



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

12/02/2020

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 2534894
Summit/53 Manor

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

Pages or sheets covered by this seal: I43584111 thru I43584163

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

Missouri COA: Engineering 001193



November 12, 2020

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/53 Manor	
2534894	A1	Roof Special	1	1		I43584111

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:58:54 2020 Page 1

ID:MdD9ycyFdydMUJW7?YBug7z82D4-c0V9h69EM1m0M9HhRiV3c8gghnZ3CczoSYmKtFYKHx?

-0-10-8	7-1-11	14-3-0	18-0-5	21-10-0	25-9-11	28-6-0
0-10-8	7-1-11	7-1-5	3-9-5	3-9-11	3-11-11	2-8-5

Scale = 1:50.9

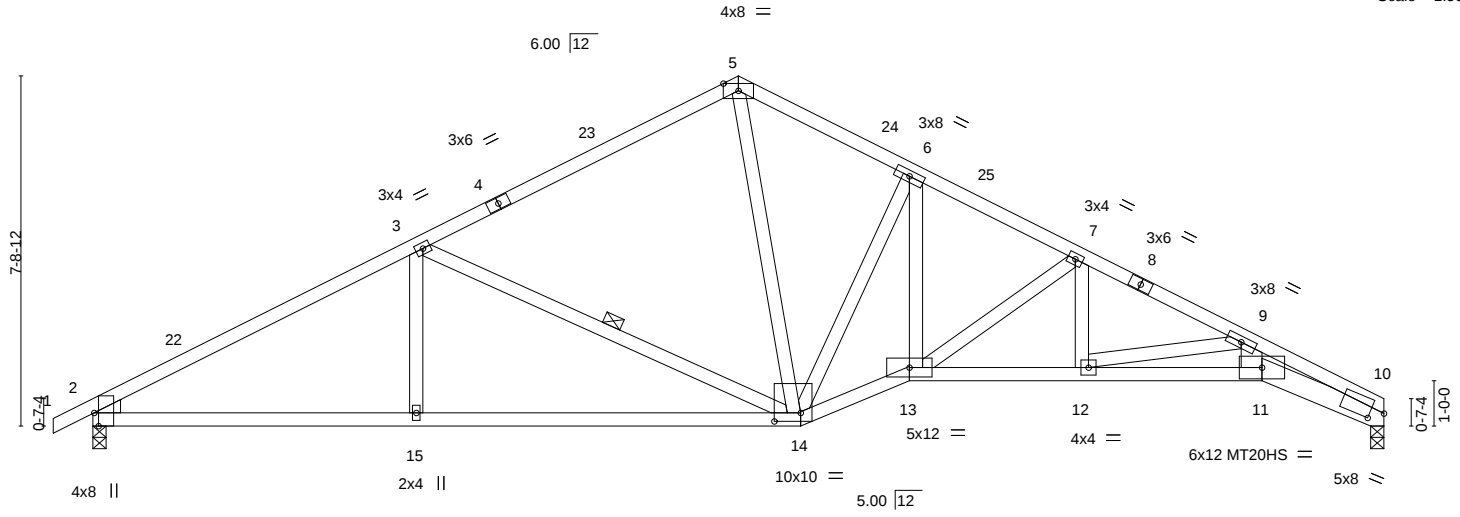


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [10:0-3-9,0-2-12], [14:0-7-0,0-2-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	Vert(LL)	-0.19 14-15	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.82	Vert(CT)	-0.44 14-15	>775	180	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.83	Horz(CT)	0.17 10	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 120 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
11-13: 2x4 SPF 1650F 1.5E, 10-11: 2x6 SPF No.2	WEBS 1 Row at midpt 3-14
WEBS 2x4 SPF No.2 *Except*	
9-11: 2x6 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=142(LC 13)
Max Uplift 2=-131(LC 14), 10=-104(LC 14)
Max Grav 2=1199(LC 19), 10=1141(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1961/281, 3-5=-1288/264, 5-6=-1388/296, 6-7=-1927/319, 7-9=-2563/367,
9-10=-4366/589
BOT CHORD 2-15=-187/1681, 14-15=-187/1681, 13-14=-165/1842, 12-13=-245/2283, 11-12=-453/3511,
10-11=-505/3974
WEBS 3-15=0/316, 3-14=-737/148, 5-14=-118/797, 6-14=-1289/191, 6-13=-118/1117,
9-11=-112/1102, 7-12=-15/424, 7-13=-750/126, 9-12=-1253/212

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 2 and 104 lb uplift at joint 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.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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/53 Manor	I43584112
2534894	A2	Roof Special	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:58:56 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-YPdv6nAUt0kbTR4Z7YXhZmB_aDsgXu5wsFRxYyKHwz

0-10-8 2-10-0 7-1-11 7-10-0 12-10-0 14-3-0 21-4-5 21-10-8 25-7-0 28-6-0
0-10-8 2-10-0 4-3-11 0-8-5 5-0-0 1-5-0 7-1-5 0-6-3 3-8-8 2-11-0

Scale = 1:54.3

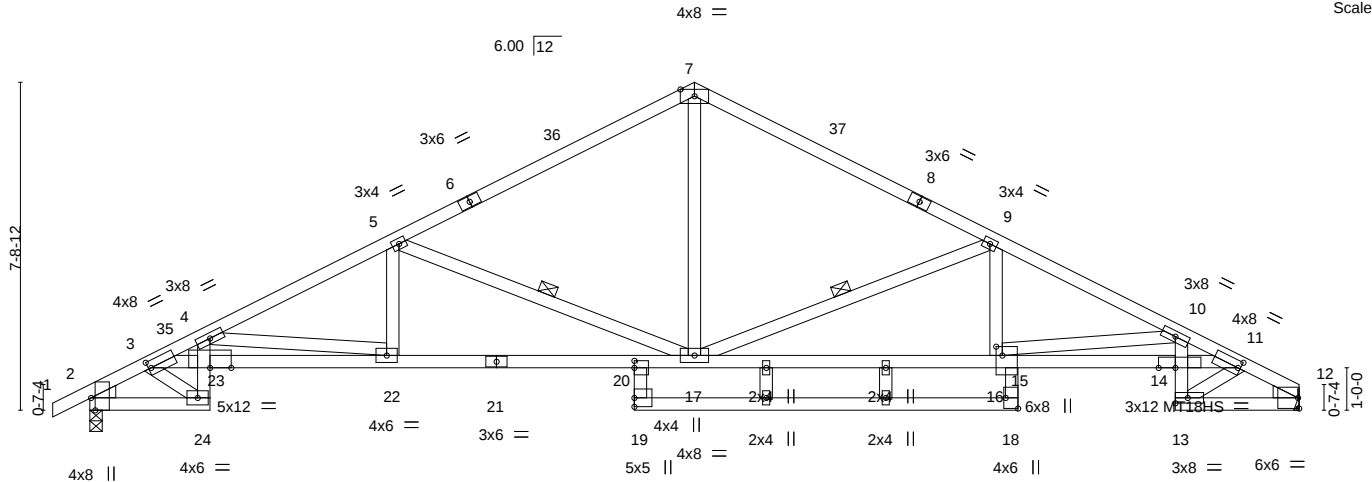


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-0-12,0-2-0], [11:0-0-12,0-2-0], [12:0-5-0,0-0-3], [12:0-0-3,0-0-1], [14:0-4-12,0-0-0], [15:0-2-8,0-1-12], [15:0-0-0,0-1-12], [18:Edge,0-3-8], [20:0-2-0,0-0-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.25 18-19	>999	240	MT20	197/144
(Roof Snow=20.0)	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.60 18-19	>569	180	MT18HS	197/144
TCDL 10.0	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.30 12	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS						
BCDL 10.0								Weight: 133 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
21-23,14-21: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-17, 9-17

REACTIONS.

(size) 2=0-3-8, 12=Mechanical
Max Horz 2=142(LC 13)
Max Uplift 2=-131(LC 14), 12=-104(LC 14)
Max Grav 2=1199(LC 19), 12=1145(LC 20)

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

TOP CHORD 2-3=-1761/243, 3-4=-3885/506, 4-5=-2562/353, 5-7=-1542/280, 7-9=-1542/283,
9-10=-2526/366, 10-11=-3850/524, 11-12=-1781/262
BOT CHORD 2-24=-183/1414, 23-24=-96/814, 4-23=-79/797, 22-23=-474/3820, 20-22=-253/2292,
17-20=-251/2224, 16-17=-243/2182, 15-16=-471/3722, 14-15=-473/3798, 13-14=-95/798,
10-14=-73/813, 12-13=-194/1437
WEBS 3-23=-372/2992, 3-24=-1231/161, 11-14=-371/2981, 11-13=-1255/166, 5-22=0/485,
7-17=-82/879, 5-17=-1143/195, 9-16=0/444, 9-17=-1108/199, 4-22=-1592/224,
10-16=-1607/230

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 2 and 104 lb uplift at joint 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584113
2534894	A3	Roof Special	2	1	Job Reference (optional)	

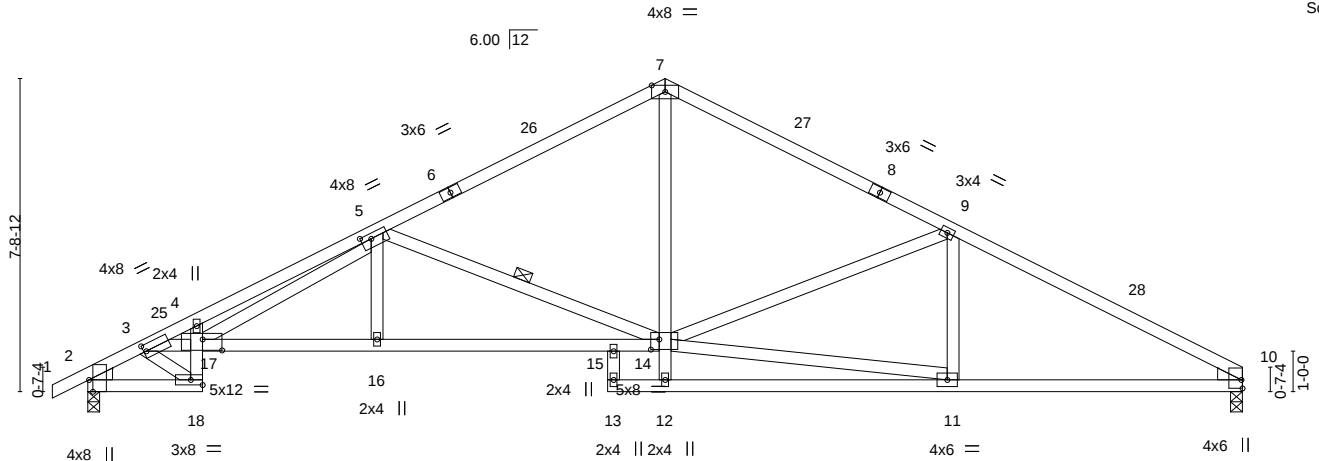
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:mDd9ycyFdydMUJW7?YBug7z82D4-0bBHJ7B6ey8bDd?G7r3mEnJt_YFP_KE8W_?T_yKHwy

0-10-8 2-10-0 7-1-11 7-10-0 12-10-0 14-3-0 21-4-5 28-6-0
0-10-8 2-10-0 4-3-11 0-8-5 5-0-0 1-5-0 7-1-5 7-1-11

Scale = 1:56.9



2-10-0 7-1-11 12-10-0 14-3-0 21-4-5 28-6-0
2-10-0 4-3-11 5-8-5 1-5-0 7-1-5 7-1-11

Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-0-12,0-2-0], [5:0-3-1,0-1-8], [10:Edge,0-0-5], [10:0-0-3,0-5-0], [10:0-0-1,0-0-3], [14:0-2-8,0-3-0], [17:0-5-12,0-3-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.20 16-17 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.72	Vert(CT) -0.40 16-17 >854 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.22 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 124 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-14

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=142(LC 13)
Max Uplift 2=-131(LC 14), 10=-104(LC 14)
Max Grav 2=1199(LC 19), 10=1145(LC 20)

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

TOP CHORD 2-3=-1770/244, 3-4=-3841/499, 4-5=-4064/556, 5-7=-1560/274, 7-9=-1530/276, 9-10=-1956/291
BOT CHORD 2-18=-184/1425, 17-18=-95/825, 16-17=-259/2295, 15-16=-259/2293, 14-15=-219/2237, 10-11=-184/1678
WEBS 12-14=0/337, 7-14=-81/886, 5-16=0/289, 5-14=-1131/209, 11-14=-153/1566, 9-14=-491/138, 3-17=-362/2943, 3-18=-1253/161, 5-17=-210/1646

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 2 and 104 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss A4	Truss Type Roof Special	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584114
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:58:59 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-y_J2kpDNAaOISw9fEG5EJCOFw0l0ty2XcqT5YsyKHww

-0-10-8	7-1-11	14-3-0	15-3-0	17-6-8	23-0-1	28-6-0
0-10-8	7-1-11	7-1-5	1-0-0	2-3-8	5-5-9	5-5-15

Scale = 1:54.2

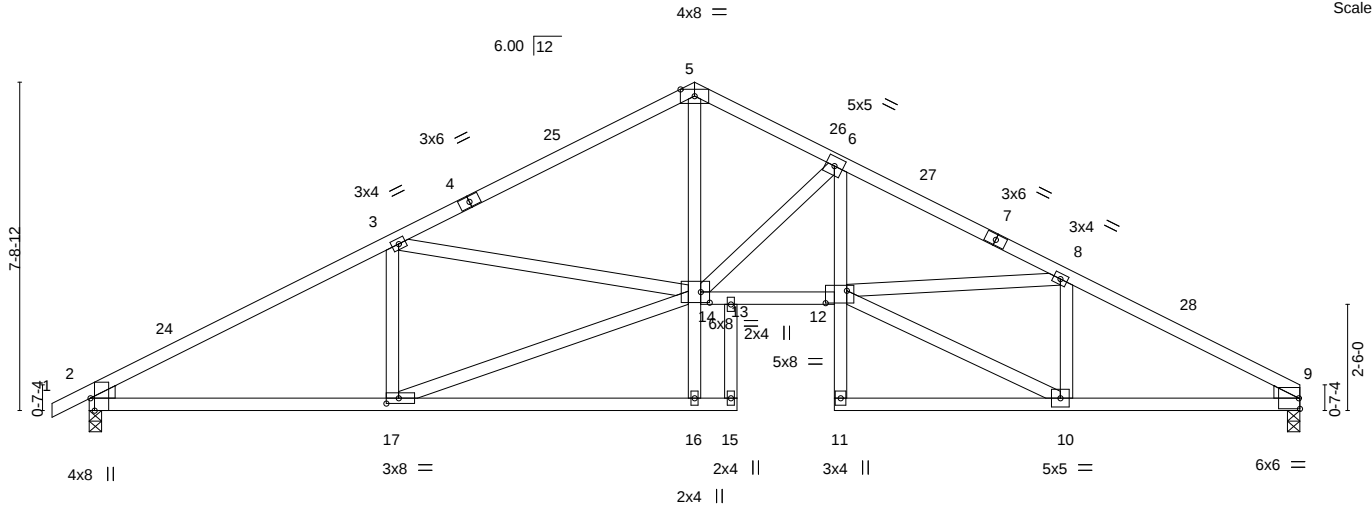


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-0-5-0], [2:0-3-8,Edge], [9:0-0-3,0-0-1], [9:0-5-0,0-0-3], [12:0-6-0,0-3-8], [14:0-2-8,0-3-0], [17:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.85	Vert(LL)	-0.15 12-13	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.64	Vert(CT)	-0.30 12-13	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.45	Horz(CT)	0.16 9	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 130 lb	FT = 20%

LUMBER-

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

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 9=0-3-8
Max Horz 2=142(LC 13)
Max Uplift 2=-131(LC 14), 9=-104(LC 14)
Max Grav 2=1199(LC 19), 9=1141(LC 20)

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

TOP CHORD 2-3=-1953/286, 3-5=-1945/293, 5-6=-1928/320, 6-8=-2820/393, 8-9=-1966/291
BOT CHORD 2-17=-191/1674, 13-14=-198/2420, 12-13=-201/2455, 6-12=-76/876, 9-10=-199/1691
WEBS 3-17=-441/125, 6-14=-1183/178, 8-10=-734/144, 14-16=0/302, 5-14=-145/1344,
14-17=-202/1711, 10-12=-224/1820, 8-12=-16/779

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 131 lb uplift at joint 2 and 104 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	
2534894	A6	Common	1	1		I43584116
Job Reference (optional)						

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

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ID:mDd9ycyFdydMUJW7?YBug7z82D4-uMRo9VEdiBe0iEJ1Mg7iOdT0TbzKLxvq38yCclyKHwu

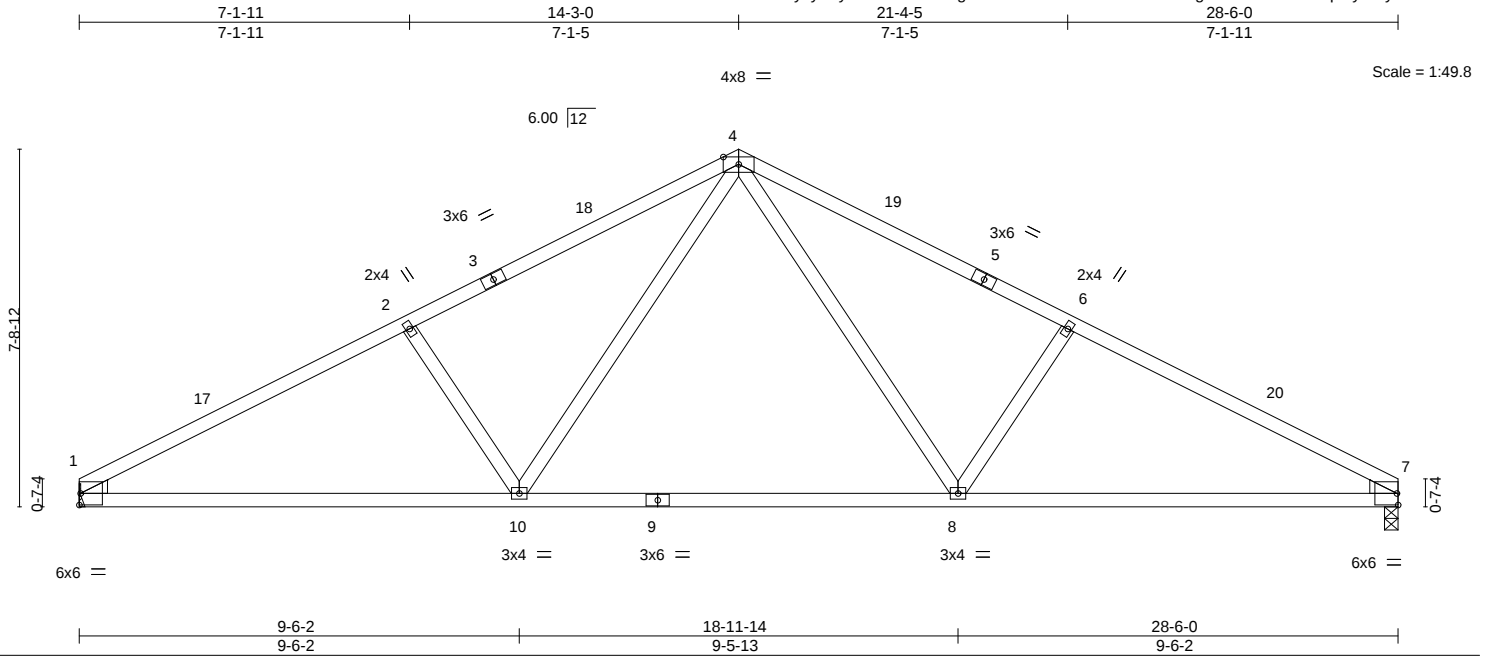


Plate Offsets (X,Y)--		[1:0-0-3,0-0-1], [1:0-5-0,0-0-3], [7:0-0-3,0-0-1], [7:0-5-0,0-0-3]
LOADING (psf)	SPACING-	CSI.
TCLL 20.0	2-0-0	TC 0.82
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.72
TCDL 10.0	Lumber DOL 1.15	WB 0.17
BCLL 0.0	Rep Stress Incr YES	Matrix-AS
BCDL 10.0	Code IRC2018/TPI2014	
DEFL.	in (loc)	l/defl
Vert(LL)	-0.14 8-10	>999 240
Vert(CT)	-0.32 8-10	>999 180
Horz(CT)	0.06 7	n/a n/a
PLATES	GRIP	
MT20	197/144	
Weight: 100 lb		FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2	

REACTIONS.	(size) 1=Mechanical, 7=0-3-8
Max Horz	1=136(LC 13)
Max Uplift	1=104(LC 14), 7=104(LC 14)
Max Grav	1=1145(LC 18), 7=1145(LC 19)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-1943/303, 2-4=-1721/325, 4-6=-1721/324, 6-7=-1943/303
BOT CHORD	1-10=-201/1670, 8-10=-70/1108, 7-8=-194/1670
WEBS	4-8=-74/676, 6-8=-462/169, 4-10=-74/676, 2-10=-462/169

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 1 and 104 lb uplift at joint 7.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) 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.



