



MiTek USA, Inc.

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

Re: 3044392

SUMMIT/HAWTHORN RIDGE #114/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: I49734699 thru I49734784

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



January 18, 2022

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A01	HIP GIRDER	1	3	Job Reference (optional)

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

8,430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:36 2022 Page 1

ID:tjnOHGeVPJTy41JASwyTKzhfUX-Uu609H6AawJE18kYg9RH3RL75GgWcSGWK20HwzUJHb

0-10-8	3-9-11	7-3-14	12-4-9	17-5-3	22-5-14	27-6-8	32-3-1	36-11-9	41-8-2	45-8-8	49-0-0
0-10-8	3-9-11	3-6-3	5-0-10	5-0-10	5-0-10	5-0-10	4-8-9	4-8-9	4-8-9	4-0-6	3-3-8

Scale = 1:87.9

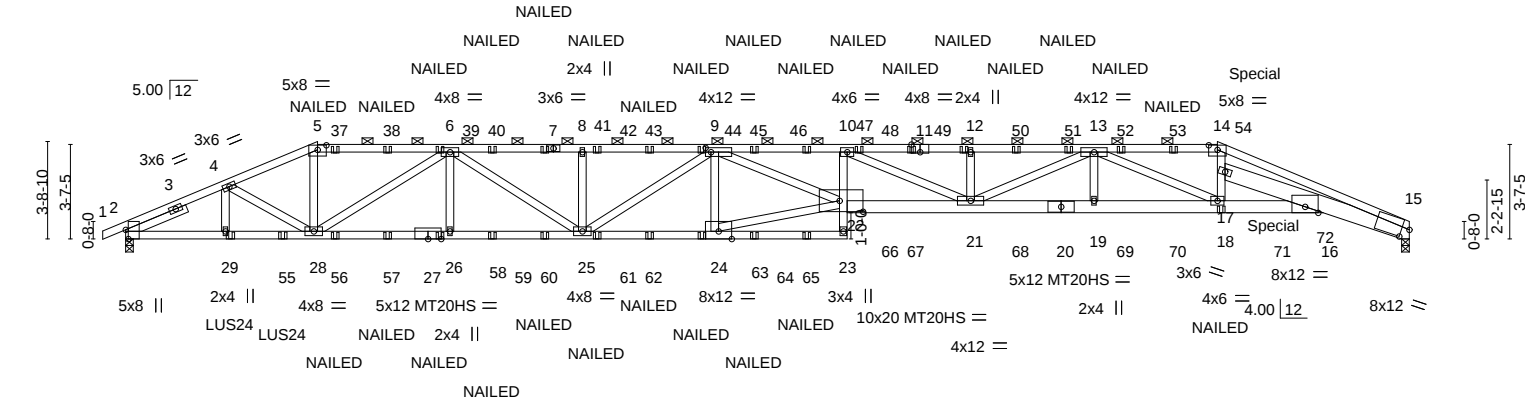


Plate Offsets (X,Y)--	[2:0-4-3,Edge], [5:0-4-0,0-2-2], [9:0-2-8,0-2-0], [11:0-4-0,Edge], [14:0-4-0,0-2-2], [15:0-3-7,0-4-6], [22:0-10-12,0-5-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) -1.15	22	>512	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -2.07	22	>283	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr NO	WB 0.78	Horz(CT) 0.45	15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS					Weight: 677 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 11-14,7-11: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-10-5 oc purlins, except
BOT CHORD 2x4 SPF 1650F 1.5E *Except* 20-22,16-20: 2x6 SPF 2100F 1.8E, 15-17: 2x8 SP 2400F 2.0E	BOT CHORD 2-0-0 oc purlins (3-7-13 max.): 5-14. Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 22-24: 2x4 SPF 1650F 1.5E	
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 15=0-3-8, 2=0-3-8
Max Horz 2=58(LC 33)
Max Uplift 15=-1061(LC 9), 2=-1072(LC 8)
Max Grav 15=4113(LC 1), 2=4233(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-8244/2128, 4-5=-8663/2297, 5-6=-7938/2128, 6-8=-14420/3990, 8-9=-14420/3990, 9-10=-23286/6451, 10-12=-20753/5738, 12-13=-20753/5738, 13-14=-11648/3155, 14-15=-13044/3484
BOT CHORD 2-29=-1921/7411, 28-29=-1921/7411, 26-28=-3207/11935, 25-26=-3207/11935, 24-25=-4270/15629, 23-24=-422/1552, 10-22=-216/891, 21-22=-6498/23723, 19-21=-4687/17276, 18-19=-4687/17276, 16-18=-3138/11848, 16-17=-153/606, 15-16=-3103/11792
WEBS 4-28=-252/900, 5-28=-697/2734, 6-28=-4797/1370, 6-26=-16/333, 6-25=-856/3016, 8-25=-524/211, 9-25=-1493/454, 9-24=-3172/929, 22-24=-3959/14486, 9-22=-2300/8343, 10-21=-3299/918, 12-21=-513/212, 13-21=-1083/3896, 13-19=-11/315, 13-18=-6278/1780, 17-18=-839/3108, 14-17=-1164/4416

- NOTES-**
- 3-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Web connected with WS45 as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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.

Continued on page 2
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible 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



January 18, 2022



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A01	HIP GIRDER	1	3	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:54:36 2022 Page 2
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-Uu609H6AaWjE18kYg9rH3R175GgWcSGWk20HnWzUJHb

02/09/2022

- NOTES-**
- 8) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=1061, 2=1072.
 - 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or 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 4-0-0 from the left end to 6-0-0 to connect truss(es) to front face of bottom chord.
 - 13) Fill all nail holes where hanger is in contact with lumber.
 - 14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 178 lb down and 67 lb up at 42-0-0 on top chord, and 72 lb down and 33 lb up at 28-0-0, 72 lb down and 33 lb up at 30-0-0, 72 lb down and 33 lb up at 32-0-0, 72 lb down and 33 lb up at 34-0-0, 72 lb down and 33 lb up at 36-0-0, 72 lb down and 33 lb up at 38-0-0, and 72 lb down and 33 lb up at 40-0-0, and 418 lb down and 133 lb up at 44-0-0 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: 1-5=-70, 5-14=-70, 14-15=-70, 23-33=-20, 16-22=-20, 16-30=-20
 - Concentrated Loads (lb)
 - Vert: 20=-72 29=-319(F) 12=-89(F) 21=-72 18=-13(F) 37=-81(F) 38=-81(F) 39=-81(F) 40=-81(F) 41=-81(F) 42=-81(F) 43=-81(F) 44=-81(F) 45=-81(F) 47=-81(F) 48=-89(F) 49=-89(F) 50=-89(F) 51=-89(F) 52=-89(F) 53=-89(F) 54=-145(F) 55=-236(F) 56=-80(F) 57=-80(F) 58=-80(F) 59=-80(F) 60=-80(F) 61=-80(F) 62=-80(F) 63=-80(F) 64=-80(F) 65=-80(F) 66=-72 67=-72 68=-72 69=-72 70=-72 71=-418(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A02	Hip	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:38 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-QHEmaz7Q68_yGRtoatss6vjDLa6SbnHV6rkZuJNB

0-10-8	5-0-2	9-8-11	15-7-1	21-7-4	26-6-8	27-6-8	32-10-14	39-3-5	42-5-12	45-8-8	49-0-0
0-10-8	5-0-2	4-8-10	5-10-6	6-0-2	4-11-4	1-0-0	5-4-6	6-4-6	3-2-8	3-2-12	3-3-8

Scale = 1:88.0

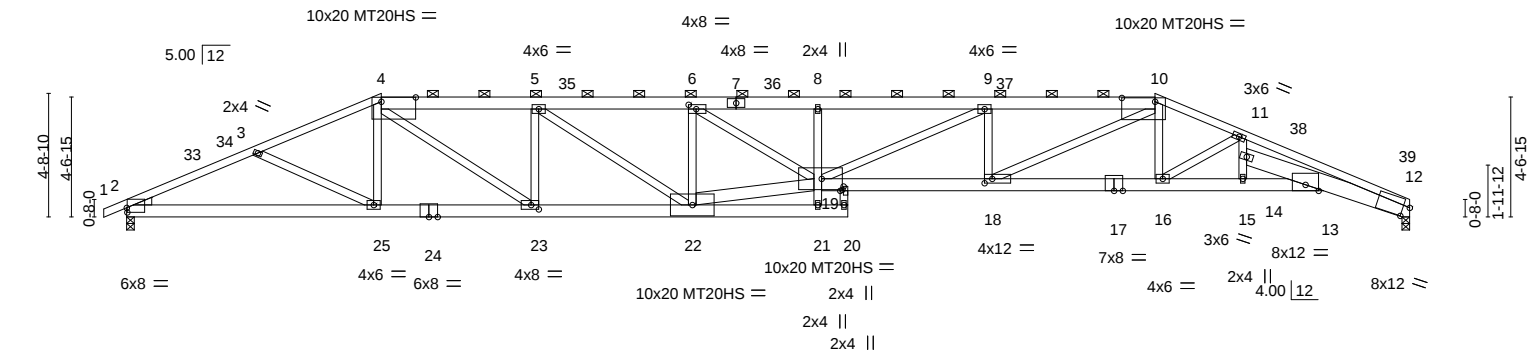


Plate Offsets (X,Y)--	9-8-11	15-7-1	18-7-10	21-7-4	26-6-8	27-6-8	32-10-14	39-3-5	42-5-12	45-8-8	49-0-0
	9-8-11	5-10-6	3-0-8	2-11-10	4-11-4	1-0-0	5-4-6	6-4-6	3-2-8	3-2-12	3-3-8

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.89	Vert(LL) -0.83	20	>706	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -1.50	20	>392	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.68	Horz(CT) 0.39	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						
							Weight: 264 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-7: 2x6 SPF No.2, 10-12: 2x4 SPF 1650F 1.5E
7-10: 2x6 SPF 2100F 1.8E
BOT CHORD 2x6 SPF 2100F 1.8E *Except*
12-14: 2x8 SP 2400F 2.0E, 20-24: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
19-22: 2x6 SPF 2100F 1.8E
WEDGE
Left: 2x4 SP No.3

REACTIONS.

(size) 12=0-3-8, 2=0-3-8
Max Horz 2=72(LC 12)
Max Uplift 12=-294(LC 13), 2=-315(LC 8)
Max Grav 12=2215(LC 1), 2=2276(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4658/690, 3-4=-4404/669, 4-5=-5769/953, 5-6=-6527/1069, 6-8=-8623/1387,
8-9=-8657/1389, 9-10=-7730/1234, 10-11=-5827/880, 11-12=-6865/968
BOT CHORD 2-25=-607/4209, 23-25=-545/4047, 22-23=-858/5762, 18-19=-1131/7723,
16-18=-723/5349, 15-16=-844/6323, 13-15=-848/6330, 12-13=-833/6221
WEBS 4-25=0/256, 9-19=-228/1146, 9-18=-1162/286, 10-18=-468/2758, 10-16=-74/746,
4-23=-395/2195, 5-23=-1140/265, 5-22=-165/1014, 6-22=-1705/332, 11-14=-77/776,
11-16=-1098/210, 8-19=-334/126, 19-22=-986/6539, 6-19=-367/2412

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 4-0-5, Interior(1) 4-0-5 to 9-8-11, Exterior(2R) 9-8-11 to 16-7-14, Interior(1) 16-7-14 to 39-3-5, Exterior(2R) 39-3-5 to 46-2-7, Interior(1) 46-2-7 to 49-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=294, 2=315.
- This truss 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.

WARNING: Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MP-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



January 18, 2022



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A03	Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:39 2022 Page 1															
0-10-8		6-2-8		12-1-8		19-10-0		27-6-8		32-2-8		36-10-8		42-3-8		45-0-8		48-0-0	
0-10-8		6-2-8		5-11-0		7-8-8		7-8-8		4-8-0		4-8-0		5-5-0		3-5-0		3-3-8	

Scale = 1:88.0

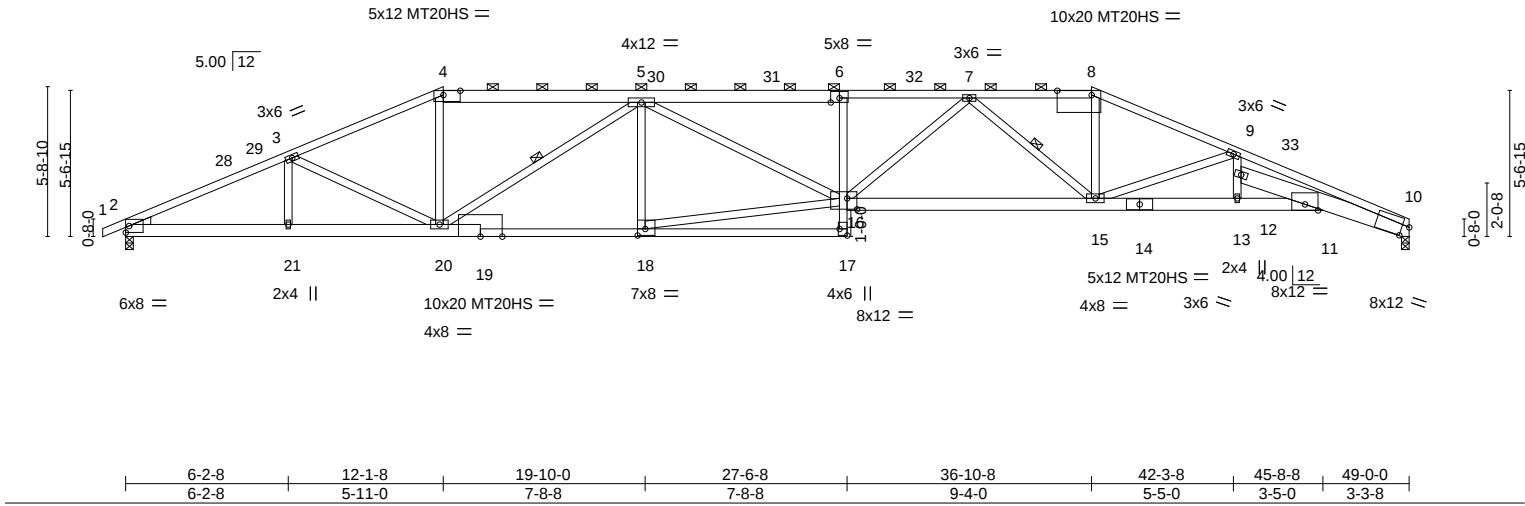


Plate Offsets (X,Y)--	[4:0-7-12,0-2-0], [8:1-3-12,0-2-0], [10:0-3-3,0-4-14], [16:0-4-8,0-5-0], [17:Edge,0-3-8], [18:0-3-8,0-3-0]
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LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 1.00	Vert(LL) -0.71	15-16	>827	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.98	Vert(CT) -1.31	15-16	>450	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.86	Horz(CT) 0.40	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 246 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-6: 2x6 SPF No.2, 8-10: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins: 4-8.
BOT CHORD 2x6 SPF 2100F 1.8E *Except* 6-17: 2x4 SPF No.2, 10-12: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2 *Except* 16-18: 2x4 SPF 1650F 1.5E	WEBS 1 Row at midpt 5-20, 7-15
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(size) 10=0-3-8, 2=0-3-8 Max Horz 2=88(LC 16) Max Uplift 10=-297(LC 13), 2=-314(LC 12) Max Grav 10=2204(LC 1), 2=2267(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-4546/610, 3-4=-4215/627, 4-5=-3813/596, 5-6=-6349/1004, 6-7=-6374/999, 7-8=-4758/709, 8-9=-5265/753, 9-10=-6753/891
BOT CHORD	2-21=-577/4107, 20-21=-577/4107, 18-20=-707/5057, 17-18=-66/479, 6-16=-433/150, 15-16=-792/5756, 13-15=-774/6223, 11-13=-778/6227, 10-11=-762/6115
WEBS	3-20=-315/145, 4-20=-115/1160, 5-20=-1648/291, 5-18=-543/165, 16-18=-647/4623, 5-16=-275/1501, 7-16=-136/924, 7-15=-1453/296, 8-15=-192/1650, 9-15=-1505/313, 9-12=-65/752

- 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 4-0-5, Interior(1) 4-0-5 to 12-1-8, Exterior(2R) 12-1-8 to 19-0-10, Interior(1) 19-0-10 to 36-10-8, Exterior(2R) 36-10-8 to 43-9-10, Interior(1) 43-9-10 to 49-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=297, 2=314.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18, 2022

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A03	Hip	1	1	149734701
Job Reference (optional)					

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:39 2022 Page 2
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-uTn8nJ83sR6puls7MHC_n3fendgkpopy0xELzAzUjA

- NOTES-**
- 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.

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

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:41 2022 Page 2
 ID: tjnOHGeVPJTYi41JASwyTKzhfUX-rsvvC_AJO3Mw7vcVTiQSmok_PRNjHgmUfJ523zuUhg
 0-10-8 7-4-14 14-6-5 21-0-6 27-6-8 34-5-11 41-1-2 15-0-0 10-0-0
 0-10-8 7-4-14 7-1-6 6-6-2 6-6-2 6-11-3 6-7-6 4-7-6 3-3-8

Technical drawing of a roof truss structure. The drawing shows a side elevation of the truss with various members and joints labeled with numbers 1 through 31. Dimensions are provided for the overall height (6.8-10 and 6.6-15) and the horizontal span (5.00). Material specifications are indicated for different parts: 5x12 MT20HS for the main truss members, 3x6 for bracing, 4x6 for vertical supports, 6x8 for the base plate, 2x4 for the base plate, 6x12 for the base plate, 4x8 for the base plate, 5x12 MT20HS for the base plate, 3x6 for the base plate, 4x6 for the base plate, 8x12 for the base plate, and 10x20 MT20HS for the base plate. The drawing also shows the connection details between the truss members and the base plate.

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) -0.66 15-16	>896	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -1.22 15-16	>481	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.99	Horz(CT) 0.43 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TP12014	Matrix-AS				Weight: 234 lb	FT = 20%

REACTIONS. (size) 11=0-3-8, 2=0-3-8
 Max Horz 2=105(LC 12)
 Max Uplift 11=-295(LC 13), 2=-312(LC 12)
 Max Grav 11=2204(LC 1), 2=2267(LC 1)

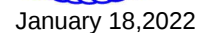
TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-6-14 max.): 5-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-15, 10-15

TOP CHORD 2-3=-4540/599, 3-5=-3982/565, 5-6=-4245/658, 6-8=-5059/760, 8-9=-4256/616,
9-10=-4719/645, 10-11=-6147/798

BOT CHORD 2-21=-574/4092, 19-21=-574/4092, 18-19=-402/3590, 17-18=-42/290, 15-16=-619/5100,
13-15=-644/5602, 12-13=-635/5588, 11-12=-651/5511

WEBS 3-19=-571/190, 5-19=-29/428, 5-18=-174/1086, 6-18=-1202/256, 16-18=-481/4021,
6-16=-209/1084, 8-15=-1242/207, 9-15=-113/1315, 10-15=-1419/299, 10-14=-28/648

- 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 4-0-5, Interior(1) 4-0-5 to 14-6-5, Exterior(2R) 14-6-5 to 21-5-7, Interior(1) 21-5-7 to 34-5-11, Exterior(2R) 34-5-11 to 41-4-14, Interior(1) 41-4-14 to 49-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=295, 2=312.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



02/09/2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A05	Hip	1	1	

Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:42 2022 Page 1						
ID:tjnOHGeVPJtY4I1JASwyTKzhfUX-J2THQKAX9MUJ3Bi1PxhJiGACqj0S9yONT5avZduM7										
0-10-8	5-10-1	11-4-9	16-11-2	22-2-13	27-6-8	32-0-14	37-10-11	42-2-3	45-8-8	49-0-0
0-10-8	5-10-1	5-6-9	5-6-9	5-3-11	5-3-11	4-6-6	5-9-13	4-3-8	3-6-5	3-3-8

Scale = 1:88.0

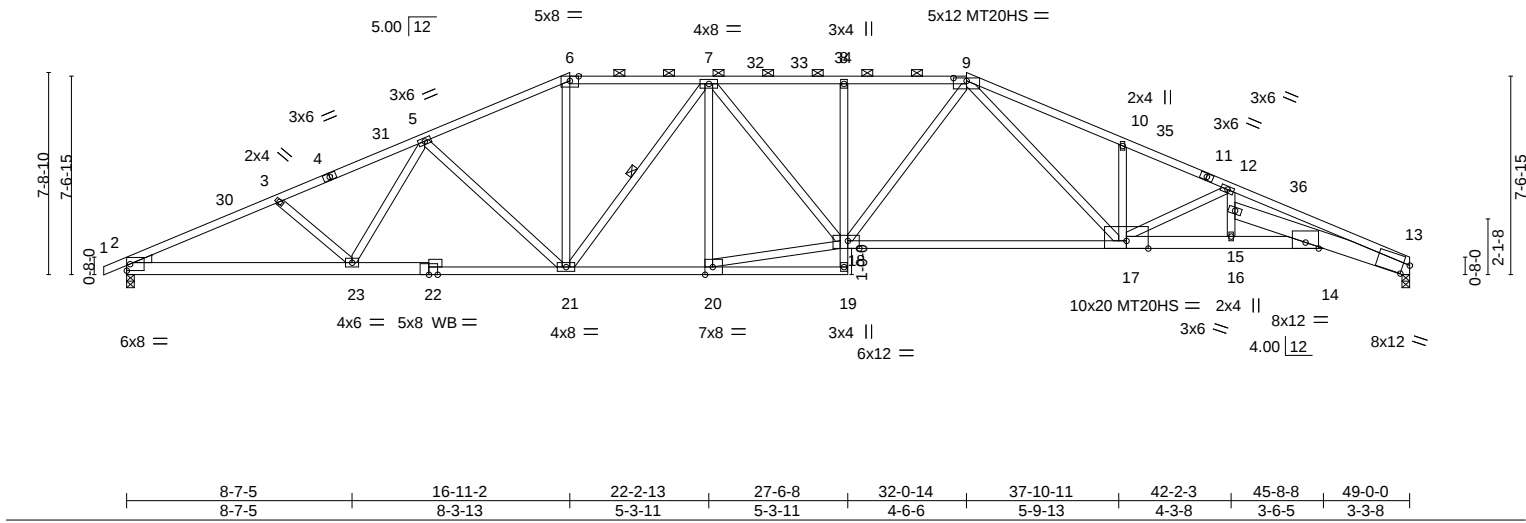


Plate Offsets (X,Y)--	[9:0-6-0,0-1-5], [13:0-2-15,0-4-14], [18:0-5-4,Edge], [20:0-3-8,Edge]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) -0.59	17-18	>993	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.99	Vert(CT) -1.29	17-18	>457	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.90	Horz(CT) 0.38	13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						
							Weight: 245 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 1650F 1.5E *Except* 6-9,1-4: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-5-6 max.): 6-9.
BOT CHORD 2x4 SPF No.2 *Except* 2-22,14-17: 2x6 SPF 2100F 1.8E, 17-18: 2x4 SPF 1650F 1.5E 13-15: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-21
OTHERS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SP No.3	

REACTIONS.	(size) 2=0-3-8, 13=0-3-8 Max Horz 2=121(LC 12) Max Uplift 2=310(LC 12), 13=293(LC 13) Max Grav 2=2267(LC 1), 13=2204(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-4619/618, 3-5=-4344/575, 5-6=-3704/530, 6-7=-3344/514, 7-8=-4249/601, 8-9=-4271/602, 9-10=-5356/755, 10-12=-5340/661, 12-13=-6646/862
BOT CHORD	2-23=-621/4173, 21-23=-490/3802, 20-21=-372/3699, 8-18=-394/127, 17-18=-356/3848, 16-17=-715/6099, 14-16=-711/6093, 13-14=-720/6006
WEBS	3-23=-313/164, 5-23=-20/390, 5-21=-620/195, 6-21=-98/1039, 7-21=-785/142, 7-20=-616/109, 18-20=-325/3671, 7-18=-157/920, 9-18=-110/903, 9-17=-266/1505, 10-17=-315/161, 12-15=-108/840, 12-17=-1391/281

- 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 4-0-5, Interior(1) 4-0-5 to 16-11-2, Exterior(2R) 16-11-2 to 23-10-4, Interior(1) 23-10-4 to 32-0-14, Exterior(2R) 32-0-14 to 39-0-1, Interior(1) 39-0-1 to 49-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - 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.
 - Bearing at joint(s) 13 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) 2=310, 13=293.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18,2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	A05	Hip	1	1	149734703
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:42 2022 Page 2
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-J2THQKAX9MUJl3Bi1PxndiSACqib08yOvT6aVzdUht

- NOTES-**
- 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.

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	B01	Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:43 2022 Page 1
 ID:tnOHGeVPJTiy41JASwyTKzhfUX-nE1fdgBZwgcENGmub7TwwpLKE3-nHhYxzCZ6x2dUho
 5-3-11 10-3-14 15-6-0 20-8-2 27-0-4 31-4-6 36-8-8 40-0-0
 5-3-11 5-0-3 5-2-2 5-2-2 6-4-2 4-4-2 5-4-2 3-3-8 0-10-8

Scale = 1:72.4

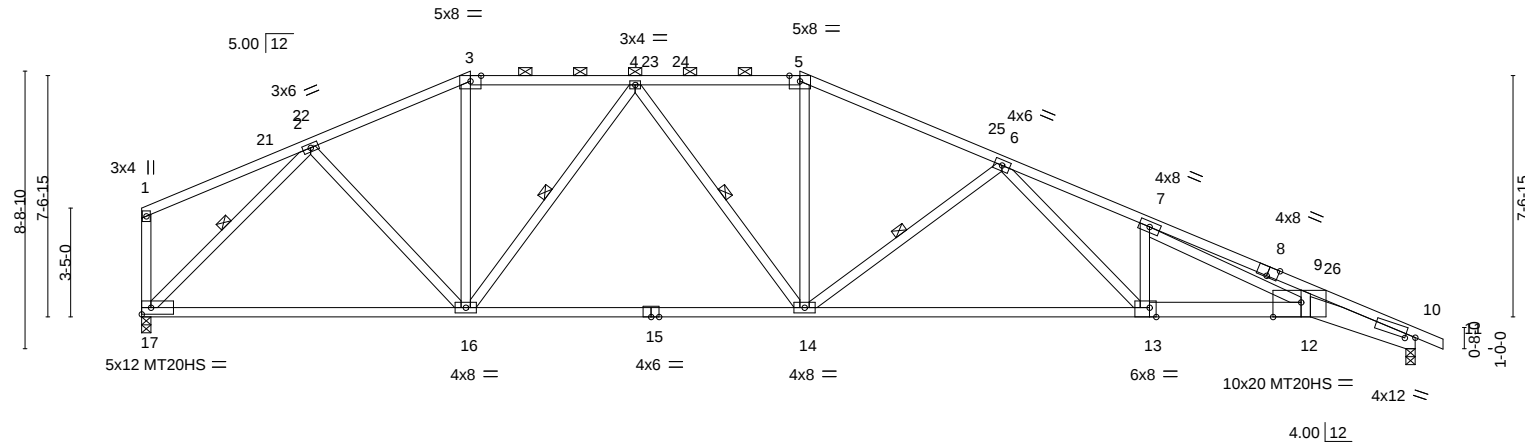


Plate Offsets (X,Y)--	[8:0-4-0,Edge], [10:0-3-11,0-1-6], [12:0-10-10,Edge], [13:0-2-8,Edge]
-----------------------	---

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.39	12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.77	13-14	>620	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.57	Horz(CT) 0.26	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						
							Weight: 189 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-8,8-11: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-1 max.): 3-5.
BOT CHORD 2x4 SPF No.2 *Except* 10-12: 2x8 SP 2400F 2.0E, 12-13: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-14, 4-16, 4-14, 2-17

REACTIONS. (size) 17=0-3-8, 10=0-3-8
 Max Horz 17=-159(LC 13)
 Max Uplift 17=-200(LC 12), 10=-283(LC 13)
 Max Grav 17=1793(LC 1), 10=1855(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2101/329, 3-4=-1878/327, 4-5=-2478/419, 5-6=-2771/418, 6-7=-4717/724,
 7-9=-6304/972, 9-10=-6359/915
 BOT CHORD 16-17=-130/1523, 14-16=-142/2329, 13-14=-339/3306, 12-13=-483/4287,
 10-12=-799/5891
 WEBS 3-16=-59/443, 5-14=-36/639, 6-14=-1031/282, 6-13=-211/1423, 4-16=-855/199,
 4-14=-85/329, 2-17=-2096/299, 2-16=-15/630, 7-13=-629/199, 7-12=-351/1728

- 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 4-1-12, Interior(1) 4-1-12 to 10-3-14, Exterior(2R) 10-3-14 to 15-11-13, Interior(1) 15-11-13 to 20-8-2, Exterior(2R) 20-8-2 to 26-4-0, Interior(1) 26-4-0 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=200, 10=283.
 - This truss 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.



January 18, 2022

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



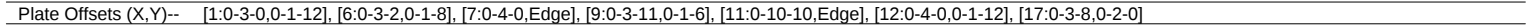
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:44:44 2022 Page 2

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-FRb1q0CBh_k5_ML88q_907mVcGrm09CnABdy0R0ZuJH5

6-6-2 12-8-11 18-3-5 24-5-1 24-5-15 30-6-12 31-0-1 36-0-0 40-0-0 44-0-0

6-6-2 6-2-10 6-0-10 6-1-12 0-0-14 6-0-13 0-5-5 5-8-7 3-3-8 0-10-8



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 4-7,7-10: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-7-5 max.): 3-4.
BOT CHORD	2x4 SPF No.2 *Except* 9-11: 2x8 SP 2400F 2.0E, 11-12: 2x6 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied.
WEBS	12-15: 2x4 SPF 1650F 1.5E 2x4 SPF No.2	WEBS	1 Row at midpt 3-16, 5-14, 6-13

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

TOP CHORD	1-2=-1920/288, 2-3=-2108/357, 3-4=-2155/384, 4-5=-2420/387, 5-6=-3293/483, 6-8=-6309/950, 8-9=-6361/882, 1-18=-1729/252
BOT CHORD	16-17=-138/1701, 14-16=-77/1872, 13-14=-233/2957, 12-13=-473/4104, 11-12=-472/4120, 9-11=-769/5892
WEBS	2-17=-696/157, 2-16=-38/384, 3-14=-156/636, 4-14=-31/472, 1-17=-218/1838, 5-14=-1099/265, 6-12=0/394, 6-13=-1284/269, 6-11=-330/1903, 5-13=-64/679

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFLD=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 4-1-12, Interior(1) 4-1-12 to 12-8-11, Exterior(2E) 12-8-11 to 18-3-5, Exterior(2R) 18-3-5 to 23-11-3, Interior(1) 23-11-3 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=197, 9=280.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 18, 2022



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	B03	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:46 2022 Page 1
ID: tjnOHGeVPJTyi41JASwyTKzhfUX-BpioFiDSDB_pEgVTGF0dTYRsqS6FY1m_dXRBjGzduNS		02/09/2022
7-10-12	15-6-0	22-6-13
7-10-12	7-7-4	7-0-13
		0-6-7
		6-6-7
		1-4-5
		5-8-8
		3-3-8
		0-10-8

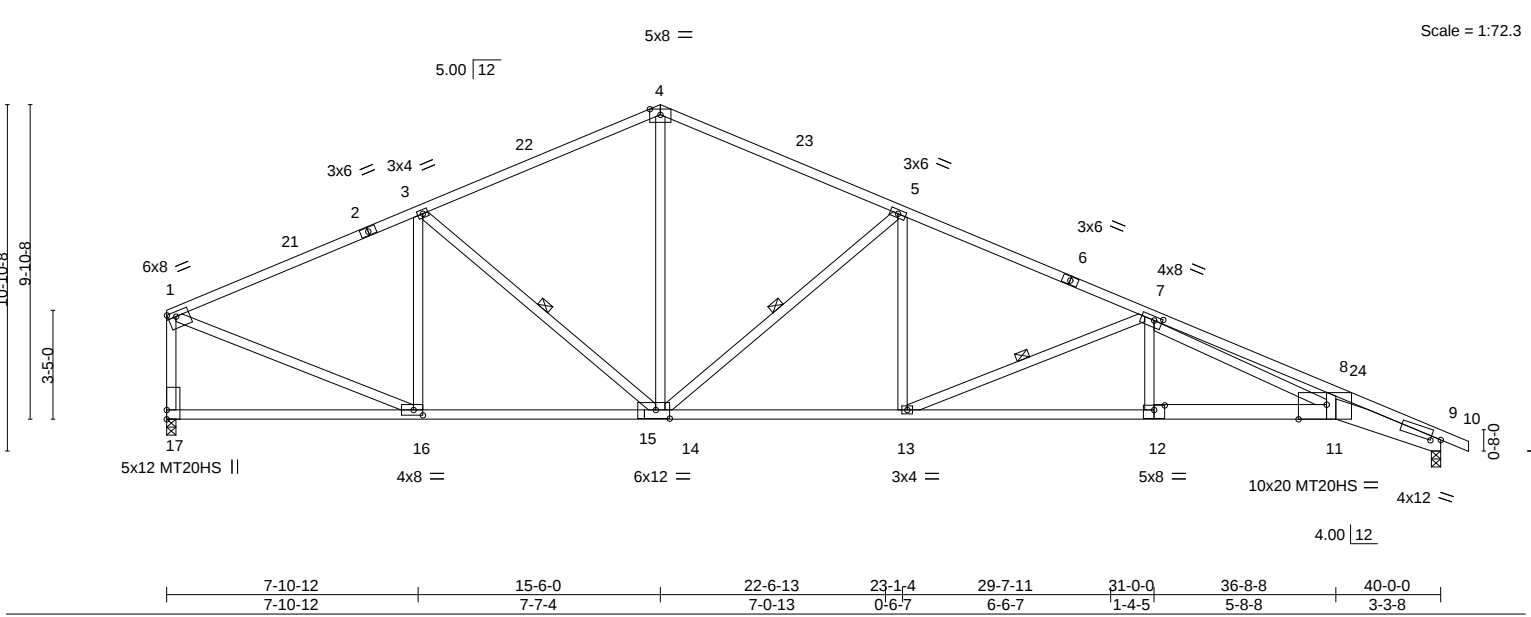


Plate Offsets (X,Y)--		[1:0-3-0,0-1-12], [7:0-3-2,0-1-8], [9:0-3-11,0-1-6], [11:0-10-10,Edge], [12:0-4-0,0-1-12], [15:0-5-4,0-3-4], [16:0-3-8,0-2-0]
LOADING (psf)	SPACING-	CSI.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88
TCDL 10.0	Lumber DOL 1.15	BC 0.79
BCLL 0.0	Rep Stress Incr YES	WB 0.59
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS
		DEFL.
		in (loc) l/defl L/d
		Vert(LL) -0.42 11-12 >999 240
		Vert(CT) -0.76 11-12 >632 180
		Horz(CT) 0.26 9 n/a n/a
		PLATES
		MT20 197/144
		MT20HS 148/108
		Weight: 189 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 6-10: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 9-11: 2x8 SP 2400F 2.0E, 11-12: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 12-15: 2x4 SPF 1650F 1.5E 2x4 SPF No.2	WEBS 1 Row at midpt 3-14, 5-14, 7-13

REACTIONS.	(size) 17=0-3-8, 9=0-3-8
	Max Horz 17=-196(LC 13)
	Max Uplift 17=-192(LC 12), 9=-276(LC 13)
	Max Grav 17=1793(LC 1), 9=1855(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 1-3=-2070/289, 3-4=-2063/346, 4-5=-2061/356, 5-7=-3126/444, 7-8=-6286/928, 8-9=-6351/866, 1-17=-1716/250	
BOT CHORD 14-16=-155/1824, 13-14=-185/2790, 12-13=-463/4121, 11-12=-462/4138, 9-11=-752/5878	
WEBS 3-16=-561/151, 4-14=-123/1009, 5-14=-1293/315, 1-16=-209/1884, 5-13=-47/691, 7-12=0/424, 7-13=-1440/301, 7-11=-321/1865	

- 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) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 15-6-0, Exterior(2R) 15-6-0 to 19-6-0, Interior(1) 19-6-0 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Bearing at joint(s) 9 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) 17=192, 9=276.
 - This truss 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.



