



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

Re: 2894164
SUMMIT/HAWTHORN RIDGE #12/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: I47344054 thru I47344095

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

Missouri COA: Engineering 001193



August 9, 2021

Sevier, Scott ,Engineer

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

Builders FirstSource (Valley Center).	Valley Center, KS - 67147.
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8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:30 2021 - Page 1
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-0-10-8	22-3-14	29-3-5	32-3-8	33-6-0
0-10-8	22-3-14	6-11-6	3-0-3	1-2-8

08/23/2021

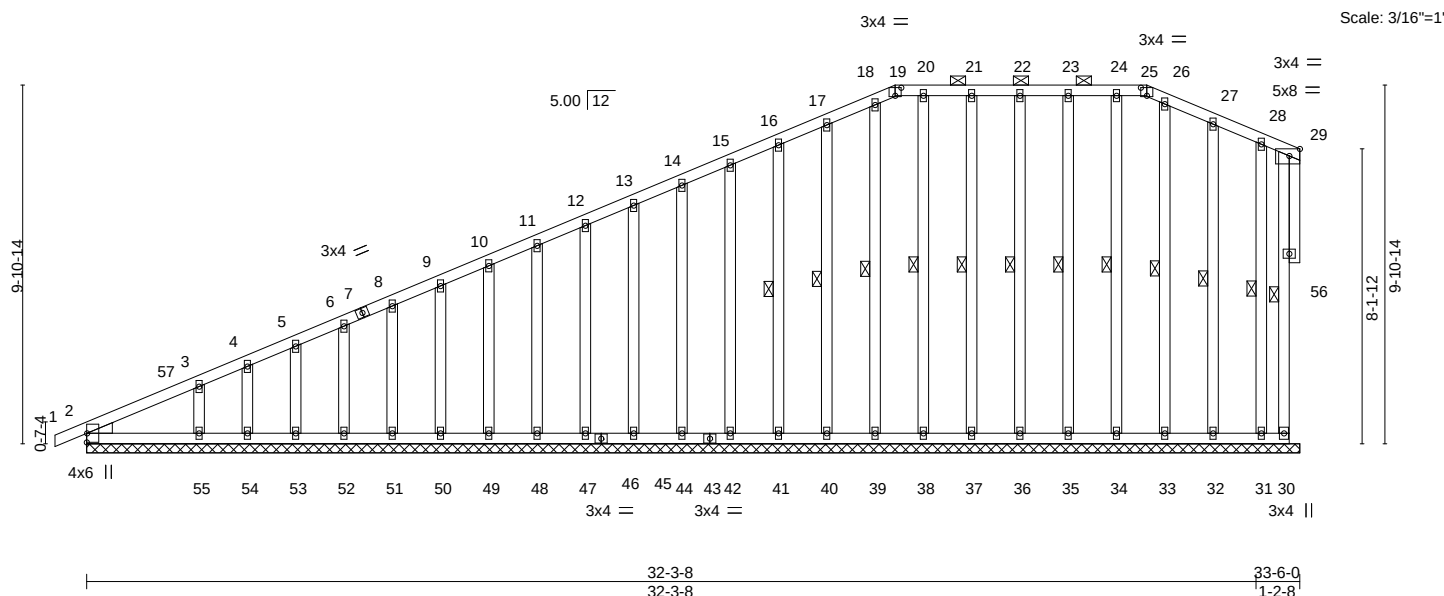


Plate Offsets (X,Y)-- [19:0-2-0.0-2-11], [25:0-2-0.0-2-11], [29:0-3-8,Edge]

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.00	1 n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) 0.00	1 n/r	120		
BCLL 0.0	Rep Stress Incr YES	WB 0.10	Horz(CT) -0.01	30 n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S				Weight: 265 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 19-25.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 29-30, 16-41, 17-40, 18-39, 20-38, 21-37, 22-36, 23-35, 24-34, 26-33, 27-32, 28-31

REACTIONS.

NS. All bearings 33-6-0.
(lb) - Max Horz 2=345(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 30, 44, 45, 47, 48, 49, 50, 51, 52,
53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31 except 55=110(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 30, 2, 44, 45, 47, 48, 49, 50, 51,
52, 53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31 except
55=268(LC 25)

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

TOP CHORD 2-3=-421/241, 3-4=-339/195, 4-5=-321/195, 5-6=-293/184, 6-8=-266/175

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-5-11, Exterior(2N) 2-5-11 to 22-3-14, Corner(3R) 22-3-14 to 25-9-4, Exterior(2N) 25-9-4 to 29-3-5, Corner(3R) 29-3-5 to 32-5-4, Exterior(2N) 32-5-4 to 33-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 30, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31 except (jt=lb) 55=110.
- 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.



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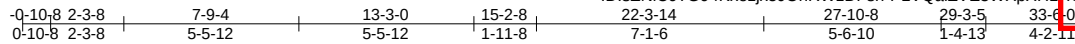
WARNING – Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



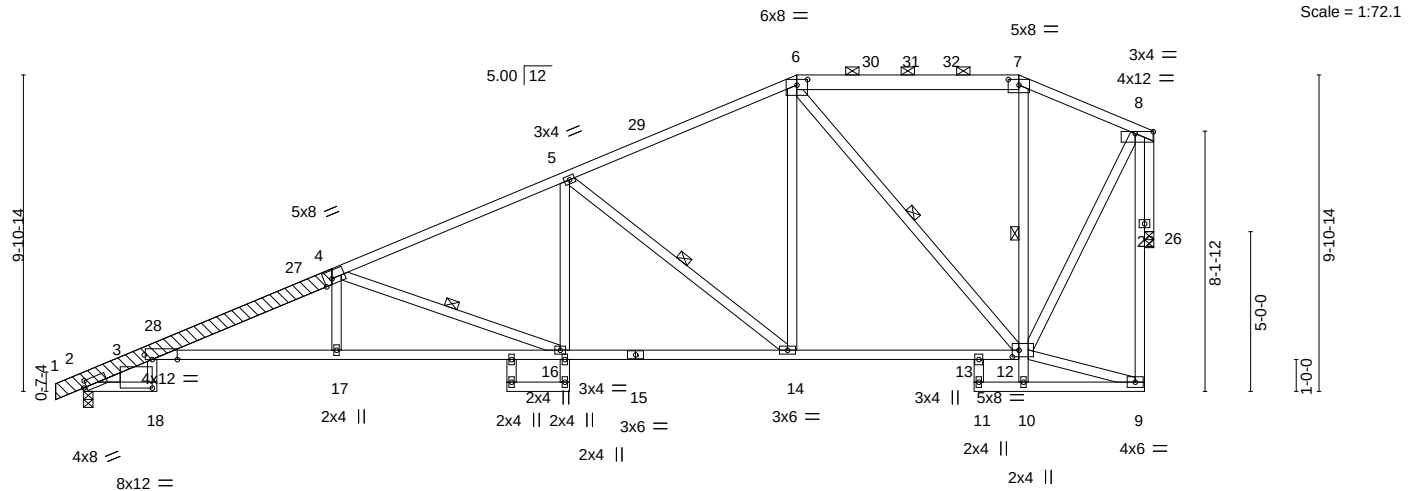
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Chesterfield, MO 63017

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

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	2-3-8	7-9-4	13-3-0	15-2-8	22-3-14	27-10-8	29-3-5	33-6-0	
	2-3-8	5-5-12	5-5-12	1-11-8	7-1-6	5-6-10	1-4-13	4-2-11	
Plate Offsets (X,Y)--	[2:0-1-3,0-2-7],	[3:0-9-7,0-0-0],	[3:0-3-0,1-0-8],	[4:0-3-0,Edge],	[6:0-4-0,0-2-2],	[7:0-4-0,0-2-2],	[8:0-6-12,0-0-12],	[12:0-2-8,0-2-8]	
LOADING (psf)	SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP		
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.34 3-17	>999 240	MT20	197/144	
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.62 3-17	>646 180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.38 26	n/a n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 200 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2, 1-4: 2x6 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	2x4 SPF No.2 *Except* 3-15: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 6-12, 7-10, 5-14, 4-16
OTHERS	2x4 SPF No.2		
LBR SCAB	1-4 2x6 SPF 2100F 1.8E one side		
WEDGE			
Left: 2x4 SP No.3			
REACTIONS.	(size) 2=0-3-8, 26=0-3-8 Max Horz 2=296(LC 9) Max Uplift 2=-304(LC 12), 26=-261(LC 12) Max Grav 2=1568(LC 1), 26=1474(LC 1)		
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	3-24=-634/23, 3-4=-3903/805, 4-5=-2580/528, 5-6=-1550/348, 6-7=-654/186, 7-8=-724/181		
BOT CHORD	3-17=-941/3680, 16-17=-938/3691, 14-16=-537/2290, 13-14=-332/1321, 12-13=-305/1406		
WEBS	4-17=0/305, 6-14=-173/888, 6-12=-1086/307, 8-12=-245/1260, 5-14=-1212/373, 5-16=-81/626, 4-16=-1483/438, 8-26=-1480/274		

- NOTES-**

- 1) Attached 9-6-11 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-10 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-8-3; starting at 7-4-13 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 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
- 4) Provide adequate drainage to prevent water ponding.
- 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) 26 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) 2=304, 26=261.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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



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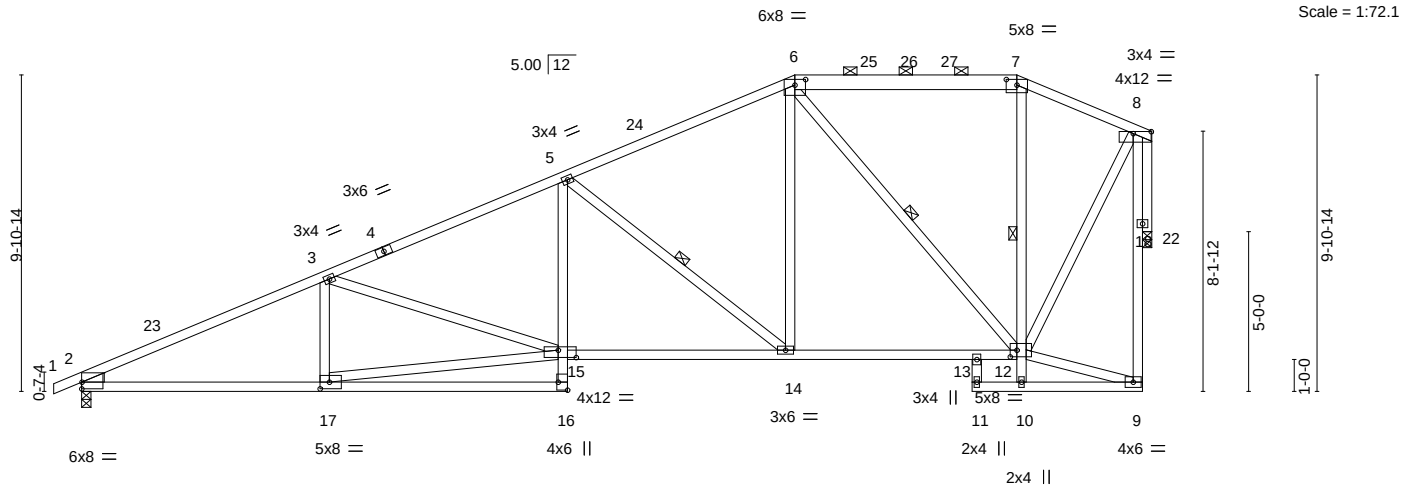
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A2A	Piggyback Base	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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0-10-8 7-7-5 15-2-8 22-3-14 27-10-8 29-3-5 33-6-0
 0-10-8 7-7-5 7-7-3 7-1-6 5-6-10 1-4-13 4-2-11



Scale = 1:72.1

		7-7-5		15-2-8		22-3-14		27-10-8		29-3-5		33-6-0	
		7-7-5		7-7-3		7-1-6		5-6-10		1-4-13		4-2-11	
Plate Offsets (X,Y)--		[2:Edge,0-2-8], [6:0-4-0,0-2-2], [7:0-4-0,0-2-2], [8:0-6-12,0-0-12], [12:0-2-8,0-2-8], [15:0-6-12,0-2-12], [16:Edge,0-3-8], [17:0-3-8,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.61		Vert(LL) -0.18 14-15		>999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.84		Vert(CT) -0.36 16-17		>999 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.63		Horz(CT) 0.22 22		n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 182 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
 6-7: 2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-14, 7-10, 6-12

REACTIONS.

