



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021 9:15:08

MiTek USA, Inc.

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

Re: 2903855

SUMMIT/HAWTHORN RIDGE #117/MO

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

Pages or sheets covered by this seal: I47451358 thru I47451453

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

Missouri COA: Engineering 001193



August 16, 2021

Sevier, Scott ,Engineer

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

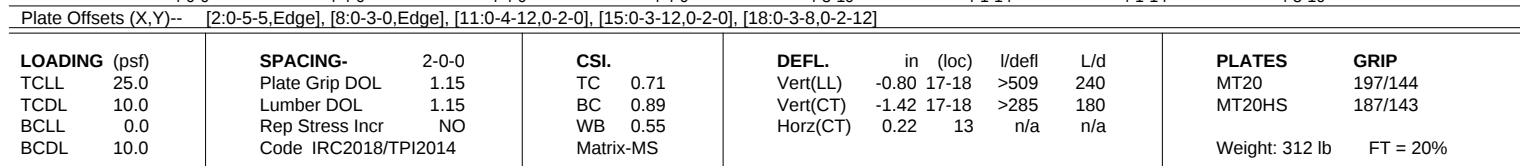
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:51:59 2021 Page 1

ID:kEw3wTxqZGzo92CBQyp051z2MZK-jQ1qIQMSZWQn8qG3Ru1fqHtESktNlV6F74EByoGhE

0-10-8 4-0-0 8-4-0 12-8-0 17-0-0 21-3-10 25-5-8 29-7-6 33-11-0

0-10-8 4-0-0 4-4-0 4-4-0 4-4-0 4-3-10 4-1-14 4-1-14 4-3-10

Scale = 1:61.1



BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-3 max.): 4-12.
BOT CHORD	Rigid ceiling directly applied or 9-8-11 oc bracing.
JOINTS	1 Brace at Jt(s): 12, 19

REACTIONS. (size) 13=Mechanical, 2=0-3-8
Max Horz 2=70(LC 26)
Max Uplift 13=-588(LC 5), 2=-496(LC 5)
Max Grav 13=2198(LC 1), 2=2267(LC 1)

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

TOP CHORD 2-4=-3694/893, 4-5=-3142/775, 5-6=-7998/2031, 6-7=-7987/2021, 7-9=-12635/3305, 9-10=-10011/2649, 10-11=-10011/2649

BOT CHORD 2-25=-815/3233, 24-25=-1504/5919, 21-24=-1658/6548, 20-21=-880/3464, 18-20=-354/1543, 19-22=-1740/6593, 18-19=-3341/12827, 17-18=-3456/13321, 15-17=-3325/12635, 14-15=-1594/5922, 13-14=-1594/5922

WEBS 4-25-342/1559, 5-25=-3205/827, 5-24=-15/430, 21-22=-1529/482, 6-22=-393/181, 7-17=-718/137, 9-17=-107/483, 9-15=-2763/691, 10-15=-335/99, 11-15=-1131/4304, 11-13=-6059/1619, 22-24=-638/184, 5-22=-571/2152, 7-18=-367/1641, 7-22=-5631/1493, 19-20=-3292/848, 19-21=-926/3617

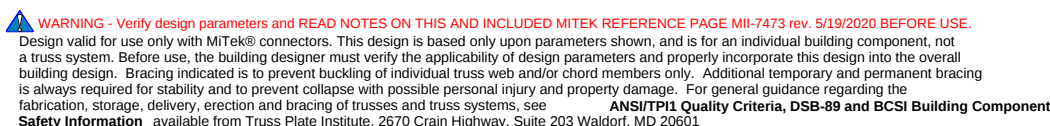
NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) All plates are 4x6 MT20 unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Refer to girder(s) for truss to truss connections.

Continued on page 2



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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451358
2903855	A1	Half Hip Girder	1	2	Job Reference (optional)	

- NOTES-**
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=588, 2=496.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 13) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 4-0-0 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
 - 14) Fill all nail holes where hanger is in contact with lumber.
 - 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-4=-70, 4-12=-70, 20-26=-20, 13-18=-20
 - Concentrated Loads (lb)
 - Vert: 16=-50(F) 25=-209(F) 24=-24(F) 6=-47(F) 21=-24(F) 7=-47(F) 20=-24(F) 30=-47(F) 31=-47(F) 32=-47(F) 33=-47(F) 34=-47(F) 35=-32(F) 36=-32(F) 37=-32(F) 38=-32(F) 39=-32(F) 40=-32(F) 41=-32(F) 42=-32(F) 43=-24(F) 44=-24(F) 45=-24(F) 46=-24(F) 47=-50(F) 48=-50(F) 49=-50(F) 50=-50(F) 51=-50(F) 52=-50(F) 53=-50(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451359
2903855	A2	Half Hip	1	1		

Builders FirstSource (Valley Center),

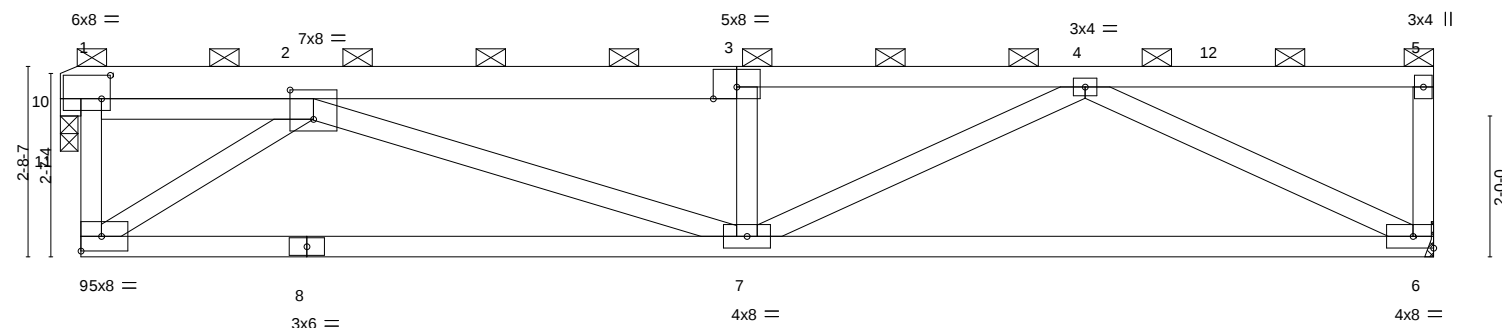
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:03 2021 Page 1

ID:3GmZIGChWZGARvEueXVyXyPZ34-cBGLaoPydLxDeRaagkpzpgReh48pJVkift5HNyyoGhA

0-6-14	3-8-14	6-9-7	9-9-0	12-11-15	14-6-10	19-6-0
0-6-14	3-2-0	3-0-9	2-11-9	3-2-15	1-6-11	4-11-6

Scale = 1:32.7



0-3-8	3-8-14	9-9-0	19-6-0
0-3-8	3-5-6	6-0-2	9-9-0

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.17	6-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.37	6-7	>631	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 84 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
3-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD 2-0-0 oc purlins (4-1-15 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 10=0-3-0
Max Horz 10=87(LC 9)
Max Uplift 6=-159(LC 8), 10=-154(LC 9)
Max Grav 6=865(LC 1), 10=837(LC 1)

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

TOP CHORD 2-3=-1864/752, 3-4=-1835/744, 1-9=-357/847
BOT CHORD 7-9=-502/1111, 6-7=-593/1306
WEBS 3-7=-316/214, 4-7=-133/592, 4-6=-1376/646, 2-7=-223/785, 2-9=-1258/645,
1-10=-983/390

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-4 to 3-5-4, Exterior(2) 3-5-4 to 16-4-4, Corner(3) 16-4-4 to 19-4-4 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 6 and 154 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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

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

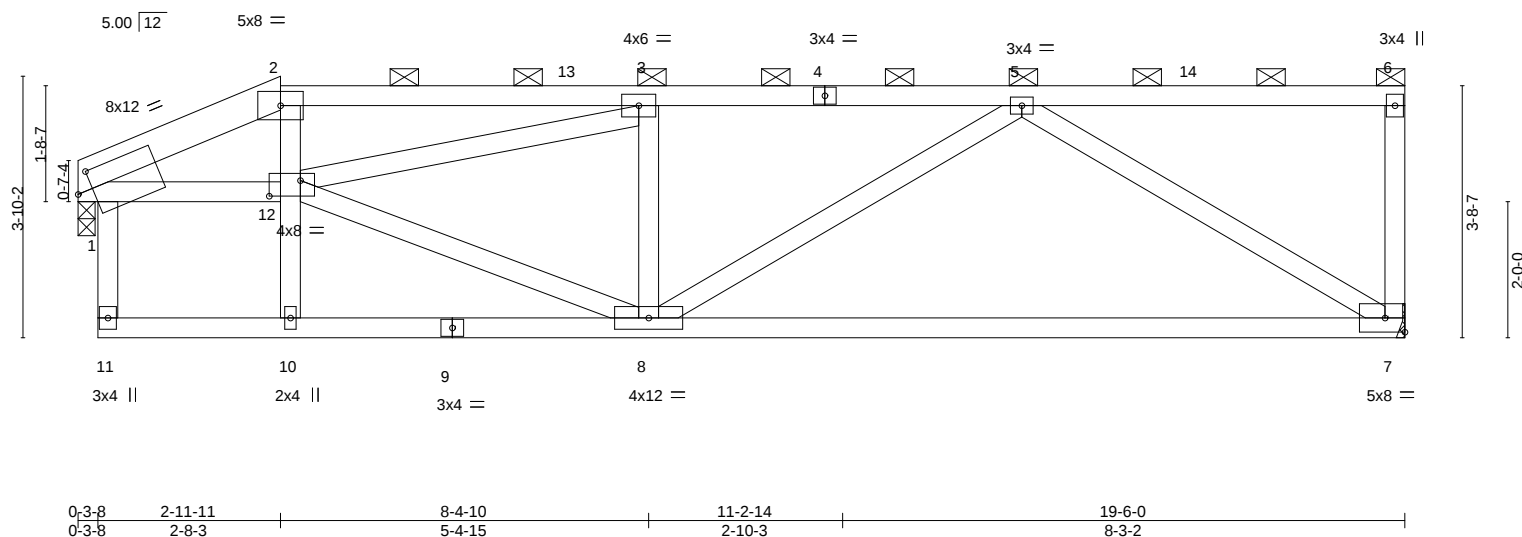
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Scale = 1:33.9



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.54	Vert(LL) -0.35 7-8 >656 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.84	Vert(CT) -0.70 7-8 >325 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.80	Horz(CT) 0.03 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 89 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-7-1 max.): 2-6.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 1=0-3-0, 7=Mechanical
Max Horz 1=104(LC 11)
Max Uplift 1=-106(LC 8), 7=-153(LC 8)
Max Grav 1=901(LC 1), 7=855(LC 1)

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

TOP CHORD 1-2=-1593/261, 2-3=-1412/245, 3-5=-1268/234
BOT CHORD 1-12=-287/1384, 7-8=-234/989
WEBS 2-12=-23/409, 3-8=-435/156, 5-8=-37/386, 5-7=-1084/258, 8-12=-221/1293

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 2-11-11, Exterior(2R) 2-11-11 to 7-2-10, Interior(1) 7-2-10 to 19-4-4 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 1 and 153 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/TP1 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) 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/HAWTHORN RIDGE #117/MO
2903855	A4	Half Hip	1	1	I47451361

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-YaO5?URD9MBwsljDo8sRu5XwWtuDnVK?7BaORqyoGh8

0-3-8 5-4-8 12-5-4 19-6-0
0-3-8 5-1-0 7-0-12 7-0-12

Scale = 1:33.8

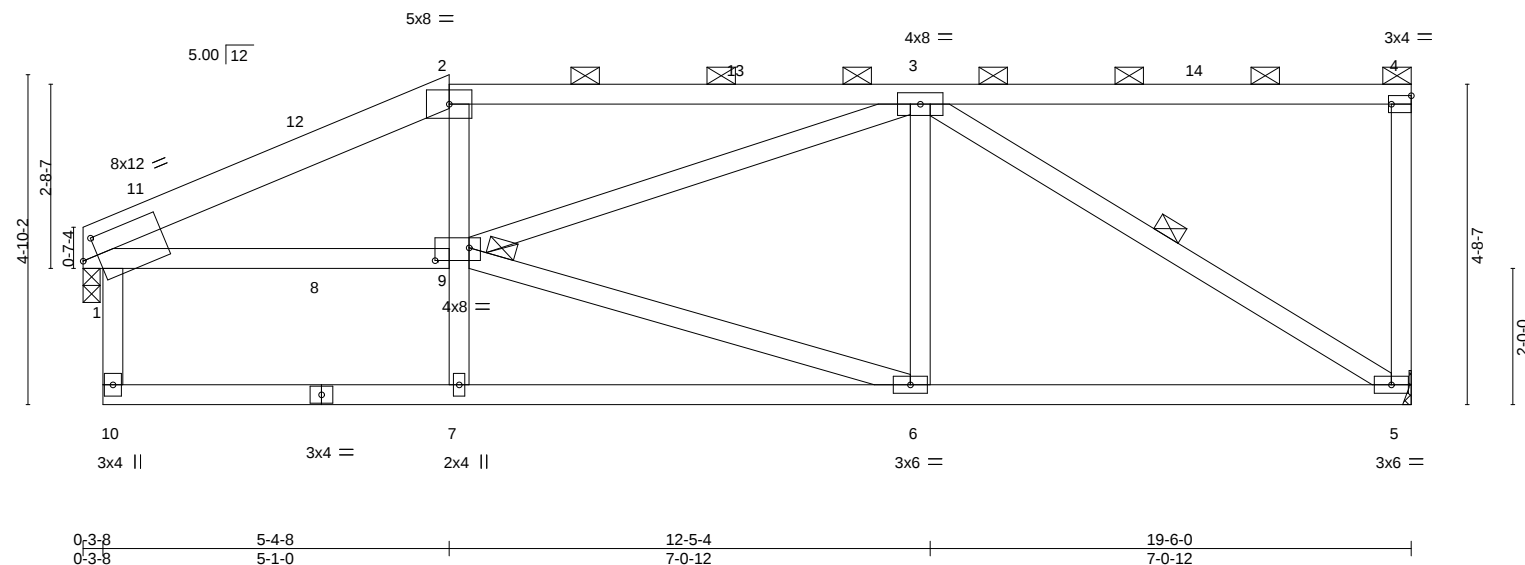


Plate Offsets (X,Y)-- [1:0-2-12,0-3-4], [4:Edge,0-1-8], [9:0-6-0,0-2-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.06	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.13	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 96 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-13 max.): 2-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-5
JOINTS 1 Brace at Jt(s): 4, 9

REACTIONS.

(size) 1=0-3-0, 5=Mechanical
Max Horz 1=143(LC 11)
Max Uplift 1=-91(LC 12), 5=-145(LC 8)
Max Grav 1=939(LC 1), 5=865(LC 1)

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

TOP CHORD 1-2=-1633/203, 2-3=-1443/209
BOT CHORD 1-9=-253/1419, 5-6=-189/974
WEBS 2-9=0/345, 3-5=-1097/178, 6-9=-194/964, 3-9=-99/497

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 5-4-8, Exterior(2R) 5-4-8 to 9-7-7, Interior(1) 9-7-7 to 19-4-4 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 1 and 145 lb uplift at joint 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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



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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	A5	GABLE	1	1	I47451362

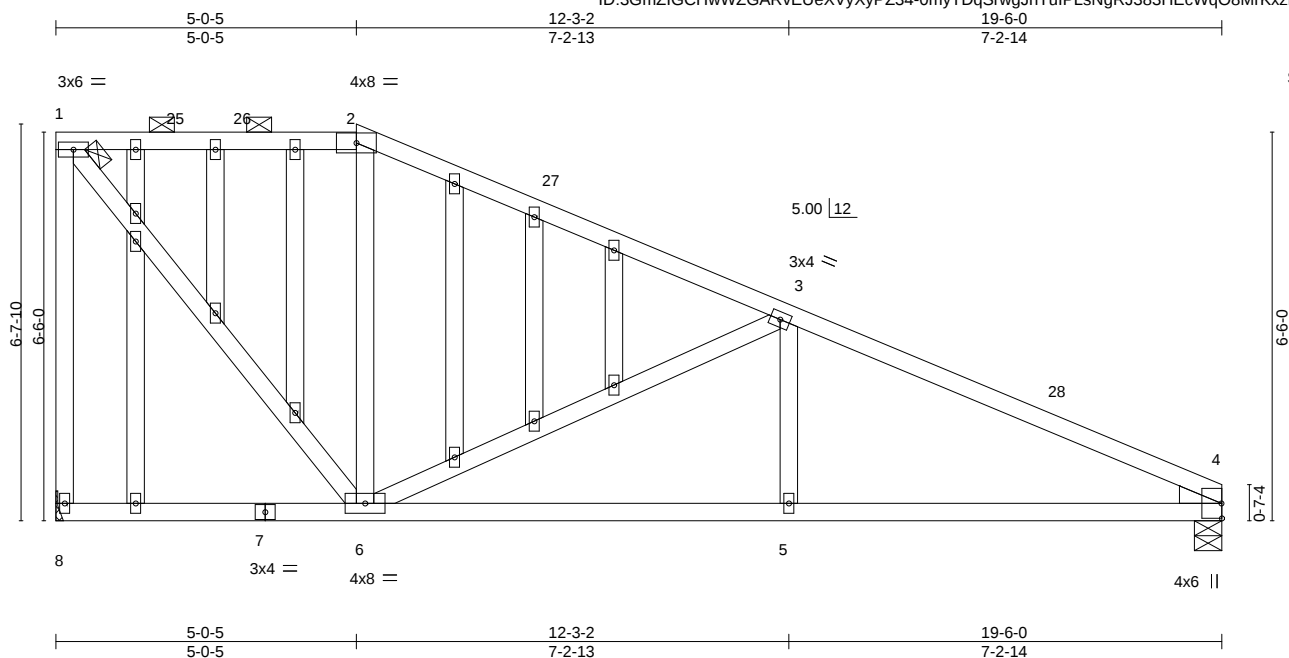
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Valley Center, KS - 67147,

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ID:3GmZIGCHWWZGARvEueXVyXyPZ34-0myTDqSrWgJnTulPLsNgRJ383HEcWqO8MrKxzHyoGh7

Job Reference (optional)



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.05	5-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.12	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.88	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 108 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 8=Mechanical, 4=0-5-8
 Max Horz 8=-239(LC 10)
 Max Uplift 8=-129(LC 8), 4=-129(LC 13)
 Max Grav 8=871(LC 1), 4=871(LC 1)

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

TOP CHORD 1-8=-829/231, 1-2=-562/205, 2-3=-703/185, 3-4=-1497/276
 BOT CHORD 6-8=-142/272, 5-6=-183/1309, 4-5=-183/1309
 WEBS 1-6=-239/873, 3-6=-832/236, 3-5=0/285

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-0-5, Exterior(2R) 5-0-5 to 8-0-5, Interior(1) 8-0-5 to 19-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 8 and 129 lb uplift at joint 4.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

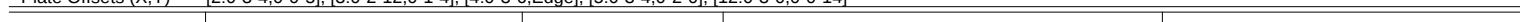
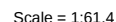
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:07 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVvXyPZ34-UvWsO9SThzRe52tbvZuvzWcEFhVvEJllaU3VWivoGh6



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

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

TOP CHORD 2-3=-832/167, 3-4=-725/161, 4-5=-759/180, 5-6=-759/180, 7-8=-124/260,
8-10=-1278/502, 10-12=-1165/365

BOT CHORD 2-19=0/719, 18-19=-39/939, 17-18=-85/881, 16-17=-87/796, 12-14=-227/1075

WEBS 4-19=-350/95, 4-18=-336/120, 5-18=-66/364, 6-18=-271/246, 8-16=-750/130,
6-17=-926/134, 8-14=-326/218, 10-14=-631/275

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-2-8, Interior(1) 3-2-8 to 6-2-9, Exterior(2R) 6-2-9 to 9-2-9, Interior(1) 9-2-9 to 15-1-2, Exterior(2R) 15-1-2 to 18-1-2, Interior(1) 18-1-2 to 33-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 2, 158 lb uplift at joint 17 and 226 lb uplift at joint 12.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) 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/HAWTHORN RIDGE #117/MO
2903855	A7	ROOF SPECIAL	1	1	I47451364
Job Reference (optional)					

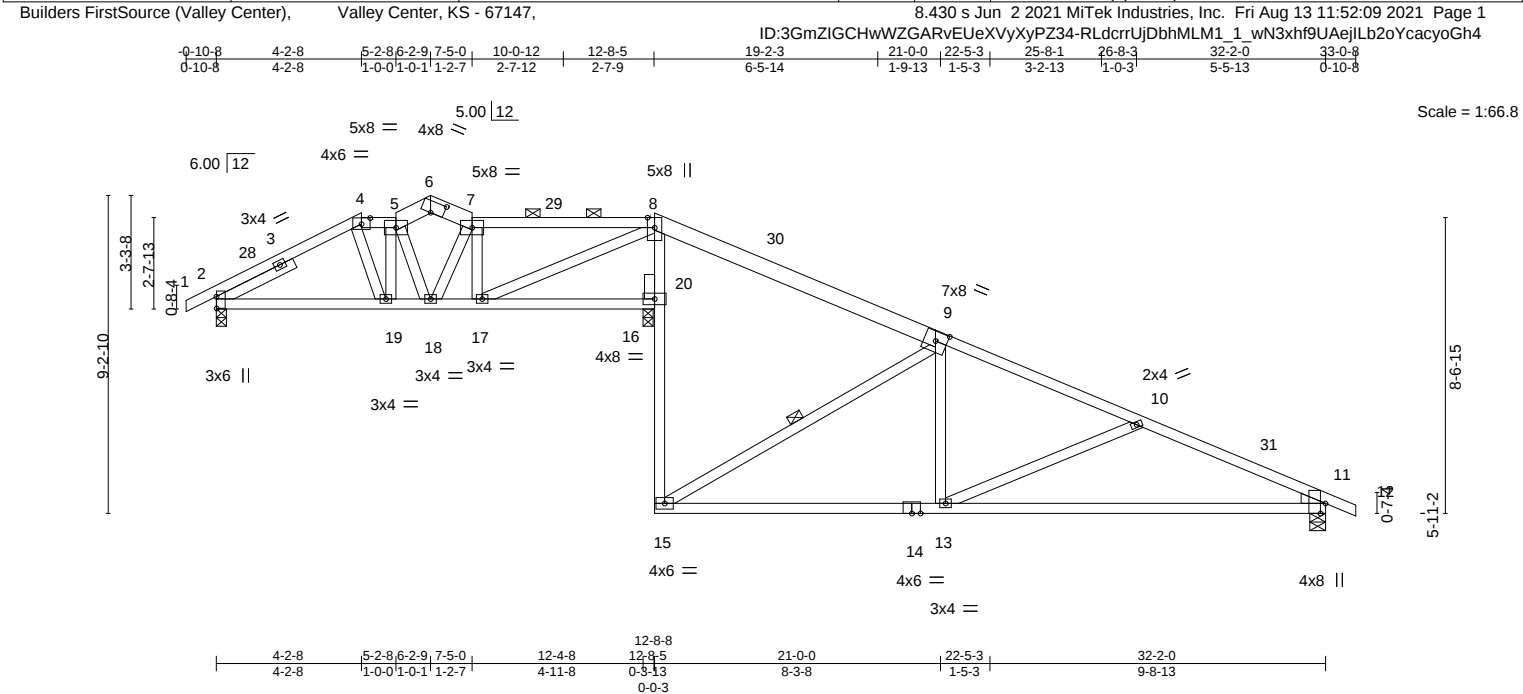


Plate Offsets (X,Y)--	[2:0-4-1,0-0-1], [4:0-3-0,0-2-2], [6:0-4-6,0-3-15], [9:0-4-0,0-3-4], [11:0-3-8,Edge]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.23	13-27
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.46	13-27
BCLL 0.0	Rep Stress Incr	YES	WB 0.42	Horz(CT)	-0.02	11
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS			
Weight: 142 lb						FT = 20%

LUMBER-	BRACING-
TOP CHORD	2x4 SPF No.2 *Except*
	5-6,6-7,8-9: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
WEDGE	
Right: 2x4 SPF No.2	
SLIDER	Left 2x4 SPF No.2 2-6-0

REACTIONS.	(size) 2=0-3-8, 16=0-3-8, 11=0-5-8
	Max Horz 2=-265(LC 13)
	Max Uplift 2=-111(LC 12), 16=-138(LC 13), 11=-232(LC 13)
	Max Grav 2=621(LC 1), 16=1479(LC 1), 11=918(LC 26)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-714/212, 4-5=-659/202, 5-6=-592/203, 6-7=-682/240, 7-8=-724/254, 8-9=-136/276, 9-10=-1023/369, 10-11=-1477/456
BOT CHORD	2-19=0/647, 18-19=0/661, 17-18=-1/736, 15-16=-101/607, 8-16=-818/72, 13-15=-197/866, 11-13=-347/1313
WEBS	9-13=0/503, 9-15=-1020/240, 10-13=-474/164, 8-17=-25/774

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-2-8, Exterior(2E) 4-2-8 to 5-2-8, Interior(1) 5-2-8 to 6-2-9, Exterior(2E) 6-2-9 to 7-5-0, Interior(1) 7-5-0 to 12-8-8, Exterior(2R) 12-8-8 to 15-8-8, Interior(1) 15-8-8 to 33-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 2, 138 lb uplift at joint 16 and 232 lb uplift at joint 11.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451365
2903855	A8	HIP	1	1	Job Reference (optional)	

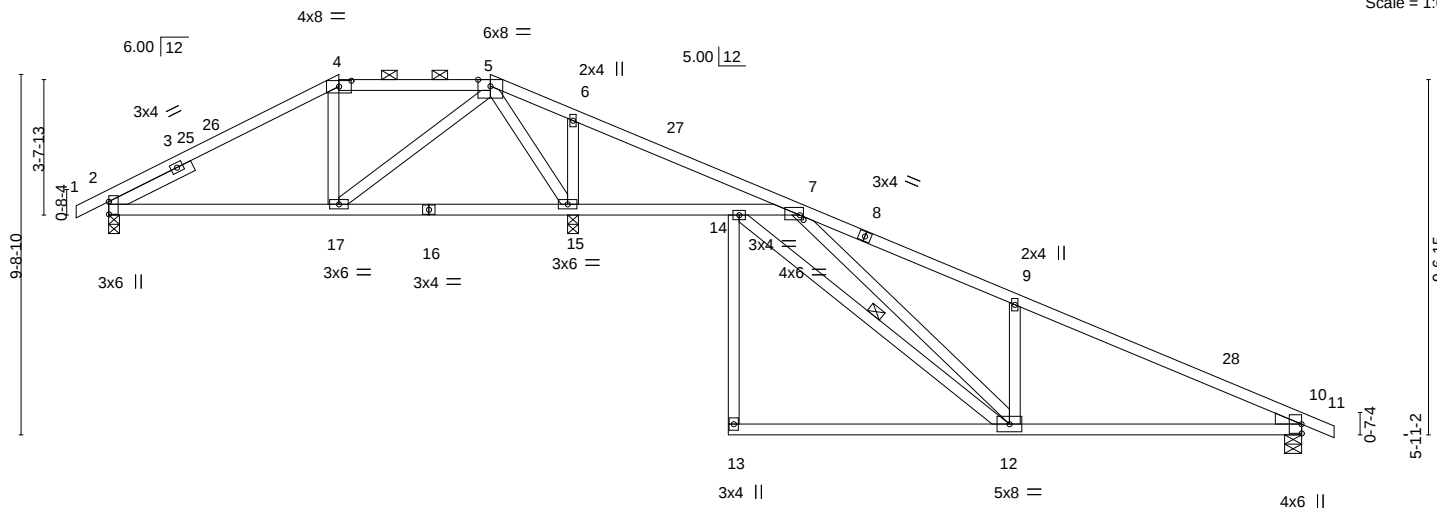
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:10 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-vXB_2BVL_upDyWcAaiScb9EjuubbSjxkGSI972yoGh3

-0-10-8 6-2-8 10-3-8 12-6-4 16-8-8 24-5-3 32-2-0 33-0-8
0-10-8 6-2-8 4-1-0 2-2-12 4-2-4 7-8-11 7-8-13 0-10-8

Scale = 1:62.1



6-2-8 10-3-8 12-6-4 16-8-8 24-5-3 32-2-0
6-2-8 4-1-0 2-2-12 4-2-4 7-8-11 7-8-13

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.12 14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.24 12-13	>975	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.53	Horz(CT)	0.03 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 131 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	WEBS 1 Row at midpt 12-14
Right: 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 10=0-5-8, 15=0-3-8
Max Horz 2=-273(LC 13)
Max Uplift 2=-98(LC 12), 10=-175(LC 13), 15=-242(LC 13)
Max Grav 2=430(LC 25), 10=680(LC 1), 15=2130(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-281/415, 4-5=-241/318, 5-6=-175/2018, 6-7=-269/2147, 7-9=-817/374,
9-10=-849/280
BOT CHORD 2-17=-336/381, 15-17=-998/430, 14-15=-1897/499, 7-14=-2018/575, 10-12=-170/706
WEBS 4-17=-498/94, 9-12=-489/208, 6-15=-494/176, 5-15=-1725/126, 5-17=-87/1035,
7-12=-118/807

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-4-2, Interior(1) 2-4-2 to 6-2-8, Exterior(2E) 6-2-8 to 10-3-8, Exterior(2R) 10-3-8 to 14-10-1, Interior(1) 14-10-1 to 33-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 2, 175 lb uplift at joint 10 and 242 lb uplift at joint 15.
 - 6) This truss is in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	A9	ROOF SPECIAL	2	1	147451366
Job Reference (optional)					

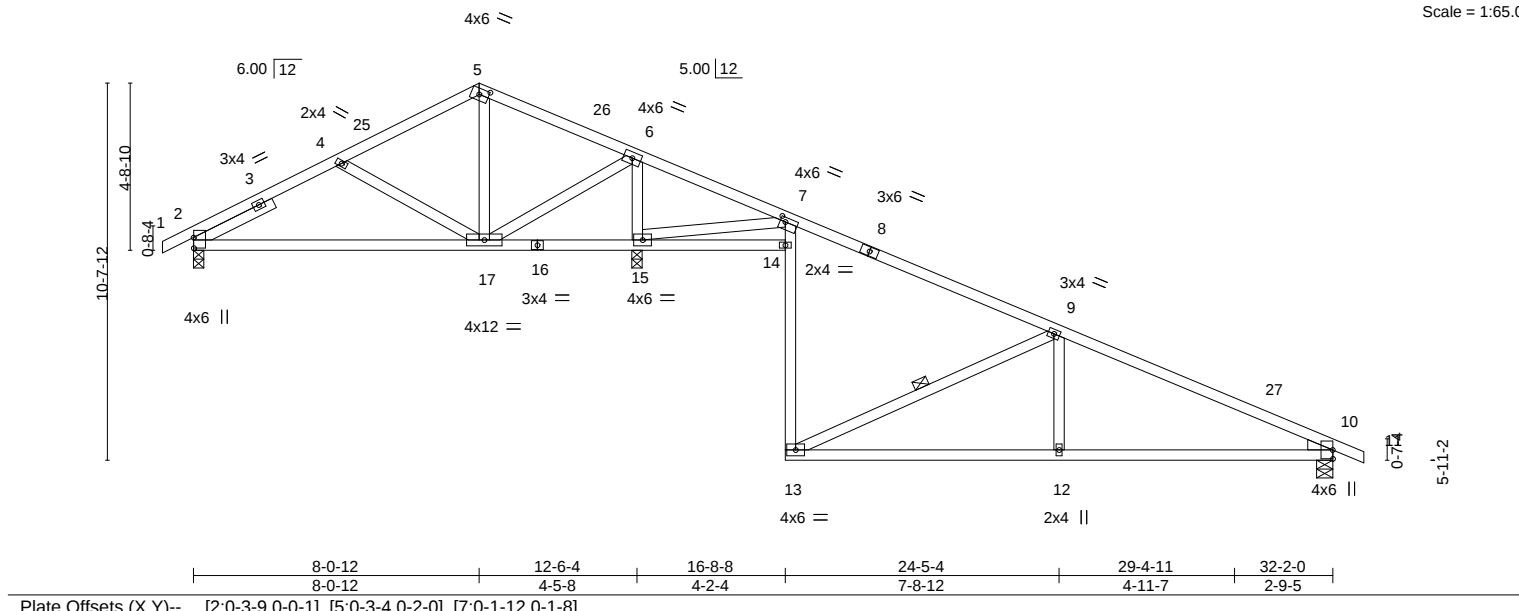
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:11 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-NklMGXV_ICx4agBN8Pzr8MnyvIwoABMTv61fUyoGh2

0-10-8 4-0-8 4-2-2 8-0-12 12-4-10 16-8-8 24-5-4 29-4-11 32-2-0 33-0-8
0-10-8 4-0-8 0-1-10 3-10-10 4-3-14 4-3-14 7-8-12 4-11-7 2-9-5 0-10-8

Scale = 1:65.0



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.60		Vert(LL) -0.09 12-13		>999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.50		Vert(CT) -0.20 12-13		>999 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.45		Horz(CT) 0.02 10		n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 126 lb		FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-13

REACTIONS.

(size) 2=0-3-8, 10=0-5-8, 15=0-3-8
Max Horz 2=-289(LC 13)
Max Uplift 2=-104(LC 12), 10=-186(LC 13), 15=-235(LC 13)
Max Grav 2=448(LC 25), 10=738(LC 26), 15=1979(LC 1)

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

TOP CHORD 2-4=-585/267, 4-5=-134/394, 5-6=-73/435, 6-7=-167/1705, 9-10=-1007/310
BOT CHORD 2-17=-197/356, 15-17=-1515/423, 13-14=-65/455, 7-14=-43/476, 12-13=-200/855,
10-12=-200/855
WEBS 5-17=-477/72, 6-17=-76/1499, 6-15=-1643/210, 7-15=-1337/288, 9-12=0/334,
9-13=-927/225, 4-17=-371/135

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-12, Exterior(2R) 8-0-12 to 11-0-12, Interior(1) 11-0-12 to 33-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2, 186 lb uplift at joint 10 and 235 lb uplift at joint 15.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	A10	ROOF SPECIAL	2	1	147451367
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:3GmZIGChWZGARvEueXVyXyPZ34-BcaCymN4KqYelzrF?bGGB2p5_sAC6FyGzvtdmdyoGhD

0-10-8 4-2-2 8-0-12 12-4-10 16-8-8 24-5-3 32-2-0 33-0-8
0-10-8 4-2-2 3-10-10 4-3-14 4-3-14 7-8-11 7-8-13 0-10-8

Scale = 1:65.0

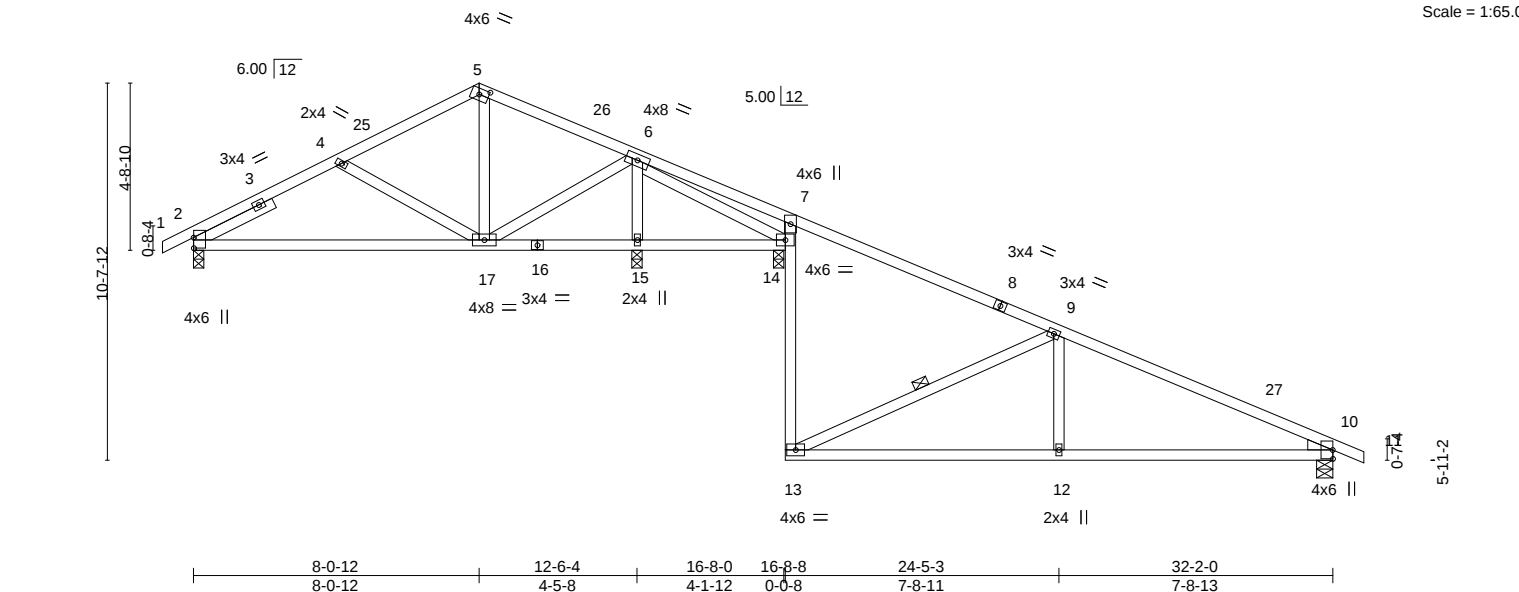


Plate Offsets (X,Y)--		[2:0-3-9,0-0-1], [5:0-3-4,0-2-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.08 12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.16 12-13	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 126 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-13

REACTIONS.

