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-0, Interior(1) 18-4-0 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- 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) 19, 17, 16 except (jt=lb) 2=129, 14=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.
- 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 5, 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

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681447
2623880	M5	GABLE	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:49 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-GDngfvhljtqgWQ?8gbV6Kpgv_D0mnpVIO6cf9OzoU28

Job Reference (optional)

0-11-0 10-4-0 20-8-0 21-7-0
0-11-0 10-4-0 10-4-0 0-11-0

Scale = 1:37.3

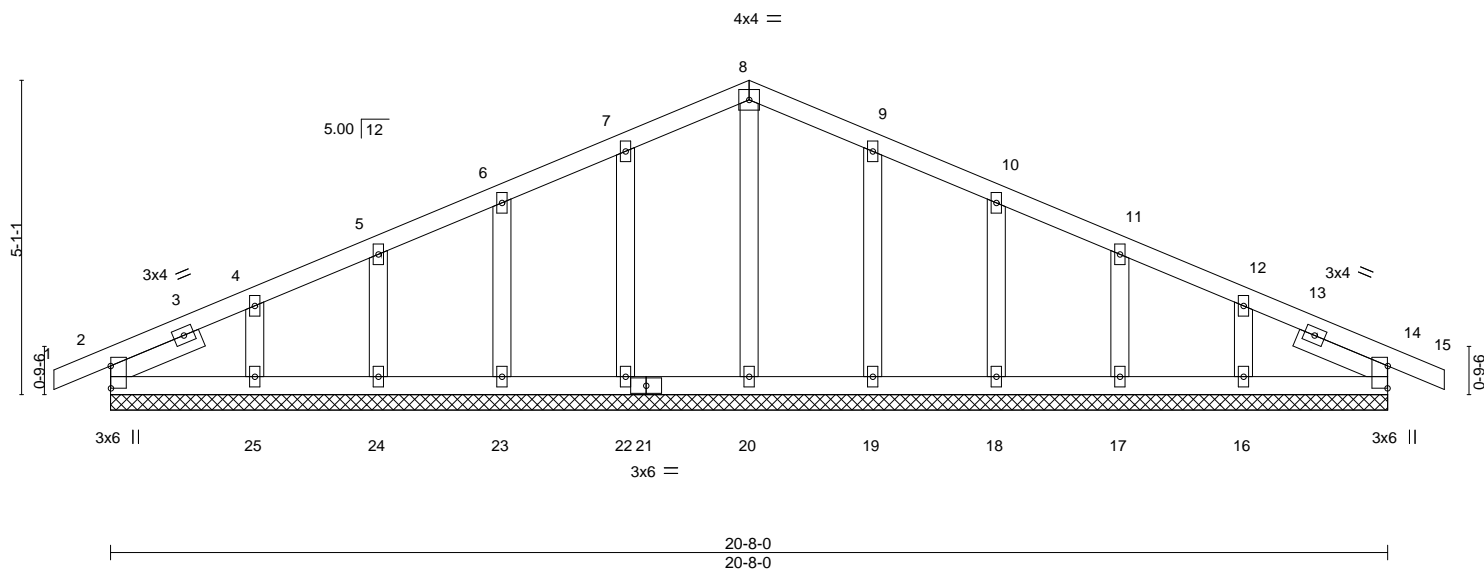


Plate Offsets (X,Y)--		[2:0-4-5,0-0-1], [14:0-4-5,0-0-1]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.05	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(LL) -0.00 14 n/r 120
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Vert(CT) -0.00 14 n/r 120
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.00 14 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 83 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-7-4, Right 2x4 SPF No.2 1-7-4

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 20-8-0.
(lb) - Max Horz 2=74(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 22, 23, 24, 25, 19, 18, 17, 16, 14

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 25, 19, 18, 17, 16, 14.
- 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 5, 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/100 Stoney	144681448
2623880	M6	Common	5	1		