(size) 2=0-3-8, 22=0-3-8
 Max Horz 2=294(LC 9)
 Max Uplift 2=306(LC 12), 22=261(LC 12)
 Max Grav 2=1563(LC 1), 22=1474(LC 1)

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

TOP CHORD 2-3=-2926/552, 3-5=-2557/527, 5-6=-1554/348, 6-7=-652/186, 7-8=-722/181
 BOT CHORD 2-17=-673/2609, 5-15=-79/588, 14-15=-542/2289, 13-14=-332/1322, 12-13=-306/1394
 WEBS 15-17=-643/2433, 3-15=-361/156, 5-14=-1209/379, 6-14=-174/900, 8-12=-246/1257, 6-12=-1090/307, 8-22=-1480/274

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearing at joint(s) 22 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) 2=306, 22=261.
- 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.



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

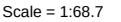
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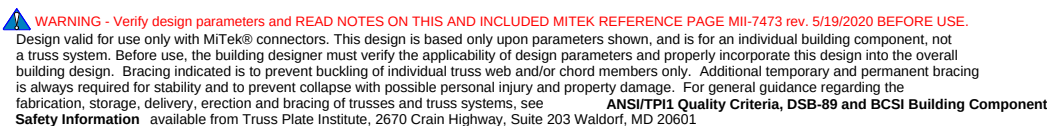
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Weight: 217 lb FT = 20%

- 1) Attached 9-6-11 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-10 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-8-3; starting at 7-4-13 from end at joint 1, nail 2 row(s) at 7" o.c. for 2-0-0.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=4.2psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=303, 28=257.
- 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.

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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	A3	Piggyback Base	2	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	Job Reference (optional)		

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08/23/2021

NOTES-

- 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.

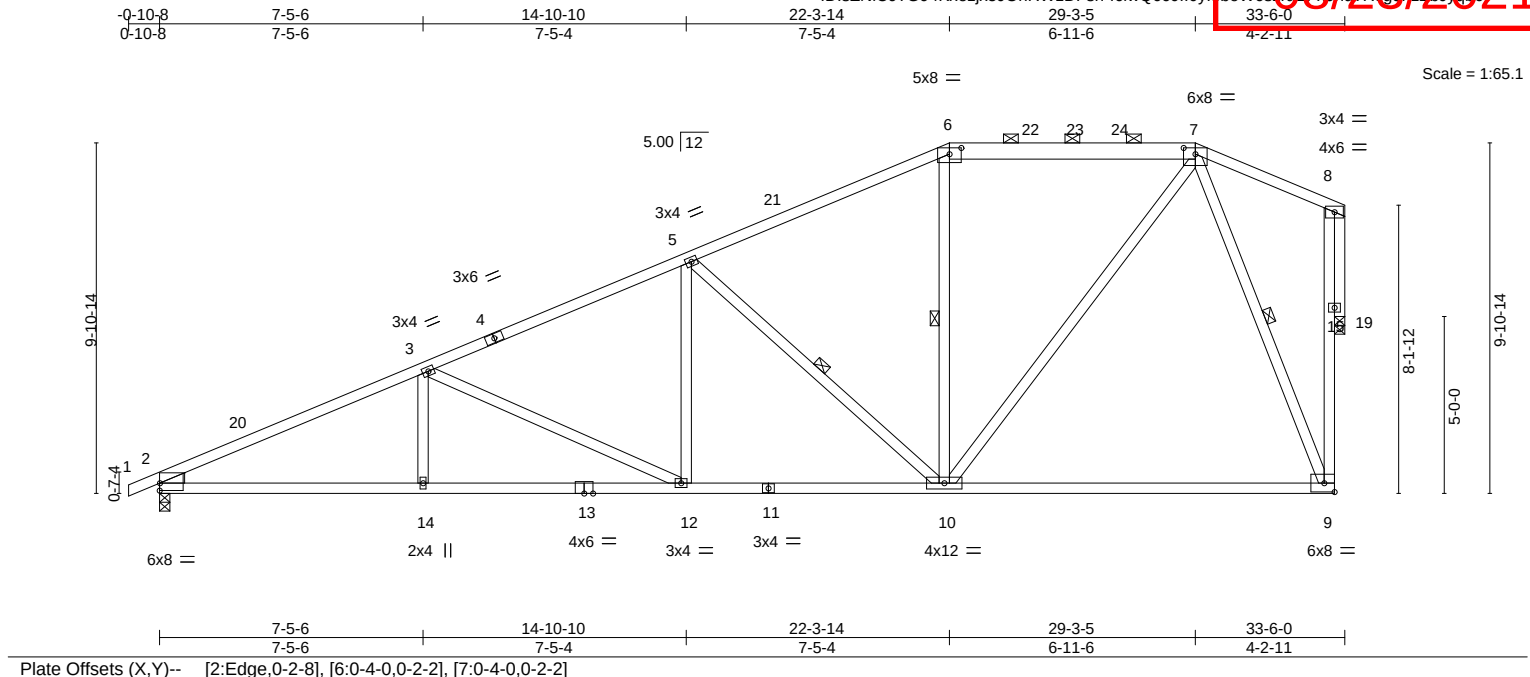


Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A4	Piggyback Base	1	1	DEVELOPMENT SERVICES 147344958
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.37 9-10 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.75 9-10 >534 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.19 19 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 163 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 19=0-3-8
Max Horz 2=294(LC 9)
Max Uplift 2=306(LC 12), 19=261(LC 12)
Max Grav 2=1563(LC 1), 19=1474(LC 1)

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

TOP CHORD 2-3=-2933/554, 3-5=-2224/446, 5-6=-1413/317, 6-7=-1205/337, 9-15=-271/1361, 8-15=-271/1361
BOT CHORD 2-14=-676/2616, 12-14=-676/2616, 10-12=-463/1968, 9-10=-183/561
WEBS 3-14=0/276, 3-12=-715/244, 5-12=-47/467, 5-10=-1022/337, 7-10=-275/1107, 7-9=-1347/331, 8-19=-1481/274

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearing at joint(s) 19 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) 2=306, 19=261.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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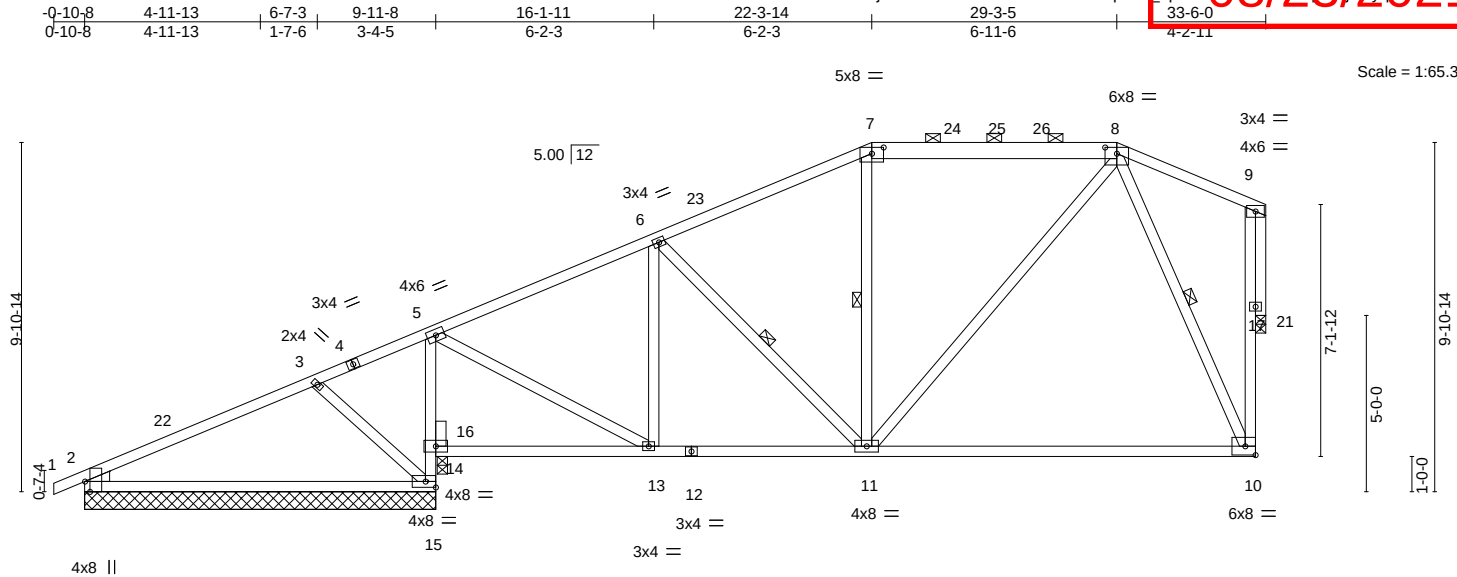
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
2894164	A5	Piggyback Base	1	1	147344059

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

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		9-11-8		10-0-0		16-1-11		22-3-14		29-3-5		33-6-0	
		9-11-8		0-0-8		6-1-11		6-2-3		6-11-6		4-2-11	
Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-4-0,0-2-2], [8:0-4-0,0-2-2]													
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 0.64		Vert(LL) -0.35 10-11		>803 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.78		Vert(CT) -0.70 10-11		>401 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.37		Horz(CT) -0.10 21		n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 162 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-8: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-11, 7-11, 8-10

REACTIONS.

All bearings 9-11-8 except (jt=length) 21=0-3-8.
(lb) - Max Horz 2=279(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 15 except 14=271(LC 12), 21=161(LC 8)
Max Grav All reactions 250 lb or less at joint(s) except 2=546(LC 25), 14=1057(LC 1), 14=1057(LC 1), 15=386(LC 1), 2=544(LC 1), 21=1049(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-535/36, 3-5=-294/0, 5-6=-1062/169, 6-7=-939/201, 7-8=-788/218, 10-17=-167/926, 9-17=-167/926
BOT CHORD 2-15=-166/454, 5-14=-988/298, 13-14=-42/252, 11-13=-219/905, 10-11=-139/425
WEBS 5-13=-206/818, 6-13=-292/136, 8-11=-139/605, 8-10=-895/225, 3-15=-422/190, 9-21=-1054/189

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) N/A
- 4) Provide adequate drainage to prevent water ponding.
- 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) 14, 21 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) 2, 15, 2 except (jt=lb) 14=271, 21=161.
- 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.