November 12, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	
2534894	A7	Common	5	1		I43584117
Job Reference (optional)						

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

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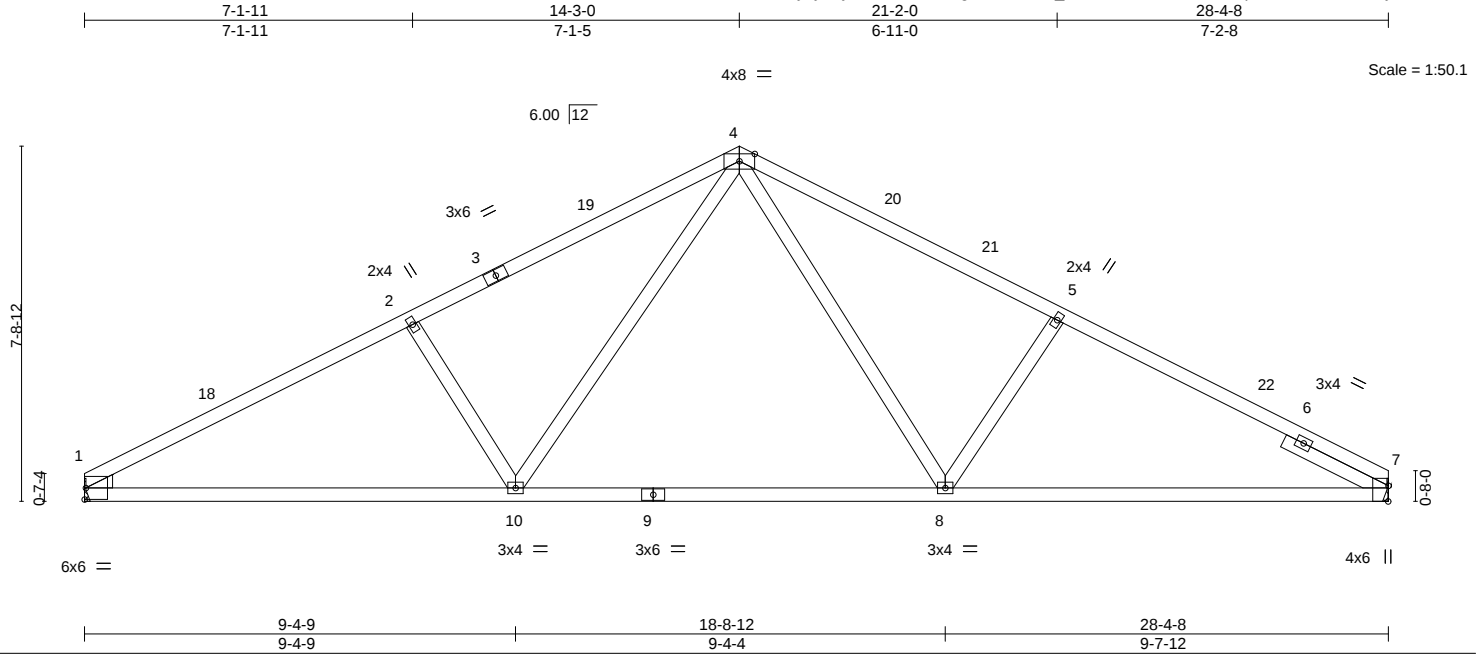


Plate Offsets (X,Y)-- [1:0-5-0,0-0-3], [1:0-0-3,0-0-1], [7:0-4-1,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.82	Vert(LL)	-0.13 8-10	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.72	Vert(CT)	-0.30 8-10	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.17	Horz(CT)	0.06 7	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 102 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 1=Mechanical
Max Horz 1=-140(LC 12)
Max Uplift 7=-104(LC 14), 1=-104(LC 14)
Max Grav 7=1136(LC 19), 1=1141(LC 18)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1936/302, 2-4=-1725/328, 4-5=-1668/321, 5-7=-1852/300
BOT CHORD 1-10=-203/1663, 8-10=-71/1099, 7-8=-189/1614
WEBS 2-10=-461/170, 4-10=-80/683, 4-8=-71/647, 5-8=-439/165

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 7 and 104 lb uplift at joint 1.
- This truss 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584118
2534894	AG1	GABLE	1	1	Job Reference (optional)	

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

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ID:mDd9ycyFdydMUJW7?YBug7z82D4-rlyZaBGtEoukxYTQT5AAT2YQzPiTpj37XRRJheyKHws

0-10-8 7-1-11 14-3-0 18-0-5 25-9-11 28-6-0 29-4-8
0-10-8 7-1-11 7-1-5 3-9-5 7-9-6 2-8-5 0-10-8

Scale = 1:52.9

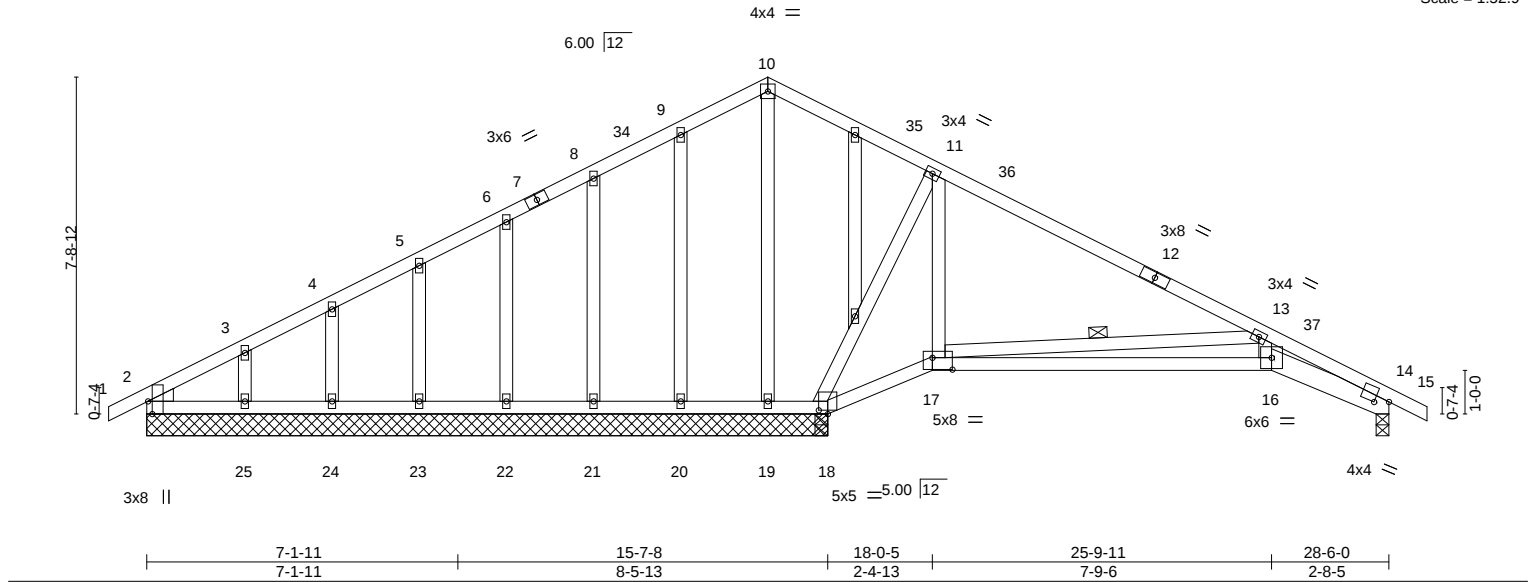


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [14:0-3-13,0-1-9], [17:0-5-8,0-3-4], [18:0-2-8,0-1-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.57		Vert(LL) -0.11 16-17 >999 240		MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.48		Vert(CT) -0.25 16-17 >618 180			
TCDL 10.0		Rep Stress Incr YES		WB 0.64		Horz(CT) 0.03 14 n/a n/a			
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS				Weight: 134 lb FT = 20%	
BCDL 10.0									

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
14-16: 2x6 SPF No.2	WEBS 1 Row at midpt 13-17
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS.	All bearings 15-7-8 except (jt=length) 14=0-3-8.
(lb) - Max Horz	2=-144(LC 12)
Max Uplift	All uplift 100 lb or less at joint(s) 14, 20, 21, 22, 23, 24, 25 except 2=-264(LC 20), 18=-101(LC 14), 2=-193(LC 1)
Max Grav	All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24 except 18=665(LC 20), 18=573(LC 1), 14=317(LC 20), 19=691(LC 20), 20=255(LC 19), 25=282(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-145/618, 3-4=-109/594, 4-5=-78/600, 5-6=-44/599, 6-8=-12/599, 8-9=0/602, 9-10=0/598, 10-11=0/618, 11-13=-31/441, 13-14=-943/98
BOT CHORD	2-25=-523/157, 24-25=-523/157, 23-24=-523/157, 22-23=-523/157, 21-22=-523/157, 20-21=-523/157, 19-20=-523/157, 18-19=-523/157, 17-18=-341/147, 16-17=-75/800, 14-16=-49/893
WEBS	11-18=-595/87, 13-17=-1080/193, 13-16=0/452, 10-19=-663/0

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-3-0, Interior(1) 2-3-0 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 29-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Gable studs spaced at 2-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

Continued on page 2



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Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor
2534894	AG1	GABLE	1	1	I43584118
Job Reference (optional)					

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020
MiTek Industries, Inc.
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- NOTES-**
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 20, 21, 22, 23, 24, 25 except (jt=lb) 2=264, 18=101, 2=264.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	
2534894	AG2	Common Structural Gable	1	1		I43584119

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

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ID:mDd9ycyFdydMUJW7?YBug7z82D4-n8gJ?sH8mQ8SArdobWCfYTDhYCK9HlzQ_lwQIWYKHwq

0-10-8 7-1-11 14-3-0 21-2-0 28-4-8
0-10-8 7-1-11 7-1-5 6-11-0 7-2-8

Scale = 1:51.9

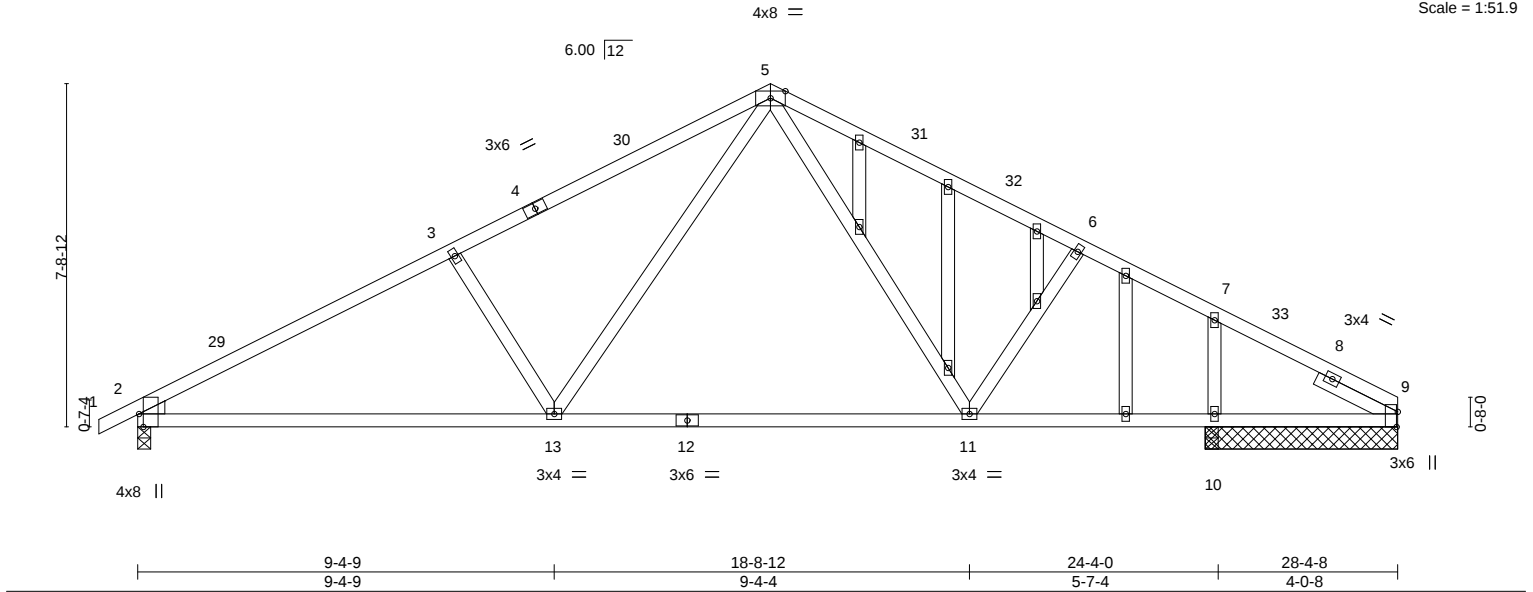


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [9:0-4-1,Edge]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.82		Vert(LL) -0.17 11-13 >999 240			MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.73		Vert(CT) -0.39 11-13 >750 180				
TCDL 10.0		Rep Stress Incr YES		WB 0.17		Horz(CT) 0.07 9 n/a n/a				
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS					Weight: 118 lb FT = 20%	
BCDL 10.0										

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 2-0-0	

REACTIONS. All bearings 4-4-0 except (jt=length) 2=0-3-8.
(lb) - Max Horz 2=147(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 2=127(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 10, 10 except 9=1016(LC 20),
2=1173(LC 19), 9=965(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1888/288, 3-5=-1678/314, 5-6=-1559/291, 6-7=-1680/268, 7-9=-1718/230
BOT CHORD 2-13=-190/1619, 11-13=-59/1042, 10-11=-159/1490, 9-10=-159/1490
WEBS 3-13=-456/169, 5-13=-78/687, 5-11=-56/547, 6-11=-379/141

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=28ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-3-0, Exterior(2R) 14-3-0 to 17-3-0, Interior(1) 17-3-0 to 28-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10, 9 except (jt=lb) 2=127.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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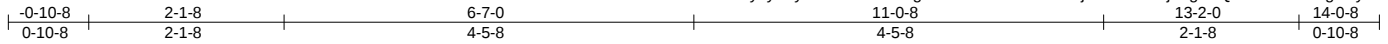
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584120
2534894	B1	Roof Special	1	1	Job Reference (optional)	

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

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ID:mDd9ycyFdydMUJW7?YBug7z82D4-FKEhCCImXjGJo?C?8Eju5gAuQcdS0CeZDPgzlyKHwp



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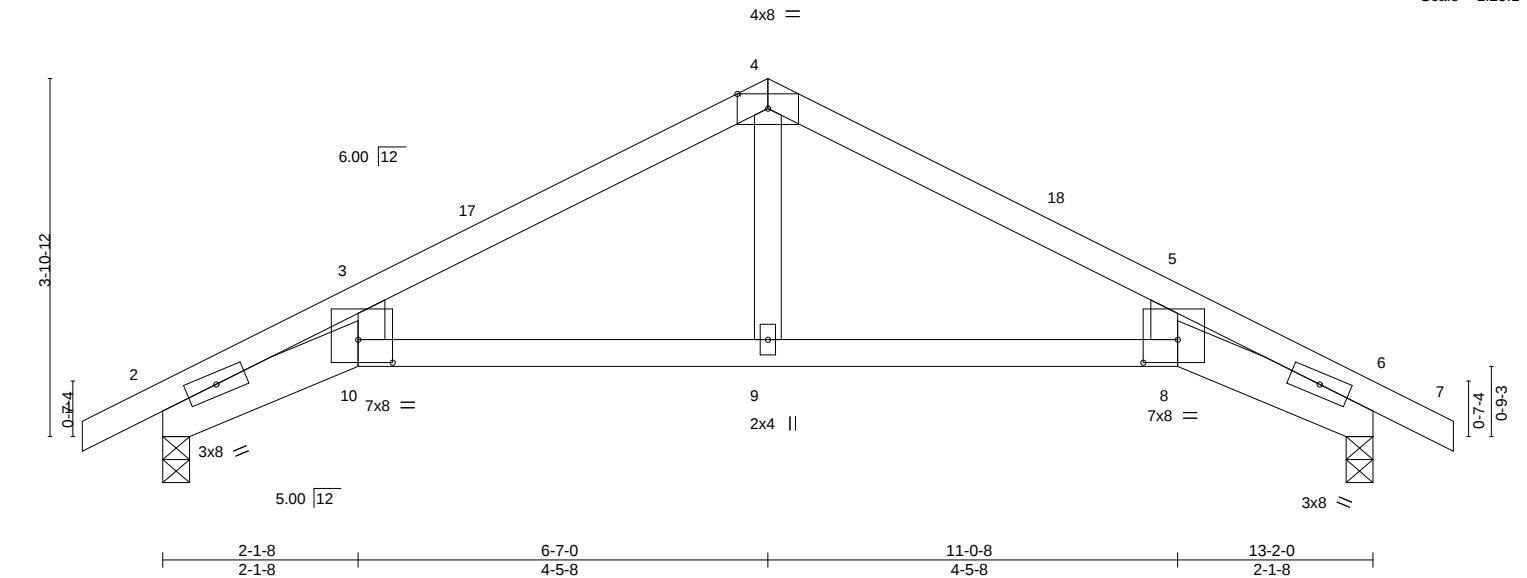


Plate Offsets (X,Y)-- [3:0-1-12,0-0-14], [5:0-1-12,0-0-14], [8:0-4-8,0-3-0], [10:0-4-8,0-3-0]

LOADING (psf)	SPACING-	CSi.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.68	Vert(LL)	-0.18 9-10	>871	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.91	Vert(CT)	-0.29 9-10	>551	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.14 6	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
8-10: 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-71(LC 12)
Max Uplift 2=-75(LC 14), 6=-75(LC 14)
Max Grav 2=662(LC 19), 6=662(LC 20)

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

TOP CHORD 2-3=-1052/241, 3-4=-898/289, 4-5=-898/289, 5-6=-1052/241
BOT CHORD 2-10=-129/867, 9-10=-137/787, 8-9=-137/787, 6-8=-129/867
WEBS 4-9=-31/338

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-3-4, Interior(1) 2-3-4 to 6-7-0, Exterior(2R) 6-7-0 to 9-7-0, Interior(1) 9-7-0 to 14-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 6 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) 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.



November 12, 2020

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

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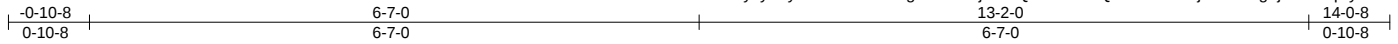
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss BG	Truss Type GABLE	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584121
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:07 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-jW03QYJOI1PAQ9mBixE7eujCZ0BKlgbjS3PWqPyKHwo



Scale = 1:24.9

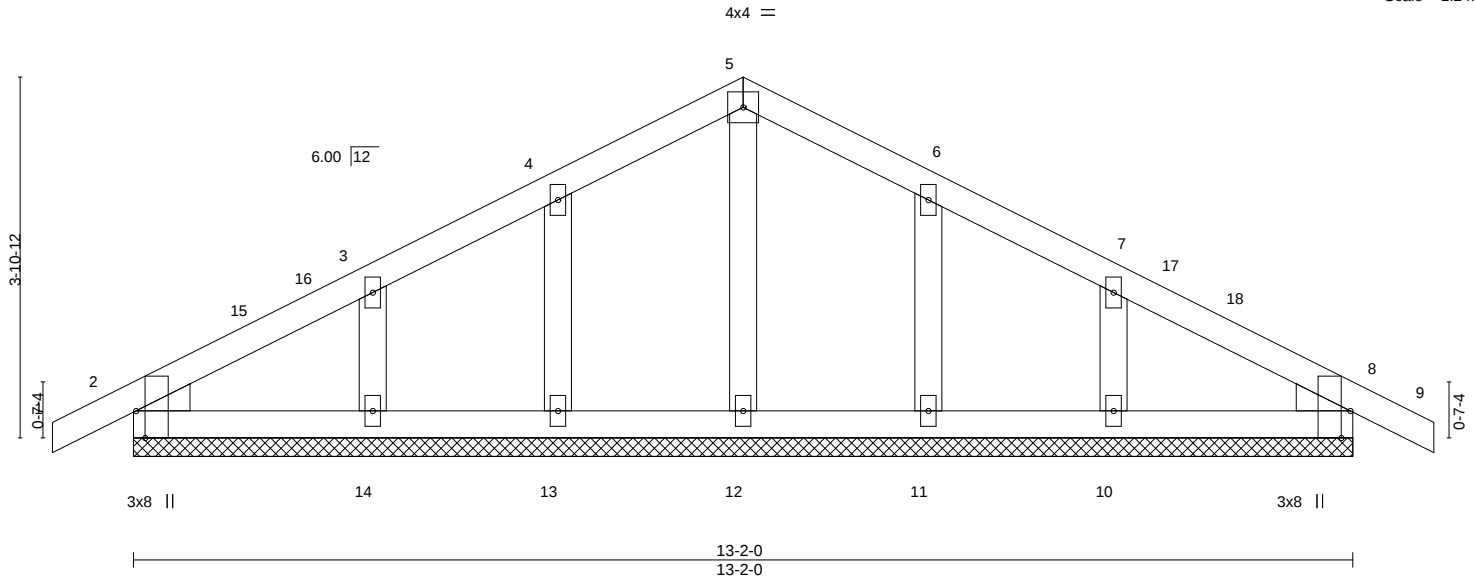


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [8:0-0-1,0-0-3], [8:0-0-3,0-5-0], [8:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	Vert(LL)	0.00	8	n/r	120	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	0.00	9	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 48 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 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 13-2-0.
(lb) - Max Horz 2=-71(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=266(LC 19), 10=266(LC 20)

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; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-7-0, Corner(3R) 6-7-0 to 9-7-0, Exterior(2N) 9-7-0 to 14-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) TCCL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- 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.