January 18,2022

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MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	B03A	Hip	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:47 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-f0GAT2E4_v6grq4fqzX50L_1RrSHV573AAmFzduhz

02/09/2022

7-8-8	15-1-8	15-10-8	22-9-13	23-3-8	29-9-3	31-0-0	36-8-8	40-0-0
7-8-8	7-5-0	0-9-0	6-11-5	0-5-11	6-5-11	1-2-13	5-8-8	3-3-8

Scale = 1:76.7

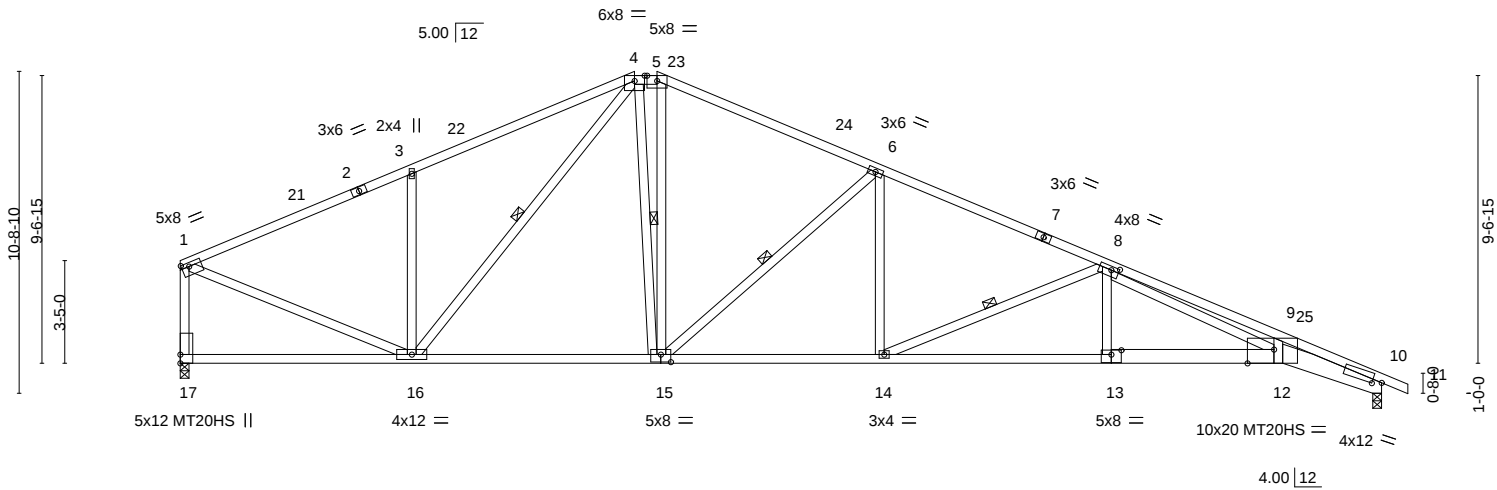


Plate Offsets (X,Y)--	[1:0-3-0,0-1-8], [8:0-3-2,0-1-8], [10:0-3-11,0-1-6], [12:0-10-10,Edge], [13:0-4-0,0-1-12], [15:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.89	Vert(LL) -0.42	12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.80	Vert(CT) -0.75	12-13	>636	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.54	Horz(CT) 0.26	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						
							Weight: 201 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 7-11: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-8 max.): 4-5.
BOT CHORD 2x4 SPF No.2 *Except* 10-12: 2x8 SP 2400F 2.0E, 12-13: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 13-15: 2x4 SPF 1650F 1.5E 2x4 SPF No.2	WEBS 1 Row at midpt 6-15, 8-14, 4-16, 4-15

REACTIONS. (size) 17=0-3-8, 10=0-3-8
 Max Horz 17=-192(LC 13)
 Max Uplift 17=-193(LC 12), 10=-277(LC 13)
 Max Grav 17=1793(LC 1), 10=1855(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-3=-2055/280, 3-4=-2067/388, 4-5=-1865/343, 5-6=-2125/344, 6-8=-3148/450,
 8-9=-6290/931, 9-10=-6352/869, 1-17=-1720/241
 BOT CHORD 15-16=-52/1817, 14-15=-192/2812, 13-14=-466/4118, 12-13=-464/4135, 10-12=-755/5880
 WEBS 3-16=-573/259, 5-15=-103/535, 1-16=-198/1885, 8-13=0/423, 6-15=-1246/304,
 6-14=-51/684, 8-14=-1418/297, 8-12=-323/1870, 4-16=-259/238, 4-15=-166/786

- 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) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 15-1-8, Exterior(2E) 15-1-8 to 15-10-8, Exterior(2R) 15-10-8 to 21-6-6, Interior(1) 21-6-6 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 17=193, 10=277.
 - This truss 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C01	Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:48 2022 Page 1
ID:tnOHGeVPJTyi41JASwyTKzhfUX-7CqYgOFilCEXT_es	Ng25YzWD6fMEQv8HsqwK9zduUn1	28-2-8 32-2-8

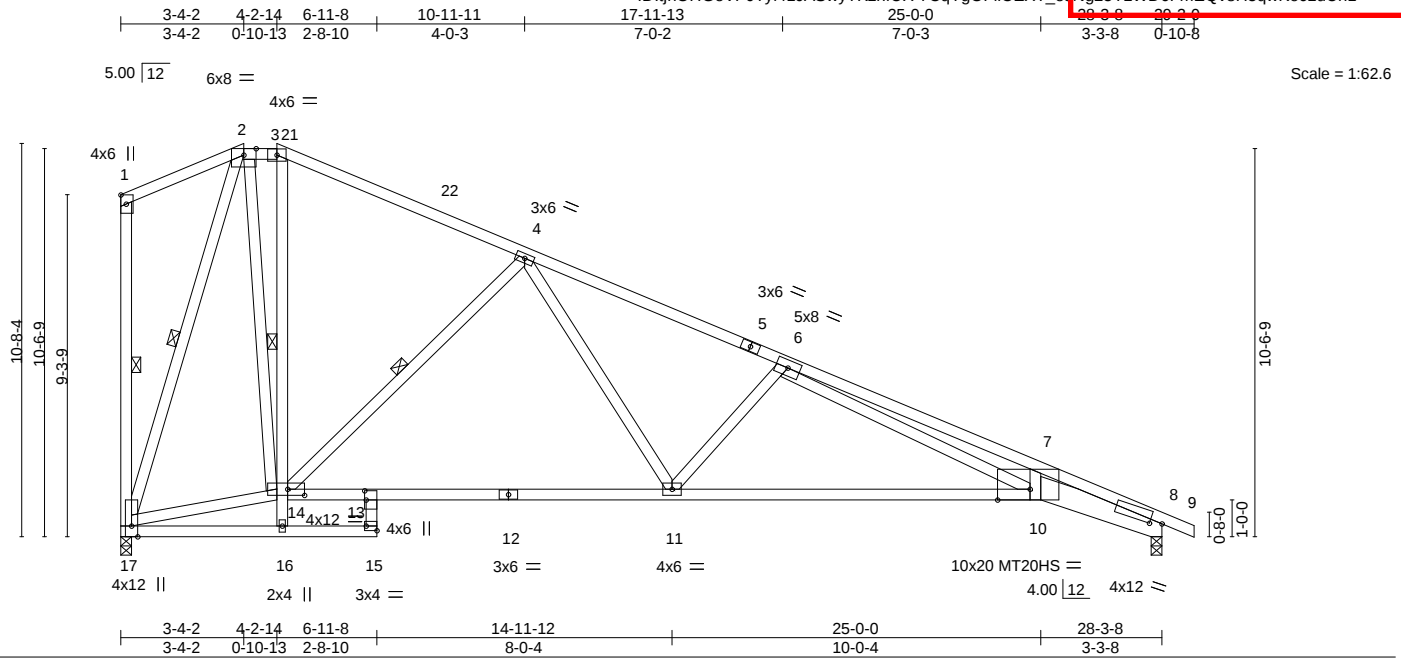


Plate Offsets (X,Y)--		[8:0-3-15,0-1-2], [10:0-10-10,Edge], [13:0-3-0,0-0-8], [14:0-5-8,0-2-0], [15:Edge,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(LL) -0.34 10-11 >995 240
BCLL 0.0	Rep Stress Incr YES	WB 0.66	Vert(CT) -0.78 10-11 >435 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.20 8 n/a n/a
			PLATES
			MT20 197/144
			MT20HS 148/108
			Weight: 161 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-9: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD 2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 4-14, 1-17, 3-16, 2-17

REACTIONS. (size) 17=0-3-8, 8=0-3-8
Max Horz 17=-354(LC 10)
Max Uplift 17=-209(LC 13), 8=-208(LC 13)
Max Grav 17=1266(LC 1), 8=1329(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-538/190, 3-4=-678/178, 4-6=-2083/333, 6-7=-5018/775, 7-8=-5047/685
BOT CHORD 16-17=-260/0, 15-16=-321/0, 13-14=0/1431, 11-13=-9/1317, 10-11=-242/2355, 8-10=-597/4695
WEBS 4-14=-1114/310, 4-11=-139/988, 6-11=-806/263, 6-10=-396/2534, 14-16=0/305, 14-17=0/555, 2-14=-208/1204, 2-17=-1305/165

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) 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) 0-1-12 to 4-2-14, Exterior(2R) 4-2-14 to 8-5-13, Interior(1) 8-5-13 to 29-2-0 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
 - 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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=209, 8=208.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 18,2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C02	Hip	1	1	Job Reference (optional)

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

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:49 2022 Page 1
ID: tjnOHGeVPJTiy41JASwyTKzhfUX-cOOwukGKWWMO57D2xNZK5A3LKr6Q9OyQJUmkbzJuno

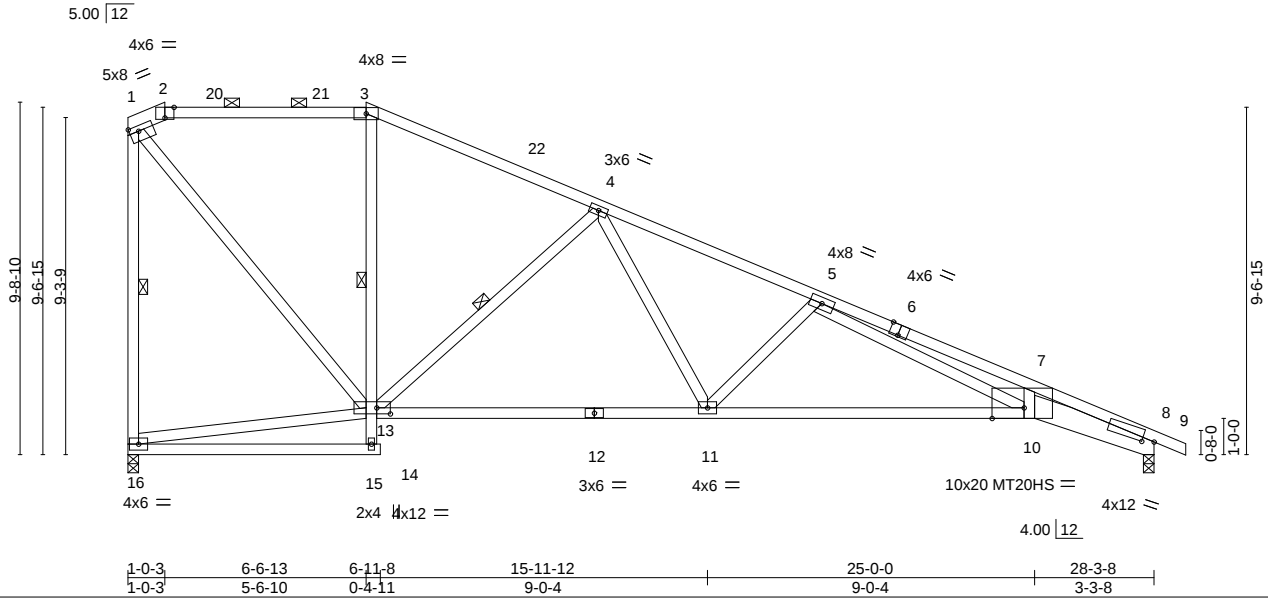


Plate Offsets (X,Y)--		[1:0-3-0,0-1-12], [2:0-3-0,Edge], [6:0-3-0,Edge], [8:0-3-15,0-1-2], [10:0-10-10,Edge], [13:0-4-8,0-2-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 1.00	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(LL) -0.31 10-11 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.56	Vert(CT) -0.65 10-11 >524 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.18 8 n/a n/a
			PLATES GRIP
			MT20 197/144
			MT20HS 148/108
			Weight: 144 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-2: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD 2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-16, 3-15, 4-13

REACTIONS. (size) 16=0-3-8, 8=0-3-8
Max Horz 16=-352(LC 10)
Max Uplift 16=-171(LC 8), 8=-205(LC 13)
Max Grav 16=1267(LC 1), 8=1329(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-838/220, 2-3=-805/209, 3-4=-952/202, 4-5=-2231/332, 5-7=-4929/750,
7-8=-4980/678, 1-16=-1193/200
BOT CHORD 11-13=-52/1569, 10-11=-260/2514, 8-10=-585/4624
WEBS 13-16=-220/330, 1-13=-191/1232, 4-13=-1054/278, 4-11=-95/886, 5-11=-767/236,
5-10=-362/2292

- 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) 0-1-12 to 1-0-3, Exterior(2R) 1-0-3 to 5-3-2, Interior(1) 5-3-2 to 6-6-13, Exterior(2R) 6-6-13 to 10-9-11, Interior(1) 10-9-11 to 29-2-0 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
 - 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.
 - Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=171, 8=205.
 - This truss 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.



January 18, 2022

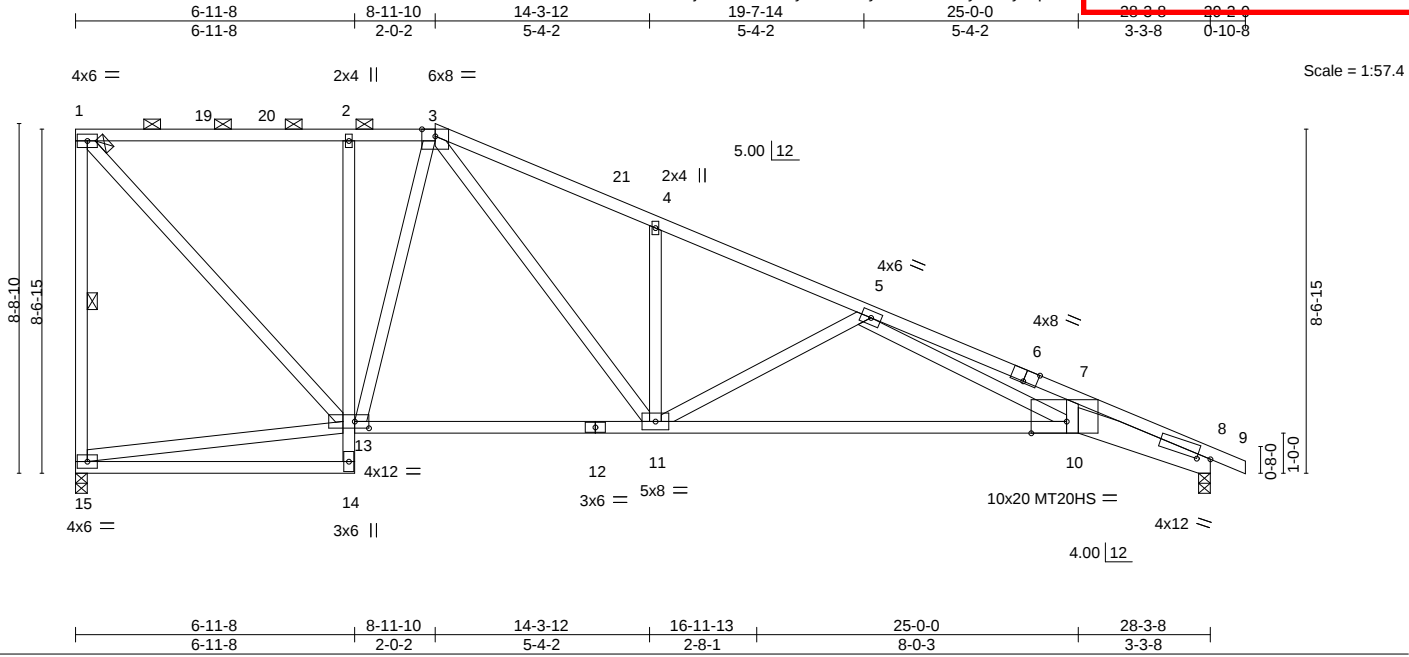
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C03	Half Hip	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:50 2022 Page 1

ID:tnOHGeVPJTiy41JASwyTKzhfUX-4byl53HyHqUFIHhEV55ZecKm3Rdd1a76PRs12aUn7

02/09/2022



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.35 10-11 >952 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.83 10-11 >407 180	MT20HS		148/108	
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.17 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 149 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-0-8 max.): 1-3.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 1-15

REACTIONS. (size) 15=0-3-8, 8=0-3-8
 Max Horz 15=-326(LC 10)
 Max Uplift 15=-194(LC 8), 8=-201(LC 13)
 Max Grav 15=1266(LC 1), 8=1329(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-15=-1198/184, 1-2=-922/206, 2-3=-919/205, 3-4=-2022/365, 4-5=-2030/276,
 5-7=-4994/685, 7-8=-5069/623
 BOT CHORD 2-13=-443/165, 11-13=0/1049, 10-11=-279/2593, 8-10=-531/4701
 WEBS 13-15=-186/264, 1-13=-176/1339, 3-13=-474/166, 4-11=-354/169, 3-11=-259/1261,
 5-10=-281/2297, 5-11=-901/249

- 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 8-11-10, Exterior(2R) 8-11-10 to 13-2-8, Interior(1) 13-2-8 to 29-2-0 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
 - 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.
 - Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=194, 8=201.
 - This truss 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.



January 18, 2022

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

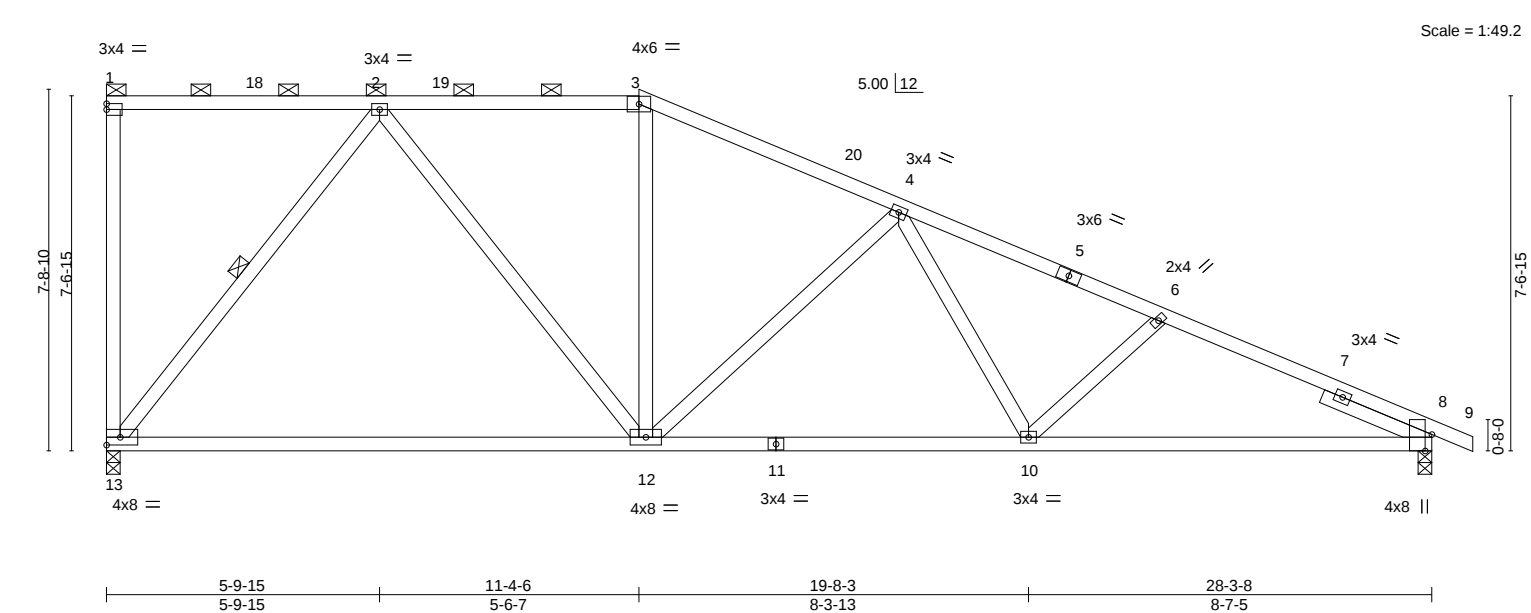
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 #114/MO
3044392	C04	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:50 2022 Page 1	
ID:tnOHGeVPJTyi41JASwyTKzhfUX-YnWhlPHa27c6KRUR3ocoAb8osThOUgwYm08_C0UzuUj_					
5-9-15	11-4-6	16-10-15	22-5-7	5-6-9	5-10-1
5-9-15	5-6-7	5-6-9	5-6-9	5-6-9	0-10-8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.43 12-13 >780 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.88 12-13 >385 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.06 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 125 lb FT = 20%			

LUMBER-				BRACING-			
TOP CHORD	2x4 SPF No.2			TOP CHORD	Structural wood sheathing directly applied, except end verticals, and		
BOT CHORD	2x4 SPF No.2				2-0-0 oc purlins (4-11-13 max.): 1-3.		
WEBS	2x4 SPF No.2			BOT CHORD	Rigid ceiling directly applied.		
SLIDER	Right 2x4 SPF No.2 2-6-0			WEBS	1 Row at midpt	2-13	

REACTIONS.							
(size)	13=0-3-8, 8=0-3-8						
Max Horz	13=-287(LC 10)						
Max Uplift	13=-202(LC 8), 8=-192(LC 13)						
Max Grav	13=1266(LC 1), 8=1329(LC 1)						

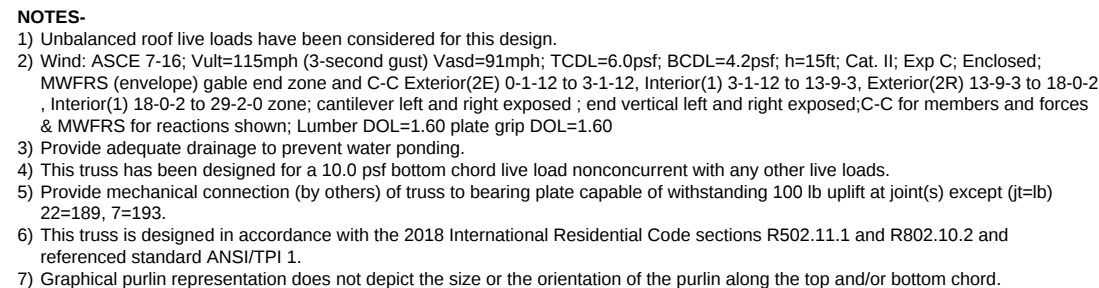
FORCES.							
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.							
TOP CHORD	2-3=-1217/232, 3-4=-1393/229, 4-6=-2115/311, 6-8=-2329/347						
BOT CHORD	12-13=0/796, 10-12=-113/1712, 8-10=-247/2100						
WEBS	2-13=-1250/247, 2-12=-99/681, 4-12=-681/224, 4-10=-48/384, 6-10=-289/153						

- 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 11-4-6, Exterior(2R) 11-4-6 to 15-7-5, Interior(1) 15-7-5 to 29-2-0 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
 - 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) 13=202, 8=192.
 - This truss 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.



Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:45:52 2022 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-0z43WlCpRkzypdcW7tjphwfs9DMiXs?Su1rwwzduGz



January 18, 2022



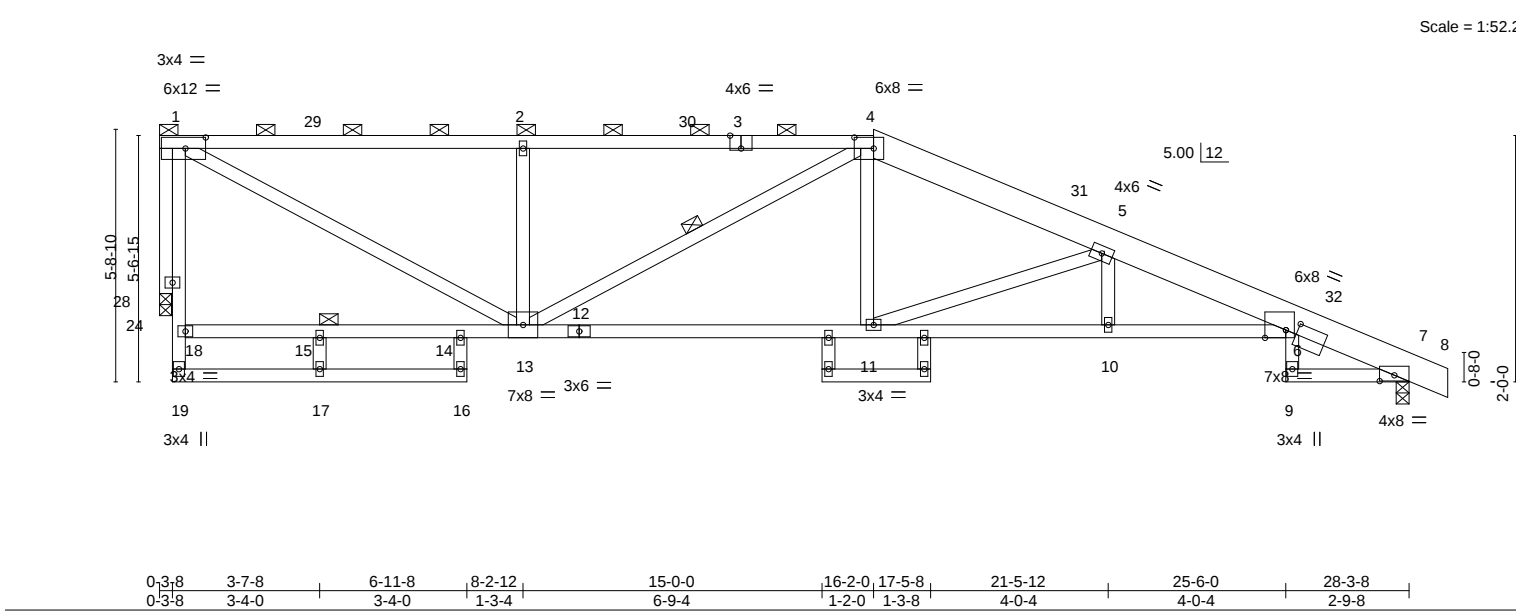
WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MHF433 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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, 2602 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C06	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:53 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-UAerJ5JrZltpZlXpADeGF0E24NGUE5980Edd5SMZduUgy 149734713
 02/09/2022



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.28	6-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.50	6-10	>670		
BCLL 0.0	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.22	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 155 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-8: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 1-4.
BOT CHORD 2x4 SPF No.2 *Except* 6-12: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 4-13
OTHERS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 15, 1

REACTIONS. (size) 7=0-3-8, 28=0-3-4
 Max Horz 28=-165(LC 13)
 Max Uplift 7=-221(LC 13), 28=-201(LC 9)
 Max Grav 7=1329(LC 1), 28=1239(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1816/311, 2-4=-1816/311, 4-5=-2343/382, 5-6=-3363/525, 6-7=-561/122
 BOT CHORD 11-13=-188/2116, 10-11=-430/3304, 6-10=-432/3311
 WEBS 4-11=-31/592, 5-11=-1289/260, 2-13=-598/210, 4-13=-341/123, 1-13=-298/1889,
 1-28=-1247/203

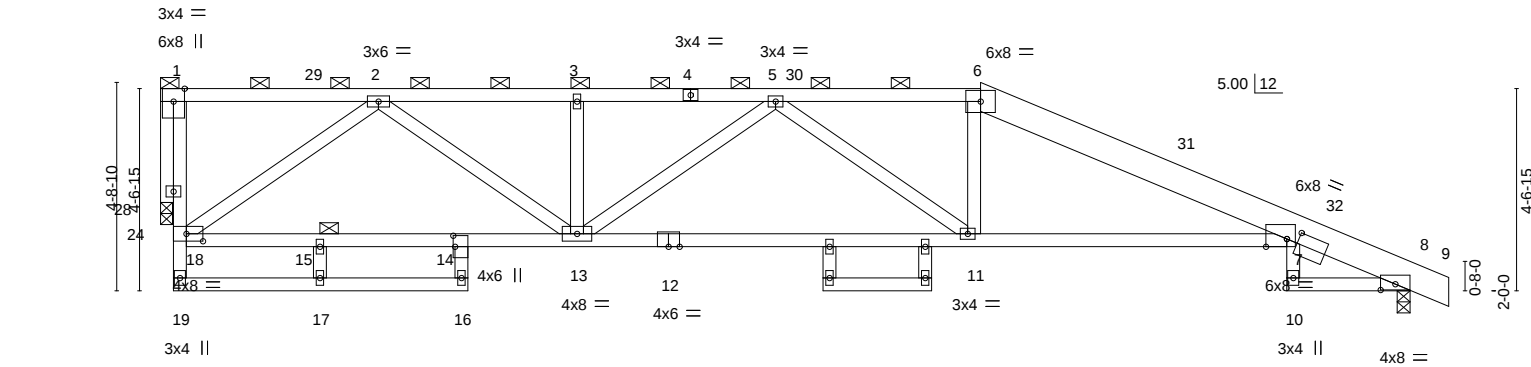
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 16-2-0, Exterior(2R) 16-2-0 to 20-4-15, Interior(1) 20-4-15 to 29-2-0 zone; cantilever 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) Provide adequate drainage to prevent water ponding.
 - 3) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Bearing at joint(s) 28 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=221, 28=201.
 - 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C07	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:54 2022 Page 1		
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-yMBpxRKTk2?gBt60kx9V6emHjgorqzK94mNe_pz0Ug			60kx9V6emHjgorqzK94mNe_pz0Ug		
4-11-3	6-11-8	9-5-2	10-11-12	13-11-2	15-0-0
4-11-3	2-0-5	2-5-10	1-6-10	2-11-6	1-0-14
					2-5-8
					1-1-5
					6-11-3
					2-9-8
					0-10-8
Scale = 1:52.2					



0-3-8	3-7-5	6-11-8	9-5-2	15-0-0	17-5-8	18-6-13	25-6-0	28-3-8
0-3-8	3-3-13	3-4-3	2-5-10	5-6-14	2-5-8	1-1-5	6-11-3	2-9-8
Plate Offsets (X,Y)-- [7:0-5-11,Edge], [7:0-3-1,0-3-1], [8:0-4-0,0-1-9], [14:0-3-0,0-0-8], [18:0-4-8,0-2-0]								

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.39	7-11	>874	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.71	7-11	>473	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.27	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
									Weight: 142 lb	FT = 20%

LUMBER-			BRACING-		
TOP CHORD	2x4 SPF No.2 *Except*		TOP CHORD	Structural wood sheathing directly applied, except end verticals, and	
	6-9: 2x8 SP 2400F 2.0E			2-0-0 oc purlins (3-3-10 max.): 1-6.	
BOT CHORD	2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied.	
WEBS	2x4 SPF No.2		JOINTS	1 Brace at Jt(s): 1, 15	
OTHERS	2x4 SPF No.2				

REACTIONS.	(size) 8=0-3-8, 28=0-3-4
	Max Horz 28=-134(LC 8)
	Max Uplift 8=-219(LC 13), 28=-208(LC 9)
	Max Grav 8=1329(LC 1), 28=1239(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	18-24=-156/1094, 1-24=-156/1094, 2-3=-2457/403, 3-5=-2457/403, 5-6=-2572/420, 6-7=-2712/392, 7-8=-561/121
BOT CHORD	15-18=-210/1446, 14-15=-210/1446, 13-14=-199/1530, 11-13=-353/2711, 7-11=-262/2565
WEBS	6-11=0/303, 3-13=-316/109, 5-13=-315/155, 2-13=-147/1148, 2-18=-1707/319, 1-28=-1251/210

- 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) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 18-6-13, Exterior(2R) 18-6-13 to 22-9-11, Interior(1) 22-9-11 to 29-2-0 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) Provide adequate drainage to prevent water ponding.
 - 3) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Bearing at joint(s) 28 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=219, 28=208.
 - 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.