All bearings 0-3-8 except (jt=length) 10=0-5-8.

(lb) - Max Horz 2=-289(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 15 except 2=-107(LC 12), 10=-185(LC 13), 14=-186(LC 13)

Max Grav All reactions 250 lb or less at joint(s) except 2=598(LC 1), 10=733(LC 26), 15=803(LC 1), 14=913(LC 26)

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

TOP CHORD 2-4=-637/175, 4-5=-442/147, 5-6=-430/151, 6-7=-53/253, 9-10=-992/306

BOT CHORD 2-17=-22/597, 13-14=-64/450, 7-14=-356/131, 12-13=-195/841, 10-12=-195/841

WEBS 4-17=-317/134, 6-17=0/491, 6-15=-724/58, 9-13=-919/222, 9-12=0/336

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-12, Exterior(2R) 8-0-12 to 11-0-12, Interior(1) 11-0-12 to 33-0-8 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
- 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) 15 except (jt=lb) 2=107, 10=185, 14=186.
- This truss 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.



August 16, 2021

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



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Chesterfield, MO 63017

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3-0-8	8-0-12	9-2-0	12-6-4	12-11-4	16-8-8	24-5-3	27-0-2	32-2-0	33-0-8
3-0-8	5-0-4	1-1-4	3-4-4	0-5-0	3-9-4	7-8-11	2-6-14	5-1-14	0-10-8

Structural drawing of a roof truss system. The drawing shows a complex arrangement of members and connections, with dimensions and material specifications provided.

Dimensions:

- Overall height: 10'-7 1/2"
- Left vertical section: 3'-8 1/2"
- Right vertical section: 8'-1 1/2"
- Bottom horizontal section: 6'-1 1/2"
- Top horizontal section: 1'-2 3/4"

Members and Connections:

- Members are numbered 1 through 19.
- Connections are numbered 1 through 12.
- Members are labeled with material and size: 4x8, 4x6, 6x8, 2x4, 3x4, 4x6, 6x12, 8x12, 7x8, 6x6, 3x6, 2x6, 1x4, 1x2, 1x1, 1x3, 1x4, 1x6, 1x8, 1x10, 1x12, 1x14, 1x16, 1x18, 1x20, 1x22, 1x24, 1x26, 1x28, 1x30, 1x32, 1x34, 1x36, 1x38, 1x40, 1x42, 1x44, 1x46, 1x48, 1x50, 1x52, 1x54, 1x56, 1x58, 1x60, 1x62, 1x64, 1x66, 1x68, 1x70, 1x72, 1x74, 1x76, 1x78, 1x80, 1x82, 1x84, 1x86, 1x88, 1x90, 1x92, 1x94, 1x96, 1x98, 1x100.

Notes:

- 4x8 = 4x6 =
- 4x6 ||
- LUS26
- 4x8 = LUS24
- 7x8 = LUS24
- 6x8 = 2x4 ||
- Special
- 3x4 =
- 2x4 ||
- 4x6 ||

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
16-19: 2x6 SPF No.2, 13-15: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 0-3-8 except (jit=length) 9=0-5-8.
 (lb) - Max Horz 19=-313(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) except 19=-306(LC 8), 13=-1160(LC 21), 9=-187(LC 30), 14=-826(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) except 19=1818(LC 1), 13=623(LC 17), 9=727(LC 22), 14=5036(LC 1)

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

TOP CHORD 1-19=1338/237, 2-3=1749/386, 3-4=1094/365, 4-5=1150/349, 5-6=55/955,
8-9=979/312, 1-2=4342/732

BOT CHORD 18-19=40/466, 17-18=638/4424, 16-17=152/1433, 13-14=2697/532, 12-13=66/445,
6-13=252/215, 11-12=201/827, 9-11=201/827

WEBS 2-18=477/165, 2-17=2946/504, 3-17=273/1991, 3-16=1248/119, 14-16=2584/517,
5-16=667/4009, 5-14=3871/655, 5-13=379/2236, 8-12=914/223, 8-11=0/345,
1-18=696/4120

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-2-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 306 lb uplift at joint 19, 1160 lb uplift at joint 13, 187 lb uplift at joint 9 and 826 lb uplift at joint 14.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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



August 16, 2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) 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/HAWTHORN RIDGE #117/MO	I47451368
2903855	A11	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:02 2021 Page 2
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NOTES-

- 10) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 11) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 1-5-4 from the left end to connect truss(es) to back face of bottom chord.
- 12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 3-5-4 from the left end to 7-5-4 to connect truss(es) to back face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1886 lb down and 470 lb up at 9-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 2-3=-70, 3-10=-70, 16-19=-20, 13-15=-20, 12-20=-20, 1-2=-70
 - Concentrated Loads (lb)
 - Vert: 16=-1886(B) 23=-518(B) 24=-518(B) 25=-522(B) 26=-522(B)

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

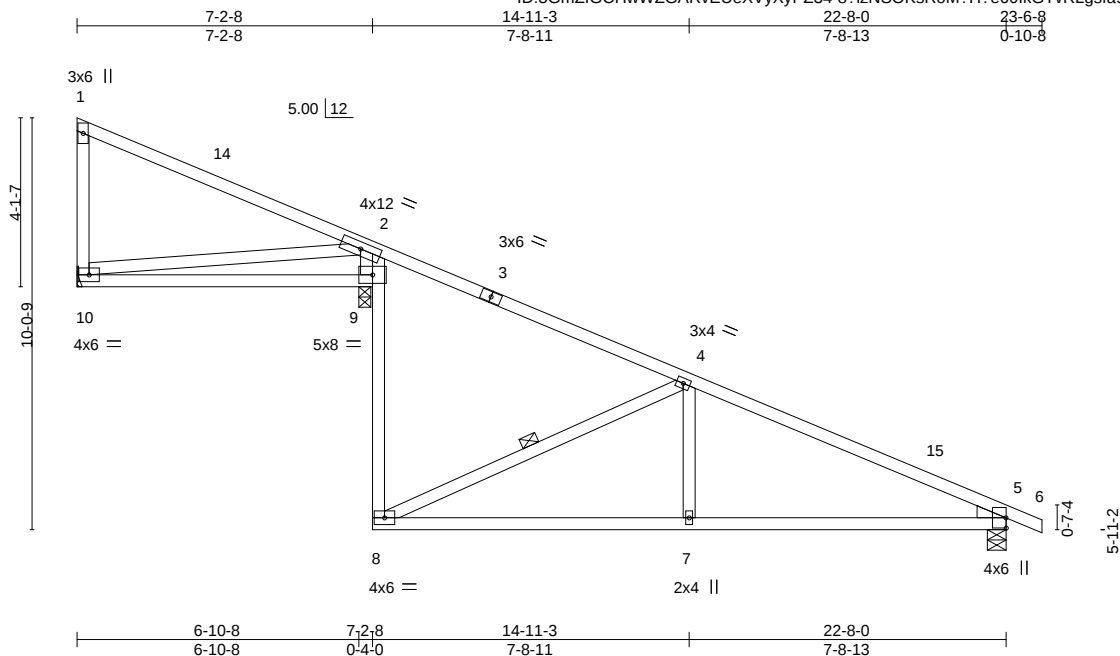
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	A12	ROOF SPECIAL	1	1	I47451369
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:02 2021 Page 1

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Scale = 1:56.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.08	7-8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.16	7-8	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.31	Horz(CT)	-0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 88 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 4-8

REACTIONS.

(size) 10=Mechanical, 9=0-3-8, 5=0-5-8
 Max Horz 10=-291(LC 8)
 Max Uplift 10=-77(LC 13), 9=-121(LC 13), 5=-184(LC 13)
 Max Grav 10=279(LC 1), 9=1078(LC 1), 5=731(LC 1)

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

TOP CHORD 4-5=-988/305
 BOT CHORD 8-9=-64/449, 2-9=-580/78, 7-8=-195/836, 5-7=-195/836
 WEBS 4-7=0/336, 4-8=-916/222, 2-10=-252/279

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 23-6-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 10, 121 lb uplift at joint 9 and 184 lb uplift at joint 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	B1	Common Supported Gable	1	1	147451370
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:12 2021 Page 1

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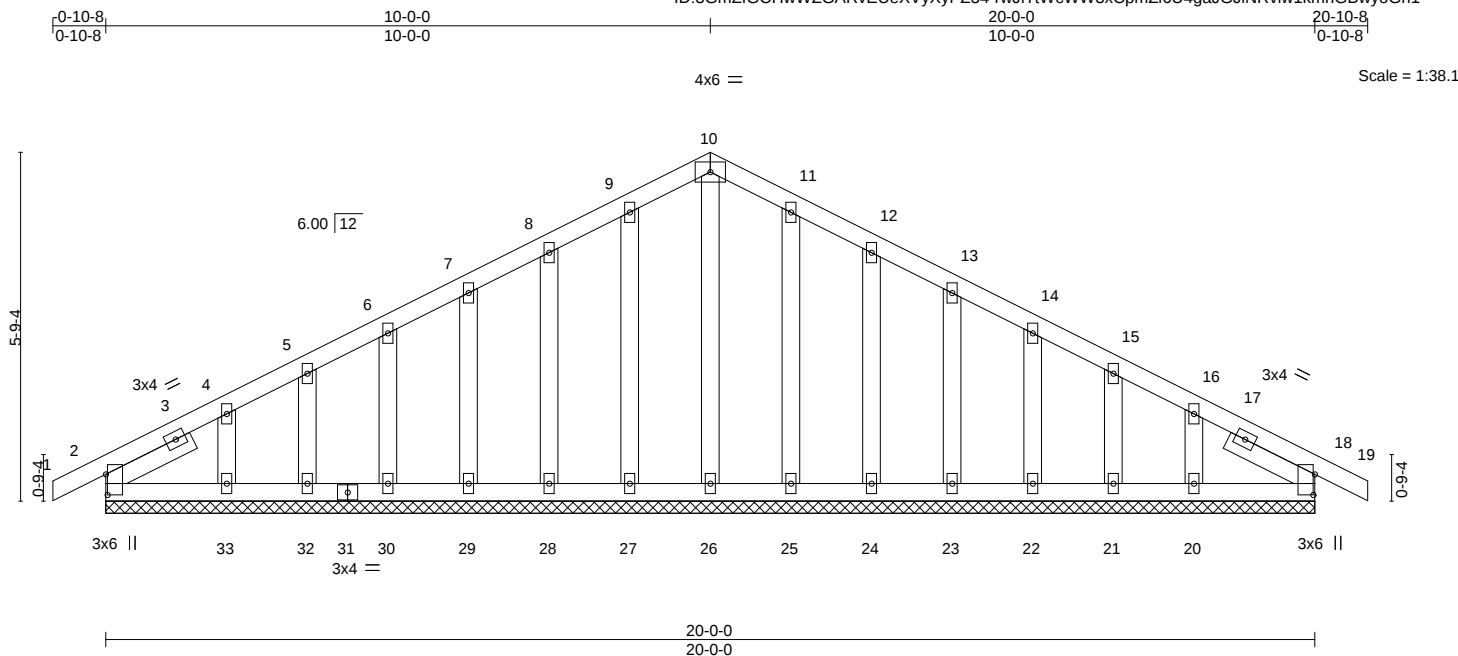


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [18:0-4-1,0-0-5]		20-0-0 20-0-0			
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(LL) -0.00 18 n/r 120	GRIP 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Vert(CT) -0.00 18 n/r 120	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Horz(CT) 0.00 18 n/a n/a	Weight: 100 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 1-7-6, Right 2x4 SPF No.2 1-7-6

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 20-0-0.
(lb) - Max Horz 2=86(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20, 18

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 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, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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



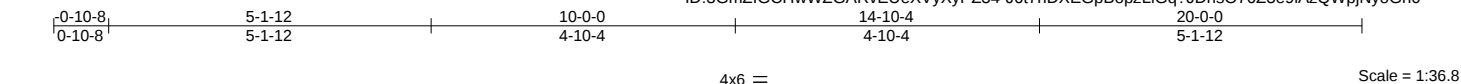
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451371
2903855	B2	Common	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:13 2021 Page 1

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4x6 =

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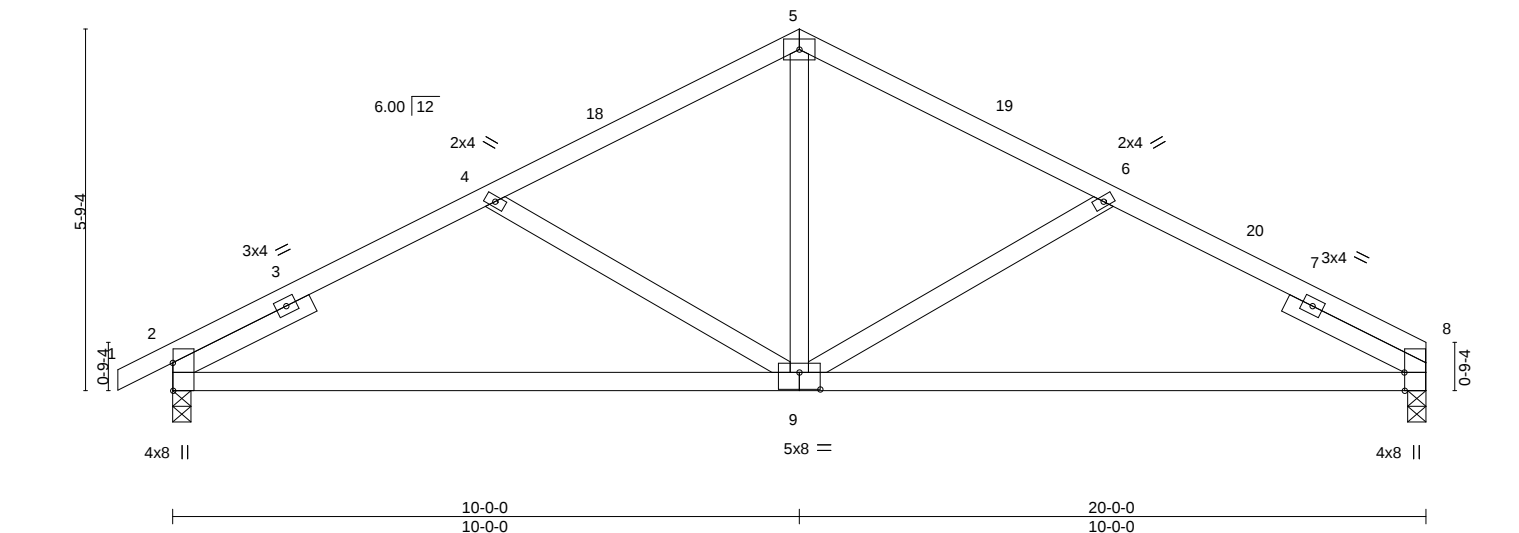


Plate Offsets (X,Y)-- [2:0-5-5,Edge], [8:0-3-8,Edge], [9:0-4-0,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.13	9-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.27	9-12	>903	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 74 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 2=0-3-8
 Max Horz 2=93(LC 16)
 Max Uplift 8=111(LC 13), 2=128(LC 12)
 Max Grav 8=899(LC 1), 2=963(LC 1)

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

TOP CHORD 2-4=-1231/288, 4-5=-1048/238, 5-6=-1049/241, 6-8=-1315/293
 BOT CHORD 2-9=-199/1137, 8-9=-194/1143
 WEBS 5-9=-66/522, 6-9=-356/172, 4-9=-350/171

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=111, 2=128.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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

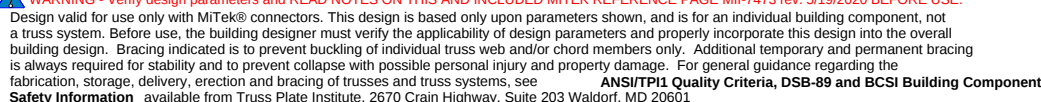
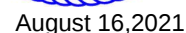
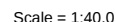
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:14 2021 Page 1

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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	B4	Roof Special	1	1	147451373

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:15 2021 Page 1

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Job Reference (optional)

0-10-8	5-1-12	5-5-8	10-0-0	14-10-0	20-0-0	21-10-8
0-10-8	5-1-12	0-3-12	4-6-8	4-10-0	5-2-0	1-10-8

Scale = 1:40.0

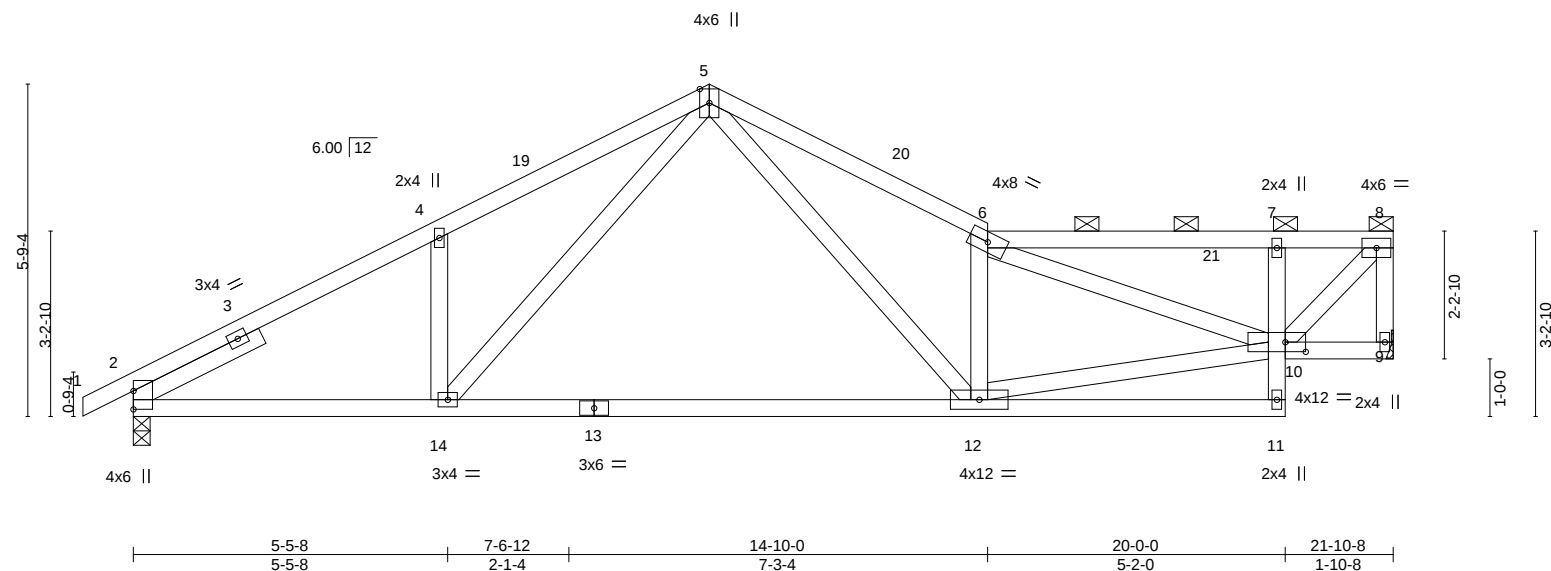


Plate Offsets (X,Y)-- [10:0-4-4,0-2-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.19 12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.41 12-14	>642	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 97 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-10-10 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=120(LC 9)
Max Uplift 9=139(LC 13), 2=132(LC 12)
Max Grav 9=977(LC 1), 2=1040(LC 1)

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

TOP CHORD 2-4=-1510/253, 4-5=-1515/342, 5-6=-1828/369, 6-7=-892/179, 7-8=-867/169, 8-9=-896/165
BOT CHORD 2-14=-279/1296, 12-14=-203/966, 7-10=-294/113
WEBS 5-14=-152/569, 5-12=-151/924, 6-12=-832/230, 10-12=-269/1523, 6-10=-792/119, 8-10=-218/1205, 4-14=-285/178

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 21-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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) except (jt=lb) 9=139, 2=132.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451374
2903855	B5	Roof Special	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:16 2021 Page 1

ID:3GmZIGCHWZGARvEUeXVyXyPZ34-jhYFJEZ6ZkZMgr3KxyYorQUqhJevrOTdfOITJiyoGgz

0-10-8	5-1-12	10-0-0	13-2-0	20-0-0	21-10-8
0-10-8	5-1-12	4-10-4	3-2-0	6-10-0	1-10-8

Scale = 1:40.0

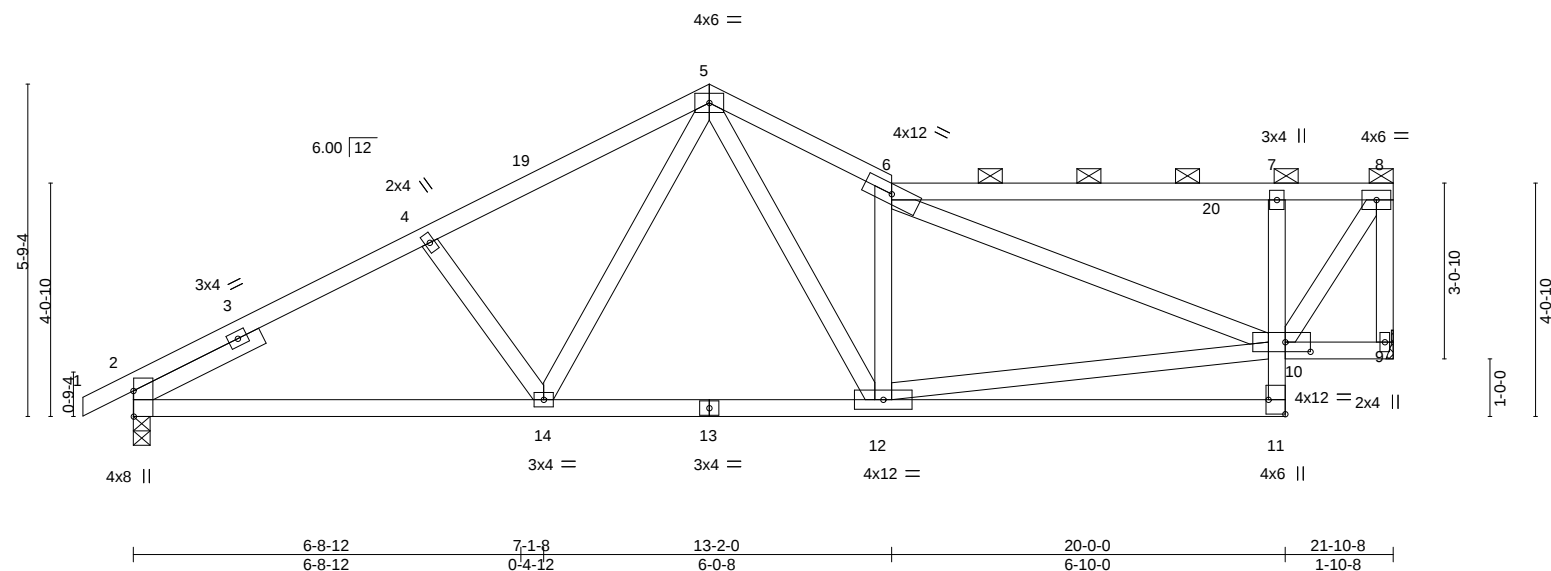


Plate Offsets (X,Y)-- [2:0-5-5,Edge], [10:0-5-4,0-2-0], [11:Edge,0-3-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.07 12-14	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.14 11-12	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.03 9	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 103 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=Mechanical, 2=0-3-8
Max Horz 2=141(LC 9)
Max Uplift 9=145(LC 13), 2=131(LC 12)
Max Grav 9=977(LC 1), 2=1040(LC 1)

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

TOP CHORD 2-4=-1478/266, 4-5=-1347/275, 5-6=-1567/332, 6-7=-679/164, 7-8=-639/149, 8-9=-895/169
BOT CHORD 2-14=-334/1277, 12-14=-226/973, 7-10=-425/155
WEBS 4-14=-275/154, 5-14=-86/383, 5-12=-145/774, 6-12=-730/212, 10-12=-285/1237, 6-10=-766/129, 8-10=-219/1120

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2E) 10-0-0 to 13-2-0, Interior(1) 13-2-0 to 21-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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) except (jt=lb) 9=145, 2=131.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

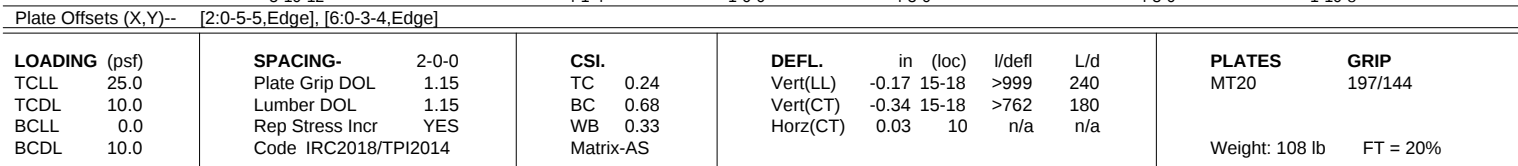
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:17 2021 Page 1
 ID:3GmZIGCHWZGARvEUeXVyXyPZ34-Ct6eWaakK2hDlbeWVGf4Nd041jxLaxsmu2U1r8yoGgy
 0-10-8 5-1-12 5-10-12 10-0-0 11-6-0 15-9-0 20-0-0 21-10-8
 0-10-8 5-1-12 0-9-0 4-1-4 1-6-0 4-3-0 4-3-0 1-10-8



REACTIONS. (size) 10=Mechanical, 2=0-3-8
 Max Horz 2=163(LC 9)
 Max Uplift 10=-153(LC 13), 2=-131(LC 12)
 Max Grav 10=977(LC 1), 2=1040(LC 1)

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

TOP CHORD 2-4=-1380/264, 4-5=-1184/230, 5-6=-1147/244, 6-7=-960/215, 7-8=-470/130,
 8-9=-462/127, 9-10=-916/177

BOT CHORD 2-15=-356/1234, 13-15=-268/1148

WEBS 9-11=-190/974, 5-15=-145/821, 4-15=-336/164, 11-13=-210/895, 7-11=-646/120,
 6-13=-286/83, 6-15=-501/139

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2E) 10-0-0 to 11-6-0, Interior(1) 11-6-0 to 21-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=153, 2=131.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

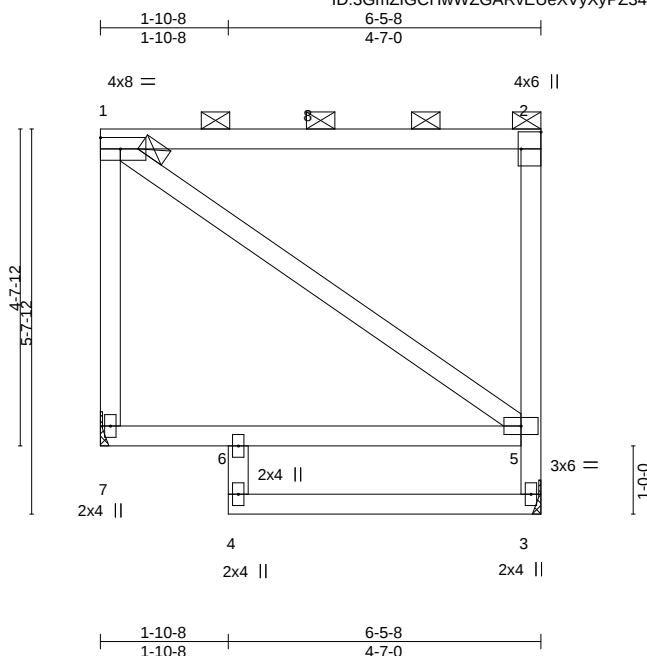
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	B7	Roof Special	1	1	I47451376
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:18 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-g4g0kwbN5Mq4wkDj2NbUwrZBr7NzJQnv6iEaOayoGgx



Scale = 1:33.8

Plate Offsets (X,Y)-- [2:Edge,0-3-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.02	3-4	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.04	3-4	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	3	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 39 lb FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 7=Mechanical, 3=Mechanical
Max Horz 7=175(LC 11)
Max Uplift 7=-101(LC 8), 3=-102(LC 9)
Max Grav 7=277(LC 1), 3=277(LC 1)

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

TOP CHORD 1-7=-216/339, 3-5=-229/335, 2-5=-216/262
BOT CHORD 5-6=-301/212

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) C-C wind load user defined.
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=101, 3=102.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Load case(s) 4, 5 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard Except:

- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=83, 6-7=8, 3-4=8
Horz: 1-7=23, 2-3=37
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60



August 16, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	B7	Roof Special	1	1	I47451376
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:18 2021 Page 2
ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-g4g0kwbN5Mq4wkDj2NbUwrZBr7NzJQnv6iEaOayoGgx

LOAD CASE(S) Standard Except:

- Uniform Loads (plf)
Vert: 1-2=83, 6-7=-8, 3-4=-8
Horz: 1-7=-37, 2-3=-23
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 6-7=-20, 3-4=-20
Horz: 1-7=-26, 2-3=-34
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-34, 6-7=-20, 3-4=-20
Horz: 1-7=34, 2-3=26
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=25, 6-7=-8, 3-4=-8
Horz: 1-7=15, 2-3=19
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=25, 6-7=-8, 3-4=-8
Horz: 1-7=-19, 2-3=-15
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 6-7=-20, 3-4=-20
Horz: 1-7=26, 2-3=9
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 6-7=-20, 3-4=-20
Horz: 1-7=-9, 2-3=26
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=25, 6-7=-8, 3-4=-8
Horz: 1-7=13, 2-3=18
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=25, 6-7=-8, 3-4=-8
Horz: 1-7=-18, 2-3=-13
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 6-7=-8, 3-4=-8
Horz: 1-7=6, 2-3=14
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 6-7=-8, 3-4=-8
Horz: 1-7=-14, 2-3=-6
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 6-7=-20, 3-4=-20
Horz: 1-7=23, 2-3=7
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 6-7=-20, 3-4=-20
Horz: 1-7=-7, 2-3=-23
- 19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 6-7=-20, 3-4=-20
Horz: 1-7=19, 2-3=7
- 20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 6-7=-20, 3-4=-20
Horz: 1-7=-7, 2-3=-19
- 21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 6-7=-20, 3-4=-20
Horz: 1-7=17, 2-3=5
- 22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 6-7=-20, 3-4=-20
Horz: 1-7=-5, 2-3=-17
- 23) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 6-7=-8, 3-4=-8
Horz: 1-7=-16, 2-3=-16
- 24) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 6-7=-8, 3-4=-8
Horz: 1-7=16, 2-3=16

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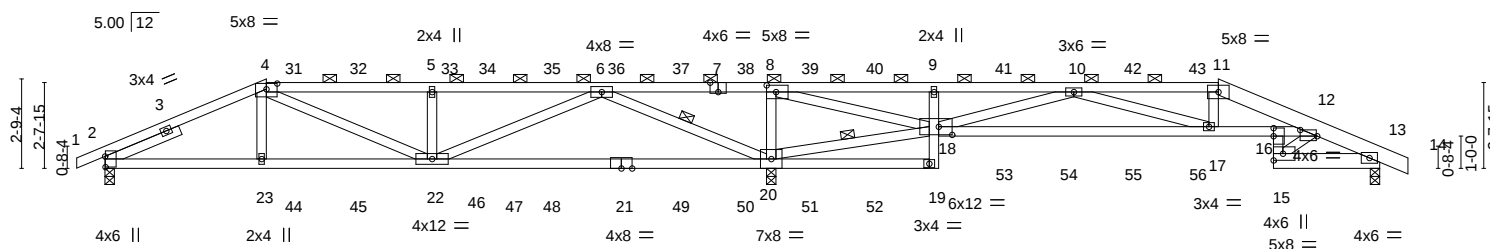


16023 Swingley Ridge Rd
Chesterfield, MO 63017

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-0-10-8	5-0-0	10-1-10	10-2-8	15-4-11	15-5-0	20-7-8	25-10-0	30-0-4	34-6-0	36-2-8	39-6-0	40-4-8
0-10-8	5-0-0	5-1-10	0-0-14	5-2-3	0-0-5	5-2-8	5-2-8	4-2-4	4-5-12	1-8-8	3-3-8	0-10-8

Scale = 1:71.4



	5-0-0	10-1-10	10-2-8	15-5-0	20-7-12	25-10-0	30-0-4	34-6-0	36-2-8	39-6-0
	5-0-0	5-1-10	0-0-14	5-2-8	5-2-12	5-2-4	4-2-4	4-5-12	1-8-8	3-3-8
Plate Offsets (X,Y)--	[2;0-3,15,0,0-2],	[4;0-4,0,0-2,2],	[7;0-3,0,Eddge],	[8;0-3,8,0,2-8],	[12;0-6,5,0,2-5],	[16;0-3,0,0,0-0],	[18;0-5,0,0,3-0]			

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.92	Vert(LL) -0.27 20-22	>912	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.89	Vert(CT) -0.56 20-22	>435	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.77	Horz(CT) 0.10 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS				Weight: 164 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 1-4: 2x4 SPF No.2, 11-14: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 12-18,19-21: 2x4 SP 2400F 2.0E, 13-15: 2x6 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

REACTIONS.