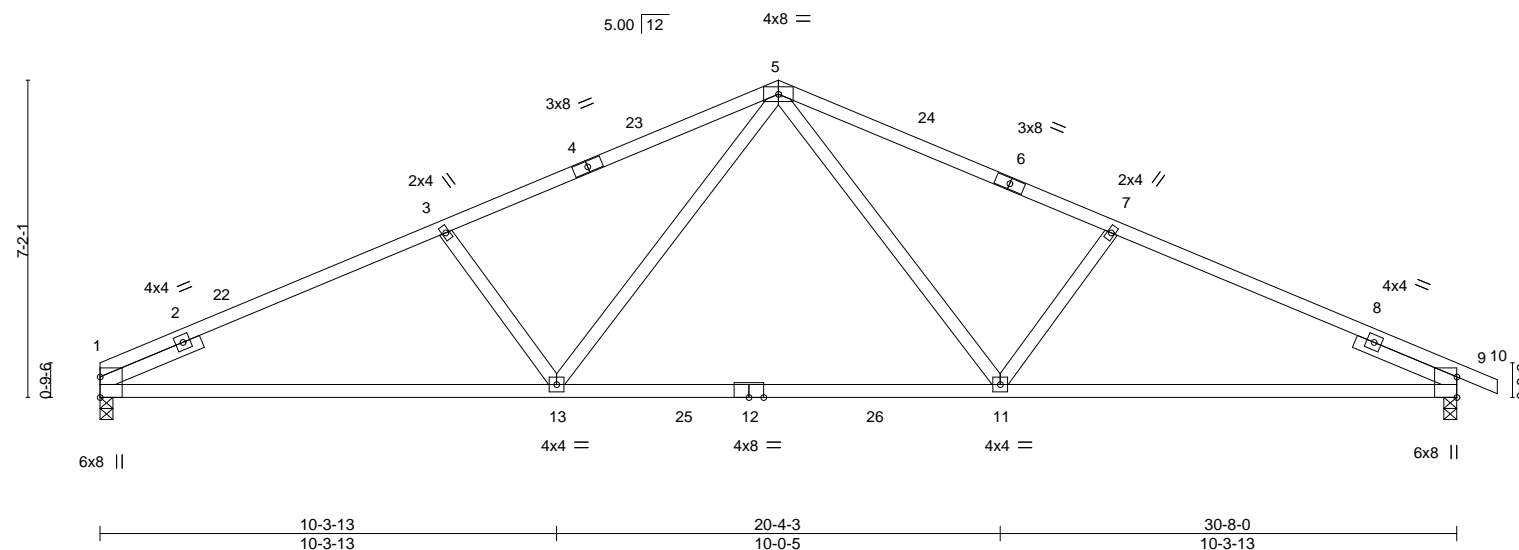
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:51 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-CcvR4bj?FVxYlj9Wo0YaQEm3Z0urFgQbrQ5IEGzoU26

7-9-12	15-4-0	22-10-4	30-8-0	31-7-0
7-9-12	7-6-4	7-6-4	7-9-12	0-11-0

Scale = 1:52.1



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 0.81	Vert(LL)	-0.46 11-13	>805	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.72 11-13	>511	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.11 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 109 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 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 9=0-3-8
 Max Horz 1=113(LC 17)
 Max Uplift 1=121(LC 12), 9=139(LC 13)
 Max Grav 1=1450(LC 2), 9=1504(LC 2)

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

TOP CHORD 1-3=-2584/243, 3-5=-2385/236, 5-7=-2382/230, 7-9=-2580/242
 BOT CHORD 1-13=-242/2324, 11-13=-58/1645, 9-11=-134/2319
 WEBS 5-11=-86/851, 7-11=-477/231, 5-13=-87/856, 3-13=-481/231

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-0, Interior(1) 18-4-0 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=121, 9=139.
- This truss 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 5, 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/100 Stoney	144681449
2623880	P1	Monopitch	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:52 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-goTpHxjd0o3PNtkjMk3pyRIMAQMj_Axk44qJmizoU25



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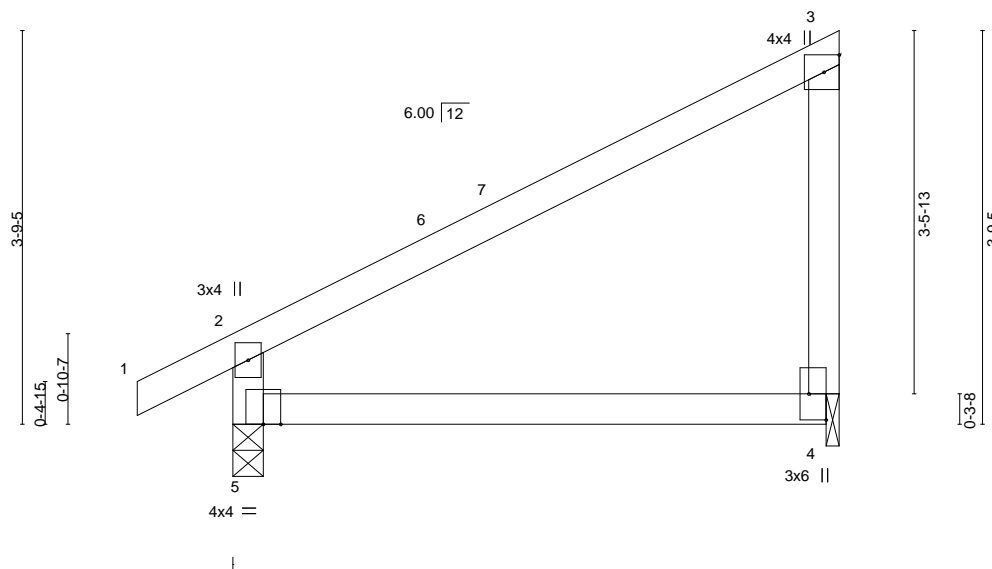