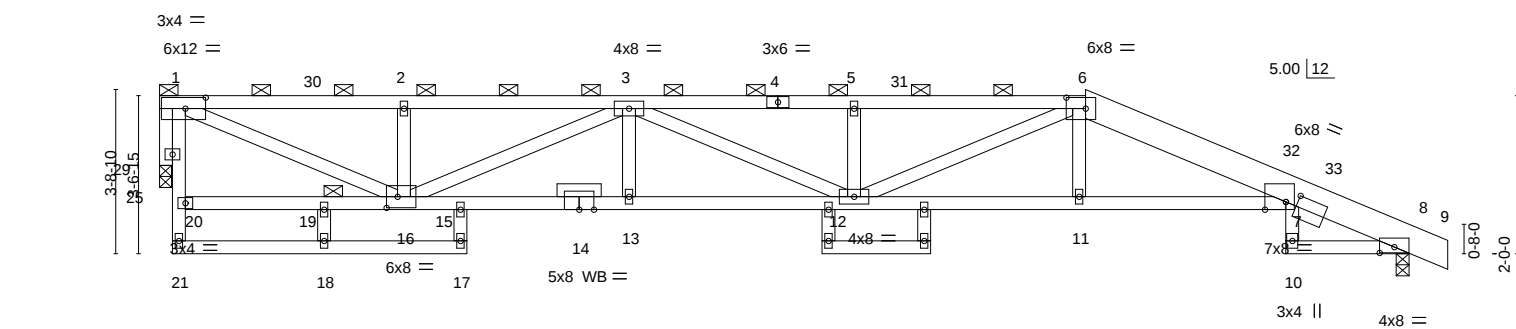
January 18,2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601		ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C08	Half Hip	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:55 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-QYIB8nK55M7Xp2hClegkLRJSw49Mz3NtQ6CWFzUgW
 149734715
 02/09/2022

Scale = 1:52.2



0-3-8	3-8-11	5-6-6	6-11-8	10-7-9	15-0-0	15-8-11 17-5-8	20-11-10	25-6-0	28-3-8
0-3-8	3-5-3	1-9-11	1-5-2	3-8-1	4-4-7	0-8-11 1-8-13	3-6-2	4-6-6	2-9-8

Plate Offsets (X,Y)-- [1:0-5-8,0-3-0], [6:0-5-4,0-3-0], [7:0-3-1,0-3-1], [7:0-5-11,Edge], [8:0-4-0,0-1-9], [16:0-3-0,0-3-0]									
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 0.67	Vert(LL)	-0.40	12	>850	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.72	12-13	>471		
BCLL 0.0	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.24	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 137 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 6-9: 2x8 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-6-9 max.): 1-6.
BOT CHORD 2x4 SPF No.2 *Except* 7-14: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 1, 19
OTHERS 2x4 SPF No.2	

REACTIONS. (size) 8=0-3-8, 29=0-3-4
 Max Horz 29=-110(LC 8)
 Max Uplift 8=-215(LC 13), 29=-214(LC 9)
 Max Grav 8=1329(LC 1), 29=1239(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2465/454, 2-3=-2465/454, 3-5=-3893/657, 5-6=-3893/657, 6-7=-3201/483,
 7-8=-561/119
 BOT CHORD 15-16=-557/3692, 13-15=-568/3709, 12-13=-568/3709, 11-12=-394/3114, 7-11=-399/3119
 WEBS 5-12=-349/132, 6-12=-196/850, 2-16=-367/135, 1-16=-413/2426, 3-16=-1363/232,
 1-29=-1276/221

- 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) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 20-11-10, Exterior(2R) 20-11-10 to 25-2-8, Interior(1) 25-2-8 to 29-2-0 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) Provide adequate drainage to prevent water ponding.
 - 3) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=215, 29=214.
 - 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.



January 18, 2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:59 2022 Page 2
 ID:tjnOHGeVPJTyt41JASwyTKzhfUX-r7RKmpNzOHV6gWpzmERy4xvbfFmU2UOLStazdUgt
 3-5-12 3-7-8 6-11-8 12-3-6 15-0-0 17-5-8 17-9-0 20-5-13 23-4-6 25-6-0 28-2-8 30-2-9
 3-5-12 0-1-12 3-4-0 5-3-14 2-8-10 2-5-8 0-3-8 2-8-13 2-10-9 2-1-10 2-9-8 0-10-8

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 7-10: 2x8 SP 2400F 2.0E, 5-7: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-4 max.): 1-7.
BOT CHORD	2x4 SPF No.2 *Except* 19-20,8-19: 2x6 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17,14-15.
WEBS	2x4 SPF No.2		
OTHERS	2x4 SPF No.2		

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

TOP CHORD 2-3=6722/162, 3-4=7211/1891, 4-6=9574/2548, 6-7=9015/2394, 7-8=6325/1627,
8-9=6711/203

BOT CHORD 21-22=128/664, 3-20=336/151, 18-20=2478/9574, 17-18=2324/9015,
14-17=2253/8729, 13-14=2324/9015, 12-13=1562/6293, 8-12=1540/6201

WEBS 4-20=2422/704, 6-18=192/573, 7-12=116/524, 6-13=583/221, 7-13=780/2787,
2-22=3379/951, 20-22=621/2229, 2-20=1020/4136

LOAD CASE(S) Standard
Continued on page 2



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	C09	Half Hip Girder	1	2	Job Reference (optional)

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:59 2022 Page 2
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-JJ?i_8Ob9bdzhg_zXUlgvH64wnb6VXluc24Fg0zdUgs

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

02/09/2022

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-7=-70, 7-10=-70, 21-22=-20, 17-20=-20, 8-14=-20, 15-16=-20, 11-23=-20
- Concentrated Loads (lb)
- Vert: 22=-34(B) 1=-74(B) 21=-26(B) 3=-46(B) 17=-47(B) 26=-56(B) 27=-46(B) 28=-46(B) 29=-21(B) 30=-21(B) 32=-21(B) 33=-21(B) 34=-44(B) 35=-17(B) 36=-17(B) 37=-17(B) 38=-51(B) 39=-29(B) 40=-26(B) 41=-26(B) 42=-47(B) 43=-47(B) 44=-47(B) 45=-24(B) 46=-51(B) 47=-51(B) 48=-51(B) 49=-75(B)



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D01	Common Supported Gable	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:10 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-nWZ4BUOEwulqvjZ94BGvzV6R9546EDu2riqzCSzdugr

02/09/2022

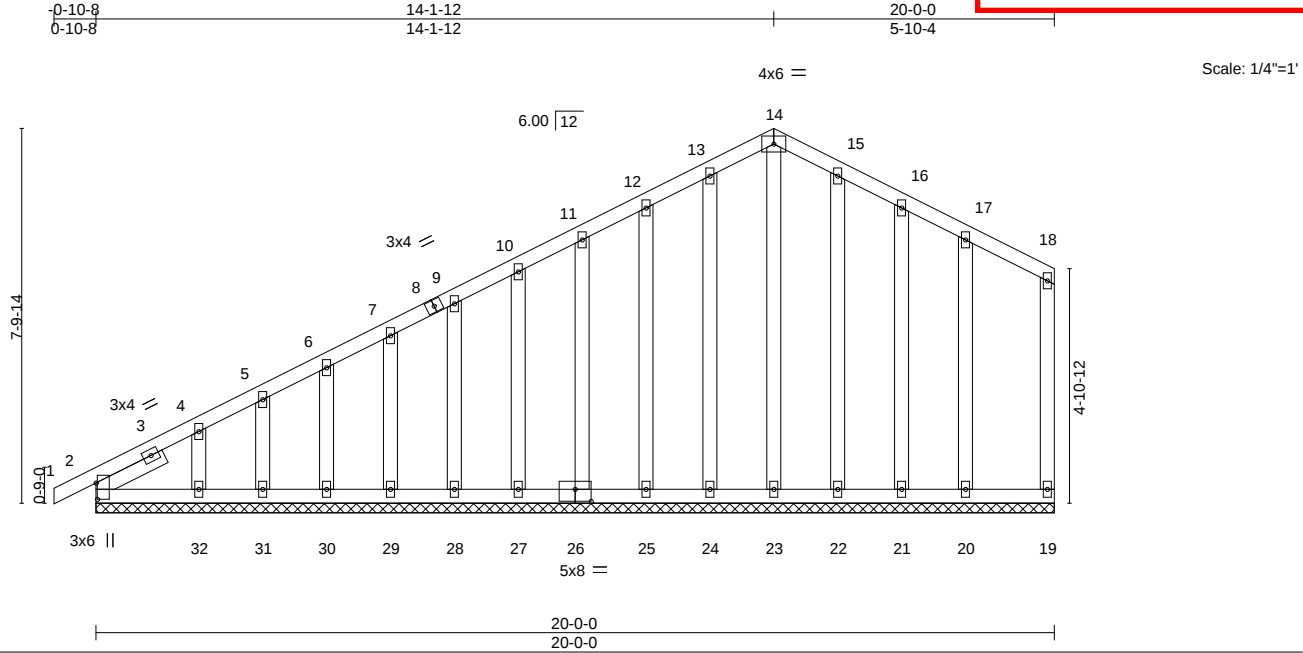


Plate Offsets (X,Y)--		[2:0-4-1,0-0-5], [26:0-4-0,0-3-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12
TCDL 10.0	Lumber DOL	1.15	BC 0.06
BCLL 0.0	Rep Stress Incr	YES	WB 0.12
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) -0.00 19 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 126 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 1-7-3	

REACTIONS. All bearings 20-0-0.
 (lb) - Max Horz 2=207(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 22, 21, 20
 Max Grav All reactions 250 lb or less at joint(s) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 22, 21, 20

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 2-1-12, Exterior(2N) 2-1-12 to 14-1-12, Corner(3R) 14-1-12 to 17-1-12, Exterior(2N) 17-1-12 to 19-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 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.



January 18, 2022

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

MiTek®
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D02	Common	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:10 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-Fi6TPqPshCthXztMevn8alzWVfFbzdzB4MZwkvZdUgq

02/09/2022

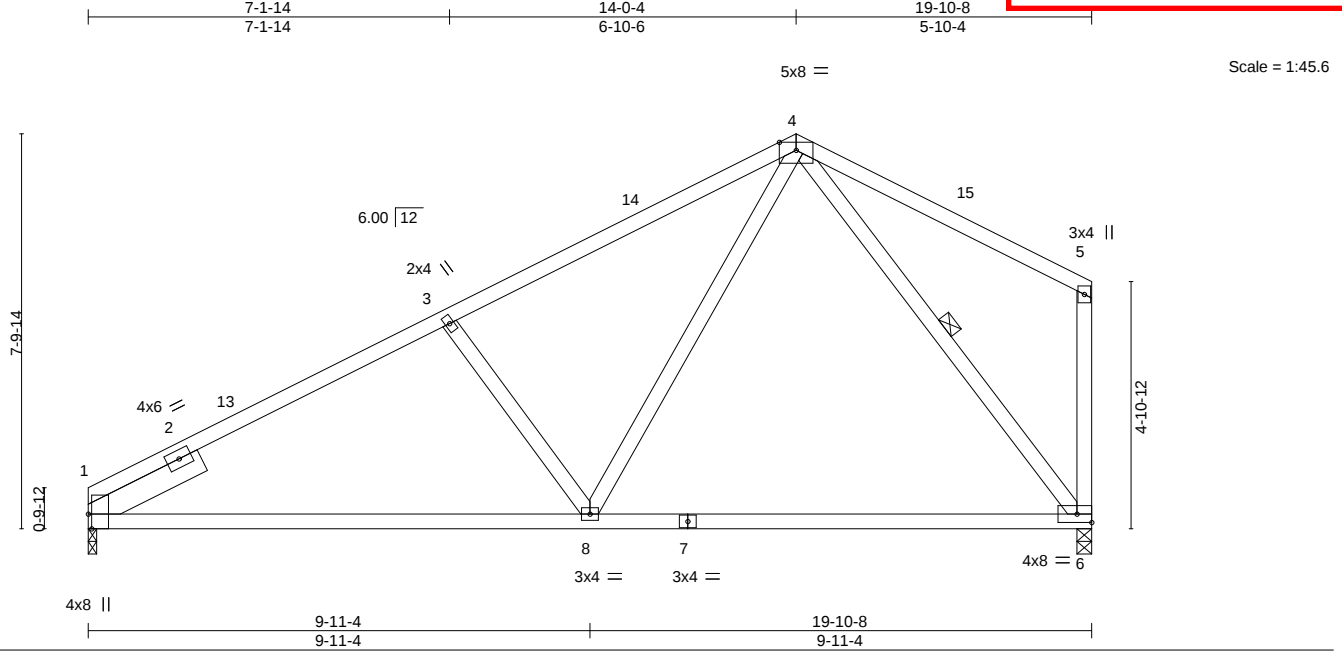


Plate Offsets (X,Y)-- [1:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.20	6-8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.40	6-8	>597	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 83 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-6

REACTIONS.

(size) 1=0-2-0, 6=0-3-8
Max Horz 1=201(LC 11)
Max Uplift 1=123(LC 12), 6=107(LC 12)
Max Grav 1=888(LC 1), 6=888(LC 1)

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

TOP CHORD 1-3=-1207/267, 3-4=-1012/273
BOT CHORD 1-8=-340/1059, 6-8=-171/492
WEBS 3-8=-461/227, 4-8=-117/668, 4-6=-747/213

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 14-0-4, Exterior(2R) 14-0-4 to 17-0-4, Interior(1) 17-0-4 to 19-8-12 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
- 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 at joint(s) 1.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=123, 6=107.
- This truss 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 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.



January 18, 2022

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

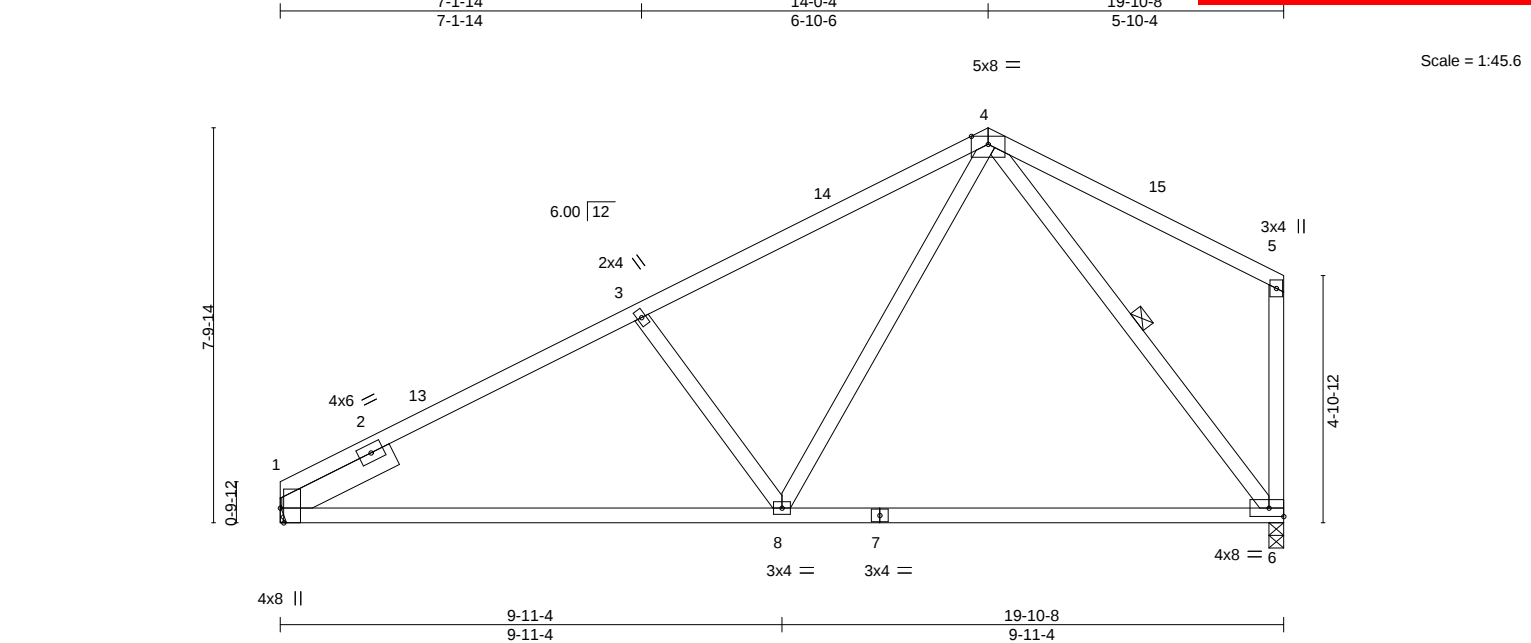
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D03	Common	2	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:12 2022 Page 1
ID:tnOHGeVPJTyi41JASwyTKzhfUX-jugrcAQUSW?Y97jYCCnVwShubqLCLJ0J5CLZdUgpr	149734719	02/09/2022



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.20 6-8 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.40 6-8 >597 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 83 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 4-6
SLIDER	Left 2x6 SPF No.2 2-6-0		

REACTIONS.	(size) 1=Mechanical, 6=0-3-8
	Max Horz 1=201(LC 11)
	Max Uplift 1=123(LC 12), 6=107(LC 12)
	Max Grav 1=888(LC 1), 6=888(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-1207/267, 3-4=-1012/273
BOT CHORD	1-8=-340/1059, 6-8=-171/492
WEBS	3-8=-461/227, 4-8=-117/668, 4-6=-747/213

- 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 14-0-4, Exterior(2R) 14-0-4 to 17-0-4, Interior(1) 17-0-4 to 19-8-12 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
 - 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) 1=123, 6=107.
 - This truss 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 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.



January 18,2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D04	Roof Special Girder	1	2	

Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:13 2022 Page 1					02/09/2022		
ID:tjnOHGEVpJTiy41JASwyTKzhfUx-B5EDqWR6Dp7PnHlkmKqr7etdlwFRJHAg26pnzduUgo											
-0-10-8	4-10-0	10-0-0	12-10-0	16-7-4	20-4-8	24-1-12	26-11-2	30-0-0			
0-10-8	4-10-0	5-2-0	2-10-0	3-9-4	3-9-4	3-9-4	2-9-6	3-0-14			

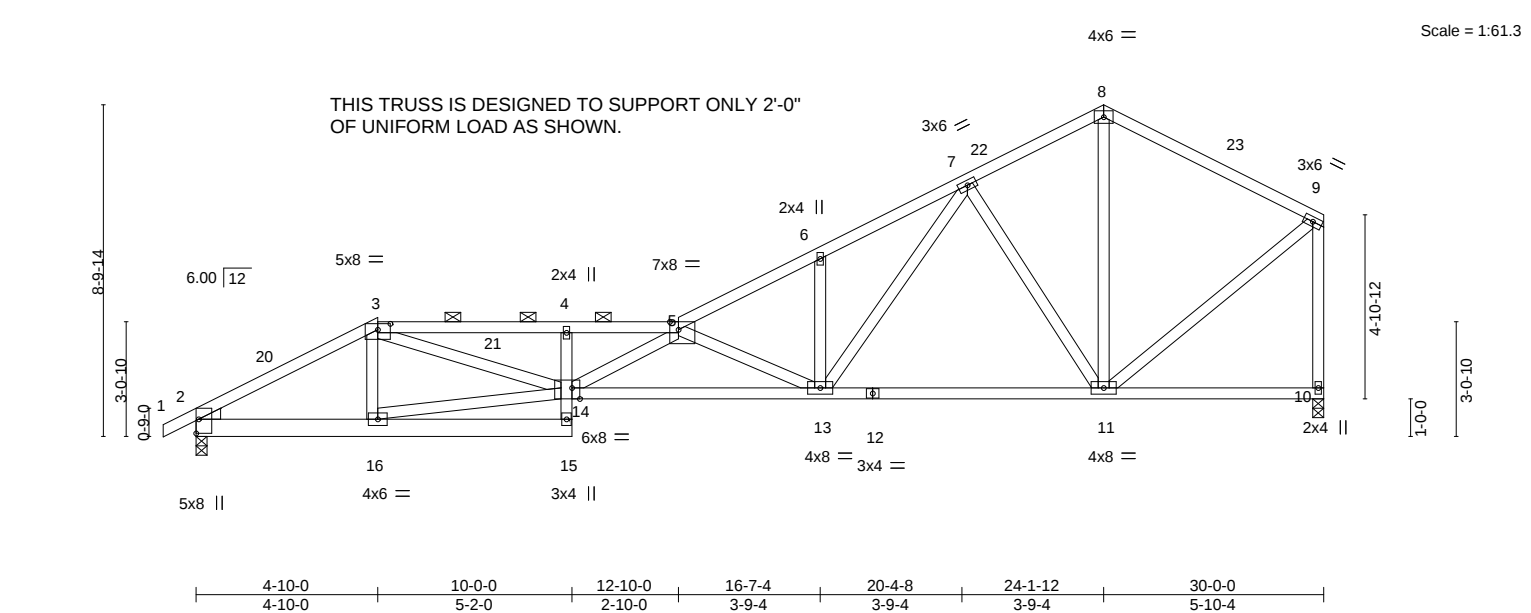


Plate Offsets (X,Y)-- [2:Edge,0-0-13], [3:0-4-0,0-1-15], [5:0-2-12,Edge], [14:0-2-8,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.21 13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.40 13-14	>907	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.08 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 290 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, and 2-0-0 oc purlins (5-3-6 max.): 3-5.
BOT CHORD 2x4 SPF No.2 *Except* 2-15: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 10=0-3-8
	Max Horz 2=227(LC 9)
	Max Uplift 2=-230(LC 12), 10=-181(LC 12)
	Max Grav 2=1406(LC 1), 10=1343(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2269/366, 3-4=-4890/837, 4-5=-5056/855, 5-6=-3058/474, 6-7=-3065/556, 7-8=-1003/226, 8-9=-1038/216, 9-10=-1295/212
BOT CHORD	2-16=-420/1973, 15-16=-85/459, 4-14=-416/126, 13-14=-961/5390, 11-13=-271/1513
WEBS	3-16=-340/117, 14-16=-347/1556, 3-14=-507/3078, 5-13=-2996/569, 6-13=-256/135, 7-11=-1238/305, 8-11=-114/581, 9-11=-146/1067, 5-14=-393/55, 7-13=-383/2071

- 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 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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; 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 4-10-0, Exterior(2R) 4-10-0 to 7-10-0, Interior(1) 7-10-0 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 100 lb uplift at joint(s) except (jt=lb) 2=230, 10=181.
 - 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.



January 18,2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D05	Roof Special	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:04 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-fHob1sRk_7FGORbxJ1LrCLBopDxA6P0mKRoALDzuUgm

0-10-8 6-6-0 10-0-0 14-6-0 19-3-14 24-1-12 30-0-0 36-0-0
 0-10-8 6-6-0 3-6-0 4-6-0 4-9-14 4-9-14 5-10-4

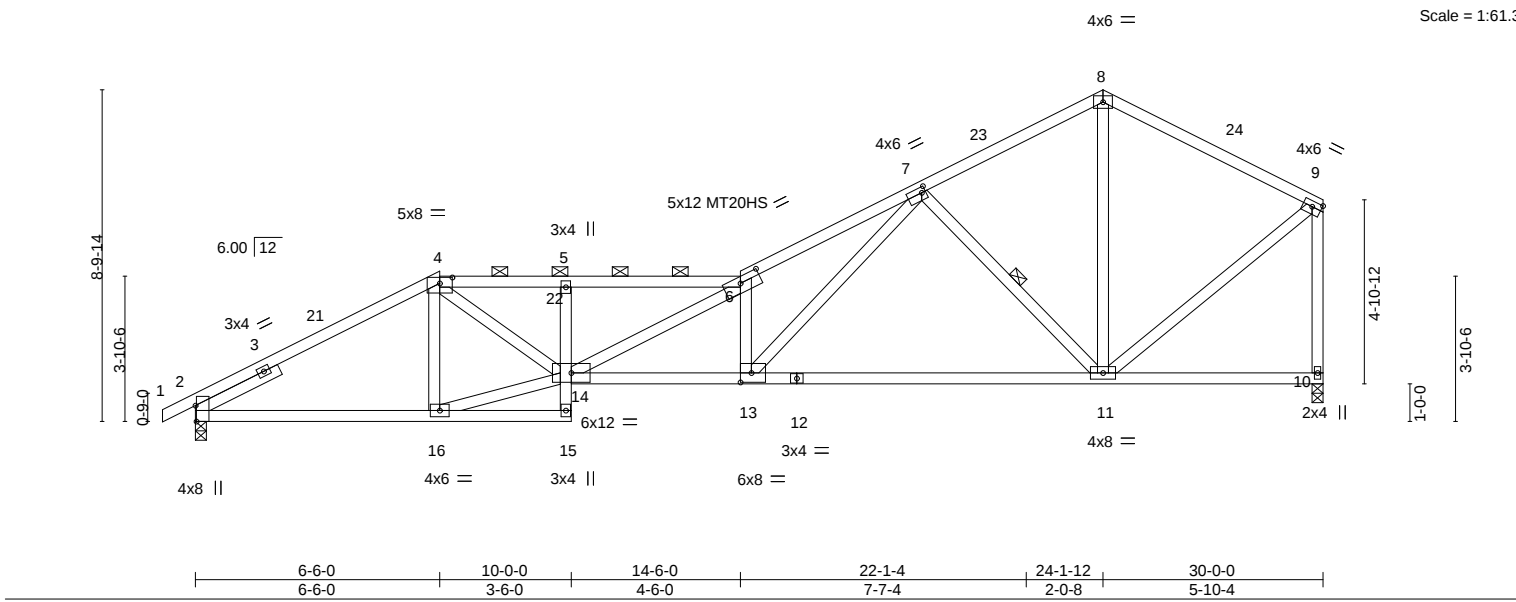


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [4:0-4-0,0-1-15], [6:0-6-8,0-2-0], [7:0-1-4,0-1-12], [9:Edge,0-1-12], [13:0-3-8,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.96	Vert(LL) -0.29 13-14 >999 240	MT20HS	148/108
BCLL 0.0	Lumber DOL 1.15	WB 0.71	Vert(CT) -0.60 11-13 >598 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.13 10 n/a n/a		
	Code IRC2018/TPI2014			Weight: 137 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (2-9-1 max.): 4-6.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-6-0	WEBS 1 Row at midpt 7-11

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=227(LC 9)
 Max Uplift 2=-230(LC 12), 10=-182(LC 12)
 Max Grav 2=1406(LC 1), 10=1343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2177/363, 4-5=-3404/607, 5-6=-3474/625, 6-7=-4282/730, 7-8=-1040/222,
 8-9=-1048/215, 9-10=-1304/211
 BOT CHORD 2-16=-398/1884, 5-14=-394/122, 13-14=-656/3859, 11-13=-327/1802
 WEBS 4-16=-444/144, 14-16=-390/1760, 4-14=-306/1906, 6-14=-445/12, 6-13=-1962/432,
 8-11=-96/554, 9-11=-147/1079, 7-11=-1371/345, 7-13=-487/2883

- 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 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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=230, 10=182.
 - This truss 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D06	Roof Special	1	1	Job Reference (optional)

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

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:05 2022 Page 1
ID: tjnOHGeVPJTyi41JASwyTKzhfUX-8TMzECsMIRN50bS7ks4Yj7m6bhwZbn2_XktgZuUgm

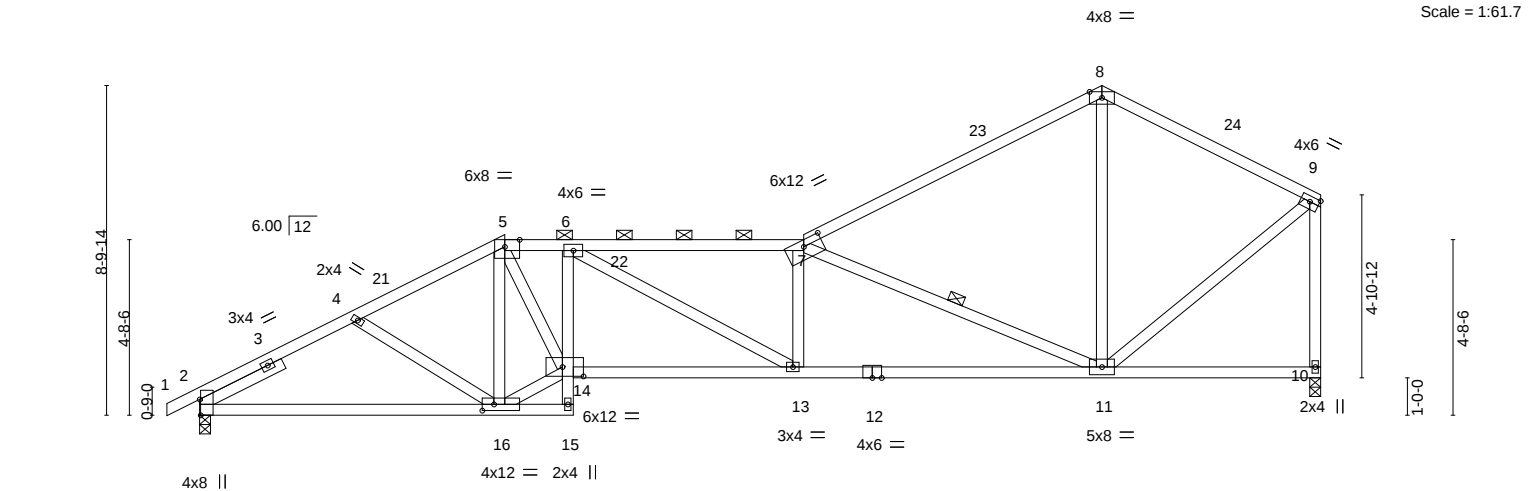


Plate Offsets (X,Y)--	[2:0-5-1,Edge], [5:0-4-12,Edge], [7:0-6-0,0-2-1], [9:Edge,0-1-12], [14:0-6-12,0-3-0], [16:0-3-12,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	Vert(LL) -0.21	13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.80	Vert(CT) -0.38	13-14	>944	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.13	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 138 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-10 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-11
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=227(LC 9)
Max Uplift 2=-230(LC 12), 10=-182(LC 12)
Max Grav 2=1406(LC 1), 10=1343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2164/384, 4-5=-2052/354, 5-6=-2638/496, 6-7=-2963/504, 7-8=-1103/214, 8-9=-1049/221, 9-10=-1297/217
BOT CHORD 2-16=-436/1868, 6-14=-506/131, 13-14=-516/2700, 11-13=-513/2962
WEBS 5-16=-883/215, 14-16=-373/1989, 5-14=-322/1781, 6-13=-19/300, 7-11=-2279/476, 8-11=-32/443, 9-11=-164/1097

- 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 8-2-0, Exterior(2R) 8-2-0 to 11-2-0, Interior(1) 11-2-0 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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=230, 10=182.
 - This truss 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D07	Roof Special	1	1	149734723

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:06 2022 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-cgwMSYT_WkVzdIO_RSNJHmGLOWx?czzwDeHtP6zdUgt

0-10-8 5-0-12 9-10-0 17-10-0 24-1-12 5-10-4
0-10-8 5-0-12 4-9-4 8-0-0 6-3-12

5x8 =

Scale = 1:59.3

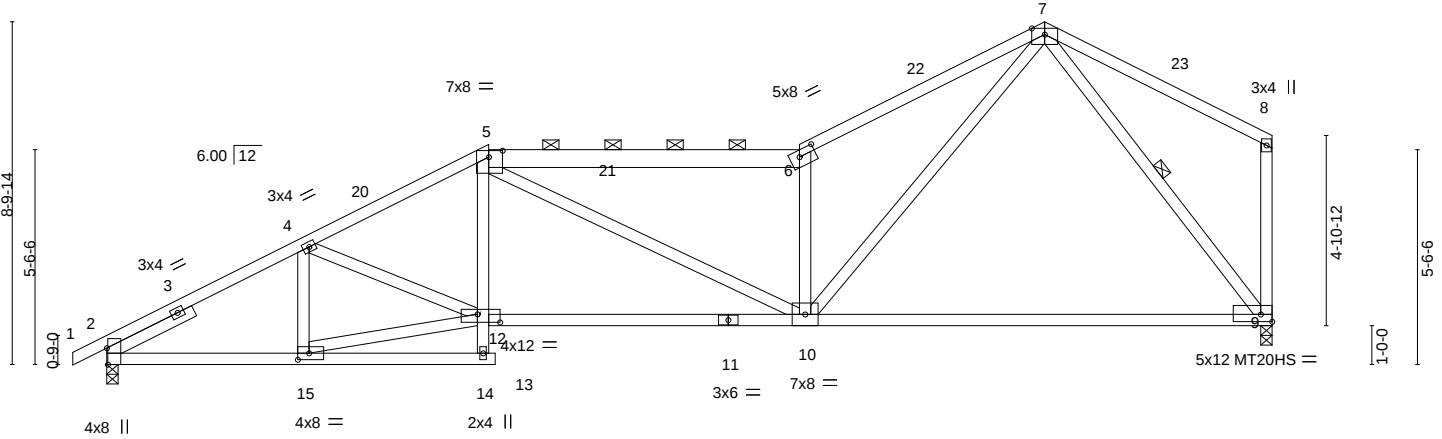


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [5:0-4-4,0-2-0], [6:0-5-0,0-2-0], [9:Edge,0-2-4], [12:0-7-0,0-2-8], [15:0-3-8,0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.46	9-10	>785	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.95	9-10	>379	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.09	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 142 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-13 max.): 5-6.
BOT CHORD 2x4 SPF No.2 *Except* 9-11: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-9
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=227(LC 9)
Max Uplift 2=228(LC 12), 9=181(LC 12)
Max Grav 2=1410(LC 1), 9=1345(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2186/361, 4-5=-2408/443, 5-6=-2345/392, 6-7=-2671/511
BOT CHORD 2-15=-411/1889, 10-12=-434/2128, 9-10=-184/827
WEBS 6-10=-1670/410, 5-12=-52/428, 5-10=-6/254, 4-15=-364/137, 12-15=-411/1883,
4-12=-47/262, 7-9=-1277/252, 7-10=-424/2304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) 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 9-10-0, Exterior(2R) 9-10-0 to 12-10-0, Interior(1) 12-10-0 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) 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=228, 9=181.
 - 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.



January 18, 2022

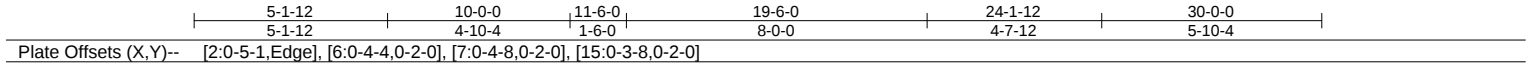
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:07 2022 Page 2
 ID:tjnOHGevPJTiy41JASwyTKzhfUX-4sUktUdG2dgubV79uTqzPvaVf7NvV4S10qYzduGk
 0-10-8 5-1-12 10-0-0 11-6-0 19-6-0 24-1-12 30-0-0
 0-10-8 5-1-12 4-10-4 1-6-0 8-0-0 4-7-12 5-10-4

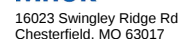


LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-6-0 max.): 6-7.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 6-11, 8-10
SLIDER	Left 2x4 SPF No.2 2-6-0		

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

TOP CHORD	2-4=-2176/365, 4-5=-2348/428, 5-6=-2251/456, 6-7=-1832/326, 7-8=-2091/421
BOT CHORD	2-15=-414/1883, 11-13=-386/1882, 10-11=-180/829
WEBS	7-11=-1358/348, 6-13=-101/577, 8-11=-355/1876, 8-10=-1296/237, 4-15=-368/128, 13-15=-382/1872

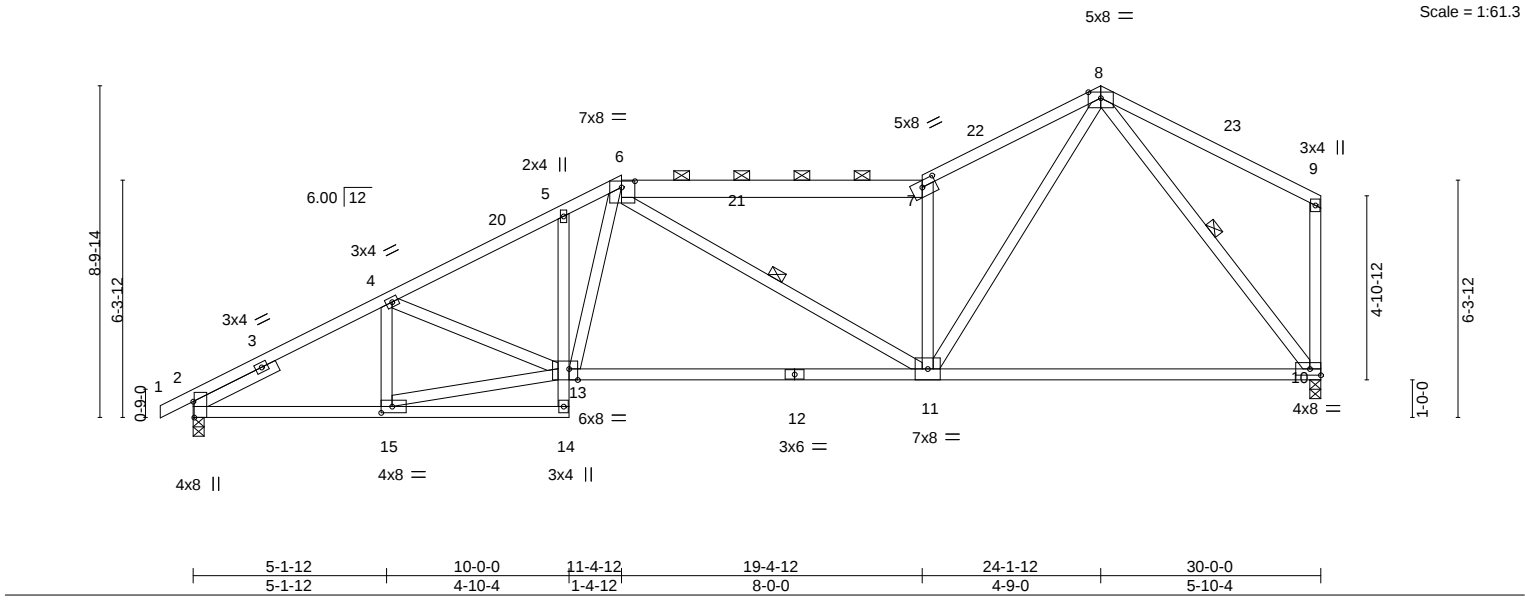
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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.