November 12, 2020

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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/53 Manor	I43584122
2534894	C	Diagonal Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:09 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-fvvqrEKeqefufTwaqMHbjJoOfqIGDaa?vNuduHyKHwm

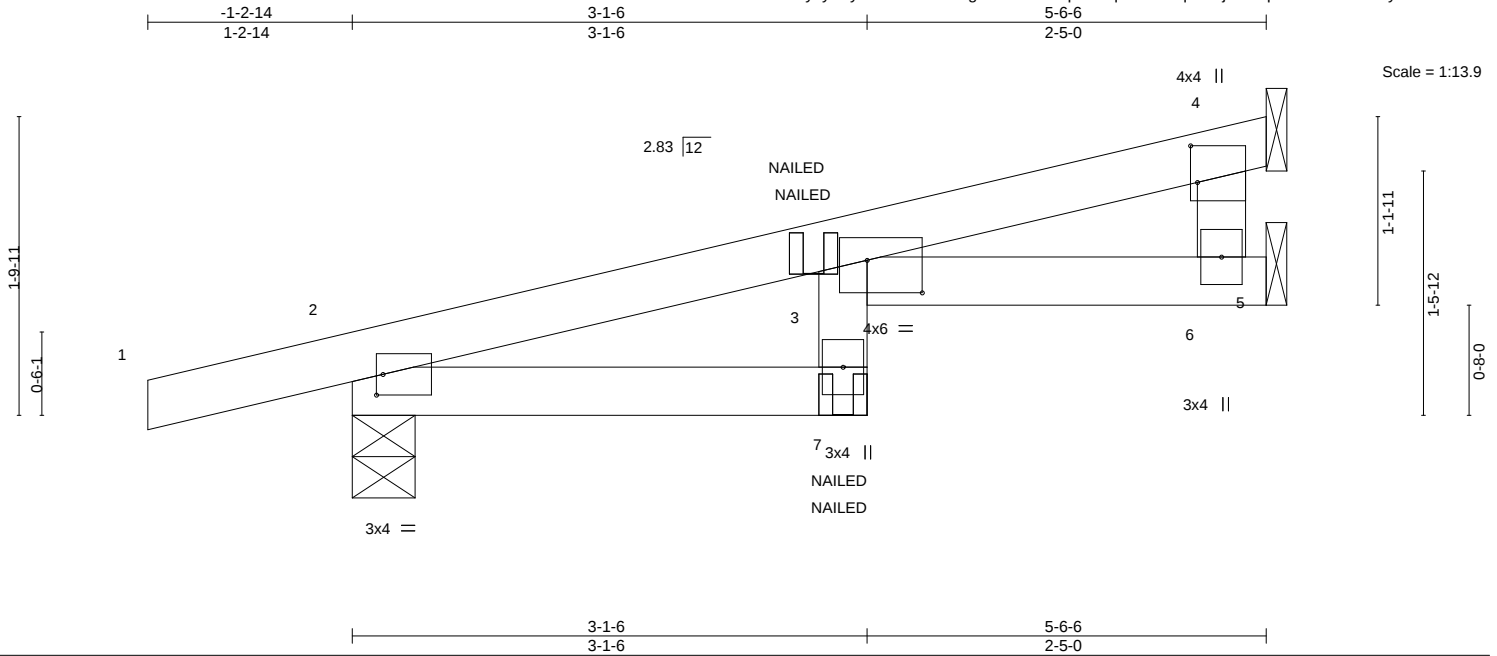


Plate Offsets (X,Y)-- [2:0-0-8,0-1-8], [3:0-4-0,0-2-6], [4:0-2-11,0-0-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.75		Vert(LL) -0.08 7 >781 240				MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.46		Vert(CT) -0.13 7 >484 180					
TCDL 10.0		Rep Stress Incr NO		WB 0.00		Horz(CT) 0.06 6 n/a n/a					
BCLL 0.0		Code IRC2018/TPI2014		Matrix-MR						Weight: 16 lb FT = 20%	
BCDL 10.0											

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 6=Mechanical, 2=0-4-9
Max Horz 2=38(LC 7)
Max Uplift 4=-19(LC 10), 2=-59(LC 10)
Max Grav 4=148(LC 15), 6=121(LC 15), 2=389(LC 15)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 7-8=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 7=-8(F=-4, B=-4)



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	
2534894	D	Common	7	1		I43584123
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:10 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-85TC2aLGaynlHdVmN3oqFWLboD4Gy?d981eBRkyKHwl

0-10-8 6-1-11 12-3-0 18-4-5 24-6-0 25-4-8
0-10-8 6-1-11 6-1-5 6-1-5 6-1-11 0-10-8

Scale = 1:43.9

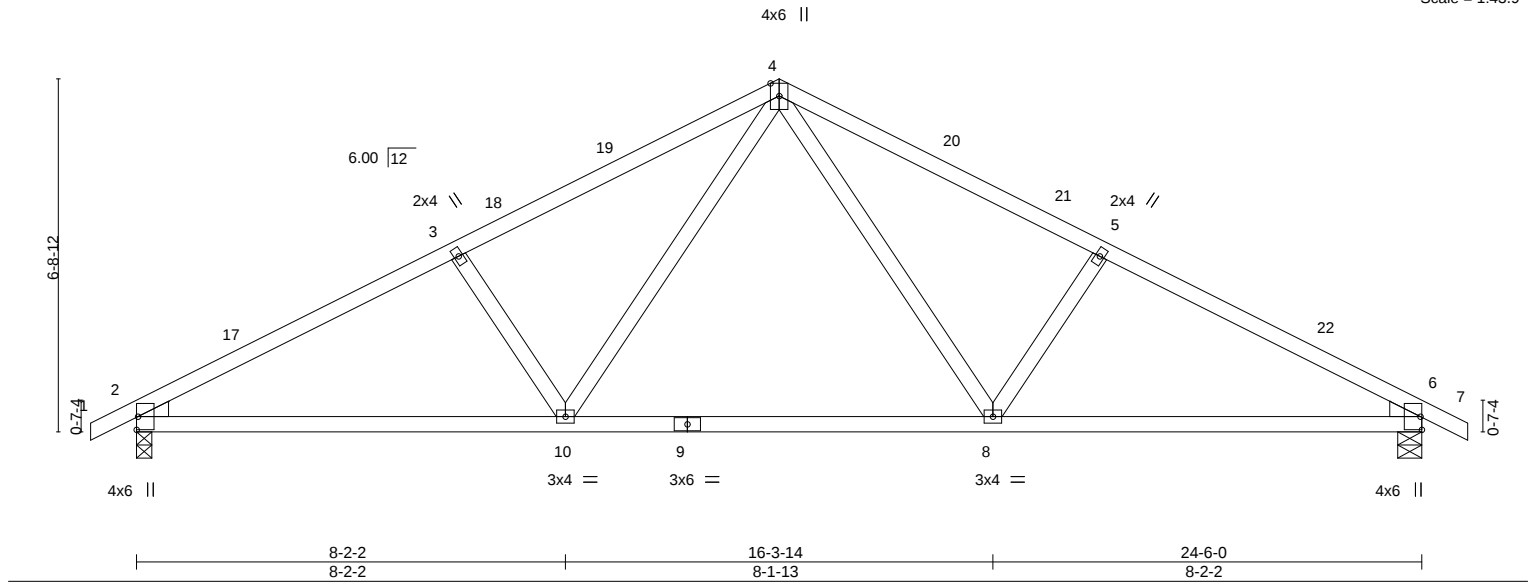


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [6:0-0-1,0-0-3], [6:0-0-3,0-5-0]	
LOADING (psf)		SPACING-	
TCLL 20.0		2-0-0	
(Roof Snow=20.0)		Plate Grip DOL 1.15	
TCDL 10.0		Lumber DOL 1.15	
BCLL 0.0		Rep Stress Incr YES	
BCDL 10.0		Code IRC2018/TPI2014	
		CSI.	
		TC 0.59	
		BC 0.54	
		WB 0.14	
		Matrix-AS	
		DEFL.	
		in (loc) l/defl L/d	
		Vert(LL) -0.08 8-10 >999 240	
		Vert(CT) -0.21 8-10 >999 180	
		Horz(CT) 0.05 6 n/a n/a	
		PLATES	
		MT20	
		GRIP	
		197/144	
		Weight: 88 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD 2x4 SPF No.2		TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied.
WEBS 2x4 SPF No.2			
WEDGE			
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2			

REACTIONS. (size) 2=0-3-8, 6=0-5-8
Max Horz 2=125(LC 13)
Max Uplift 2=116(LC 14), 6=116(LC 14)
Max Grav 2=1051(LC 19), 6=1051(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1670/294, 3-4=-1482/311, 4-5=-1482/311, 5-6=-1670/294
BOT CHORD 2-10=-180/1433, 8-10=-57/943, 6-8=-184/1433
WEBS 4-8=-78/575, 5-8=-398/159, 4-10=-78/575, 3-10=-398/159

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-3-0, Exterior(2R) 12-3-0 to 15-3-0, Interior(1) 15-3-0 to 25-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=116, 6=116.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584124
2534894	DG	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:11 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-cH1aFwMuLGvbum4yxJ3oktYtdYPhTSIMhNkzAyKHwk

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Scale = 1:45.0

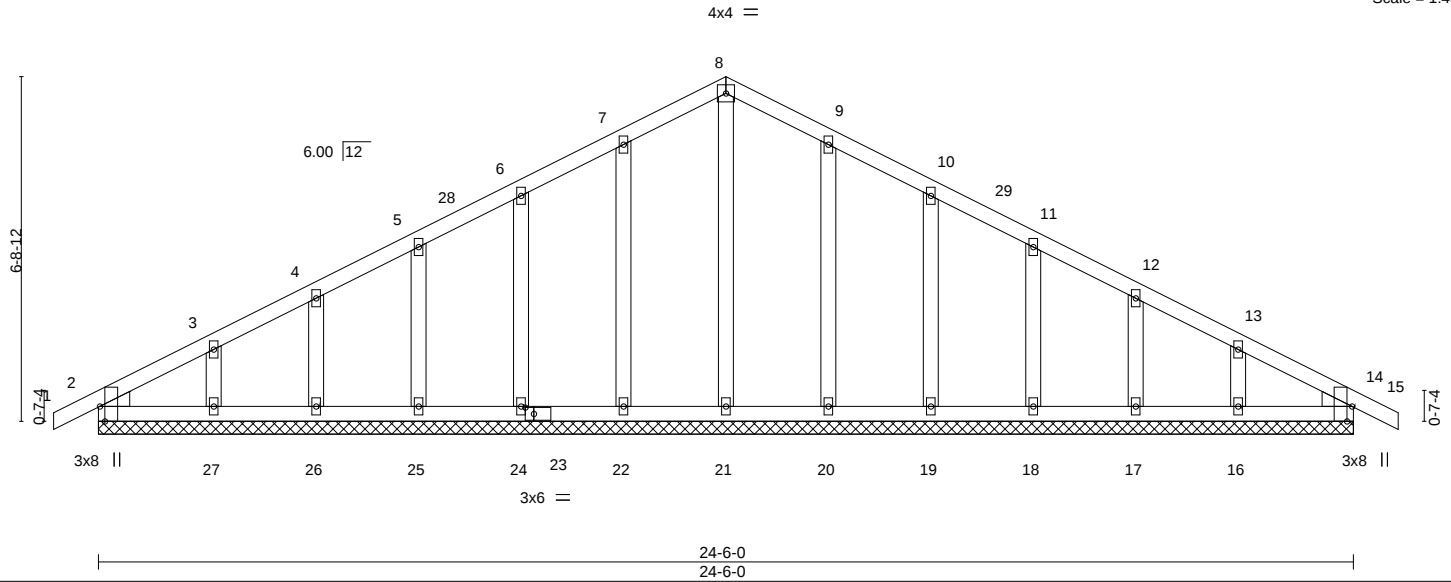


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [14:0-3-8,Edge], [14:0-0-3,0-5-0], [14:0-0-1,0-0-3], [23:0-2-0,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	Vert(LL)	0.00	14	n/r	120	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	0.00	14	n/r	120		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Horz(CT)	0.00	14	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 106 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 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 24-6-0.
(lb) - Max Horz 2=-125(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-3-0, Exterior(2N) 2-3-0 to 12-3-0, Corner(3R) 12-3-0 to 15-3-0, Exterior(2N) 15-3-0 to 25-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14.
- 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.



November 12, 2020

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



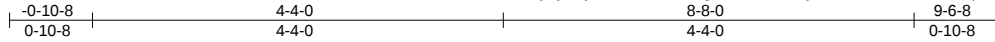
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584125
2534894	E	Common	4	1	Job Reference (optional)	

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

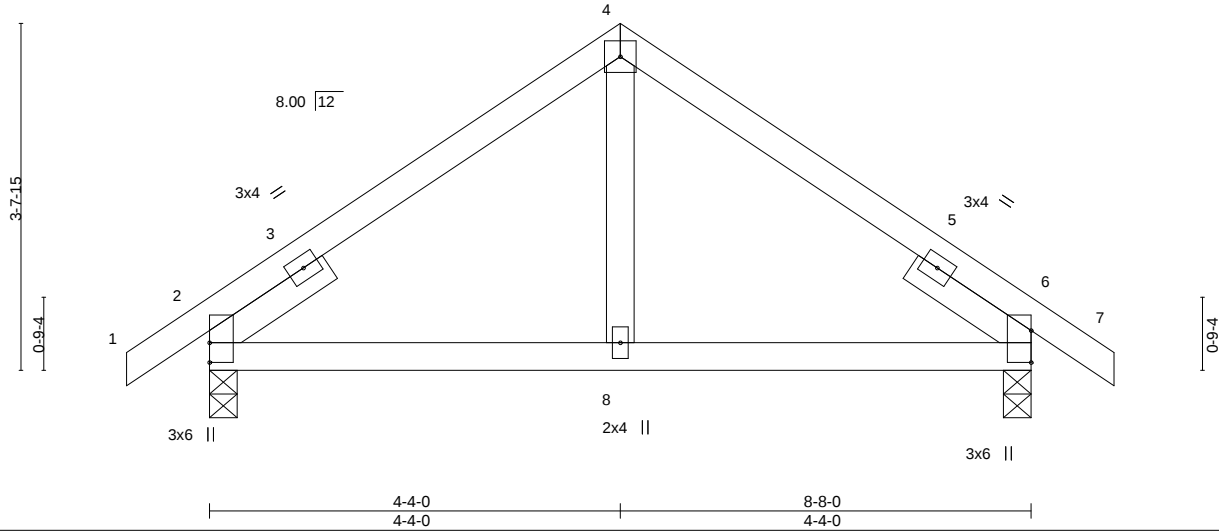
8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:12 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-4UbyTGNX6Z1SWwf8VUqLxQ2A1soQxgSbL7HVcyKHwj



4x4 =

Scale = 1:24.3



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	in	(loc)	l/defl	L/d	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.15	Vert(LL)	-0.01	8-11	>999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Vert(CT)	-0.01	8-11	>999		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.01	2	n/a		
BCDL	10.0									Weight: 31 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-6-0, Right 2x4 SPF No.2 1-6-0

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=-74(LC 10)
 Max Uplift 2=-58(LC 12), 6=-58(LC 12)
 Max Grav 2=399(LC 1), 6=399(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-282/132, 4-6=-282/132

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-4-0, Exterior(2R) 4-4-0 to 7-4-0, Interior(1) 7-4-0 to 9-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2534894	Truss E1	Truss Type Common Girder	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584126
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:13 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-Yg9LgbO9tt9J84EL3CLXt9zB6RBt9Kbq?sr13yKHwi

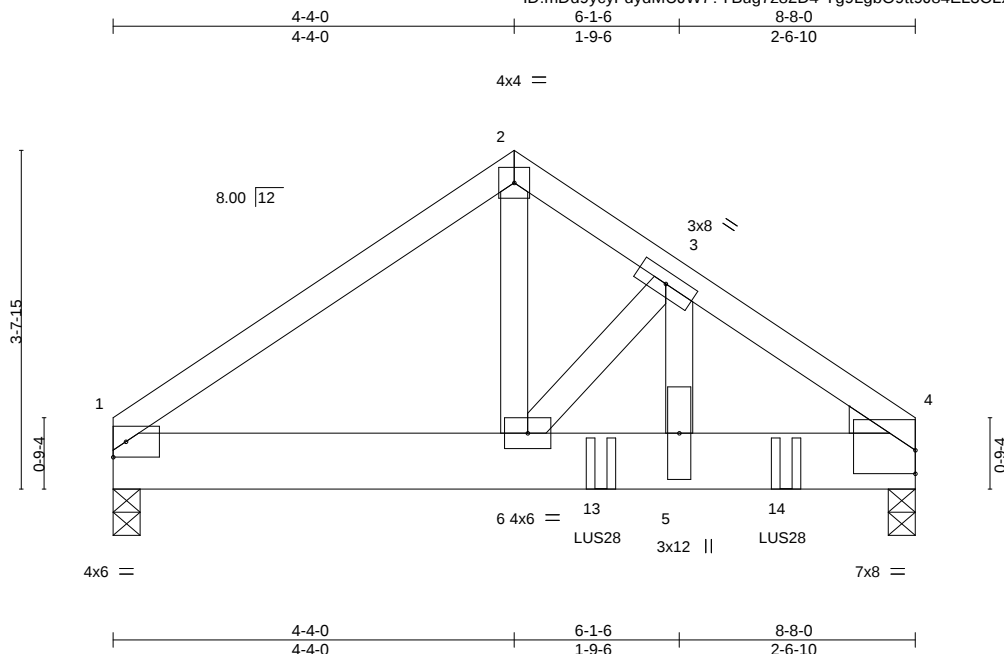


Plate Offsets (X,Y)-- [4:Edge,0-3-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	Vert(LL)	-0.02	5-6	>999	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.22	Vert(CT)	-0.03	5-6	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.31	Horz(CT)	0.00	4	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MP						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 47 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 4=0-3-8
Max Horz 1=62(LC 7)
Max Uplift 1=-94(LC 8), 4=-194(LC 8)
Max Grav 1=968(LC 1), 4=1974(LC 1)

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

TOP CHORD 1-2=-1367/153, 2-3=-1304/168, 3-4=-2053/217
BOT CHORD 1-6=-70/1067, 5-6=-148/1669, 4-5=-148/1669
WEBS 2-6=-136/1272, 3-6=-903/116, 3-5=-134/974

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 4=194.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) Use Simpson Strong-Tie LUS28 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-3-4 from the left end to 7-3-4 to connect truss(es) to front face of bottom chord.
- 7) Fill all nail holes where hanger is in contact with lumber.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-4=-60, 7-10=-20
Concentrated Loads (lb)
Vert: 13=-1125(F) 14=-1125(F)



November 12, 2020

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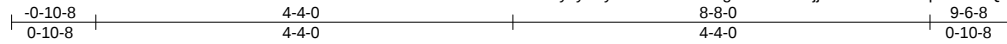


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584127
2534894	EG	GABLE	1	1	Job Reference (optional)	

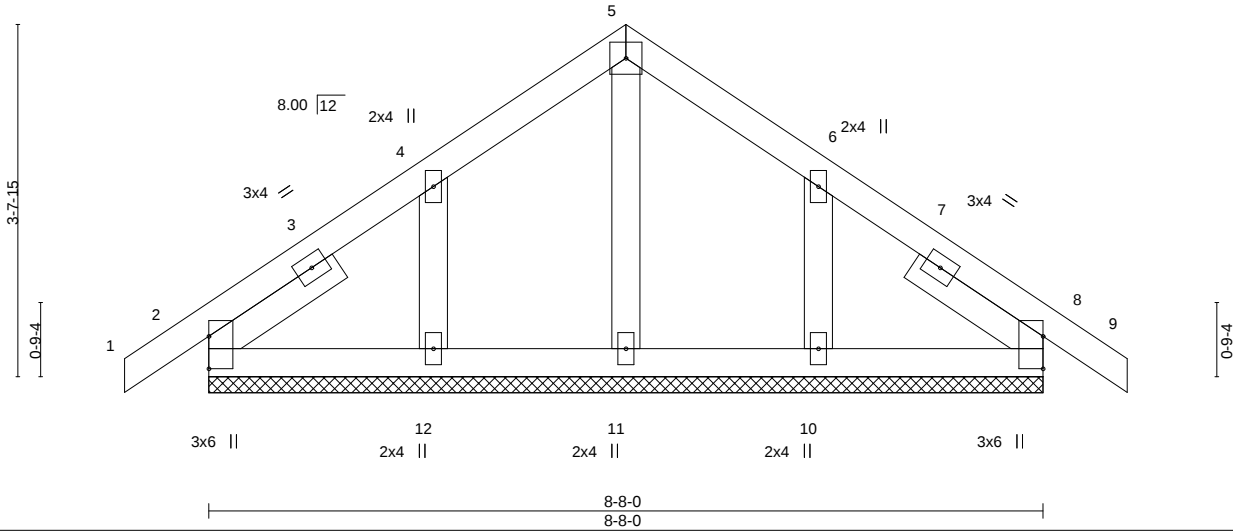
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:14 2020 Page 1
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4x4 =

Scale: 1/2"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.07	Vert(LL)	0.00	8	n/r	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	0.00	8	n/r		
BCLL 0.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	8	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2018/TPI2014						Weight: 36 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 1-7-5, Right 2x4 SPF No.2 1-7-5

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 8-8-0.
(lb) - Max Horz 2=-74(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-4-0, Exterior(2N) 2-4-0 to 4-4-0, Corner(3R) 4-4-0 to 7-4-0, Exterior(2N) 7-4-0 to 9-6-8 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
- 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.
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 12, 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.