Plate Offsets (X,Y)--		[4:Edge,0-2-0]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.31		Vert(LL)	-0.03 4-5	>999	240
TCDL 10.0		Lumber DOL	1.15	BC 0.21		Vert(CT)	-0.06 4-5	>999	180
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 4	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS					
						PLATES		GRIP	
						MT20		197/144	
						Weight: 19 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 4=0-1-8
Max Horz 5=134(LC 9)
Max Uplift 5=39(LC 12), 4=52(LC 12)
Max Grav 5=330(LC 1), 4=241(LC 1)

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

TOP CHORD 2-5=-292/194

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) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 5, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) 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 5, 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

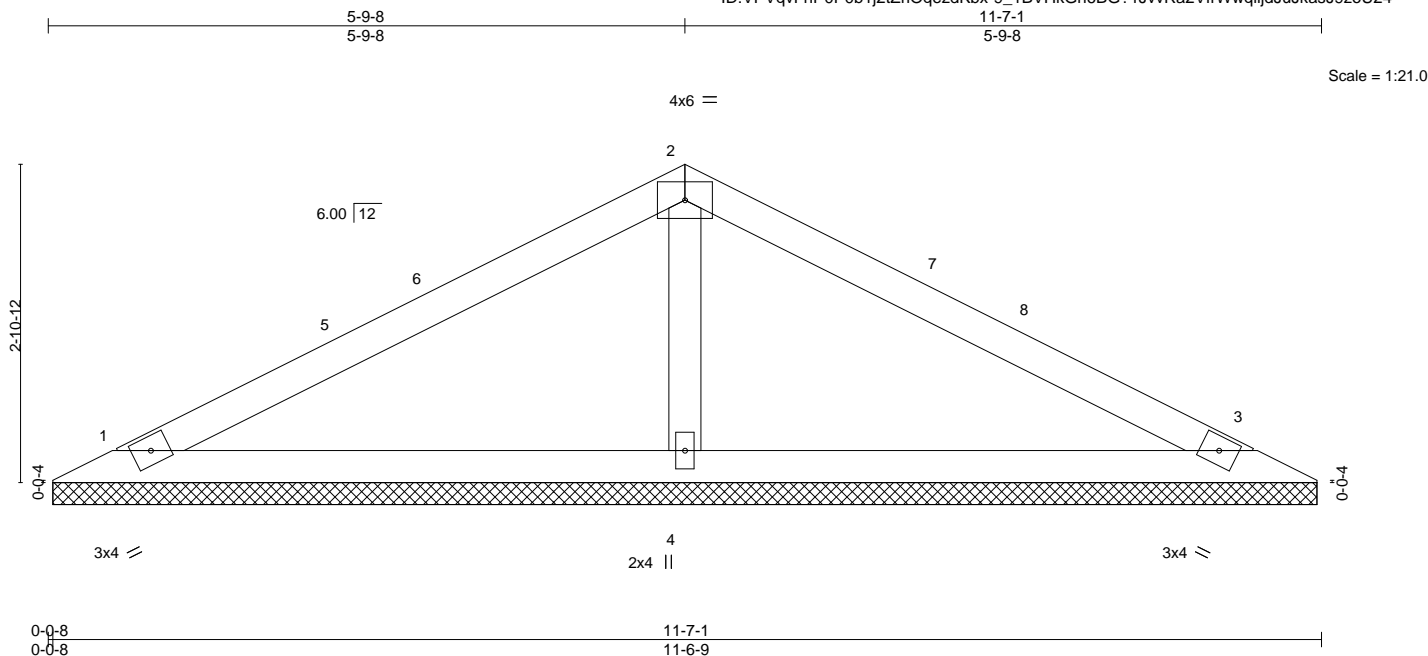


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681450
2623880	V1	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:53 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 0.38	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 29 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-6-1, 3=11-6-1, 4=11-6-1
Max Horz 1=41(LC 16)
Max Uplift 1=-33(LC 12), 3=-41(LC 13), 4=-13(LC 12)
Max Grav 1=215(LC 25), 3=215(LC 26), 4=506(LC 1)

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

WEBS 2-4=-350/169

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-8, Exterior(2R) 5-9-8 to 8-9-8, Interior(1) 8-9-8 to 10-11-8 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
- 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, 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.



February 5, 2021

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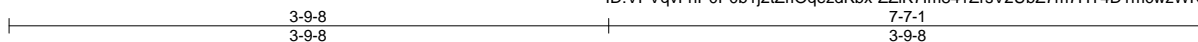
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	I44681451
2623880	V2	Valley	1	1	Job Reference (optional)	