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D09	Roof Special	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:08 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-Y226tDUF1Mh2AiYtPmMBGjNj6Ley9BnymOU?zu6gi

02/09/2022



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.93	Vert(LL) -0.26 10-11 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.53 10-11 >677 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.09 10 n/a n/a		
	Code IRC2018/TPI2014			Weight: 148 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-11 max.): 6-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-11, 8-10
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=227(LC 9)
 Max Uplift 2=-230(LC 12), 10=-182(LC 12)
 Max Grav 2=1406(LC 1), 10=1343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2176/365, 4-5=-2348/428, 5-6=-2245/454, 6-7=-1860/330, 7-8=-2123/426
 BOT CHORD 2-15=-414/1883, 11-13=-389/1896, 10-11=-181/829
 WEBS 7-11=-1375/352, 6-13=-97/557, 8-11=-359/1898, 8-10=-1294/239, 4-15=-367/129,
 13-15=-384/1868

- 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 11-4-12, Exterior(2R) 11-4-12 to 14-4-12, Interior(1) 14-4-12 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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=230, 10=182.
 - This truss 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.



January 18, 2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:09 2022 Page 2
 ID:tjnOHGevPJty41JASwyTKzhfUX-0FbU4ZVtofufYUClu6aw0V0u6Cj2SRfVwWwcvXoRzduogr 00000
 0-10-8 5-0-2 9-8-12 13-7-0 17-8-12 24-1-12 30-0-0
 0-10-8 5-0-2 9-8-10 3-10-4 4-1-12 6-5-0 5-10-4



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (3-8-0 max.): 5-7.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0	WEBS	1 Row at midpt 7-11

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

TOP CHORD 2-4=-2189/362, 4-5=-2379/436, 5-6=-2110/424, 6-7=-2346/402, 7-8=-1062/222,
8-9=-1041/221, 9-10=-1289/222

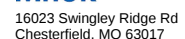
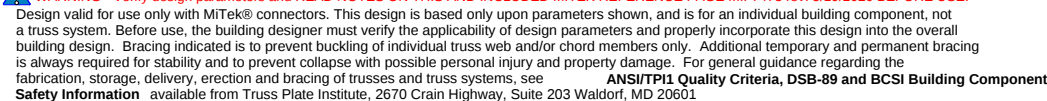
BOT CHORD 2-17=-413/1893, 12-14=-434/2369, 11-12=-386/2338

WEBS 7-12=0/287, 7-11=-1772/367, 8-11=-61/471, 9-11=-164/1075, 5-14=-83/715,
4-17=-351/134, 14-17=-414/1872, 6-14=-385/95

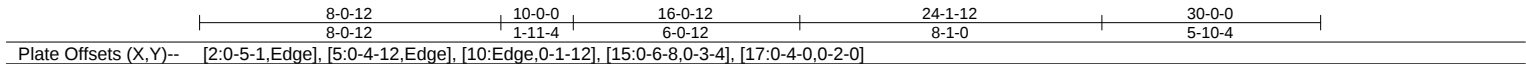
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-8-12, Exterior(2R) 9-8-12 to 12-8-12, Interior(1) 12-8-12 to 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=228, 10=181.
- 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.



January 18, 2022



Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:11 2022 Page 1
 ID:tnOHGeVPJTiy41JASwyTKzhfUX-ydjFVFX7KH8GKwHE?z0_pzBqXgeJLUnV_25JzduGg
 -0-10-8 4-2-2 8-0-12 10-0-0 16-0-12 20-1-4 24-1-12 30-0-0
 0-10-8 4-2-2 3-10-10 1-11-4 6-0-12 4-0-8 4-0-8 5-10-4



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-6-11 max.): 5-7.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0	WEBS	1 Row at midpt 8-12

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

TOP CHORD
2-4=-2164/384, 4-5=-2057/355, 6-6=-2688/506, 6-7=-2979/493, 7-8=-3330/591,
8-9=-1014/227, 9-10=-1042/217, 10-11=-1296/216

BOT CHORD
2-17=-436/1867, 6-15=-527/127, 14-15=-531/2757, 12-14=-296/1607

WEBS
5-17=-835/201, 15-17=-365/1963, 5-15=-325/1777, 6-14=-4/250, 7-14=-1817/382,
8-14=-401/2235, 8-12=-1270/314, 9-12=-106/565, 10-12=-152/1068

- 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) -0-10-8 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 24-1-12, Exterior(2R) 24-1-12 to 27-1-12, Interior(1) 27-1-12 to 29-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=230, 11=182.
- 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.



January 18, 2022



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MHF433 (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, 2602 Grain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D12	Hip Girder	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			Job Reference (optional)		

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:12 2022 Page 1			ID:tjnOHGeVPJTyi41JASwyTKzhfUX-QqHdjbyI5aG7LqUTnjUjX6WRqW3SzqZpcZkdmdUgr		
-0-10-8	2-2-0	7-0-0	11-10-0	2-2-0	0-10-8
0-10-8	2-2-0	4-10-0	4-10-0	2-2-0	0-10-8

Scale = 1:26.1

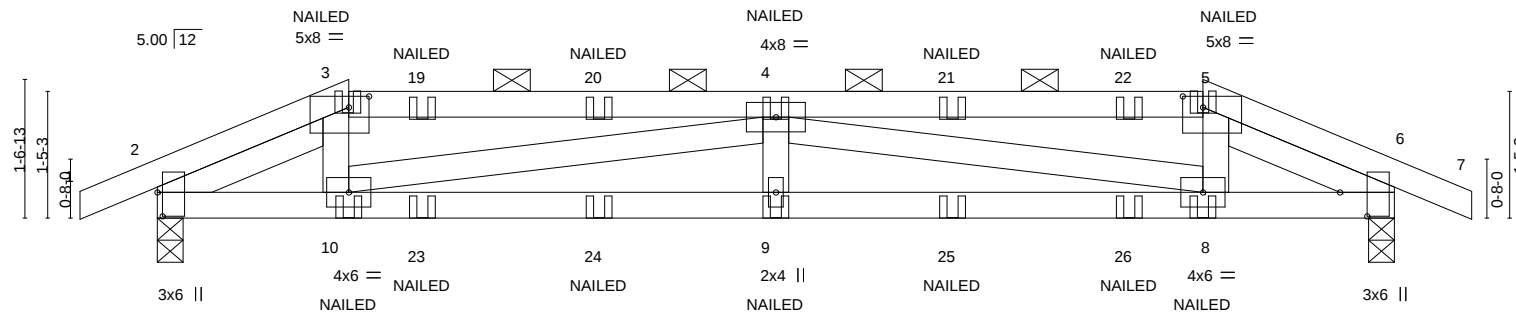


Plate Offsets (X,Y)--	[2:0-3-4,0-0-11], [3:0-2-12,0-1-8], [5:0-2-12,0-1-8], [6:0-3-4,0-3-11]
-----------------------	--

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.34	Vert(LL) -0.08	9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.51	Vert(CT) -0.15	9	>999	180		
BCLL 0.0	Rep Stress Incr NO		WB 0.44	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 53 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (4-9-11 max.): 3-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x4 SPF No.2 2-0-10, Right 2x4 SPF No.2 2-0-10	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-18(LC 13)
Max Uplift 2=-119(LC 8), 6=-119(LC 9)
Max Grav 2=691(LC 1), 6=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1370/225, 3-4=-1282/221, 4-5=-1282/222, 5-6=-1370/226
BOT CHORD 2-10=-101/583, 9-10=-263/1525, 8-9=-263/1525, 6-8=-88/583
WEBS 3-10=0/258, 4-10=-987/189, 4-8=-987/189, 5-8=0/258

- 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=119, 6=119.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 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, 5-7=-70, 11-15=-20

Concentrated Loads (lb)

Vert: 10=-0(B) 9=0(B) 8=-0(B) 23=0(B) 24=0(B) 25=0(B) 26=0(B)



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D13	Hip	1	1	Job Reference (optional)

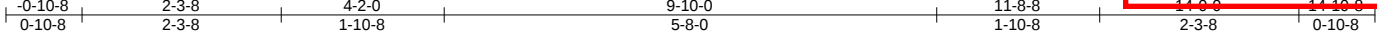
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

02/09/2022

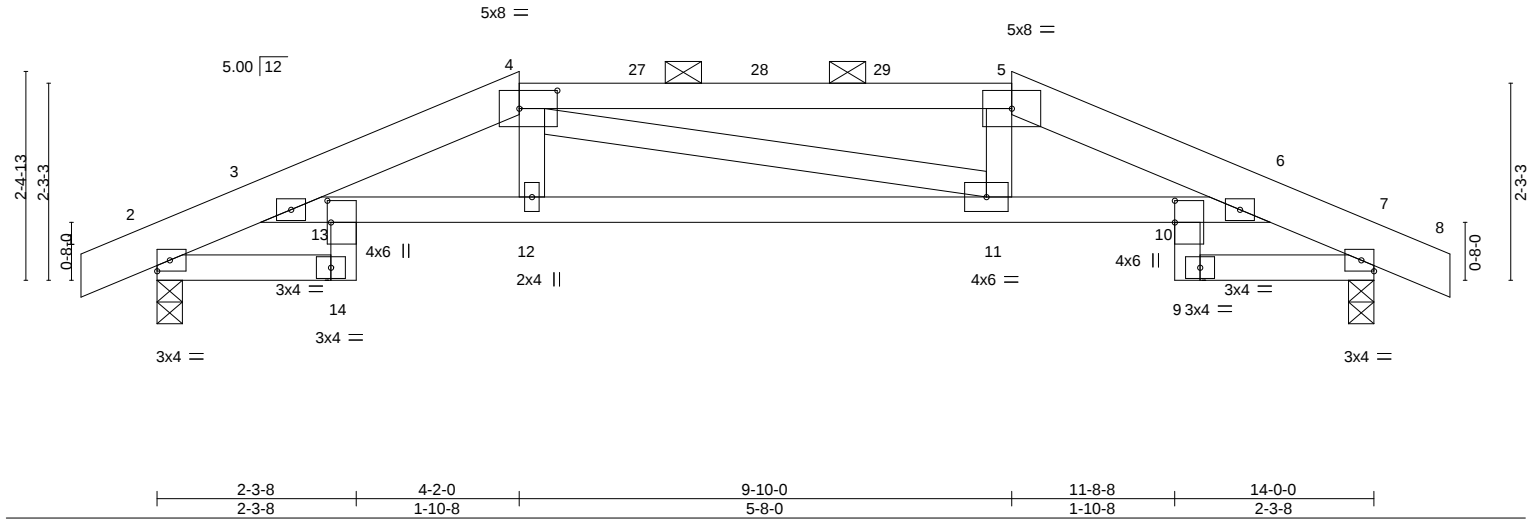
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:13 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-v0r?wxYNSuO_zp3fLQ?y3L3askNSmbyqDT59CZuUge



Scale = 1:26.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.06 11-12 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.12 11-12 >999 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.07 7 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 54 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=-33(LC 13)
Max Uplift 2=-101(LC 12), 7=-101(LC 13)
Max Grav 2=691(LC 1), 7=691(LC 1)

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

TOP CHORD 3-16=-592/160, 3-4=-1591/370, 4-5=-1528/375, 5-6=-1592/368, 6-7=-592/159
BOT CHORD 2-14=-80/367, 3-13=-214/1144, 12-13=-291/1511, 11-12=-288/1527, 10-11=-291/1511,
6-10=-211/1144, 7-9=-81/367

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 1-10-11, Interior(1) 1-10-11 to 4-2-0, Exterior(2R) 4-2-0 to 8-4-15, Interior(1) 8-4-15 to 9-10-0, Exterior(2R) 9-10-0 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
- 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=101, 7=101.
- This truss 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.



January 18, 2022

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D14	Hip	1	1	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:14 2022 Page 1		
			Job Reference (optional)		

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

02/09/2022

-0-10-8	2-3-8	6-2-0	7-10-0	11-8-8	11-8-8	11-8-8	11-8-8	11-8-8	11-8-8
0-10-8	2-3-8	3-10-8	1-8-0	3-10-8	3-10-8	3-10-8	3-10-8	3-10-8	3-10-8

Scale = 1:26.5

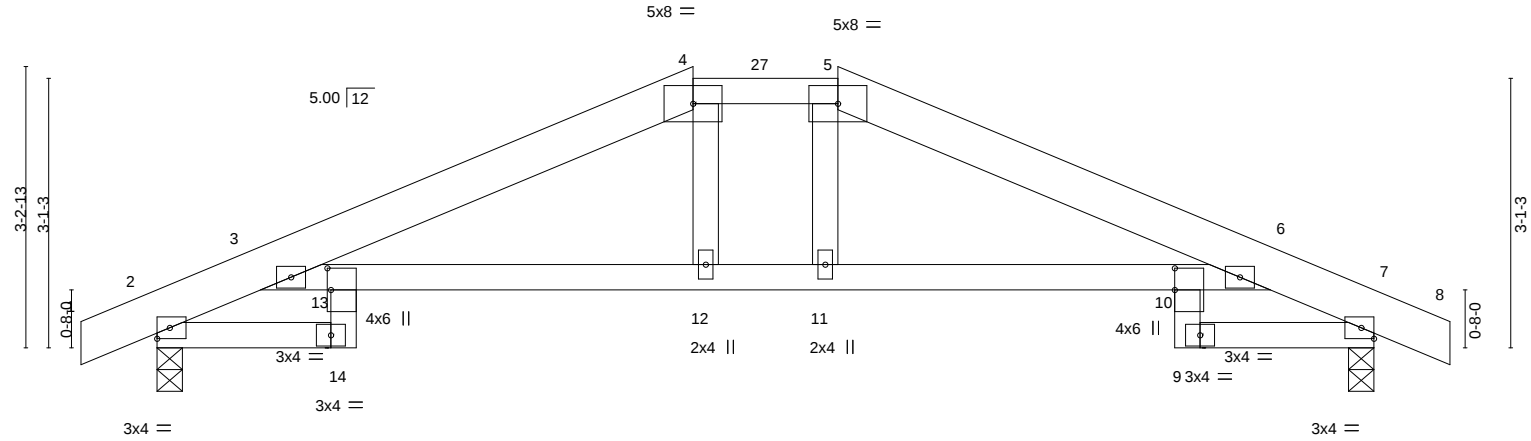


Plate Offsets (X,Y)--	[10:0-3-0,0-0-0], [13:0-3-0,0-0-8]
-----------------------	------------------------------------

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.37	Vert(LL) -0.08	12-13	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.15	12-13	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.08	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 53 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-4-6 max.): 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SPF No.2	10-0-0 oc bracing: 10-11

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=46(LC 12)
Max Uplift 2=-99(LC 12), 7=-99(LC 13)
Max Grav 2=691(LC 1), 7=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-16=-602/157, 3-4=-1174/265, 4-5=-1094/271, 5-6=-1174/265, 6-7=-602/156
BOT CHORD 2-14=-89/378, 3-13=-88/708, 12-13=-157/1086, 11-12=-156/1094, 10-11=-158/1086,
6-10=-87/708, 7-9=-89/378

- 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 1-10-11, Interior(1) 1-10-11 to 6-2-0, Exterior(2E) 6-2-0 to 7-10-0, Exterior(2R) 7-10-0 to 12-1-5, Interior(1) 12-1-5 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 18, 2022

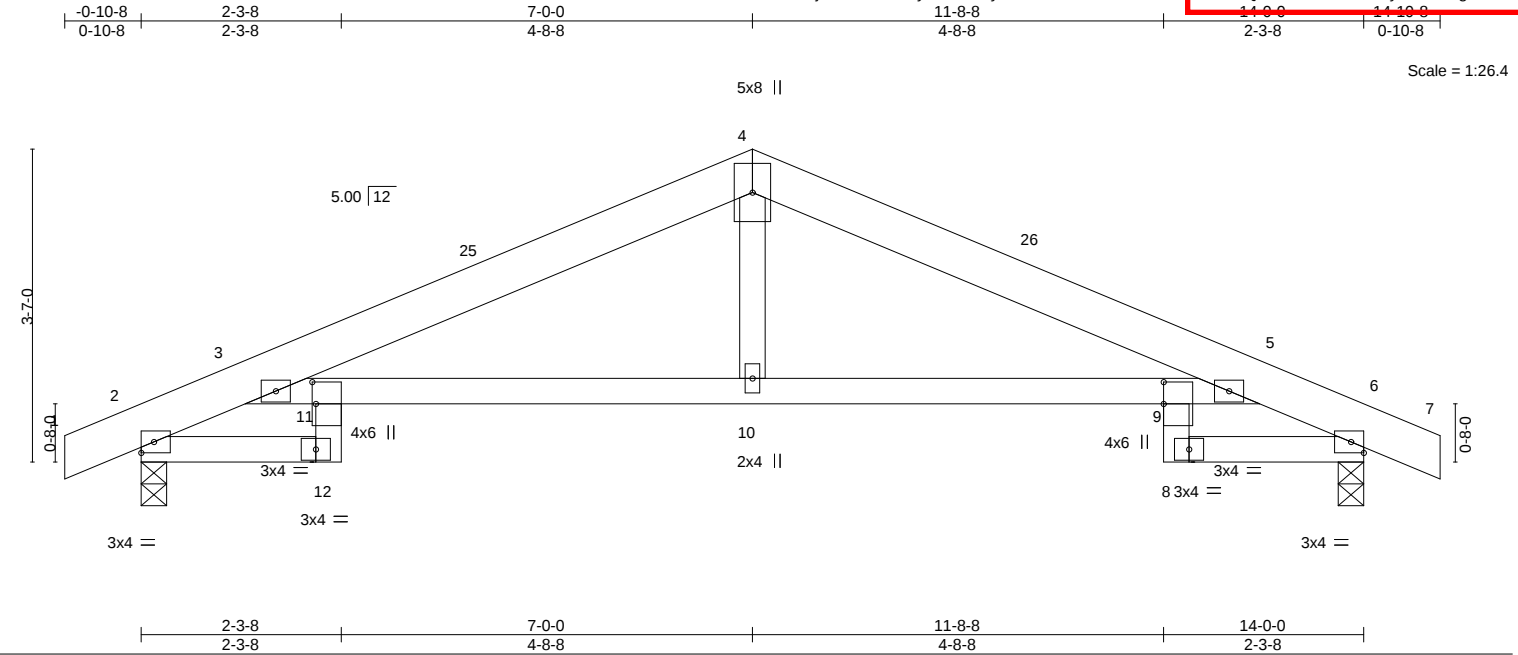
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D15	Roof Special	2	1	Job Reference (optional)

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

02/09/2022

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:15 2022 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-rOzlLdaeOVeiC7D2Tr1C6f8wE82JPGSfIKyFE5.dwg



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.08 10-11 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.16 10-11 >999 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.09 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 53 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied. Except:
WEBS	2x4 SPF No.2		10'-0-0 oc bracing: 9-10

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-52(LC 17)
Max Uplift 2=-98(LC 12), 6=-98(LC 13)
Max Grav 2=691(LC 1), 6=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-14=-601/184, 3-4=-1146/314, 4-5=-1146/314, 5-6=-601/184
BOT CHORD 2-12=-103/378, 3-11=-99/680, 10-11=-190/1058, 9-10=-190/1058, 5-9=-99/680,
6-8=-103/378
WEBS 4-10=0/289

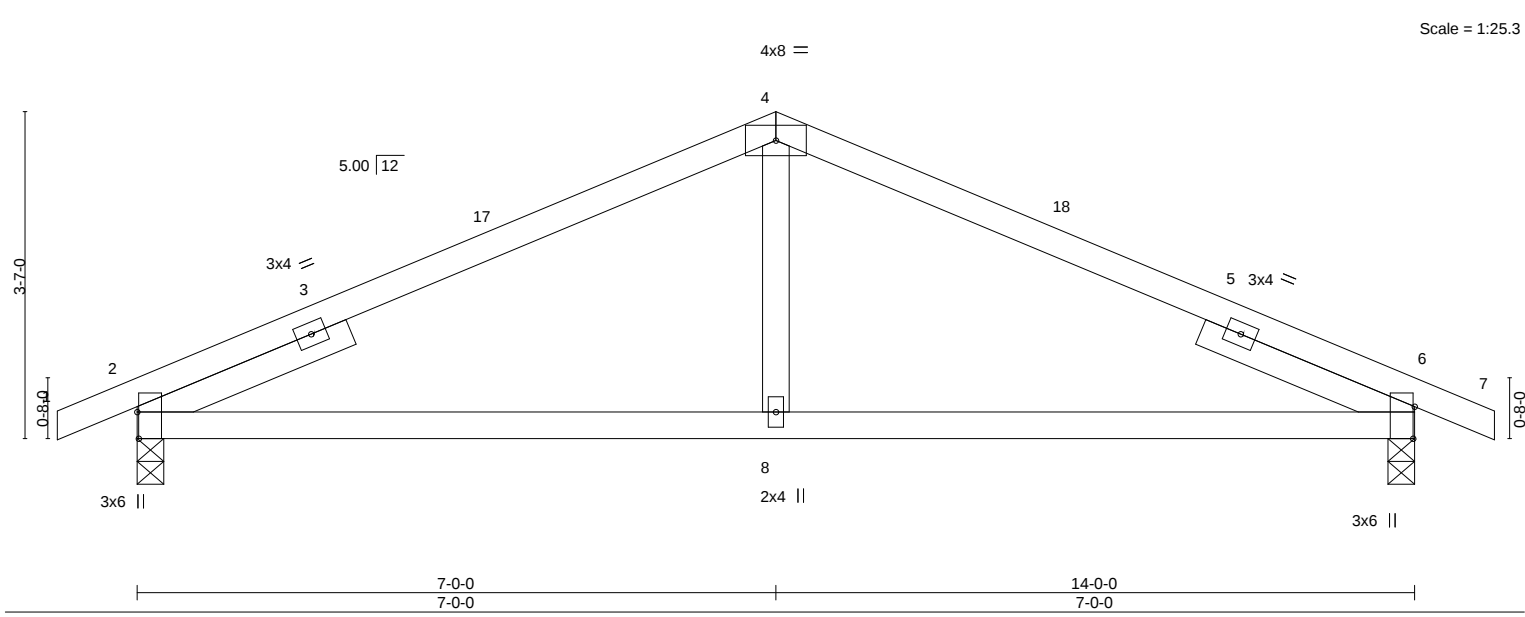
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-11, Interior(1) 1-10-11 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 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
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
 - This truss 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	D16	Common	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:16 2022 Page 1
 ID:tjnOHGeVPJTyi41JASwyTKzhfUX-JbW8YybG9pmZqHnE0YYfmsn40vSQ_P0XBipmXzduUgr 149734732 02/09/2022



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.07 8-11 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.12 8-11 >999 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.02 2 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 45 lb		FT = 20%	

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

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=52(LC 12)
 Max Uplift 2=-97(LC 12), 6=-97(LC 13)
 Max Grav 2=691(LC 1), 6=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-829/264, 4-6=-829/264
 BOT CHORD 2-8=-140/766, 6-8=-140/766
 WEBS 4-8=0/290

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 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 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
 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) 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	E01	Roof Special Girder	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:17 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-nn4Wmlbuw7uQSRMQaG4uE4DKixqdj9wYrRmWZzUga

02/09/2022

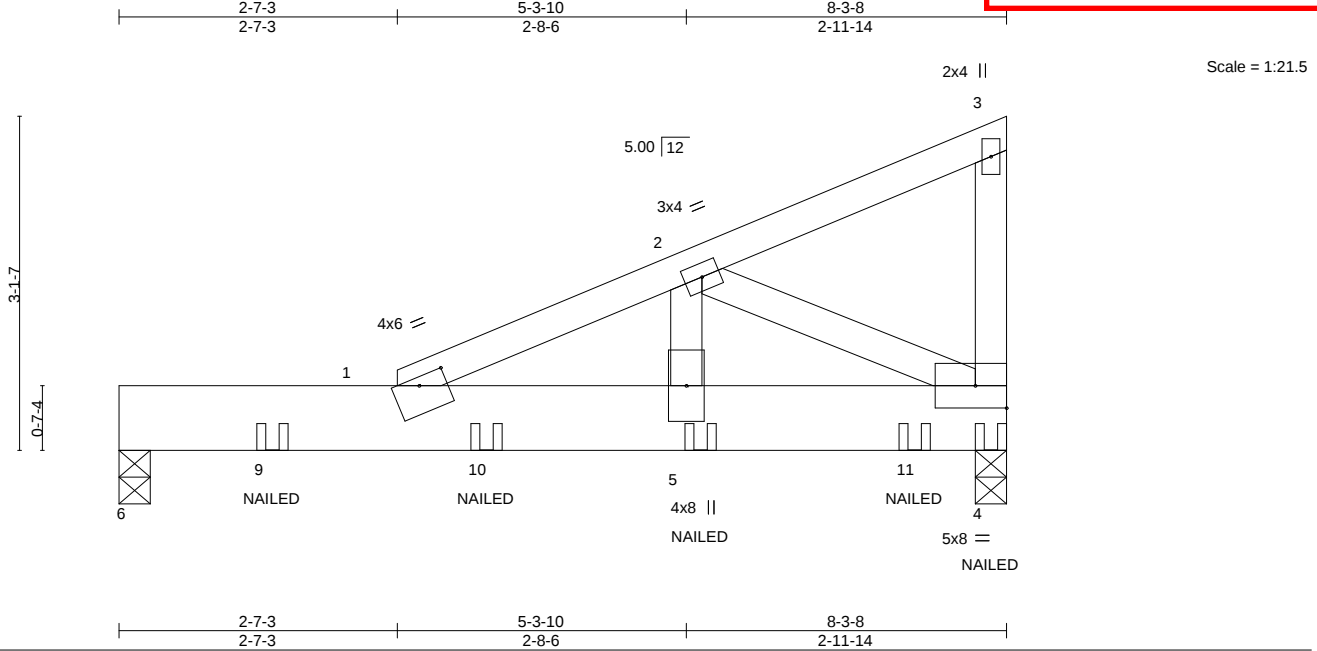


Plate Offsets (X,Y)-- [1:0-3-0,0-0-15]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.16		Vert(LL)	-0.04 7 >999 240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.25		Vert(CT)	-0.06 7 >999 180		
BCLL 0.0		Rep Stress Incr	NO	WB 0.18		Horz(CT)	0.00 4 n/a n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MP				Weight: 39 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x8 SP 2400F 2.0E
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 6=0-3-8
 Max Horz 6=102(LC 5)
 Max Uplift 4=-123(LC 8), 6=-28(LC 8)
 Max Grav 4=760(LC 1), 6=569(LC 1)

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

TOP CHORD 1-2=-928/122
 BOT CHORD 1-5=-125/847, 4-5=-125/847
 WEBS 2-5=-43/530, 2-4=-914/159

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 4=123.
- 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.
- 5) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 6) 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, 1-6=-90, 1-4=-20
 Concentrated Loads (lb)
 Vert: 4=-138(B) 5=-122(B) 9=-97(B) 10=-124(B) 11=-128(B)



January 18, 2022

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

02/09/2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	E02	Monopitch	1	1	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:18 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-FzeuzecWhQOG3bxd8zb7mimmiL2E96lh_VBwQzUgZ

-0-10-8	2-8-5	6-2-3	8-2-0	8-3-8
0-10-8	2-8-5	3-5-14	1-11-13	0-1-8

Scale = 1:24.5

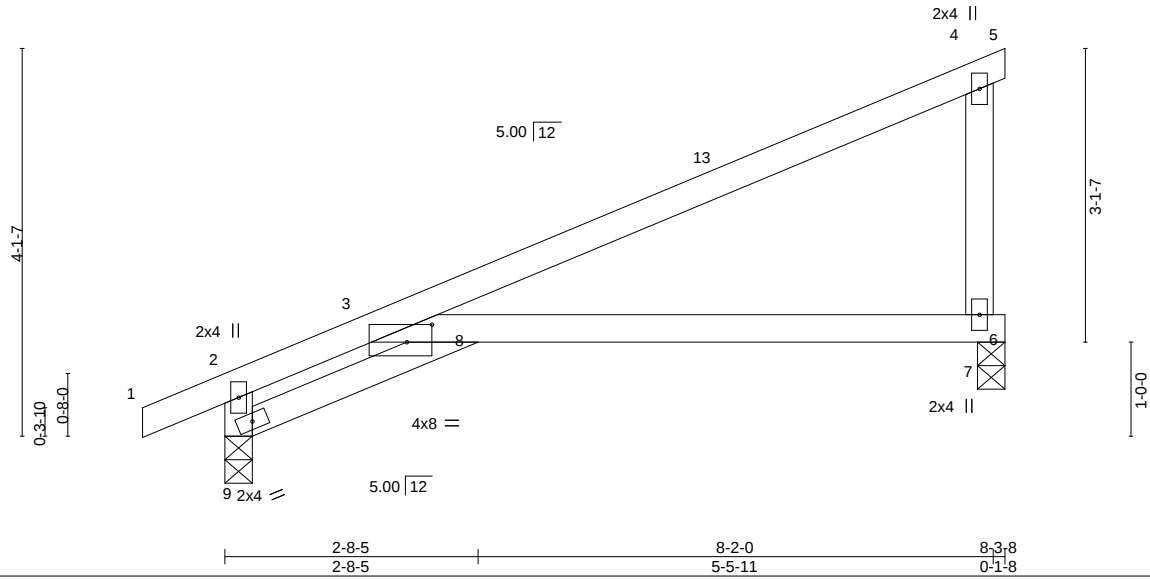


Plate Offsets (X,Y)-- [8:0-3-3,0-2-4]

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 0.76	Vert(LL)	-0.24	7-8	>395	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.45	7-8	>211	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.16	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 25 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=0-3-8, 9=0-3-8
 Max Horz 9=131(LC 12)
 Max Uplift 7=-100(LC 12), 9=-51(LC 12)
 Max Grav 7=361(LC 1), 9=430(LC 1)

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

TOP CHORD 2-9=-405/231

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 2-3-2, Interior(1) 2-3-2 to 8-3-8 zone; cantilever left and right exposed; end vertical left 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
- 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.