(size) 2=0-3-8, 13=0-3-8, 20=0-3-8
 Max Horz 2=-40(LC 9)
 Max Uplift 2=-208(LC 8), 13=-214(LC 9), 20=-803(LC 4)
 Max Grav 2=1033(LC 21), 13=925(LC 22), 20=3310(LC 1)

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

TOP CHORD	2-4s-1708/381, 4-5s-1643/348, 5-6s-1640/347, 6-8s-711/2823, 10-11s-2592/660, 11-12s-2706/674, 12-13s-1384/348
BOT CHORD	2-23s-309/1546, 22-23s-306/1529, 9-18s-407/171, 17-18s-468/1880, 16-17s-579/2530, 12-16s-550/2394, 15-16s-248/1145, 13-15s-261/1151
WEBS	4-23s-42/286, 11-17s-154/585, 8-20s-1245/430, 6-20s-2948/826, 18-20s-2579/710, 8-18s-741/2706, 5-22s-552/244, 6-22s-339/1903, 12-15s-1386/321, 10-18s-2022/506, 10-17s-187/750

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=208, 13=214, 20=803.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-10-11 oc purlins, except 2-0-0 oc purlins (4-1-3 max.): 4-11.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 20-22,19-20. 10-0-0 oc bracing: 16-17
WEBS	1 Row at midbt 6-20. 18-20



August 16, 2021

Continued on page 2



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) 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/HAWTHORN RIDGE #117/MO	I47451377
2903855	C1	Hip Girder	1	1	Job Reference (optional)	

- NOTES-**
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 69 lb up at 5-9-0, 47 lb down and 69 lb up at 7-9-0, 47 lb down and 69 lb up at 9-9-0, 47 lb down and 69 lb up at 11-9-0, 47 lb down and 69 lb up at 13-9-0, 47 lb down and 69 lb up at 15-9-0, 47 lb down and 69 lb up at 17-9-0, 47 lb down and 69 lb up at 19-9-0, 47 lb down and 69 lb up at 21-9-0, 47 lb down and 69 lb up at 23-9-0, 47 lb down and 69 lb up at 25-9-0, 69 lb down and 36 lb up at 27-9-0, 69 lb down and 36 lb up at 29-9-0, and 69 lb down and 36 lb up at 31-9-0, and 69 lb down and 36 lb up at 33-9-0 on top chord, and 233 lb down and 94 lb up at 5-0-0, 31 lb down at 5-9-0, 31 lb down at 7-9-0, 31 lb down at 9-9-0, 31 lb down at 11-9-0, 31 lb down at 13-9-0, 31 lb down at 15-9-0, 31 lb down at 17-9-0, 31 lb down at 19-9-0, 31 lb down at 21-9-0, 31 lb down at 23-9-0, 31 lb down at 25-8-4, 50 lb down and 43 lb up at 27-9-0, 50 lb down and 43 lb up at 29-9-0, 50 lb down and 43 lb up at 31-9-0, and 50 lb down and 43 lb up at 33-9-0, and 233 lb down and 95 lb up at 34-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-70, 4-11=-70, 11-14=-70, 19-24=-20, 16-18=-20, 15-28=-20
- Concentrated Loads (lb)
- Vert: 21=-24(B) 9=-47(B) 23=-233(B) 17=-233(B) 19=-24(B) 10=-32(B) 31=-47(B) 32=-47(B) 33=-47(B) 34=-47(B) 35=-47(B) 36=-47(B) 37=-47(B) 38=-47(B) 39=-47(B) 40=-47(B) 41=-32(B) 42=-32(B) 43=-32(B) 44=-24(B) 45=-24(B) 46=-24(B) 47=-24(B) 48=-24(B) 49=-24(B) 50=-24(B) 51=-24(B) 52=-24(B) 53=-50(B) 54=-50(B) 55=-50(B) 56=-50(B)

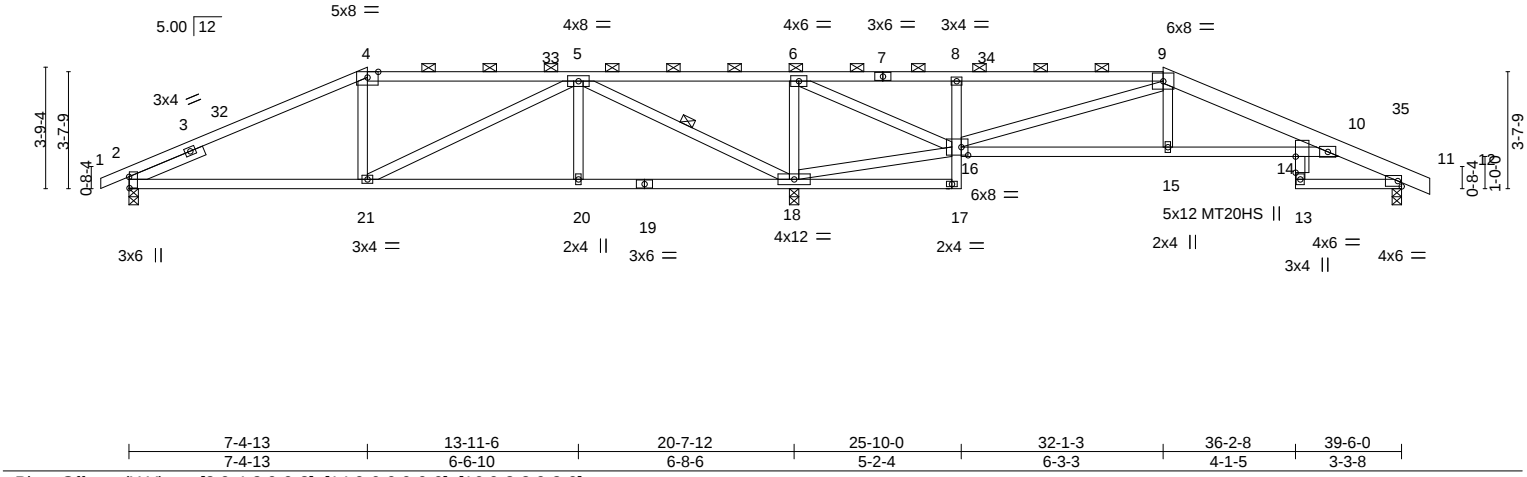
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451378
2903855	C2	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:21 2021 Page 1

ID:3GmZIGCHwWZGARvEUEXVxyPZ34-4fM8MydFOHCfnCylKV8BYTBdrKFwWczMogSE_vyoGgu

-0-10-8	7-4-13	13-11-6	19-8-4	20-7-12	25-10-0	32-1-3	36-2-8	39-6-0	40-4-8
0-10-8	7-4-13	6-6-10	5-8-14	0-11-8	5-2-4	6-3-3	4-1-5	3-3-8	0-10-8

Scale = 1:71.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.15 14-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.27 14-15	>859	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 160 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 9-12: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-6-7 max.): 4-9.
BOT CHORD 2x4 SPF No.2 *Except* 17-19: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 14-15
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 5-18
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8, 18=0-3-8 Max Horz 2=-56(LC 13) Max Uplift 2=-120(LC 12), 11=-105(LC 13), 18=-351(LC 9) Max Grav 2=783(LC 25), 11=655(LC 1), 18=2284(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-1030/156, 4-5=-935/176, 5-6=-130/1460, 9-10=-1040/164, 10-11=-580/111
BOT CHORD	2-21=-98/930, 20-21=-50/479, 18-20=-50/479, 8-16=-394/141, 15-16=-68/949, 14-15=-66/962, 10-14=-36/586, 11-13=-53/376
WEBS	5-21=-75/612, 5-20=0/252, 9-16=-1095/130, 9-15=0/306, 6-18=-1007/228, 16-18=-1383/223, 6-16=-197/1388, 5-18=-1916/293

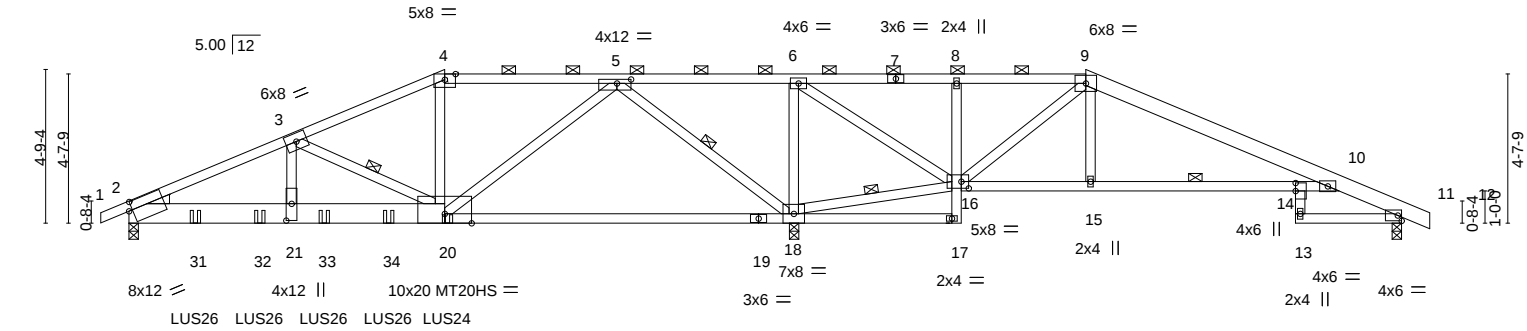
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-0-14, Interior(1) 3-0-14 to 7-4-13, Exterior(2R) 7-4-13 to 12-11-13, Interior(1) 12-11-13 to 32-1-3, Exterior(2R) 32-1-3 to 37-6-11, Interior(1) 37-6-11 to 40-4-8 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=120, 11=105, 18=351.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451379
2903855	C3	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:23 2021 Page 1
ID:3GmZIGCHwWZGARvEueXVyXyPZ34-01TvnefVwuSNOW5grwAfdGwt8yp_VOFG_xL3oyoGgs
-0-10-8 3-11-15 5-0-9 9-9-10 15-1-12 20-5-14 25-10-0 29-8-6 32-11-7 36-2-8 39-6-0 40-4-8
0-10-8 3-11-15 1-0-9 4-9-1 5-4-2 5-4-2 5-4-2 3-10-6 3-3-1 3-3-1 3-3-8 0-10-8
Scale = 1:71.5



3-11-15	5-0-9	9-9-10	15-1-12	20-7-12	25-10-0	29-8-6	32-11-7	36-2-8	39-6-0
3-11-15	1-0-9	4-9-1	5-4-2	5-6-0	5-2-4	3-10-6	3-3-1	3-3-1	3-3-8
Plate Offsets (X,Y)-- [2:0-1-6,0-3-3], [5:0-5-4,0-1-8], [14:0-3-0,0-0-0], [16:0-2-12,0-2-8], [21:0-6-4,0-2-0]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.98	in (loc)	l/defl	L/d	GRIP
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(LL)	-0.20 18-20	>999	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Vert(CT)	-0.40 18-20	>608	148/108
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS		Horz(CT)	0.08 11	n/a	
								Weight: 184 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-7: 2x4 SPF 1650F 1.5E, 9-12: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-20: 2x8 SP 2400F 2.0E, 17-19: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-11-14 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
6-0-0 oc bracing: 14-15
WEBS 1 Row at midpt 5-18, 16-18, 3-20

REACTIONS.

(size) 2=0-3-8, 11=0-3-8, 18=0-3-8
Max Horz 2=-72(LC 30)
Max Uplift 2=-605(LC 8), 11=-159(LC 30), 18=-607(LC 5)
Max Grav 2=3576(LC 21), 11=393(LC 17), 18=3997(LC 1)

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

TOP CHORD 2-3=-6171/1075, 3-4=-3069/580, 4-5=-2792/561, 5-6=-265/2539, 6-8=-188/1461,
8-9=-195/1488, 9-10=-170/604, 10-11=-312/179
BOT CHORD 2-21=-997/5639, 20-21=-1004/5680, 18-20=-502/696, 8-16=-314/111, 15-16=-455/202,
14-15=-446/208, 10-14=-588/240
WEBS 4-20=-245/816, 5-20=-406/2904, 5-18=-3583/622, 6-18=-1083/228, 16-18=-2420/413,
6-16=-171/1256, 9-16=-1345/202, 9-15=0/290, 3-21=-354/2432, 3-20=-3247/595

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=605, 11=159, 18=607.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 8-0-12 to connect truss(es) to front face of bottom chord.
- 10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 9-10-10 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 11) Fill all nail holes where hanger is in contact with lumber.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



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Continued on page 2

LOAD CASE(S) Standard

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/HAWTHORN RIDGE #117/MO	I47451379
2903855	C3	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:23 2021 Page 2
ID:3GmZIGCHWWZGARvEUeXVyXyPZ34-01TvnfVwuSN0W5grwAfdGwt8yp_VOfG_xL3oyoGgs

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-9=-70, 9-12=-70, 17-22=-20, 14-16=-20, 13-28=-20
Concentrated Loads (lb)
Vert: 20=-257(F) 31=-957(F) 32=-957(F) 33=-957(F) 34=-957(F)

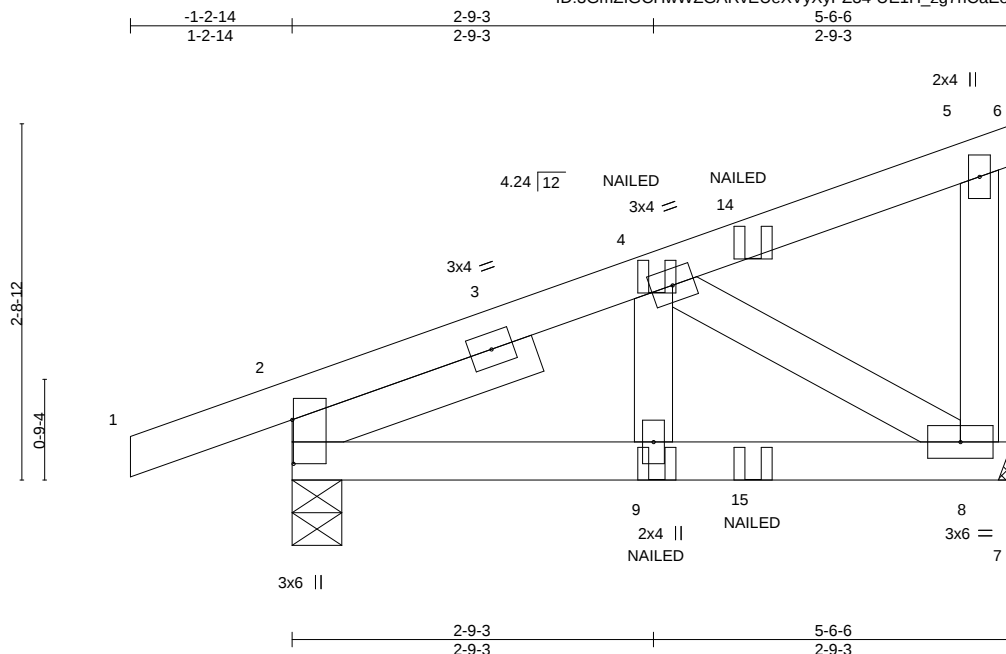
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	CJ1	Diagonal Hip Girder	1	1	147451380
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:24 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-UE1H_zg7hCaEefgsPeiu96pDXS7jA_oVehubEyoGgr



Scale = 1:17.6

Plate Offsets (X,Y)--		[2:0-4-1,0-0-2]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.11		Vert(LL) -0.00 9 >999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.09		Vert(CT) -0.00 9 >999 180					
BCLL	0.0	Rep Stress Incr NO		WB 0.04		Horz(CT) 0.00 8 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							
								Weight: 23 lb		FT = 20%	

LUMBER-

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

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) 2=0-4-9, 8=Mechanical
 Max Horz 2=98(LC 7)
 Max Uplift 2=-86(LC 4), 8=-57(LC 8)
 Max Grav 2=333(LC 1), 8=238(LC 1)

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

WEBS 4-8=-251/78

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-20, 7-10=-20
 Concentrated Loads (lb)
 Vert: 9=1(B) 15=-1(F)



August 16, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



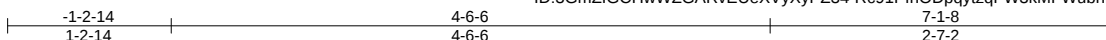
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2903855	Truss CJ2	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO Job Reference (optional)	I47451381
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:26 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-Rc91PfhODpgytzqFW3kMFwubhL6wB3W5yyA?g7yoGgp



Scale = 1:17.4

Plate Offsets (X,Y)-- [2:0-0-7,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.02	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-7, 7=Mechanical
Max Horz 2=79(LC 5)
Max Uplift 2=-105(LC 4), 7=-84(LC 8)
Max Grav 2=413(LC 1), 7=332(LC 1)

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

TOP CHORD 2-3=-798/195
BOT CHORD 2-8=-210/736, 7-8=-193/673
WEBS 3-7=-713/218

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=105.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 8-9=-20, 6-8=-20
- Concentrated Loads (lb)
Vert: 8=-31(F=-16, B=-16)



August 16, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451382
2903855	CJ3	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:27 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-vpjQd?i0z7ypV7PR4mFbnkRo4lUTwxUEBcvYCZyoGgo

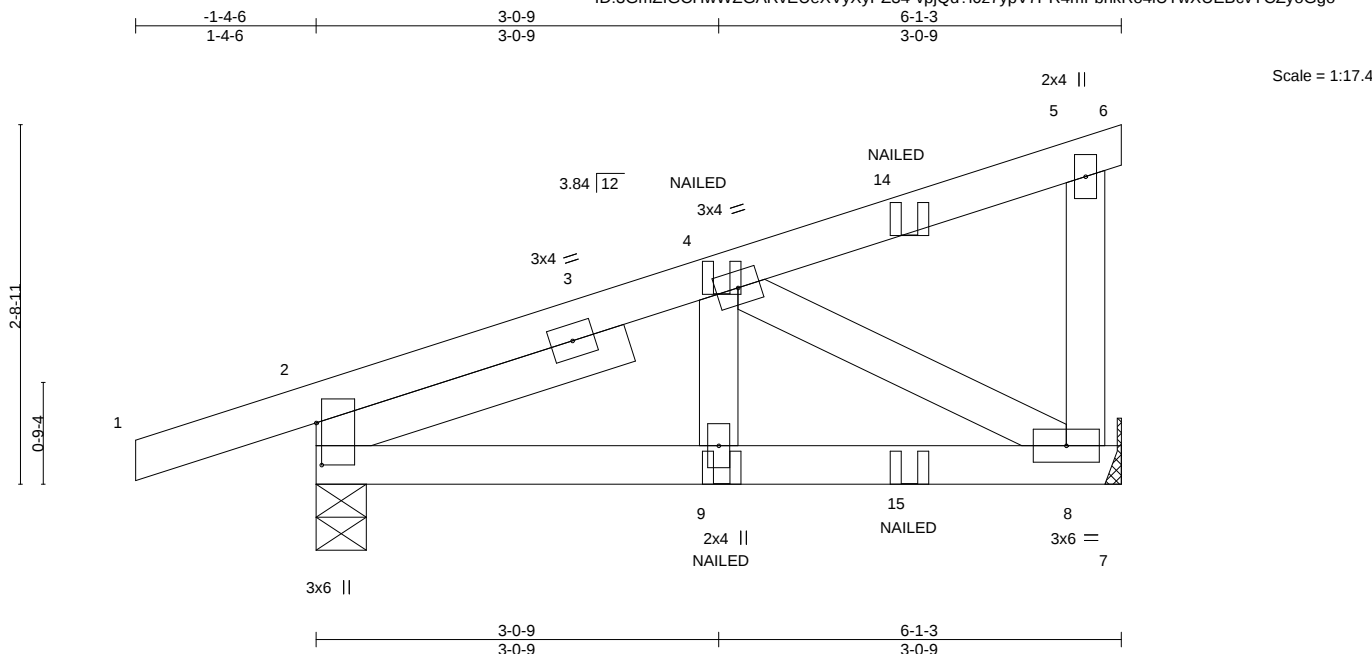


Plate Offsets (X,Y)--		[2:0-3-13,0-0-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.14		Vert(LL) -0.00 9 >999 240			MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.12		Vert(CT) -0.01 8-9 >999 180				
BCLL	0.0	Rep Stress Incr NO		WB 0.06		Horz(CT) 0.00 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						
									Weight: 26 lb FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 8=Mechanical
 Max Horz 2=96(LC 7)
 Max Uplift 2=96(LC 4), 8=63(LC 8)
 Max Grav 2=370(LC 1), 8=265(LC 1)

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

TOP CHORD 2-4=-270/51
 BOT CHORD 2-9=-71/271, 8-9=-71/271
 WEBS 4-8=-306/84

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-20, 7-10=-20
- Concentrated Loads (lb)
 Vert: 9=-1(F) 15=-3(B)



August 16, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

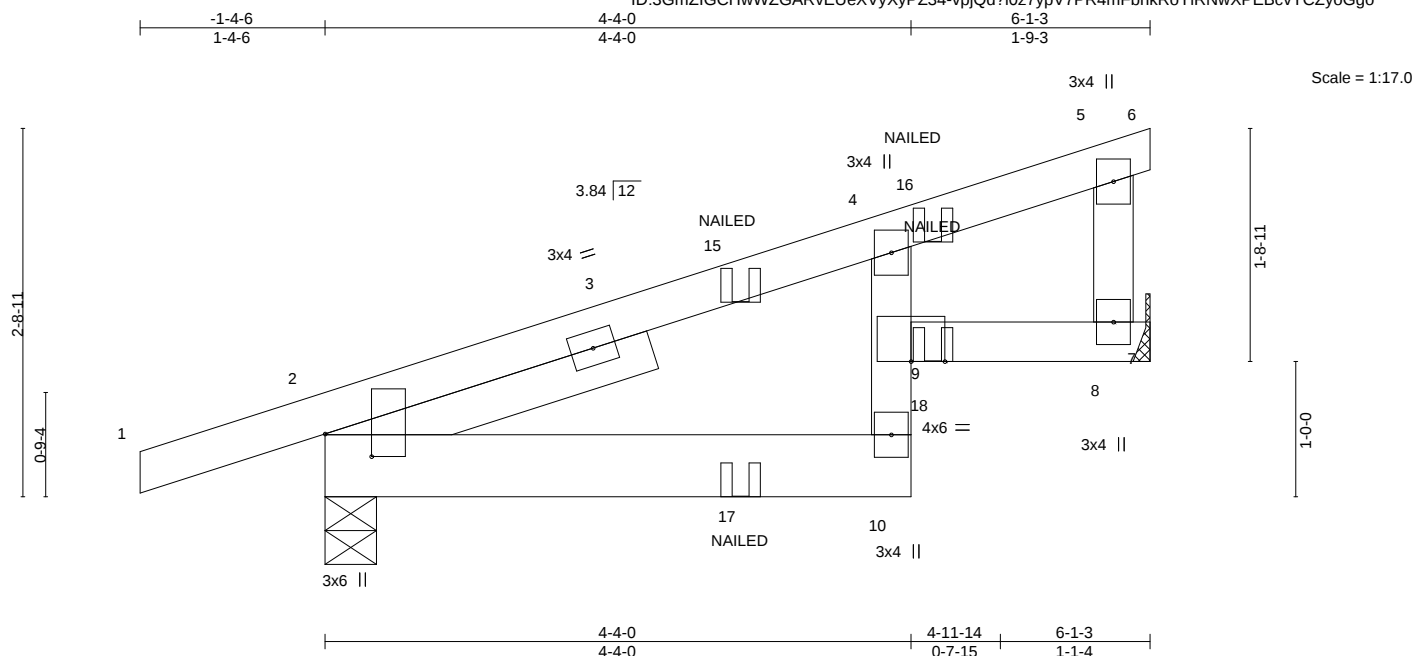


Plate Offsets (X,Y)--		[2-0-2-0-0-4-2]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.01 10 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.02 10 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR				Weight: 24 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 2-10: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0		

REACTIONS. (size) 8=Mechanical, 2=0-4-9
Max Horz 2=76(LC 5)
Max Uplift 8=-64(LC 8), 2=-95(LC 4)
Max Grav 8=265(LC 1), 2=370(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 10-11=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 17=-1(B) 18=-2(F)



August 16, 2021

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

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-7473 (REV. 3/19/2020) BEFORE USE.

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

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



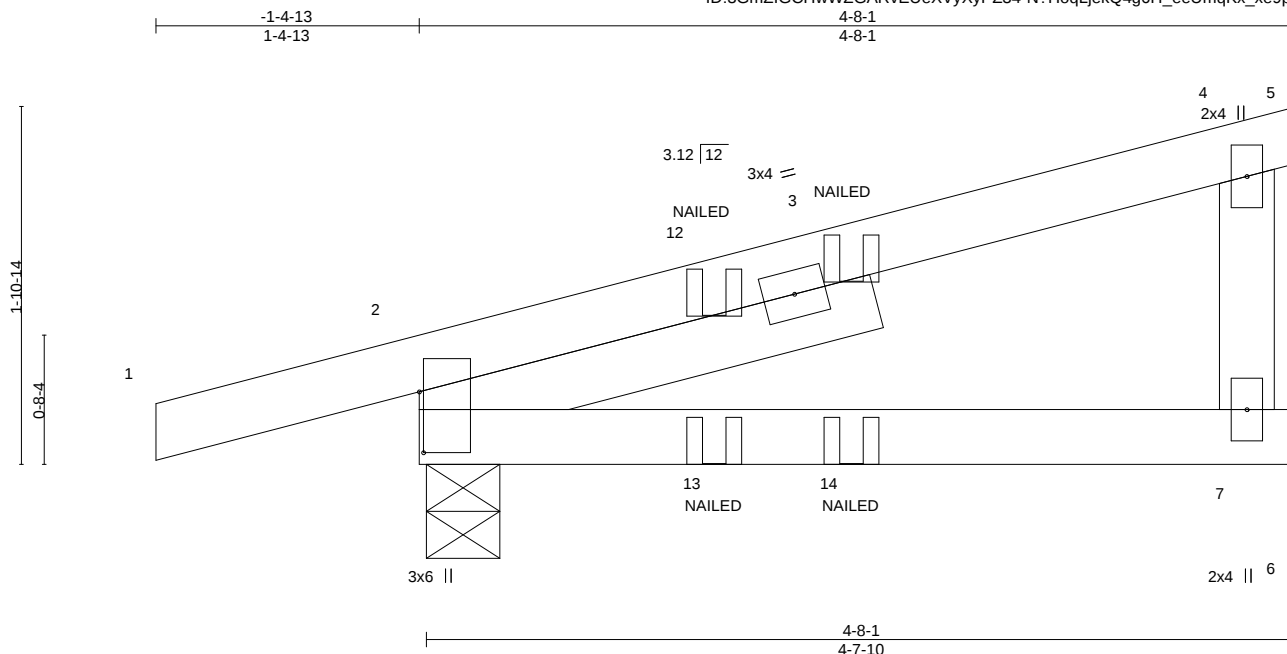
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451384
2903855	CJ5	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:28 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-N?HoqLjekQ4g6H_eeUmqKx_xe9ptf_fOPGf6k?yoGgn



Scale = 1:12.3

Plate Offsets (X,Y)--		[2:0-3-14,0-0-4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.02 7-10	>999	240		MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03 7-10	>999	180				
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01 2	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 17 lb	FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=Mechanical, 2=0-4-11
 Max Horz 2=62(LC 7)
 Max Uplift 7=-42(LC 8), 2=-94(LC 4)
 Max Grav 7=193(LC 1), 2=311(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 Vert: 1-4=-70, 4-5=-20, 6-8=-20
- Concentrated Loads (lb)
 Vert: 13=-2(F) 14=4(B)



August 16, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

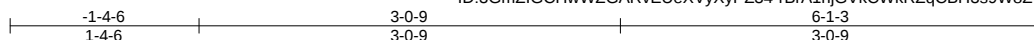
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	CJ6	Diagonal Hip Girder	1	1	147451385
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:29 2021 Page 1

ID:3GmZIGChWZGARvEUeXVyXyPZ34-rBrA1hjGVkCWkRZqCBH3s9W8ZYAXORwXewOfGRyoGgm



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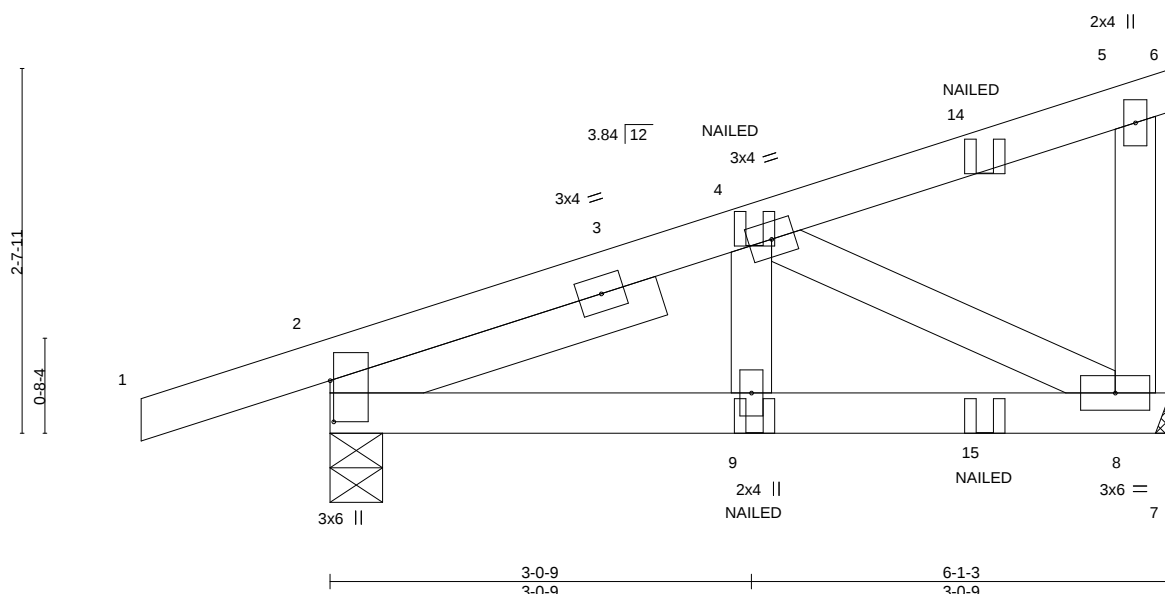


Plate Offsets (X,Y)--		[2:0-3-9,0-0-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.14		Vert(LL)	-0.00 9	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.12		Vert(CT)	-0.01 9	>999	180		
BCLL 0.0		Rep Stress Incr NO		WB 0.06		Horz(CT)	0.00 8	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MP						Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 8=Mechanical
 Max Horz 2=94(LC 7)
 Max Uplift 2=-103(LC 4), 8=-72(LC 8)
 Max Grav 2=375(LC 1), 8=271(LC 1)

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

TOP CHORD 2-4=-299/69
 BOT CHORD 2-9=-78/301, 8-9=-78/301
 WEBS 4-8=-335/102

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=103.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-20, 7-10=-20
 Concentrated Loads (lb)
 Vert: 9=-11(B) 15=-4(F)



August 16, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

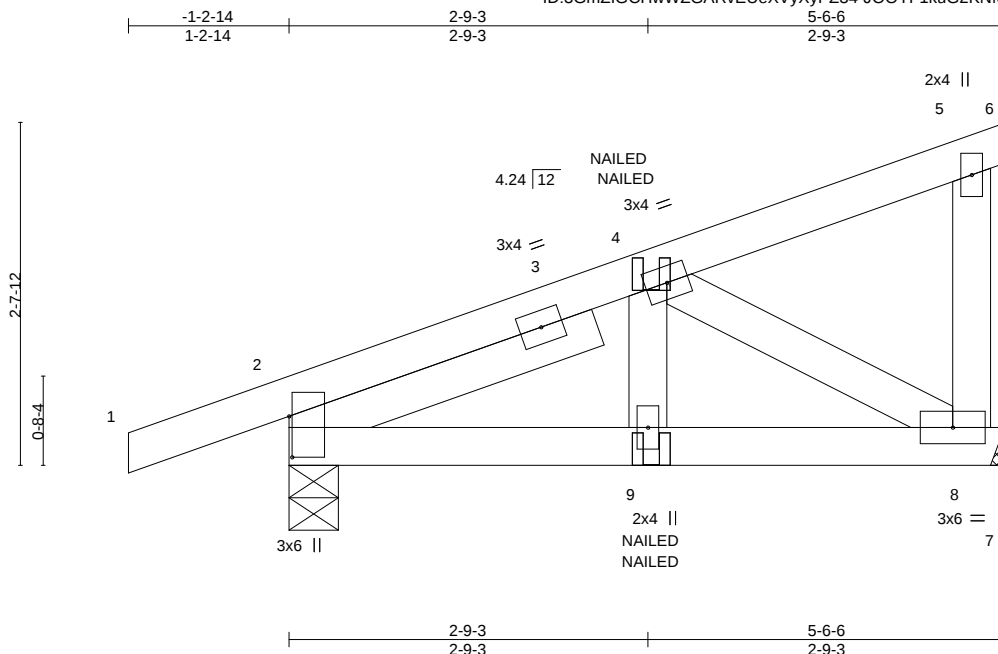
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451386
2903855	CJ7	Diagonal Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:30 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-JOOYF1kuG2KNMa80luoIPM3KiyVe7uSgta8DpuyoGgl



Scale = 1:17.8

Plate Offsets (X,Y)--		[2:0-3-13,0-0-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00 9 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00 9 >999 180				
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							
								Weight: 24 lb	FT = 20%		

LUMBER-

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

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) 2=0-4-9, 8=Mechanical
 Max Horz 2=96(LC 7)
 Max Uplift 2=-84(LC 4), 8=-53(LC 8)
 Max Grav 2=332(LC 1), 8=236(LC 1)

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

WEBS 4-8=-266/72

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-20, 7-10=-20
 Concentrated Loads (lb)
 Vert: 9=2(F=1, B=1)



August 16, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

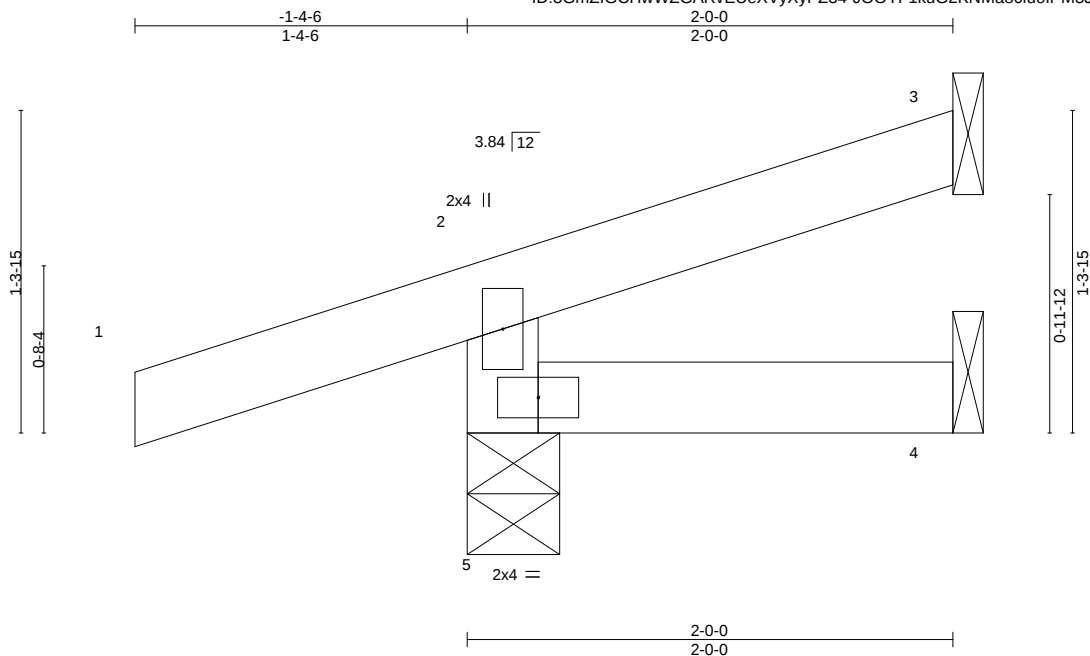
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451387
2903855	CJ8	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:30 2021 Page 1

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Scale = 1:9.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=39(LC 8)
Max Uplift 5=-83(LC 8), 3=-18(LC 12)
Max Grav 5=232(LC 1), 3=33(LC 1), 4=30(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

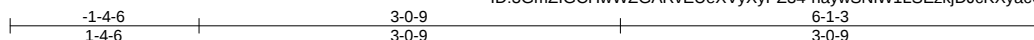
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451388
2903855	CJ9	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:31 2021 Page 1

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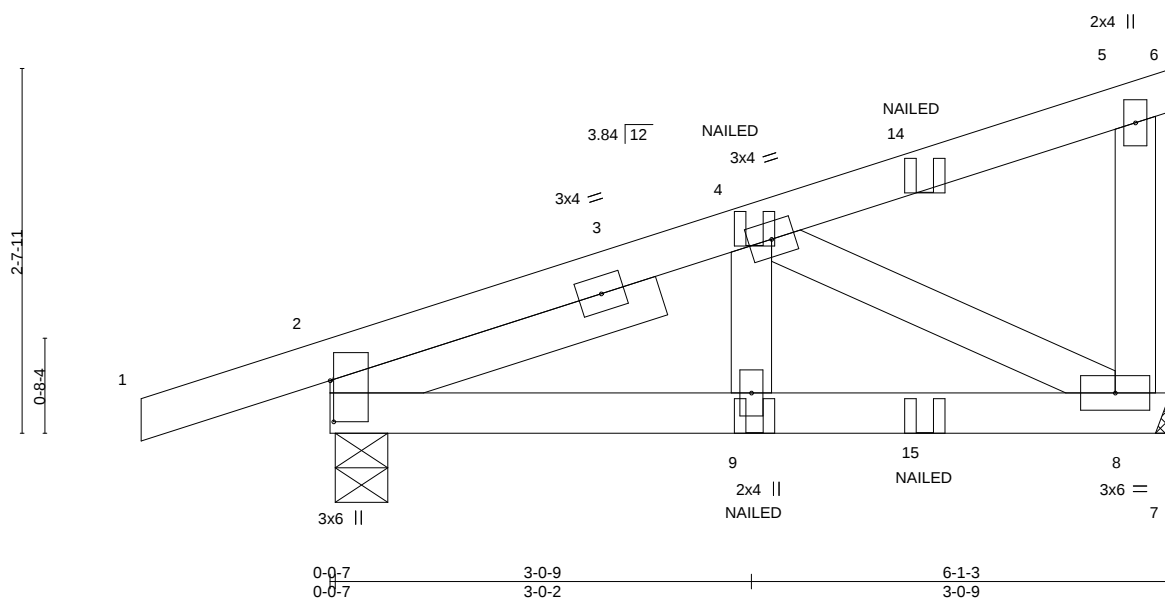