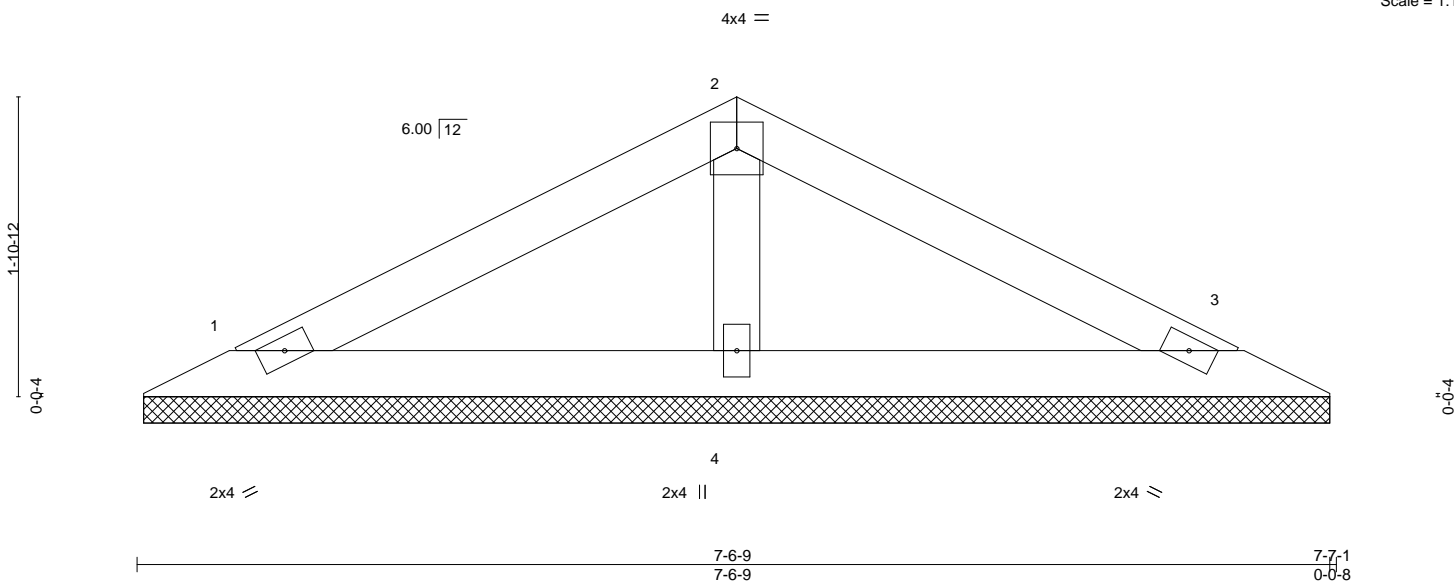
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:56 2021 Page 1

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Scale = 1:14.6



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 0.18	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	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
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=7-6-1, 3=7-6-1, 4=7-6-1
Max Horz 1=25(LC 16)
Max Uplift 1=26(LC 12), 3=31(LC 13)
Max Grav 1=145(LC 1), 3=145(LC 1), 4=279(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 5, 2021

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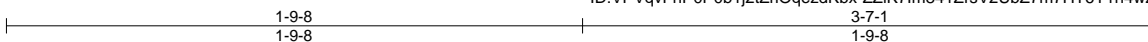
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681452
2623880	V3	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:56 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-ZZiK7Im841ZrsV2UbZ7m7HT6Y1n4wzwK?hoWvUzoU21



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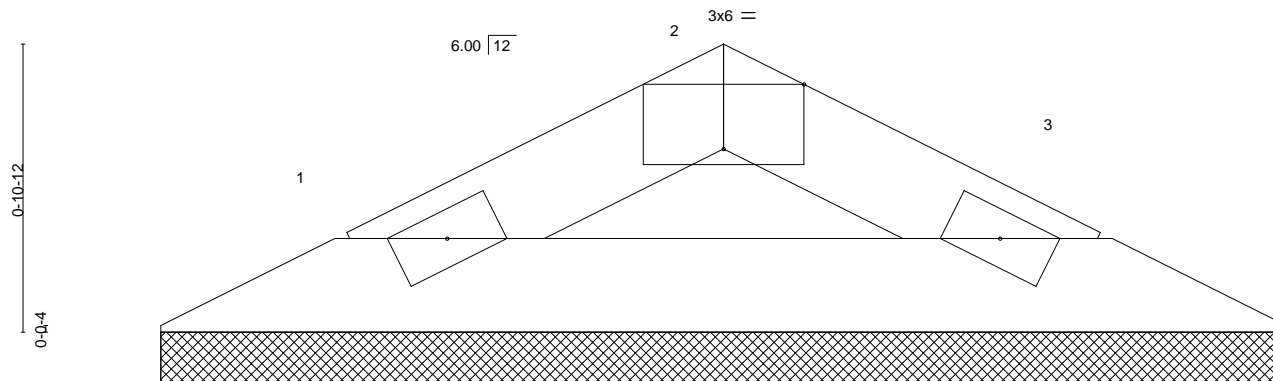


Plate Offsets (X, Y)--		[2:0-3-0, Edge]							
LOADING (psf)		SPACING--		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	2-0-0	TC	0.03	in (loc)	l/defl	MT20	GRIP
TCDL	10.0	Lumber DOL	1.15	BC	0.05	n/a	n/a		197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		0.00	3	Weight: 7 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 3-7-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-6-1, 3=3-6-1
Max Horz 1=9(LC 13)
Max Uplift 1=9(LC 12), 3=9(LC 13)
Max Grav 1=105(LC 1), 3=105(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 5, 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