January 18, 2022

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

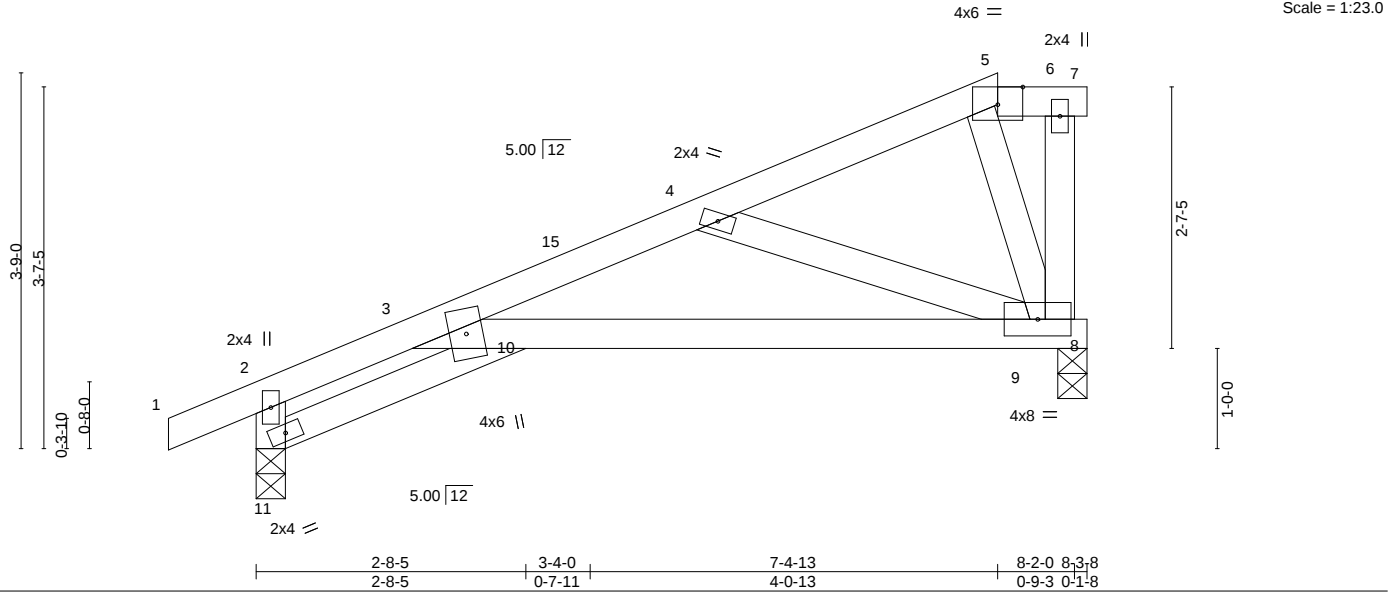


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	E03	Half Hip	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:19 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-jACGB_d8Sk87hWpih6MSVJbqVRB30H9wTnszUgY

02/09/2022



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.06 9-10 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.14 9-10 >657 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.06 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 31 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 1-5: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 5-7.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 9=0-3-8, 11=0-3-8
 Max Horz 11=114(LC 12)
 Max Uplift 9=-82(LC 12), 11=-55(LC 12)
 Max Grav 9=376(LC 1), 11=415(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-11=-390/207, 3-4=-545/208
 BOT CHORD 3-10=-135/546, 9-10=-300/546
 WEBS 4-9=-574/311

- 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 2-3-2, Interior(1) 2-3-2 to 7-4-13, Exterior(2E) 7-4-13 to 8-3-8 zone; cantilever left and right exposed; end vertical left 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) Bearing at joint(s) 11 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) 9, 11.
 - 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	E04	HALF HIP GIRDER	1	2	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:20 2022 Page 1

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02/09/2022

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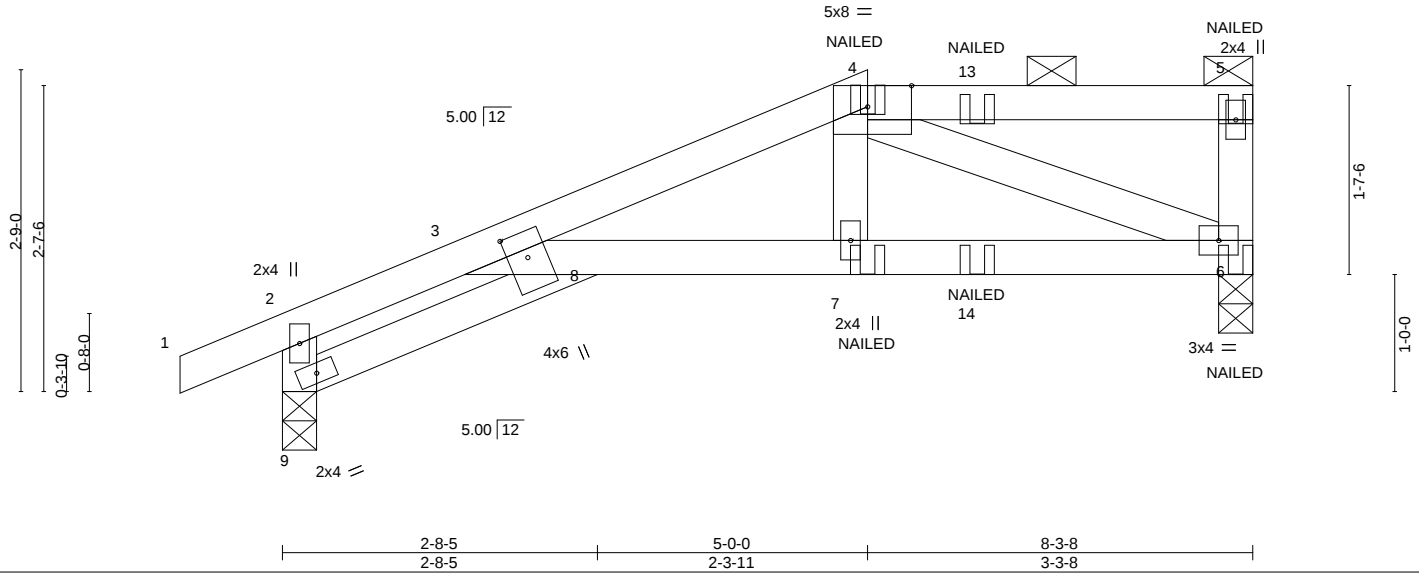


Plate Offsets (X,Y)--		[4:0-4-8,Edge], [8:0-2-10,0-2-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.05 8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.08 8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.04 6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP						Weight: 57 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 9=0-3-8
 Max Horz 9=82(LC 5)
 Max Uplift 6=-163(LC 5), 9=-103(LC 8)
 Max Grav 6=580(LC 1), 9=500(LC 1)

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

TOP CHORD 2-9=-475/138, 3-4=-869/218
 BOT CHORD 3-8=-140/801, 7-8=-202/801, 6-7=-197/767
 WEBS 4-7=-60/324, 4-6=-838/222

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) 9 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) 6=163, 9=103.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

LOAD CASE(S) Standard

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



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Continued on page 2

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

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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 #114/MO
3044392	E04	HALF HIP GIRDER	1	2	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:20 2022 Page 2
ID:tnOHGeVPJTyi41JASwyTKzhfUX-BMmeOKemD2G_uJ5?F0dbnrmmd9qwwYR_SpgovizUgX

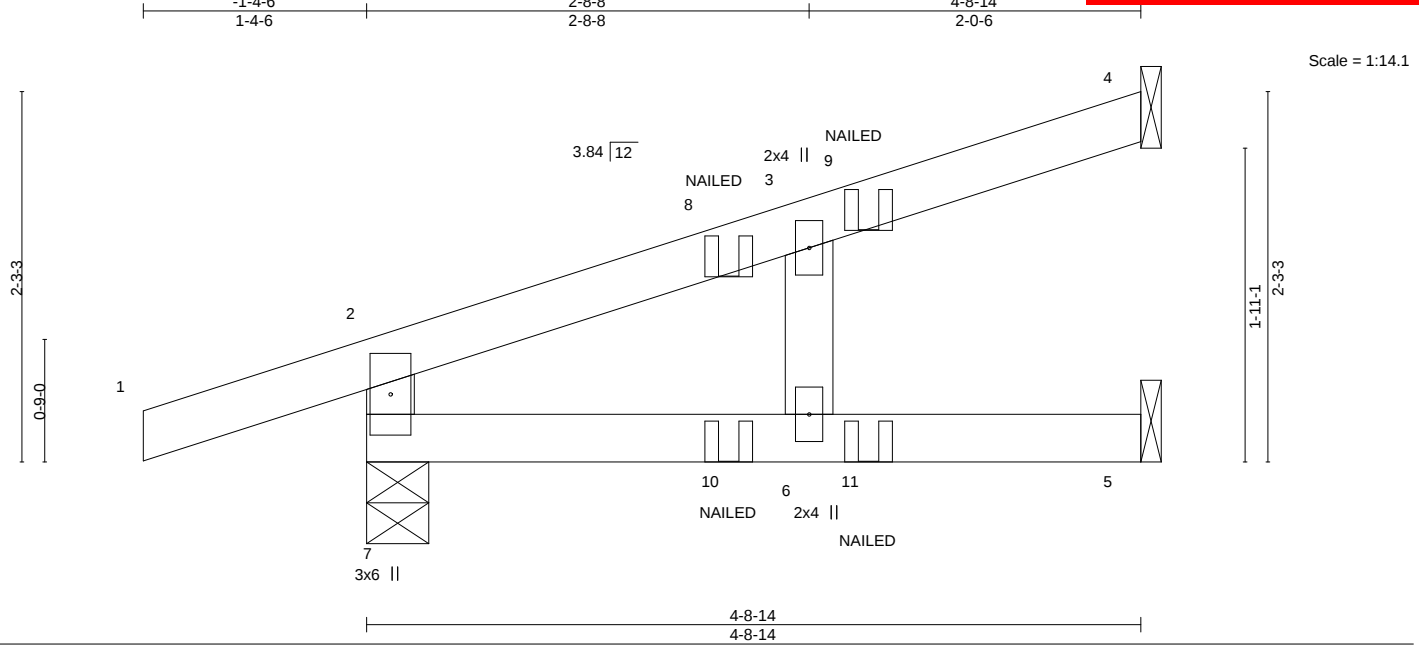
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

02/09/2022

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 4=-47(B) 5=-57(B) 6=-49(B) 7=-64(B) 13=-30(B) 14=-41(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J01	Diagonal Hip Girder	1	1	149734737

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:21 2022 Page 1
ID:tjnOHGeVPJTYi41JASwyTKzhfUX-gYK0bgfPzLorw2Q	Cp68qQwO4fzC3fXbgfPARKzuUgw	



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) 0.03	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.05	6	>999	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.01	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP					Weight: 14 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 7=0-4-9, 4=Mechanical, 5=Mechanical
	Max Horz 7=69(LC 4)
	Max Uplift 7=-89(LC 4), 4=-38(LC 8), 5=-11(LC 8)
	Max Grav 7=326(LC 1), 4=110(LC 1), 5=75(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-7=-251/89

- 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, 4, 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) "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: 1-2=-70, 2-4=-70, 5-7=-20	
Concentrated Loads (lb)	
Vert: 10=4(F) 11=-1(B)	



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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:04 2022 Page 2
ID:tjnOHGeVPJTy141JASwyTKzhfUX-gYK0bgfPzLorw2gCp68QW0n1ZfzFibgIParkzu0gw

Technical drawing of a roof structure showing a side elevation and a plan view.

Side Elevation:

- Roof pitch: 6.00 $\sqrt{12}$
- Vertical wall height: 1.53
- Horizontal wall height: 0.90
- Labels: 1, 2, 3, 4, 5

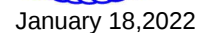
Plan View:

- Dimensions: 1-4-6, 1-4-6
- Section: 4x8 ||

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-4-6 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 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) 5, 3, 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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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

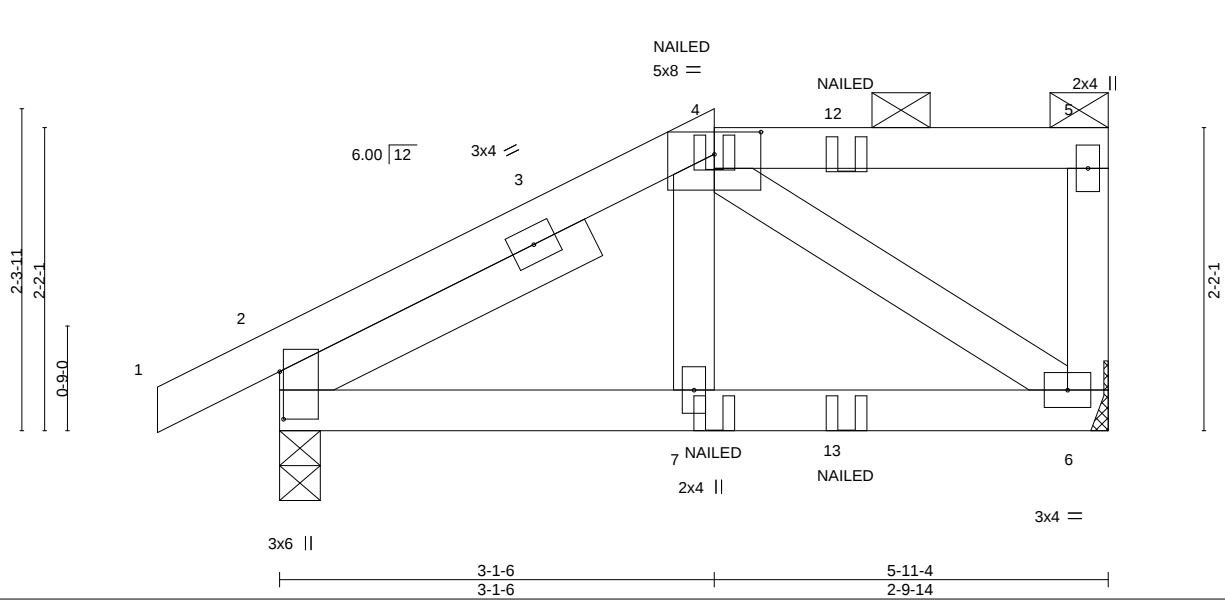
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J03	Half Hip Girder	1	1	149734739

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:22 2022 Page 1
 ID:tjnOHGeVPJTyi41JASwyTKzhfUX-8luPp0f1kfWYICFONpf3X7rAGyZ4ORnHv79t_BzuUgV

02/09/2022



Scale = 1:16.5

Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [4:0-4-0,0-1-15]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(LL) -0.00 6-7 >999 240	GRIP
BCLL 0.0	Rep Stress Incr	NO	WB 0.07	Vert(CT) -0.01 6-7 >999 180	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Horz(CT) 0.00 6 n/a n/a	
					Weight: 25 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.
BOT CHORD 2x4 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) 2=0-3-8, 6=Mechanical
 Max Horz 2=72(LC 7)
 Max Uplift 2=-78(LC 8), 6=-79(LC 5)
 Max Grav 2=380(LC 1), 6=339(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-311/78
 BOT CHORD 2-7=-80/285, 6-7=-81/275
 WEBS 4-6=-339/84

- 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.
 - 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 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=-70, 6-8=-20
 Concentrated Loads (lb)
 Vert: 7=-49(B) 4=-19(B) 12=-44(B) 13=-24(B)



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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J04	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:23 2022 Page 1
ID:tnOHGeVPJTyi41JASwyTKzhfUX-cxSn0MgfVzeZAMcaxWAITLrJCMnN7vgQendhwddzUgU		149734740
-0-10-8	4-9-6	5-11-4
0-10-8	4-9-6	1-1-14

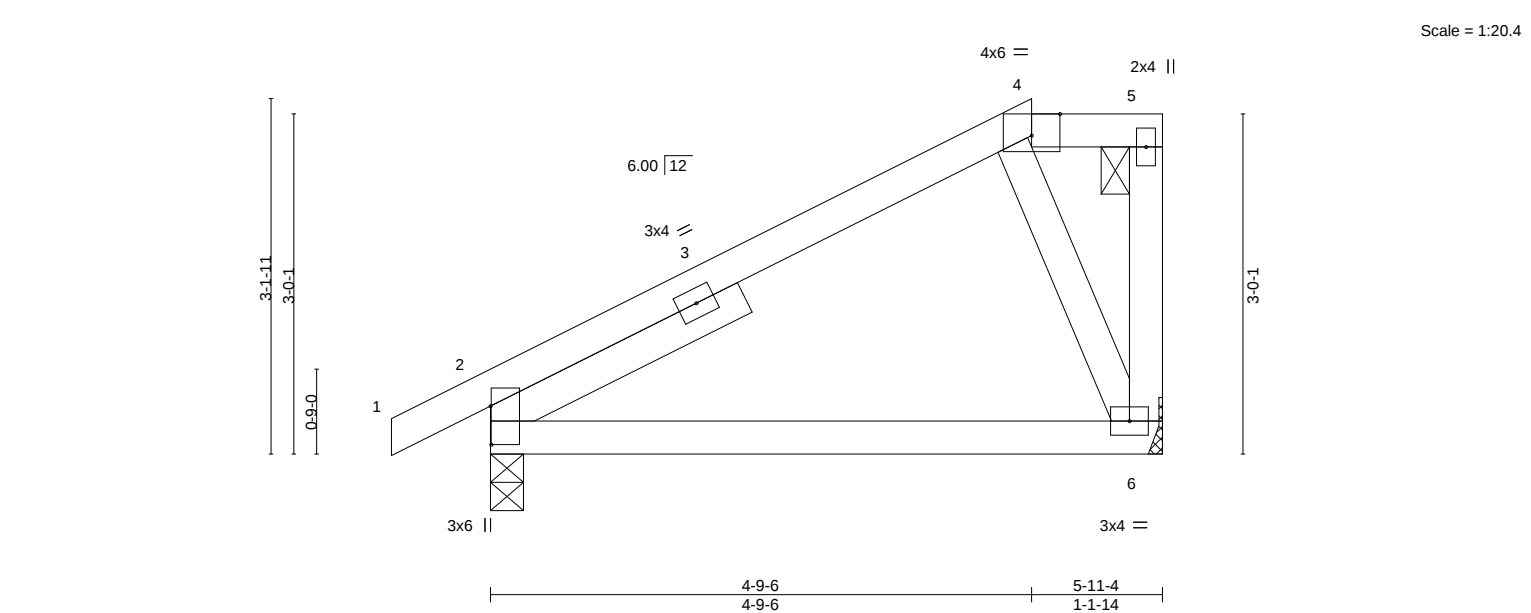


Plate Offsets (X,Y)-- [2:0-4-1,0-0-1], [4:0-3-0,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.04	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.08		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.02		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS				Weight: 24 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins: 4-5.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0		

REACTIONS.	
(size)	2=0-3-8, 6=Mechanical
Max Horz	2=103(LC 11)
Max Uplift	2=-52(LC 12), 6=-43(LC 12)
Max Grav	2=327(LC 1), 6=256(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-360/66

- 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 4-9-6, Exterior(2E) 4-9-6 to 5-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.



January 18,2022

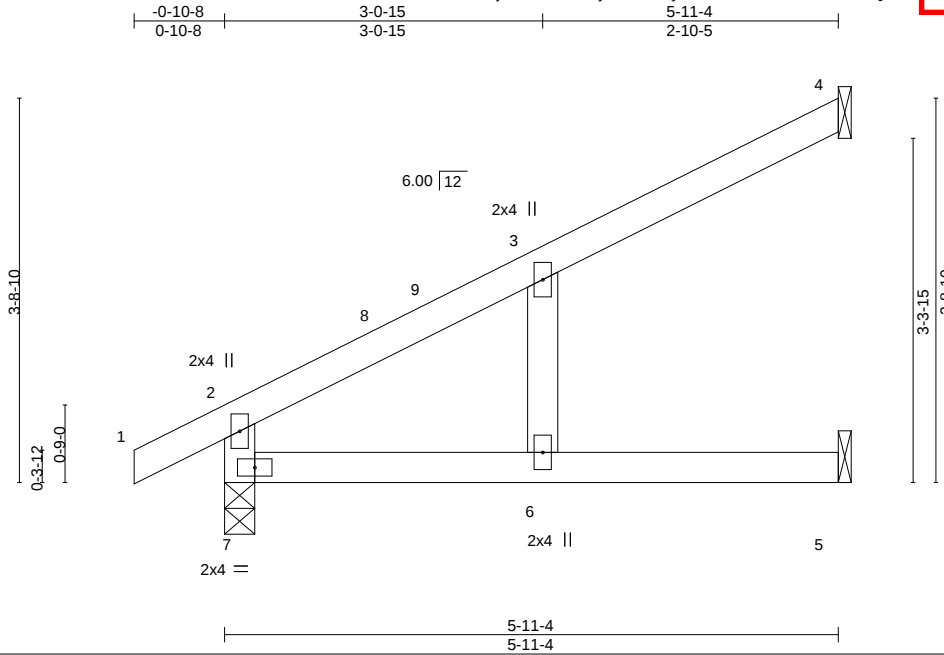
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J05	Jack-Open	10	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:24 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-47?9EhhHGGmQnWPhUEiX0Y6V6mA?SL4amReL23zuUgt

02/09/2022



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)	0.10	6	>697	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.14	6	>492	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.04	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 18 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 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=114(LC 12)
 Max Uplift 4=63(LC 12), 5=-18(LC 12), 7=-32(LC 12)
 Max Grav 4=151(LC 1), 5=100(LC 1), 7=336(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 5-10-8 zone; cantilever left and right exposed; end vertical left 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.



January 18, 2022

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

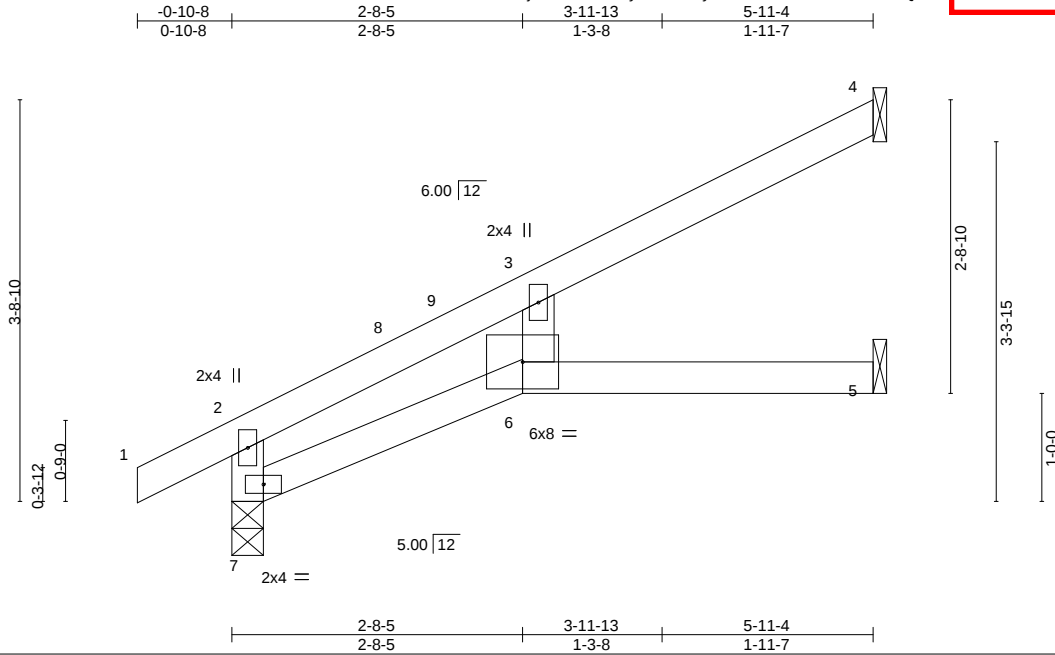
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J06	Jack-Open	7	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:24 2022 Page 1

ID:tpOHGeVPJTyi41JASwyTKzhfUX-47?9EhhHGGmQnWPhUEIX0Y9UcmAFSL4mReL23zUgt

02/09/2022



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.35	Vert(LL) 0.10	6	>687	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.40	Vert(CT) -0.14	5-6	>495	180		
BCLL 0.0	Lumber DOL 1.15	WB 0.02	Horz(CT) 0.06	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS					Weight: 17 lb	FT = 20%
	Code IRC2018/TPI2014							

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=114(LC 12)
 Max Uplift 4=-69(LC 12), 5=-13(LC 12), 7=-31(LC 12)
 Max Grav 4=159(LC 1), 5=96(LC 3), 7=336(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 5-10-8 zone; cantilever left and right exposed; end vertical left 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.



January 18, 2022

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J07	Half Hip	1	1	149734743
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:25 2022 Page 1					
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-YKZXR1iv1avHPfz22xDmYmYb0AbU604j65NnaWz0Ugs					
Job Reference (optional)					

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/09/2022

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

Scale = 1:22.0

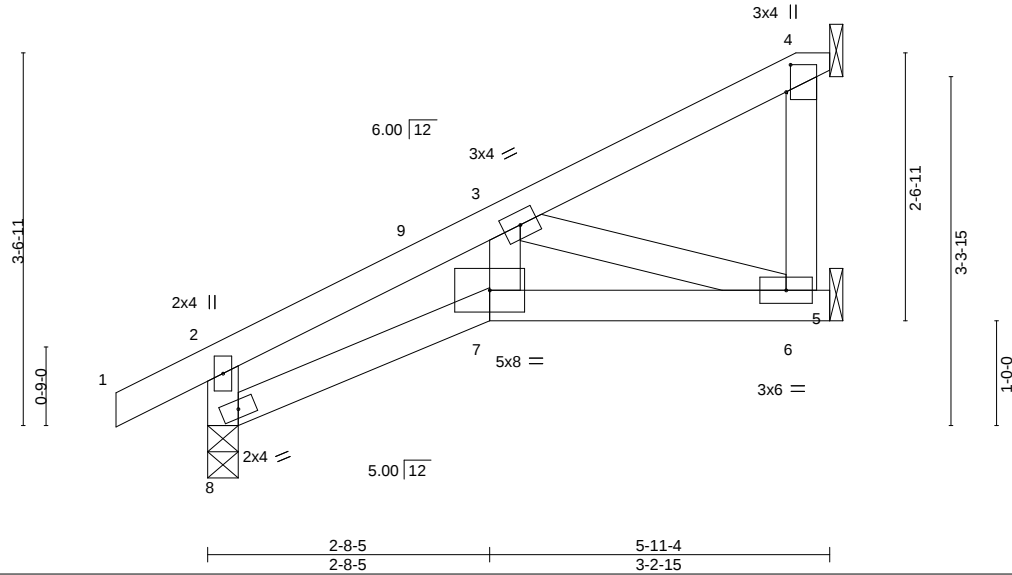


Plate Offsets (X,Y)-- [4:0-3-2,0-0-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63	Vert(LL)	-0.14	7	>472	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.25	7	>267		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.10	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 22 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 4=Mechanical, 8=0-3-8
Max Horz 8=117(LC 12)
Max Uplift 6=-19(LC 12), 4=-58(LC 12), 8=-30(LC 12)
Max Grav 6=65(LC 3), 4=215(LC 1), 8=326(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8--301/200

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 5-8-0 zone; cantilever left and right exposed; end vertical left 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) 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) 6, 4, 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.
- 8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



January 18, 2022

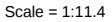
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:26 2022 Page 2
ID:tinOHGeVPJTyi41JASwyTKzhfUX-0W7vfNiXou131pY9cfk5z5uSavOKfVtdl7E7yzdQgR



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

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

NOTES-

-

January 18, 2022



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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 #114/MO
3044392	J09	Half Hip Girder	1	1	149734745

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:27 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-UihlsijAZB9?ez7LAMPLeBcszDushu03PttroZuUgc

02/09/2022



Scale = 1:19.7

Plate Offsets (X,Y)--	[2:0-2-13,0-1-11], [5:0-4-0,0-1-15], [10:0-5-0,0-2-4]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.10	Vert(LL) -0.02	9-10	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.34	Vert(CT) -0.03	9-10	>999	180			
BCLL 0.0	Rep Stress Incr NO		WB 0.10	Horz(CT) 0.01	9	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 24 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 5-7.
BOT CHORD 2x4 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) 9=Mechanical, 2=0-3-8
 Max Horz 2=68(LC 26)
 Max Uplift 9=-113(LC 5), 2=-78(LC 8)
 Max Grav 9=438(LC 1), 2=396(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-738/212, 4-5=-688/223
 BOT CHORD 2-10=-206/696, 9-10=-110/357
 WEBS 5-10=-137/401, 5-9=-456/137

- 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.
 - Refer to girder(s) for truss to truss connections.
 - 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) 2 except (jt=lb) 9=113.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 182 lb down and 108 lb up at 3-11-6 on top chord, and 126 lb down and 74 lb up at 3-11-6 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
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 5-6=-70, 6-7=-20, 10-11=-20, 8-10=-20



January 18, 2022

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J09	Half Hip Girder	1	1	149734745
Job Reference (optional)					

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:27 2022 Page 2
ID: tjnOHGeVPJTyi41JASwyTKzhfUX-UihlsjjAZB9?ez7LAMPLeBec3zDushu03PttuOzuUgc

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 5=-127(F) 15=-126(F)

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/09/2022

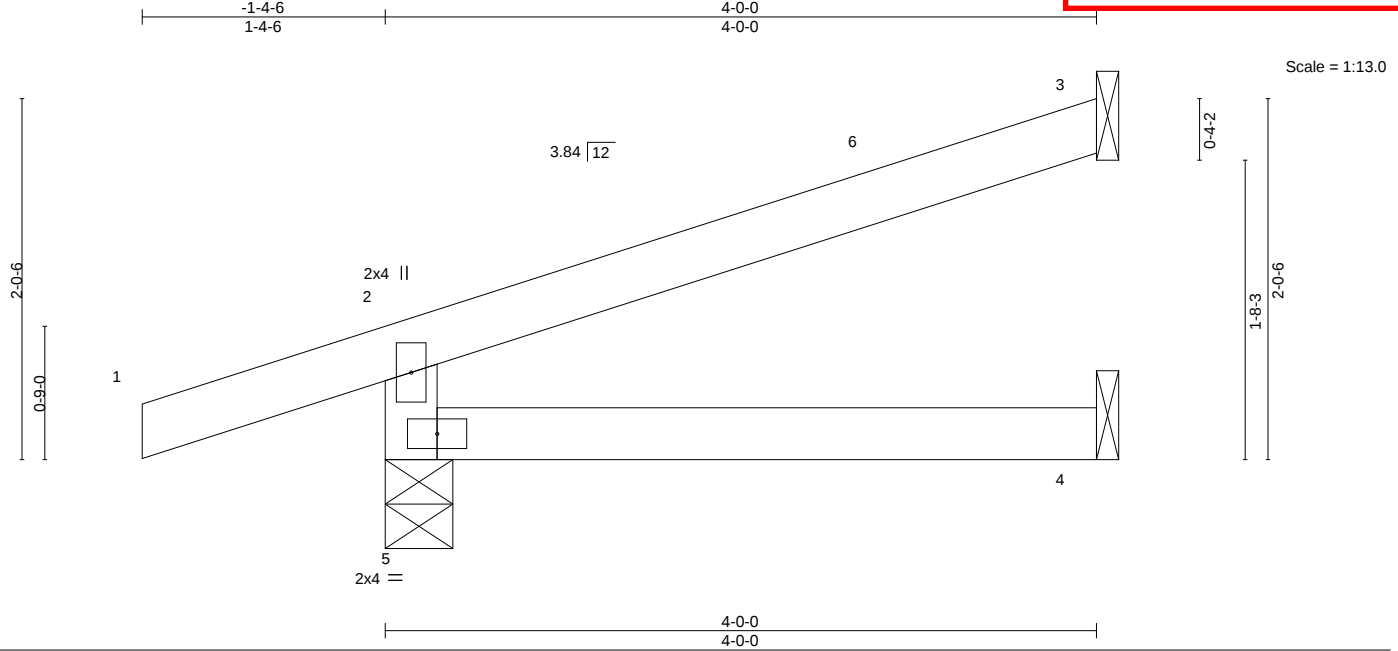
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J10	Jack-Open	1	1	149734746

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:28 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-yvFg33koKVHsG7iV4mTACADONddosO9h3cRqzUgF

02/09/2022



LOADING (psf)	SPACING-	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	4-5	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	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) 5=0-4-9, 3=Mechanical, 4=Mechanical
 Max Horz 5=61(LC 8)
 Max Uplift 5=-84(LC 8), 3=-46(LC 12)
 Max Grav 5=298(LC 1), 3=111(LC 1), 4=69(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-5=-261/212

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 and C-C Corner(3) -1-4-6 to 2-10-8, Exterior(2R) 2-10-8 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) 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.
- 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.



January 18, 2022

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



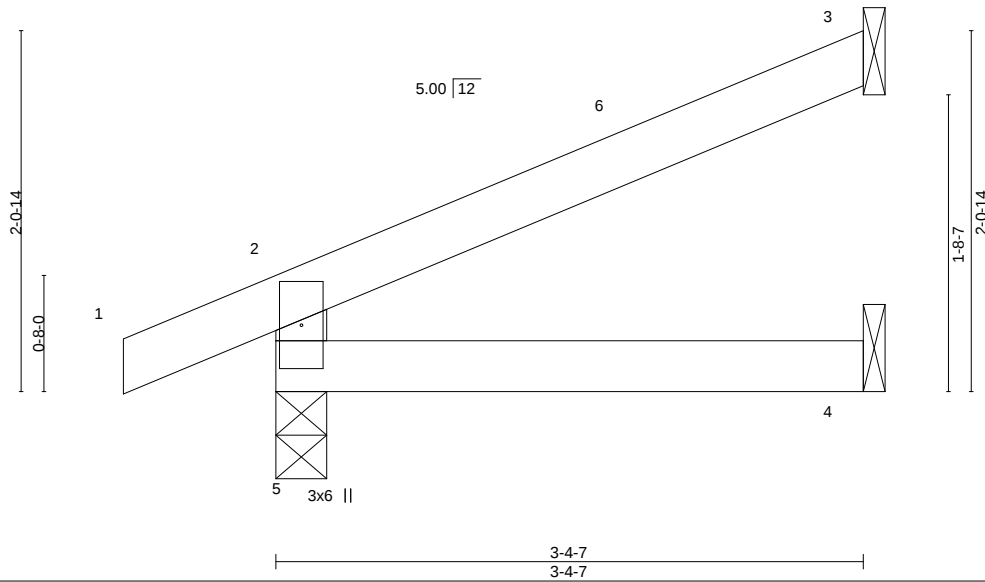
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J11	Jack-Open	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:29 2022 Page 1

ID: tijnOHGeVPJTyi41JASwyTKzhfUX-R5p2HPiQ5pPjHhHkHnHjCjnzQxGcSWjMjHhZuUge
 3-4-7 3-4-7



Scale = 1:13.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) 0.01	4-5	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.08	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 3-4-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=56(LC 12)
 Max Uplift 5=-32(LC 12), 3=-44(LC 12)
 Max Grav 5=225(LC 1), 3=95(LC 1), 4=59(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 3-3-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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) 5, 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.



January 18, 2022

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

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

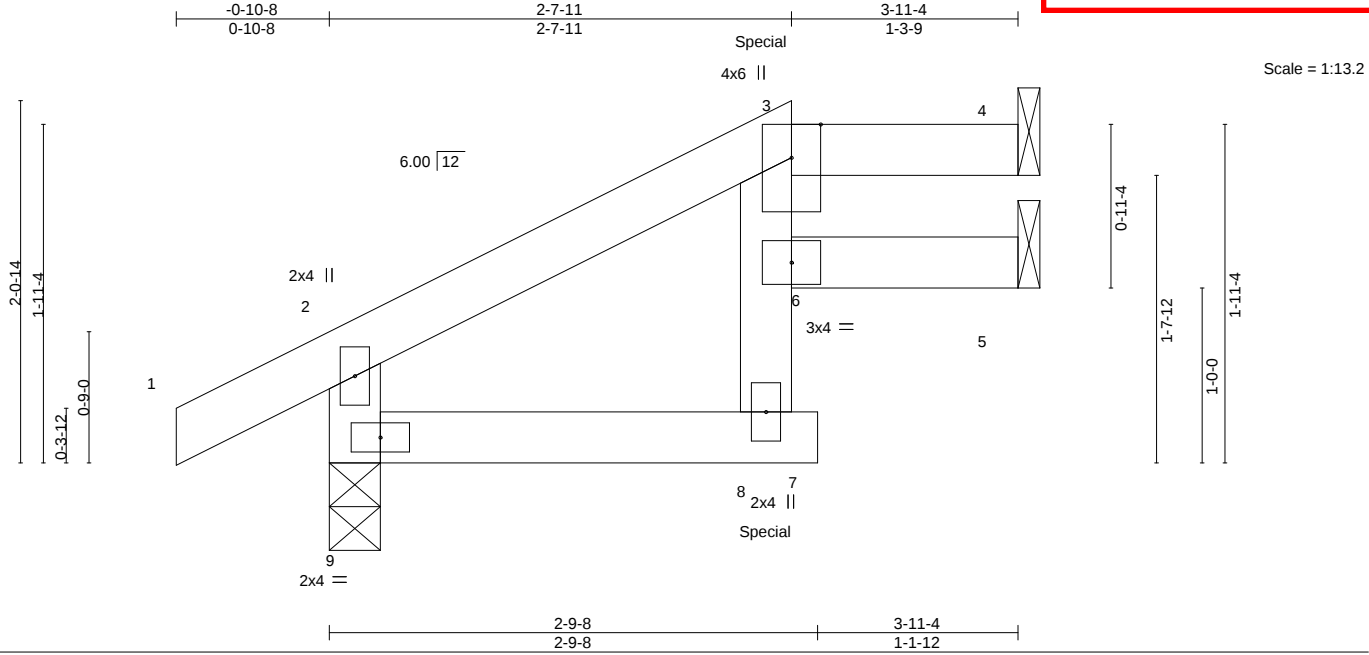


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J12	Jack-Open Girder	1	1	149734748

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:29 2022 Page 1
 ID:tjnOHGeVPJTyi41JASwyTKzhfUX-R5p2HPiQ5pPjuiHKhHnHjclMmmxDxcceSWjMjH2uJge

02/09/2022



LOADING (psf)	SPACING-	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	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.03	7	>999	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MR					Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 9=0-3-8
 Max Horz 9=52(LC 29)
 Max Uplift 4=-35(LC 5), 5=-23(LC 8), 9=-50(LC 8)
 Max Grav 4=121(LC 22), 5=95(LC 1), 9=277(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-9=-253/67

- 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.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 9 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) 4, 5, 9.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 104 lb up at 2-7-11 on top chord, and 47 lb down at 2-5-15 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
- Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 8-9=-20, 7-8=-20, 5-6=-20
- Concentrated Loads (lb)
 Vert: 3=-47(F) 8=-29(F)



January 18, 2022

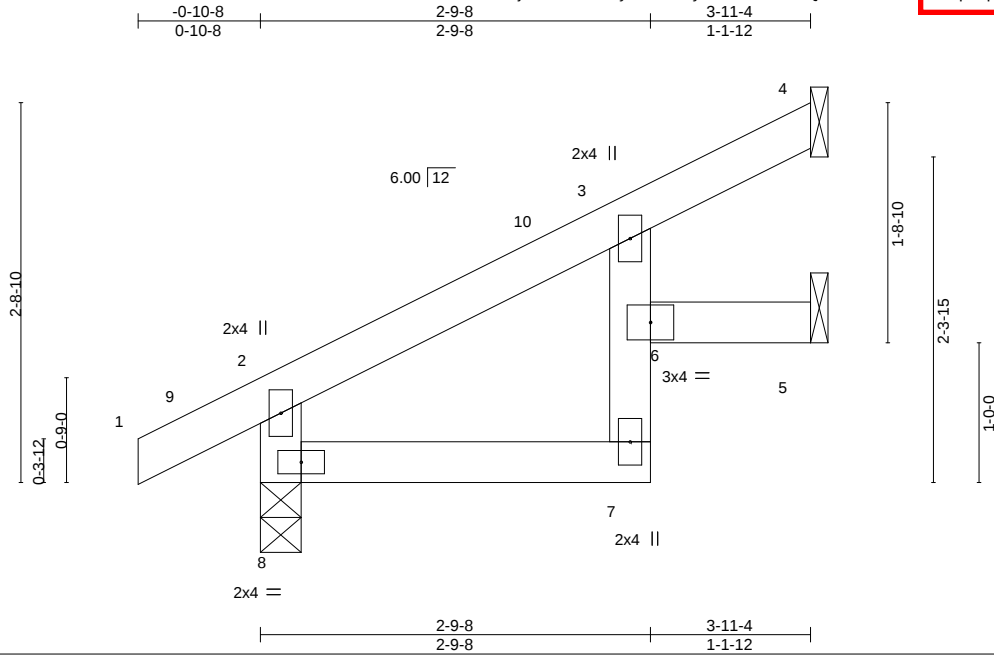
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J13	Jack-Open	3	1	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:30 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-vHNQUlm2s6XZVRswrUpXpPpGZSbHvG3u3IN54QjzUgN

02/09/2022



Scale = 1:16.5

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)	-0.01	6	>999	240	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.01	7	>999	180	
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						

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

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 8=0-3-8
 Max Horz 8=78(LC 12)
 Max Uplift 4=-33(LC 12), 5=-22(LC 12), 8=-26(LC 12)
 Max Grav 4=87(LC 1), 5=71(LC 1), 8=249(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 3-10-8 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) 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) 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) 4, 5, 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.