Plate Offsets (X,Y)-- [2:0-3-9,0-0-5]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 8=Mechanical
 Max Horz 2=94(LC 7)
 Max Uplift 2=-102(LC 4), 8=-66(LC 8)
 Max Grav 2=375(LC 1), 8=269(LC 1)

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

TOP CHORD 2-4=-298/66
 BOT CHORD 2-9=-78/300, 8-9=-78/300
 WEBS 4-8=-335/99

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=102.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-20, 7-10=-20
 Concentrated Loads (lb)
 Vert: 9=-11(F) 15=-2(B)



August 16, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

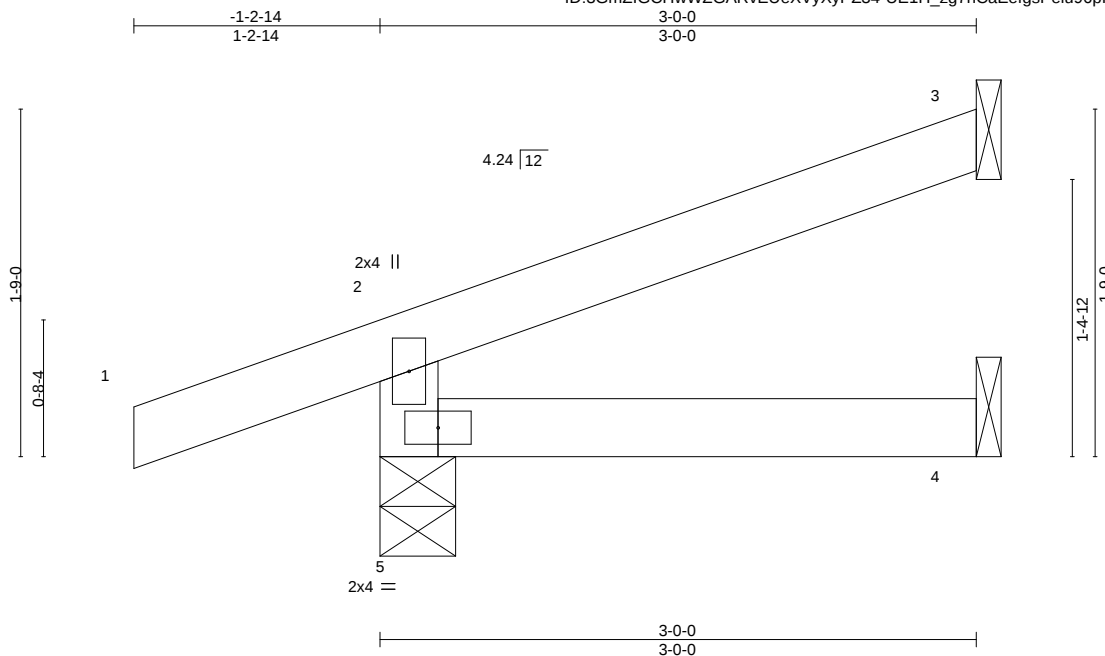
Job 2903855	Truss CJ10	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451389
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:24 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-UE1H_zg7hCaEefgsPeiu96pl2XTgjAgoVehubEyoGgr



Scale = 1:11.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 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, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=53(LC 8)
Max Uplift 5=73(LC 8), 3=34(LC 12)
Max Grav 5=246(LC 1), 3=76(LC 1), 4=50(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss CJ11	Truss Type Jack-Open Girder	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451390
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:25 2021 Page 1

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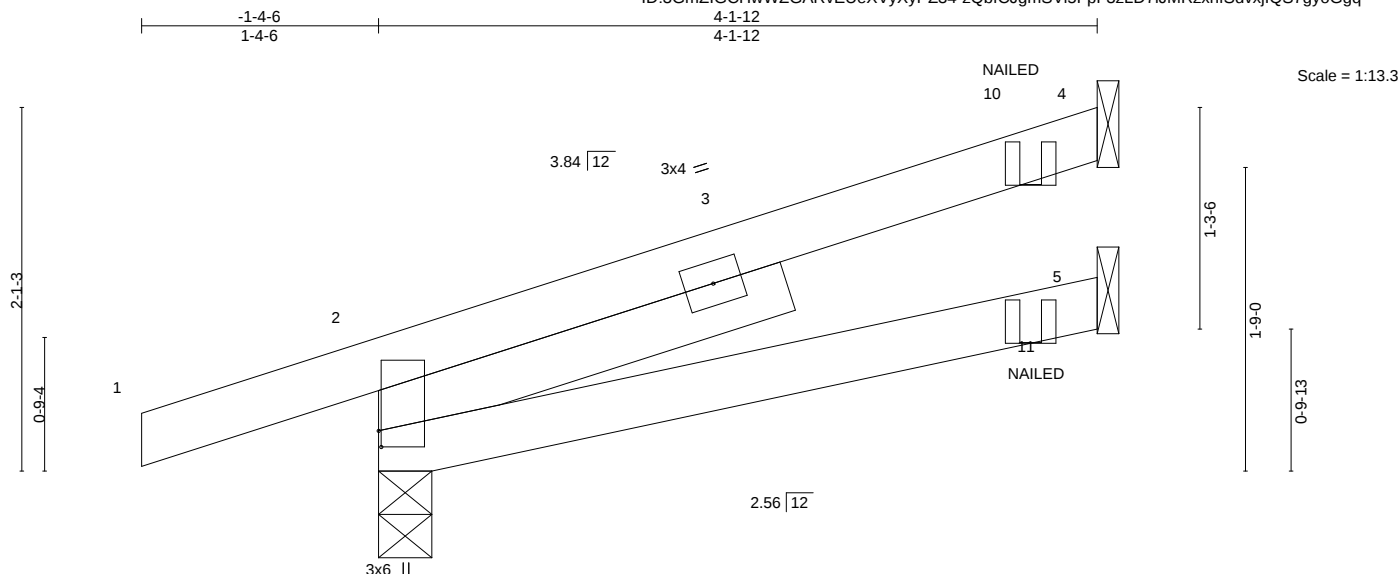


Plate Offsets (X,Y)--		[2:0-1-2,0-0-3]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24
TCDL 10.0	Lumber DOL	1.15	BC 0.14
BCLL 0.0	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.01 5-8 >999 240
			Vert(CT) -0.02 5-8 >999 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 14 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-11, 5=Mechanical
Max Horz 2=69(LC 4)
Max Uplift 4=60(LC 8), 2=77(LC 4)
Max Grav 4=122(LC 1), 2=296(LC 1), 5=74(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-3(B) 11=-4(B)



August 16, 2021

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

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



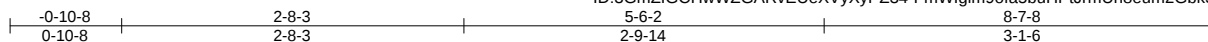
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451391
2903855	D1	HALF HIP GIRDER	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:32 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-FmWlgim9ofa5buHPtJrmUn8eum2GbkSzKtdJtmyoGgj



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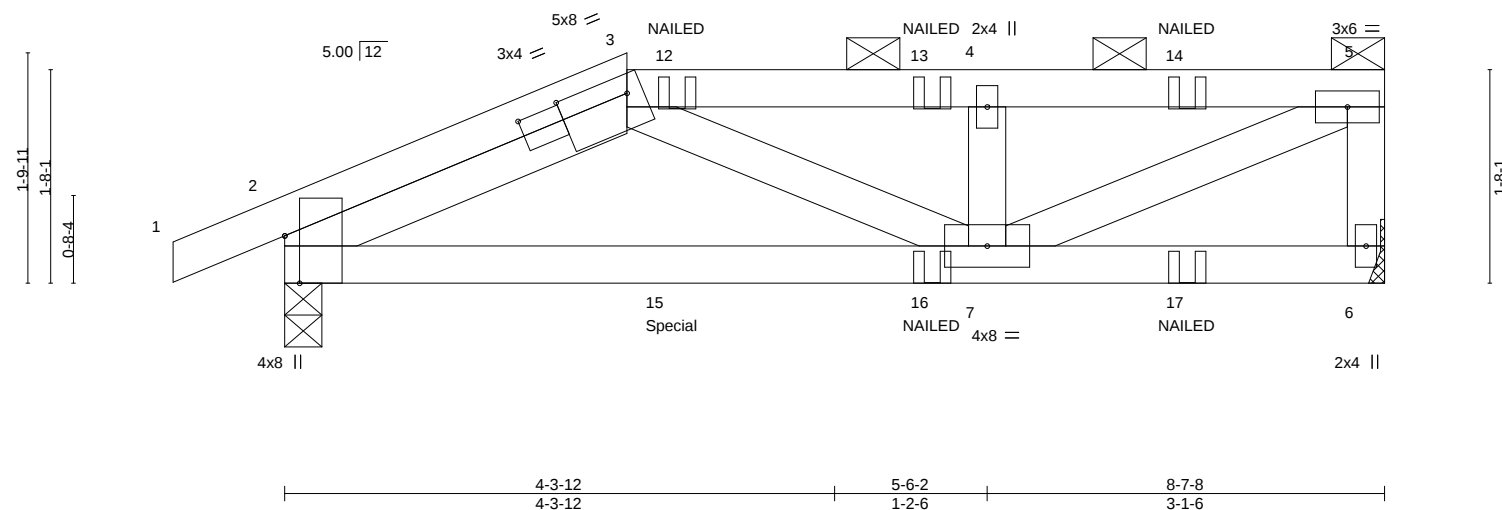


Plate Offsets (X,Y)--		[2:2-0-6,0-1-8], [2:0-4-7,Edge], [3:0-6-8,0-1-12]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.04 7-10 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.08 7-10 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 34 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-11-4

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=56(LC 7)
Max Uplift 6=-96(LC 5), 2=-111(LC 4)
Max Grav 6=582(LC 1), 2=651(LC 1)

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

TOP CHORD 2-3=-884/167, 3-4=-992/168, 4-5=-991/168, 5-6=-562/111
BOT CHORD 2-7=-173/813
WEBS 5-7=-180/1093, 4-7=-282/115

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=111.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 214 lb down and 68 lb up at 3-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 12=-34(F) 13=-34(F) 14=-34(F) 15=-214(F) 16=-47(F) 17=-47(F)



August 16, 2021

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Chesterfield, MO 63017

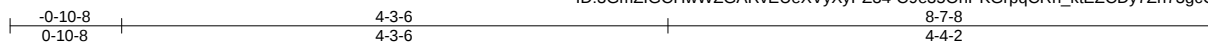
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451392
2903855	D2	HALF HIP	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:34 2021 Page 1

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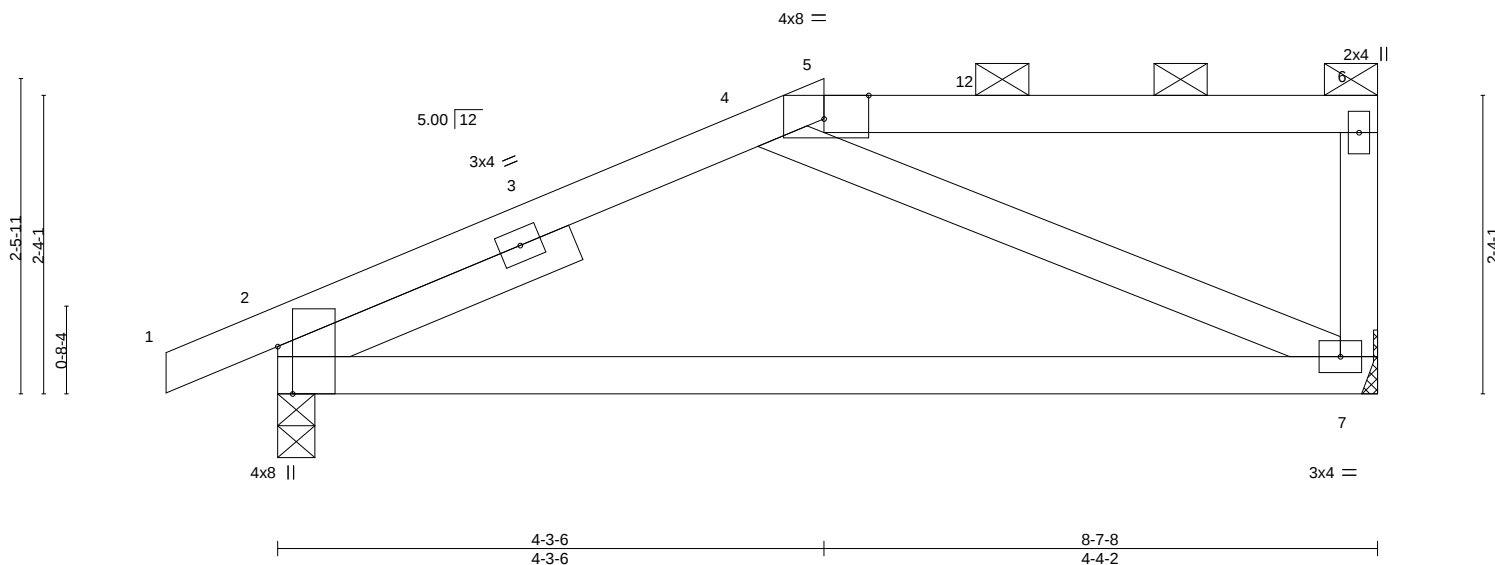


Plate Offsets (X,Y)--		[2:0-4-7,Edge], [5:0-4-3,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.14 7-10	>743	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.28 7-10	>362	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.02 2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS						Weight: 32 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
 Max Horz 2=81(LC 11)
 Max Uplift 2=-65(LC 12), 7=-65(LC 9)
 Max Grav 2=446(LC 1), 7=378(LC 1)

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

TOP CHORD 2-4=-862/168, 4-5=-320/173
 BOT CHORD 2-7=-202/328
 WEBS 5-7=-366/201

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-3-6, Exterior(2E) 4-3-6 to 8-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

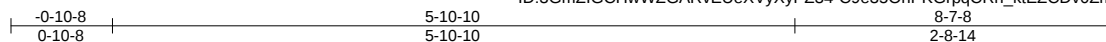
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451393
2903855	D3	HALF HIP	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:34 2021 Page 1

ID:3GmZIGChWWZGARvEUeXvYxPZ34-C9e35OnPKGrpQCRn_ktEZCDv0ZmS3htGoB6QyfyGgh



4x6 =

Scale = 1:19.9

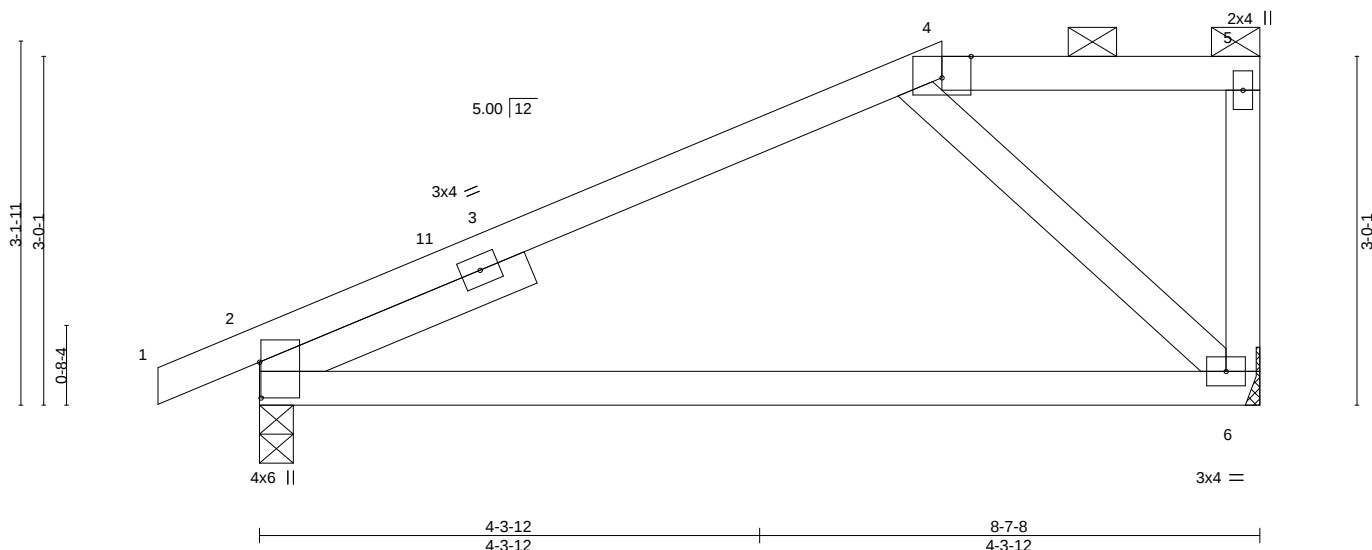


Plate Offsets (X,Y)--		[2:0-3-11,0-0-2], [4:0-3-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.16	6-9	>651	240	MT20 197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.54	Vert(CT)	-0.34	6-9	>299	180	
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.03	2	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						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 2-6-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
 Max Horz 2=108(LC 11)
 Max Uplift 2=-72(LC 12), 6=-60(LC 9)
 Max Grav 2=446(LC 1), 6=378(LC 1)

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

TOP CHORD 2-4=-801/107
 WEBS 4-6=-286/190

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-10-10, Exterior(2E) 5-10-10 to 8-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

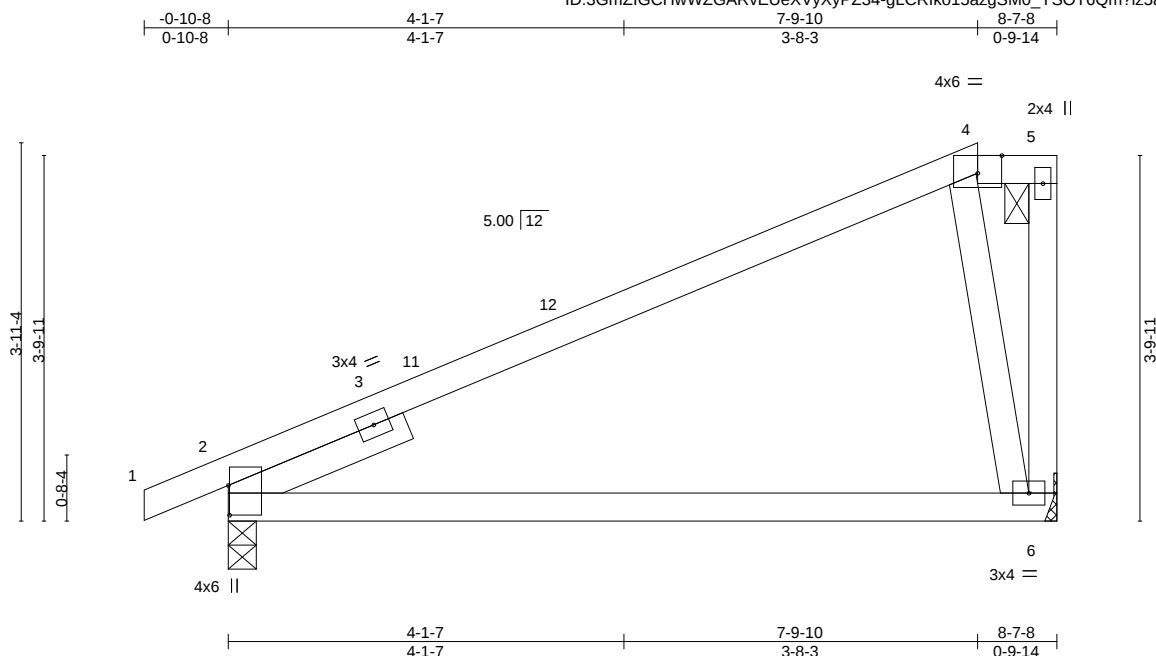
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	D4	HALF HIP	1	1	147451394

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:35 2021 Page 1

ID:3GmZIGChWZGARvEueXVyXyPZ34-gLCRIko15azgSM0_YsOT6Qm?iz5ao8OQ0rr_U5yoGgg



Scale: 1/2"=1'

Plate Offsets (X,Y)--		[2:0-3-11,0-0-2], [4:0-3-0,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.87		Vert(LL)	-0.19 6-9	>545	240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.61		Vert(CT)	-0.43 6-9	>235	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.06		Horz(CT)	0.07 2	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						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 2-0-0

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=139(LC 11)
Max Uplift 6=72(LC 12), 2=72(LC 12)
Max Grav 6=378(LC 1), 2=446(LC 1)

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

TOP CHORD 2-4=-628/66
WEBS 4-6=-260/186

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-9-10, Exterior(2E) 7-9-10 to 8-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

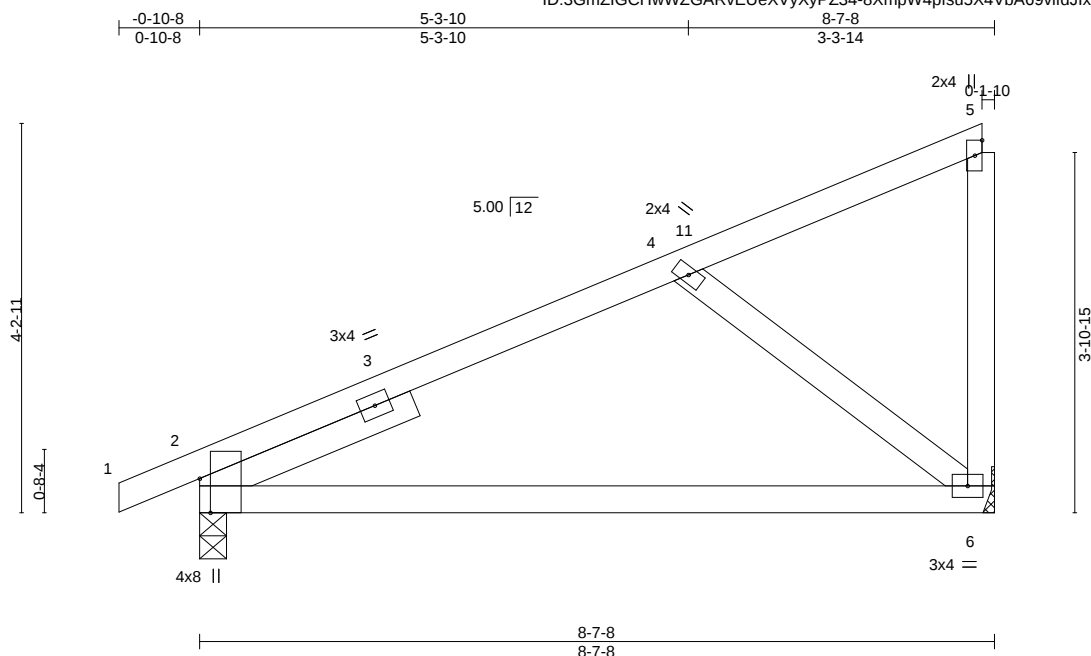
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	D5	MONOPITCH	2	1	I47451395

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:36 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-8XmpW4pfsu5X4VbA69vifdJlxNTXXajZfVbX0XyoGgf



Scale = 1:25.0

Plate Offsets (X, Y)--		[2:0-4-7, Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32
TCDL 10.0	Lumber DOL	1.15	BC 0.50
BCLL 0.0	Rep Stress Incr	YES	WB 0.12
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.14 6-9 >733 240
			Vert(CT) -0.29 6-9 >355 180
			Horz(CT) 0.02 2 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 33 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
 Max Horz 2=155(LC 11)
 Max Uplift 2=-70(LC 12), 6=-85(LC 12)
 Max Grav 2=446(LC 1), 6=378(LC 1)

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

TOP CHORD 2-4=-823/147
 BOT CHORD 2-6=-230/322
 WEBS 4-6=-405/236

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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



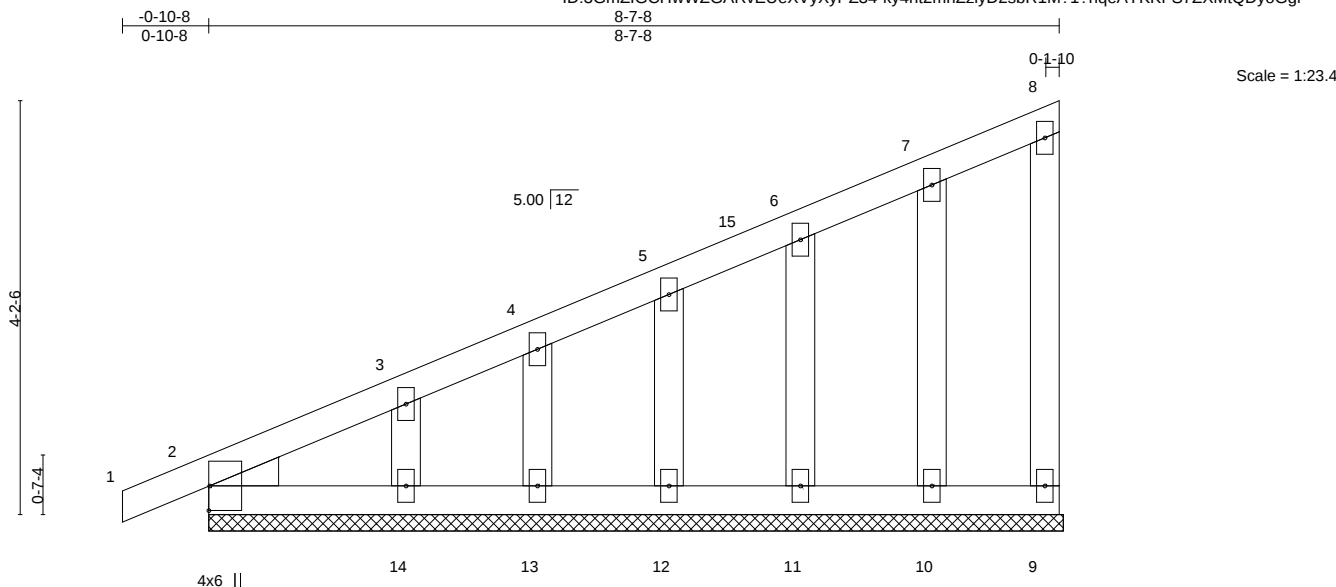
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	D11	MONOPITCH SUPPORTED	1	1	I47451396
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:33 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-ky4ht2mnZziyD2sbR1M?1?hqeAYKKFS7ZXMTQDyoGgi



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 38 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-8-0.
(lb) - Max Horz 2=152(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14
Max Grav All reactions 250 lb or less at joint(s) 9, 2, 10, 11, 12, 13, 14

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

TOP CHORD 2-3=-312/159

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 8-5-12 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 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) 9, 2, 10, 11, 12, 13, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss E1	Truss Type Roof Special Girder	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451397
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

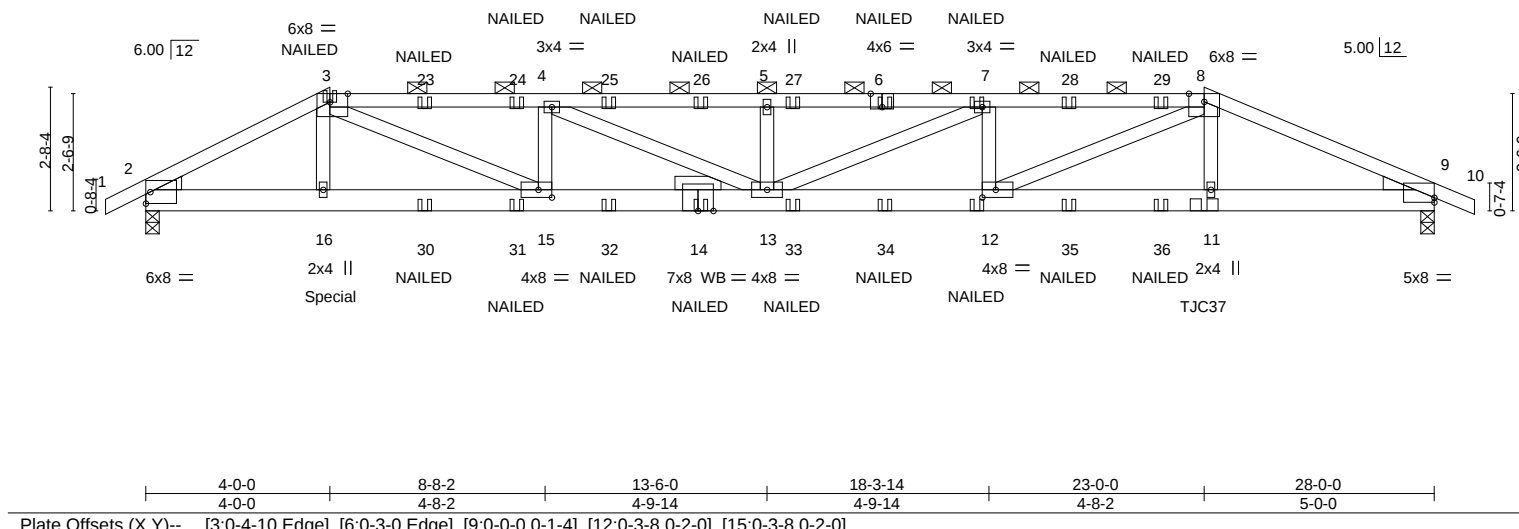
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:37 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-ckKBjQqHdBDOhfAMgtRxBrRLcnn_Gv5iU9K4Z_yoGge

Job Reference (optional)

0-10-8 4-0-0 8-8-2 13-6-0 18-3-14 23-0-0 28-0-0 28-10-8
0-10-8 4-0-0 4-8-2 4-9-14 4-9-14 4-8-2 5-0-0 0-10-8

Scale = 1:50.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.40	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.72				
BCLL	0.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.08				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 3-6,6-8: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied or 2-5-13 oc purlins, except
BOT CHORD	2x6 SPF 2100F 1.8E		2-0-0 oc purlins (2-5-0 max.): 3-8.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 8-10-14 oc bracing.
OTHERS	2x4 SPF No.2		
WEDGE			
Left: 2x4 SP No.3 , Right: 2x4 SP No.3			

REACTIONS.	
(size)	2=0-3-8, 9=0-3-8
Max Horz	2=-37(LC 9)
Max Uplift	2=-420(LC 8), 9=-418(LC 9)
Max Grav	2=1921(LC 1), 9=1880(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-3327/749, 3-4=-5201/1223, 4-5=-5913/1386, 5-7=-5913/1386, 7-8=-5490/1292, 8-9=-3842/867
BOT CHORD	2-16=-635/2930, 15-16=-637/2925, 13-15=-1157/5198, 12-13=-1225/5487, 11-12=-748/3486, 9-11=-748/3499
WEBS	3-15=-605/2552, 4-15=-874/305, 4-13=-213/807, 5-13=-430/191, 7-13=-145/514, 7-12=-764/274, 8-12=-529/2287

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) except (jt=lb) 2=420, 9=418.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie TJC37 (6 nail, 30-90) or equivalent at 23-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 50.2 deg.to the left, sloping 0.0 deg. down.
 - Fill all nail holes where hanger is in contact with lumber.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 232 lb down and 81 lb up at 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

LOAD CASE(S) Standard

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August 16, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451397
2903855	E1	Roof Special Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-8=-70, 8-10=-70, 17-20=-20

Concentrated Loads (lb)

Vert: 3=-47(B) 6=-47(B) 14=-24(B) 16=-232(B) 7=-47(B) 12=-24(B) 11=-240(B) 23=-47(B) 24=-47(B) 25=-47(B) 26=-47(B) 27=-47(B) 28=-47(B) 29=-47(B) 30=-24(B) 31=-24(B) 32=-24(B) 33=-24(B) 34=-24(B) 35=-24(B) 36=-24(B)

 **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/HAWTHORN RIDGE #117/MO	147451398
2903855	E2	Roof Special Girder	1	2	Job Reference (optional)	

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

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ID:3GmZIGCHwWZGARvEueXVyXyPZ34-Y6Ry86rY9pT6xzKlnHTPGGxoUaM5ksy?xTpBdsyoGgc

3-0-8	5-7-8	9-8-0	13-11-4	17-6-13	21-0-10	24-6-4	28-0-0	28-10-8
3-0-8	2-7-0	4-0-8	4-3-4	3-7-9	3-5-13	3-5-10	3-5-12	0-10-8

Scale = 1:50.1

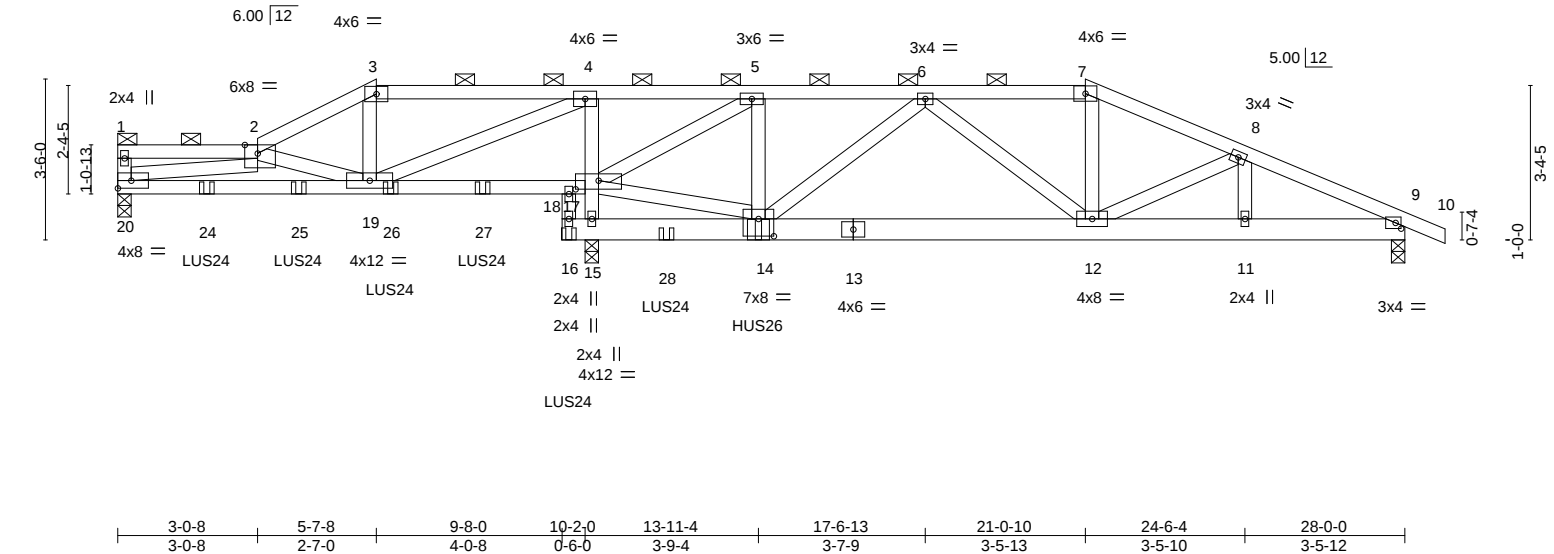


Plate Offsets (X,Y)-- [2:0-3-6,Edge], [9:0-1-7,0-1-8], [14:0-4-0,0-4-8], [17:0-6-0,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.10 19-20 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.18 19-20 >693 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.01 9 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 13-16: 2x6 SP 2400F 2.0E, 9-13: 2x6 SPF No.2
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-19,14-15.

REACTIONS.

(size) 20=0-3-8, 9=0-3-8, 15=0-3-8
 Max Horz 20=-73(LC 9)
 Max Uplift 20=-165(LC 8), 9=-171(LC 9), 15=-872(LC 5)
 Max Grav 20=1141(LC 21), 9=1097(LC 22), 15=5583(LC 1)

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

TOP CHORD 1-2=-518/62, 2-3=-1514/196, 3-4=-1306/190, 4-5=-213/1797, 5-6=-1869/403,
 6-7=-1678/307, 7-8=-1871/322, 8-9=-1927/295
 BOT CHORD 19-20=-322/2221, 18-19=-1817/301, 17-18=-1849/305, 12-14=-333/1956,
 11-12=-228/1734, 9-11=-228/1734
 WEBS 16-18=-1630/200, 2-19=-937/204, 3-19=-137/445, 5-14=-268/1803, 6-14=-463/271,
 6-12=-459/204, 7-12=-58/466, 2-20=-1774/290, 15-17=-3369/608, 4-17=-1718/292,
 4-19=-433/3355, 14-17=-327/1894, 5-17=-4038/693

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x4 - 1 row at 0-5-0 oc, 2x6 - 2 rows staggered at 0-5-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 15-4 2x4 - 1 row at 0-7-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed;
 MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 20=165, 9=171, 15=872.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-1-8 oc max. starting at 1-11-4 from the left end to 11-11-4 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent at 13-11-4 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg. to the right, sloping 0.0 deg. down.