November 12, 2020

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



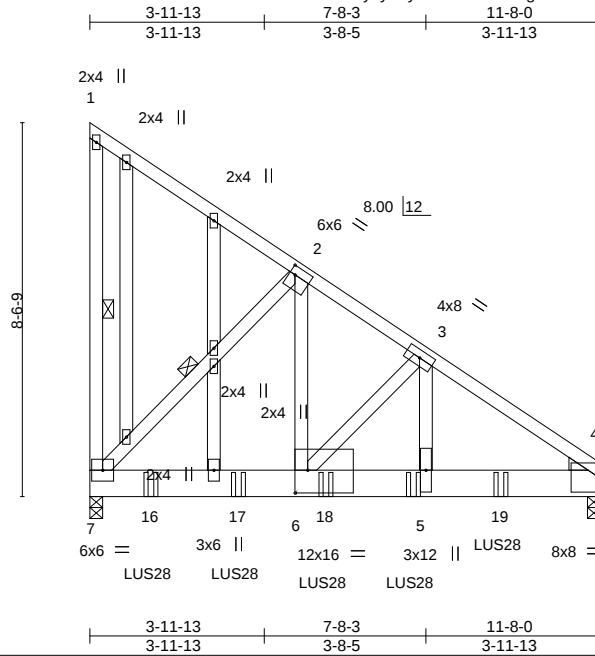
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584128
2534894	G1	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:15 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-U3H55HPPUP1NOOjAdO?ya2V8Epzd5duHJLx6xyKHwg



Scale = 1:52.7

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	Vert(LL)	-0.05	6-7	>999	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.44	Vert(CT)	-0.10	6-7	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.86	Horz(CT)	0.01	4	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 95 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-7, 2-7

REACTIONS.

(size) 4=0-3-8, 7=0-3-8
Max Horz 7=-275(LC 21)
Max Uplift 4=-286(LC 8), 7=-397(LC 4)
Max Grav 4=3032(LC 1), 7=3471(LC 1)

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

TOP CHORD 2-3=-2707/305, 3-4=-3834/381
BOT CHORD 6-7=-183/2240, 5-6=-265/3126, 4-5=-265/3126
WEBS 2-7=-3206/393, 2-6=-358/3507, 3-6=-1276/168, 3-5=-150/1380

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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.
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=286, 7=397.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie LUS28 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-4-12 from the left end to 9-4-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 7-13=-20

Continued on page 2



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor
2534894	G1	GABLE	1	1	I43584128
Job Reference (optional)					

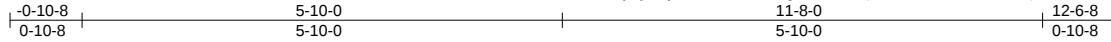
LOAD CASE(S) Standard
 Concentrated Loads (lb)
 Vert: 5=-1116(B) 16=-1116(B) 17=-1116(B) 18=-1116(B) 19=-1116(B)

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584129
2534894	GG	GABLE	1	1	Job Reference (optional)	

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

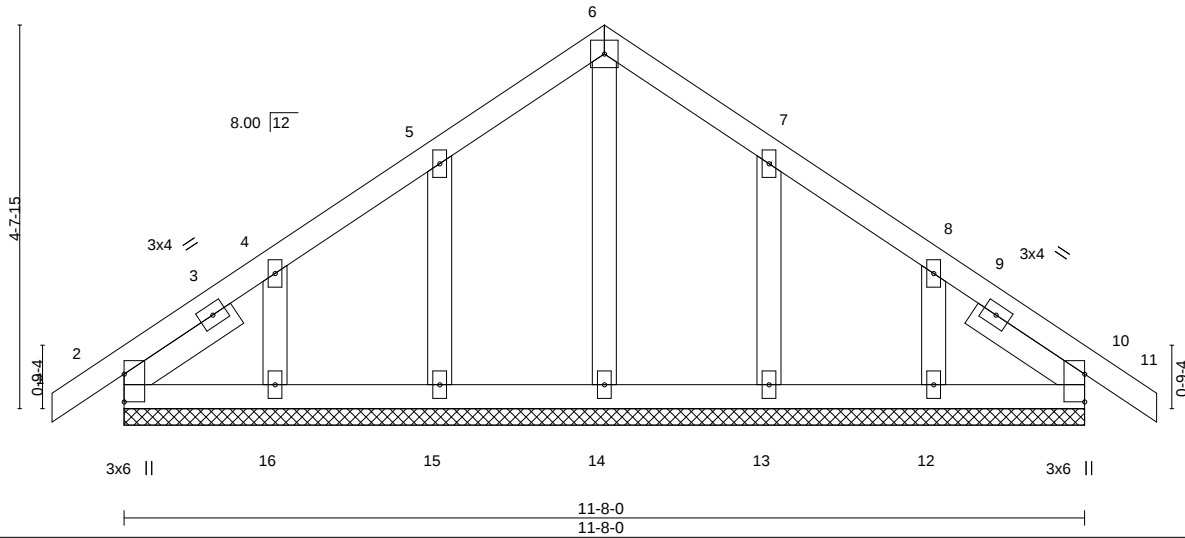
8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:17 2020 Page 1

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4x4 =

Scale = 1:28.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.04	Vert(LL)	0.00 10	n/r	120	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00 10	n/r	120		
BCLL 0.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00 10	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2018/TPI2014						Weight: 50 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 1-7-8, Right 2x4 SPF No.2 1-7-8

BRACING-

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

REACTIONS.

All bearings 11-8-0.
(lb) - Max Horz 2=-95(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 1-10-0, Exterior(2N) 1-10-0 to 5-10-0, Corner(3R) 5-10-0 to 8-10-0, Exterior(2N) 8-10-0 to 12-6-8 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
- 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.
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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

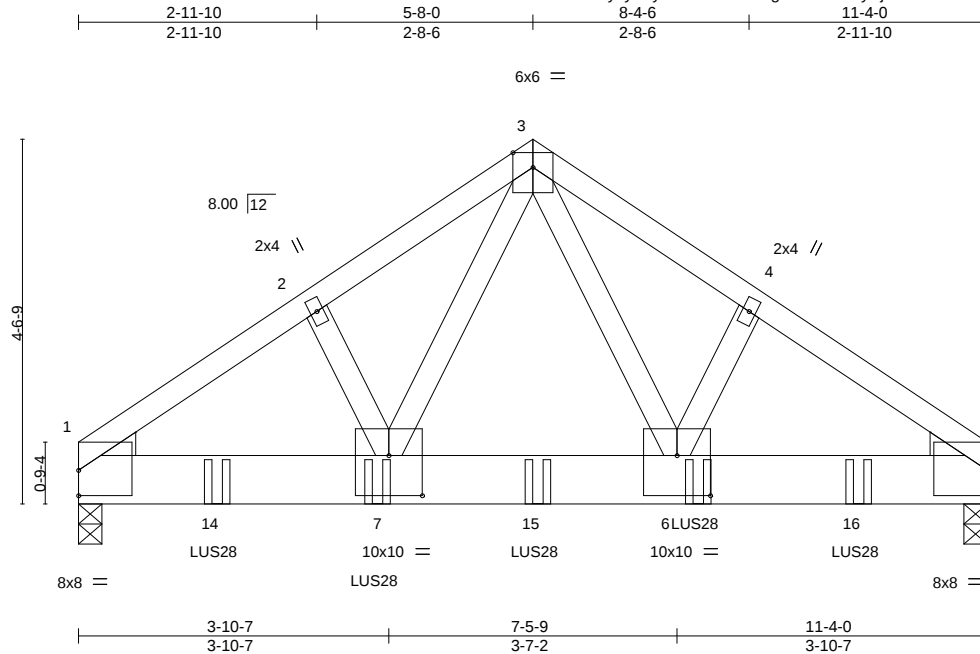
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss H1	Truss Type Common Girder	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584130
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:18 2020 Page 1
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Scale = 1:28.7

Plate Offsets (X,Y)-- [1:0-0-0,0-3-13], [5:0-0-0,0-3-13], [6:0-5-0,0-6-0], [7:0-5-0,0-6-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	Vert(LL)	-0.06	6-7	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.37	Vert(CT)	-0.12	6-7	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.56	Horz(CT)	0.01	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 66 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=81(LC 22)
Max Uplift 1=-320(LC 8), 5=-323(LC 8)
Max Grav 1=3241(LC 1), 5=3275(LC 1)

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

TOP CHORD 1-2=-4069/421, 2-3=-3983/450, 3-4=-3980/449, 4-5=-4065/420
BOT CHORD 1-7=-312/3325, 6-7=-190/2382, 5-6=-312/3322
WEBS 3-6=-242/2269, 3-7=-243/2276

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=320, 5=323.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) Use Simpson Strong-Tie LUS28 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-12 from the left end to 9-8-12 to connect truss(es) to front face of bottom chord.
- 7) Fill all nail holes where hanger is in contact with lumber.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 8-11=-20
Concentrated Loads (lb)
Vert: 6=-1121(F) 7=-1121(F) 14=-1125(F) 15=-1121(F) 16=-1121(F)



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584132
2534894	HG	GABLE	1	1	Job Reference (optional)	

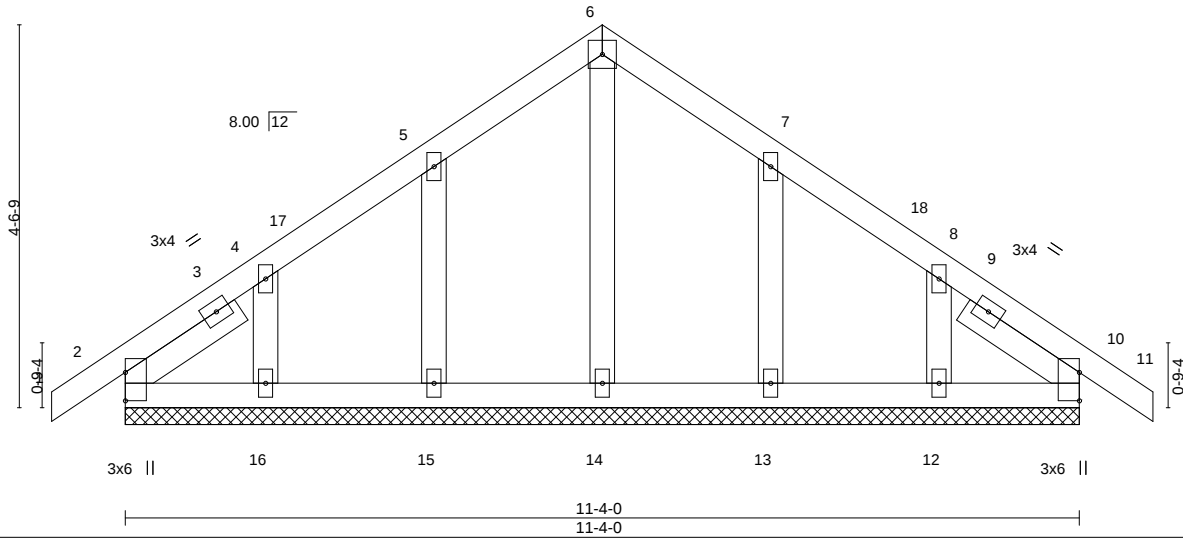
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:20 2020 Page 1
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-0-10-8 5-8-0 11-4-0 12-2-8
0-10-8 5-8-0 5-8-0 0-10-8

4x4 =

Scale = 1:27.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.05	Vert(LL)	0.00	10	n/r	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(CT)	-0.00	10	n/r		
BCLL 0.0	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2018/TPI2014						Weight: 49 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 1-7-9, Right 2x4 SPF No.2 1-7-9

BRACING-

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

REACTIONS.

All bearings 11-4-0.
(lb) - Max Horz 2=93(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-8-0, Corner(3R) 5-8-0 to 8-8-0, Exterior(2N) 8-8-0 to 12-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
- 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss K	Truss Type Common	Qty 5	Ply 1	Summit/53 Manor	I43584133
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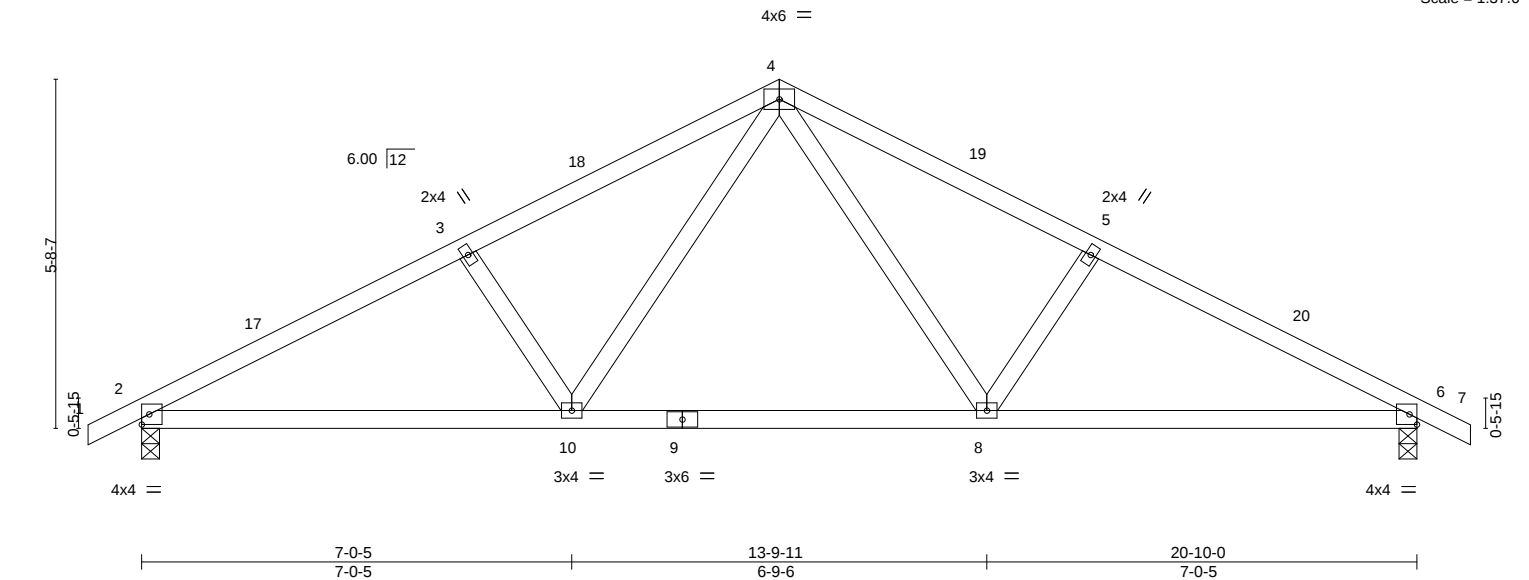
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:21 2020 Page 1

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0-10-8 0-10-8	5-4-0 5-4-0	10-5-0 5-1-0	15-6-0 5-1-0	20-10-0 5-4-0	21-8-8 0-10-8
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Scale = 1:37.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	in (loc)	l/defl	L/d	MT20	197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.42	Vert(LL)	-0.05 8-10	>999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Vert(CT)	-0.12 8-10	>999			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.03 6	n/a			
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=108(LC 13)
Max Uplift 2=103(LC 14), 6=103(LC 14)
Max Grav 2=921(LC 19), 6=921(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1489/291, 3-4=-1317/305, 4-5=-1317/305, 5-6=-1489/291
BOT CHORD 2-10=-182/1276, 8-10=-63/810, 6-8=-189/1276
WEBS 4-8=-84/525, 5-8=-372/153, 4-10=-84/525, 3-10=-372/153

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-5-0, Exterior(2R) 10-5-0 to 13-5-0, Interior(1) 13-5-0 to 21-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=103, 6=103.
- 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584134
2534894	KG	GABLE	1	1	Job Reference (optional)	

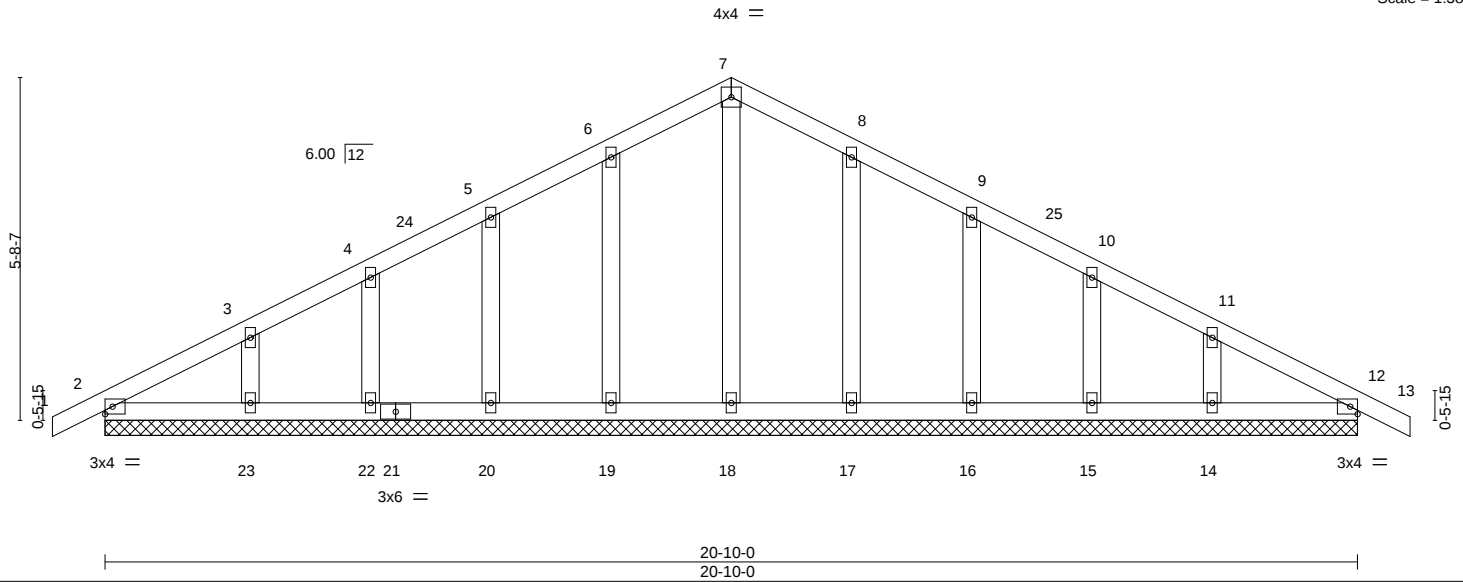
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:23 2020 Page 1

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0-10-8 10-5-0 20-10-0 21-8-8
0-10-8 10-5-0 10-5-0 0-10-8

Scale = 1:38.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00 12 n/r 120	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00 12 n/r 120				
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00 12 n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										
								Weight: 83 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 20-10-0.
(lb) - Max Horz 2=-108(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 22, 23, 17, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 22, 23, 17, 16, 15, 14, 12

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-5-0, Exterior(2N) 2-5-0 to 10-5-0, Corner(3R) 10-5-0 to 13-5-0, Exterior(2N) 13-5-0 to 21-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2'-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 19, 20, 22, 23, 17, 16, 15, 14, 12.
- 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.