August 9,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A6	Piggyback Base	3	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

147344960

LEE'S SUMMIT, MISSOURI

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0-10-8 4-11-13 6-8-15 9-11-8 16-1-11 22-3-14 29-3-5 33-6-0
 0-10-8 4-11-13 1-9-2 3-2-9 6-2-3 6-2-3 6-11-6 4-2-11

08/23/2021

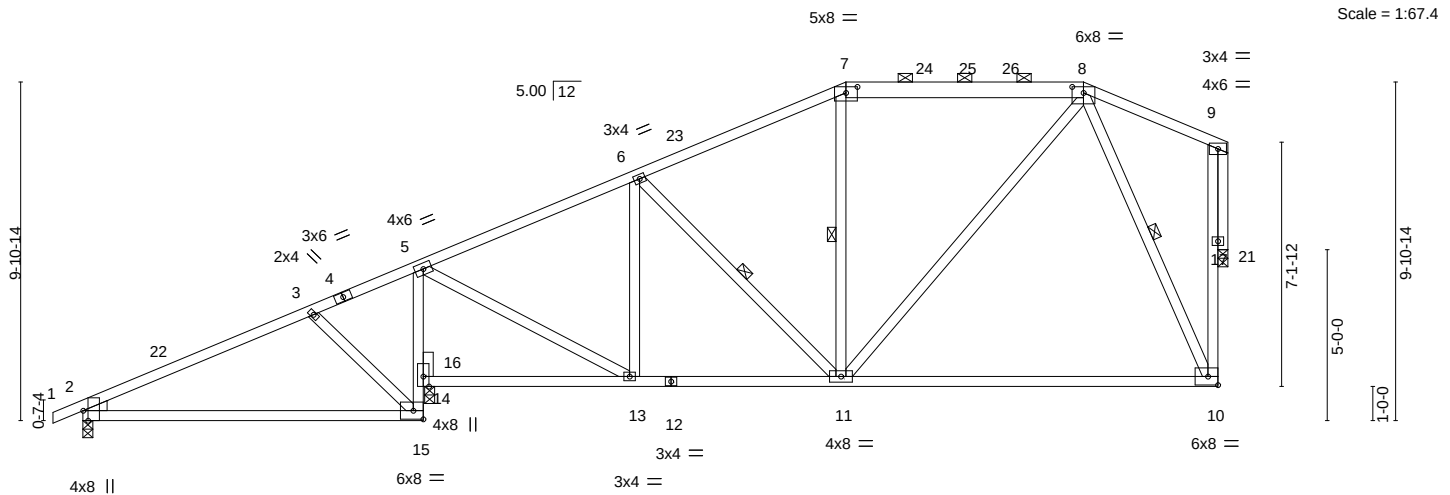


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [7:0-4-0,0-2-2], [8:0-4-0,0-2-2]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.35 10-11	>803	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.70 10-11	>401	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.37	Horz(CT)	-0.10 21	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 162 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
 7-8: 2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
 2-0-0 oc purlins (6-0-0 max.): 7-8.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 6-11, 7-11, 8-10

REACTIONS.

(size) 2=0-3-8, 14=0-3-8, 21=0-3-8
 Max Horz 2=279(LC 12)
 Max Uplift 2=-46(LC 12), 14=-367(LC 12), 21=-162(LC 8)
 Max Grav 2=550(LC 25), 14=1437(LC 1), 21=1051(LC 1)

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

TOP CHORD 2-3=-537/37, 3-5=-300/1, 5-6=-1067/170, 6-7=-942/202, 7-8=-790/219, 10-17=-167/927,
 9-17=-167/927
 BOT CHORD 2-15=-166/454, 14-15=-104/398, 5-14=-969/290, 13-14=-47/258, 11-13=-221/911,
 10-11=-139/425
 WEBS 5-13=-203/811, 6-13=-288/134, 8-11=-140/607, 8-10=-897/226, 3-15=-423/191,
 9-21=-1056/189

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 21 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) 14=367, 21=162.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A7	Piggyback Base	4	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION

47344961

LEE'S SUMMIT, MISSOURI

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08/23/2021

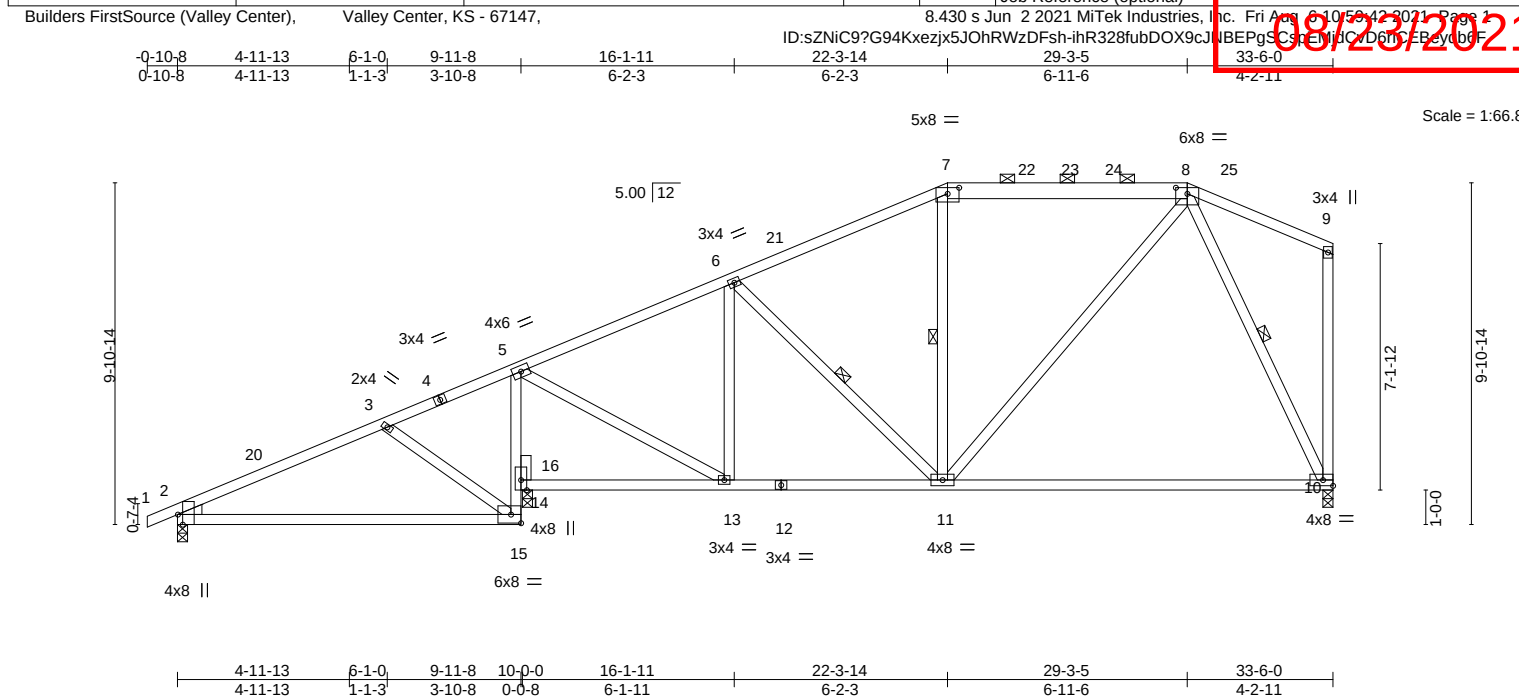


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-4-0,0-2-2], [8:0-4-0,0-2-2]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.40 10-11 >701 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.81 10-11 >349 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.02 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 160 lb	FT = 20%

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

REACTIONS.	(size) 2=0-3-8, 14=0-3-8, 10=0-3-8
	Max Horz 2=324(LC 9)
	Max Uplift 2=-60(LC 12), 14=-365(LC 12), 10=-162(LC 9)
	Max Grav 2=535(LC 25), 14=1457(LC 1), 10=1071(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-580/115, 3-5=-343/69, 5-6=-1043/222, 6-7=-939/251, 7-8=-787/261
BOT CHORD 2-15=-149/466, 14-15=-78/349, 5-14=-1039/313, 11-13=-237/890, 10-11=-165/419
WEBS 8-11=-127/611, 8-10=-924/261, 3-15=-428/188, 6-13=-313/144, 5-13=-223/838

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 14=365, 10=162.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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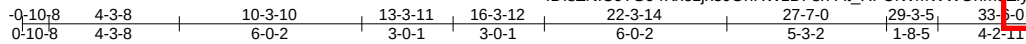
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:42 2021 Page 1
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Structural drawing of a roof truss system. The drawing shows a side elevation of the truss with various members labeled with numbers and sizes. Key dimensions include a total height of 9'-10" to 14" and a base width of 3'-0" to 12". The truss is supported by a foundation labeled "5x12 MT20HS". The roof slope is indicated by a 5:12 ratio. The drawing includes labels for various truss members (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26) and their corresponding sizes (e.g., 4x6, 6x8, 8x12, 10x12, 12x12, 14x12, 16x12, 18x12, 20x12, 22x12, 24x12, 26x12, 28x12, 30x12, 32x12, 34x12, 36x12, 38x12, 40x12, 42x12, 44x12, 46x12, 48x12, 50x12, 52x12, 54x12, 56x12, 58x12, 60x12, 62x12, 64x12, 66x12, 68x12, 70x12, 72x12, 74x12, 76x12, 78x12, 80x12, 82x12, 84x12, 86x12, 88x12, 90x12, 92x12, 94x12, 96x12, 98x12, 100x12). The drawing also includes labels for various truss members (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26) and their corresponding sizes (e.g., 4x6, 6x8, 8x12, 10x12, 12x12, 14x12, 16x12, 18x12, 20x12, 22x12, 24x12, 26x12, 28x12, 30x12, 32x12, 34x12, 36x12, 38x12, 40x12, 42x12, 44x12, 46x12, 48x12, 50x12, 52x12, 54x12, 56x12, 58x12, 60x12, 62x12, 64x12, 66x12, 68x12, 70x12, 72x12, 74x12, 76x12, 78x12, 80x12, 82x12, 84x12, 86x12, 88x12, 90x12, 92x12, 94x12, 96x12, 98x12, 100x12).

	4-3-8	13-3-11	22-3-14	27-7-0	29-3-5	33-6-0
	4-3-8	9-0-3	9-0-3	5-3-2	1-8-5	4-2-11
Plate Offsets (X,Y)--	[2:0-3-10,0-2-0],	[4:0-6-0,Edge],	[6:0-4-0,0-2-2],	[7:0-4-0,0-2-2],	[8:0-3-0,0-1-8],	[12:0-2-8,0-2-8],
						[16:0-3-8,0-2-0],
						[17:0-6-0,0-3-0]

[illegible]

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 6-7: 2x6 SPF No.2, 7-8: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-17: 2x6 SPF 2100F 1.8E, 15-17: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-10, 8-9, 6-12, 5-14, 3-16

(size) 2=0-3-8, 9=0-3-8
 Max Horz 2=344(LC 11)
 Max Uplift 2=-318(LC 12), 9=-249(LC 12)
 Max Grav 2=1563(LC 1), 9=1500(LC 1)

TOP CHORD 2-3=-5548/1240, 3-5=-2909/605, 5-6=-1587/368, 6-7=-650/242, 7-8=-748/245,
8-9=-1476/311

BOT CHORD 2-17=-1302/5137, 16-17=-1263/4938, 14-16=-635/2616, 13-14=-363/1327,
12-13=-339/1381

WEBS 3-17=-158/970, 6-14=-149/859, 8-12=-279/1264, 6-12=-1101/295, 5-14=-1462/441,
5-16=-16/609, 3-16=-2341/691

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C/C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) 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) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=318, 9=249.
- 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.