August 16, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451398
2903855	E2	Roof Special Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Jun 2 2021 MiTek Industries, Inc.
Fri Aug 13 11:52:39 2021
Page 2
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NOTES-
 12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 3-7=-70, 7-10=-70, 18-20=-20, 16-21=-20
 Concentrated Loads (lb)
 Vert: 18=-520(F) 14=-2092(F) 24=-528(F) 25=-528(F) 26=-518(F) 27=-518(F) 28=-517(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	E3	Roof Special	1	1	147451399
Job Reference (optional)					

Builders FirstSource (Valley Center),

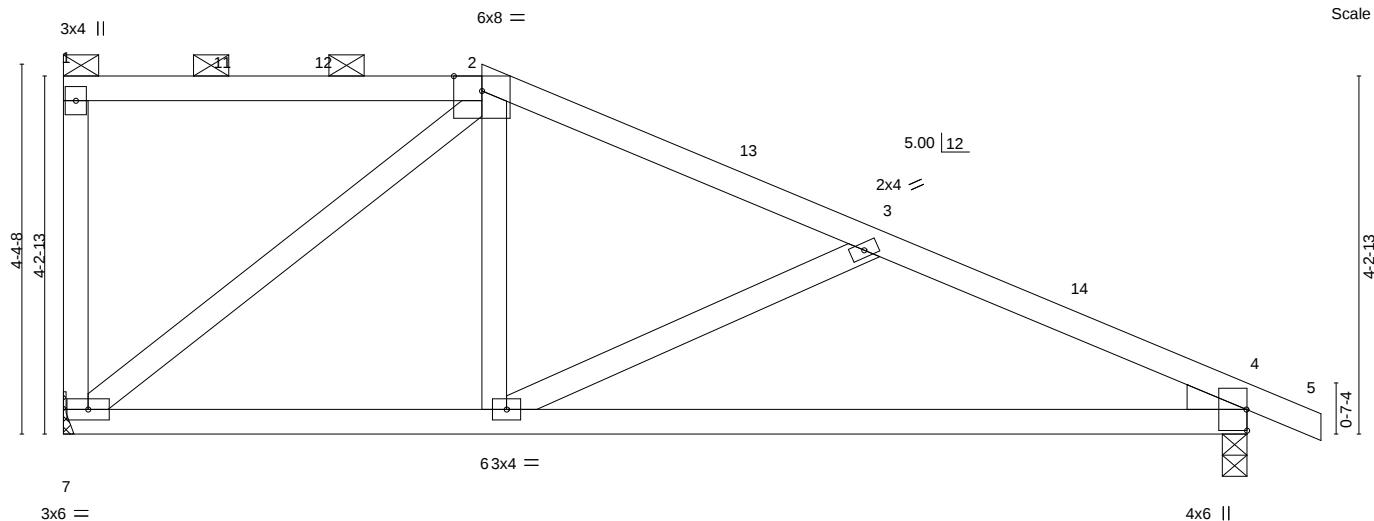
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:40 2021 Page 1

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4-11-6	9-5-10	14-0-0	14-10-8
4-11-6	4-6-4	4-6-6	0-10-8

Scale = 1:27.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.10 6-10 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.20 6-10 >838 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.01 4 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 55 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE

Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and

2-0-0 oc purlins (6-0-0 max.): 1-2.

BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 4=0-3-8, 7=Mechanical

Max Horz 7=-157(LC 10)

Max Uplift 4=-106(LC 13), 7=-98(LC 8)

Max Grav 4=687(LC 1), 7=622(LC 1)

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

TOP CHORD 2-3=-648/188, 3-4=-1004/280

BOT CHORD 6-7=-27/533, 4-6=-177/889

WEBS 2-7=-665/231, 2-6=-11/376, 3-6=-380/192

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-11-6, Exterior(2R) 4-11-6 to 7-11-6, Interior(1) 7-11-6 to 14-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 4=106.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

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



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451400
2903855	E4	Roof Special	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:41 2021 Page 1

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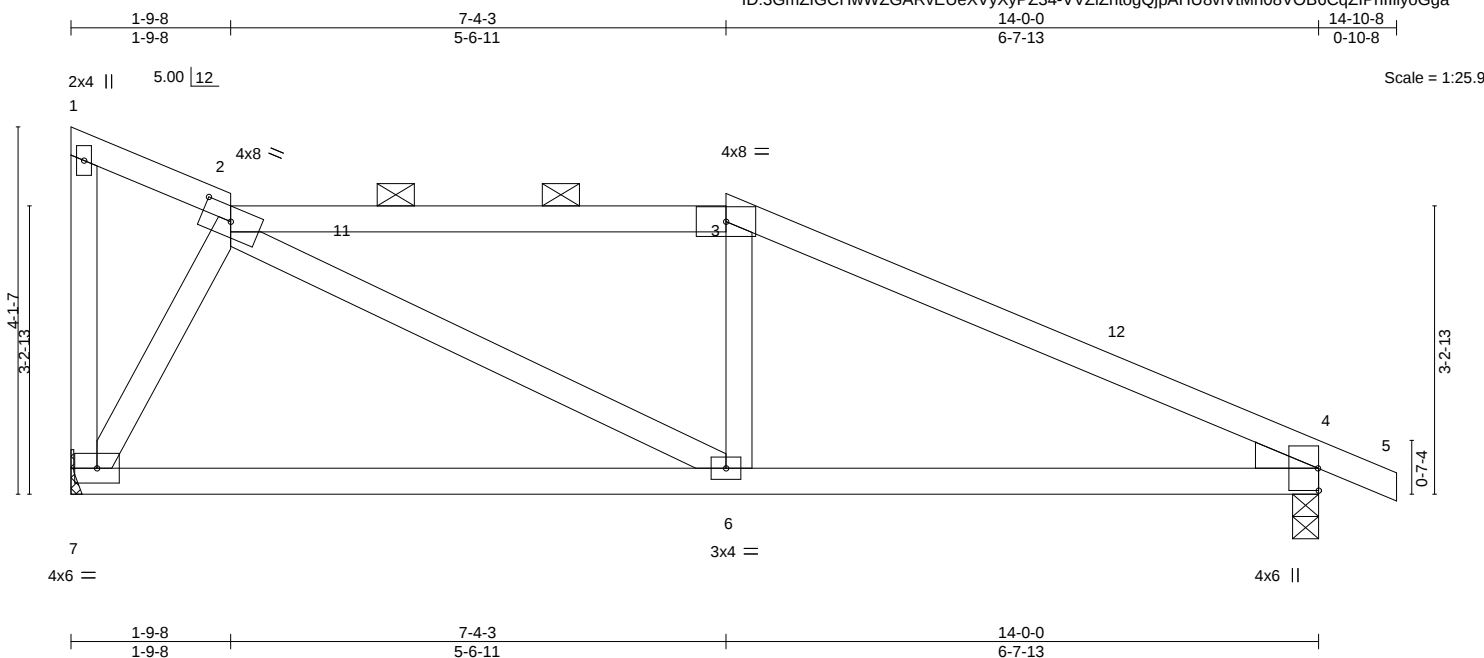


Plate Offsets (X,Y)-- [2:0-4-0,0-1-15]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.07	6-7	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.14	6-7	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	4	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 53 lb	FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-11-14 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 4=0-3-8, 7=Mechanical
Max Horz 7=-150(LC 10)
Max Uplift 4=-120(LC 13), 7=-122(LC 13)
Max Grav 4=687(LC 1), 7=622(LC 1)

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

TOP CHORD 2-3=-813/214, 3-4=-948/195
BOT CHORD 6-7=-6/324, 4-6=-86/808
WEBS 2-7=-647/197, 2-6=-174/552

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-9-8, Interior(1) 1-9-8 to 7-4-3, Exterior(2R) 7-4-3 to 11-7-2, Interior(1) 11-7-2 to 14-10-8 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=120, 7=122.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	E5	Roof Special	1	1	147451401

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:41 2021 Page 1

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Job Reference (optional)

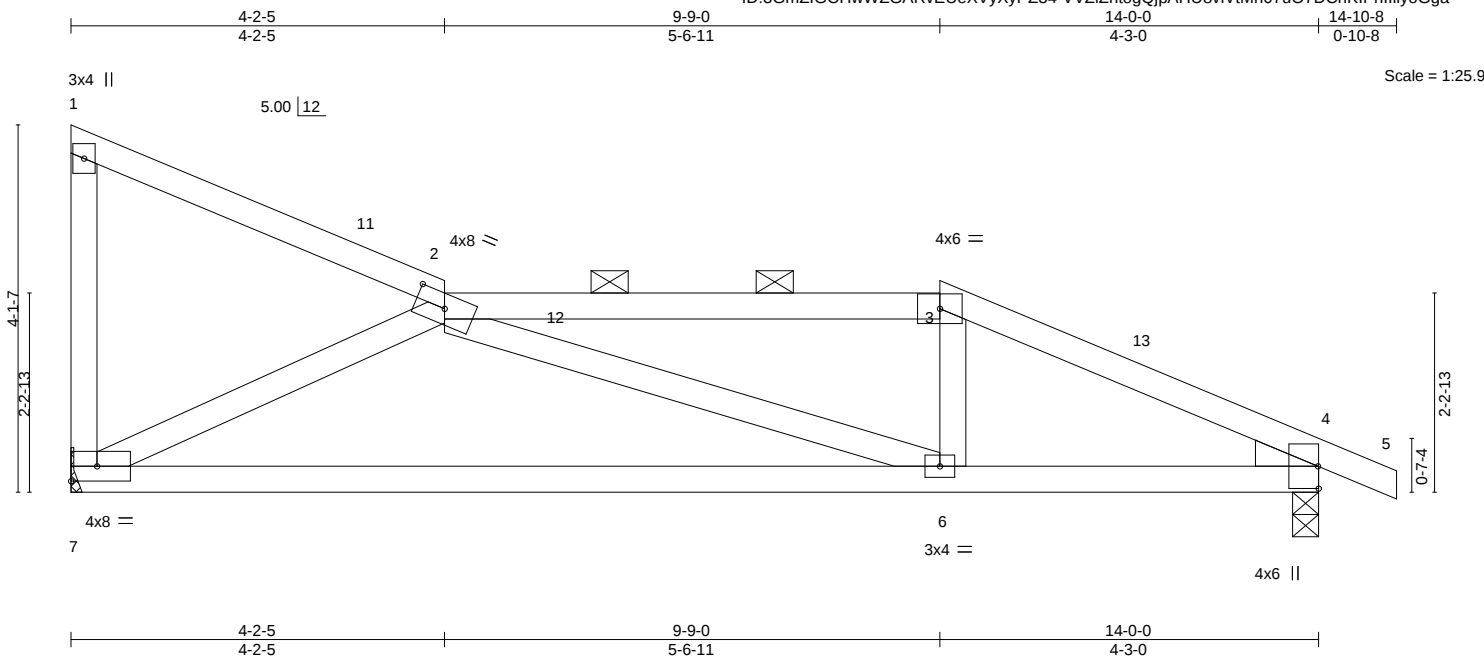


Plate Offsets (X,Y)--		[2:0-4-0,0-1-15]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.23	6-7	>714
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.48	6-7	>348
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	4	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS					
								PLATES	GRIP
								MT20	197/144
								Weight: 52 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=0-3-8, 7=Mechanical
Max Horz 7=-150(LC 10)
Max Uplift 4=-120(LC 13), 7=-122(LC 13)
Max Grav 4=687(LC 1), 7=622(LC 1)

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

TOP CHORD 2-3=-1005/224, 3-4=-1141/213
BOT CHORD 6-7=-164/889, 4-6=-130/1013
WEBS 2-7=-946/282, 2-6=-53/257, 3-6=0/255

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-9-0, Exterior(2R) 9-9-0 to 14-0-0, Interior(1) 14-0-0 to 14-10-8 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) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=120, 7=122.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

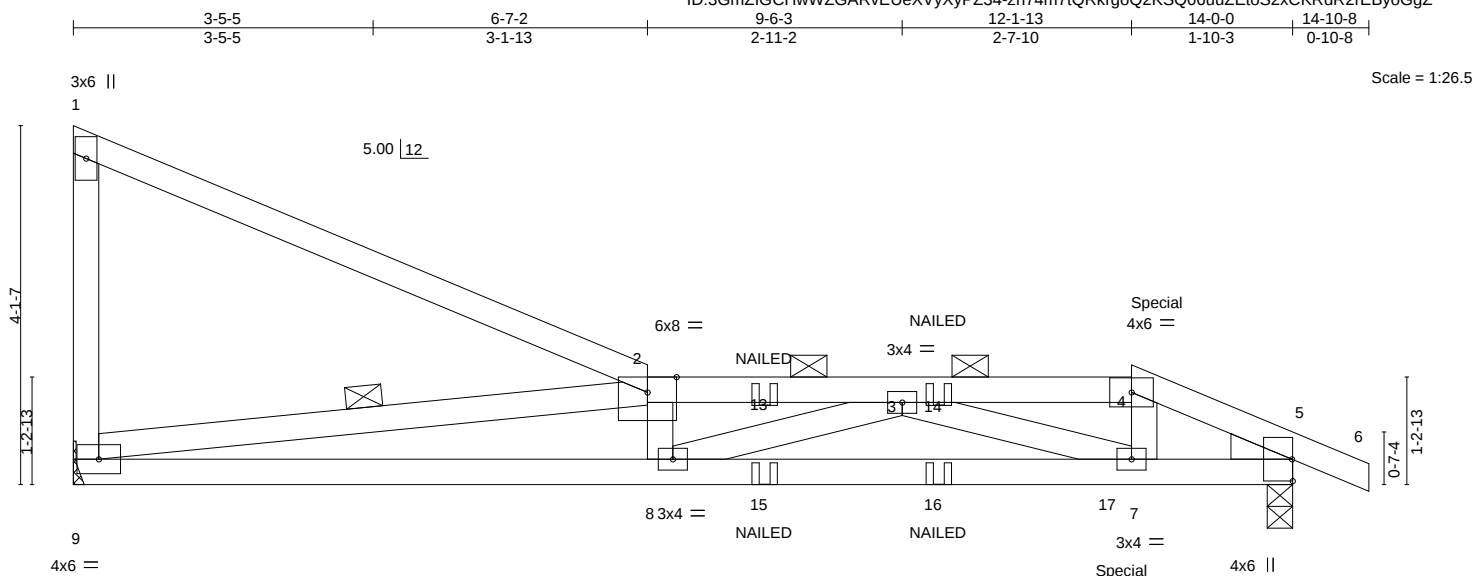
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017



		3-5-5		6-7-2		9-6-3		12-1-13		14-0-0	
		3-5-5		3-1-13		2-11-2		2-7-10		1-10-3	
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.14	8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.25	8-9	>658	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.03	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 54 lb FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-7-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-6 max.): 2-4.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	1 Row at midpt	2-9

REACTIONS.

(size) 9=Mechanical, 5=0-3-8
Max Horz 9=-150(LC 6)
Max Uplift 9=-122(LC 9), 5=-120(LC 9)
Max Grav 9=617(LC 1), 5=674(LC 1)

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

TOP CHORD 2-3=-2190/332, 3-4=-917/160, 4-5=-1049/166
BOT CHORD 8-9=-305/2189, 7-8=-295/1871, 5-7=-125/956
WEBS 2-9=-2165/401, 3-8=-79/336, 3-7=-1009/181, 4-7=-8/293

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=122, 5=120.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 57 lb down and 39 lb up at 12-1-13 on top chord, and 4 lb down and 4 lb up at 11-11-4, and 7 lb down and 6 lb up at 12-1-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-6=-70, 9-10=-20
Concentrated Loads (lb)
Vert: 15=4(F) 16=4(F) 17=9(F)



August 16, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) 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

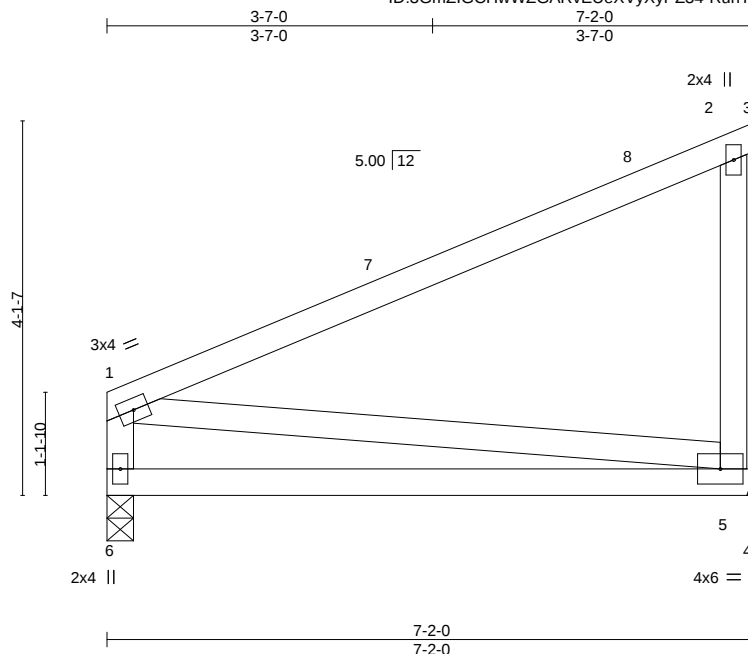
Job 2903855	Truss E7	Truss Type Jack-Partial	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451403
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:43 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-RuHT_Tu2C1zXQadW07XLR65OICrGgLLbs5nPmdyoGgY



Scale = 1:25.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.12 5-6	>653	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.25 5-6	>327	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 29 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 5=Mechanical
Max Horz 6=90(LC 12)
Max Uplift 6=-21(LC 12), 5=-79(LC 12)
Max Grav 6=304(LC 1), 5=315(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

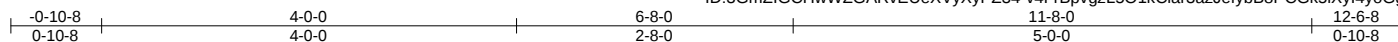
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	E8	Hip Girder	1	1	147451404
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:44 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-v4FrBpvgzL5O1kCiar3azJefybB8PCGk5lXyl4yoGgX



Scale = 1:22.2

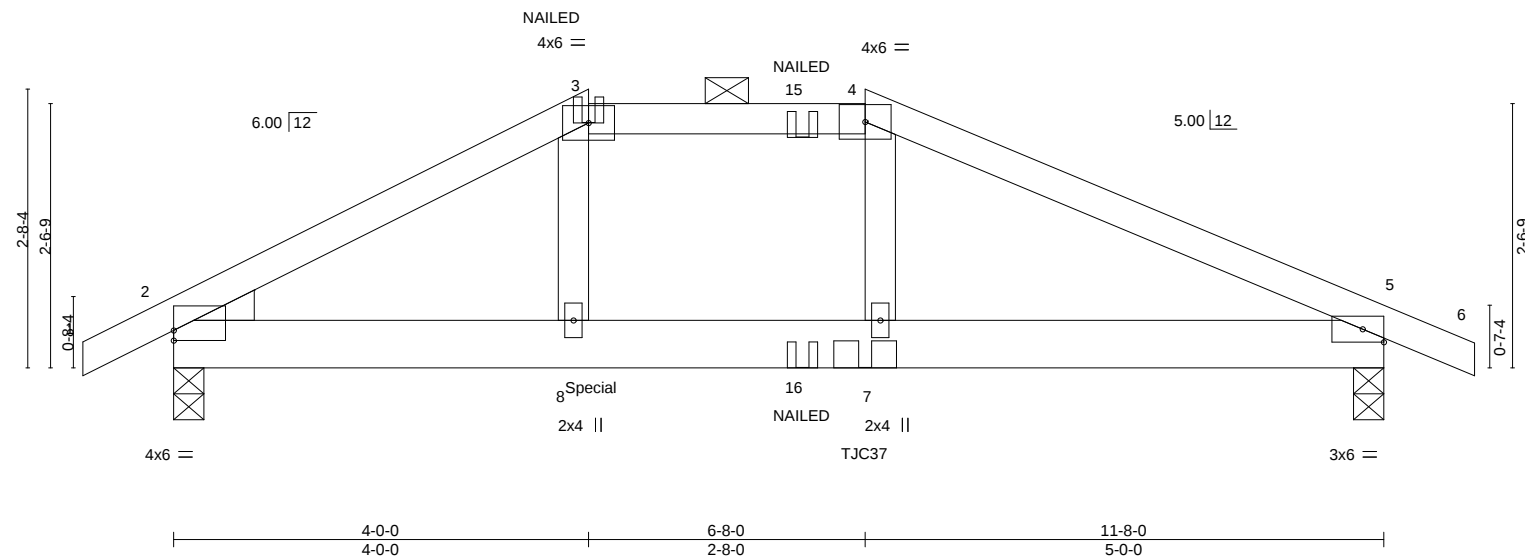


Plate Offsets (X, Y)--	[2:0-0-0,0-1-3]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL 1.15		TC 0.32	Vert(LL) -0.04 7-14 >999	240
TCDL 10.0	Lumber DOL 1.15		BC 0.46	Vert(CT) -0.07 7-14 >999	180
BCLL 0.0	Rep Stress Incr NO		WB 0.09	Horz(CT) 0.01 5 n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS		
				PLATES	GRIP
				MT20	197/144
				Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-9 oc purlins, except 2-0-0 oc purlins (5-3-7 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=-38(LC 9)
Max Uplift 2=-189(LC 8), 5=-181(LC 9)
Max Grav 2=906(LC 1), 5=855(LC 1)

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

TOP CHORD 2-3=-1422/317, 3-4=-1197/290, 4-5=-1375/291
BOT CHORD 2-8=-228/1218, 7-8=-227/1197, 5-7=-230/1212
WEBS 3-8=-50/351, 4-7=-39/274

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) except (jt=lb) 2=189, 5=181.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie TJC37 (6 nail 90-150) or equivalent at 6-8-0 from the left end to connect truss(es) to front face of bottom chord, skewed 50.2 deg.to the right, sloping 0.0 deg. down.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 232 lb down and 81 lb up at 4-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



August 16, 2021

Continued on page 2

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451404
2903855	E8	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:44 2021 Page 2
ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-v4FrBpvgzL5O1kCiar3azJefybB8PCGk5lXyl4yoGgX

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20
Concentrated Loads (lb)
Vert: 3=-47(F) 8=-232(F) 7=-238(F) 15=-47(F) 16=-24(F)

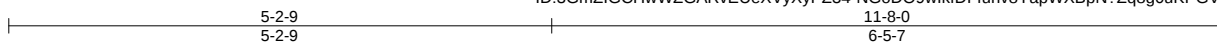
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451405
2903855	E9	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:45 2021 Page 1

ID:3GmZIGChWwZGARvEUeXVyXyPZ34-NGoDO9wIkfDFfunv8YapWXBpN?Zq8g0uKPGVrWyoGgW



4x6

Scale = 1:22.1

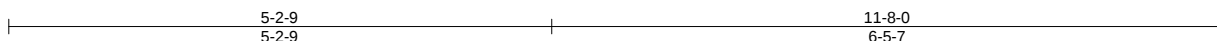
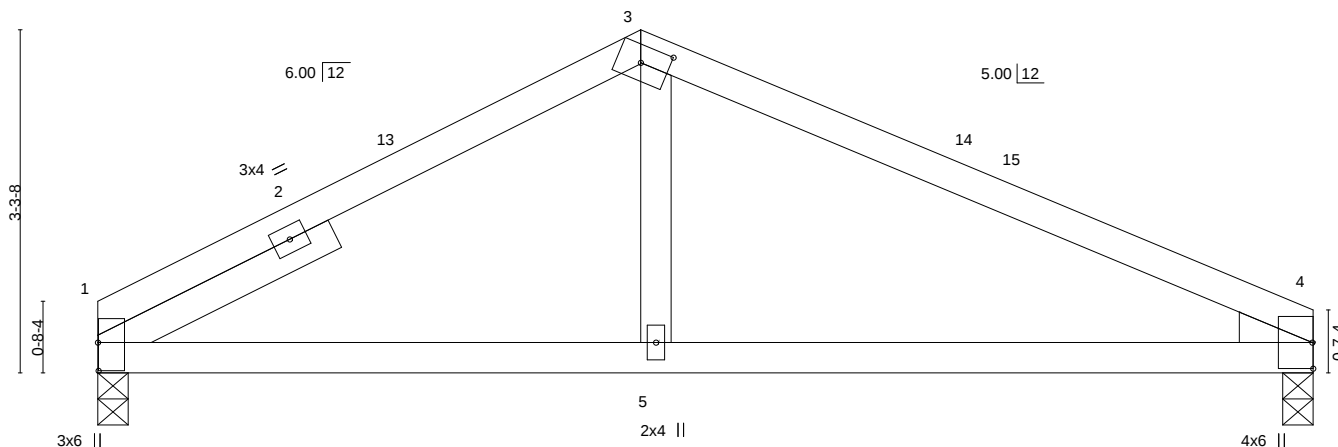


Plate Offsets (X,Y)-- [1:0-3-4,0-0-1], [3:0-3-4,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.06	5-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10	5-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 4=0-3-8
 Max Horz 1=-44(LC 13)
 Max Uplift 1=-61(LC 12), 4=-70(LC 13)
 Max Grav 1=525(LC 1), 4=525(LC 1)

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

TOP CHORD 1-3=-654/257, 3-4=-715/250
 BOT CHORD 1-5=-150/585, 4-5=-150/593

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-2-9, Exterior(2R) 5-2-9 to 8-2-9, Interior(1) 8-2-9 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
- 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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



August 16, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

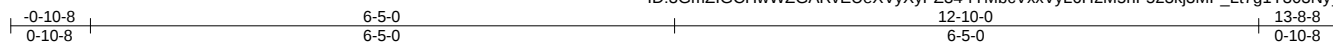
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	G1	Common Supported Gable	1	1	147451406
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

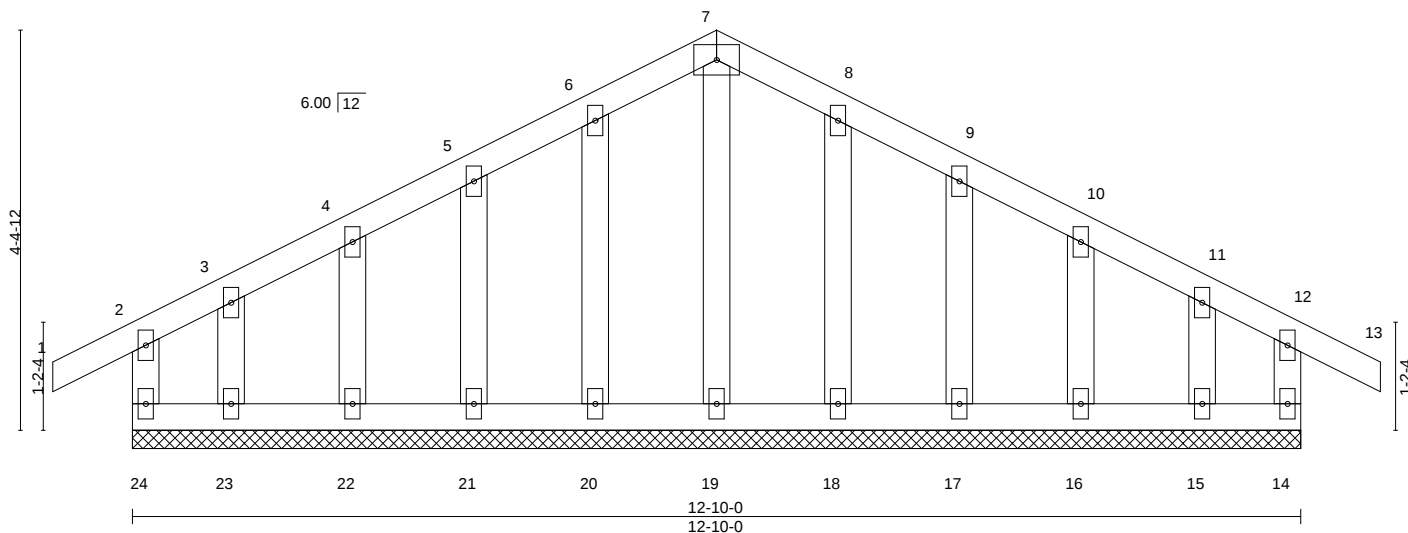
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:46 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-rTMbcVxxVyL6H2M5hF523kj3MP_Lt7g1Y303NyyoGgV



4x6 =

Scale = 1:25.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	13	n/r		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 59 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 12-10-0.

(lb) - Max Horz 24=-75(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15

Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-5-0, Exterior(2N) 2-5-0 to 6-5-0, Corner(3R) 6-5-0 to 9-5-0, Exterior(2N) 9-5-0 to 13-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 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) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15.
- 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.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451407
2903855	G2	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:47 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-JfwzprxZGGTzuCxHFzcHbyGD1pG?cXFBnjicvPyoGgU

-0-10-8	3-3-8	6-5-0	9-6-8	12-10-0	13-8-8
0-10-8	3-3-8	3-1-8	3-1-8	3-3-8	0-10-8

4x6 =

Scale = 1:28.8

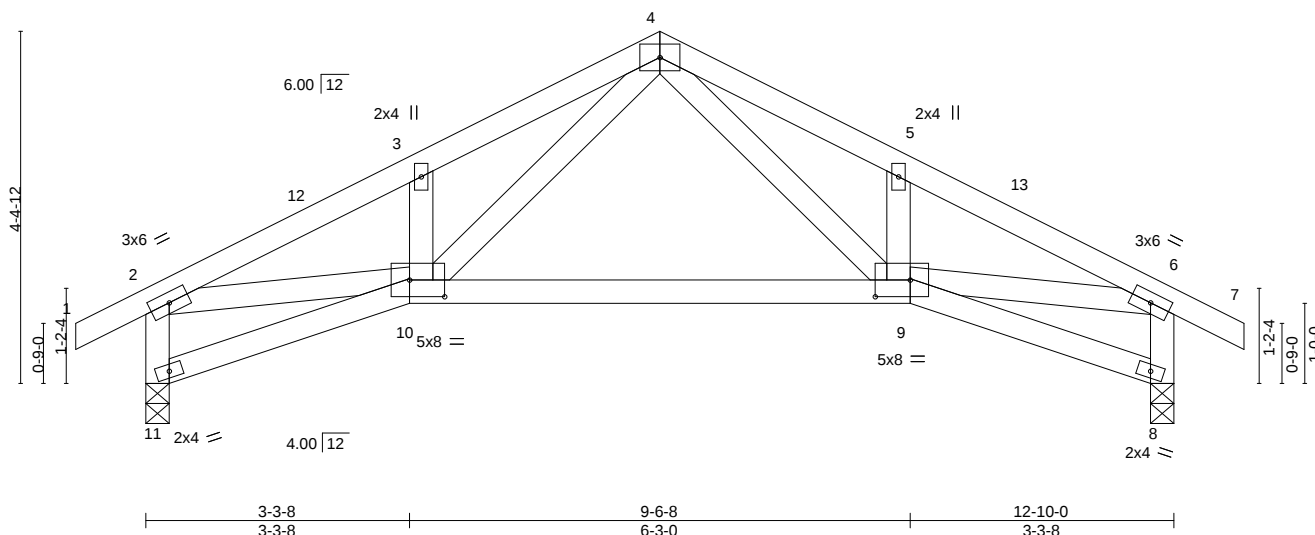


Plate Offsets (X,Y)--		[9:0-5-4,0-2-8], [10:0-5-4,0-2-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.14		Vert(LL) -0.06 9-10 >999 240			MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.32		Vert(CT) -0.13 9-10 >999 180				
BCLL	0.0	Rep Stress Incr YES		WB 0.20		Horz(CT) 0.04 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 55 lb FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
Max Horz 11=-76(LC 10)
Max Uplift 11=-88(LC 12), 8=-88(LC 13)
Max Grav 11=636(LC 1), 8=636(LC 1)

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

TOP CHORD 2-3=-1037/294, 3-4=-1041/392, 4-5=-1041/356, 5-6=-1037/274, 2-11=-629/215,
6-8=-629/232
BOT CHORD 9-10=-105/558
WEBS 4-9=-159/485, 4-10=-183/485, 2-10=-165/814, 6-9=-160/814

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-5-0, Exterior(2R) 6-5-0 to 9-4-12, Interior(1) 9-4-12 to 13-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

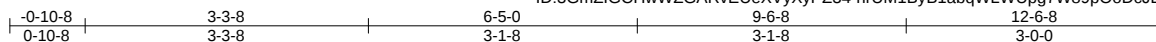
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	G3	Roof Special	2	1	147451408

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:48 2021 Page 1

ID:3GmZIGCHwWZGARvEUEXVyXyPZ34-nrUM1ByB1abqWLWUp7W89pOoDcJL_akONVARryoGgT



4x6 =

Scale = 1:26.8

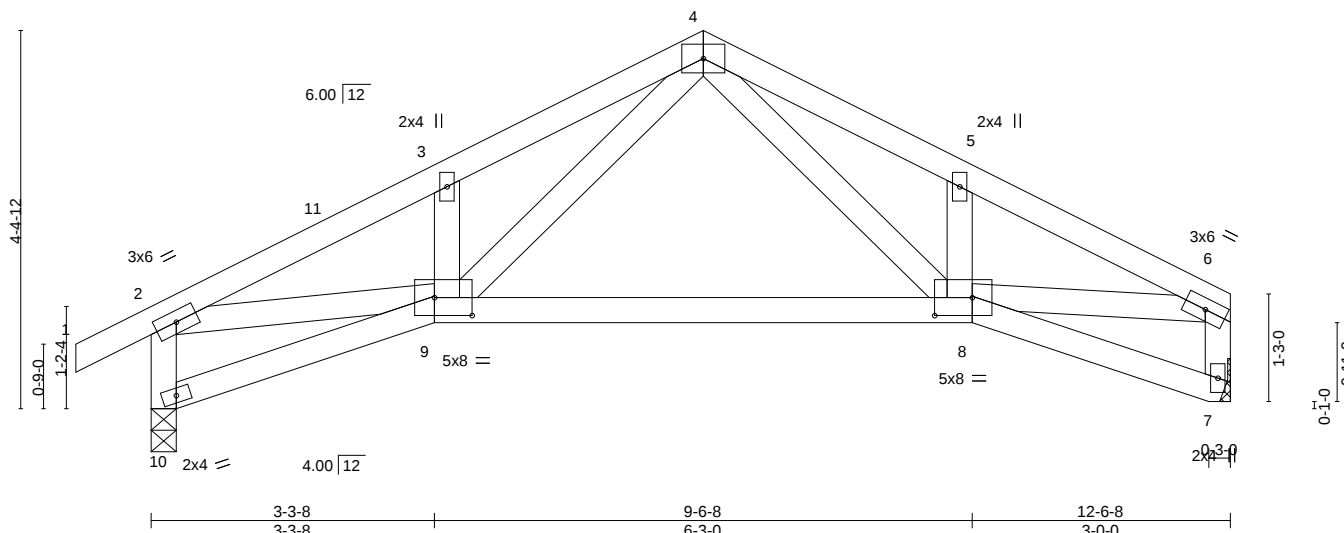


Plate Offsets (X,Y)--		[8:0-5-4,0-2-8], [9:0-5-4,0-2-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.14		Vert(LL)	-0.06 8-9	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.31		Vert(CT)	-0.12 8-9	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.19		Horz(CT)	0.03 7	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 53 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 10=0-3-8
Max Horz 10=81(LC 9)
Max Uplift 7=-66(LC 13), 10=-87(LC 12)
Max Grav 7=548(LC 1), 10=626(LC 1)

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

TOP CHORD 2-3=-1014/322, 3-4=-1018/421, 4-5=-976/376, 5-6=-961/288, 6-7=-544/185,
2-10=-618/222
BOT CHORD 8-9=-153/537
WEBS 4-9=-204/485, 4-8=-151/440, 6-8=-196/762, 2-9=-190/794