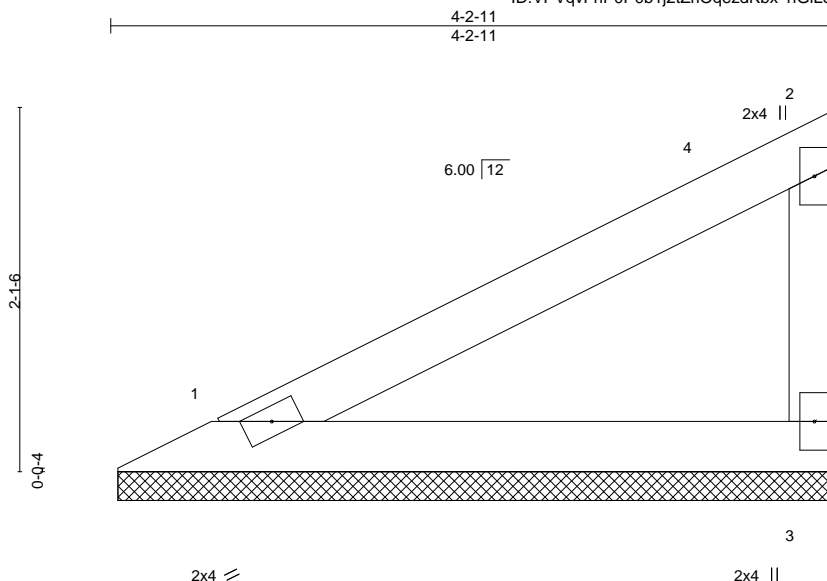
Job 2623880	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney I44681453
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:57 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-1GiLenmrLhiTecg8Hf?fv0DOR6LfQATDLY4SwzoU20



Scale = 1:13.4

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 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=4-2-3, 3=4-2-3

Max Horz 1=65(LC 9)

Max Uplift 1=-14(LC 12), 3=-30(LC 12)

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-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-0-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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 2623880	Truss V5	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney Job Reference (optional)	I44681454
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Builders FirstSource (Valley Center),

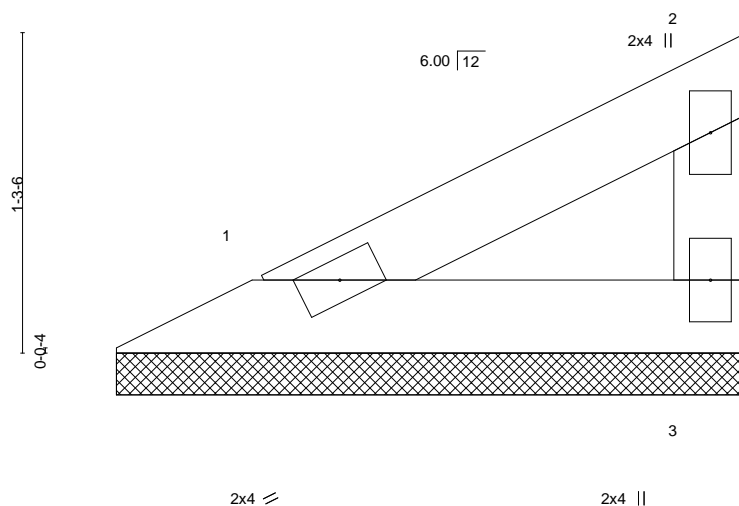
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Vyq4Y_oOcepZ5oBti_AECiYRjrSzOtQdS?Hd_MzoU2?

2-6-11
2-6-11

Scale = 1:9.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 6 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=2-6-3, 3=2-6-3

Max Horz 1=34(LC 9)

Max Uplift 1=7(LC 12), 3=16(LC 12)

Max Grav 1=80(LC 1), 3=80(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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 2623880	Truss V6	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney 144681455
Job Reference (optional)					

Builders FirstSource (Valley Center),

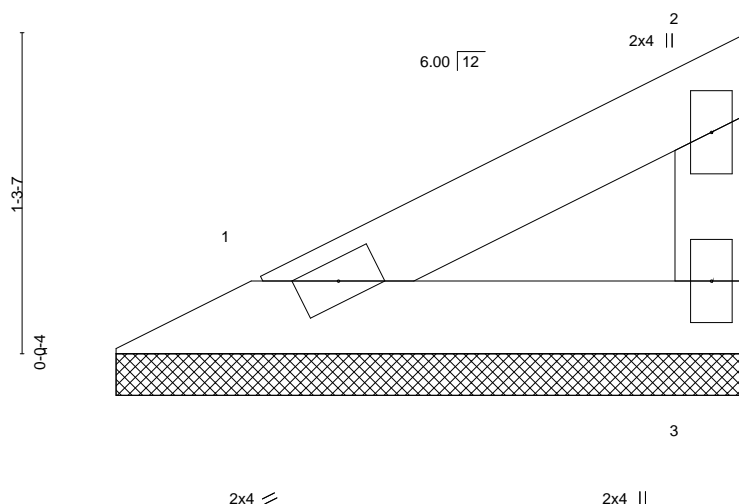
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:59 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-z8OSmKp0NyxPjym3GihTkw5cSFoB7Kgmhf1BWozoU2_