August 9, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WITH REFERENCE TO AISC M14-13 (4.1.3.2) BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for the building design 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 #12/MOAS NOTED FOR PLAN REVIEW
2894164	A9	Piggyback Base	2	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:47 2021 Page 1					147344963
ID:sZNiC9?G94Kxejx5JOhrWzDFsh-e3YpTqg96qeFOvTJfR8Yd6lAR9ggYPJ3TKGwydb6D					08/23/2021
-0-10-8 4-3-8 10-3-10 13-3-11 16-3-12 22-3-14 25-5-8 29-3-5 33-6-0					4-2-11
0-10-8 4-3-8 6-0-2 3-0-1 3-0-1 6-0-2 3-1-10 3-9-13 4-2-11					

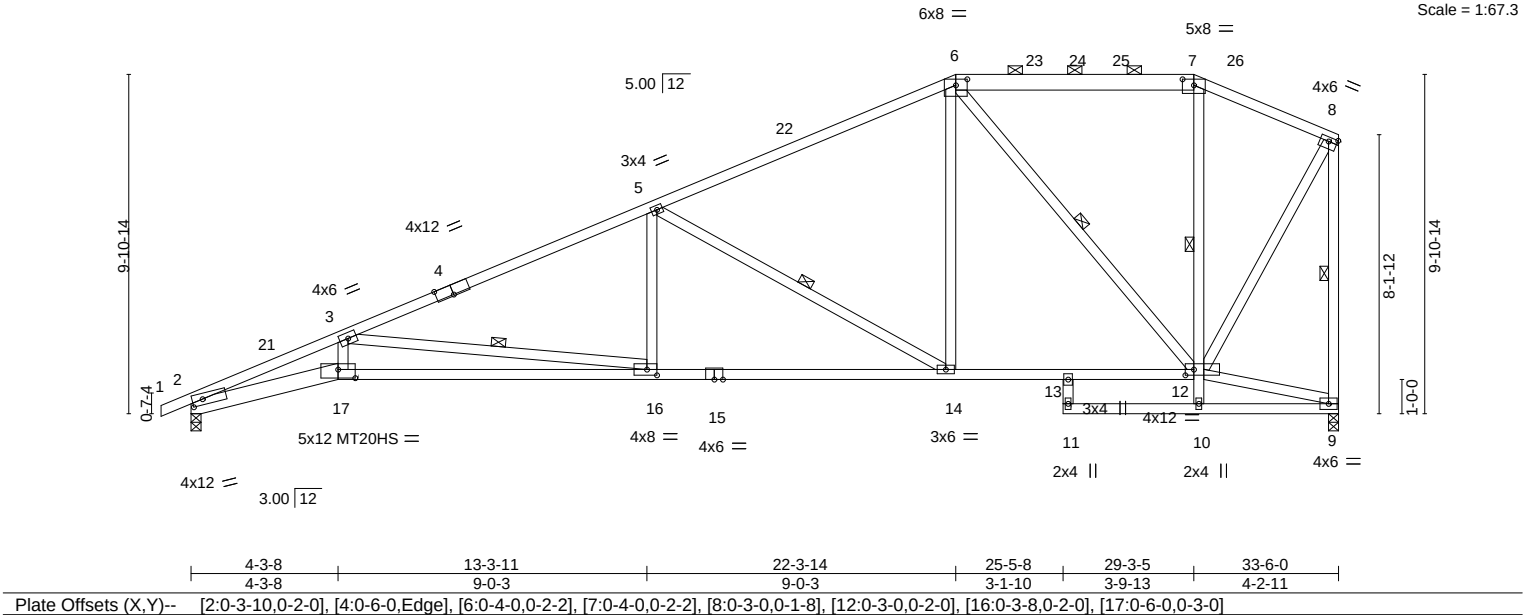


Plate Offsets (X,Y)--		[2:0-3-10,0-2-0], [4:0-6-0,Edge], [6:0-4-0,0-2-2], [7:0-4-0,0-2-2], [8:0-3-0,0-1-8], [12:0-3-0,0-2-0], [16:0-3-8,0-2-0], [17:0-6-0,0-3-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74
TCDL 10.0	Lumber DOL	1.15	BC 0.70
BCLL 0.0	Rep Stress Incr	YES	WB 0.92
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
		DEFL. in (loc) l/defl L/d	PLATES GRIP
		Vert(LL) -0.40 16-17 >999 240	MT20 197/144
		Vert(CT) -0.80 16-17 >497 180	MT20HS 148/108
		Horz(CT) 0.28 9 n/a n/a	
		Weight: 178 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x4 SPF 1650F 1.5E *Except*	Structural wood sheathing directly applied, except end verticals, and
6-7: 2x6 SPF No.2, 7-8: 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	BOT CHORD
2x4 SPF No.2 *Except*	Rigid ceiling directly applied.
2-17: 2x6 SPF 2100F 1.8E, 15-17: 2x4 SP 2400F 2.0E	WEBS
2x4 SPF No.2	1 Row at midpt 7-10, 8-9, 6-12, 5-14, 3-16

REACTIONS.	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=344(LC 11)
	Max Uplift 2=318(LC 12), 9=249(LC 12)
	Max Grav 2=1563(LC 1), 9=1500(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-5549/1240, 3-5=-2908/606, 5-6=-1588/368, 6-7=-637/247, 7-8=-734/250, 8-9=-1448/310
BOT CHORD	2-17=-1301/5138, 16-17=-1263/4939, 14-16=-636/2615, 13-14=-363/1328, 12-13=-342/1263
WEBS	3-17=-158/972, 6-14=-144/878, 8-12=-278/1238, 6-12=-1123/289, 5-14=-1459/442, 5-16=-17/605, 3-16=-2343/691

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) 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) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=318, 9=249.
 - 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.

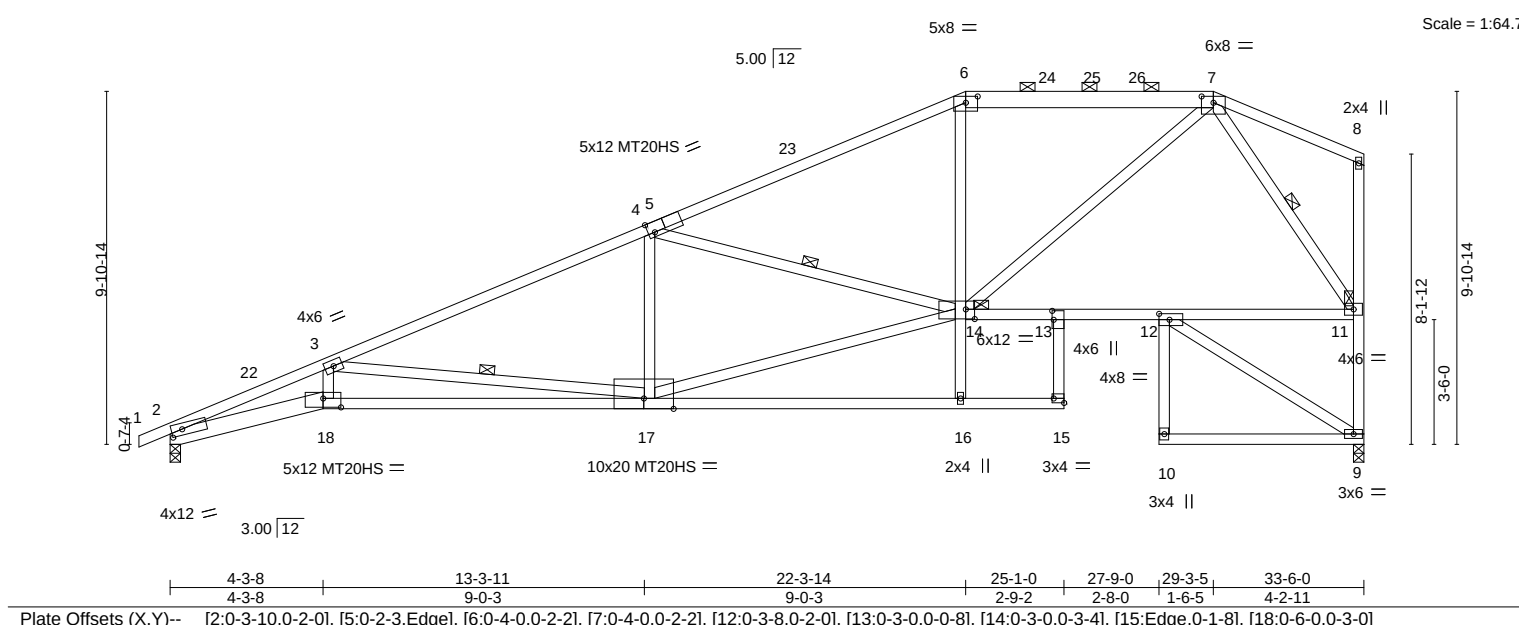


August 9,2021

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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A10	Piggyback Base	1	1	DEVELOPMENT SERVICES 147344964
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:31 2021 Page 1
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08/23/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.40 17-18	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.80 17-18	>500	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.43 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
Weight: 186 lb									FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
6-7: 2x6 SPF No.2, 1-5: 2x4 SPF 1650F 1.5E	2-0-0 oc purlins (4-11-7 max.): 6-7.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
2-18: 2x6 SPF 2100F 1.8E, 17-18: 2x4 SP 2400F 2.0E	WEBS 1 Row at midpt 8-9, 7-11, 3-17, 4-14
WEBS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 14

REACTIONS.	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=344(LC 11)
	Max Uplift 2=318(LC 12), 9=249(LC 12)
	Max Grav 2=1563(LC 1), 9=1500(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-5551/1239, 3-4=-2919/610, 4-6=-2184/422, 6-7=-1898/440, 9-11=-1425/325
BOT CHORD	2-18=-1300/5140, 17-18=-1262/4941, 13-14=-275/928, 12-13=-309/879, 11-12=-289/886
WEBS	3-18=-159/972, 14-16=0/401, 6-14=0/400, 7-11=-1517/360, 7-14=-284/1388, 3-17=-2336/687, 14-17=-637/2757, 4-14=-776/356

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-11, Interior(1) 2-5-11 to 22-3-14, Exterior(2R) 22-3-14 to 27-0-12, Interior(1) 27-0-12 to 29-3-5, Exterior(2E) 29-3-5 to 33-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=318, 9=249.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	A11	GABLE	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:32 2021 Page 1
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08/26/2021
147344965
LEE'S SUMMIT, MISSOURI