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-5-0, Exterior(2R) 6-5-0 to 9-4-12, Interior(1) 9-4-12 to 12-4-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss G4	Truss Type Roof Special	Qty 2	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451409
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:49 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-G12kEXzptj8V5gNOelgNLa7cxc4S0TE1Ej_HyoGgS

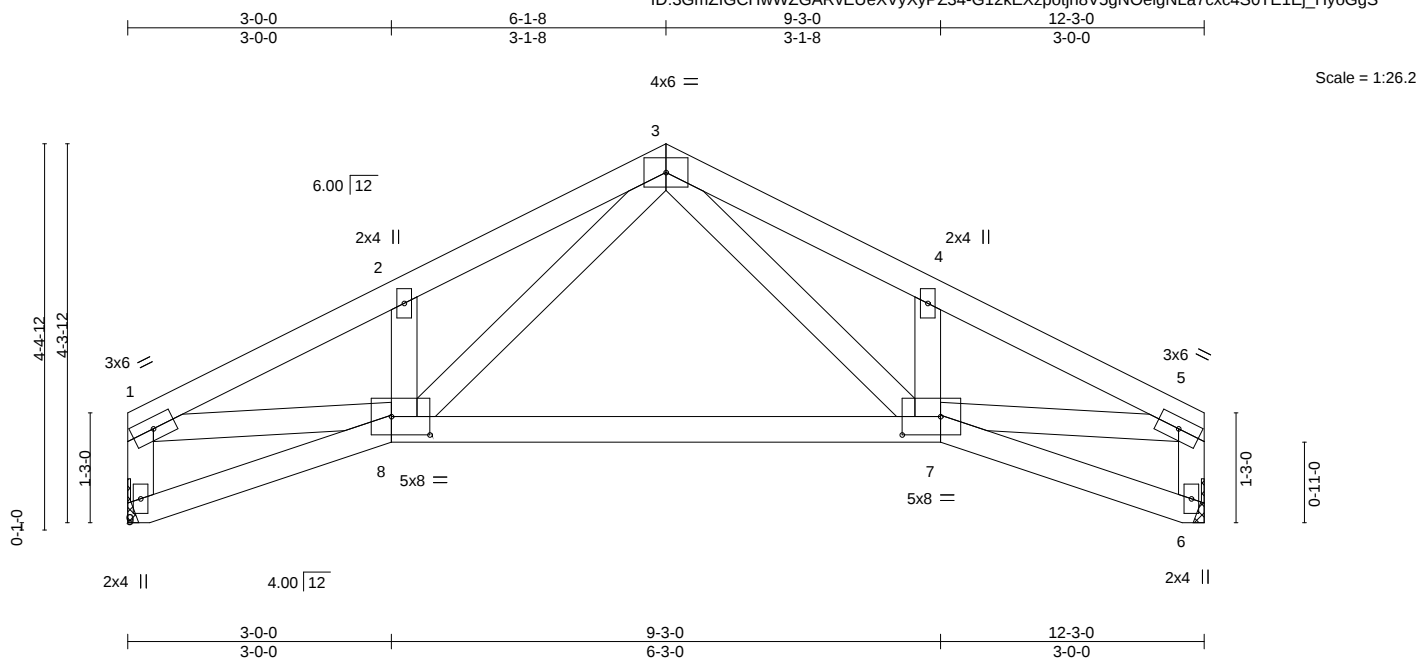


Plate Offsets (X,Y)-- [7:0-5-4,0-2-8], [8:0-5-4,0-2-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.05	7-8	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.12	7-8	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.03	6	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 51 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=Mechanical, 6=Mechanical
Max Horz 9=70(LC 11)
Max Uplift 9=-65(LC 12), 6=-65(LC 13)
Max Grav 9=538(LC 1), 6=538(LC 1)

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

TOP CHORD 1-2=-940/298, 2-3=-955/398, 3-4=-955/372, 4-5=-940/283, 1-9=-534/178, 5-6=-534/183
BOT CHORD 7-8=-147/517
WEBS 3-7=-155/441, 3-8=-183/441, 1-8=-190/744, 5-7=-192/744

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-1-8, Exterior(2R) 6-1-8 to 9-1-4, Interior(1) 9-1-4 to 12-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 9, 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.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

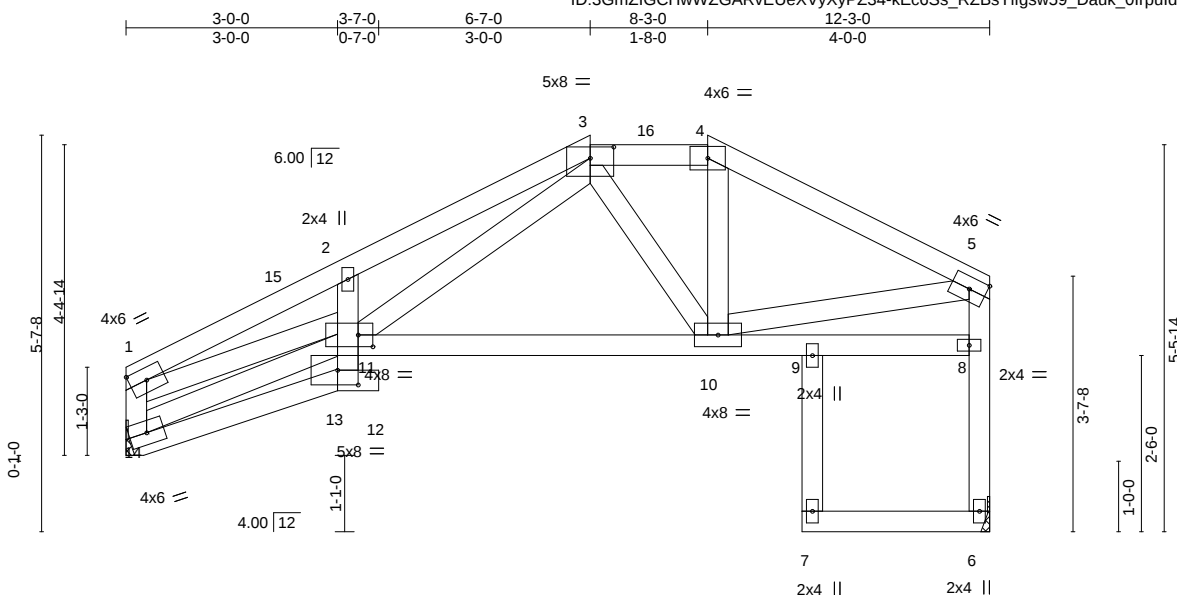
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	G6	Hip	1	1	147451410

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:3GmZIGCHwWZGARvEueXVyXyPZ34-kEc6Ss_RZBsYlfgsw59_Dauk_0lrpuldTh_GWkyoGgR



Scale = 1:32.7

Plate Offsets (X,Y)-- [3:0-4-0,0-1-15], [11:0-2-8,0-2-0], [13:0-3-8,0-2-8]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.04	12	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.07	10-11	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.05	6	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 63 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 14=Mechanical, 6=Mechanical
Max Horz 14=132(LC 11)
Max Uplift 14=-70(LC 12), 6=-60(LC 13)
Max Grav 14=542(LC 1), 6=540(LC 1)

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

TOP CHORD 1-2=-1239/460, 2-3=-1253/550, 3-4=-542/215, 4-5=-665/215, 1-14=-520/191,
6-8=-513/153, 5-8=-507/152
BOT CHORD 10-11=-274/592
WEBS 3-11=-340/644, 5-10=-81/455, 1-11=-349/991

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-7-0, Exterior(2E) 6-7-0 to 12-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 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.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451411
2903855	G7	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:50 2021 Page 1

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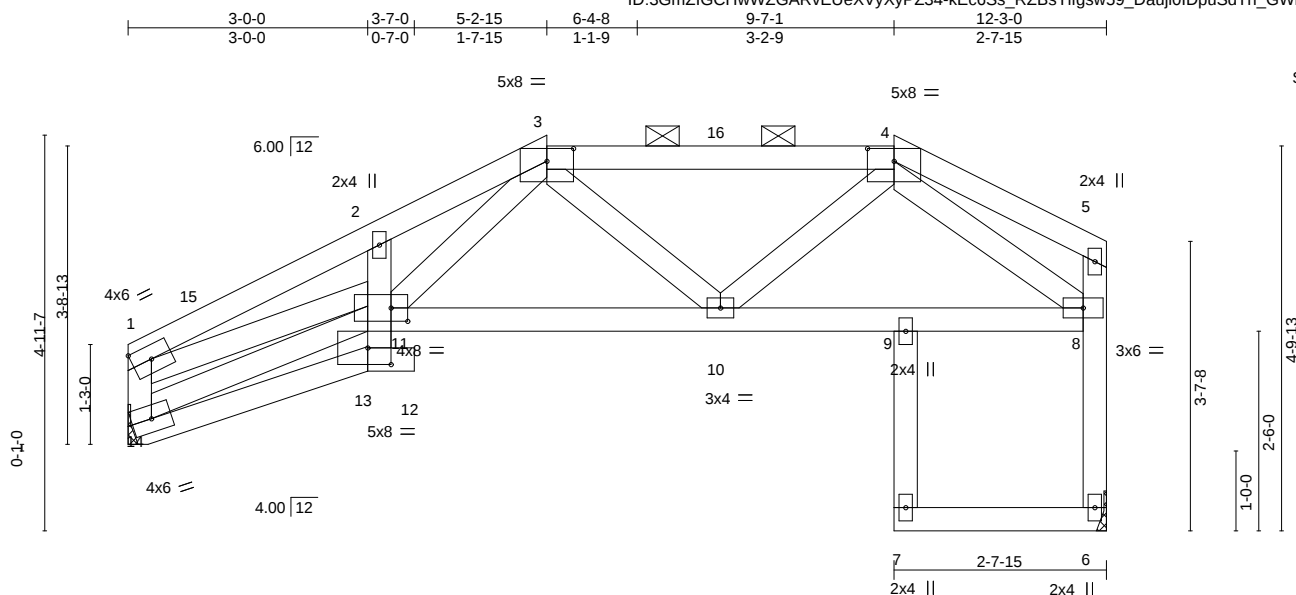


Plate Offsets (X,Y)--	[3:0-4-0,0-1-15], [4:0-4-0,0-1-15], [11:0-2-8,0-2-0], [13:0-3-8,0-2-8]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.03	12	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.05	12	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.05	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 61 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 14=Mechanical, 6=Mechanical
Max Horz 14=125(LC 11)
Max Uplift 14=-73(LC 12), 6=-64(LC 13)
Max Grav 14=542(LC 1), 6=540(LC 1)

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

TOP CHORD 1-2=-1211/483, 2-3=-1187/554, 3-4=-710/275, 1-14=-524/219, 6-8=-512/167
BOT CHORD 10-11=-386/785, 9-10=-263/537, 8-9=-263/537
WEBS 3-11=-248/414, 1-11=-350/952, 4-8=-607/225, 4-10=-56/264

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-2-15, Exterior(2E) 5-2-15 to 12-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 14, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	G8	Roof Special Girder	1	1	I47451412
Job Reference (optional)					

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

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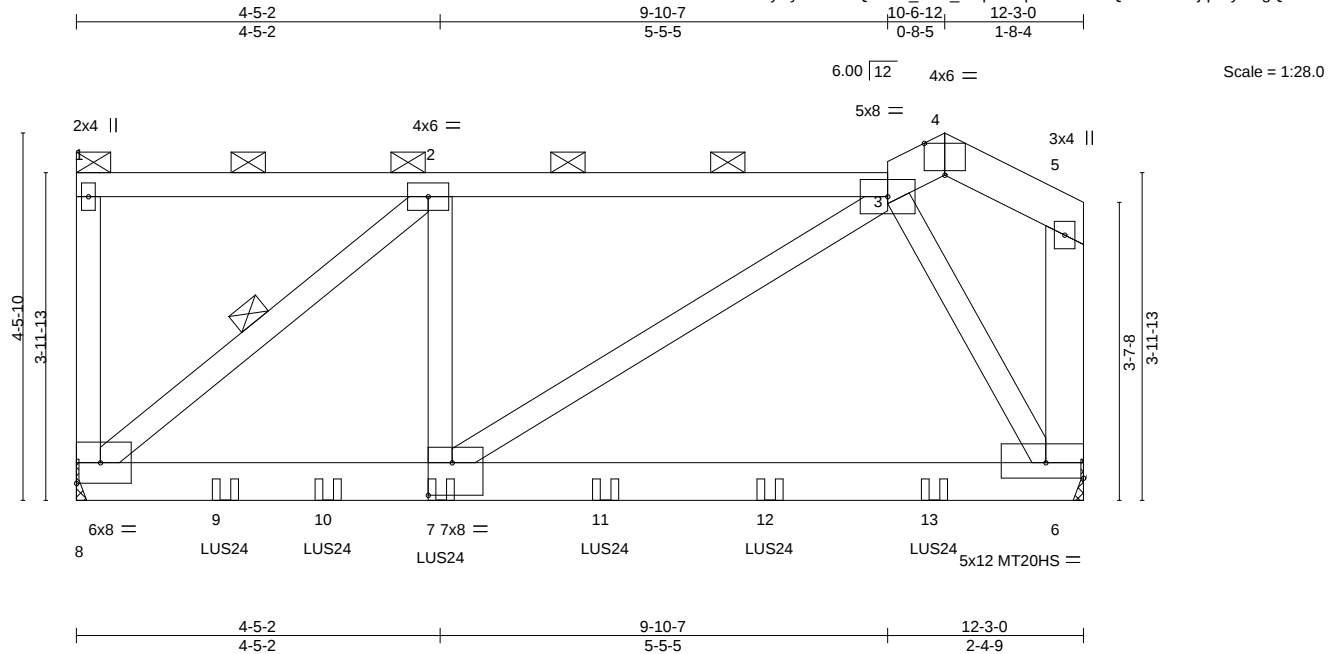


Plate Offsets (X,Y)--	[4:0-3-0,Edge], [6:Edge,0-2-4], [7:0-3-8,0-4-12]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	in (loc) l/defl L/d	GRIP
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(LL) -0.19 6-7 >758 240	MT20 197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.50	Vert(CT) -0.35 6-7 >411 180	MT20HS 148/108
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Horz(CT) 0.01 6 n/a n/a	Weight: 68 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 1-3: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-5 max.): 1-3.
BOT CHORD 2x6 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 7-6-8 oc bracing.
WEBS 2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	WEBS 1 Row at midpt 2-8

REACTIONS. (size) 8=Mechanical, 6=Mechanical
Max Horz 8=-129(LC 27)
Max Uplift 8=-450(LC 4), 6=-391(LC 8)
Max Grav 8=1906(LC 1), 6=2118(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2122/448, 4-5=-258/72
BOT CHORD 7-8=-434/2122, 6-7=-177/848
WEBS 3-6=-1230/274, 2-7=-268/1474, 2-8=-2762/612, 3-7=-309/1538

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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) except (jt=lb) 8=450, 6=391.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 1-9-12 from the left end to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 3-0-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
- Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 4-5-4 from the left end to 10-5-4 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent at 8-5-4 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

LOAD CASE(S) Standard

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August 16, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451412
2903855	G8	Roof Special Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:52 2021 Page 2
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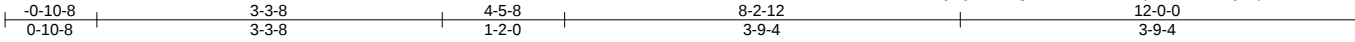
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-597(F) 9=-259(F) 10=-295(F) 11=-602(F) 12=-602(F) 13=-602(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451413
2903855	H1	Half Hip Girder	1	2	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:52 2021 Page 1

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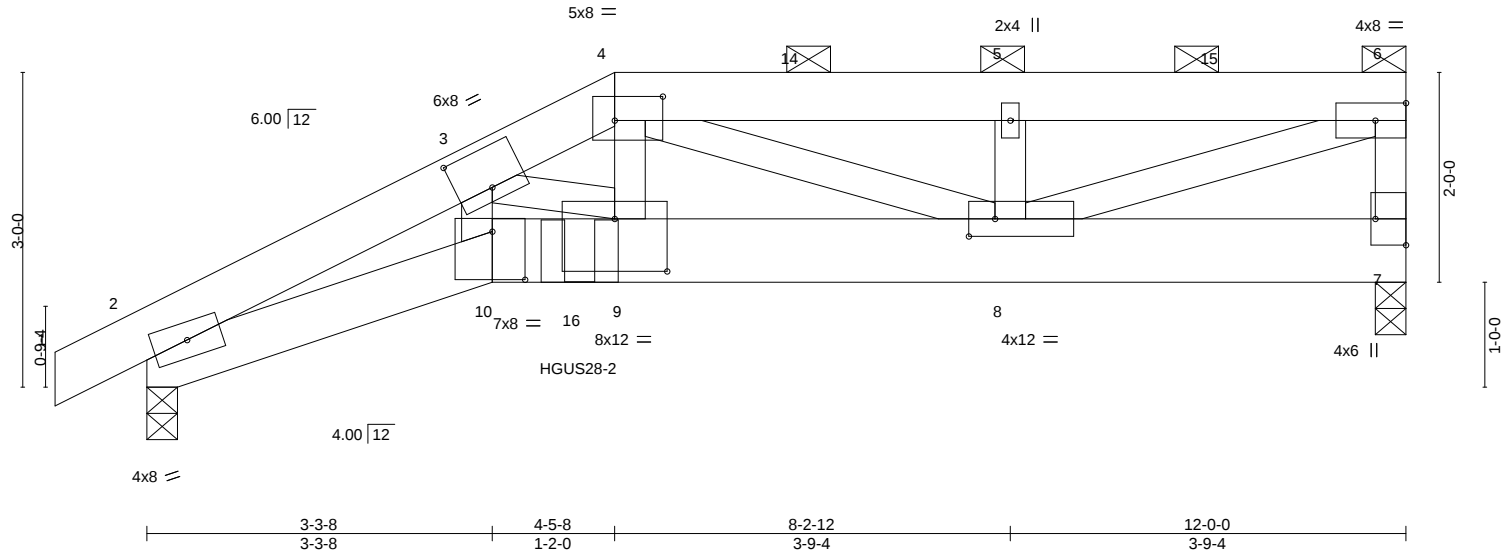


Plate Offsets (X,Y)-- [3:0-4-0,0-4-8], [4:0-5-8,0-2-12], [7:Edge,0-3-8], [8:0-3-0,0-2-0], [9:0-6-0,0-6-0], [10:0-3-12,0-5-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.08 9 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.14 9 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.06 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 142 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SPF 2100F 1.8E *Except* 7-10: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 7=0-3-8, 2=0-3-8
	Max Horz 2=80(LC 5)
	Max Uplift 7=-598(LC 5), 2=-588(LC 8)
	Max Grav 7=3849(LC 1), 2=2757(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7927/1742, 3-4=-7199/1516, 4-5=-5363/964, 5-6=-5363/964, 6-7=-3483/562
BOT CHORD	2-10=-1549/6927, 9-10=-1602/7129, 8-9=-1476/7039, 7-8=-59/327
WEBS	3-9=-292/186, 4-9=-607/2592, 4-8=-1799/578, 5-8=-1834/263, 6-8=-979/5433, 3-10=-427/1649

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=598, 2=588.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie HGUS28-2 (36-10d Girder, 6-10d Truss) or equivalent at 4-1-8 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
 - Fill all nail holes where hanger is in contact with lumber.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 767 lb down and 164 lb up at 6-2-8, 831 lb down and 108 lb up at 8-2-8, and 869 lb down and 101 lb up at 10-2-8, and 833 lb down and 134 lb up at 11-10-4 on continued on page 2 design/selection of such connection device(s) is the responsibility of others.



August 16, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451413
2903855	H1	Half Hip Girder	1	2	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:53 2021 Page 2
ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-8pHF4u0Ks6E6c7ORcEjhrDW7XEGu08R39fCx72yoGgO

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 10-11=-20, 7-10=-20
Concentrated Loads (lb)
Vert: 5=-831 6=-833 14=-767 15=-869 16=-2178(B)

 **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/HAWTHORN RIDGE #117/MO	147451414
2903855	H2	Roof Special	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:53 2021 Page 1

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3-3-8	6-7-10	8-8-8	12-0-0	12-10-8
3-3-8	3-4-2	2-0-14	3-3-8	0-10-8

4x6

Scale = 1:23.1

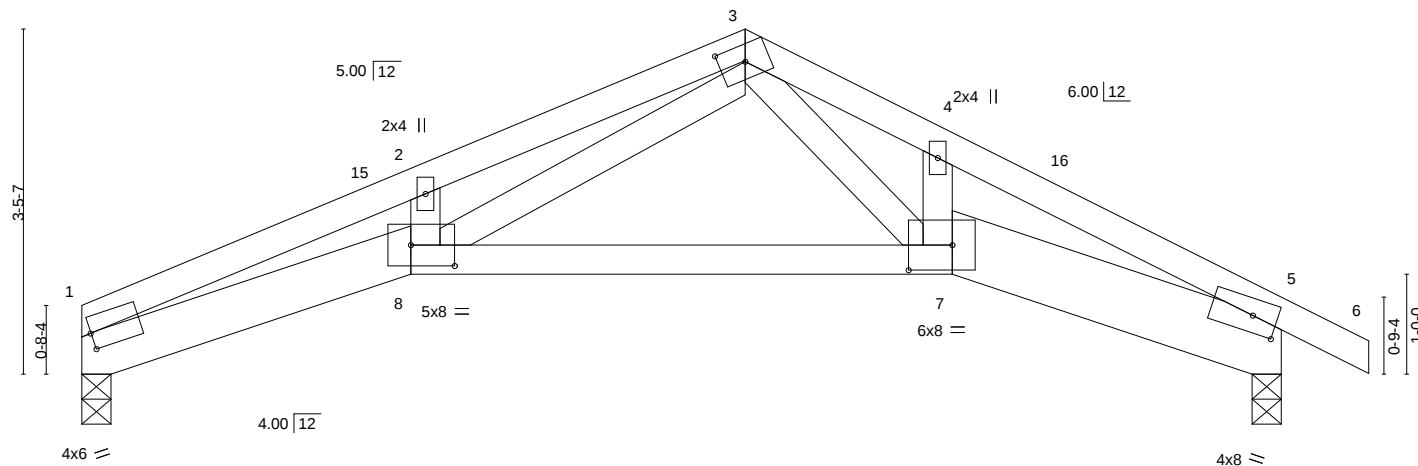


Plate Offsets (X,Y)--	[1:0-0-1,0-2-0], [3:0-3-2,0-2-0], [5:0-2-15,0-2-0], [7:0-5-4,0-3-0], [8:0-5-4,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.09	7-8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.18	7-8	>803	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.07	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 49 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 1-8: 2x6 SPF No.2, 5-7: 2x8 SP 2400F 2.0E
 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=0-3-8
 Max Horz 1=-55(LC 17)
 Max Uplift 1=-72(LC 12), 5=-79(LC 13)
 Max Grav 1=538(LC 1), 5=603(LC 1)

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

TOP CHORD 1-2=-1698/467, 2-3=-1653/554, 3-4=-1286/441, 4-5=-1344/366
 BOT CHORD 1-8=-383/1538, 7-8=-140/748, 5-7=-266/1175
 WEBS 3-8=-305/910, 3-7=-195/579

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-7-10, Exterior(2R) 6-7-10 to 9-7-10, Interior(1) 9-7-10 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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/HAWTHORN RIDGE #117/MO
2903855	H3	Hip Girder	1	1	147451415

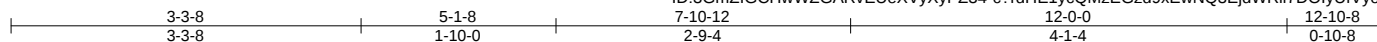
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:54 2021 Page 1

ID:3GmZIGChwWZGARvEueXVyXyPZ34-c?rdHE1ycQMzEGzd9xEwNQ3EjdWRIi7DolyUfVyoGgN

Job Reference (optional)



Scale = 1:21.7

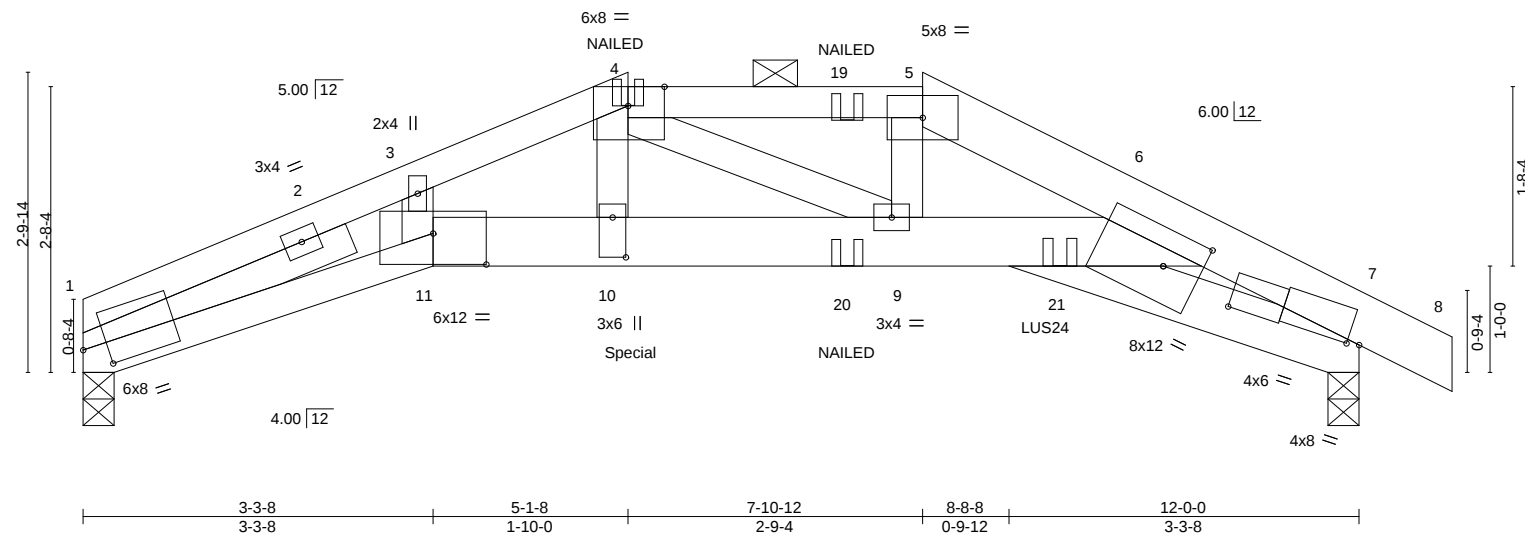


Plate Offsets (X,Y)-- [1:0-2-12,0-2-8], [4:0-4-2,Edge], [6:0-4-3,0-4-1], [6:0-8-6,0-2-0], [7:0-1-7,0-0-4], [10:0-4-8,0-1-8], [11:0-6-0,0-3-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.15 6-9 >978 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.26 6-9 >560 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.22 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 52 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-8: 2x6 SPF 2100F 1.8E
BOT CHORD 2x6 SPF 2100F 1.8E *Except*
1-11: 2x4 SPF 1650F 1.5E, 6-7: 2x6 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-8-13

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-9 oc purlins, except
2-0-0 oc purlins (3-8-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-46(LC 30)
Max Uplift 1=-190(LC 8), 7=-235(LC 9)
Max Grav 1=895(LC 1), 7=1000(LC 1)

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

TOP CHORD 1-3=-2946/674, 3-4=-2876/671, 4-5=-2303/511, 5-6=-2318/505, 6-7=-391/122
BOT CHORD 1-11=-607/2726, 10-11=-601/2726, 9-10=-578/2629, 6-9=-450/2259
WEBS 3-11=-77/409, 5-9=-50/267, 4-9=-457/146, 4-10=-182/777

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=190, 7=235.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 9-2-4 from the left end to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 304 lb down and 113 lb up at 5-1-8 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

Continued on page 2



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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451415
2903855	H3	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:54 2021 Page 2
ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-c?rdHE1ycQMzEGzd9xEwNQ3EjdWRIi7DOlyUfVyoGgN

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-70, 5-6=-70, 6-8=-70, 11-12=-20, 6-11=-20
Concentrated Loads (lb)
Vert: 4=-135(B) 10=-304(B) 19=-135(B) 21=-224(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

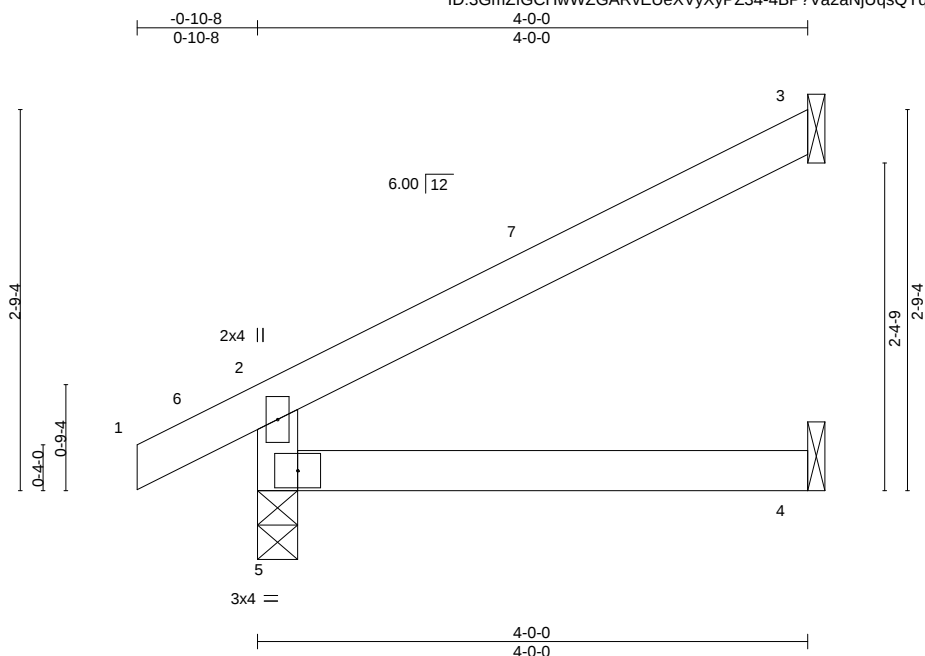
Job 2903855	Truss J1	Truss Type Jack-Open	Qty 18	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451416
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:55 2021 Page 1

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Scale = 1:16.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=79(LC 12)
Max Uplift 3=-59(LC 12), 5=-25(LC 12)
Max Grav 3=117(LC 1), 4=71(LC 3), 5=252(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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Chesterfield, MO 63017

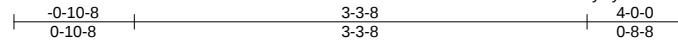
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	J2	Jack-Open	12	1	I47451417
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:01 2021 Page 1

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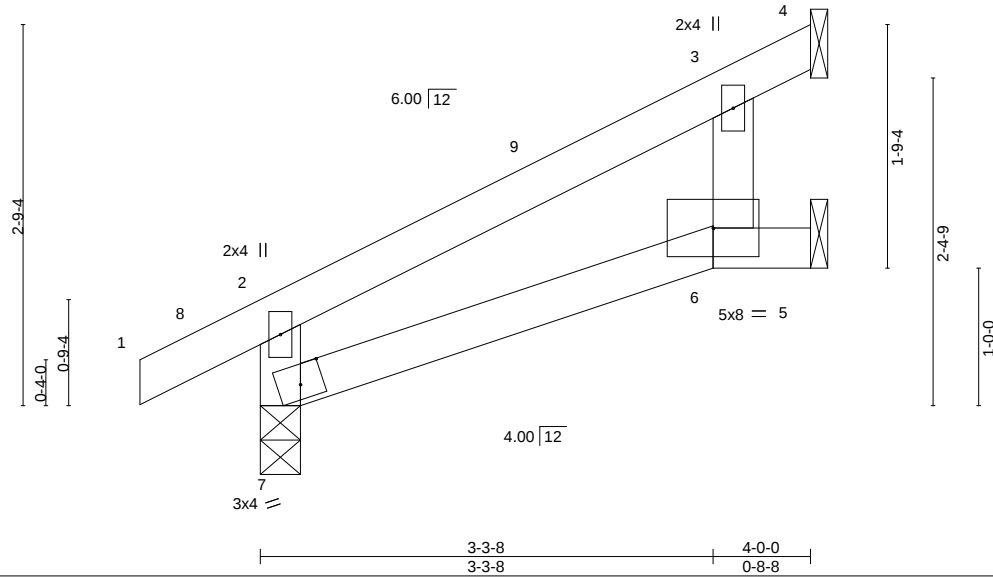


Plate Offsets (X,Y)--		[7:0-2-0,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.02	6-7	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	6-7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.01	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=78(LC 12)
Max Uplift 4=-26(LC 12), 5=-31(LC 12), 7=-25(LC 12)
Max Grav 4=91(LC 1), 5=70(LC 1), 7=252(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

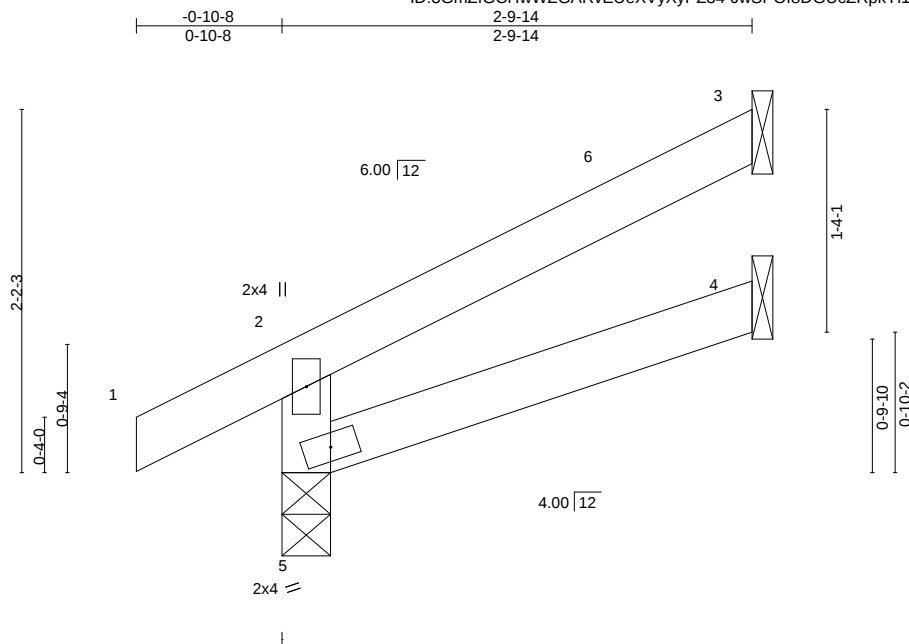
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	J3	Jack-Open	1	1	I47451418
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:04 2021 Page 1

ID:3GmZIGCHWZGARvEueXVyXyPZ34-JwSPOf8DGUCzRpkYl1QGnXT8cf6p5GZhhsN00woyoGgD



Scale = 1:13.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 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 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=57(LC 12)
Max Uplift 3=-42(LC 12), 5=-21(LC 12)
Max Grav 3=77(LC 1), 4=48(LC 3), 5=203(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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Chesterfield, MO 63017

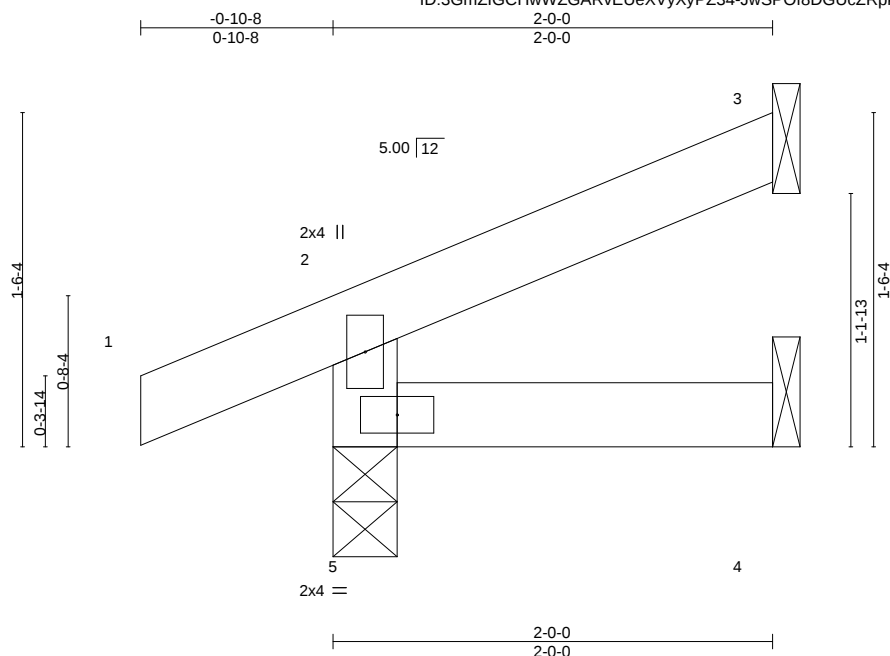
Job 2903855	Truss J4	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451419
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:04 2021 Page 1