January 18, 2022

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

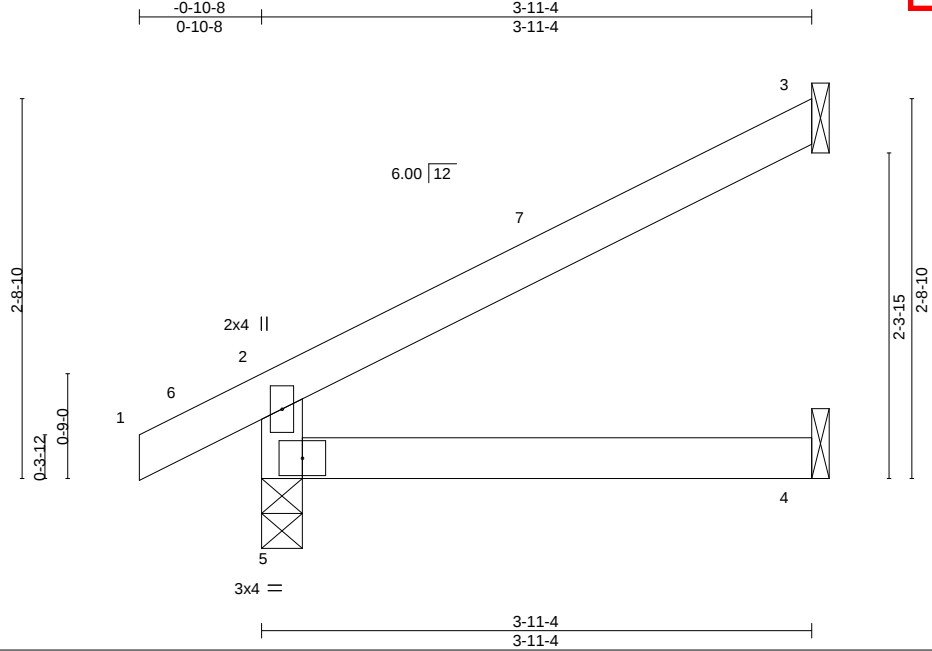
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 #114/MO
3044392	J14	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:31 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-NTwoi5mgdQfQ7bR7PCKA016fDdd1FW8cz1r0092uUgm



Scale = 1:16.5

LOADING (psf)	SPACING-	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	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-MR						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 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=78(LC 12)
 Max Uplift 3=-58(LC 12), 5=-26(LC 12)
 Max Grav 3=114(LC 1), 4=70(LC 3), 5=249(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 3-10-8 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) 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.



January 18, 2022

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

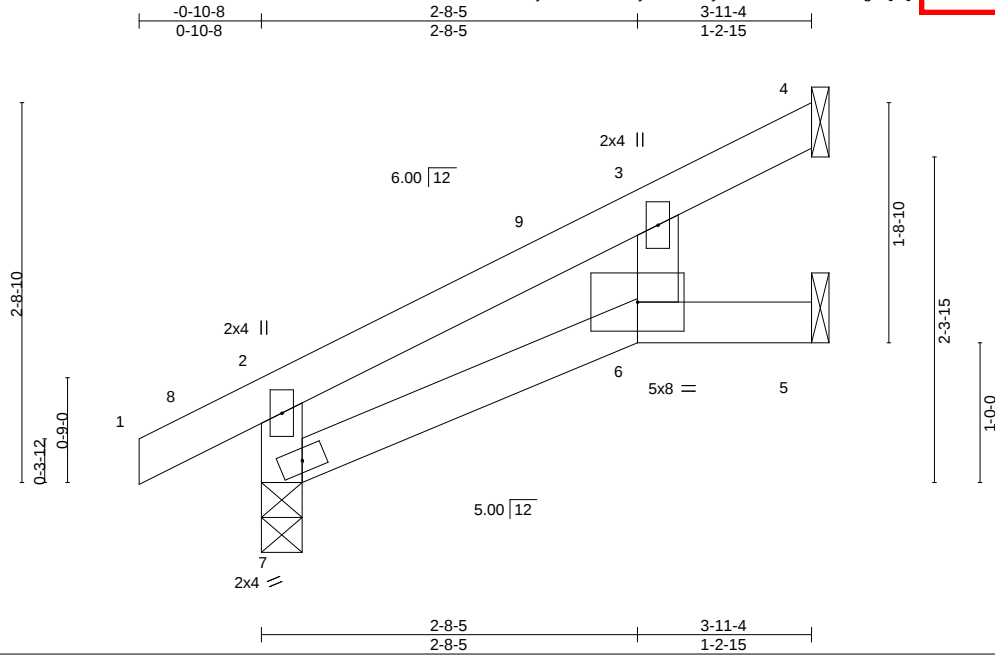
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J15	Jack-Open	4	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:31 2022 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-NTwoi5mgdQfQ7bR7PCKA61ojjbd6Wycz1r6092uJgm

02/09/2022



Scale = 1:16.5

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 0.16	Vert(LL)	0.02	6-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	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-MP						Weight: 12 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 3-11-4 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 7=0-3-8
 Max Horz 7=77(LC 12)
 Max Uplift 4=-36(LC 12), 5=-19(LC 12), 7=-25(LC 12)
 Max Grav 4=91(LC 1), 5=67(LC 1), 7=249(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 3-10-8 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) 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.



January 18, 2022

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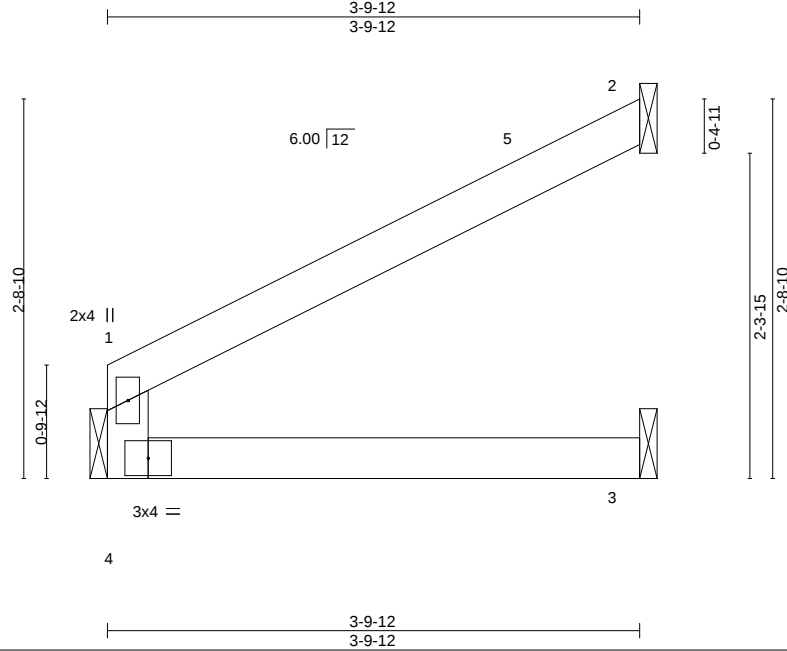
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J16	Jack-Open	5	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:32 2022 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-rgUBvRnIOkHlk0JyvrQLEtL_zEkZ0lChankcZuUg

02/09/2022



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	3-4	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	3-4	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=Mechanical, 3=Mechanical, 4=Mechanical
Max Horz 4=59(LC 12)
Max Uplift 2=-58(LC 12), 4=-3(LC 12)
Max Grav 2=116(LC 1), 3=69(LC 3), 4=162(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 3-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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, 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.



January 18, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J17	Jack-Open	1	1	Job Reference (optional)

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

02/09/2022

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:33 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-Js2Z7mow91v8NulVWdMfSuo1oFeRQIMRLKCS22uJgk

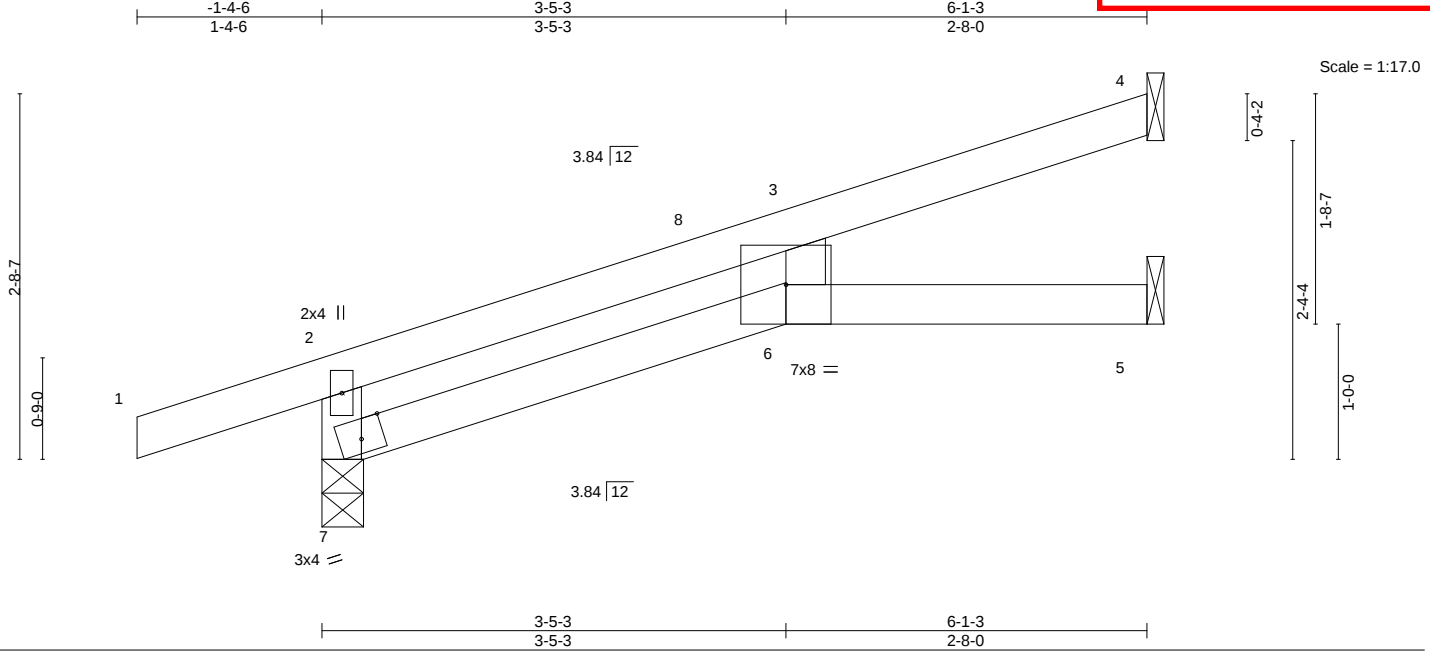


Plate Offsets (X,Y)-- [7:0-2-0,Edge]											
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.10 6-7	>688	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.14 6-7	>506	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.04 5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS						Weight: 17 lb	FT = 20%

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

REACTIONS. (size) 7=0-3-11, 4=Mechanical, 5=Mechanical
Max Horz 7=85(LC 8)
Max Uplift 7=-92(LC 8), 4=-50(LC 12), 5=-12(LC 12)
Max Grav 7=385(LC 1), 4=156(LC 1), 5=95(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-292/191

- 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) -1-4-6 to 2-10-8, Exterior(2R) 2-10-8 to 6-0-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) 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) 7, 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.
 - 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J18	Jack-Open	2	1	149734754

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:33 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-Js2Z7mow91v8NubWdMfS3R0dLTQSWRLKCs22u0gk



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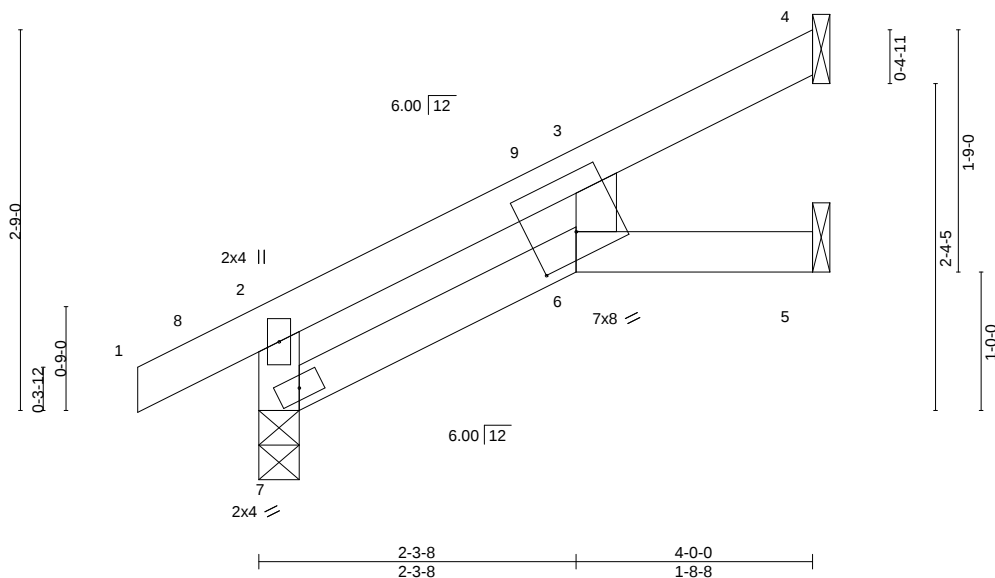


Plate Offsets (X,Y)-- [6:0-4-0,0-2-4]

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 0.15	Vert(LL)	0.02	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	6	>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: 12 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=44(LC 12), 5=-13(LC 12), 7=-25(LC 12)
 Max Grav 4=100(LC 1), 5=61(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.



January 18, 2022

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

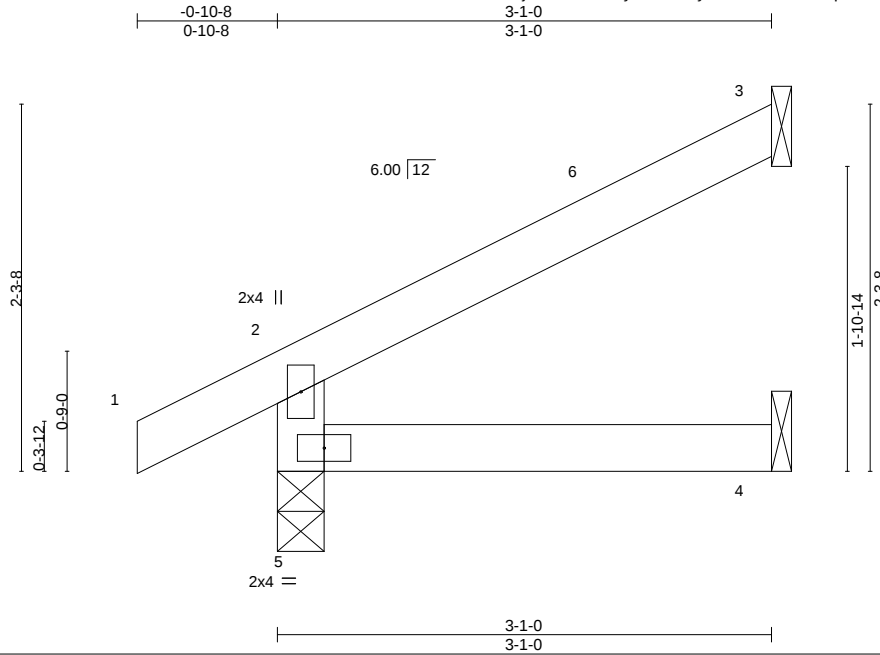
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J19	Jack-Open	1	1	149734755

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:34 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-n2cxK6pZwL17_29i4Kt6Qf6Ft6gucit2g_3mPUZdUg

02/09/2022



Scale = 1:14.4

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 0.11	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	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-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 3-1-0 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=62(LC 12)
 Max Uplift 3=-45(LC 12), 5=-23(LC 12)
 Max Grav 3=85(LC 1), 4=54(LC 3), 5=214(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 3-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



January 18, 2022

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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

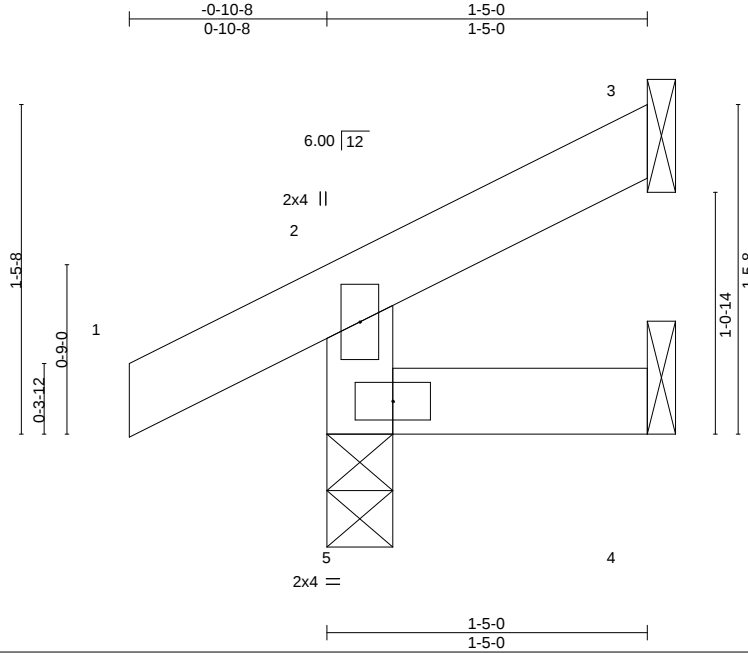
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J20	Jack-Open	1	1	149734756

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:35 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-FFAJXSpBg9scCkue2O7ytzQAC1pXK7BuepwwzdUgt

02/09/2022



Scale = 1:10.2

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 1-5-0 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=33(LC 9)
 Max Uplift 3=-19(LC 12), 4=-1(LC 9), 5=-21(LC 12)
 Max Grav 3=22(LC 1), 4=22(LC 3), 5=157(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, 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.



January 18, 2022

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 #114/MO
3044392	J21	Diagonal Hip Girder	1	1	149734757
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:36 2022 Page 1					
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-jRkhloqRyHjEMJ4BivMv4wzfcJfgmVWL7HYFFNzUgh					
Job Reference (optional)					

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/09/2022

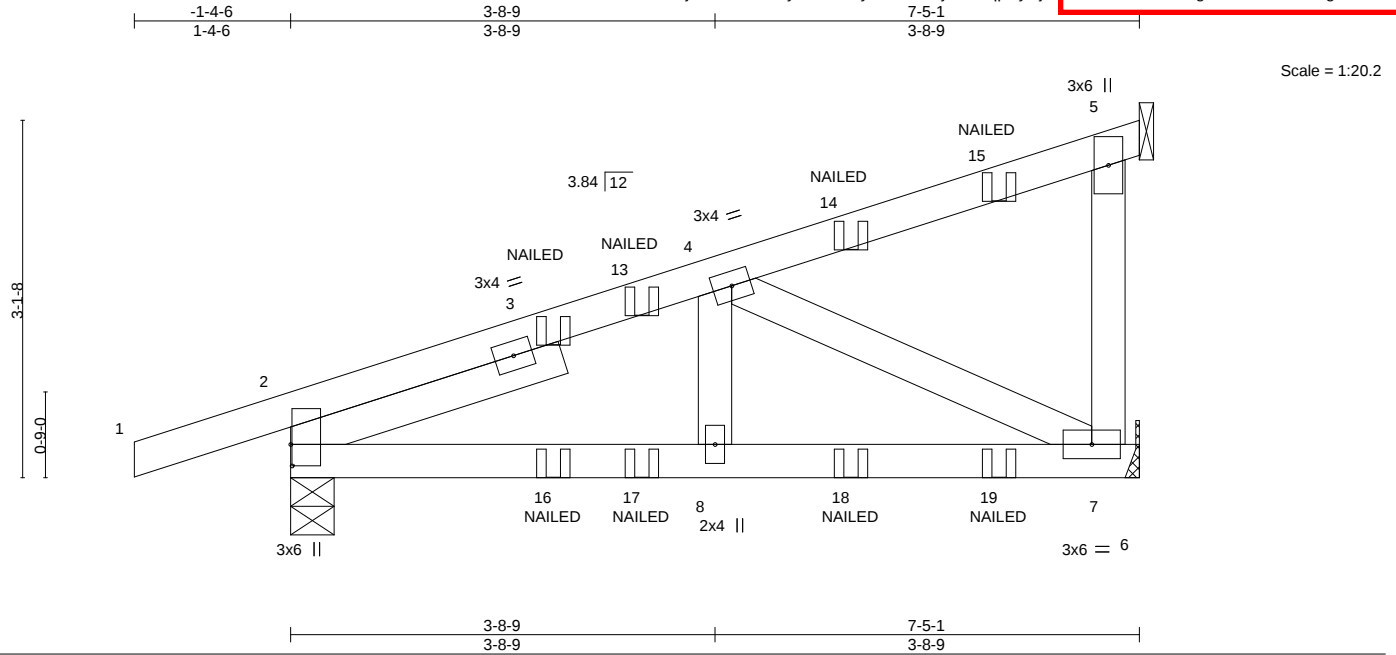


Plate Offsets (X,Y)-- [2:0-2-4,0-0-2]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01 7-8 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.02 7-8 >999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.00 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 30 lb FT = 20%

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

REACTIONS.	(size) 2=0-4-9, 7=Mechanical, 5=Mechanical
	Max Horz 2=105(LC 4)
	Max Uplift 2=-106(LC 4), 7=-64(LC 8), 5=-51(LC 4)
	Max Grav 2=438(LC 1), 7=273(LC 1), 5=124(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-419/76
BOT CHORD	2-8=-128/413, 7-8=-128/413
WEBS	4-7=-458/141

- 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) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5 except (jt=lb) 2=106.
 - 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
 - 8) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 6-9=-20
Concentrated Loads (lb)
Vert: 14=-0(B) 15=-32(F) 16=3(B) 17=-1(F) 18=-5(B) 19=-56(F)



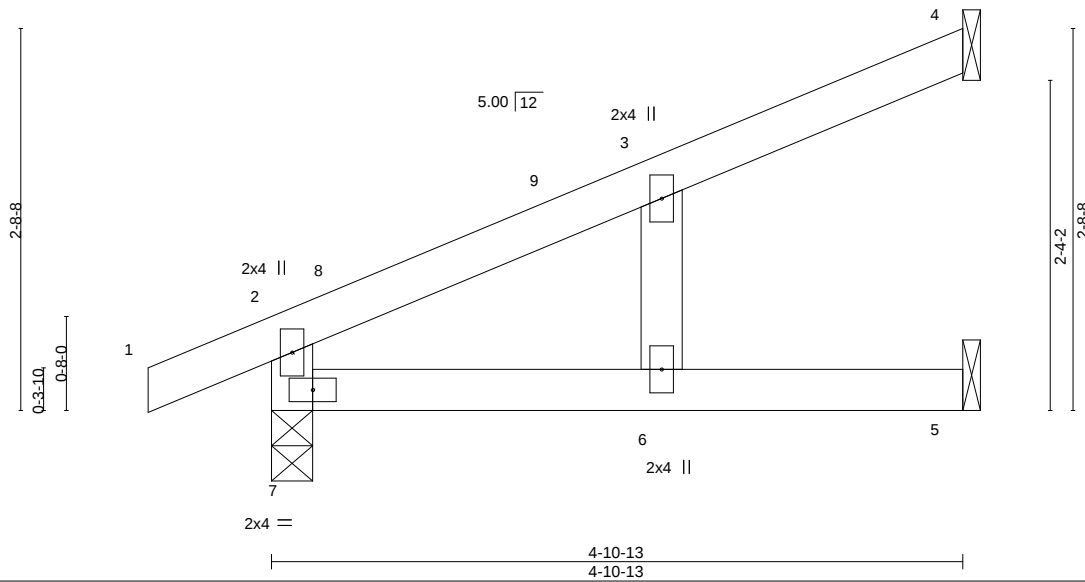
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J22	Jack-Open	1	1	149734758

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:36 2022 Page 1
 ID:tjnOHGeVPJTyi41JASwyTKzhfUX-jRkhloqpRyHjE MJ4BivMv4wZclbgnL7NYtTNzUgh

02/09/2022



Scale = 1:16.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.21	Vert(LL) 0.04	0.04	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.06	-0.06	6	>930	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.02	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						Weight: 15 lb	FT = 20%

LUMBER-

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

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=80(LC 12)
 Max Uplift 4=-44(LC 12), 5=-14(LC 12), 7=-38(LC 12)
 Max Grav 4=120(LC 1), 5=83(LC 1), 7=290(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 4-10-1 zone; cantilever left and right exposed; end 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.



January 18, 2022

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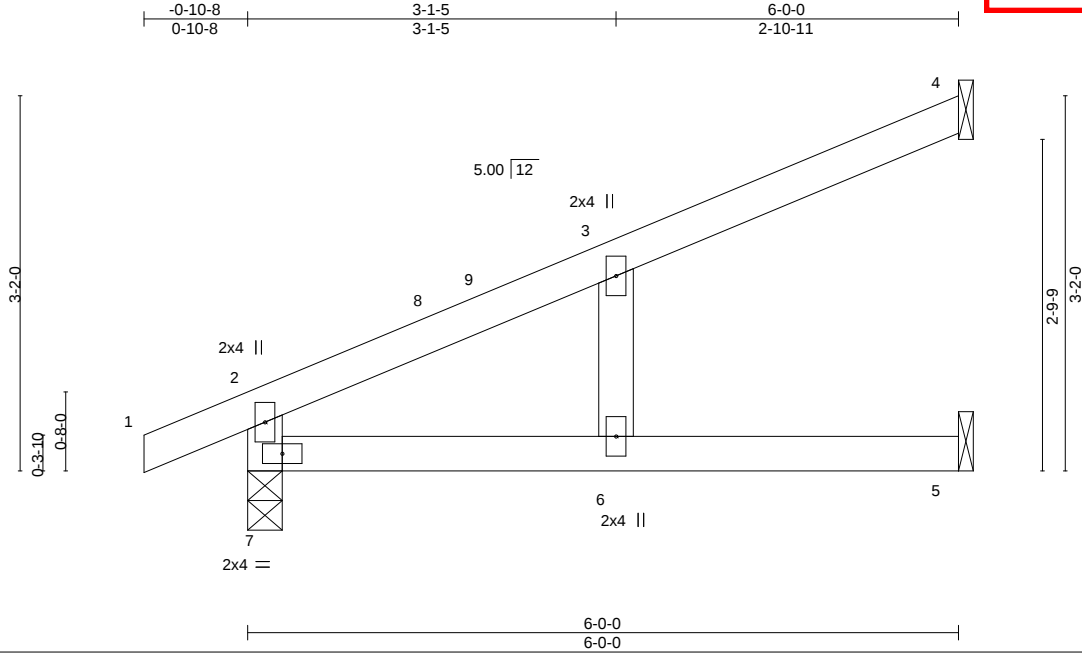


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J23	Jack-Open	2	1	149734759

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:37 2022 Page 1
 ID: tjnOHGeVPJTyi41JASwyTKzhfUX-Cdl4y8rRCGPanWuGITRbzLzjnc?P-EKUMyICopzuUgc

02/09/2022



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.32	Vert(LL) 0.09	6	>768	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.14	6	>482	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 17 lb	FT = 20%

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
 Max Horz 7=96(LC 12)
 Max Uplift 4=-57(LC 12), 5=-14(LC 12), 7=-43(LC 12)
 Max Grav 4=154(LC 1), 5=100(LC 1), 7=338(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 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J24	Roof Special Girder	1	1	149734760
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:38 2022 Page 1					
Job Reference (optional)					

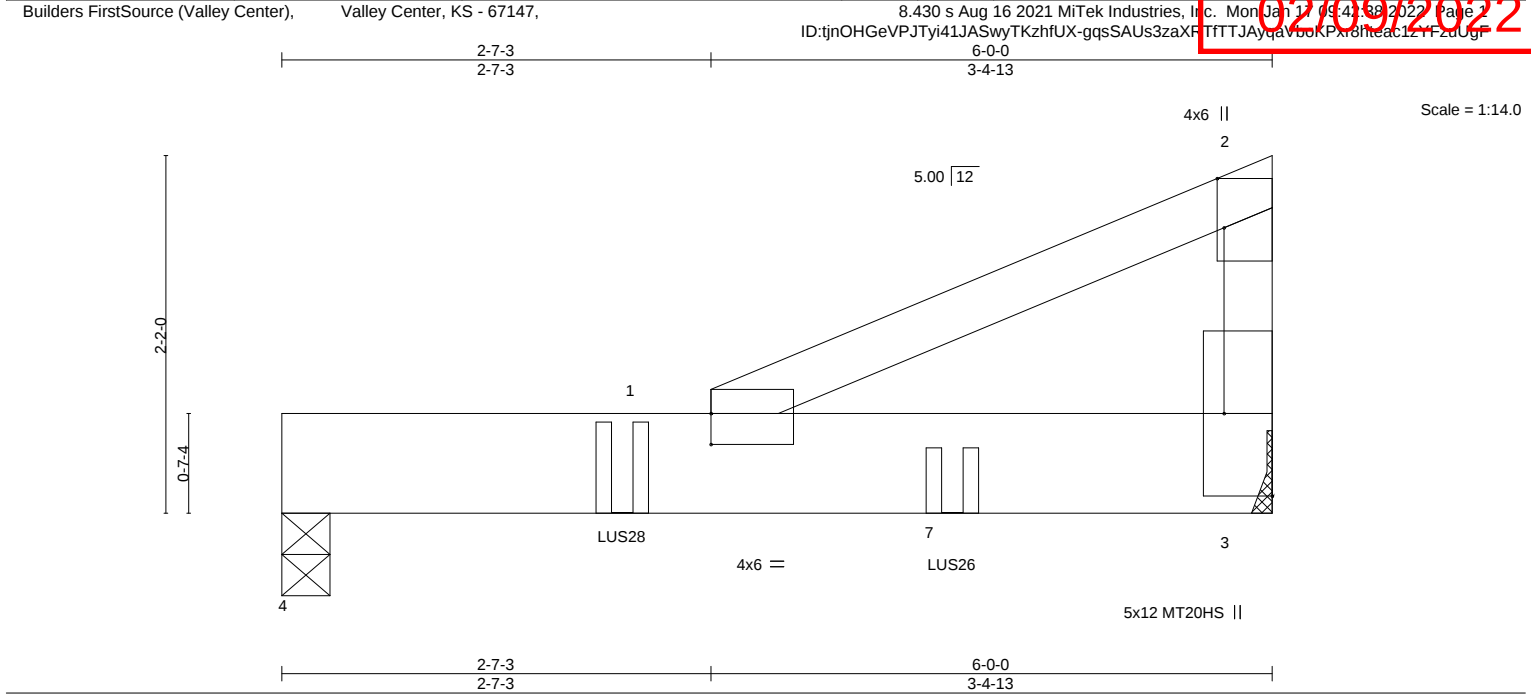


Plate Offsets (X,Y)-- [1:0-0-0,0-2-4], [2:0-3-9,Edge], [3:Edge,0-3-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.06	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.11	5	>634	180	MT20HS
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
									GRIP
									197/144
									148/108
									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 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 3=Mechanical, 4=0-3-8
	Max Horz 4=65(LC 7)
	Max Uplift 3=-185(LC 8), 4=-116(LC 8)
	Max Grav 3=1146(LC 1), 4=1049(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-319/50
BOT CHORD	1-3=-57/301

- 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) All plates are MT20 plates unless otherwise indicated.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) 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) 3=185, 4=116.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) Use Simpson Strong-Tie LUS28 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 2-0-12 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.
 - 8) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 4-0-12 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.
 - 9) Fill all nail holes where hanger is in contact with lumber.
 - 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, 1-4=-90, 1-3=-20
Concentrated Loads (lb)
Vert: 1=-833(F) 7=-848(F)



January 18,2022

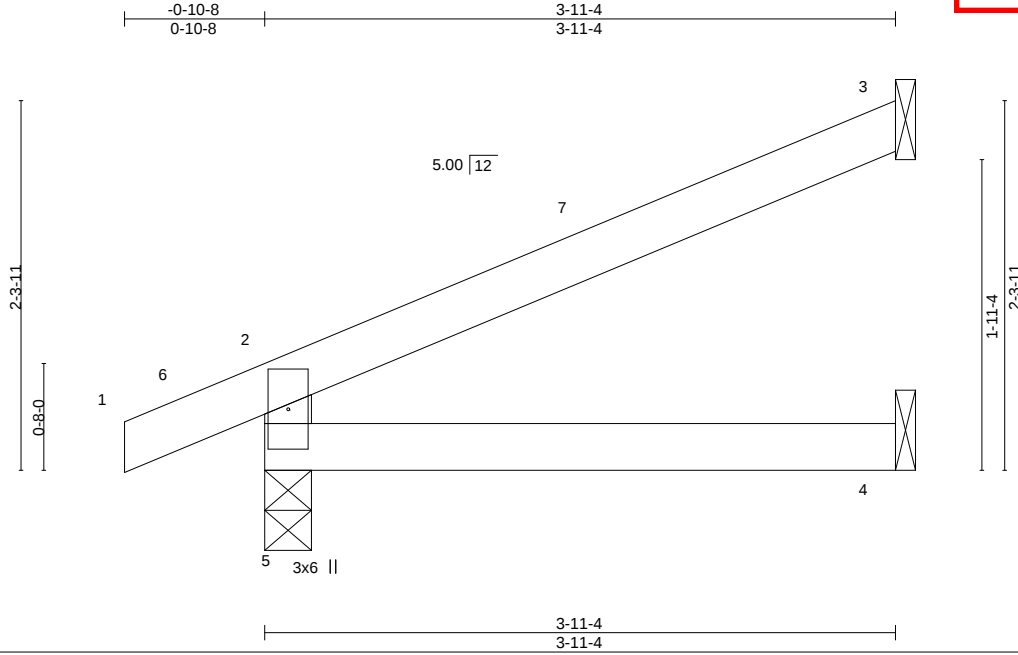
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J25	Jack-Open	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:39 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-80PqNqshkf15p2ftt13/j64CpNA87mpGhxx4izdUgE

02/09/2022



Scale = 1:14.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.20	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	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-MR						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=65(LC 12)
Max Uplift 5=-34(LC 12), 3=-52(LC 12)
Max Grav 5=249(LC 1), 3=114(LC 1), 4=70(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 3-10-8 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) 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) 5, 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.