2-6-14
2-6-14

Scale = 1:9.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 6 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-14 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=2-6-6, 3=2-6-6

Max Horz 1=34(LC 9)

Max Uplift 1=7(LC 12), 3=16(LC 12)

Max Grav 1=81(LC 1), 3=81(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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

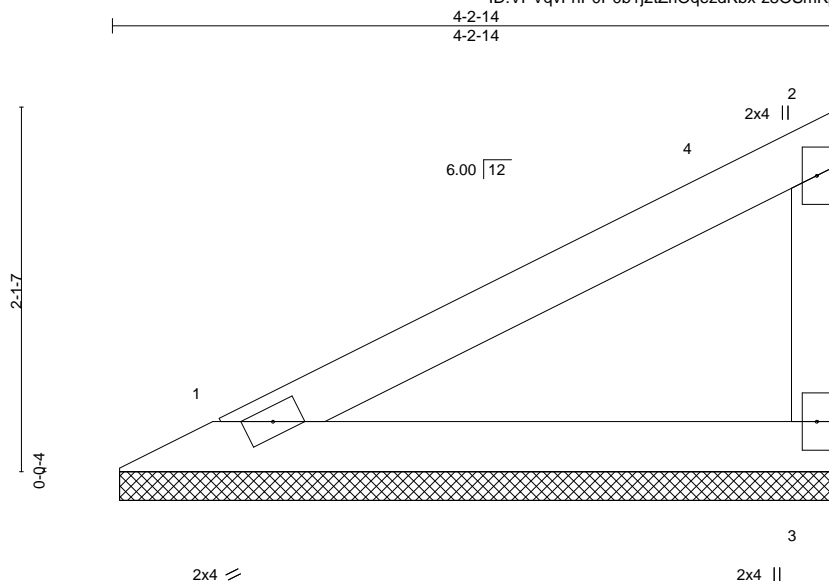


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2623880	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stony	I44681456
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:59 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-z8OSmKp0NyxPjym3GihTkW5ZsFno7Kgmhf1BWozoU2_



Scale = 1:13.4

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 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	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

BRACING-

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

REACTIONS.

(size) 1=4-2-6, 3=4-2-6
Max Horz 1=65(LC 9)
Max Uplift 1=14(LC 12), 3=30(LC 12)
Max Grav 1=156(LC 1), 3=156(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-1-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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

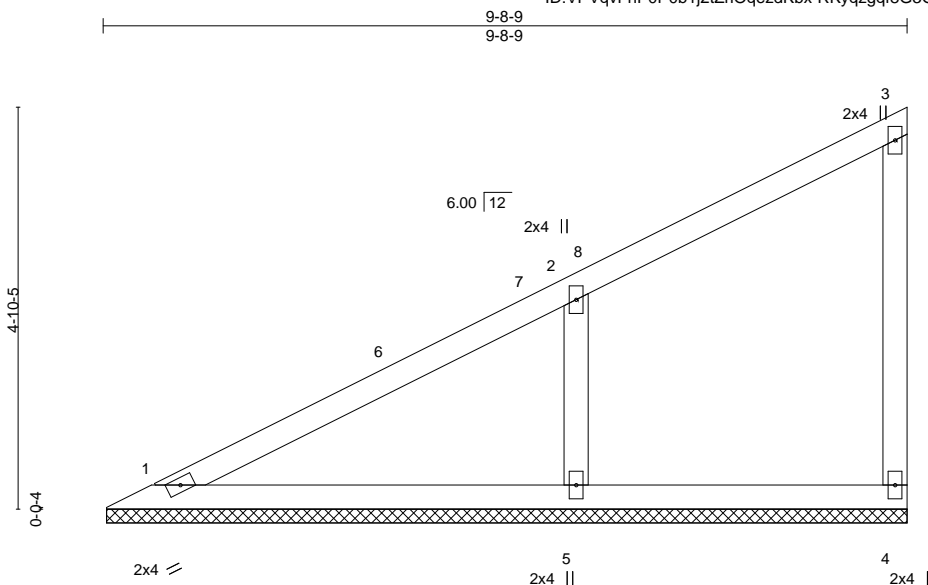
Job	Truss	Truss Type	Qty	Ply	Summit/100 Stoney	144681457
2623880	V8	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:20:00 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-RKyqzggf8G3GK6LFqPCiH7divf69snzvwJmk1FzoU1z