ID:3GmZIGChwWZGARvEUeXVyXyPZ34-JwSPof8DGUCzRpkYl1QGnXT8qf7Y5GZhhsN00woyoGgD



Scale = 1:10.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=36(LC 12)
Max Uplift 3=25(LC 12), 5=30(LC 8)
Max Grav 3=48(LC 1), 4=33(LC 3), 5=174(LC 1)

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

NOTES-

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



August 16, 2021

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

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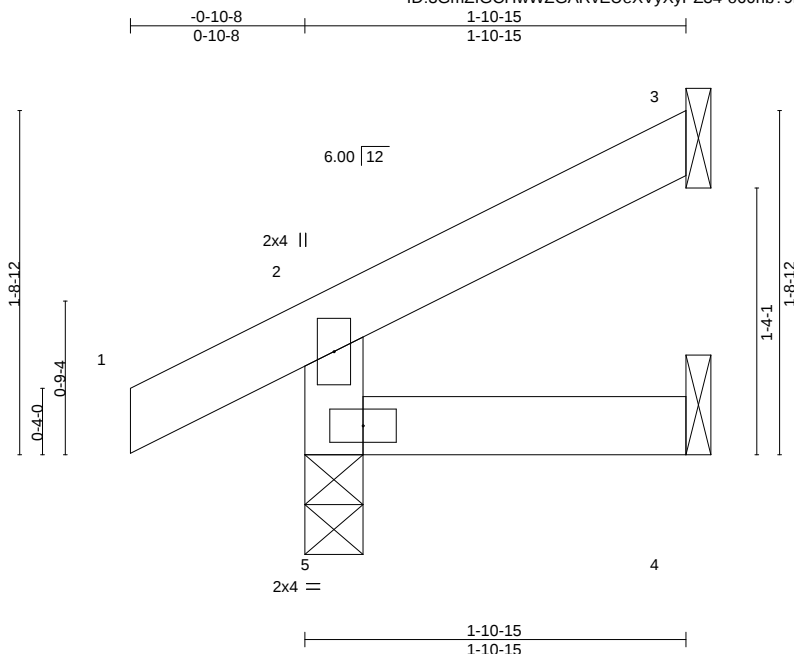
Job 2903855	Truss J5	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451420
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:05 2021 Page 1

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Scale = 1:11.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=41(LC 12)
Max Uplift 3=-28(LC 12), 5=-20(LC 12)
Max Grav 3=44(LC 1), 4=32(LC 3), 5=171(LC 1)

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

NOTES-

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



August 16, 2021

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

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Chesterfield, MO 63017

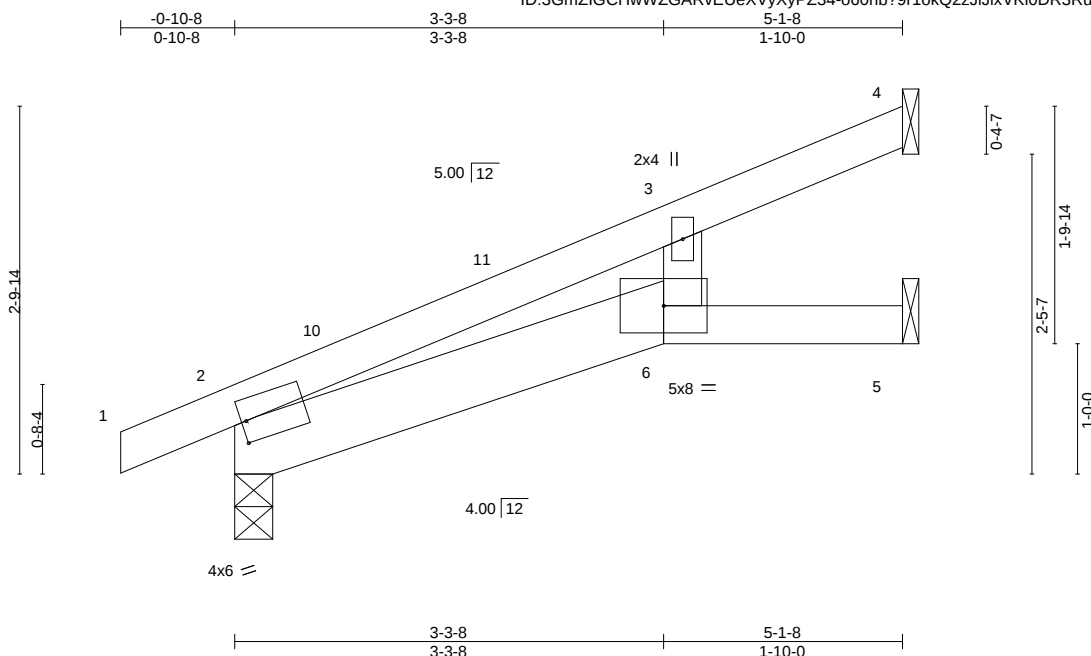
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	J6	Jack-Open	2	1	I47451421

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:05 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-o60nb?9r1okQ2zJlJlXVKI0DR3RuqjMqwW6ZYMyoGgC



Scale = 1:17.7

Plate Offsets (X,Y)--		[2:0-0-7,0-2-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	0.07	6	>881	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.10	6	>581	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.03	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 17 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=89(LC 12)
Max Uplift 4=70(LC 12), 2=37(LC 12)
Max Grav 4=205(LC 1), 2=294(LC 1), 5=35(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

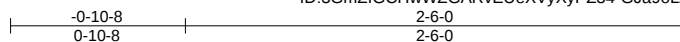
Job 2903855	Truss J7	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451422
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Builders FirstSource (Valley Center),

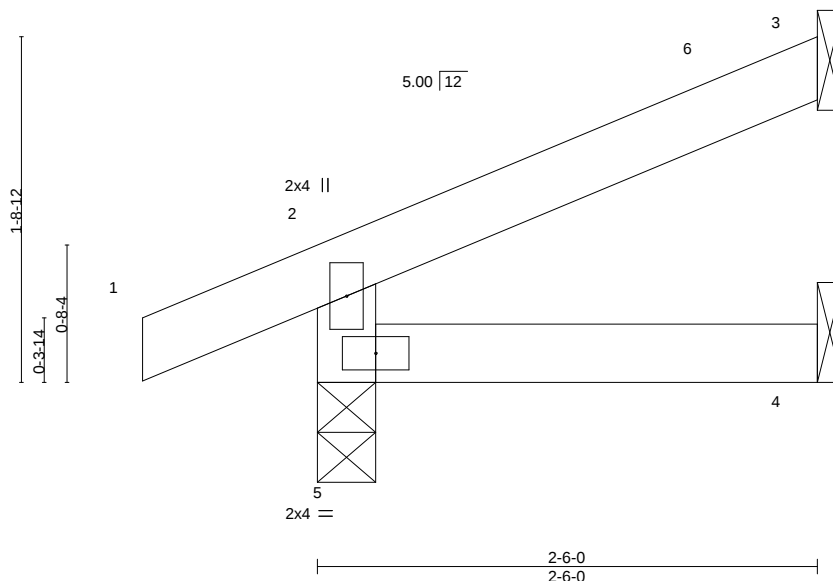
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:06 2021 Page 1

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Scale = 1:11.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=43(LC 12)
Max Uplift 3=-32(LC 12), 5=-29(LC 8)
Max Grav 3=65(LC 1), 4=42(LC 3), 5=191(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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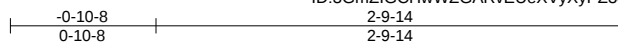
Job 2903855	Truss J8	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451423
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Builders FirstSource (Valley Center),

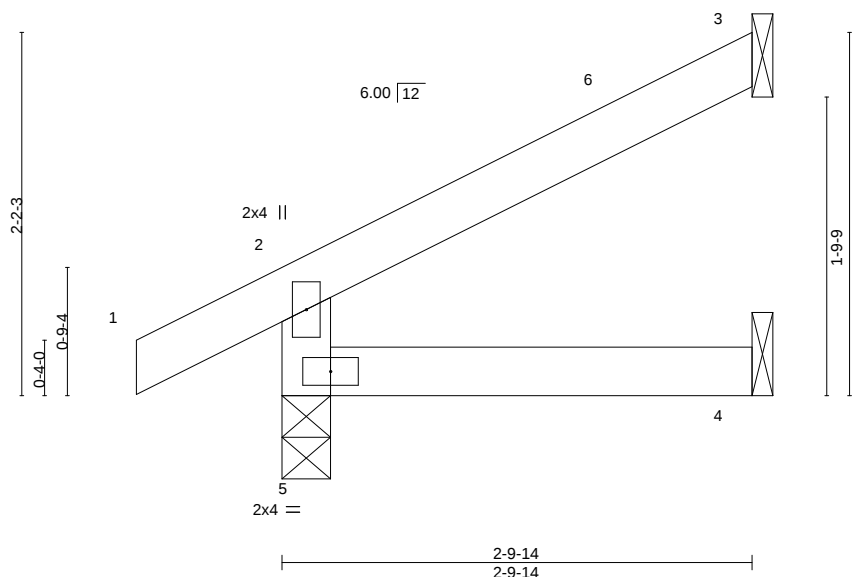
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:07 2021 Page 1

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Scale = 1:13.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=57(LC 12)
Max Uplift 3=-41(LC 12), 5=-22(LC 12)
Max Grav 3=76(LC 1), 4=49(LC 3), 5=203(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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Chesterfield, MO 63017

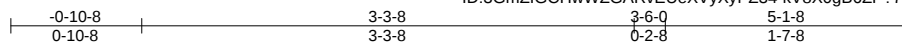
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	147451424
2903855	J9	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:07 2021 Page 1

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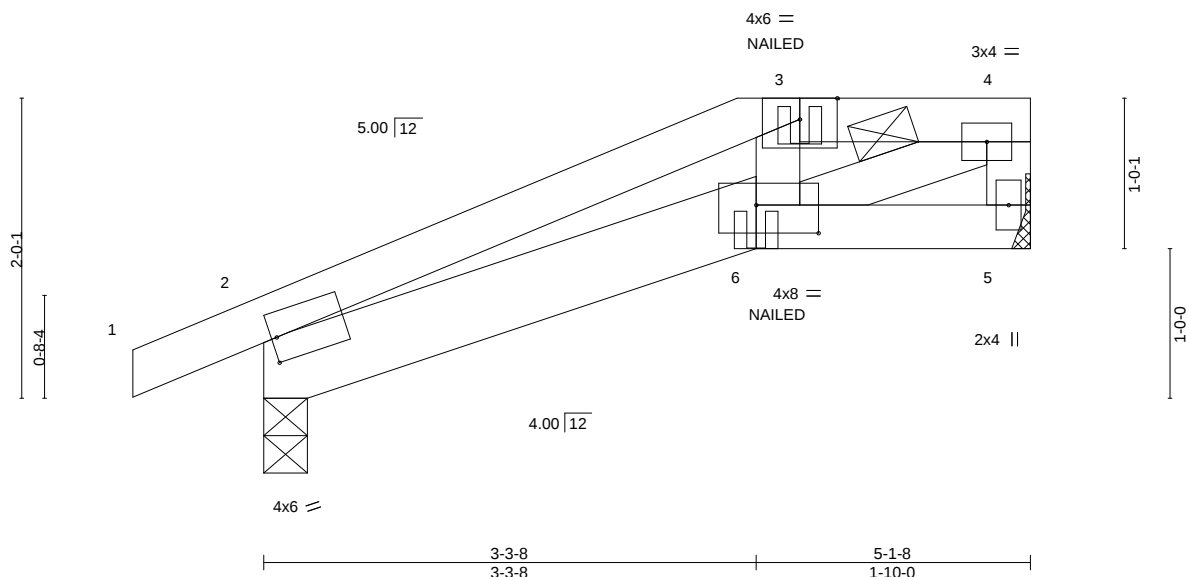


Plate Offsets (X,Y)--		[2:0-0-7,0-2-0], [6:0-5-0,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	6	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	6	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 18 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 2=0-3-8
 Max Horz 2=49(LC 5)
 Max Uplift 5=54(LC 5), 2=56(LC 8)
 Max Grav 5=244(LC 1), 2=302(LC 1)

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

TOP CHORD 2-3=-461/89, 3-4=-376/111
 BOT CHORD 2-6=-93/399
 WEBS 4-6=-112/406

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) "NAILED" indicates 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-70, 3-4=-70, 6-7=-20, 5-6=-20
 Concentrated Loads (lb)
 Vert: 3=-15(B) 6=-22(B)



August 16, 2021

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

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

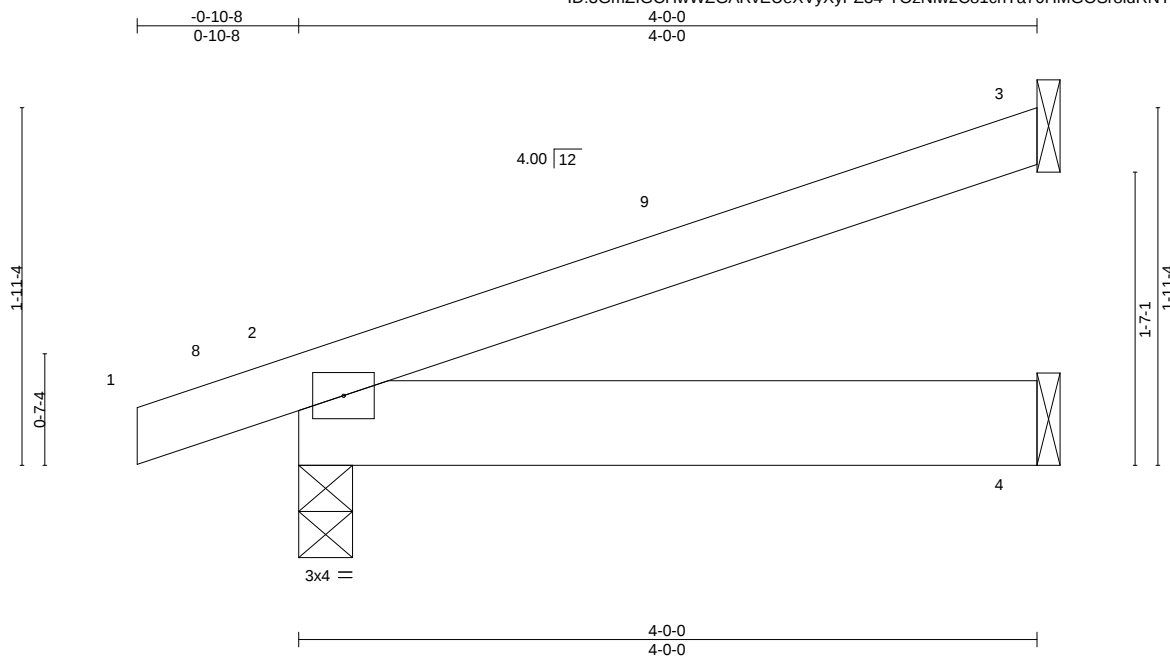
Job 2903855	Truss J10	Truss Type JACK-OPEN	Qty 3	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451425
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:56 2021 Page 1

ID:3GmZIGChWZGARvEUeXvYxYPZ34-YOzNiw2C81chTa70HMGOSr8ldRNTDebVrcRbkNyoGgL



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	0.01	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=62(LC 8)
Max Uplift 3=-41(LC 12), 2=-57(LC 8)
Max Grav 3=104(LC 1), 2=245(LC 1), 4=82(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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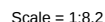
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:56 2021 Page 1
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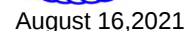
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-5-1 oc purlins.
BOT CHORD	2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=31(LC 8)
 Max Uplift 3=-12(LC 12), 2=-47(LC 8)
 Max Grav 3=28(LC 1), 2=144(LC 1), 4=26(LC 3)

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

NOTES-

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



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

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

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



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Chesterfield, MO 63017

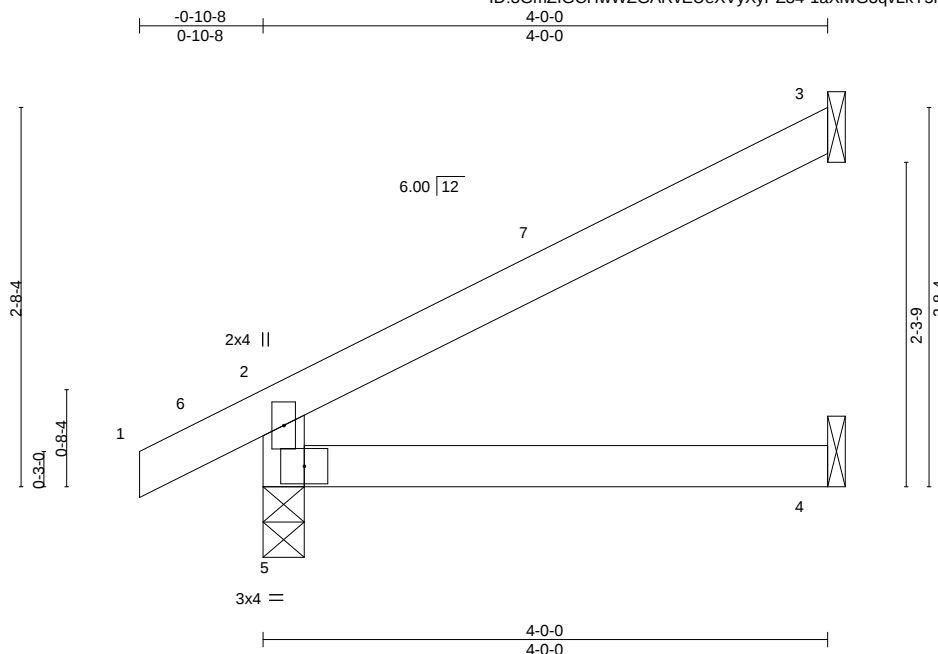
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	J12	Jack-Open	12	1	I47451427
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:57 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-1aXlwG3qvLkY5kiCr3nd?3gwiriHy5qf4GA8GqyoGgK



Scale = 1:16.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=80(LC 12)
Max Uplift 3=-58(LC 12), 5=-27(LC 12)
Max Grav 3=117(LC 1), 4=71(LC 3), 5=252(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

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Chesterfield, MO 63017

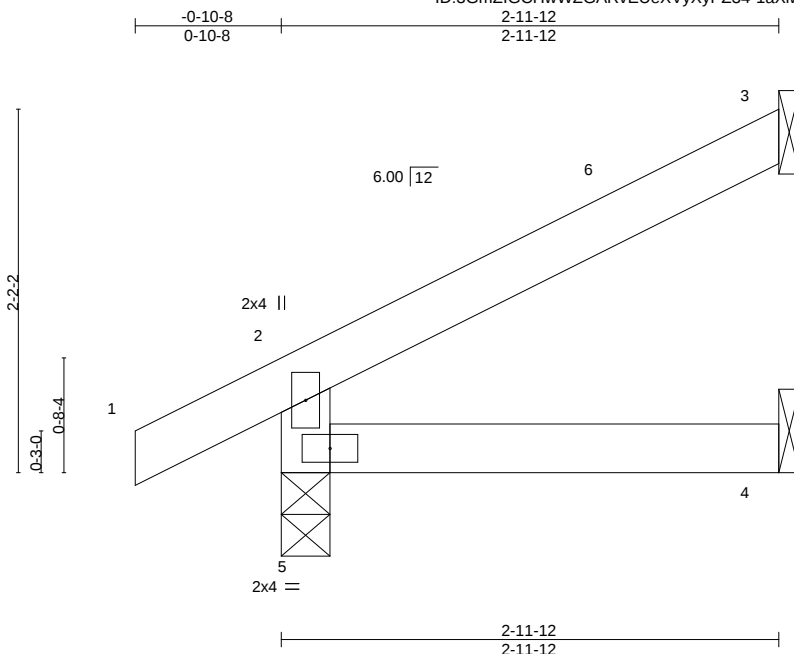
Job 2903855	Truss J13	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451428
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:57 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-1aXlwG3qvLkY5kiCr3nd?3gxBrjDy5qf4GA8GqyoGgK



Scale = 1:13.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 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 2-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=61(LC 12)
Max Uplift 3=-43(LC 12), 5=-24(LC 12)
Max Grav 3=82(LC 1), 4=51(LC 3), 5=209(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-11-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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Chesterfield, MO 63017

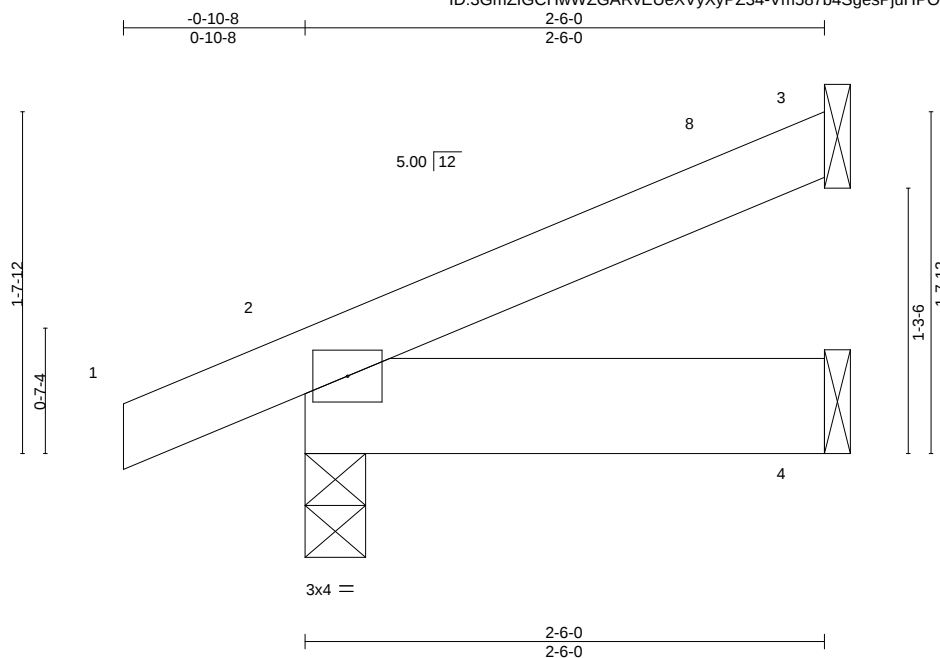
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO	I47451429
2903855	J14	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:58 2021 Page 1

ID:3GmZIGChWZGARvEUeXVyXyPZ34-Vm587b4SgesPjuHPOnJsYGD7dF44hY4oJwwhoGyoGgJ



Scale = 1:11.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	7	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-0 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=49(LC 12)
Max Uplift 3=-27(LC 12), 2=-29(LC 12), 4=-2(LC 12)
Max Grav 3=61(LC 1), 2=182(LC 1), 4=50(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-5-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

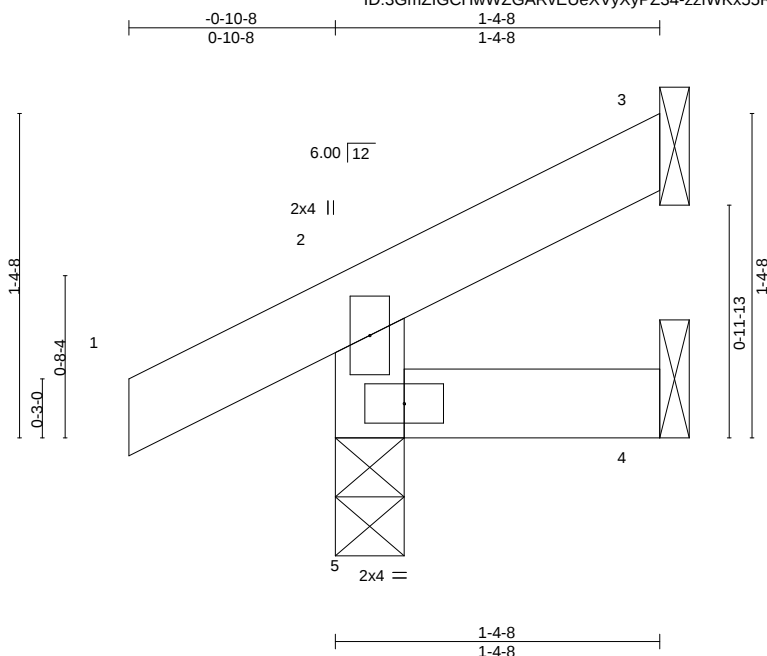
Job 2903855	Truss J16	Truss Type Jack-Open	Qty 3	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451431
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:52:59 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-zzfWKx55Ry_GK2sbyUq54UmH4eQWQ?KyYafFKiyoGgl



Scale = 1:9.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 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 1-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=33(LC 12)
Max Uplift 3=17(LC 12), 5=23(LC 12)
Max Grav 3=20(LC 1), 4=20(LC 3), 5=156(LC 1)

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

NOTES-

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



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451432
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

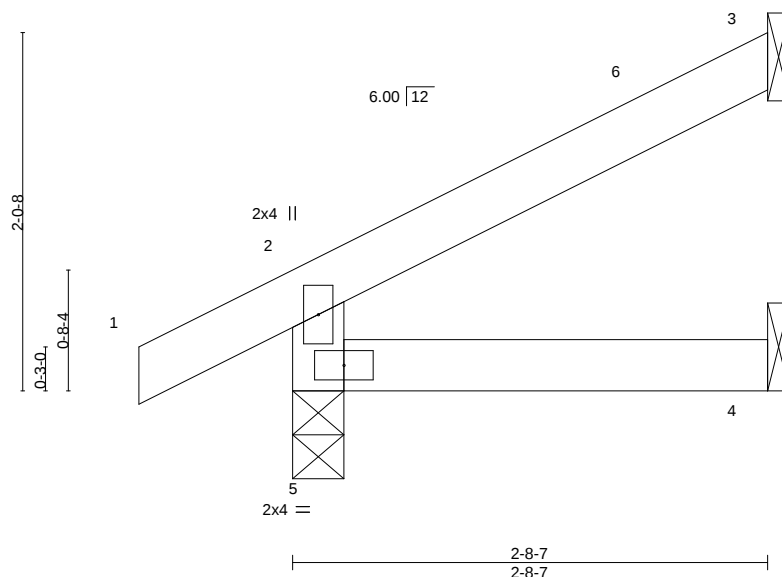
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:00 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyPZ34-R9CuYH5jCG67yBQnWCLKdhlSo2m89Sa5mEPot8yoGgH

-0-10-8 2-8-7
0-10-8 2-8-7

Scale = 1:13.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=56(LC 12)
Max Uplift 3=-39(LC 12), 5=-24(LC 12)
Max Grav 3=72(LC 1), 4=46(LC 3), 5=198(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-7-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

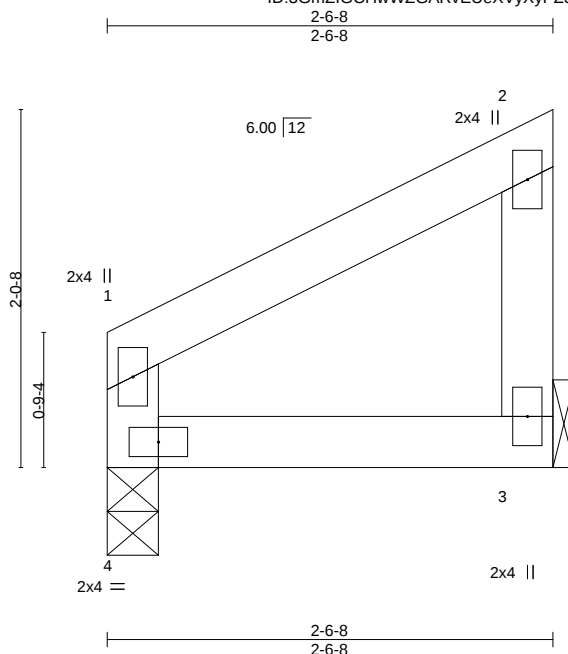
Job 2903855	Truss J18	Truss Type Monopitch	Qty 3	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451433
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:00 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-R9CuYH5jCG67yBQnWCLKdhIT_2ml9Sa5mEPot8yoGgH



Scale = 1:13.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	3-4	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	3-4	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=0-3-8
Max Horz 4=60(LC 9)
Max Uplift 3=-27(LC 12), 4=-10(LC 12)
Max Grav 3=101(LC 1), 4=101(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss J19	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451434
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

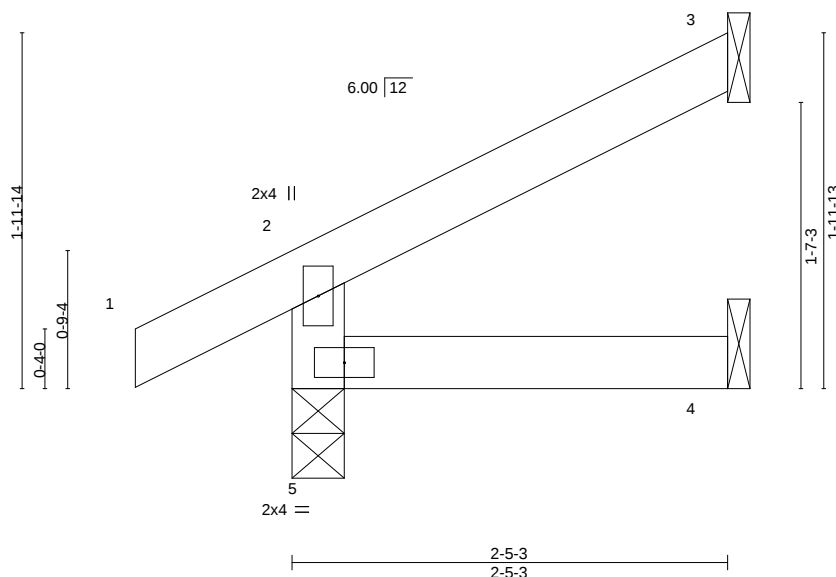
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:01 2021 Page 1

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-0-10-8
0-10-8

2-5-3
2-5-3

Scale = 1:12.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=50(LC 12)
Max Uplift 3=-35(LC 12), 5=-21(LC 12)
Max Grav 3=62(LC 1), 4=41(LC 3), 5=188(LC 1)

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

NOTES-

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



August 16, 2021

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

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Chesterfield, MO 63017

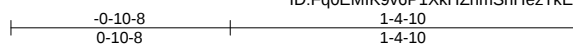
Job 2903855	Truss J20	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451435
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Builders FirstSource (Valley Center),

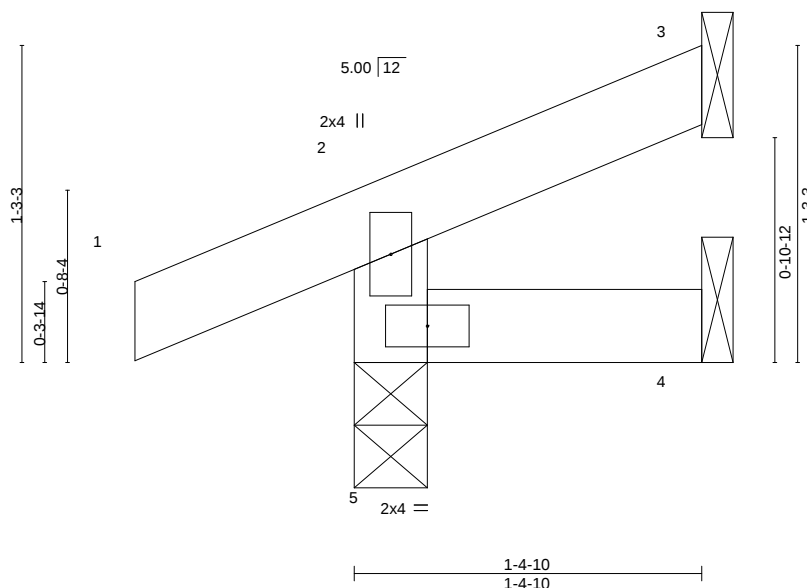
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:02 2021 Page 1

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Scale = 1:9.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 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 1-4-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=29(LC 9)
Max Uplift 3=-15(LC 12), 5=-32(LC 8)
Max Grav 3=21(LC 1), 4=21(LC 3), 5=156(LC 1)

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

NOTES-

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



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

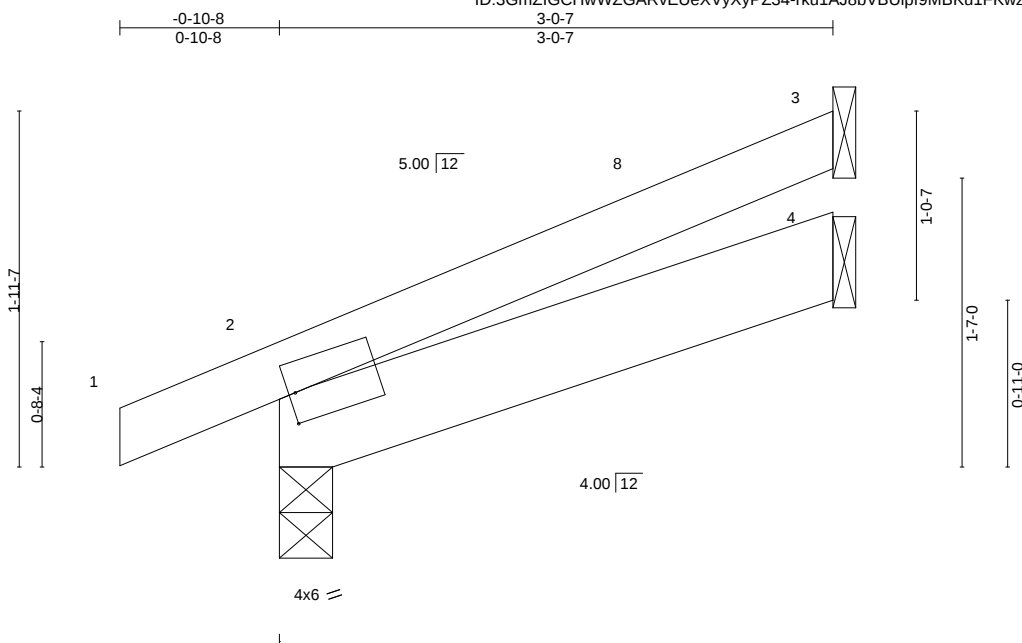
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	J21	Jack-Open	2	1	I47451436
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:03 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-rku1AJ8bVBUpf9MBKu1FKwzjGn0MpJXScdSTTyGgE



Scale = 1:12.6

Plate Offsets (X,Y)--		[2:0-0-7,0-2-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.09	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(LL) -0.00 7 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.00 4-7 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	Horz(CT) 0.00 3 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 11 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=57(LC 12)
Max Uplift 3=36(LC 12), 2=27(LC 12), 4=2(LC 12)
Max Grav 3=81(LC 1), 2=204(LC 1), 4=61(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-11-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss J22	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451437
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Builders FirstSource (Valley Center),

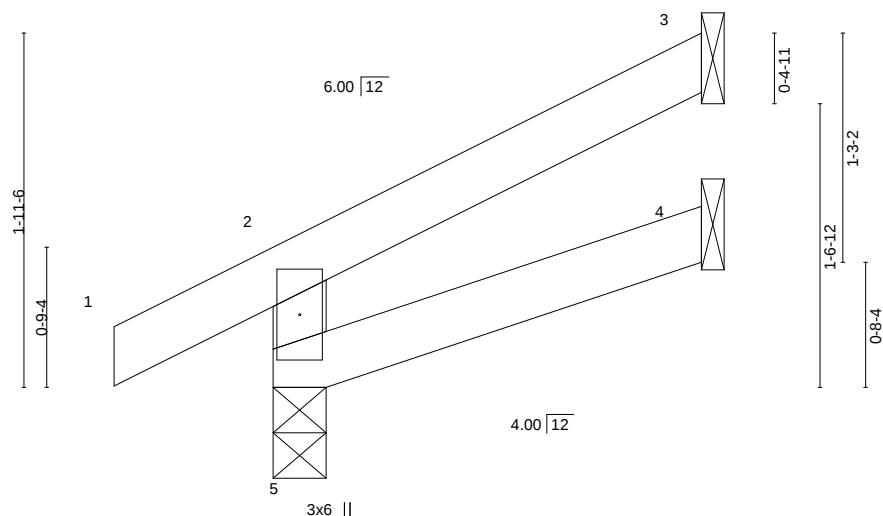
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:03 2021 Page 1

ID:3GmZIGCHwWZGARvEUeXVyXyPZ34-rku1AJ8bVBUip9MBKu1FKwz3GnvMpJXSCdSTTyGgE

-0-10-8
0-10-8
2-4-4
2-4-4

Scale = 1:12.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 12)
Max Uplift 5=20(LC 12), 3=35(LC 12)
Max Grav 5=185(LC 1), 3=59(LC 1), 4=39(LC 3)

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

NOTES-

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



August 16, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

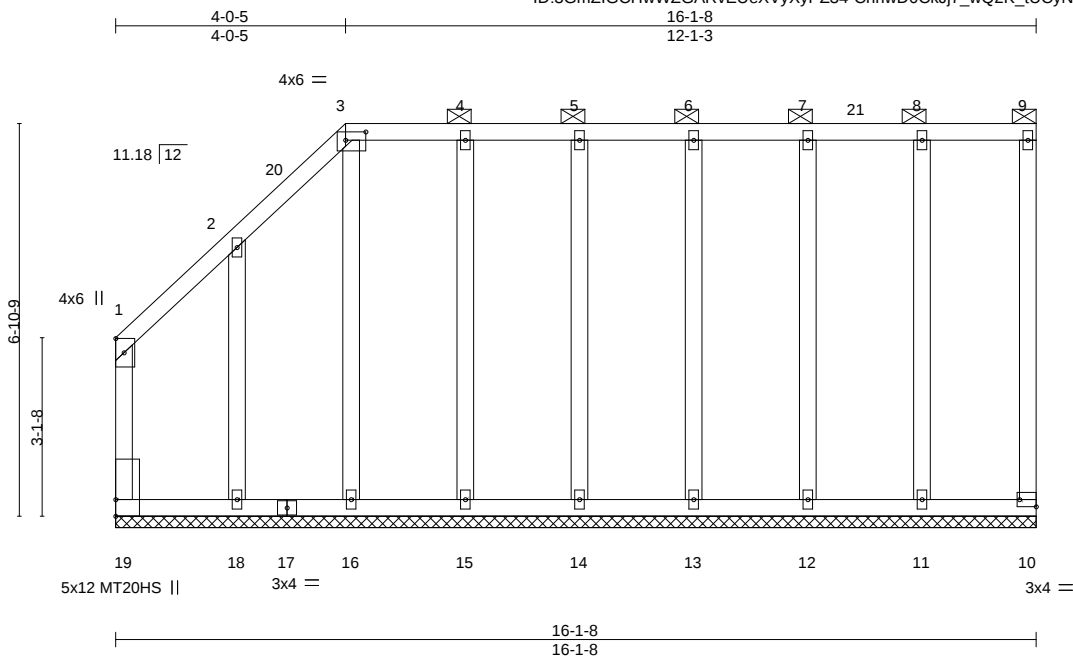
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	LG1	GABLE	1	1	I47451438
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:08 2021 Page 1

ID:3GmZIGChwWZGARvEUeXVyXyPZ34-ChhwD0ckJj7_wQ2K_tUCyNeinHOH13kGcULD9hyoGg9



Scale = 1:40.4

Plate Offsets (X,Y)--		[3:0-4-4,0-1-12], [10:Edge,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.58	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	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-R	Horz(CT) -0.00 10 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		MT20HS	148/108
		Weight: 97 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 16-1-8.