November 12, 2020

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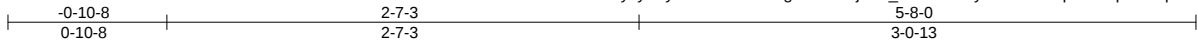
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584135
2534894	L1	Half Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:24 2020 Page 1

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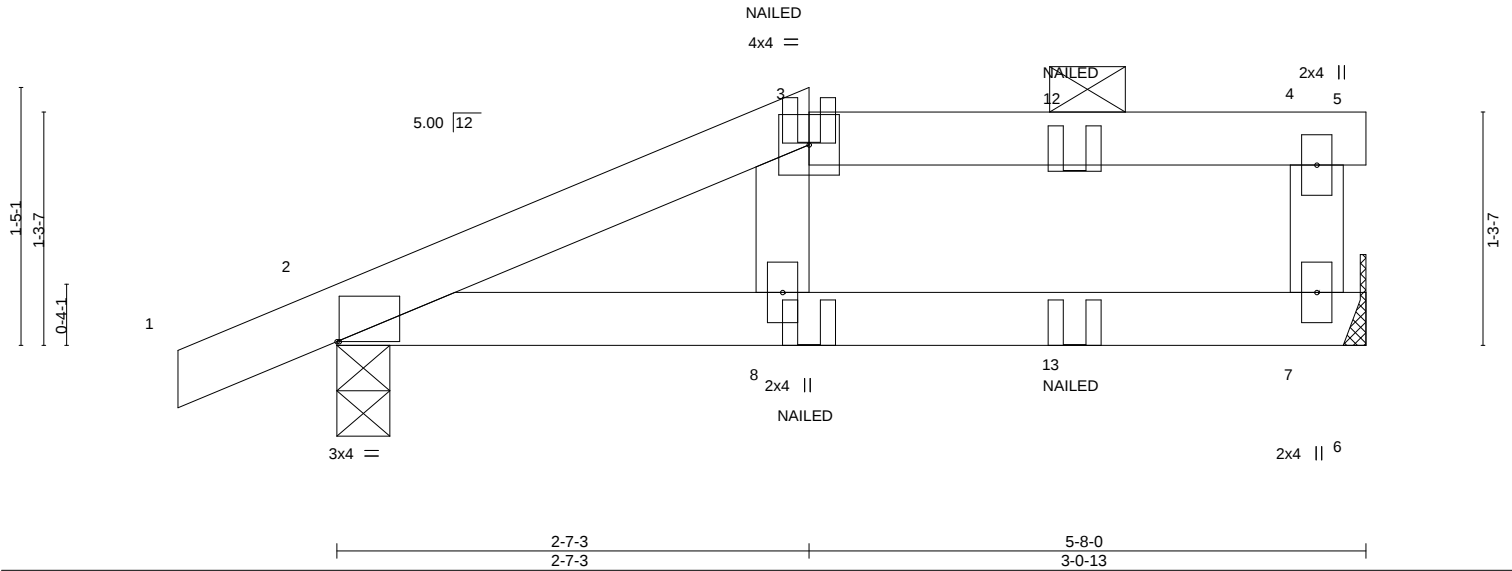


Plate Offsets (X,Y)--		[2-0-0-2,0-0-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.10 8	>637	240	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.19 7-8	>349	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00 2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP						Weight: 16 lb	FT = 20%
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-8-0 oc purlins, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins: 3-5.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=Mechanical
 Max Horz 2=42(LC 10)
 Max Uplift 2=-46(LC 10), 7=-23(LC 7)
 Max Grav 2=377(LC 26), 7=315(LC 25)

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

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 Vert: 1-3=-60, 3-5=-60, 6-9=-20
- Concentrated Loads (lb)
 Vert: 3=-4(B) 8=-8(B) 12=-6(B) 13=-6(B)



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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584136
2534894	L1A	Jack-Open	1	1	Job Reference (optional)	

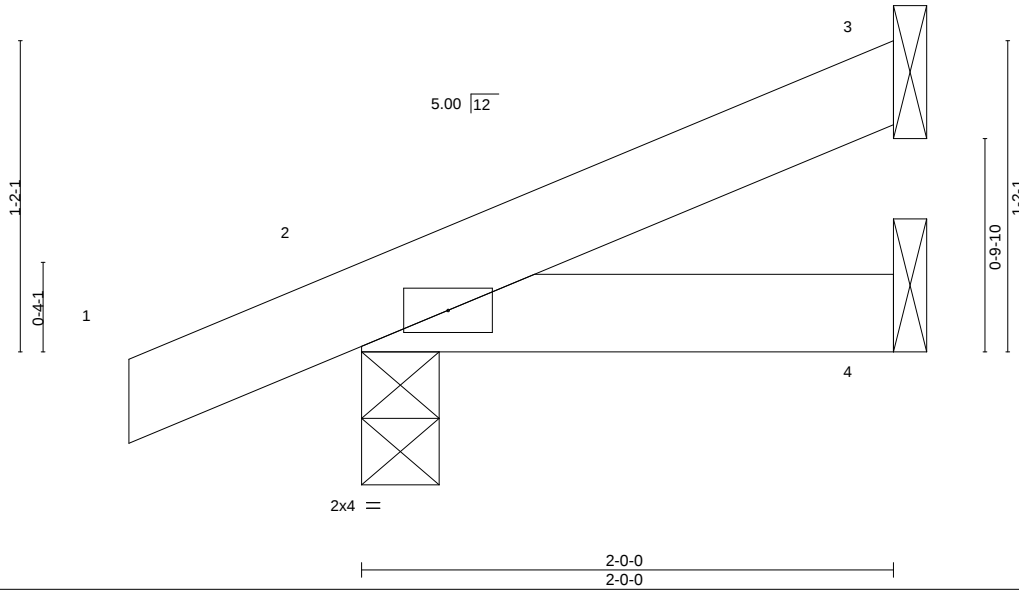
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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

Scale = 1:8.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=38(LC 14)
Max Uplift 3=-10(LC 14), 2=-36(LC 14)
Max Grav 3=59(LC 19), 2=191(LC 19), 4=34(LC 5)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12,2020

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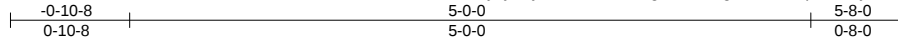
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584137
2534894	L2	Half Hip	1	1	Job Reference (optional)	

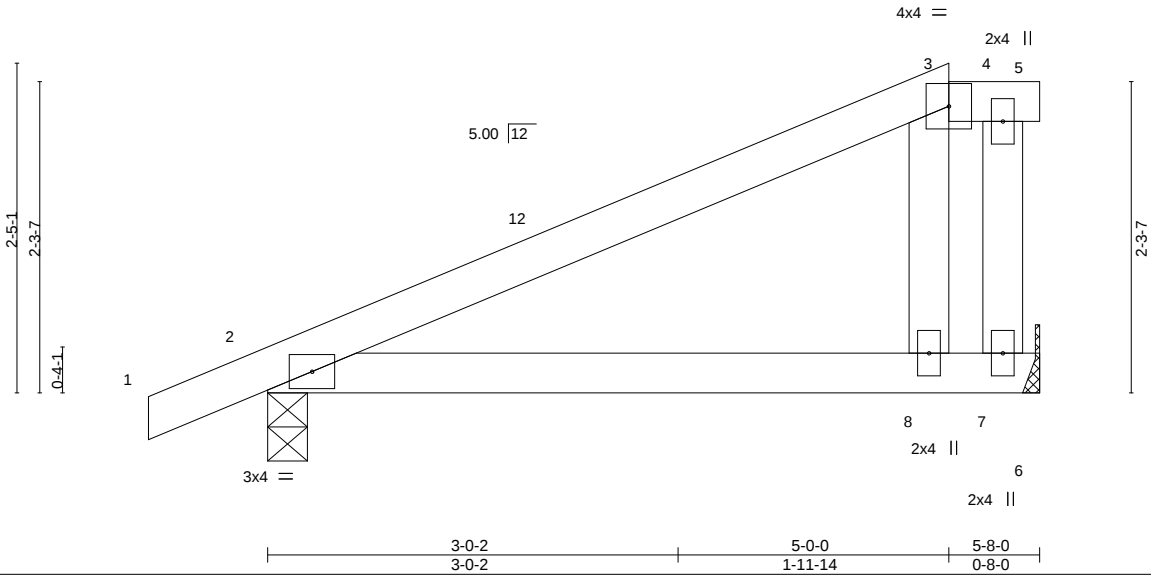
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:26 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-gARFP2YJptoTC4jrJR4avu?MagZKiGHWpWW1?oyKHwV



Scale = 1:16.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.08 8-11 >768 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.03	Vert(CT) -0.14 8-11 >466 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			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
2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
Max Horz 2=70(LC 14)
Max Uplift 2=-39(LC 14), 7=-28(LC 14)
Max Grav 2=409(LC 30), 7=300(LC 30)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-0, Exterior(2E) 5-0-0 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

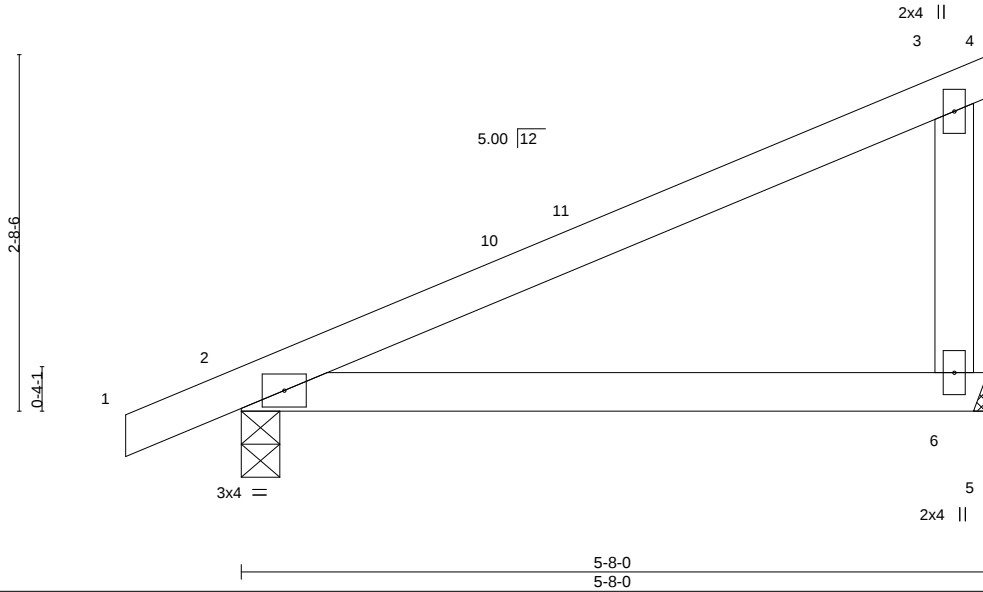
Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584138
2534894	L3	Monopitch	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:27 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-8M?dcOYxaAwKpEI1t8bpR6YXG4wpRjUf2AFaXfYKHwU

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



Scale = 1:17.4

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.48 BC 0.37 WB 0.04 Matrix-AS	in (loc) l/defl L/d Vert(LL) -0.06 6-9 >999 240 Vert(CT) -0.11 6-9 >587 180 Horz(CT) 0.00 2 n/a n/a	MT20	197/144
TCDL 10.0					
BCLL 0.0					
BCDL 10.0					
				Weight: 17 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=80(LC 14)
Max Uplift 2=-34(LC 14), 6=-32(LC 14)
Max Grav 2=354(LC 19), 6=324(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584139
2534894	L4	Monopitch	2	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:27 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-8M?dcOYxaAwKpEI1t8bpR6YX64vWRJUF2AFaXFyKHwU

5-8-0

5-8-0

Scale = 1:17.4

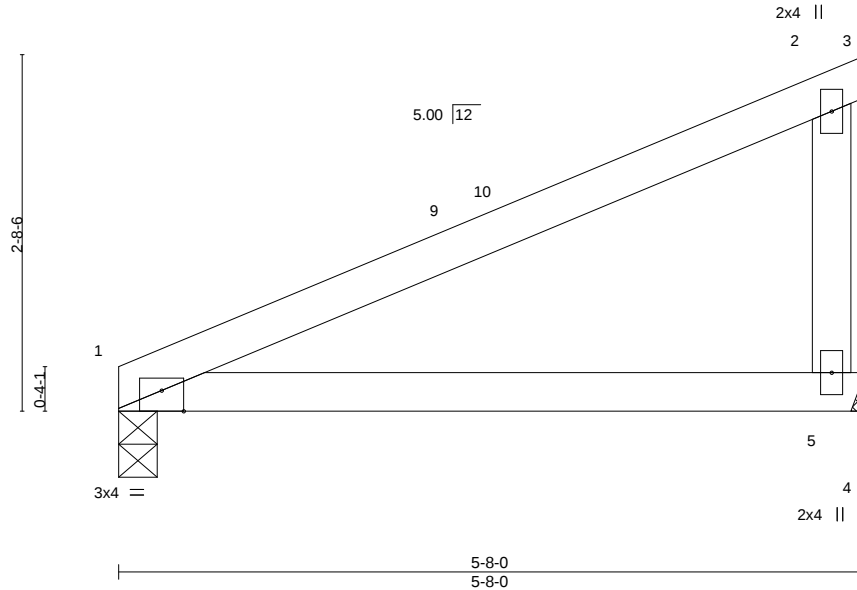


Plate Offsets (X,Y)-- [1:0-2-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL)	-0.07	5-8	>970	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.39	Vert(CT)	-0.11	5-8	>564	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	1	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=Mechanical
Max Horz 1=65(LC 14)
Max Uplift 1=5(LC 14), 5=35(LC 14)
Max Grav 1=297(LC 18), 5=329(LC 18)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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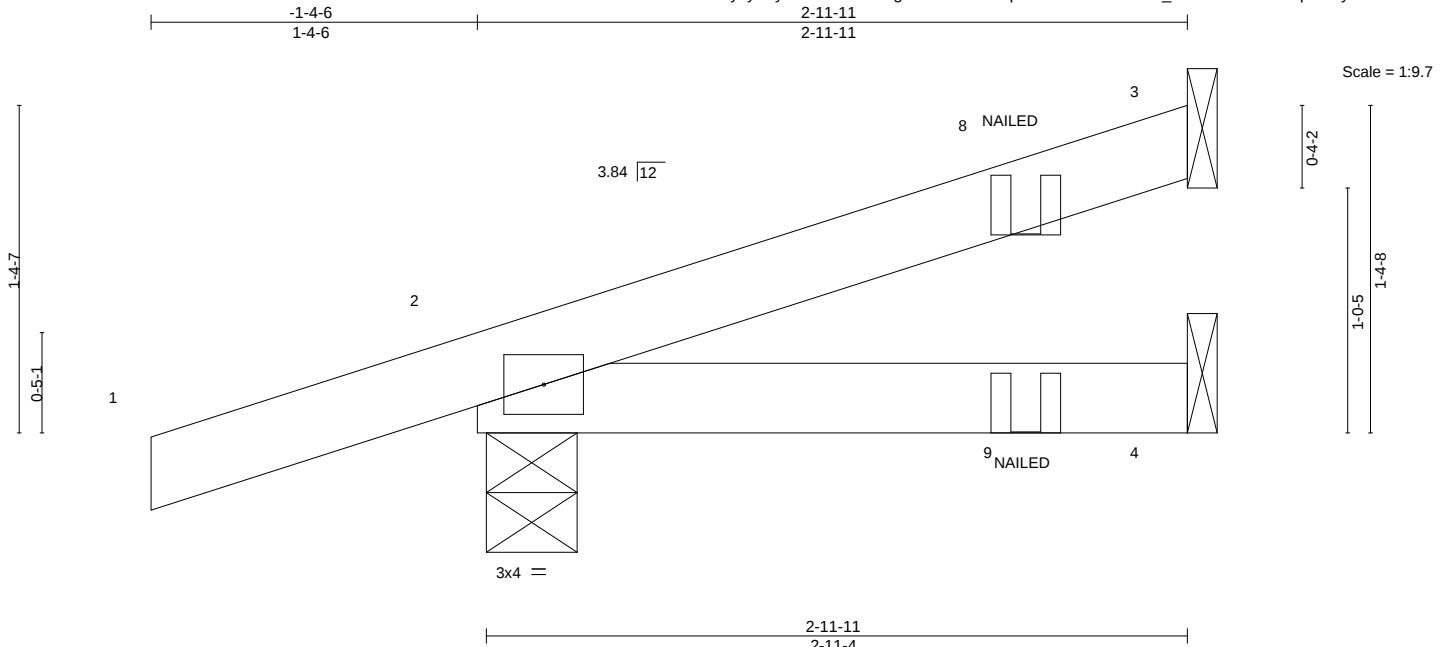


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584140
2534894	M1	Jack-Open Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:28 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-cZZ0qkZZLU2BROtDR62_J4nuULuAAHoHq?83hyKHwT



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00 4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01 4-7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=44(LC 10)
Max Uplift 3=-15(LC 10), 2=-57(LC 10)
Max Grav 3=92(LC 15), 2=296(LC 15), 4=50(LC 5)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 4-5=-20
Concentrated Loads (lb)
Vert: 9=-1(B)



November 12, 2020

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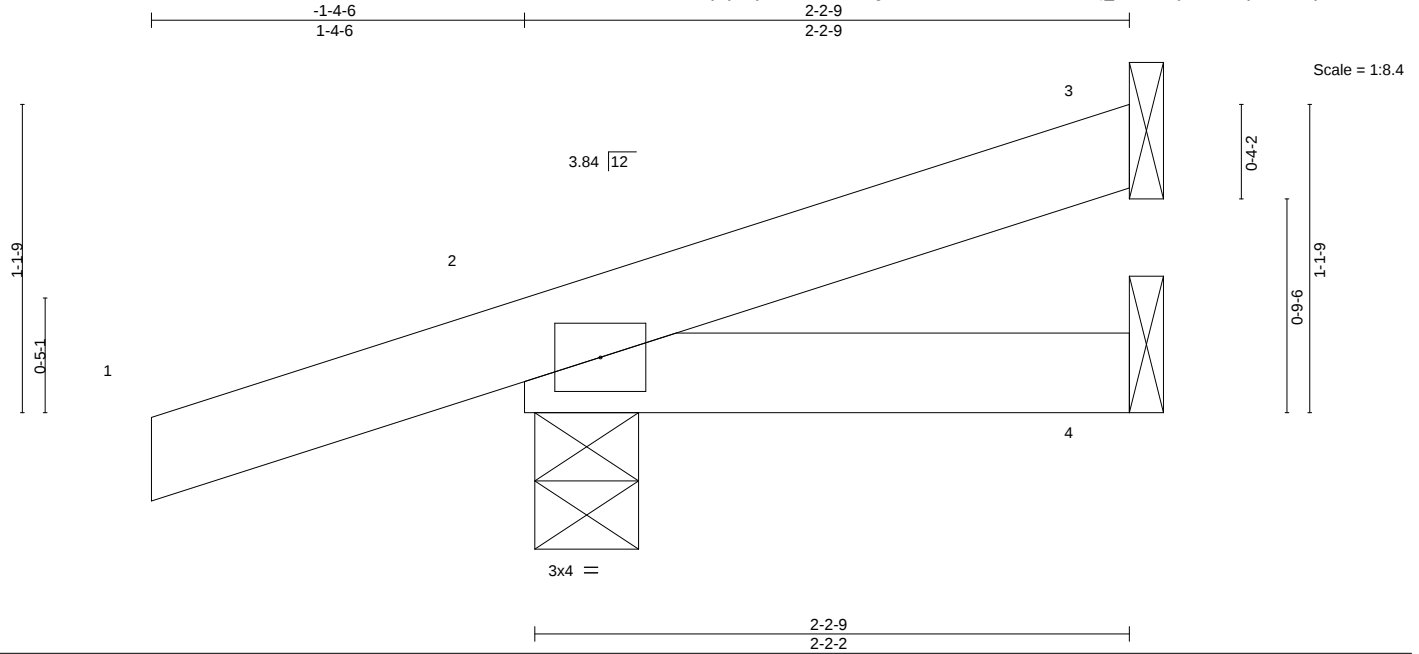