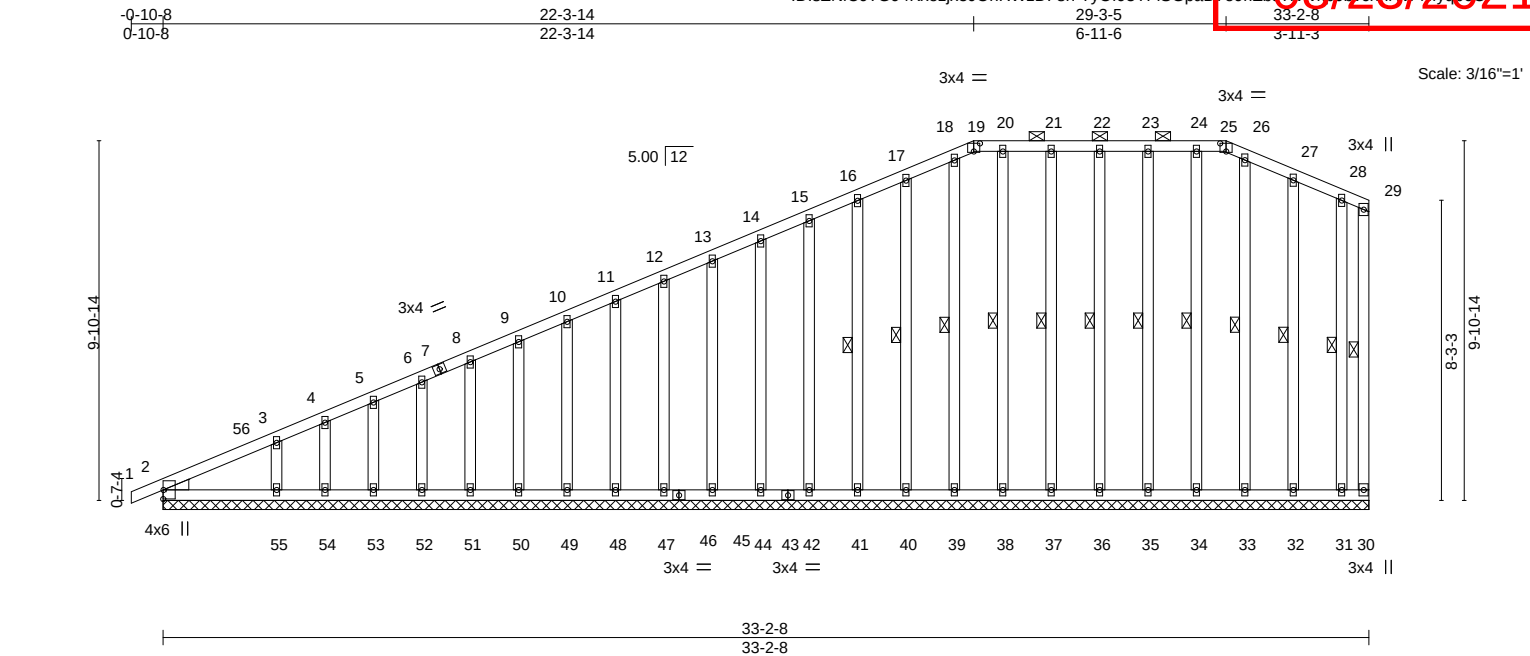


Plate Offsets (X,Y)-- [19:0-2-0,0-2-11], [25:0-2-0,0-2-11]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.00	1	n/r
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	0.00	1	n/r
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.01	30	n/a
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 262 lb	FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 19-25.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 29-30, 16-41, 17-40, 18-39, 20-38, 21-37, 22-36, 23-35, 24-34, 26-33, 27-32, 28-31

REACTIONS.

All bearings 33-2-8.
(lb) - Max Horz 2=348(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 30, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32 except 55=111(LC 12), 31=101(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 30, 2, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31 except 55=270(LC 25)

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

TOP CHORD 2-3=-424/241, 3-4=-341/194, 4-5=-324/195, 5-6=-296/184, 6-8=-269/175

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-5-6, Exterior(2N) 2-5-6 to 22-3-14, Corner(3R) 22-3-14 to 25-9-8, Exterior(2N) 25-9-8 to 29-3-5, Corner(3R) 29-3-5 to 32-5-8, Exterior(2N) 32-5-8 to 33-0-12 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
- 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.
- Provide adequate drainage to prevent water ponding.
- 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) 30, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32 except (jt=lb) 55=111, 31=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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	B1	GABLE	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

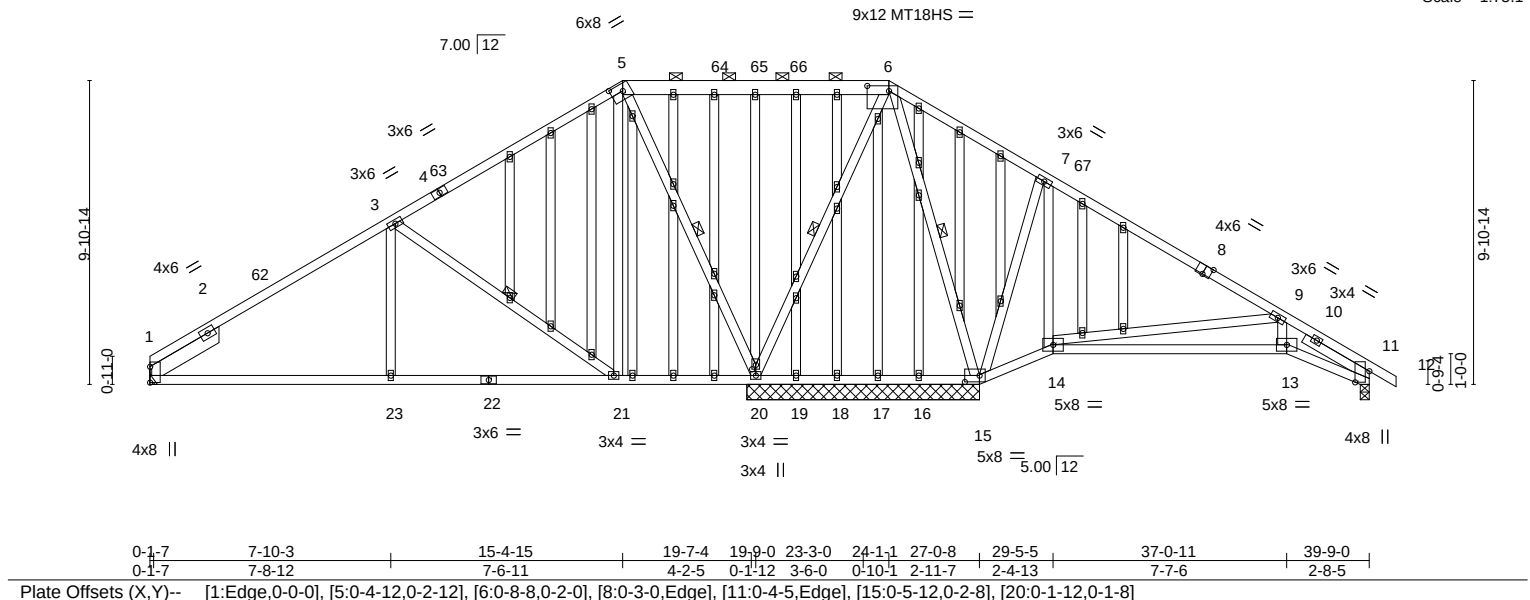
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:47 2021 Page 1

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08/23/2021

7-10-3	15-4-15	19-9-0	24-1-1	27-0-8	29-5-5	37-0-11	39-9-0
7-10-3	7-6-11	4-4-1	4-4-1	2-11-7	2-4-13	7-7-6	2-8-5

Scale = 1:75.1



LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.59	Vert(LL) -0.10 13-14 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.43	Vert(CT) -0.22 13-14 >694 180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr YES	WB 0.97	Horz(CT) -0.04 15 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS			
					Weight: 321 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-9-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-21, 5-20, 6-20, 6-15

REACTIONS.

All bearings 7-7-0 except (jt=length) 1=Mechanical, 11=0-3-8.
(lb) - Max Horz 11=247(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 11, 19 except 1=232(LC 12),
15=513(LC 13), 20=110(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 19, 18, 17, 16 except 1=794(LC
25), 15=1373(LC 26), 11=312(LC 26), 20=1224(LC 25)

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

TOP CHORD 1-3=-879/348, 3-5=-373/304, 5-6=-24/418, 6-7=-119/762, 7-9=-205/651, 9-11=-560/116
BOT CHORD 1-23=-187/757, 21-23=-187/757, 19-20=-329/142, 18-19=-329/142, 17-18=-329/142,
16-17=-329/142, 15-16=-329/142, 14-15=-394/168, 13-14=-247/603, 11-13=-255/688
WEBS 3-23=0/320, 3-21=-717/277, 5-21=-99/525, 7-15=-578/219, 9-14=-939/400,
9-13=-22/367, 5-20=-1120/191, 6-15=-752/258

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-11-11, Interior(1) 3-11-11 to 15-4-15, Exterior(2R) 15-4-15 to 21-0-6, Interior(1) 21-0-6 to 24-1-1, Exterior(2R) 24-1-1 to 29-8-8, Interior(1) 29-8-8 to 40-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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.
- Refer to girder(s) for truss to truss connections.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 19 except (jt=lb) 1=232, 15=513, 20=110.

Continued on page 2



August 9, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	B1	GABLE	1	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:47 2021 Page 2

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08/23/2021

- NOTES-**
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) 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.
 - 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

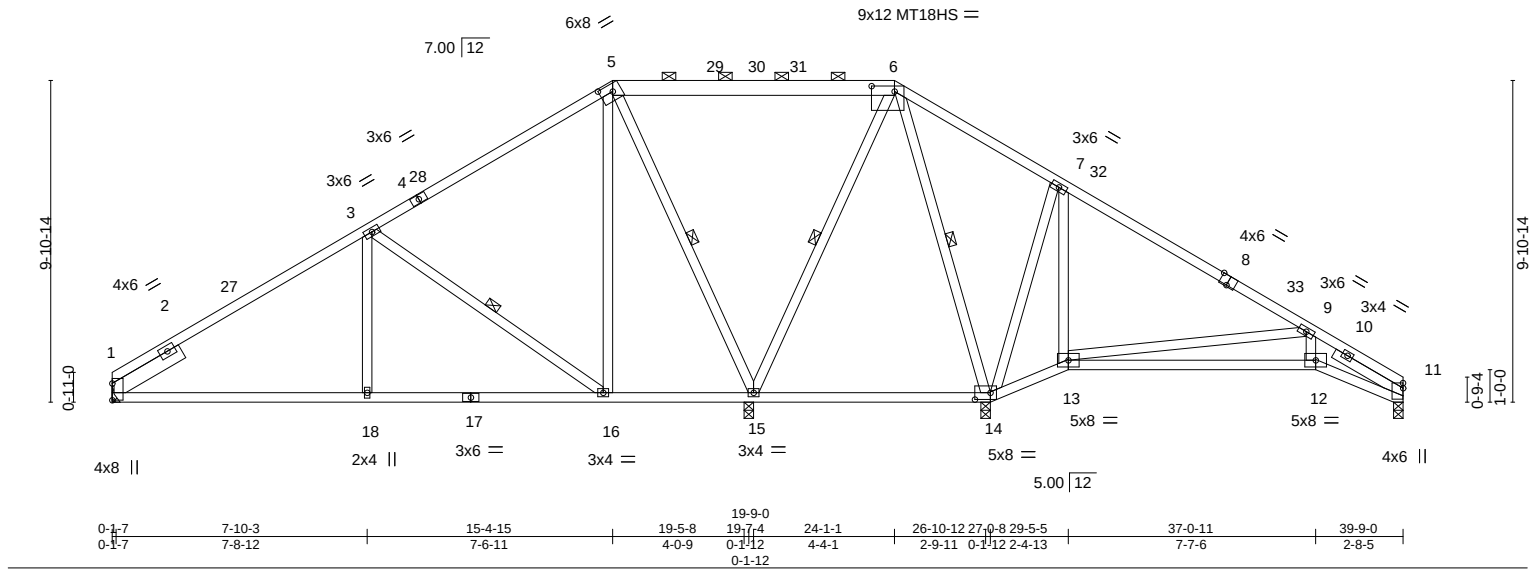
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	B3	Piggyback Base	3	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:48 2021 Page 1