January 18, 2022

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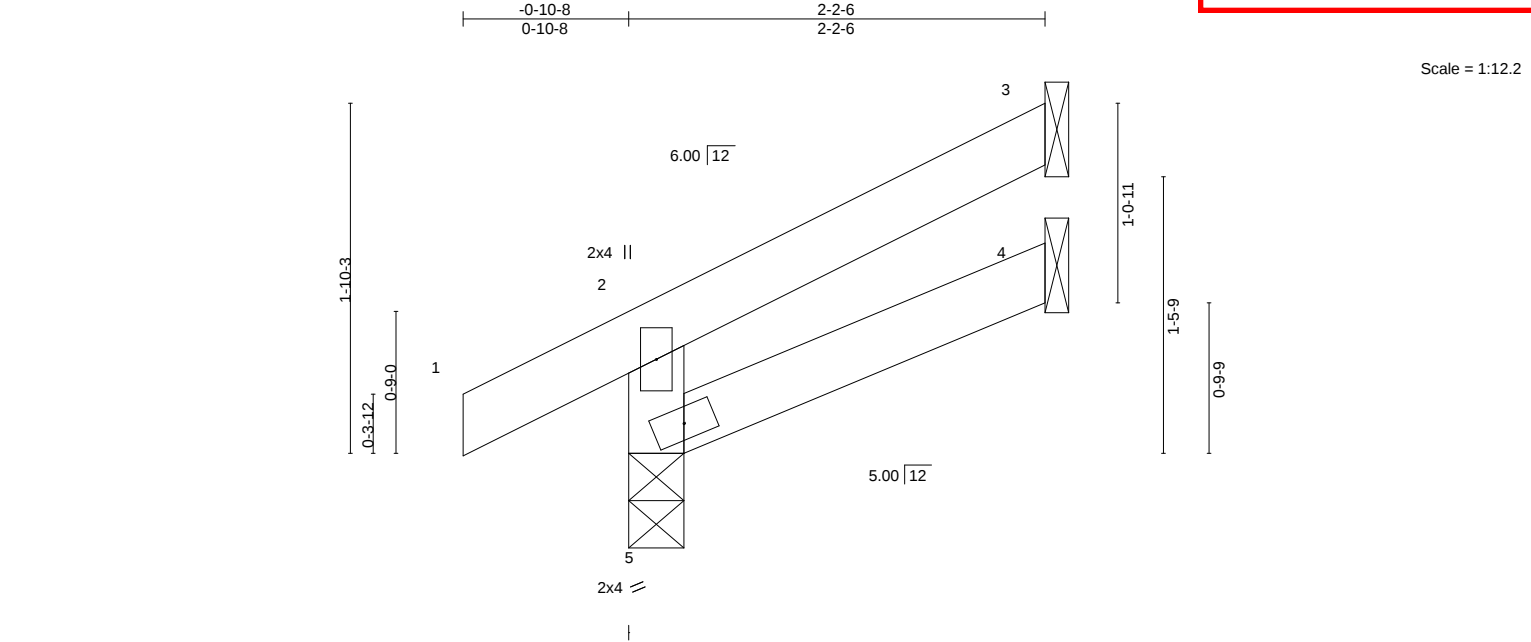
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J26	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:39 2022 Page 1
ID:tpnOHGeVPJTyi41JASwyTKzhfUX-80PqNqshkf15p2ft137j009pOmt87mpGhxx4izdUgE



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MR						
	Code IRC2018/TPI2014						Weight: 7 lb	FT = 20%

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=45(LC 12)
Max Uplift 3=-32(LC 12), 5=-20(LC 12)
Max Grav 3=54(LC 1), 4=36(LC 3), 5=179(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.



January 18, 2022

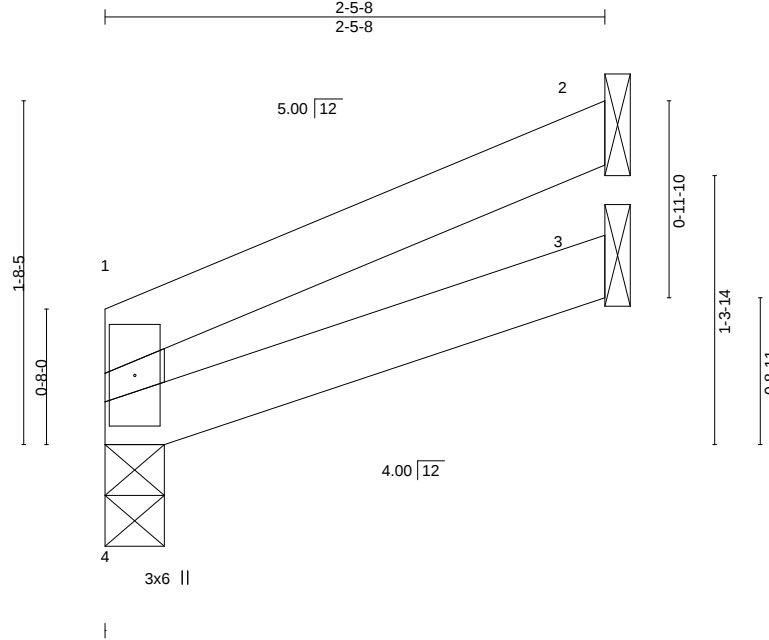
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J27	Jack-Open	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:40 2022 Page 1

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02/09/2022



Scale = 1:11.3

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	3-4	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	3-4	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-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 2-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=32(LC 9)
Max Uplift 4=-5(LC 12), 2=-34(LC 12)
Max Grav 4=101(LC 1), 2=73(LC 1), 3=43(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) 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) 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.



January 18, 2022

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

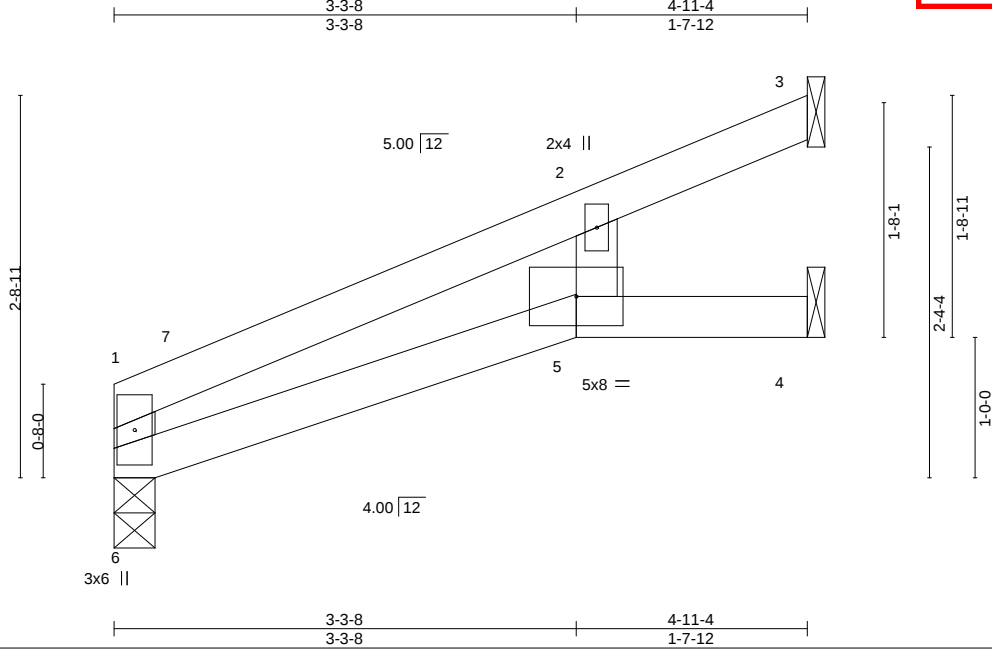
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 #114/MO
3044392	J28	Jack-Open	1	1	149734764
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:41 2022 Page 1					
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-4PXaoWuyGVw0K7C2_IVXC6DP5u1kLm4MaG6aazUgc					
Job Reference (optional)					

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
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02/09/2022



Scale = 1:16.4

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.04	5-6	>999	240		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.07	5-6	>873	180			
BCLL 0.0	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.02	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 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, 3=Mechanical, 4=Mechanical
Max Horz 6=66(LC 12)
Max Uplift 6=-17(LC 12), 3=-40(LC 12), 4=-20(LC 12)
Max Grav 6=213(LC 1), 3=125(LC 1), 4=88(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 3-5-4, Interior(1) 3-5-4 to 4-10-8 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) 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) 6 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) 6, 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.
- 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.



January 18, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J29	Diagonal Hip Girder	1	1	149734765

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:42 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-Yb5z?rva1o2syHntEY00mLnWfOLP4UcDVE?Bm02uJg6

02/09/2022

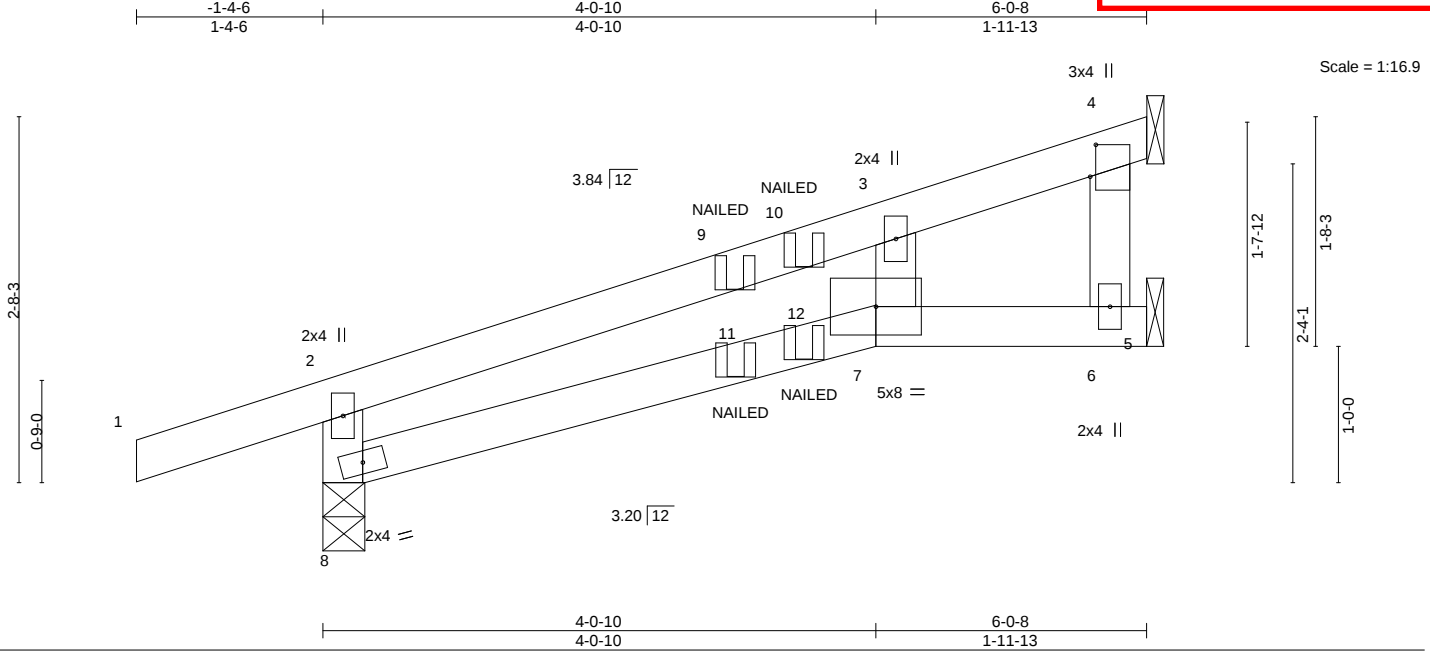


Plate Offsets (X,Y)--		[4:0-2-13,0-0-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51
TCDL 10.0	Lumber DOL	1.15	BC 0.28
BCLL 0.0	Rep Stress Incr	NO	WB 0.02
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.07 7-8 >987 240
			Vert(CT) -0.12 7-8 >546 180
			Horz(CT) 0.04 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 18 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 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 6-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-11, 6=Mechanical, 4=Mechanical
 Max Horz 8=82(LC 4)
 Max Uplift 8=-91(LC 4), 6=-12(LC 8), 4=-44(LC 8)
 Max Grav 8=376(LC 1), 6=84(LC 1), 4=163(LC 1)

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

TOP CHORD 2-8=-313/103

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
- 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.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6, 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.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-7=-20
- Concentrated Loads (lb)
 Vert: 11=-6(B) 12=0(F)



January 18, 2022

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16023 Swingley Ridge Rd
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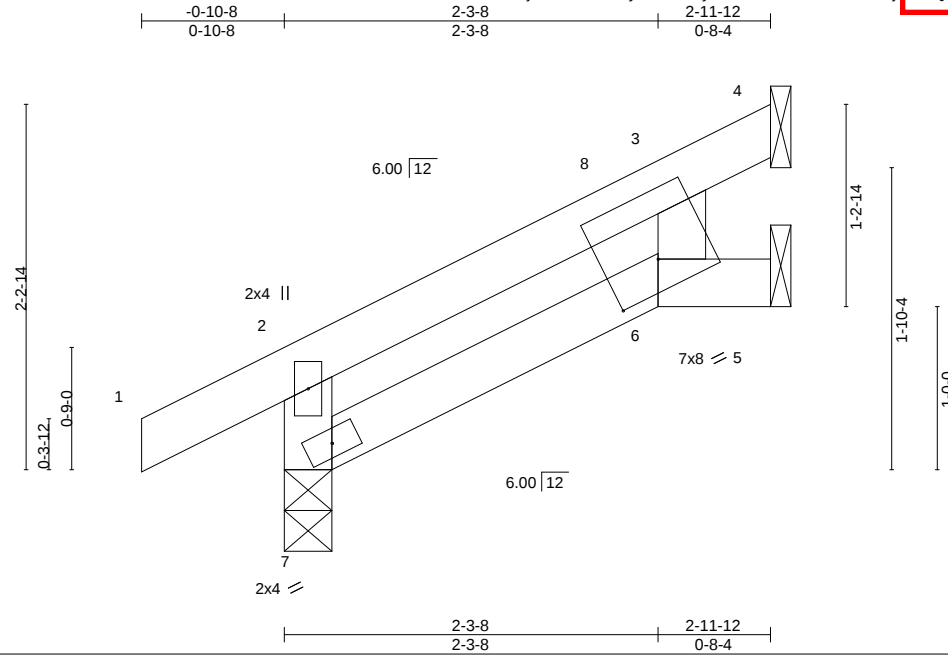
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J30	Jack-Open	1	1	149734766
Job Reference (optional)					

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:43 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-0nfLDBwCo6AjzRMQ6jX-HZtntQkspxyNkuikDTzUgA

02/09/2022



Scale = 1:14.1

Plate Offsets (X,Y)-- [6:0-4-0,0-2-4]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	0.01 6-7	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01 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-MP				
				PLATES	GRIP		
				MT20	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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=60(LC 12)
Max Uplift 4=-31(LC 12), 5=-12(LC 12), 7=-22(LC 12)
Max Grav 4=69(LC 1), 5=43(LC 1), 7=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) 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.



January 18, 2022

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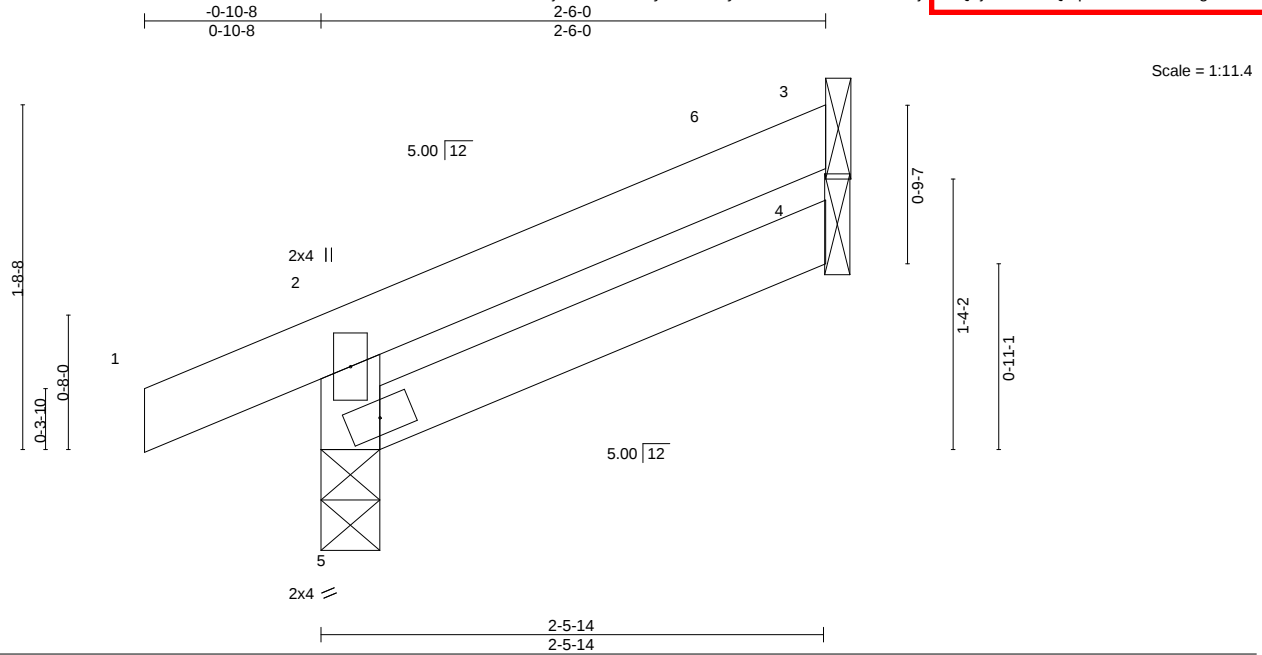
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	J31	Jack-Open	1	1	Job Reference (optional)

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

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:43 2022 Page 1
ID: tjnOHGeVPJTty41JASwyTKzhfUX-0nflDBwCo6AjZRMQ6jX-HZfoAQlpxbNkulkDTzUgA



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 0.04	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: 8 lb	FT = 20%

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=42(LC 12)
Max Uplift 3=-32(LC 12), 5=-28(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.



January 18, 2022

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



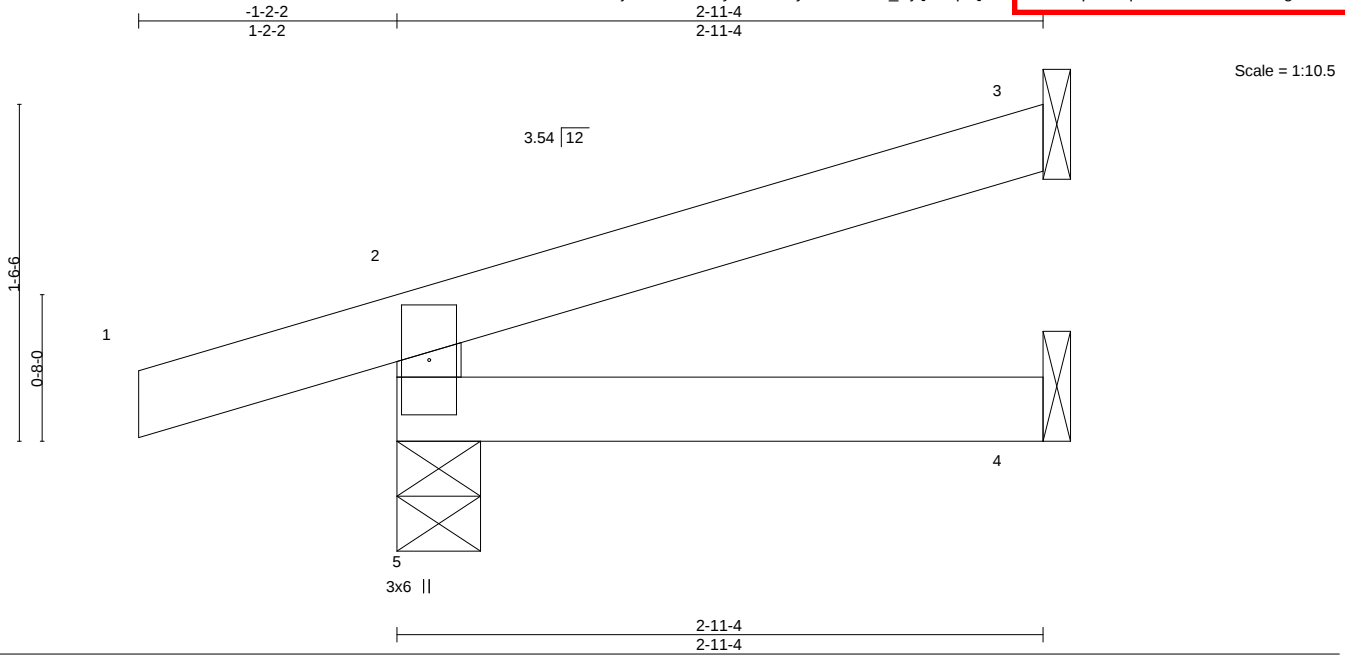
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	JD01	Jack-Open	2	1	Job Reference (optional)

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AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:14 2022 Page 1
ID: tjnOHGeVPJTyi41JASwyTKzhfUX-U_DjQXwqZQlaBawdfR3EqmizFq5L COMWZyOmZdUgs



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	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-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=42(LC 8)
Max Uplift 5=-73(LC 8), 3=-32(LC 12)
Max Grav 5=238(LC 1), 3=75(LC 1), 4=49(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.



January 18, 2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	JD03	Jack-Open	5	1	Job Reference (optional)

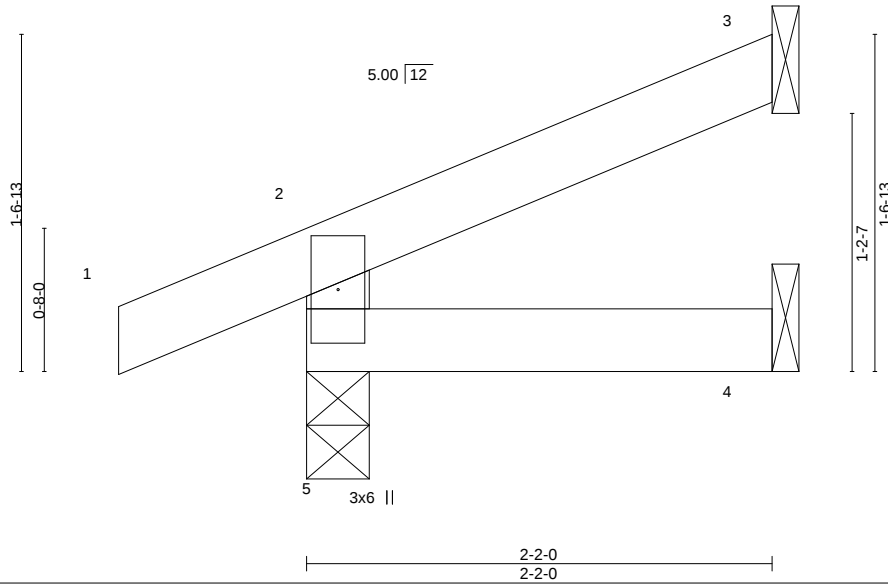
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:14 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-U_DjQXwqZQlaBawdfR3EqmFzwq50VOMWZYUhwZdUgs

02/09/2022

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



Scale = 1:10.7

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	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
								Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=38(LC 12)
Max Uplift 5=-30(LC 8), 3=-27(LC 12)
Max Grav 5=178(LC 1), 3=52(LC 1), 4=35(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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) 5, 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.



January 18, 2022

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

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

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



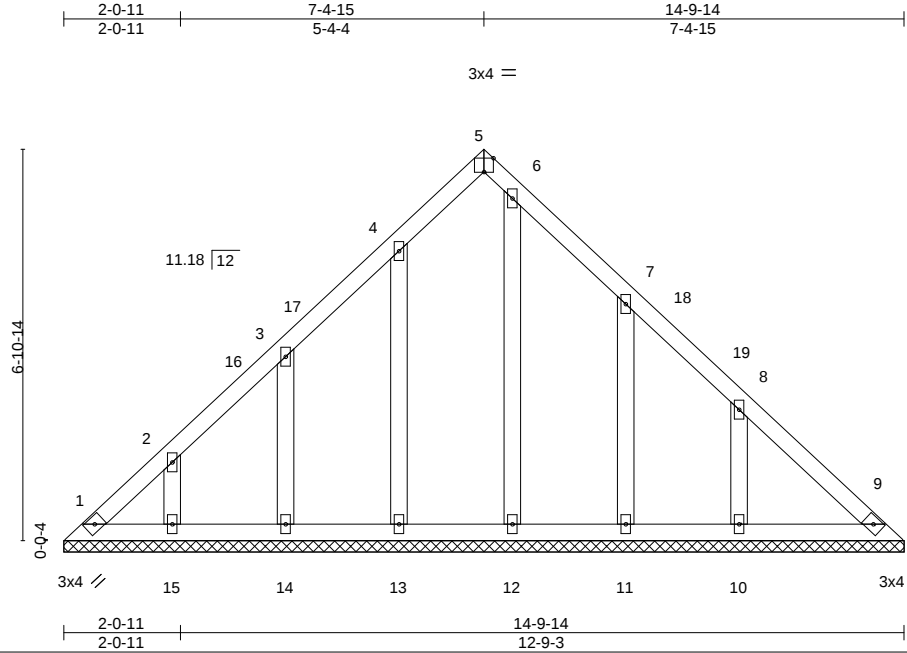
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG1	GABLE	1	1	149734770
Job Reference (optional)					

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

02/09/2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:15 2022 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-zAn5etxSKjQRpkVbD8aTM_N7gERoHqVWgBCEmLzUge



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
								Weight: 63 lb		FT = 20%	

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

REACTIONS. All bearings 14-9-14.
(lb) - Max Horz 1=-154(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 15 except 14=-105(LC 12), 11=-106(LC 13), 10=-125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 12, 13, 14, 11, 15 except 10=256(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 7-4-15, Exterior(2R) 7-4-15 to 10-4-15, Interior(1) 10-4-15 to 14-5-6 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
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) 1, 9, 13, 15 except (jt=lb) 14=105, 11=106, 10=125.
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.



January 18,2022

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG2	GABLE	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:47 2022 Page 1
9-5-8	24-6-12	ID:tnOHGeVPJTyi41JASwyTKzhfUX-vYus3ZzisLg922fBLZcXRPfTW1tZlj4yWjyWELdUge
9-5-8	15-1-4	31-8-1
		9-5-8

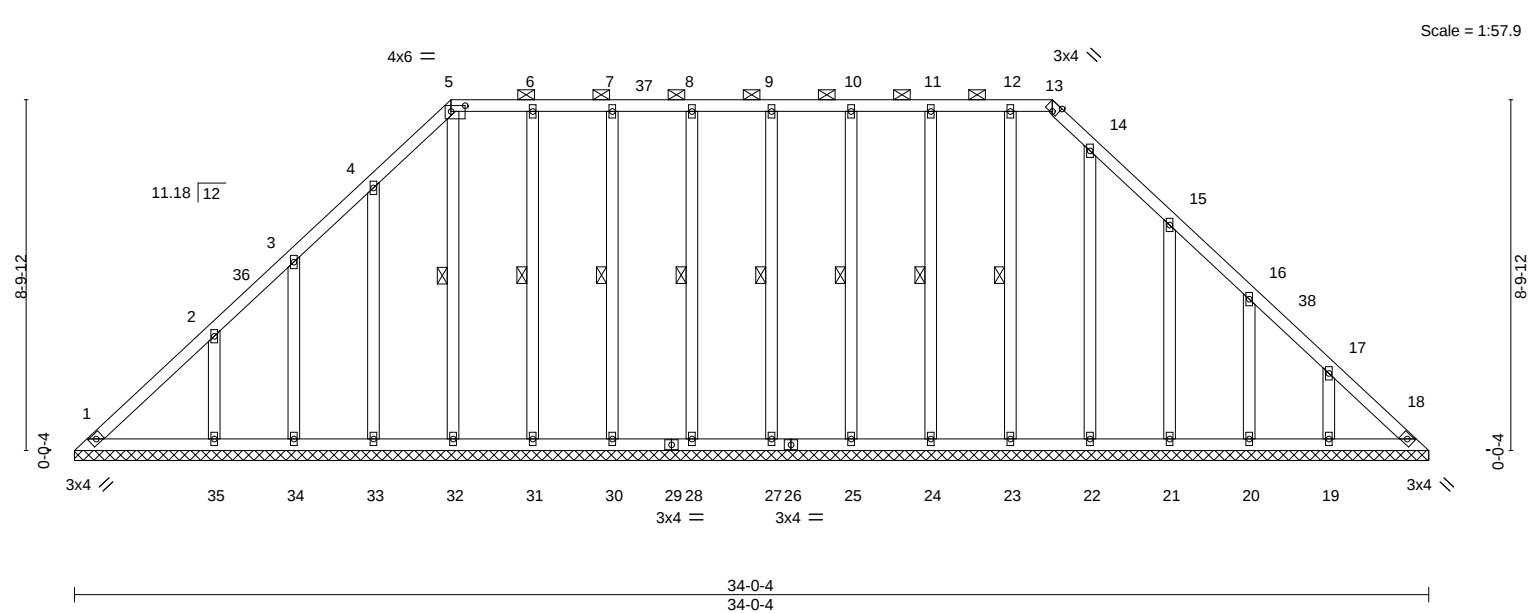


Plate Offsets (X,Y)-- [5:0-4-4,0-1-12], [13:0-1-10,Edge]		34-0-4		34-0-4	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(LL) n/a - n/a 999	GRIP 197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Horz(CT) 0.01 18 n/a n/a	Weight: 196 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 2-0-0 oc purlins (6-0-0 max.): 5-13.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	WEBS 1 Row at midpt 9-27, 8-28, 7-30, 6-31, 5-32, 10-25, 11-24, 12-23

REACTIONS.	All bearings 34-0-4.
(lb) - Max Horz 1=200(LC 9)	
Max Uplift	All uplift 100 lb or less at joint(s) 1, 18, 27, 28, 30, 31, 32, 34, 25, 24, 23, 22, 20 except 33=-105(LC 12), 35=-154(LC 12), 21=-117(LC 13), 19=-114(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) 1, 18, 27, 28, 30, 31, 32, 33, 34, 25, 24, 23, 22, 21, 20, 19 except 35=308(LC 19)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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- 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) 0-4-7 to 3-6-2, Interior(1) 3-6-2 to 9-5-8, Exterior(2R) 9-5-8 to 14-3-2, Interior(1) 14-3-2 to 24-6-12, Exterior(2R) 24-6-12 to 29-6-2, Interior(1) 29-6-2 to 33-7-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 18, 27, 28, 30, 31, 32, 34, 25, 24, 23, 22, 20 except (it=lb) 33=105, 35=154, 21=117, 19=114.
 - This truss 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.

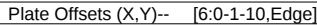


January 18,2022

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:42:48 2022 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-NISEGvzLdeo0gCE0uG7A_c?ahRRXUA00uASvugzuUg5



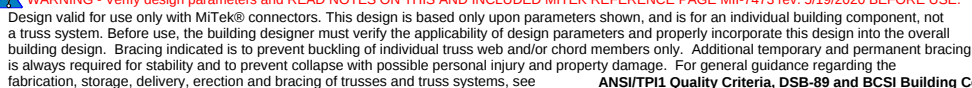
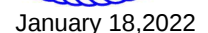
LUMBER-

BRACING-

REACTIONS.