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss M1A	Truss Type Jack-Open	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584141
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:29 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-4l7O14aB6oA23XSQ_ZeHXXdy2uhfvdXyVUkhc7yKHwS



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	in	(loc)	l/defl	L/d	MT20	197/144
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.03	0.00	7	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Vert(LL)					
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP		Vert(CT)	-0.00	7	>999	180	
BCDL	10.0					Horz(CT)	0.00	3	n/a	n/a	
					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 2-2-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=38(LC 14)
Max Uplift 3=-8(LC 14), 2=-59(LC 14)
Max Grav 3=57(LC 19), 2=259(LC 19), 4=34(LC 5)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584142
2534894	M2	Jack-Open	1	1	Job Reference (optional)	

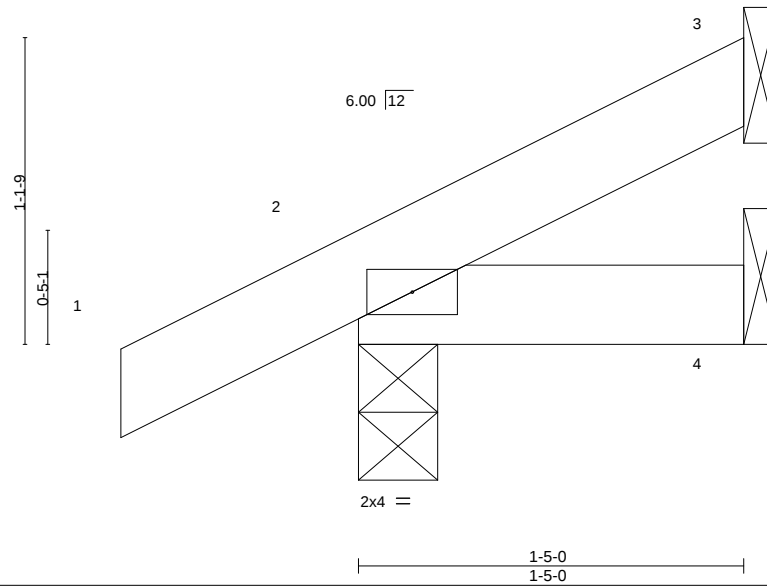
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:30 2020 Page 1

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Scale = 1:8.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	0.00	7	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	7	>999	180	
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
									Weight: 5 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-5-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=38(LC 14)
Max Uplift 3=-7(LC 14), 2=-35(LC 14)
Max Grav 3=37(LC 19), 2=167(LC 19), 4=23(LC 5)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	
2534894	M2A	Jack-Open	1	1		I43584143
Job Reference (optional)						

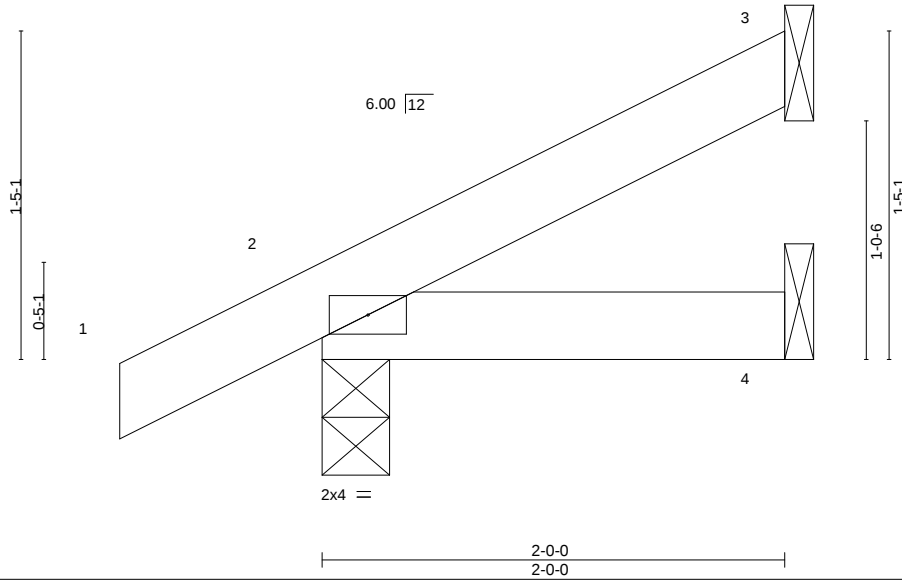
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:31 2020 Page 1

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

Scale = 1:10.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=46(LC 14)
Max Uplift 3=-14(LC 14), 2=-32(LC 14)
Max Grav 3=64(LC 19), 2=196(LC 19), 4=35(LC 5)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss M3	Truss Type Monopitch	Qty 5	Ply 1	Summit/53 Manor Job Reference (optional)	I43584144
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:32 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-UKoWf5c3PjYdw?B_ghB_89FUD5IV6_2OBSzLCSyKHwP

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Scale = 1:9.4

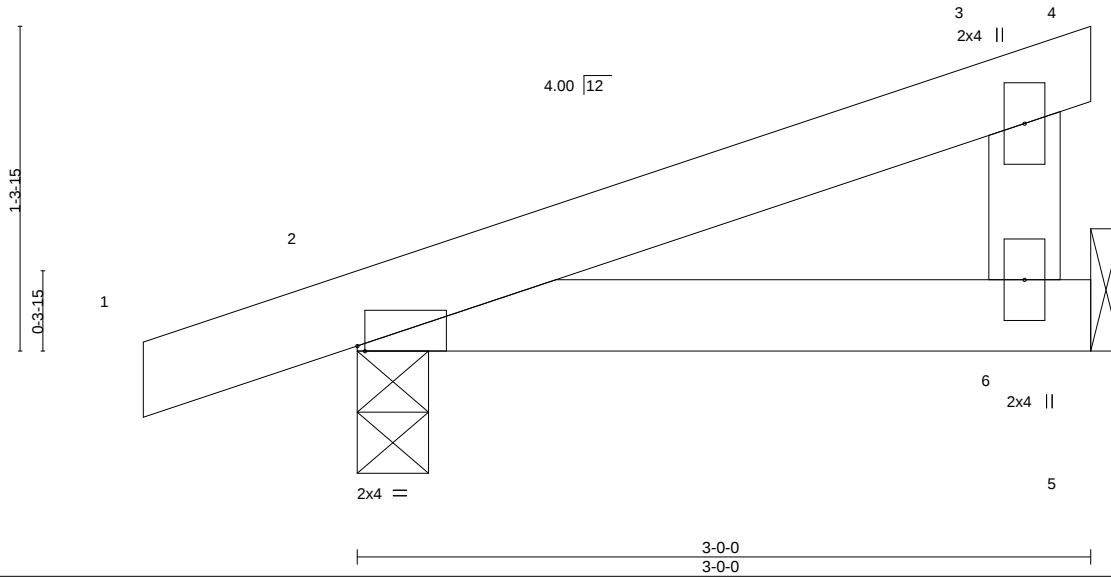


Plate Offsets (X,Y)-- [2:0-0-6,Edge]											
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	
TCLL	20.0	2-0-0		TC	0.08	in (loc)	l/defl	L/d		MT20	GRIP
(Roof Snow=20.0)		Plate Grip DOL	1.15	BC	0.08	Vert(LL)	-0.00 9	>999	240		197/144
TCDL	10.0	Lumber DOL	1.15	WB	0.01	Vert(CT)	-0.01 6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	Matrix-MP		Horz(CT)	0.00 2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=40(LC 14)
Max Uplift 2=-36(LC 14), 6=-11(LC 14)
Max Grav 2=226(LC 19), 6=160(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



November 12,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584145
2534894	M4	Jack-Open	4	1	Job Reference (optional)	

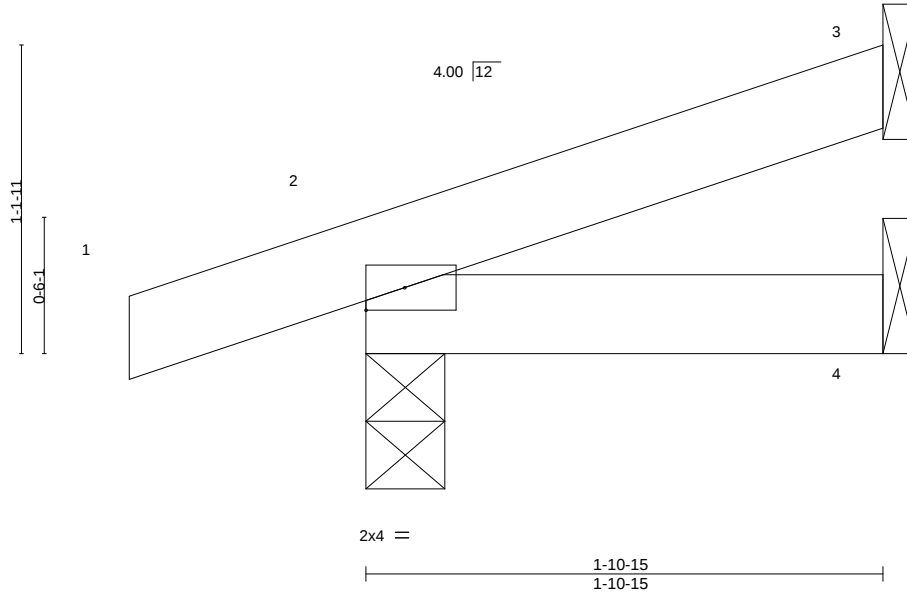
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:32 2020 Page 1

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Scale = 1:8.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=Mechanical, 3=Mechanical
Max Horz 2=30(LC 14)
Max Uplift 2=-34(LC 14), 3=-11(LC 14)
Max Grav 2=182(LC 19), 4=33(LC 5), 3=58(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3.
- 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.



November 12,2020

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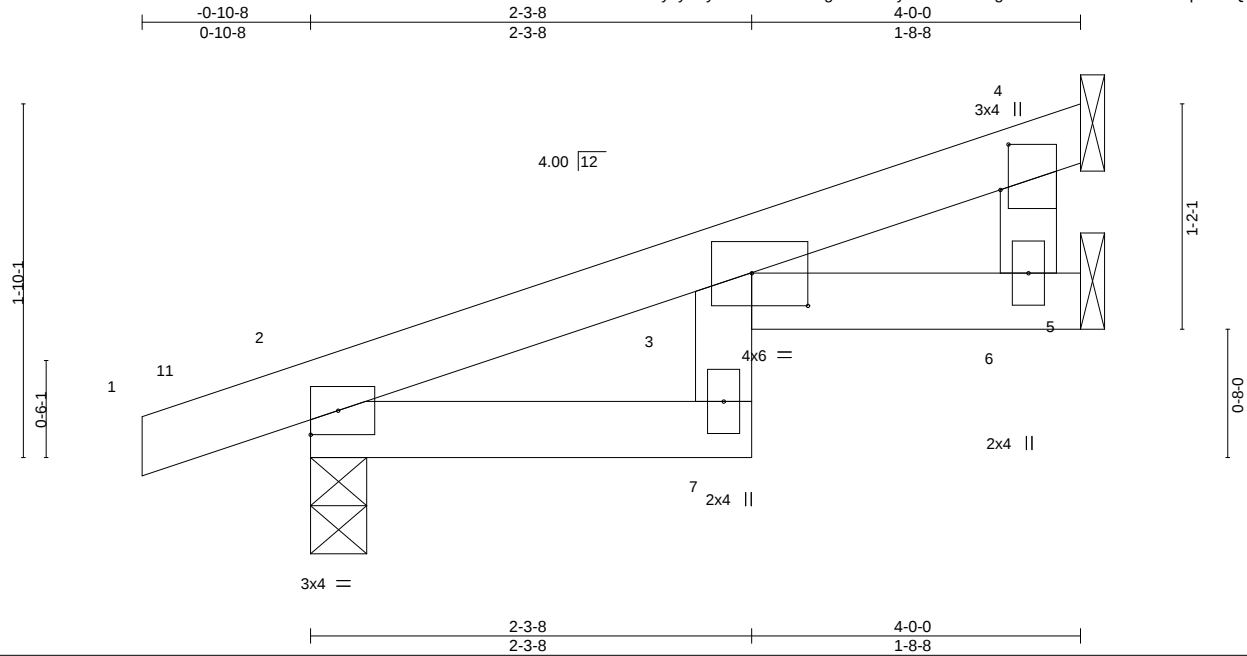
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584146
2534894	M5	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:33 2020 Page 1
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Scale: 1"=1'

Plate Offsets (X,Y)-- [3:0-3-8,0-2-1], [4:0-2-13,0-0-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL 20.0		Plate Grip DOL 1.15		TC 0.30		Vert(LL) -0.02 7 >999 240				MT20 197/144	
(Roof Snow=20.0)		Lumber DOL 1.15		BC 0.20		Vert(CT) -0.03 7 >999 180					
TCDL 10.0		Rep Stress Incr YES		WB 0.00		Horz(CT) 0.02 6 n/a n/a					
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb FT = 20%	
BCDL 10.0											

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.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 4=Mechanical, 6=Mechanical, 2=0-3-8
Max Horz 2=40(LC 11)
Max Uplift 4=-14(LC 14), 2=-40(LC 14)
Max Grav 4=108(LC 19), 6=88(LC 19), 2=283(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-0-13, Interior(1) 2-0-13 to 3-8-12 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
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



November 12, 2020

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584147
2534894	M6	Monopitch	4	1	Job Reference (optional)	

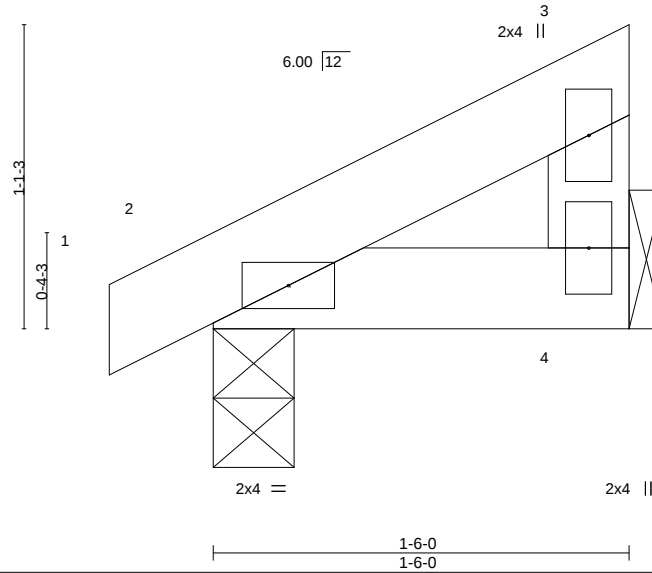
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:34 2020 Page 1

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Scale = 1:8.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15	TC 0.02	Vert(LL)	-0.00	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT)	-0.00	7	>999		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP					Weight: 5 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=27(LC 13)
Max Uplift 4=-6(LC 11), 2=-17(LC 14)
Max Grav 4=63(LC 19), 2=102(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584148
2534894	M7	Roof Special Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:35 2020 Page 1
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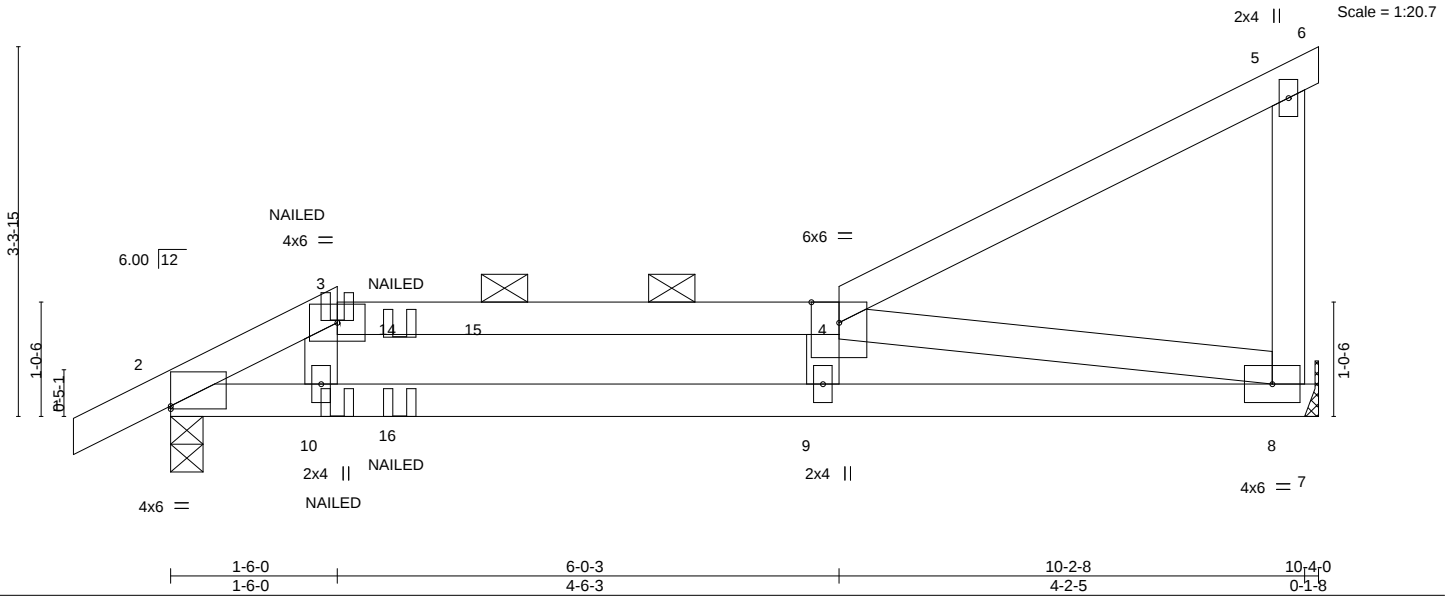


Plate Offsets (X,Y)-- [2.0-0-0,0-0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.58	Vert(LL)	-0.12	8-9	>995	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.74	Vert(CT)	-0.23	8-9	>535		
TCDL 10.0	Lumber DOL 1.15	WB 0.40	Horz(CT)	0.02	8	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 34 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 4-7-13 oc purlins, except
2-0-0 oc purlins (4-5-2 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=Mechanical
Max Horz 2=98(LC 10)
Max Uplift 2=-52(LC 10), 8=-48(LC 10)
Max Grav 2=526(LC 29), 8=528(LC 29)

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

TOP CHORD 2-3=-1329/11, 3-4=-1210/27
BOT CHORD 2-10=-79/1242, 9-10=-88/1210, 8-9=-96/1213
WEBS 3-10=0/294, 4-8=-1236/97

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 4-6=-60, 7-11=-20
- Concentrated Loads (lb)
Vert: 10=-1(B) 14=-2(B) 16=-9(B)



November 12, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584150
2534894	N1	Monopitch	3	1	Job Reference (optional)	