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08/23/2021

Scale = 1:70.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0		TC	0.60				MT20	197/144
TCDL	10.0		BC	0.44				MT18HS	197/144
BCLL	0.0		WB	0.90					
BCDL	10.0		Matrix-AS						
								Weight: 194 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 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt
SLIDER	Left 2x6 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0		3-16, 5-15, 6-15, 6-14

REACTIONS. All bearings 0-3-8 except (jt=length) 1=Mechanical.
 (lb) - Max Horz 15=-238(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 11, 15 except 1=-210(LC 12), 14=-391(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 11 except 1=789(LC 25), 14=1427(LC 26), 15=1271(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-3=-871/309, 3-5=-363/264, 5-6=0/384, 6-7=0/700, 7-9=-113/568, 9-11=-578/101
 BOT CHORD 1-18=-155/750, 16-18=-155/750, 14-15=-427/244, 13-14=-467/256, 12-13=-80/507,
 11-12=-67/579
 WEBS 3-18=0/325, 3-16=-724/280, 5-16=-108/513, 7-14=-512/186, 9-13=-867/319, 9-12=0/374,
 5-15=-1109/223, 6-14=-749/165

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-11-11, Interior(1) 3-11-11 to 15-4-15, Exterior(2R) 15-4-15 to 21-0-6, Interior(1) 21-0-6 to 24-1-1, Exterior(2R) 24-1-1 to 29-8-8, Interior(1) 29-8-8 to 39-9-0 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 15 except (jt=lb) 1=210, 14=391.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

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

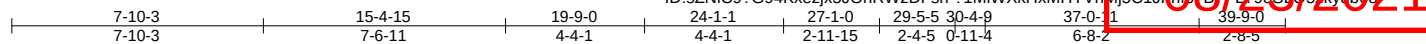
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	B4	Piggyback Base	2	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

LEE'S SUMMIT, MISSOURI



Scale = 1:71.9

0-1-0	7-10-3	15-4-15	19-5-8	19-9-0	24-1-1	27-1-0	29-5-5	30-4-9	37-0-11	39-9-0
0-1-0	7-9-4	7-6-11	4-0-9	0-3-8	4-4-1	2-11-15	2-4-5	0-11-4	6-8-2	2-8-5
Plate Offsets (X,Y)-- [1:Edge,0-0-0], [5:0-5-0,0-1-12], [7:0-5-8,0-2-0], [9:0-3-0,Edge], [12:0-4-2,Edge], [22:0-2-4,0-2-13]										
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 0.56	Vert(LL)	-0.25 14-15	>973	240	MT20	197/144	
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.49 14-15	>492	180	MT20HS	148/108	
BCLL 0.0	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.02 12	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 192 lb	FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (10-0-0 max.): 5-7.
 BOT CHORD Rigid ceiling directly applied. Except:
 1 Row at midpt 6-15
 1 Row at midpt 3-17, 5-16, 7-15

REACTIONS.

(size) 1=Mechanical, 12=0-3-8, 16=0-3-8
 Max Horz 16=-239(LC 8)
 Max Uplift 1=-211(LC 12), 12=-236(LC 13), 16=-166(LC 12)
 Max Grav 1=770(LC 25), 12=739(LC 26), 16=2138(LC 1)

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

TOP CHORD 1-3=-841/312, 3-5=-326/264, 5-6=0/400, 6-7=0/402, 7-8=-894/550, 8-10=-860/366,
 10-12=-1961/678
 BOT CHORD 1-19=-158/726, 17-19=-158/726, 15-16=-1242/197, 6-15=-327/151, 13-14=-508/1544,
 12-13=-550/1712
 WEBS 3-19=0/320, 3-17=-740/287, 5-17=-110/561, 5-16=-1002/176, 7-15=-921/181,
 10-13=-130/599, 8-14=-533/306, 10-14=-883/354, 7-14=-339/1069

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-11-11, Interior(1) 3-11-11 to 15-4-15, Exterior(2R) 15-4-15 to 21-0-6, Interior(1) 21-0-6 to 24-1-1, Exterior(2R) 24-1-1 to 29-8-8, Interior(1) 29-8-8 to 39-9-0 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
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- 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) 1=211, 12=236, 16=166.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

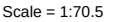
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job Reference (optional)

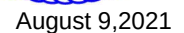


Weight: 200 lb FT = 20%

BRACING- TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (10-0-0 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied. Except:
	1 Row at midpt 6-16
WEBS	1 Row at midpt 3-18, 5-17, 7-16

NOTES-

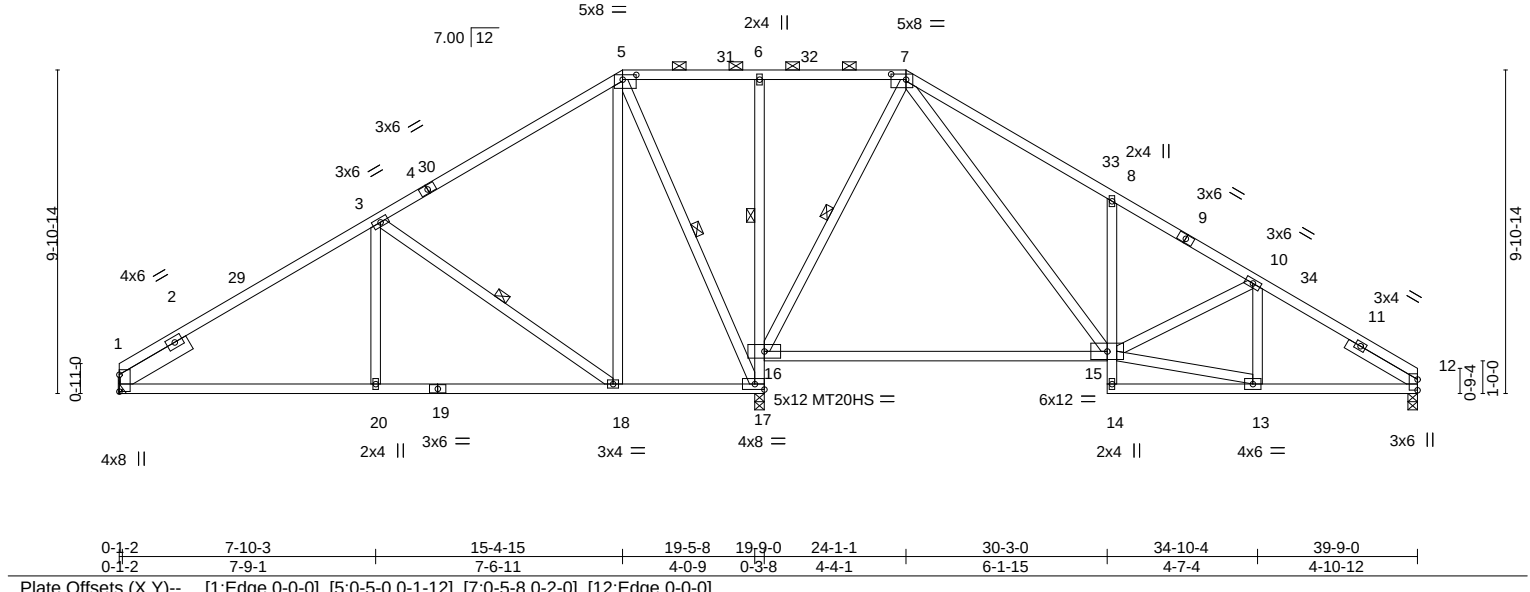
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-11-11, Interior(1) 3-11-11 to 15-4-15, Exterior(2R) 15-4-15 to 21-0-6, Interior(1) 21-0-6 to 24-1-1, Exterior(2R) 24-1-1 to 29-8-8, Interior(1) 29-8-8 to 39-9-0 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=221, 12=254, 17=146.
- 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.



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	B6	Piggyback Base	3	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION
08/23/2021
LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:52 2021 Page 1					ID:sZNIc9?G94Kxezjx5JOhRWzDFsh-Pc1r8ZmaEHf6M84nLb0sJHw700pYMLa9nIly2ycb65
7-10-3	15-4-15	19-9-0	24-1-1	30-3-0	34-10-4
7-10-3	7-6-11	4-4-1	4-4-1	6-1-15	4-7-4
					39-9-0
					4-10-12



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.31 15-16	>773	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.63 15-16	>384	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.02 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 195 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (10-0-0 max.): 5-7.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied. Except:
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	1 Row at midpt 6-16
	1 Row at midpt 3-18, 5-17, 7-16

REACTIONS.	(size) 1=Mechanical, 12=0-3-8, 17=0-3-8
	Max Horz 17=-239(LC 8)
	Max Uplift 1=-222(LC 12), 12=-261(LC 13), 17=-145(LC 12)
	Max Grav 1=788(LC 25), 12=791(LC 26), 17=2033(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-3=-872/331, 3-5=-360/293, 5-6=-29/346, 6-7=-27/343, 7-8=-1018/601, 8-10=-940/433, 10-12=-1006/406
BOT CHORD	1-20=-174/754, 18-20=-174/754, 16-17=-1183/169, 6-16=-313/147, 8-15=-445/254, 12-13=-271/869
WEBS	3-20=0/320, 3-18=-735/286, 5-18=-107/546, 5-17=-935/163, 7-16=-865/161, 13-15=-198/921, 7-15=-336/1062

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-11-11, Interior(1) 3-11-11 to 15-4-15, Exterior(2R) 15-4-15 to 21-0-6, Interior(1) 21-0-6 to 24-1-1, Exterior(2R) 24-1-1 to 29-8-8, Interior(1) 29-8-8 to 39-9-0 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=222, 12=261, 17=145.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



August 9, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	C1	Common Supported Gable	1	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