Scale = 1:27.8

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 0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	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
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=9-8-1, 4=9-8-1, 5=9-8-1
Max Horz 1=167(LC 11)
Max Uplift 4=22(LC 9), 5=97(LC 12)
Max Grav 1=185(LC 1), 4=115(LC 1), 5=504(LC 1)

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

WEBS 2-5=-381/241

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-6-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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/100 Stoney	I44681458
2623880	V9	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

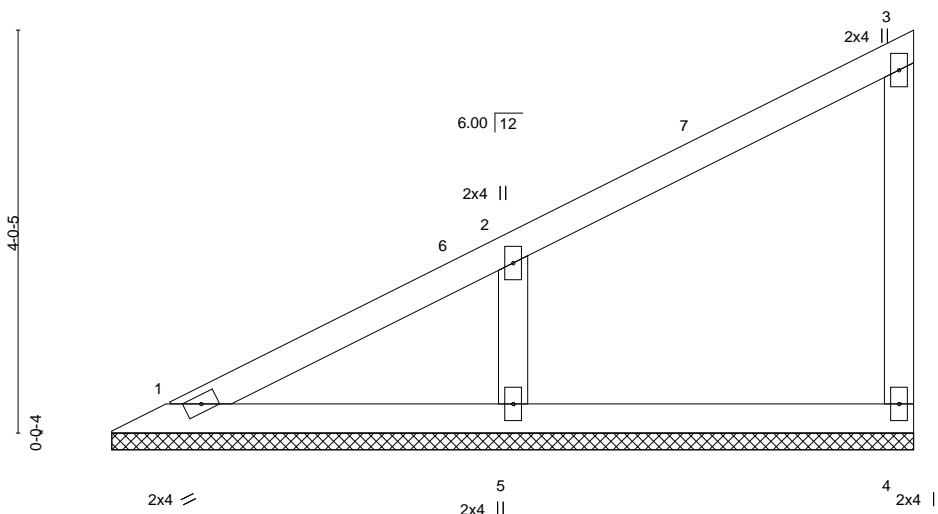
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:20:01 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-wXWDA0qHvZB7yGwRN6jxqLAvN2TMbEW38zWHahzoU1y

8-0-9

8-0-9

Scale = 1:23.0



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 0.22	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999	197/144
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: 24 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-0-1, 4=8-0-1, 5=8-0-1
Max Horz 1=136(LC 9)
Max Uplift 4=20(LC 9), 5=90(LC 12)
Max Grav 1=115(LC 20), 4=135(LC 1), 5=410(LC 1)

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

WEBS 2-5=-319/234

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 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

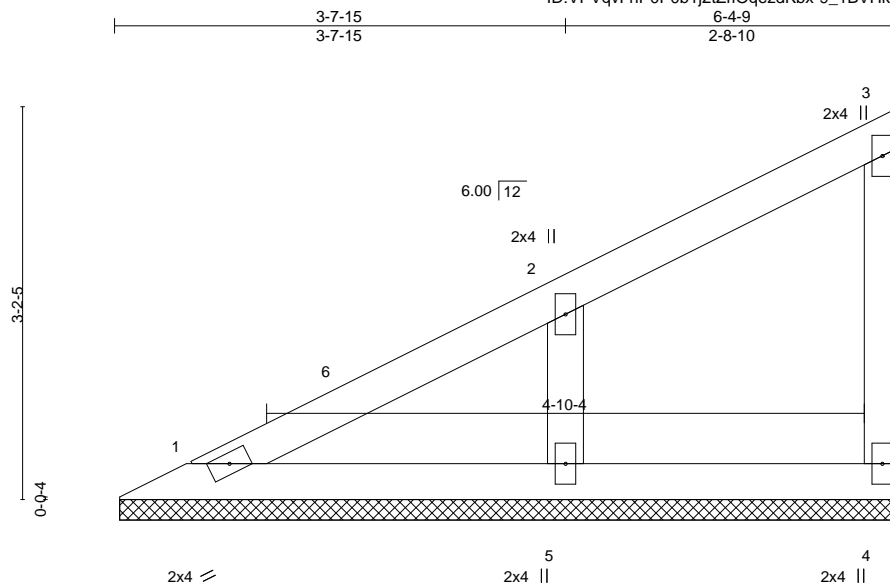
Job 2623880	Truss V10	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney	144681459
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:53 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-9_1BVHkGn6BG?1JvvRa2VfrZiqkBJdbuJkasJ9zoU24



Scale = 1:18.7

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 0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	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: 19 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-4-1, 4=6-4-1, 5=6-4-1
Max Horz 1=105(LC 9)
Max Uplift 4=14(LC 9), 5=77(LC 12)
Max Grav 1=107(LC 1), 4=81(LC 1), 5=317(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-15, Interior(1) 3-7-15 to 6-2-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 2021