TOP CHORD 1-2=-426/277, 2-3=-358/237, 3-4=-289/201

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



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



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG4	GABLE	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:49 2022 Page 1
ID:tnOHGeVPJTyi41JASwyTKzhfUX-rx0cUF_zNywHMPaS_ePxxqYopm_Bcbl-6qCSR7zdUg4		149734773

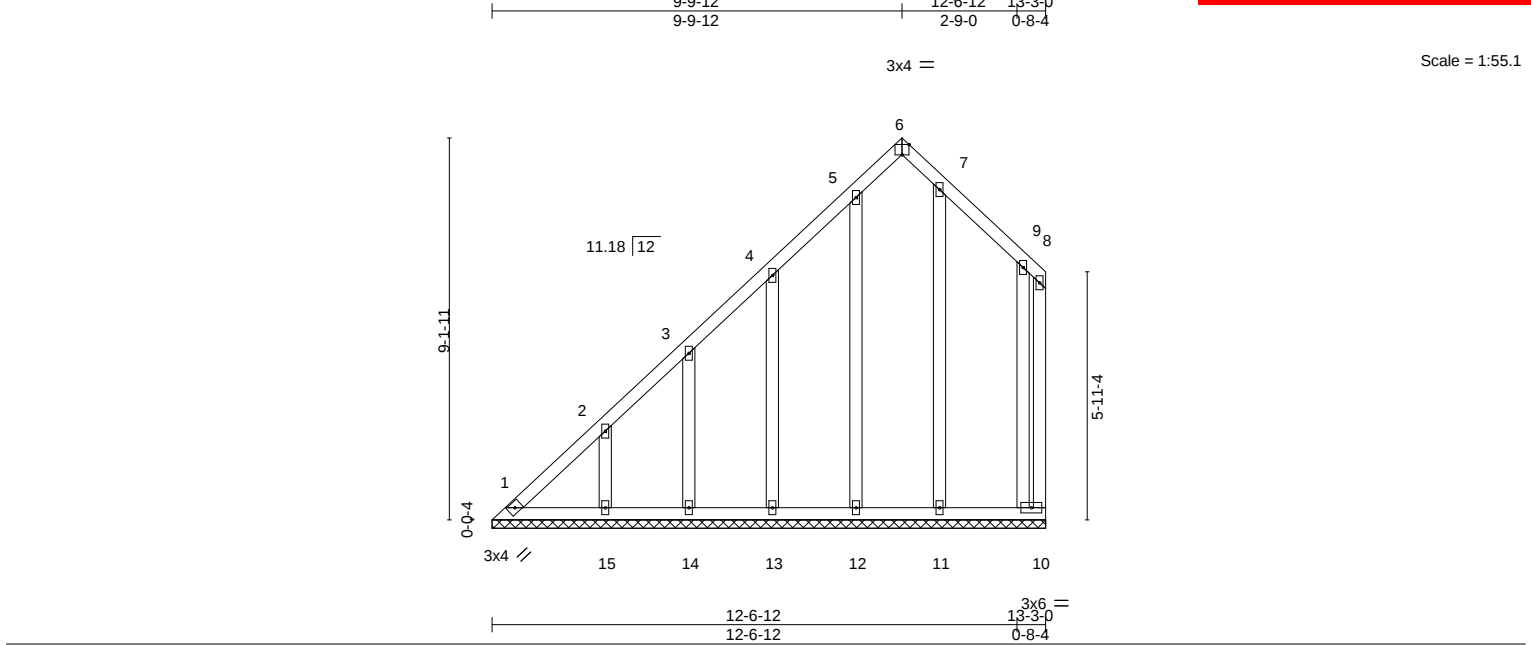


Plate Offsets (X,Y)-- [6:0-2-0,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a -	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a -	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.19	Horz(CT)	-0.00 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 79 lb	FT = 20%

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

REACTIONS.	All bearings 13-3-0.
(lb) - Max Horz 1=277(LC 9)	
Max Uplift	All uplift 100 lb or less at joint(s) 10, 14, 12, 11 except 1=-109(LC 8), 15=-122(LC 12), 13=-128(LC 12)
Max Grav	All reactions 250 lb or less at joint(s) 1, 10, 15, 14, 13, 12, 11

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-336/243, 2-3=-251/191

- 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) 0-4-7 to 3-4-7, Interior(1) 3-4-7 to 9-9-12, Exterior(2E) 9-9-12 to 13-1-4 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
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 14, 12, 11 except (jt=lb) 1=109, 15=122, 13=128.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18,2022

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



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG5	GABLE	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:50 2022 Page 1

ID:tnOHGeVPJTyi41JASwyTKzhfUX-J7a_ha?b8G2kvVQm0h9es15_of87ys1FLUxczZzUg6

02/09/2022

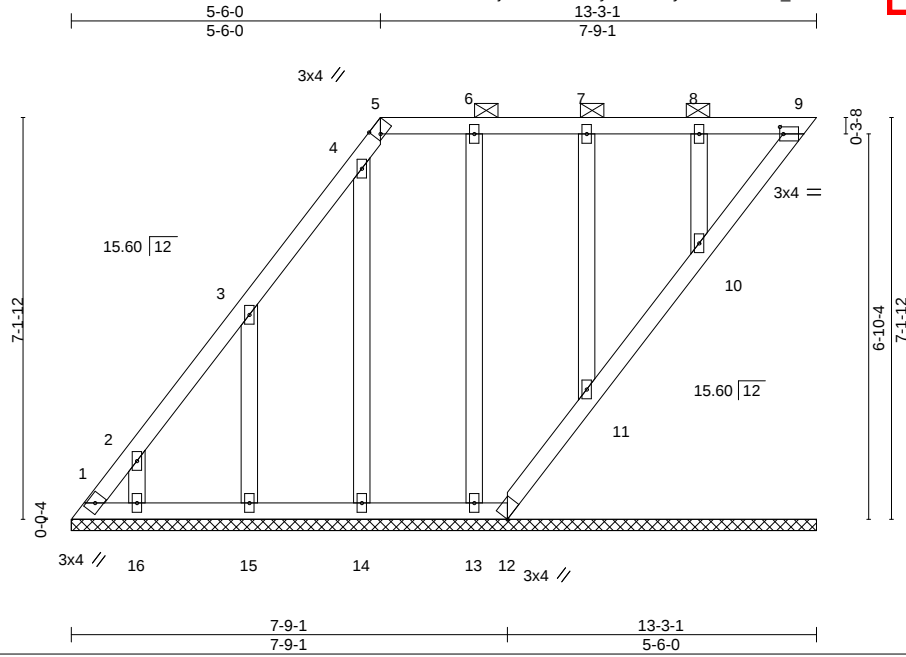


Plate Offsets (X,Y)-- [5:0-1-4,Edge], [9:0-0-12,0-1-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00	9	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S					
								PLATES	GRIP
								MT20	197/144
								Weight: 65 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.); 5-9.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 13-3-1.
 (lb) - Max Horz 1=253(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 9, 12, 14, 13, 11, 10 except 1=104(LC 10), 16=127(LC 12), 15=176(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 9, 12, 16, 15, 14, 13, 11, 10 except 1=266(LC 12)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=338/279

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) 0-3-9 to 3-2-0, Interior(1) 3-2-0 to 5-6-0, Exterior(2R) 5-6-0 to 8-6-0, Interior(1) 8-6-0 to 13-0-6 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
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 12, 14, 13, 11, 10 except (it=lb) 1=104, 16=127, 15=176.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 11, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 18, 2022

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

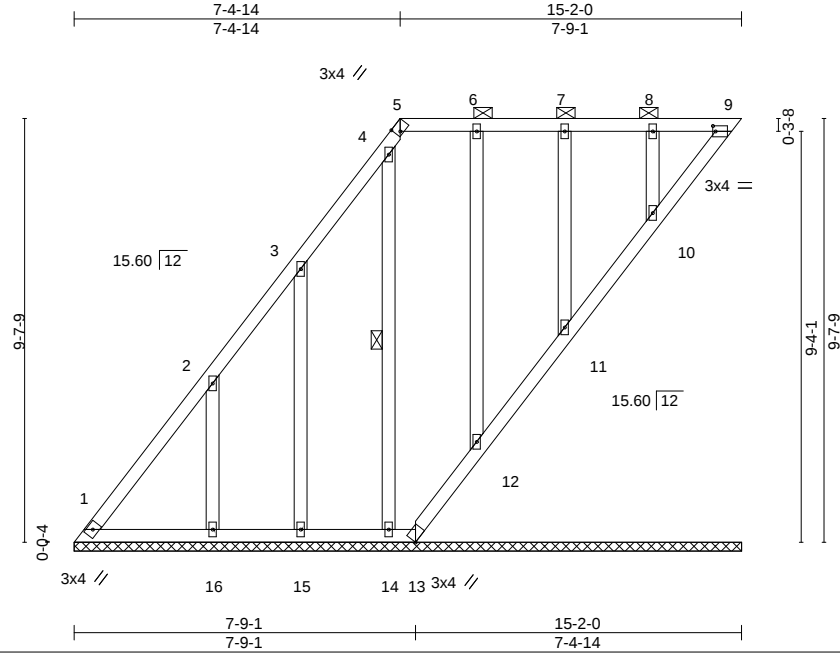
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG6	GABLE	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:51 2022 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-nK8Muw0DvZAtXfzzaPhicF002rU4hX_YabhsV?2dUgZ

02/09/2022



Scale = 1:52.4

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 81 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
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 5-9.
OTHERS 2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.
	WEBS 1 Row at midpt 4-14

REACTIONS. All bearings 15-2-0.
 (lb) - Max Horz 1=344(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 14, 12, 11, 10 except 16=-227(LC 12), 15=-147(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 9, 13, 15, 14, 12, 11, 10 except 1=280(LC 12), 16=317(LC 19)

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

TOP CHORD 1-2=-379/314
 WEBS 2-16=-279/236

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) 0-3-9 to 3-1-12, Interior(1) 3-1-12 to 7-4-14, Exterior(2R) 7-4-14 to 10-4-14, Interior(1) 10-4-14 to 14-11-5 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
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 13, 14, 12, 11, 10 except (jt=lb) 16=227, 15=147.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 12, 11, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 18, 2022

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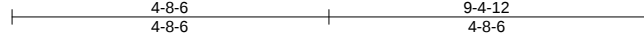


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	LG7	GABLE	1	1	Job Reference (optional)

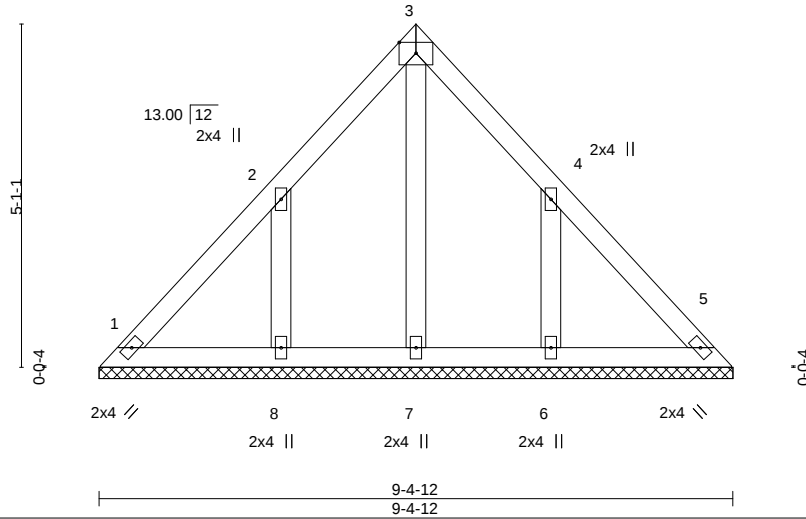
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:52 2022 Page 1
 ID: tjnOHGeVPJTtYi41JASwyTKzhfUX-FWl6G1rgtIS8pY976C68SAKwzqXQ0q00Cj1RZdUg1

02/09/2022



4x6 =

Scale = 1:34.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
								Weight: 36 lb		FT = 20%	

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

REACTIONS. All bearings 9-4-12.
 (lb) - Max Horz 1=-113(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-157(LC 12), 6=-156(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=265(LC 19), 6=264(LC 20)

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) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 4-8-6, Exterior(2R) 4-8-6 to 7-8-6, Interior(1) 7-8-6 to 9-0-12 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
- 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, 5 except (jt=lb) 8=157, 6=156.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18, 2022

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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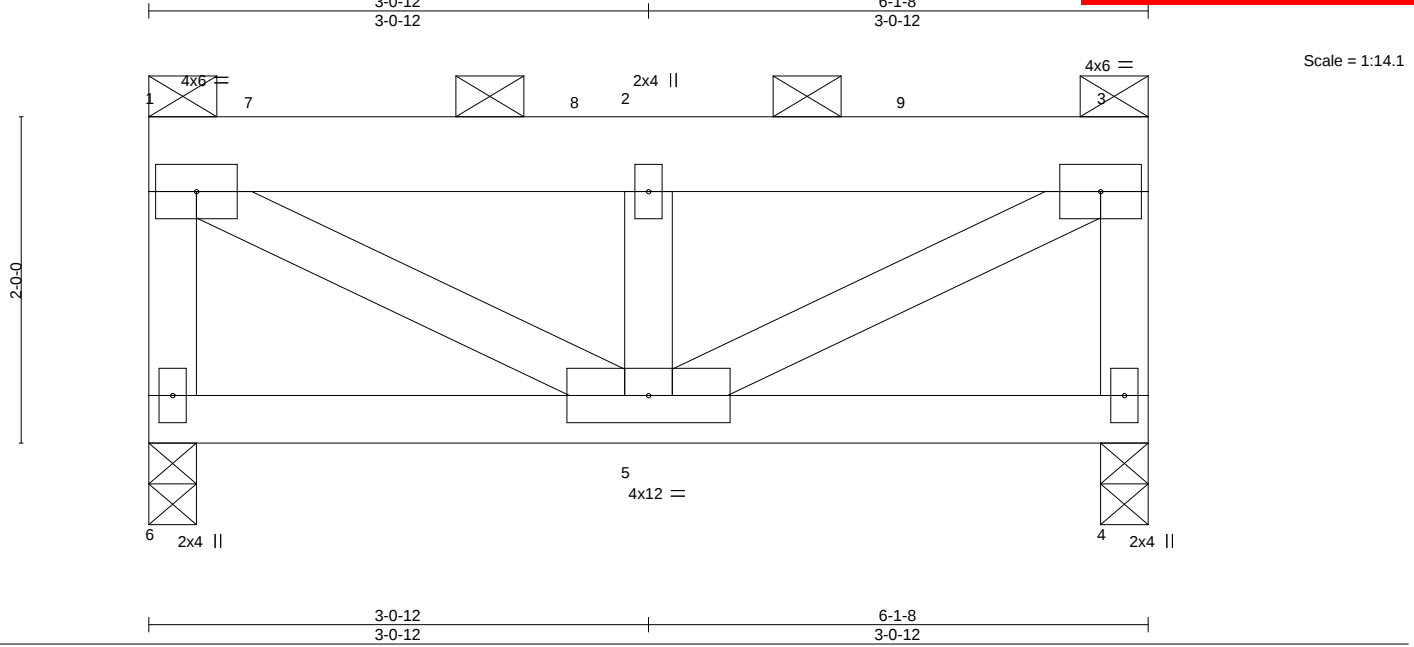


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	R1	Flat Girder	1	2	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:53 2022 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-kiG7Jc1TRBQJmz6LhqjLhgjCgSAR9Pm1SAcauzUgo

02/09/2022



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.01 5 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.30	Vert(CT) -0.02 5 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) -0.00 4 n/a n/a		
	Code IRC2018/TPI2014			Weight: 58 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 6=0-3-8, 4=0-3-8
	Max Horz 6=56(LC 5)
	Max Uplift 6=-347(LC 4), 4=-269(LC 5)
	Max Grav 6=2257(LC 1), 4=1893(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-6=-2211/353, 1-2=-2138/304, 2-3=-2138/304, 3-4=-1848/275
WEBS	2-5=-2356/374, 3-5=-362/2447, 1-5=-362/2447

- 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, 2x6 - 2 rows staggered at 0-9-0 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.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=347, 4=269.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1187 lb down and 203 lb up at 0-9-0, and 1213 lb down and 183 lb up at 2-9-0, and 1224 lb down and 172 lb up at 4-9-0 on top 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: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 7=-1187 8=-1213 9=-1224



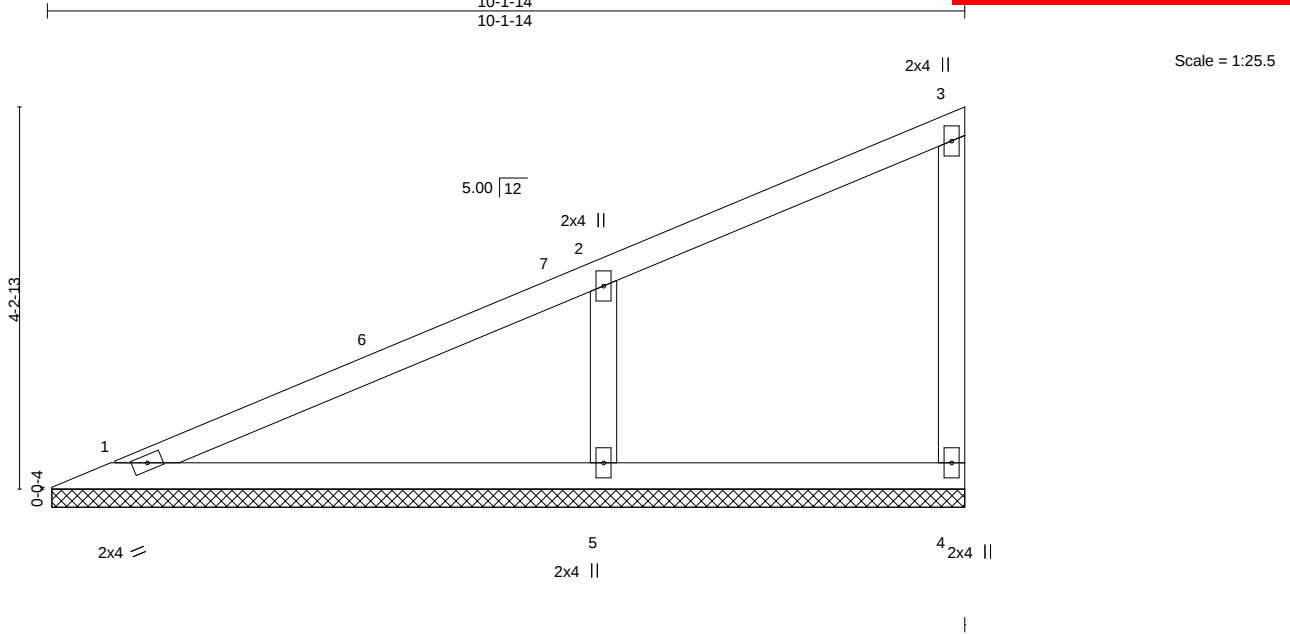
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V01	Valley	1	1	149734778

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:54 2022 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-CvpVXy25CUYAO7HYFXEaEtrcmstWwvV_G6vqKZuUg

02/09/2022



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 0.37	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-1-5, 4=10-1-5, 5=10-1-5
 Max Horz 1=152(LC 9)
 Max Uplift 1=-10(LC 12), 4=-22(LC 9), 5=-105(LC 12)
 Max Grav 1=197(LC 1), 4=109(LC 1), 5=528(LC 1)

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

WEBS 2-5=-398/223

NOTES-

- 1) 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 10-0-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=105.
- 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.



January 18, 2022

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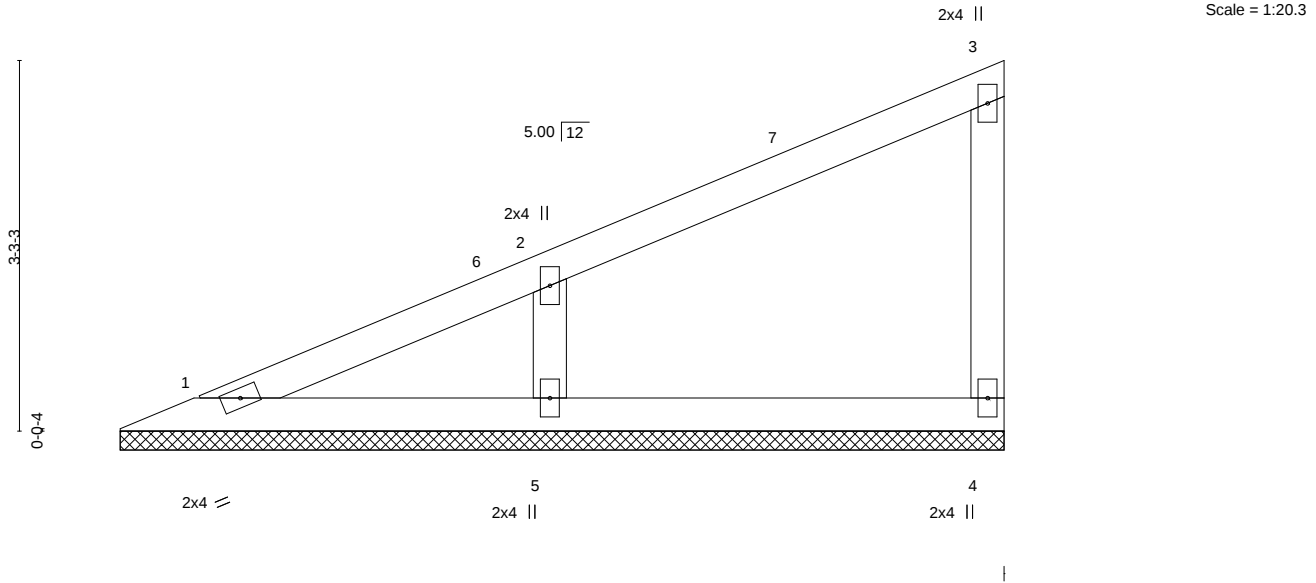
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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V02	Valley	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:54 2022 Page 1
ID: tjnOHGeVPJTty41JASwyTKzhfUX-CvpVXy25CUYA07hyFXEaLrFkSvyuWd_G6vqKzUg7		02/09/2022



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)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 22 lb	FT = 20%

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

REACTIONS.	(size)	1=7-9-6, 4=7-9-6, 5=7-9-6
Max Horz	1=114(LC 11)	
Max Uplift	4=-21(LC 9), 5=-92(LC 12)	
Max Grav	1=93(LC 1), 4=137(LC 1), 5=394(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	2-5=-306/213

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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 3-10-0, Interior(1) 3-10-0 to 7-8-4 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
 - 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) 4, 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.



January 18,2022

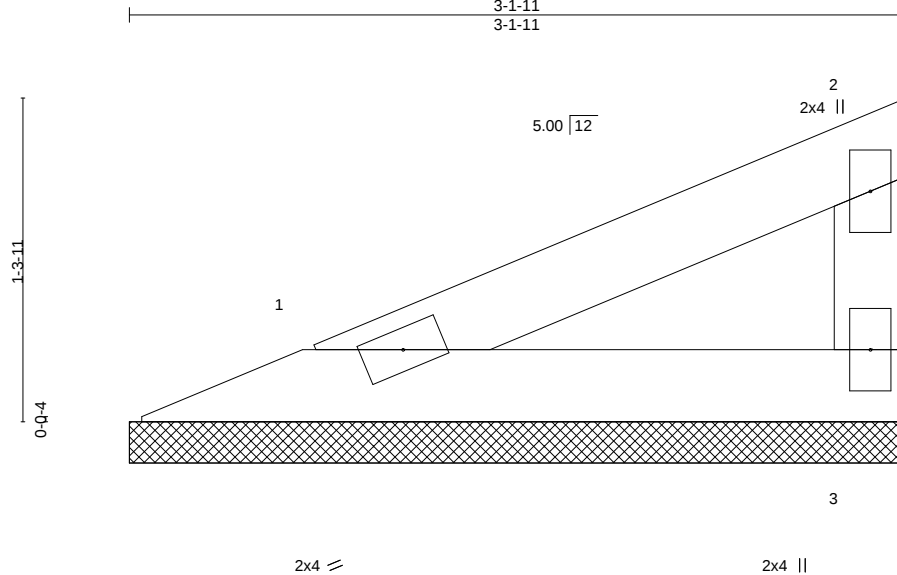
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V03	Valley	1	1	Job Reference (optional)

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:55 2022 Page 1

ID: tjnOHGeVPJTyi41JASwyTKzhfUX-g5Ntkl3kzog0?hGkpFlpm30rVGr60r48vmlfNemzaUg_

02/09/2022



Scale = 1:9.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	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 3-1-11 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-1-11, 3=3-1-11
 Max Horz 1=37(LC 9)
 Max Uplift 1=-14(LC 12), 3=-22(LC 12)
 Max Grav 1=101(LC 1), 3=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) 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.



January 18, 2022

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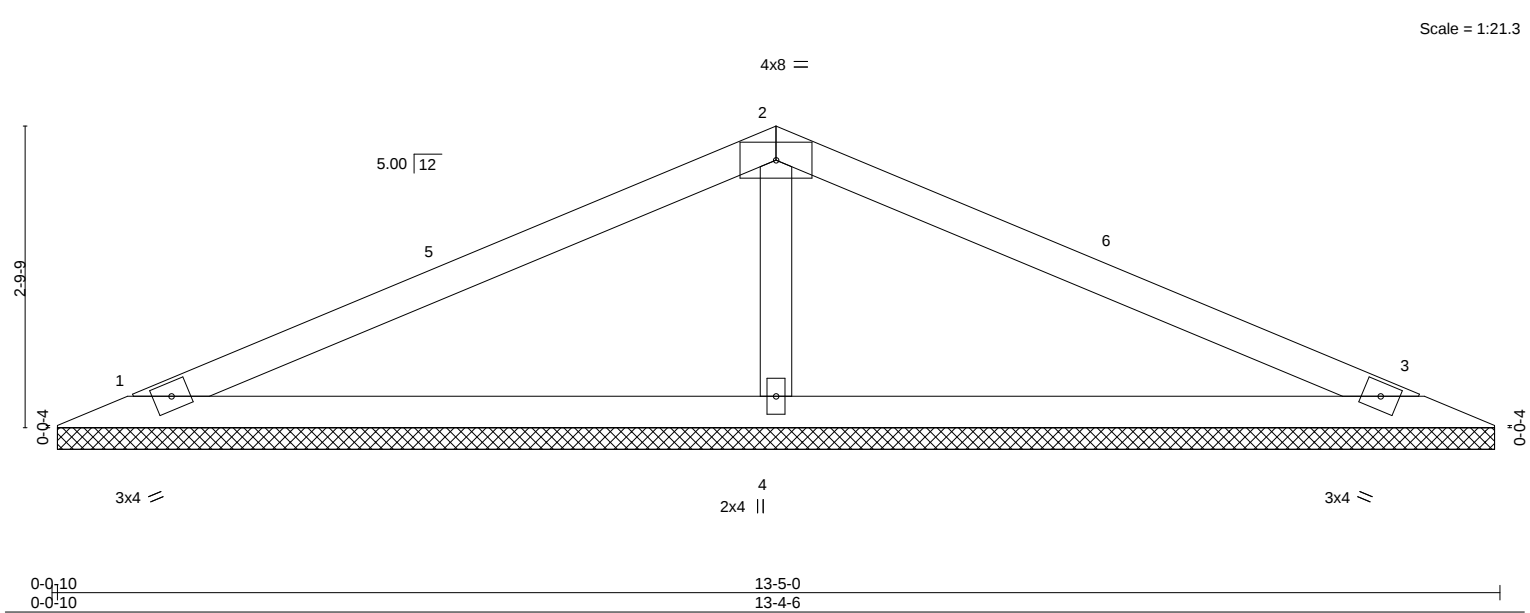
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V04	Valley	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:56 2022 Page 1
 ID:tjnOHGeVPJTyi41JASwyTKzhfUX-8HxFye4Mk6otdQrwMyGzJLvxg7WpPhJQCw9Dzu6z



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 32 lb	FT = 20%

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

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

REACTIONS. (size) 1=13-3-13, 3=13-3-13, 4=13-3-13
 Max Horz 1=39(LC 12)
 Max Uplift 1=-46(LC 12), 3=-53(LC 13), 4=-45(LC 12)
 Max Grav 1=242(LC 25), 3=242(LC 26), 4=600(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-4=-420/187

- 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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 6-8-8, Exterior(2R) 6-8-8 to 9-8-8, Interior(1) 9-8-8 to 12-7-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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, 3, 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18, 2022

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:57 2022 Page 2
 ID: tjnOHG6VPJTy41JASwyTKzhfUX-cUVd9_4_VPxkaQ6wforfWwSR3VF5H-Ry58UilzUdy

Technical drawing of a roof truss (Dachstuhl) showing structural components and dimensions. The drawing includes a cross-section of the roof structure with a gabled roof and a central vertical support.

Key components and dimensions labeled in the drawing:

- Roof Slopes:** The roof slopes are labeled with a ratio of $1:11.9$ on the left and $0:0.4$ on the right.
- Roof Pitches:** The roof pitches are labeled as $5.00 \over 12$ on the left and $4x6 =$ on the right.
- Structural Members:**
 - 1:** Left roof slope (rafters).
 - 2:** Central vertical support (post).
 - 3:** Right roof slope (rafters).
 - 4:** Horizontal base (foundation).
 - 5:** Left roof slope (rafters).
 - 6:** Central vertical support (post).
 - 7:** Right roof slope (rafters).
 - 8:** Horizontal base (foundation).
- Dimensions:**
 - 2x4 =** (Left side)
 - 2x4 ||** (Central support)
 - 2x4 =** (Right side)

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

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) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 4-8-8, Exterior(2R) 4-8-8 to 7-8-8, Interior(1) 7-8-8 to 8-7-15 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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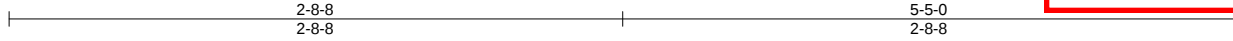
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V06	Valley	1	1	149734783

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 11 09:41:57 2022 Page 1

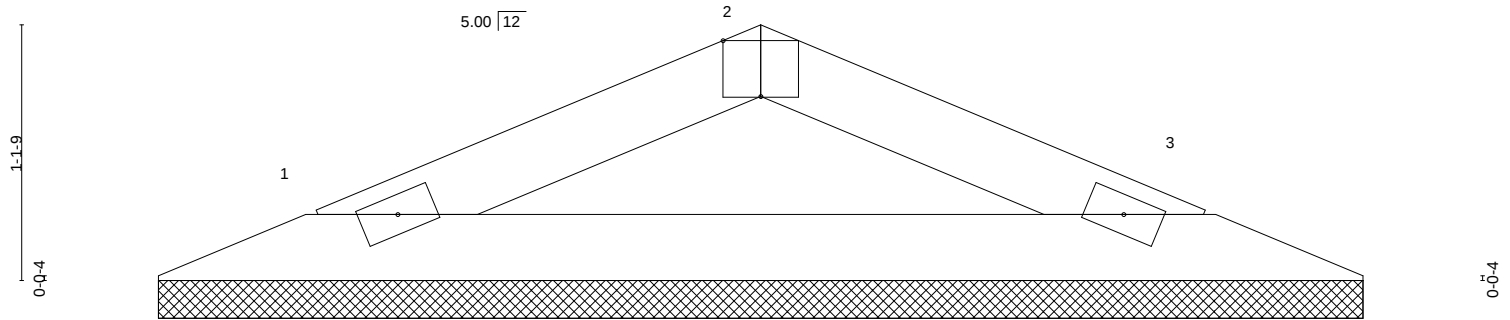
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-cUVd9_4_VPxlFaQ6wfoHrWbZ3v15HarysS0uZubry

02/09/2022



3x4 =

Scale = 1:10.2



2x4 =

2x4 =

0-0-10
0-0-10

5-5-0
5-4-6

Plate Offsets (X,Y)-- [2:0-2:0,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 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	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: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-3-13, 3=5-3-13
 Max Horz 1=13(LC 16)
 Max Uplift 1=-23(LC 12), 3=-23(LC 13)
 Max Grav 1=176(LC 1), 3=176(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, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 18, 2022

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

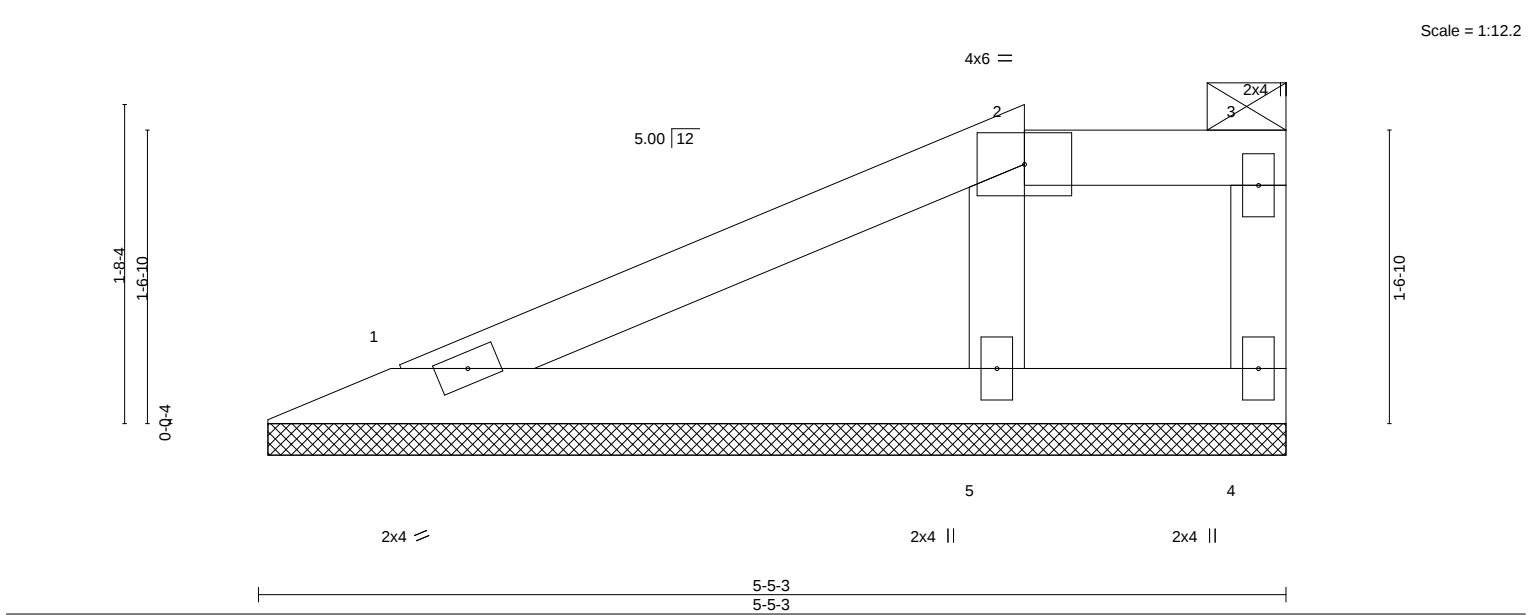
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #114/MO
3044392	V07	Valley	1	1	Job Reference (optional)

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Jan 17 09:41:58 2022 Page 1
		ID:tjnOHGeVPJTyi41JASwyTKzhfUX-4g30MK5cGj3bsk?JUNJW0j6KMT6xqkRABj4tESzUfX



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.20		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 0.03		Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 14 lb	FT = 20%

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

REACTIONS.	(size)	1=5-4-10, 4=5-4-10, 5=5-4-10
	Max Horz	1=49(LC 11)
	Max Uplift	1=-23(LC 12), 4=-16(LC 8), 5=-25(LC 12)
	Max Grav	1=134(LC 1), 4=44(LC 1), 5=231(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; TCCL=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
 - Provide adequate drainage to prevent water ponding.
 - 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



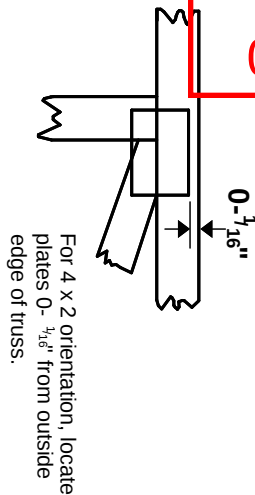
January 18,2022

02/09/2022

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.



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

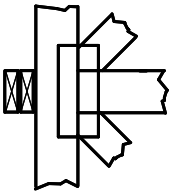
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



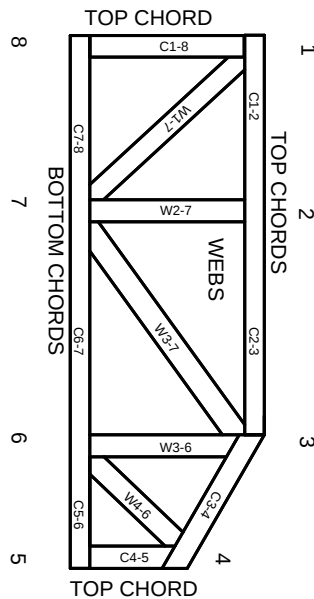
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.