(lb) - Max Horz 19=232(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 10, 11, 12, 13, 14, 15, 16 except 19=190(LC 10), 18=341(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 10, 11, 12, 13, 14, 15, 16 except 19=332(LC 9), 18=382(LC 19)

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

TOP CHORD 1-19=-283/177, 1-2=-317/225

WEBS 2-18=-242/326

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-0-5, Exterior(2R) 4-0-5 to 8-1-8, Interior(1) 8-1-8 to 15-11-12 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) Provide adequate drainage to prevent water ponding.
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 11, 12, 13, 14, 15, 16 except (jt=lb) 19=190, 18=341.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

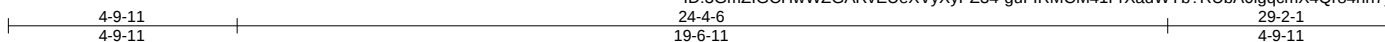
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	LG2	GABLE	1	1	147451439

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:09 2021 Page 1

ID:3GmZIGCHWZGARvEUeXVyXyPZ34-guFIRMCM41FrXadWYb?RUBA0igqcmX4Qr84nh7yoGg8



Scale: 1/4"=1'

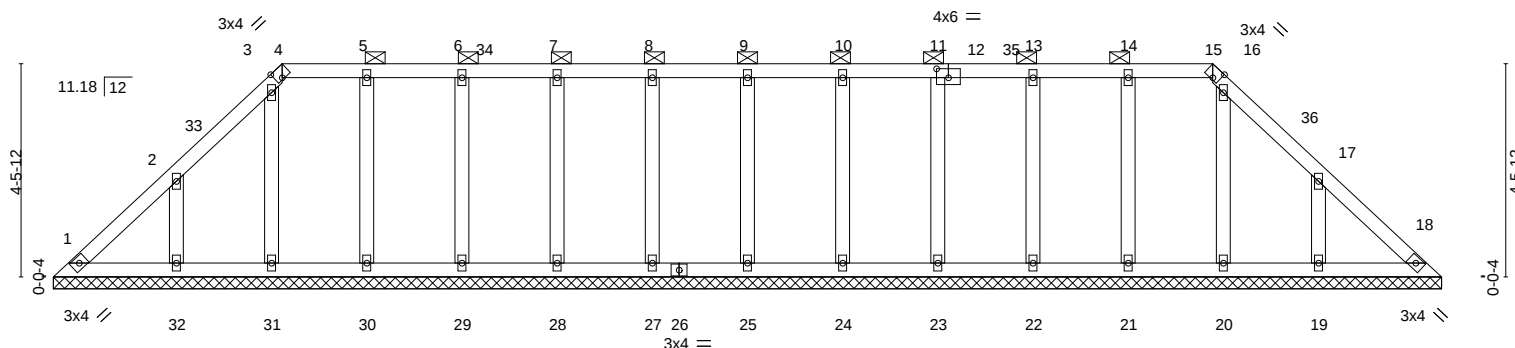


Plate Offsets (X,Y)--		[4:0-1-10,Edge], [12:0-3-0,0-2-4], [15:0-1-10,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.05
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 18 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 122 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 29-2-1.

(lb) - Max Horz 1=98(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 1, 25, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20 except

32=124(LC 12), 19=126(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 18, 25, 27, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20, 19

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-7 to 3-4-7, Interior(1) 3-4-7 to 4-9-11, Exterior(2R) 4-9-11 to 9-0-10, Interior(1) 9-0-10 to 24-4-6, Exterior(2E) 24-4-6 to 28-9-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 25, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20 except (jt=lb) 32=124, 19=126.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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

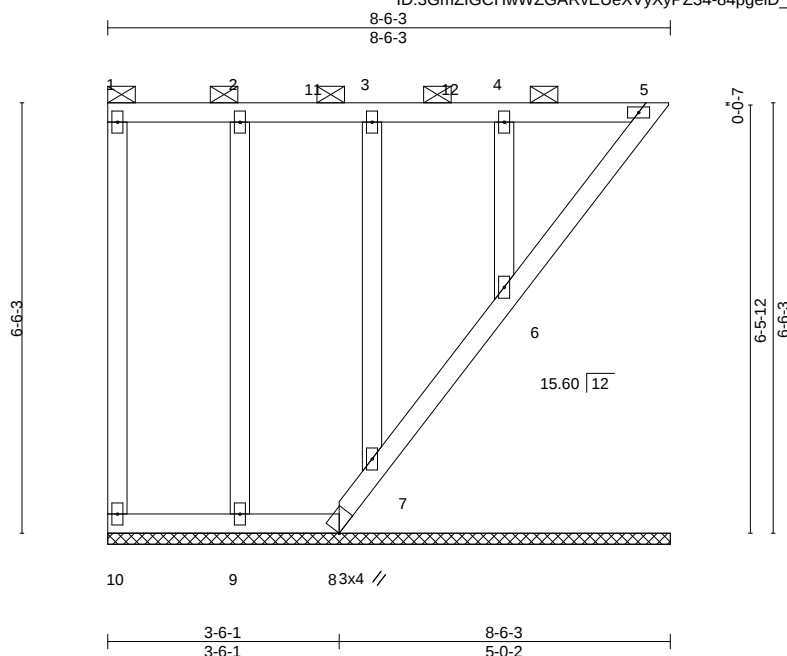


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss LG3	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451440
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:10 2021 Page 1

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Scale = 1:34.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 45 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 2-0-0 oc purlins: 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 5-6.

REACTIONS.

All bearings 8-6-3.
(lb) - Max Horz 10=-159(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 10, 5, 9, 7, 6 except 8=-110(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 10, 5, 8, 9, 7, 6

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 5-2-10, Corner(3) 5-2-10 to 8-2-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 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) 10, 5, 9, 7, 6 except (jt=lb) 8=110.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 7, 6.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

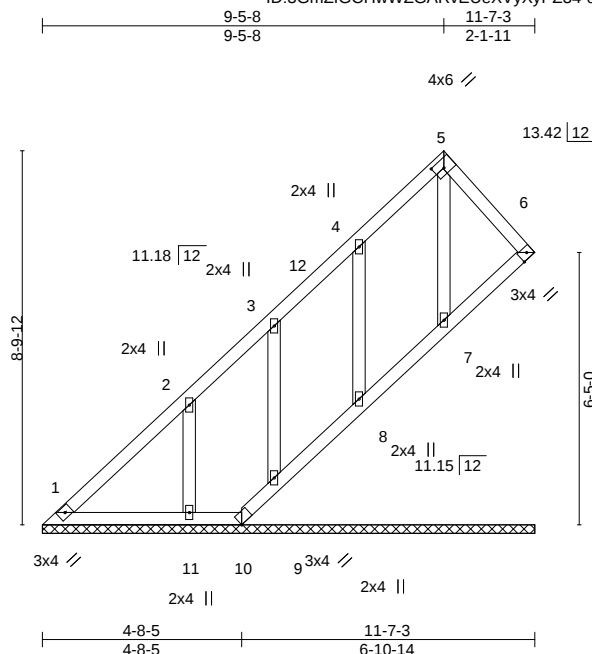
Job 2903855	Truss LG4	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451441
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:11 2021 Page 1

ID:3GmZIGCHwWZGARvEueXVyXyPZ34-cGN2s2EcceVZnumvf02vZ0GLXUWeERcJlSZul0yoGg6



Scale = 1:54.3

Plate Offsets (X,Y)--		[5:0-2-14,0-2-4], [6:0-2-4,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.10		Vert(LL) n/a - n/a 999				MT20 197/144	
TCDL 10.0		Lumber DOL 1.15		BC 0.06		Vert(CT) n/a - n/a 999					
BCLL 0.0		Rep Stress Incr YES		WB 0.04		Horz(CT) -0.00 6 n/a n/a					
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S						Weight: 50 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 11-7-3.

(lb) - Max Horz 1=264(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 10, 9 except 8=103(LC 12), 11=153(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 6, 10, 7, 8, 9 except 11=308(LC 19)

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

TOP CHORD 1-2=-269/163

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-7 to 3-5-8, Interior(1) 3-5-8 to 9-5-8, Exterior(2E) 9-5-8 to 11-4-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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, 6, 10, 9 except (jt=lb) 8=103, 11=153.

6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 7, 8, 9.

7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

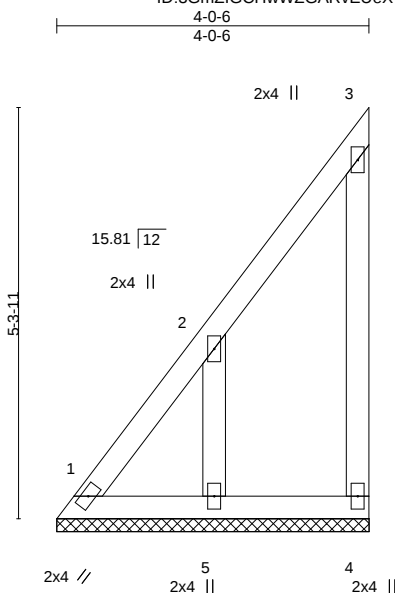
Job 2903855	Truss LG5	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451442 Job Reference (optional)
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:12 2021 Page 1

ID:3GmZIGCHWZGARvEueXVyXyPZ34-5TxQ3OFENydQO1L5DjZ86DoUwusQzussX6JRISyoGg5



Scale = 1:29.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-0-6, 4=4-0-6, 5=4-0-6
Max Horz 1=168(LC 9)
Max Uplift 1=-70(LC 10), 4=-72(LC 9), 5=-176(LC 12)
Max Grav 1=152(LC 9), 4=98(LC 19), 5=243(LC 19)

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

TOP CHORD 1-2=-339/345
WEBS 2-5=-256/254

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=176.
- 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.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

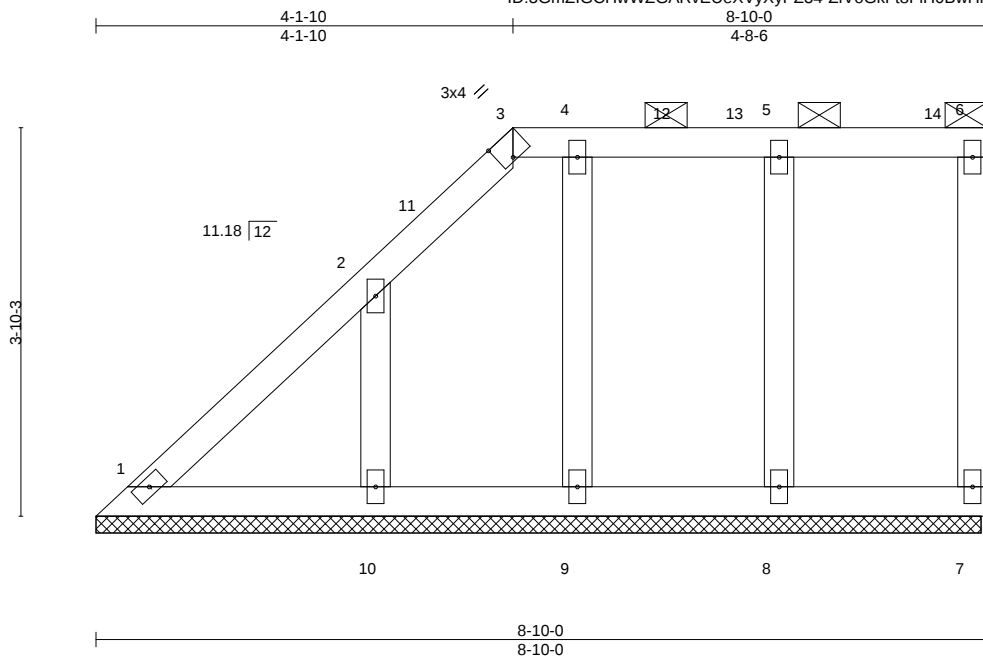
Job 2903855	Truss LG7	Truss Type GABLE	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451444
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:13 2021 Page 1

ID:3GmZIGChwWZGARvEUeXVYxYPZ34-ZfVoGkFt8FIH0BwHnQ4NfRLgTICUikA0mm2_quyoGg4



Scale = 1:22.8

Plate Offsets (X,Y)--		[3:0-1-10,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) -0.00 7 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 35 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-9-4.
(lb) - Max Horz 1=127(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 8, 9 except 10=-115(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 9, 10

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-253/149

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-7 to 3-4-7, Interior(1) 3-4-7 to 4-1-10, Exterior(2R) 4-1-10 to 8-4-8, Interior(1) 8-4-8 to 8-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 8, 9 except (jt=lb) 10=115.
- 7) Non Standard bearing condition. Review required.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 16, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss M1	Truss Type MONOPITCH	Qty 3	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO 147451445
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:14 2021 Page 1
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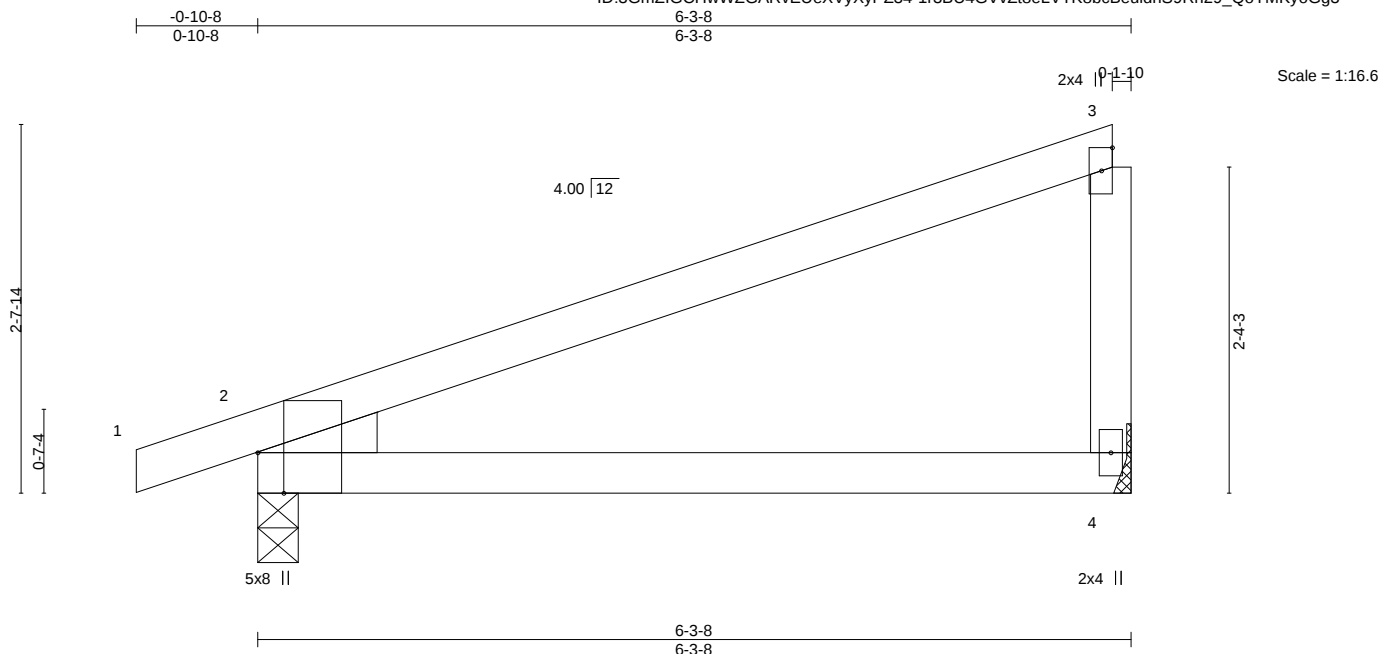


Plate Offsets (X,Y)-- [2:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	0.08	4-7	>879	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.15	4-7	>483	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=95(LC 11)
Max Uplift 4=57(LC 12), 2=77(LC 8)
Max Grav 4=272(LC 1), 2=342(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 16, 2021

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

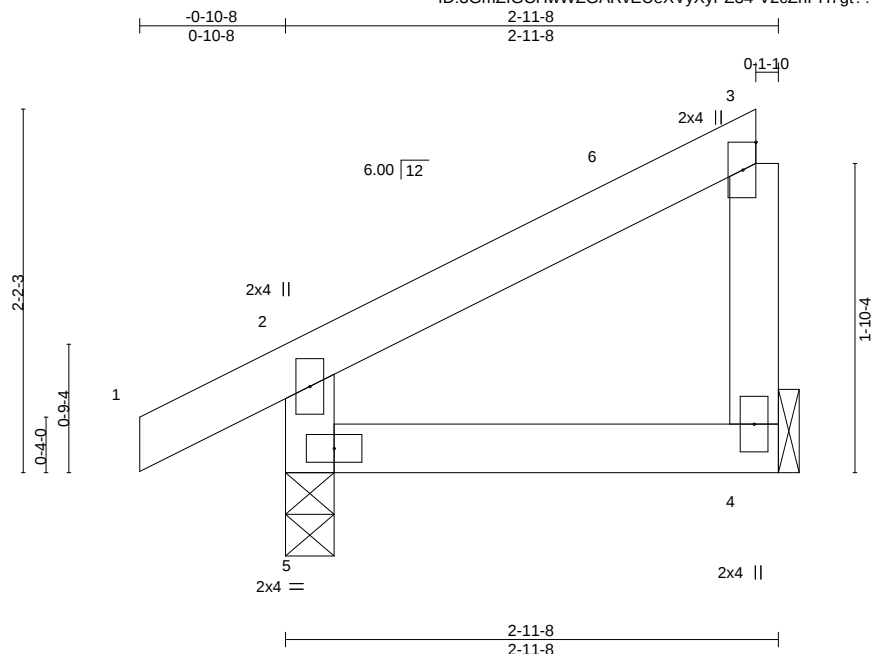
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss M2	Truss Type MONOPITCH	Qty 4	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451446
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:15 2021 Page 1
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Scale = 1:13.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=0-3-8
Max Horz 5=77(LC 11)
Max Uplift 4=-29(LC 12), 5=-34(LC 12)
Max Grav 4=106(LC 1), 5=205(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss V1	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451447
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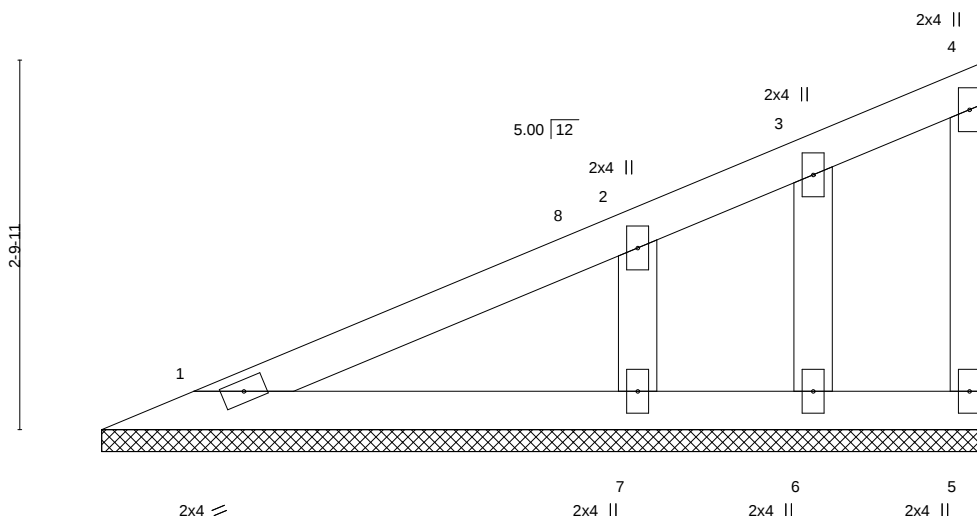
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:15 2021 Page 1

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6-8-14
6-8-14



Scale = 1:17.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-8-14.

(lb) - Max Horz 1=96(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6, 7

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=314(LC 1)

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

WEBS 2-7=-243/285

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-8-12 to 3-8-12, Exterior(2N) 3-8-12 to 6-7-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6, 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.



August 16, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

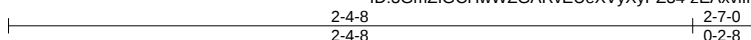
Job 2903855	Truss V3	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451449
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:16 2021 Page 1

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Scale: 1.5"=1'

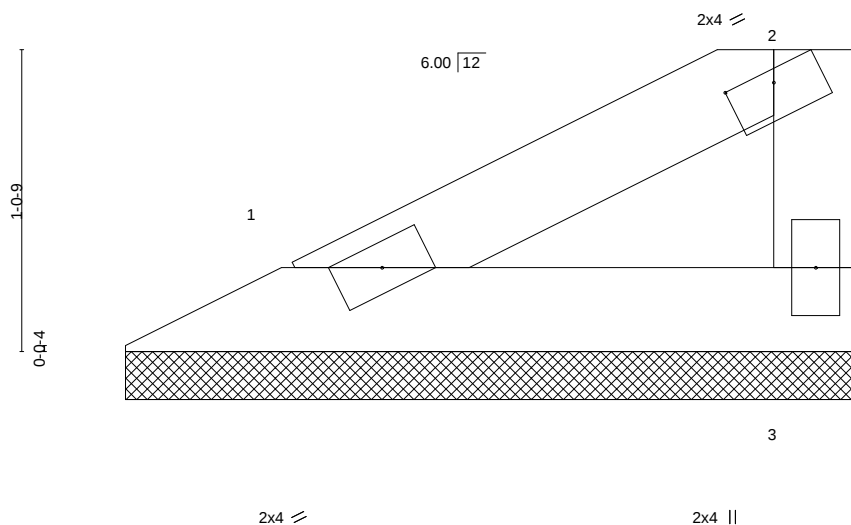


Plate Offsets (X,Y)--		[2:0-2-0,0-0-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.05		Vert(LL)	n/a -	n/a	999	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	n/a -	n/a	999		
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=2-6-8, 3=2-6-8
Max Horz 1=34(LC 9)
Max Uplift 1=-10(LC 12), 3=-19(LC 12)
Max Grav 1=81(LC 1), 3=81(LC 1)

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

NOTES-

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



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #117/MO
2903855	V4	Valley	1	1	I47451450
Job Reference (optional)					

Builders FirstSource (Valley Center),

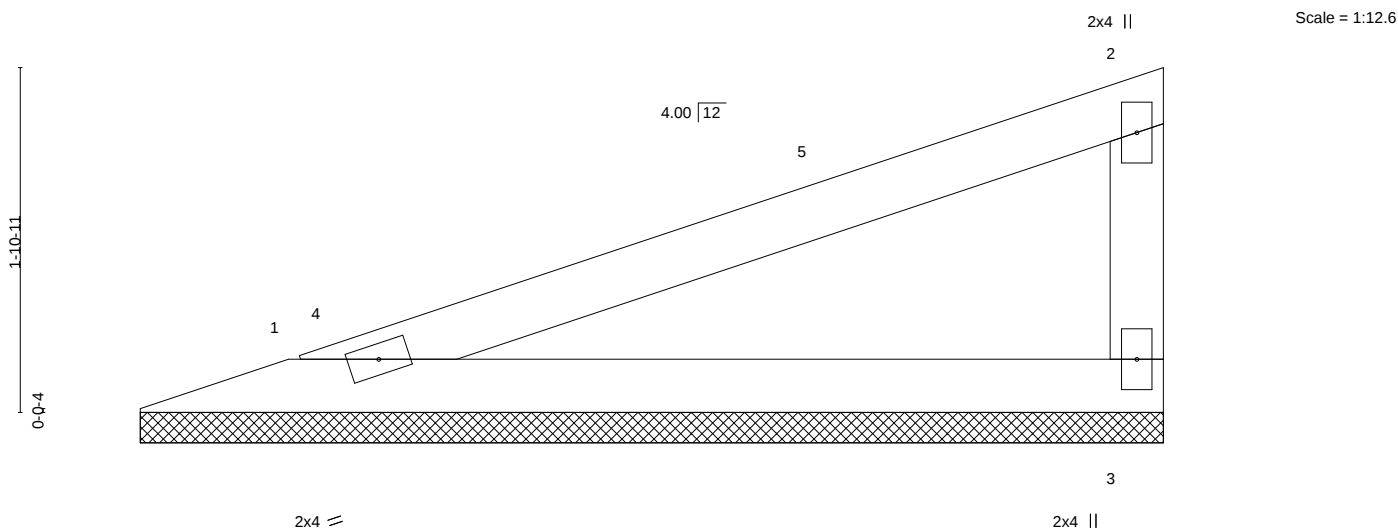
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:17 2021 Page 1

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5-8-1

5-8-1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 14 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=5-7-5, 3=5-7-5

Max Horz 1=62(LC 11)

Max Uplift 1=33(LC 8), 3=42(LC 12)

Max Grav 1=206(LC 1), 3=206(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 5-6-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss V5	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451451
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

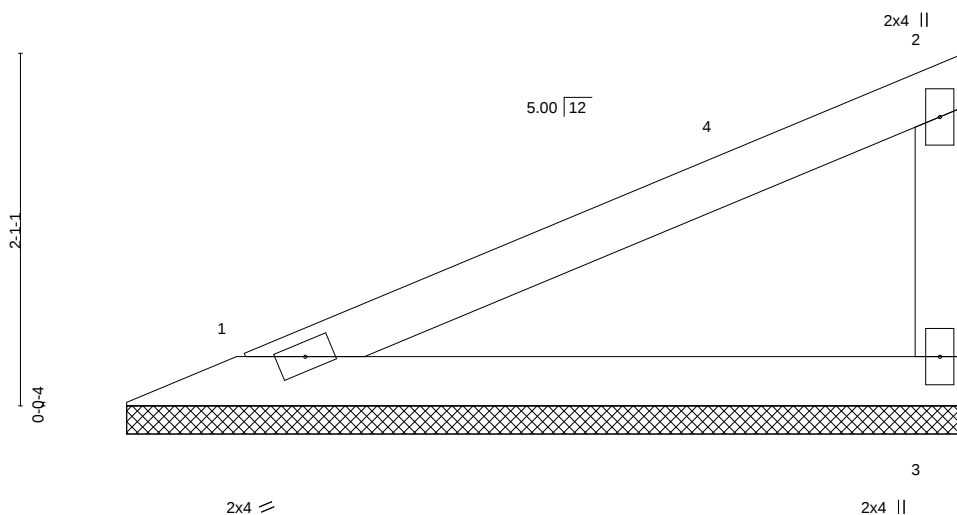
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:18 2021 Page 1

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5-0-2

5-0-2

Scale = 1:13.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-2 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=4-11-8, 3=4-11-8

Max Horz 1=68(LC 11)

Max Uplift 1=-27(LC 12), 3=-40(LC 12)

Max Grav 1=185(LC 1), 3=185(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-10-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 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.



August 16, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss V6	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO Job Reference (optional)	I47451452
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

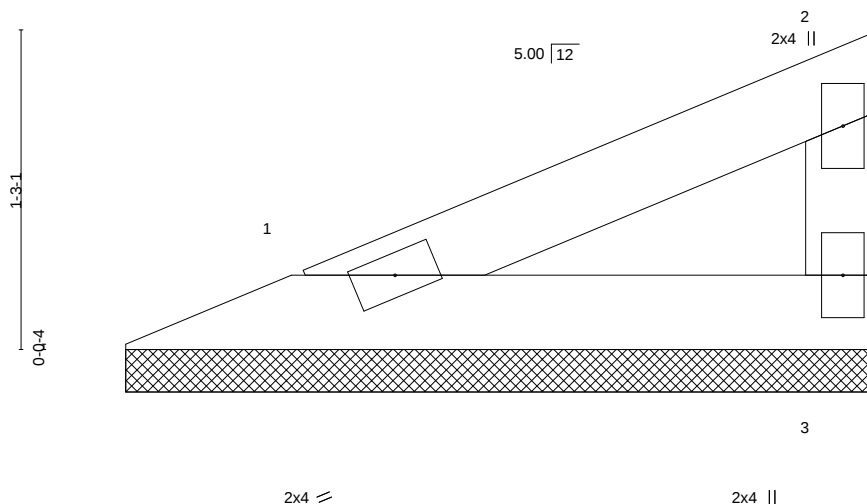
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:18 2021 Page 1

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3-0-2

3-0-2

Scale = 1:9.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 7 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-2 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=2-11-8, 3=2-11-8

Max Horz 1=35(LC 9)

Max Uplift 1=-14(LC 12), 3=-21(LC 12)

Max Grav 1=95(LC 1), 3=95(LC 1)

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

NOTES-

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



August 16, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2903855	Truss V7	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #117/MO I47451453
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 13 11:53:19 2021 Page 1

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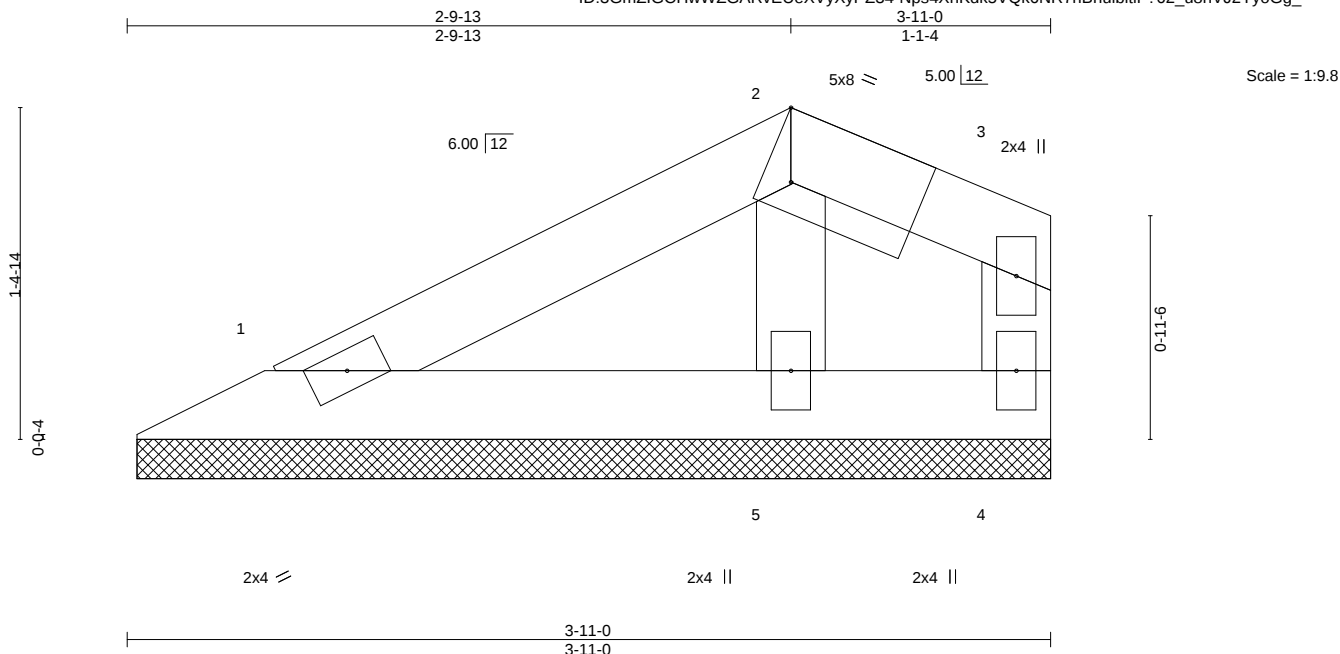


Plate Offsets (X,Y)--		[2:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.02
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 4 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 10 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 3-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-10-8, 4=3-10-8, 5=3-10-8
Max Horz 1=25(LC 9)
Max Uplift 1=-17(LC 12), 4=-13(LC 13), 5=-11(LC 12)
Max Grav 1=94(LC 1), 4=34(LC 1), 5=155(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 16, 2021

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

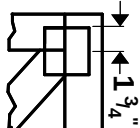
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



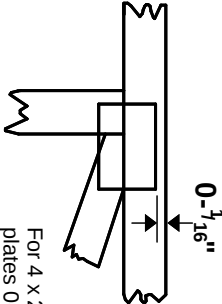
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{3}{16}$ " 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

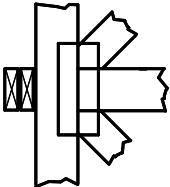
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



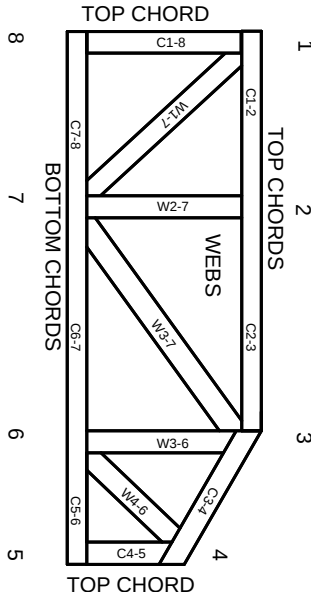
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.