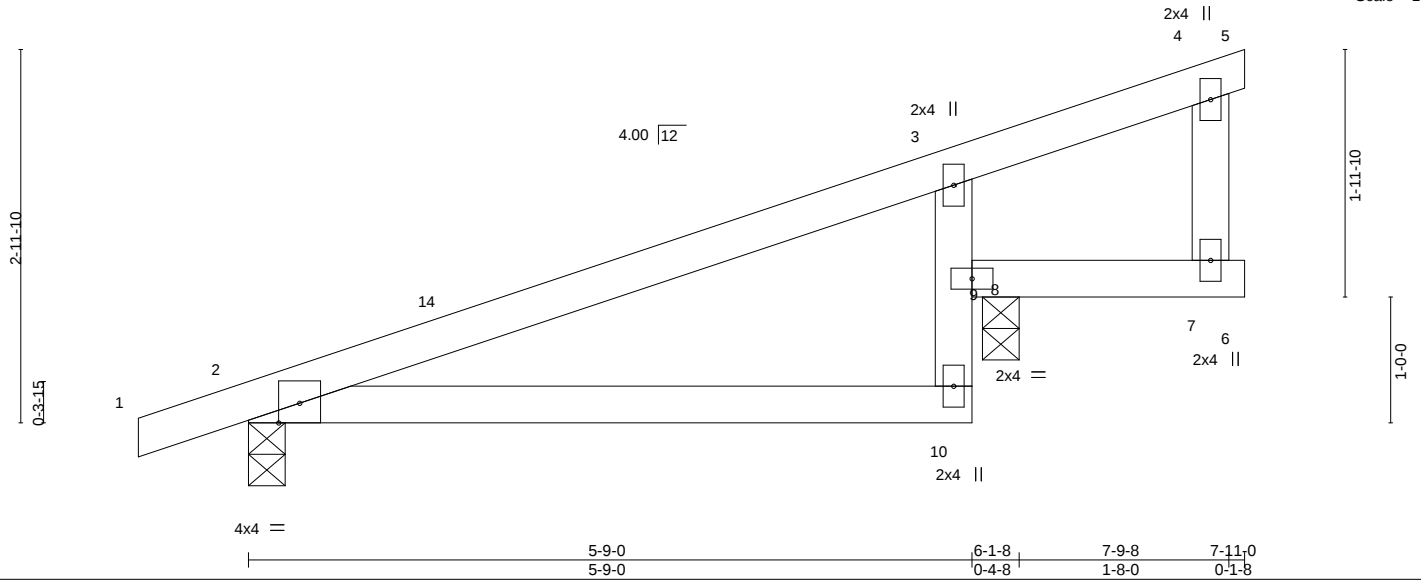
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:38 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-JUAnw9hq_ZJmewe80yIOOQVQZWhAVicHaOQfQ6yKHwJ

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

Scale = 1:18.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.41	Vert(LL)	-0.06 10-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT)	-0.12 10-13	>605	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.01	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 23 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=85(LC 14)
Max Uplift 2=-32(LC 14), 8=-50(LC 14)
Max Grav 2=305(LC 19), 8=552(LC 19)

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

BOT CHORD 3-9=-355/241

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-11-0 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
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12,2020

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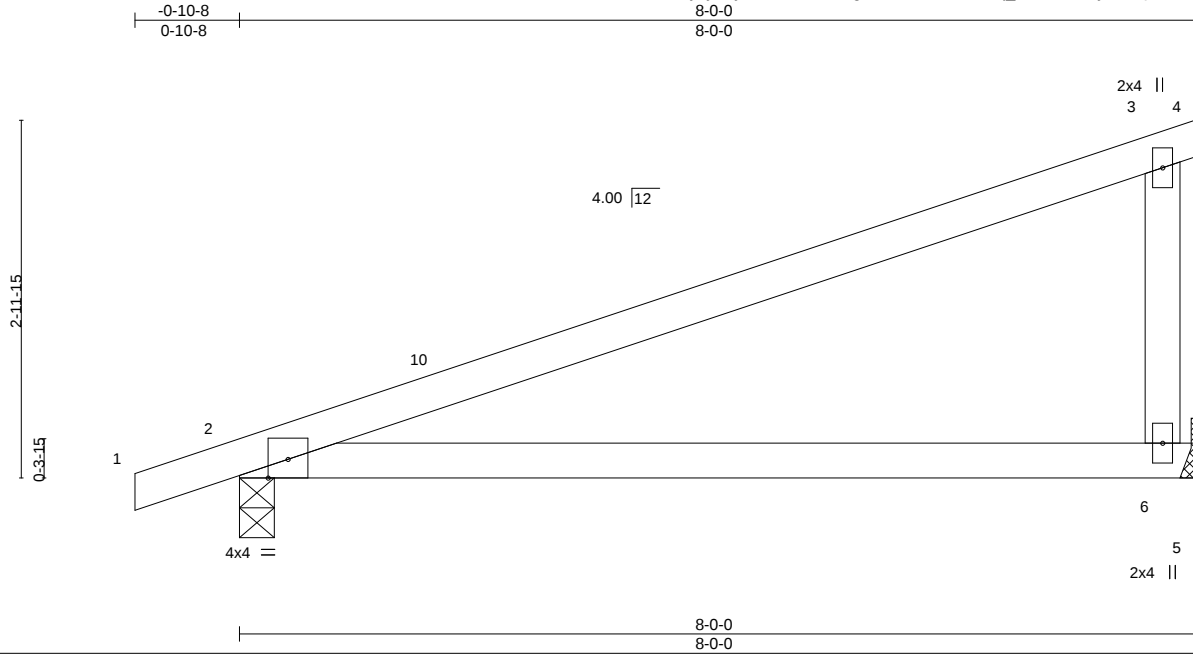


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584151
2534894	N2	Monopitch	4	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:38 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-JUAnw9hq_ZJmewe80yIOOQVHsWbCVixHaOQfQ6yKHwJ



Scale = 1:19.3

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.97 BC 0.70 WB 0.05 Matrix-AS	in (loc) l/defl L/d Vert(LL) -0.22 6-9 >413 240 Vert(CT) -0.41 6-9 >224 180 Horz(CT) 0.01 2 n/a n/a	MT20	197/144
TCDL 10.0					
BCLL 0.0					
BCDL 10.0					
				Weight: 23 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=86(LC 14)
Max Uplift 2=-44(LC 14), 6=-40(LC 14)
Max Grav 2=428(LC 19), 6=436(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-322/196

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

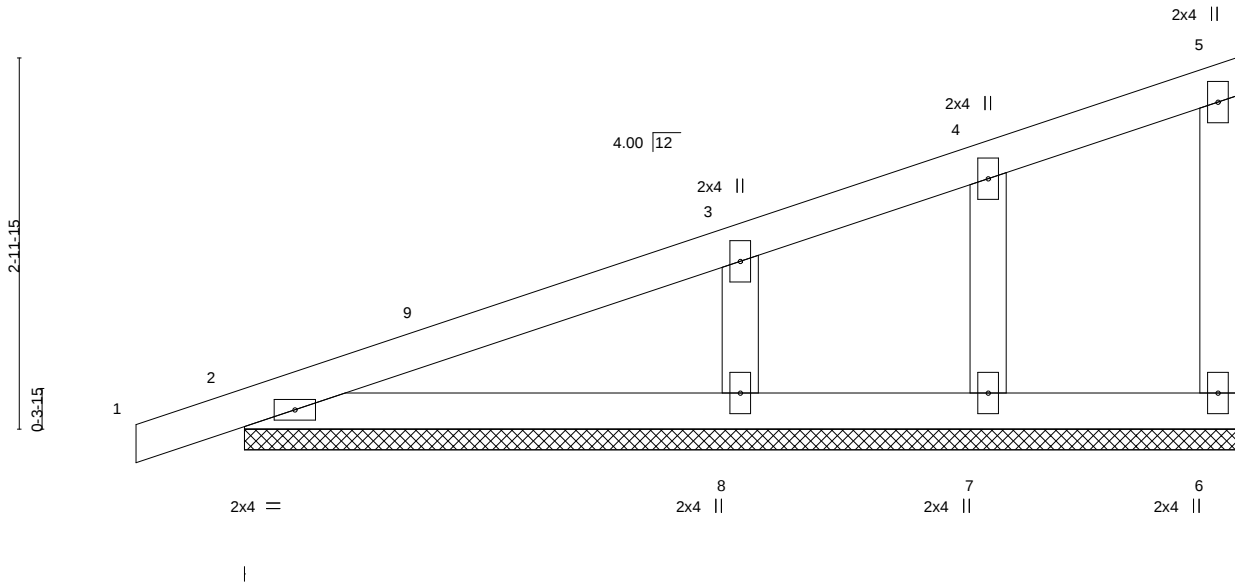
Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584152
2534894	NG	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:39 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-ngjA7UiSIsRdF4DLafpdxe2eSw5nE9BQo29DyYyKHwl

-0-10-8 7-10-8 8-0-0
0-10-8 7-10-8 0-1-8

Scale = 1:18.6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.21	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.11	Vert(LL) 0.00 1 n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) 0.01 1 n/r 120		
BCLL 0.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-0-0.
(lb) - Max Horz 2=84(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 7 except 8=405(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-8=-324/297

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 7-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 7, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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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/53 Manor	I43584153
2534894	O1	HIP GIRDER	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:41 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-j3rwYAjHUhLVNNjh4r5037tPjc7i2qjGMeK1RyKHwG

-0-10-8	1-11-3	2-3-8	4-0-0	6-0-0	8-0-0	9-8-8	10-0-13	12-0-0	12-10-8
0-10-8	1-11-3	0-4-5	1-8-8	2-0-0	2-0-0	1-8-8	0-4-5	1-11-3	0-10-8

Scale = 1:23.1

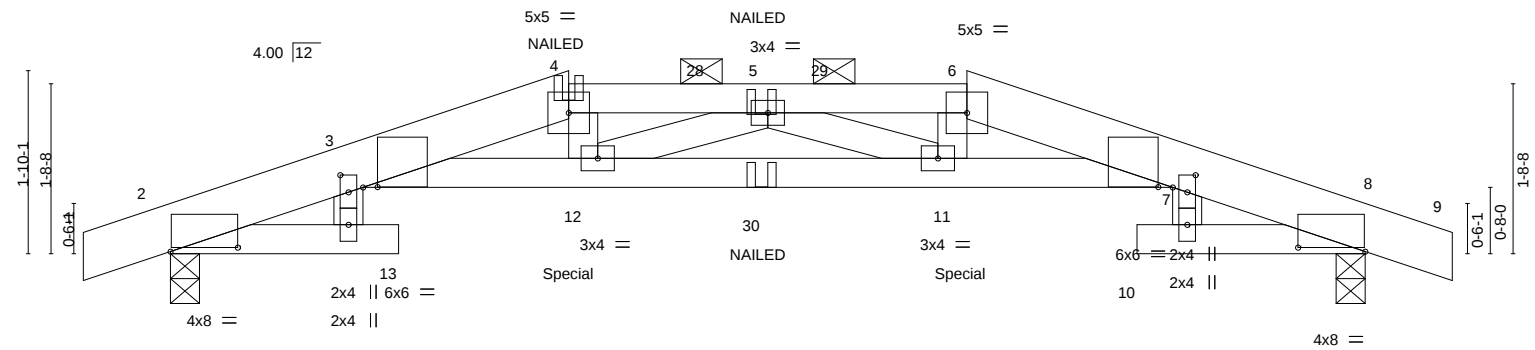


Plate Offsets (X,Y)--	[2:0-8-2,0-0-8], [3:0-1-12,0-0-1], [3:0-2-1,0-1-0], [7:0-1-12,0-0-1], [7:0-2-1,0-1-0], [8:0-8-2,0-0-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.69	Vert(LL)	-0.19 11-12	>755	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.75	Vert(CT)	-0.34 11-12	>429	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.11	Horz(CT)	0.18 8	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 44 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 2100F 1.8E *Except* 4-6: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-5 oc purlins, except 2-0-0 oc purlins (3-0-15 max.): 4-6.
BOT CHORD 2x4 SPF No.2 *Except* 3-7: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=19(LC 9)
Max Uplift 2=27(LC 10), 8=28(LC 10)
Max Grav 2=920(LC 29), 8=900(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-3176/0, 4-5=-3210/0, 5-6=-3206/0, 6-7=-3165/0
BOT CHORD 3-12=0/3140, 11-12=0/3371, 7-11=0/3129
WEBS 4-12=0/404, 6-11=0/437, 5-11=-313/51

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 160 lb down at 4-0-0, and 160 lb down at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-6=-60, 6-9=-60, 13-16=-20, 19-22=-20, 10-25=-20

Continued on page 2



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor
2534894	O1	HIP GIRDER	1	1	I43584153
Job Reference (optional)					

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020
MiTek Industries, Inc.
Wed Nov 11 09:59:42 2020
Page 2

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LOAD CASE(S)
Standard
Concentrated Loads (lb)
Vert: 4=-63(B) 12=-160(B) 11=-160(B) 5=-48(B) 30=-68(B)

Job 2534894	Truss O2	Truss Type Roof Special	Qty 2	Ply 1	Summit/53 Manor Job Reference (optional)	I43584154
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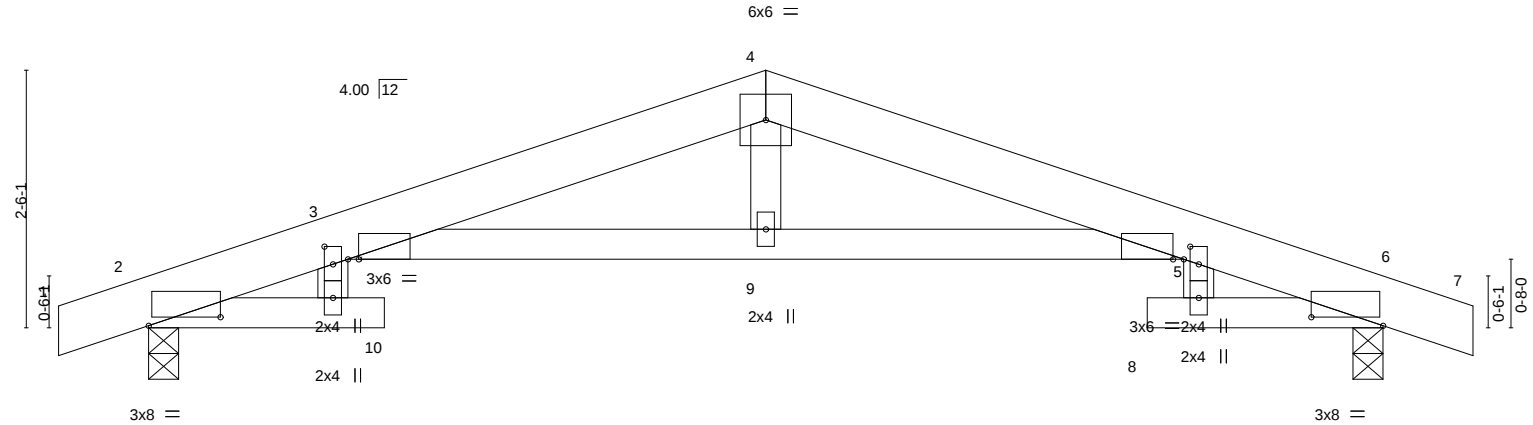
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:43 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-gRzgslzp5x3khX6pVuZ5UCCgXJ8AyA0jg7Q5JyKHwE

-0-10-8	2-3-8	6-0-0	9-8-8	12-0-0	12-10-8
0-10-8	2-3-8	3-8-8	3-8-8	2-3-8	0-10-8

Scale = 1:22.4



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

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.71	Vert(LL)	-0.12	10	>999	240	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.66	Vert(CT)	-0.23	10	>631	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.12	6	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS							
BCDL 10.0	Code IRC2018/TPI2014								

Weight: 43 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=-28(LC 12)
 Max Uplift 2=-67(LC 14), 6=-67(LC 14)
 Max Grav 2=621(LC 19), 6=621(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 3-4=-1239/442, 4-5=-1239/449
 BOT CHORD 3-9=-356/1203, 5-9=-356/1203

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 1-11-4, Interior(1) 1-11-4 to 6-0-0, Exterior(2R) 6-0-0 to 9-2-4, Interior(1) 9-2-4 to 12-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) 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.



November 12, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584155
2534894	O3	Common	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:44 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-8eX3BCmbaP3wMr5INCPOehIRMXkvvPP9yKt_emyKHwD

-0-10-8	6-0-0	11-8-0
0-10-8	6-0-0	5-8-0

Scale = 1:20.1

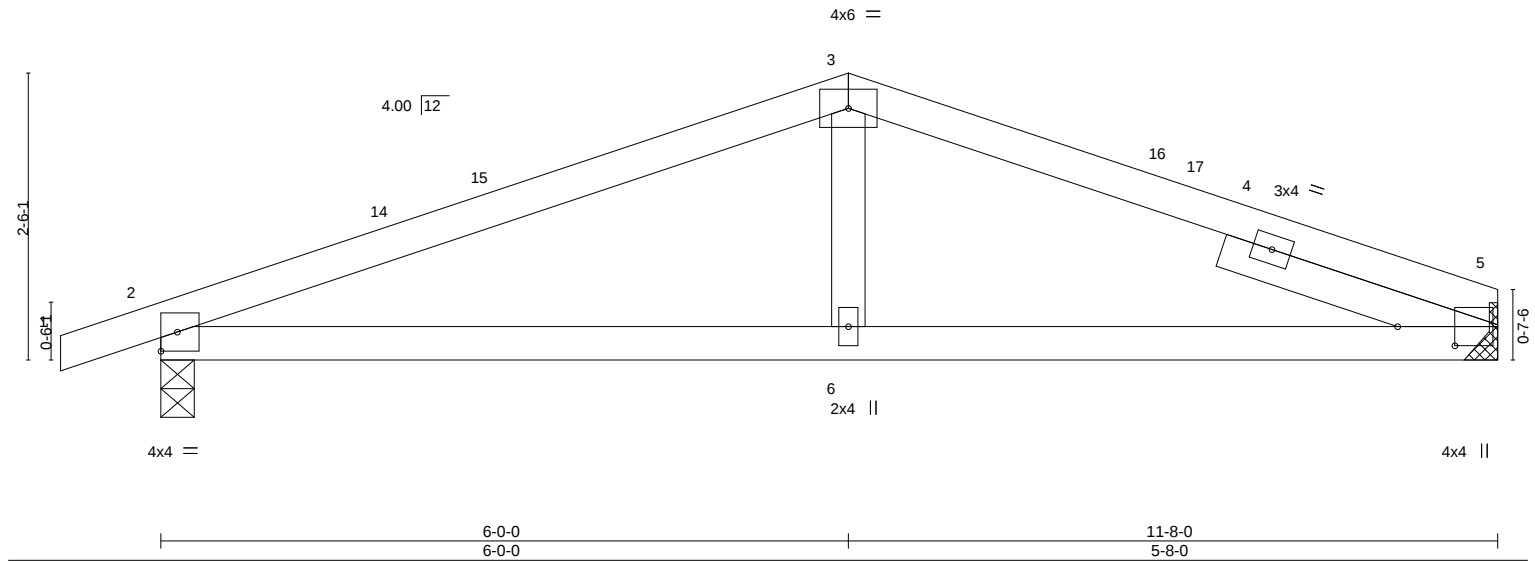


Plate Offsets (X,Y)-- [5:0-2-0,0-6-0]		6-0-0		11-8-0	
		6-0-0		5-8-0	
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.05 6-13 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.08 6-13 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 34 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-3-8
Max Horz 2=28(LC 13)
Max Uplift 5=-42(LC 14), 2=-70(LC 14)
Max Grav 5=539(LC 20), 2=604(LC 19)

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

TOP CHORD 2-3=-823/311, 3-5=-751/322
BOT CHORD 2-6=-249/705, 5-6=-249/705

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 11-8-0 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



November 12, 2020

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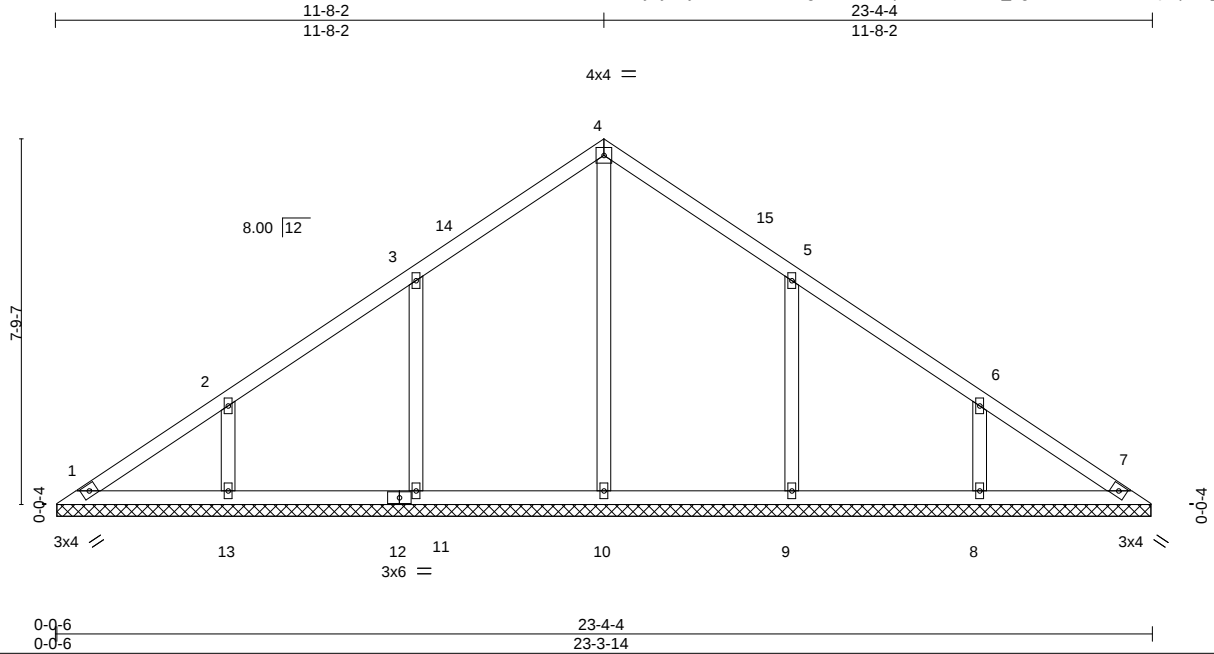
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss V1	Truss Type Valley	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584156
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:45 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-cq5ROYmDLiBn_?gUwww1AvlhnK8QeqoJB_cXACyKHwC