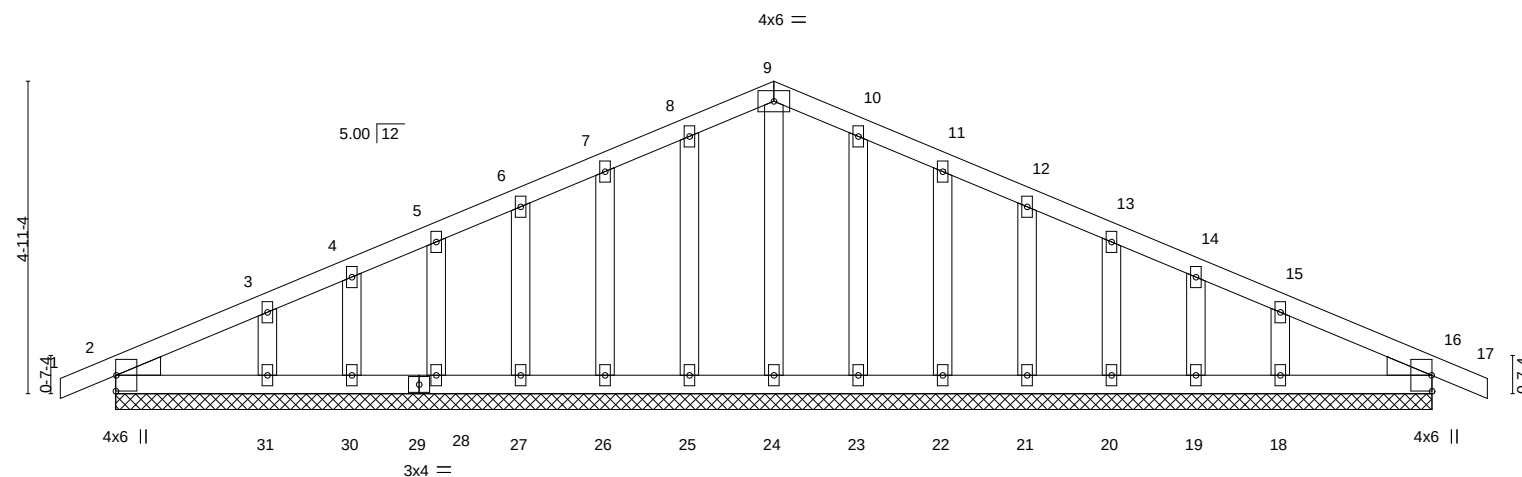
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:52 2021 Page 1

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0-10-8 10-4-12 20-9-8 21-8-0
0-10-8 10-4-12 10-4-12 0-10-8

Scale = 1:36.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	0.00 16 n/r 120	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00 16 n/r 120				
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00 16 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 92 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

WEDGE

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS.

All bearings 20-9-8.

(lb) - Max Horz 2=83(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16

Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-4-12, Exterior(2N) 2-4-12 to 10-4-12, Corner(3R) 10-4-12 to 13-4-12, Exterior(2N) 13-4-12 to 21-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

6) Gable studs spaced at 1-4-0 oc.

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

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16.

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.



August 9,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	C2	Common	4	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION

147344032

LEE'S SUMMIT, MISSOURI

08/23/2021

0-10-8	6-2-7	10-4-12	14-7-1	20-9-8	21-8-0
0-10-8	6-2-7	4-2-5	4-2-5	6-2-7	0-10-8

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8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:54 2021 Page 1

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Scale = 1:36.1

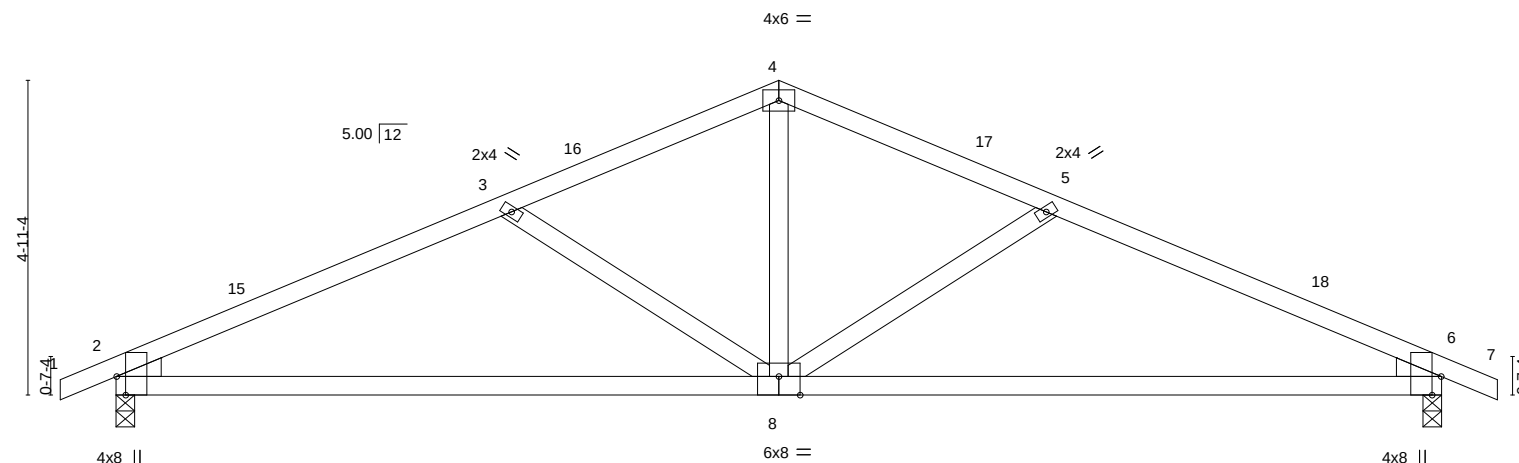


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [6:0-3-8,Edge], [8:0-4-0,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.15	8-11	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.32	8-11	>785	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.04	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
					Weight: 70 lb		FT = 20%		

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

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=83(LC 12)
Max Uplift 2=-178(LC 12), 6=-178(LC 13)
Max Grav 2=997(LC 1), 6=997(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1622/390, 3-4=-1251/312, 4-5=-1251/312, 5-6=-1622/390
BOT CHORD 2-8=-274/1433, 6-8=-281/1433
WEBS 4-8=-108/643, 5-8=-434/205, 3-8=-434/205

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-4-12, Exterior(2R) 10-4-12 to 13-4-12, Interior(1) 13-4-12 to 21-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 6=178.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 9,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	C3	Common Supported Gable	1	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,	8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:55 2021 Page 1
-0-10-8	10-0-0	ID:sZNIC9?G94Kxezjx5JOhRWzDFsh-qBjznbp2XC1hDcpST8jUyy9MCMsls20qGp9Myvbf2
0-10-8	10-0-0	20-0-0
		10-0-0
		20-10-8
		0-10-8

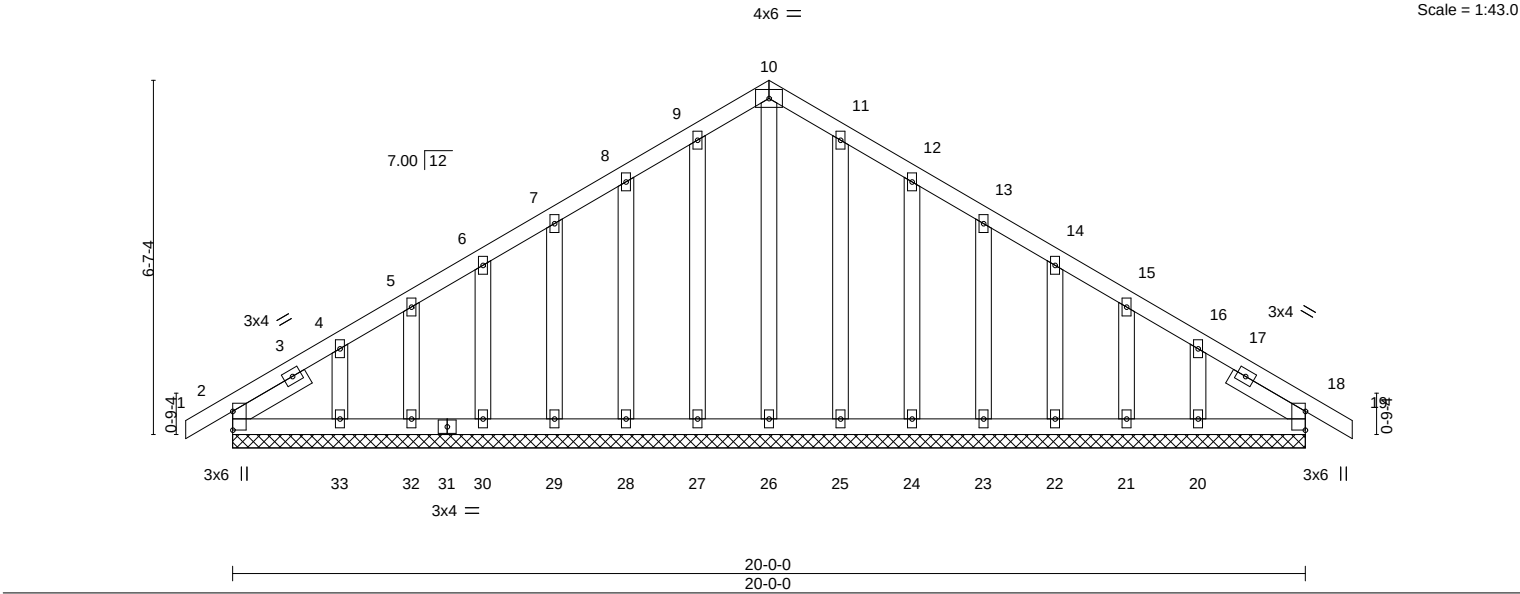


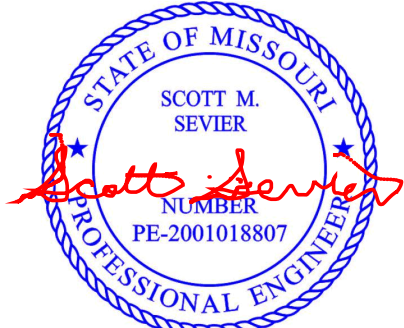
Plate Offsets (X,Y)--		[2:Edge,0-0-0], [18:Edge,0-0-0]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP				
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	18	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	18	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 108 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	
SLIDER Left 2x4 SPF No.2 1-7-7, Right 2x4 SPF No.2 1-7-7	

REACTIONS.	All bearings 20-0-0.
(lb) - Max Horz	2=166(LC 11)
Max Uplift	All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 25, 24, 23, 22, 21, 20, 18 except 33=102(LC 12)
Max Grav	All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20, 18

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 32, 25, 24, 23, 22, 21, 20, 18 except (jt=lb) 33=102.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 18.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	C4	Common	1	1	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:56 2021 Page 1

ID:sZNC9?G94Kxezjx5JOhrWzDFsh-INHM_wpgIW9YqIOAFy196H5Z7UJbA3Wzbyybb1

0-10-8 5-1-12 10-0-0 14-10-4 20-0-0 20-10-8
0-10-8 5-1-12 4-10-4 4-10-4 5-1-12 0-10-8