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

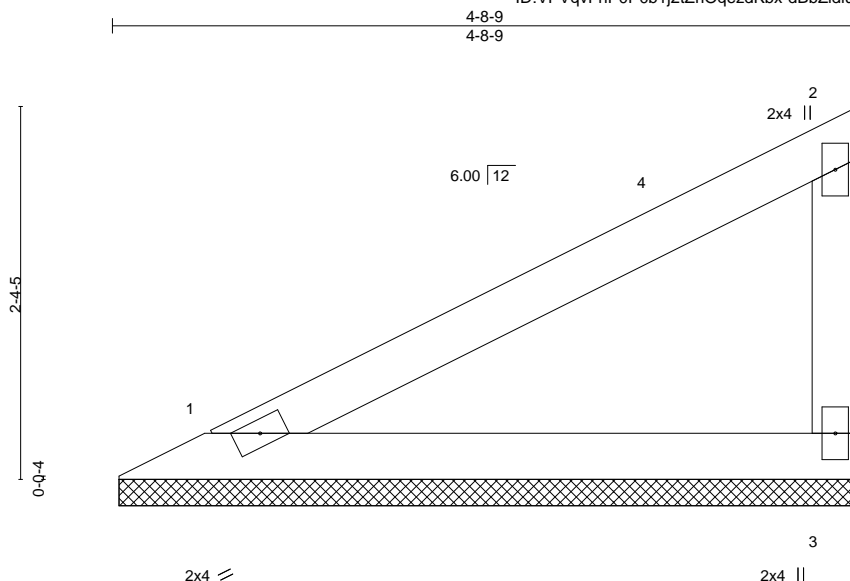
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 2623880	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney I44681460
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:54 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-dBbZidluYQJ7cBu5T85H1sOi1E31S4R1XNJQrbzoU23



Scale = 1:14.6

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 0.29	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 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 4-8-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-8-1, 3=4-8-1
Max Horz 1=74(LC 9)
Max Uplift 1=-16(LC 12), 3=-34(LC 12)
Max Grav 1=177(LC 1), 3=177(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-6-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 5, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2623880	Truss V12	Truss Type Valley	Qty 1	Ply 1	Summit/100 Stoney Job Reference (optional)	I44681461
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

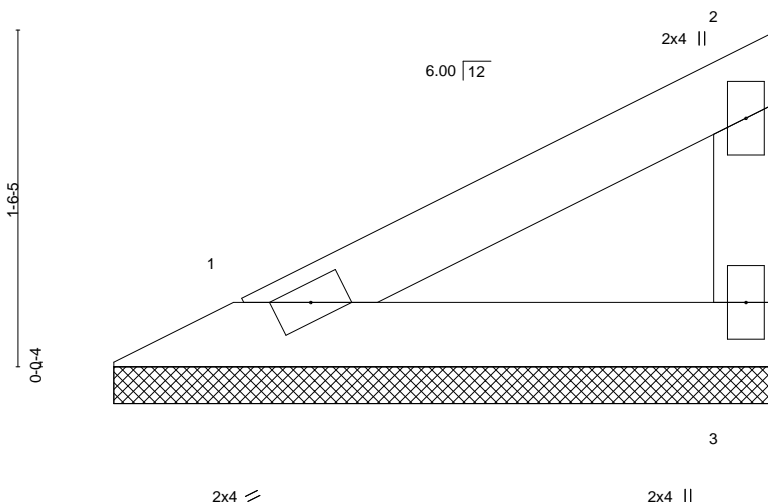
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 15:19:55 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-5N8xwzmWjR_ELTI1scWa4wwveRyBWhAm13zN1zoU22

3-0-9

3-0-9

Scale = 1:10.4



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 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 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 3-0-9 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=3-0-1, 3=3-0-1

Max Horz 1=43(LC 9)

Max Uplift 1=9(LC 12), 3=20(LC 12)

Max Grav 1=102(LC 1), 3=102(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

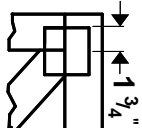
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



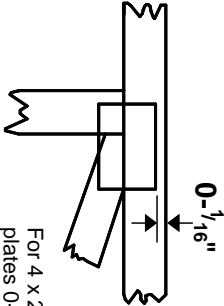
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

—
—
This symbol indicates the required direction of slots in connector plates.

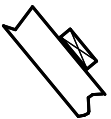
* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

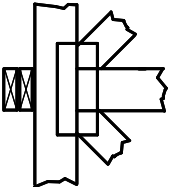
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



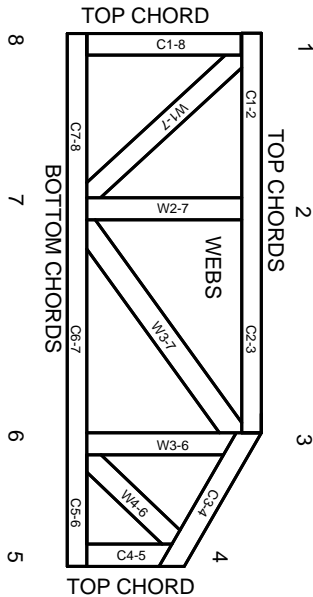
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/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.