Scale = 1:49.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.00	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 80 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 23-3-8.
(lb) - Max Horz 1=-159(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 11, 13, 9, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=257(LC 1), 11=350(LC 17), 13=325(LC 17), 9=350(LC 18), 8=325(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-271/138, 5-9=-270/138

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-8-2, Interior(1) 3-8-2 to 11-8-2, Exterior(2R) 11-8-2 to 14-8-2, Interior(1) 14-8-2 to 22-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 13, 9, 8.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584157
2534894	V2	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:46 2020 Page 1

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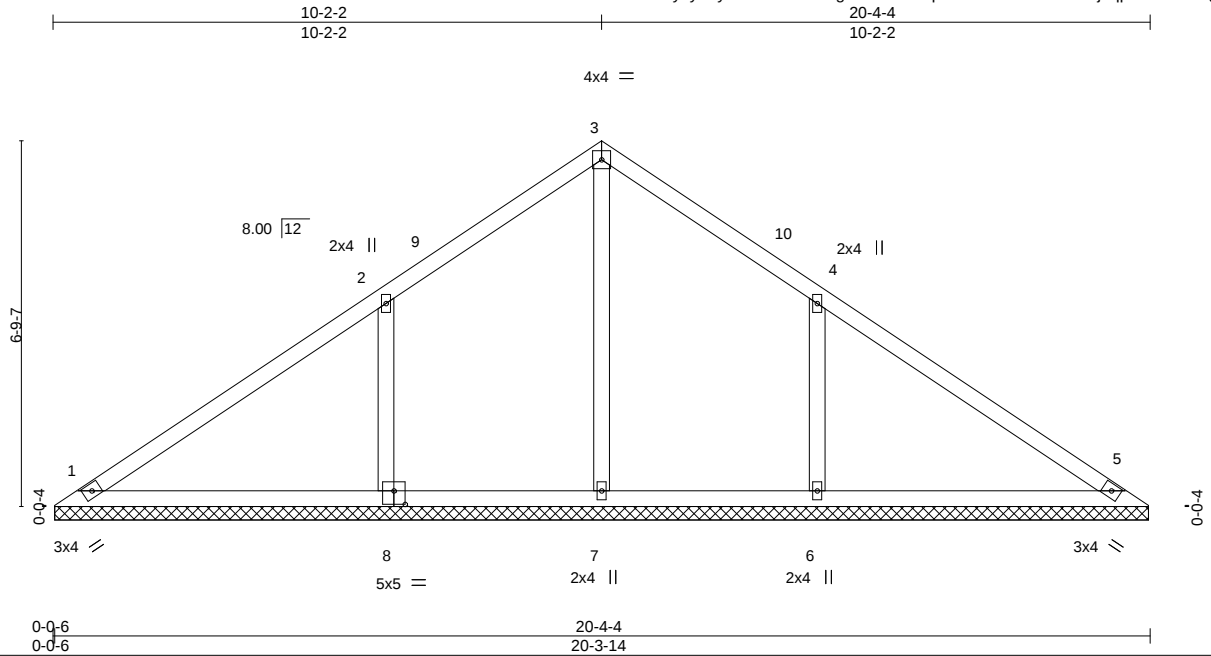


Plate Offsets (X,Y)-- [8:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
(Roof Snow=20.0)	Plate Grip DOL 1.15	BC 0.23	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 65 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 20-3-8.
(lb) - Max Horz 1=138(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=116(LC 12), 6=121(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=499(LC 17), 6=507(LC 18)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-363/176, 4-6=-372/181

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 10-2-2, Exterior(2R) 10-2-2 to 13-2-2, Interior(1) 13-2-2 to 19-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=116, 6=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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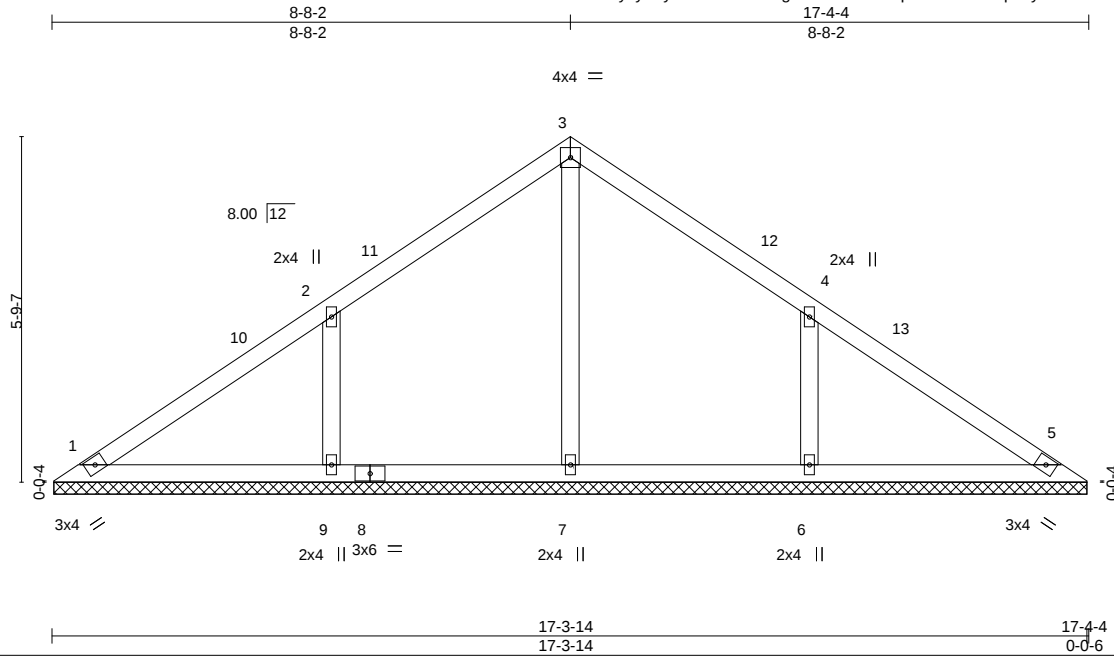


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584158
2534894	V3	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:47 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-YDCBpEoUtKRVDIqt2LyVFKN0X8pQ6lebel5eE4yKHwA



Scale = 1:38.6

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00				
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0'-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0'-0 oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 17-3-8.
(lb) - Max Horz 1=-116(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 9, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=404(LC 17), 6=404(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-302/150, 4-6=-302/150

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 8-8-2, Exterior(2R) 8-8-2 to 11-8-2, Interior(1) 11-8-2 to 16-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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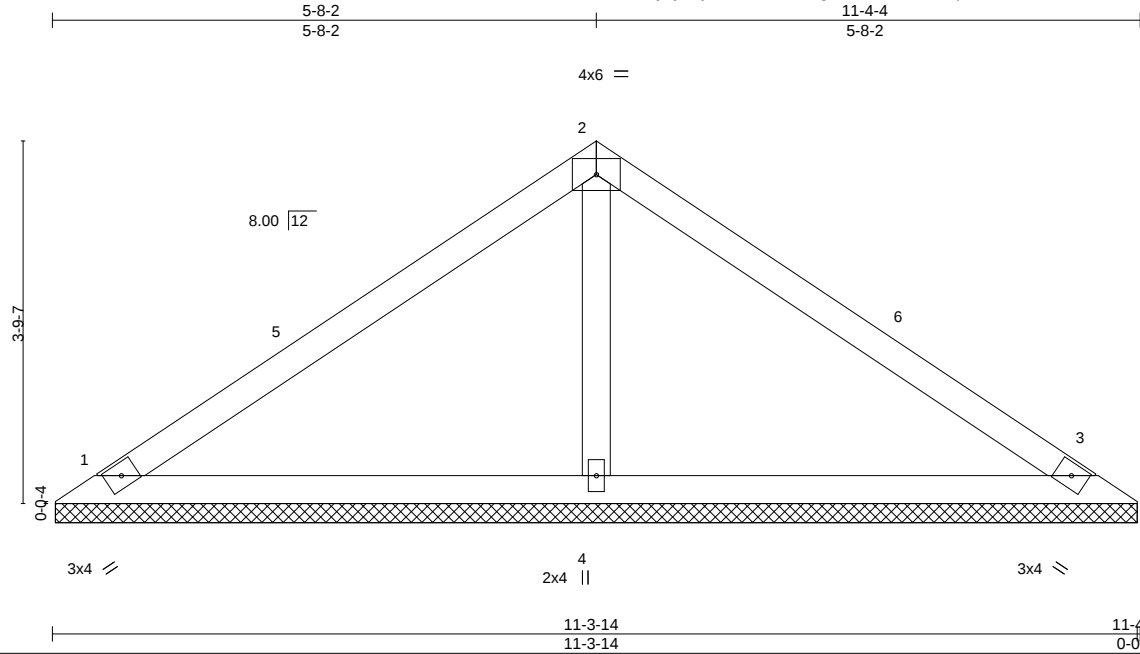
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584160
2534894	V5	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:48 2020 Page 1

ID:mDd9ycyFdydMUJW7?YBug7z82D4-0PmZ0Zp6edZLrSP3c2TkoXvAsY70rDGltYrBnXyKHw9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. (size) 1=11-3-8, 3=11-3-8, 4=11-3-8
Max Horz 1=-74(LC 10)
Max Uplift 1=-31(LC 12), 3=-31(LC 12), 4=-14(LC 12)
Max Grav 1=203(LC 1), 3=203(LC 1), 4=426(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-272/102

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-8-2, Exterior(2R) 5-8-2 to 8-8-2, Interior(1) 8-8-2 to 10-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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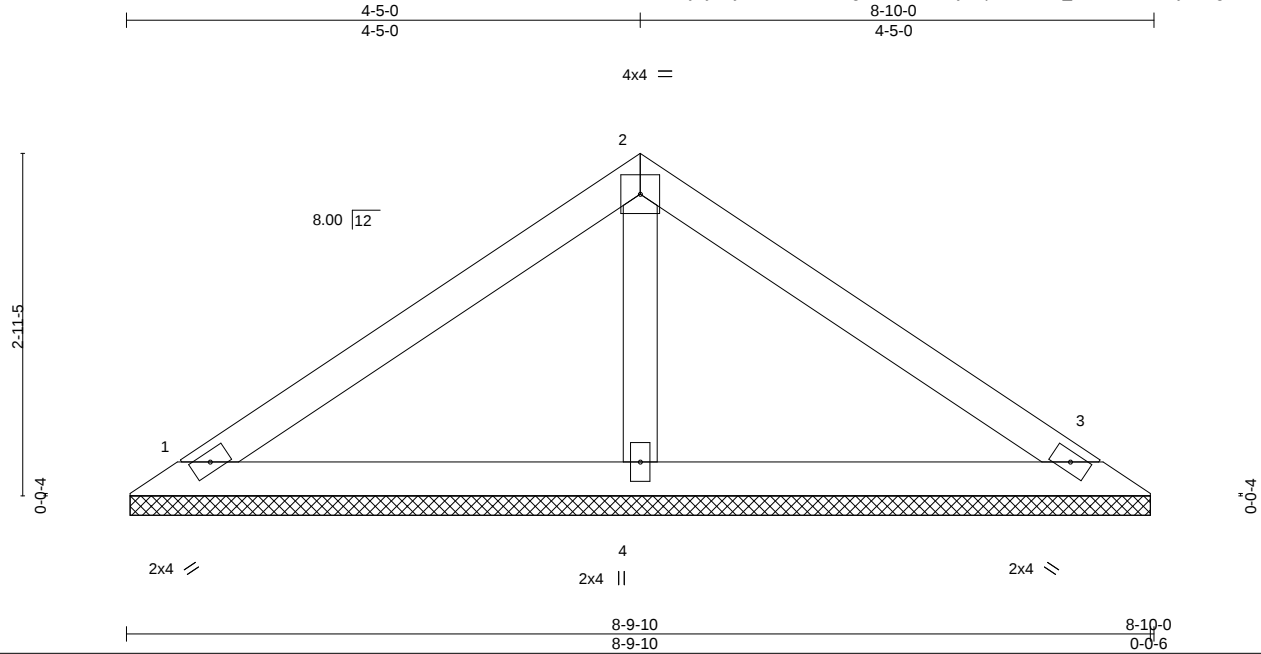


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2534894	Truss V6	Truss Type Valley	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584161
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:49 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-UbKyEvPkPxCSc_G9m?zKISMKyUkag?u6baIJzyKHw8



Scale = 1:19.8

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	MT20		197/144	
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6'-0"-0" oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10'-0"-0" oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. (size) 1=8-9-4, 3=8-9-4, 4=8-9-4
Max Horz 1=-56(LC 10)
Max Uplift 1=-31(LC 12), 3=-31(LC 12)
Max Grav 1=169(LC 1), 3=169(LC 1), 4=292(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-5-0, Exterior(2R) 4-5-0 to 7-5-0, Interior(1) 7-5-0 to 8-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



November 12, 2020

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

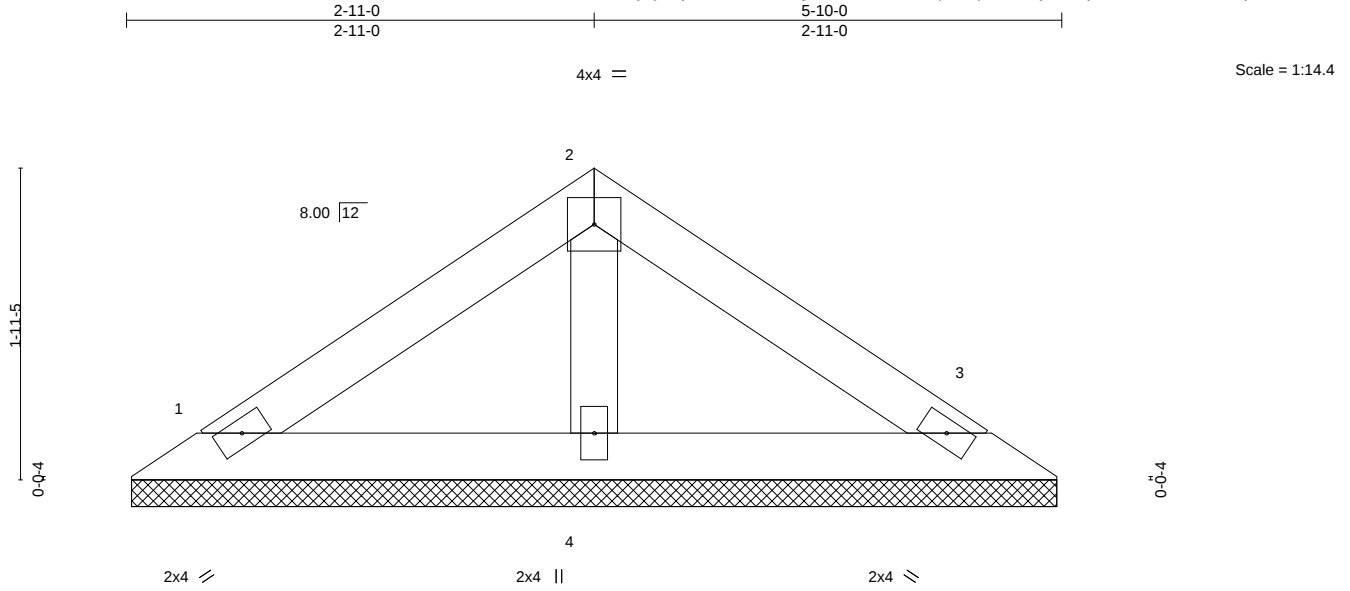
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 2534894	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/53 Manor Job Reference (optional)	I43584162
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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:50 2020 Page 1
ID:mDd9ycyFdydMUJW7?YBug7z82D4-zouKRFqMAFp34mZSJTWCTy?ZcLsEJ7V2KFKIrPyKHw7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	MT20	197/144		
(Roof Snow=20.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-10-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. (size) 1=5-9-4, 3=5-9-4, 4=5-9-4
Max Horz 1=-35(LC 10)
Max Uplift 1=-19(LC 12), 3=-19(LC 12)
Max Grav 1=104(LC 1), 3=104(LC 1), 4=181(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) 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) TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - 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.



November 12, 2020

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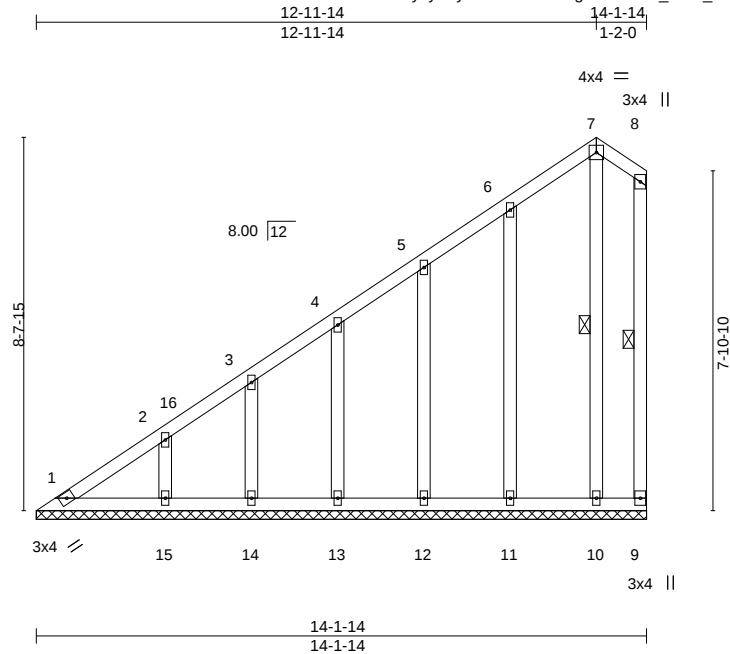
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/53 Manor	I43584163
2534894	V8	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 09:59:51 2020 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0 (Roof Snow=20.0)	2-0-0	TC 0.36	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.15	WB 0.12	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 9 n/a n/a		
	Code IRC2018/TPI2014			Weight: 76 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 8-9, 7-10

REACTIONS.

All bearings 14-1-14.
(lb) - Max Horz 1=282(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 10, 11, 12, 13, 14, 15
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 10, 11, 12, 13, 14, 15

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-466/323, 2-3=-375/271, 3-4=-307/241
WEBS 7-10=-255/183

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 12-11-14, Corner(3E) 12-11-14 to 14-0-2 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
- 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.
- TCLL: ASCE 7-16; Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 10, 11, 12, 13, 14, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 12, 2020

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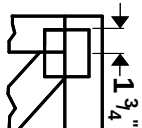
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



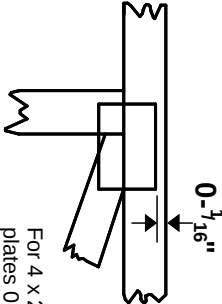
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Symbols

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- 3/16" from outside edge of truss.

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

*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

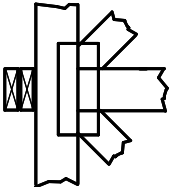
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

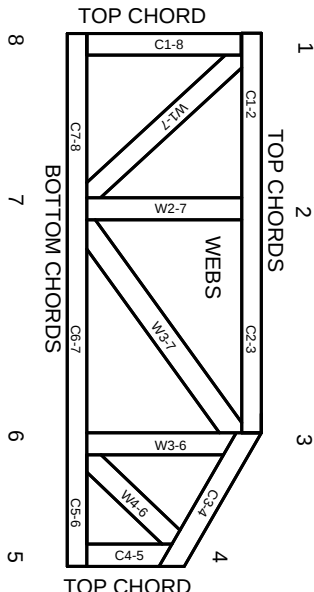


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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.