4x6 =

Scale = 1:42.0

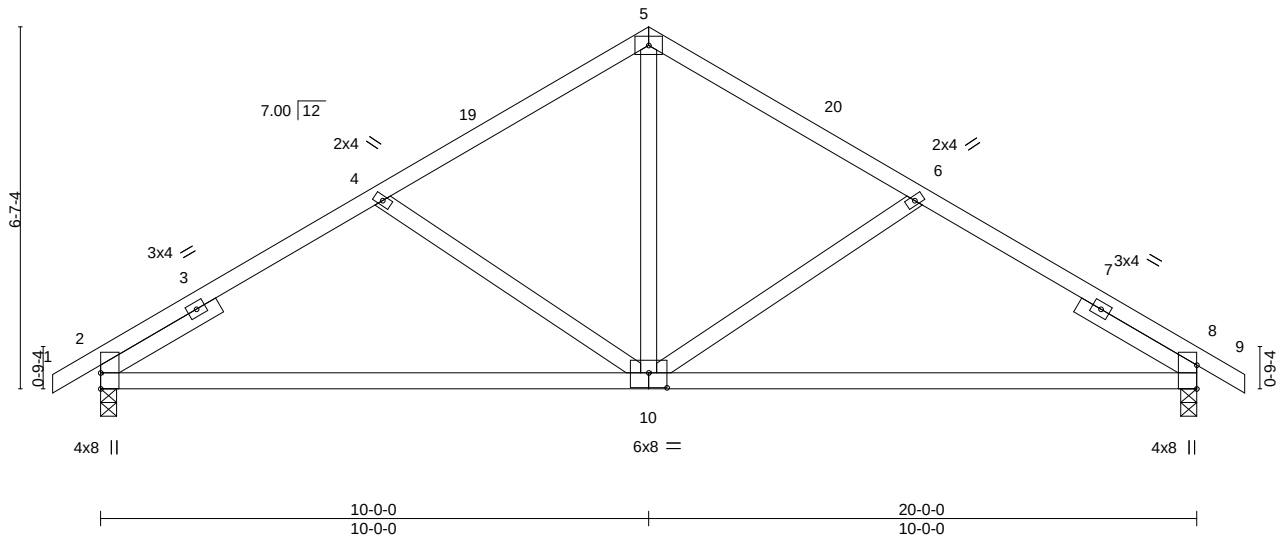


Plate Offsets (X,Y)--		[2:Edge,0-0-0], [8:Edge,0-0-0], [10:0-4-0,0-3-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23
TCDL 10.0	Lumber DOL	1.15	BC 0.70
BCLL 0.0	Rep Stress Incr	YES	WB 0.21
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.13 10-17 >999 240
			Vert(CT) -0.27 10-17 >902 180
			Horz(CT) 0.03 8 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 77 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, 8=0-3-8
Max Horz 2=-166(LC 10)
Max Uplift 2=-163(LC 12), 8=-163(LC 13)
Max Grav 2=961(LC 1), 8=961(LC 1)

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

TOP CHORD 2-4=-1105/226, 4-5=-960/200, 5-6=-960/200, 6-8=-1105/226
BOT CHORD 2-10=-212/1001, 8-10=-113/1001
WEBS 5-10=-67/536, 6-10=-331/202, 4-10=-331/202

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 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) except (jt=lb) 2=163, 8=163.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



August 9, 2021

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

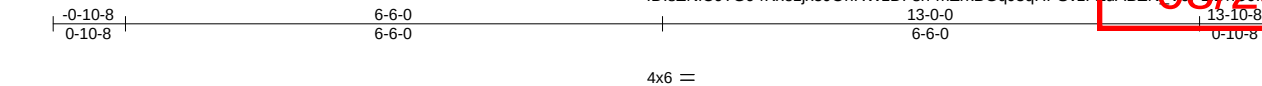
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	C5	Common Supported Gable	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:59:57 2021 Page 1					LEE'S SUMMIT, MISSOURI
Job Reference (optional)					147344075

08/23/2021



Scale = 1:27.9

Plate Offsets (X,Y)--		[2:Edge,0-0-0], [12:Edge,0-0-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.05	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) 0.00 12 n/r 120
BCLL 0.0	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 12 n/r 120
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		Weight: 60 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-7-5, Right 2x4 SPF No.2 1-7-5

BRACING-

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

REACTIONS.

All bearings 13-0-0.
 (lb) - Max Horz 2--112(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 19, 20, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 17, 18, 19, 20, 16, 15, 14

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-6-0, Corner(3R) 6-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 13-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 18, 19, 20, 16, 15, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	G1	GABLE	1	2	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION
 08/23/2021

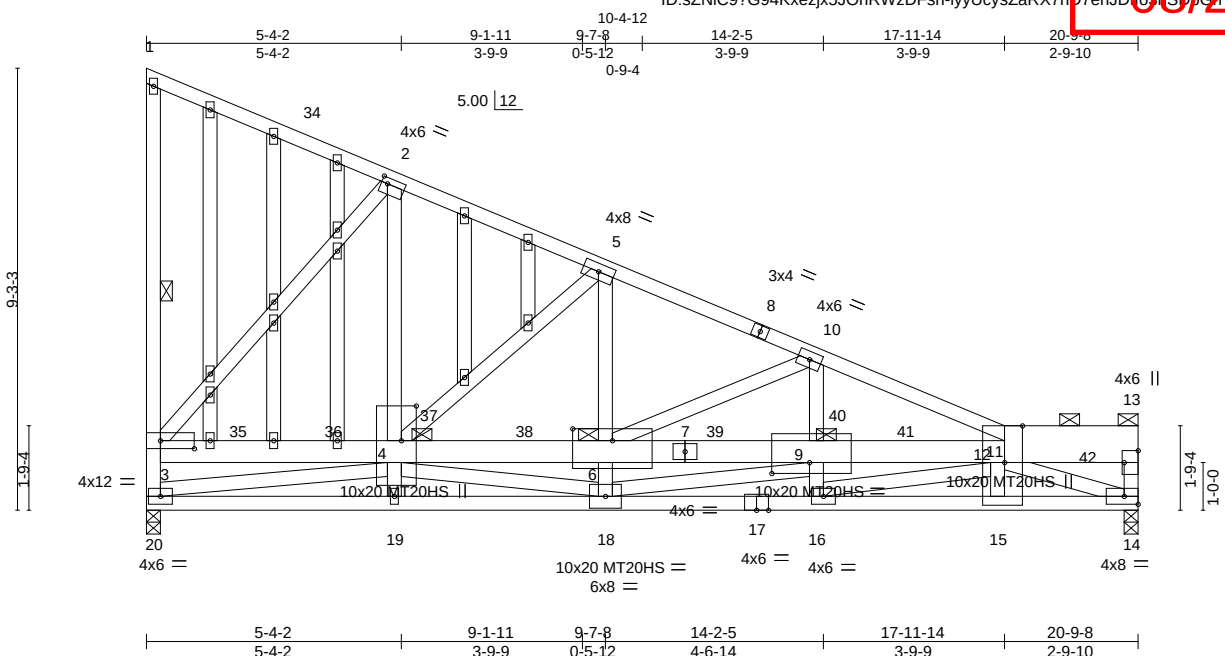


Plate Offsets (X,Y)--	[2:0-1-8,0-1-8], [3:0-8-8,0-2-0], [4:0-8-12,0-3-12], [6:0-10-0,0-3-0], [9:0-9-8,0-2-12], [12:0-9-4,Edge], [13:Edge,0-3-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.02	16
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.20	15-16
BCLL 0.0	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.06	14
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS			
					PLATES	GRIP
					MT20	197/144
					MT20HS	148/108
					Weight: 383 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 12-13: 2x10 SP 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-13.
BOT CHORD 2x4 SP 2400F 2.0E *Except* 7-12,3-7: 2x6 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-20
OTHERS 2x4 SPF No.2	JOINTS 1 Brace at Jt(s): 13, 4, 9, 6

REACTIONS.	(size) 20=0-3-8, 14=0-3-8 Max Horz 20=381(LC 10) Max Grav 20=4575(LC 1), 14=4922(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-20=-4037/0, 2-5=-3170/0, 5-10=-5224/0, 10-12=-7778/0, 3-4=0/2196, 4-6=-1211/0, 6-9=0/1167, 12-13=-524/0, 13-14=-780/0
BOT CHORD	19-20=0/2790, 18-19=0/2785, 16-18=0/6997, 15-16=0/7573, 14-15=0/7553
WEBS	2-3=-4196/0, 2-4=0/3973, 9-10=0/1878, 11-12=0/430, 9-16=0/394, 4-5=-2542/0, 6-10=-2616/0, 5-6=0/2231, 12-14=-8111/0, 6-18=-460/0, 9-18=-1048/0, 4-18=0/3333, 4-20=-2233/0, 11-16=-607/0

- 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 0-7-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc, 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 20-7-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - The Fabrication Tolerance at joint 12 = 0%, joint 12 = 0%
 - 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.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	G1	GABLE	1	2	DEVELOPMENT SERVICES 147344076
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			Job Reference (optional)		

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:59 2021 Page 2
ID:sZNIc9?G94Kxezjx5JOhRWzDFsh-yyyUcysZaRX7h07ehJD for HS D4GHTMO update by jbb

NOTES-

- 12) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 13) 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-12=-70, 12-13=-70, 14-20=-20
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-12=-57, 12-13=-58, 14-20=-20
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-12=-20, 12-13=-20, 14-20=-40
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-34=30, 12-34=20, 12-13=20, 14-20=-8
Horz: 1-20=20, 1-34=42, 12-34=32, 12-13=32, 13-14=35
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=20, 12-13=30, 14-20=-8
Horz: 1-20=-35, 1-12=32, 12-13=42, 13-14=-20
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-36, 12-13=-36, 14-20=-20
Horz: 1-20=-23, 1-12=-16, 12-13=-16, 13-14=-32
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-36, 12-13=-36, 14-20=-20
Horz: 1-20=32, 1-12=-16, 12-13=-16, 13-14=23
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=15, 12-13=11, 14-20=-8
Horz: 1-20=17, 1-12=27, 12-13=23, 13-14=22
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=17, 12-13=29, 14-20=-8
Horz: 1-20=-22, 1-12=29, 12-13=41, 13-14=-17
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-5, 12-13=-9, 14-20=-20
Horz: 1-20=28, 1-12=15, 12-13=11, 13-14=10
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-2, 12-13=9, 14-20=-20
Horz: 1-20=-10, 1-12=18, 12-13=29, 13-14=-28
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=11, 12-13=11, 14-20=-8
Horz: 1-20=14, 1-12=23, 12-13=23, 13-14=20

Continued on page 3

 **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 #12/MOAS NOTED FOR PLAN REVIEW
2894164	G1	GABLE	1	2	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 10:58:59 2021 Page 2
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08/23/2021

LOAD CASE(S) Standard

- Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=29, 12-13=29, 14-20=-8
Horz: 1-20=-20, 1-12=41, 12-13=41, 13-14=-14
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=6, 12-13=6, 14-20=-8
Horz: 1-20=7, 1-12=18, 12-13=18, 13-14=15
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=16, 12-13=16, 14-20=-8
Horz: 1-20=-15, 1-12=28, 12-13=28, 13-14=-7
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-9, 12-13=-9, 14-20=-20
Horz: 1-20=26, 1-12=11, 12-13=11, 13-14=8
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=9, 12-13=9, 14-20=-20
Horz: 1-20=-8, 1-12=29, 12-13=29, 13-14=-26
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-12=-20, 12-13=-20, 14-20=-20
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-46, 12-13=-49, 14-20=-20
Horz: 1-20=21, 1-12=11, 12-13=9, 13-14=7
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-44, 12-13=-36, 14-20=-20
Horz: 1-20=-7, 1-12=13, 12-13=22, 13-14=-21
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-49, 12-13=-49, 14-20=-20
Horz: 1-20=19, 1-12=9, 12-13=9, 13-14=6
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-36, 12-13=-36, 14-20=-20
Horz: 1-20=-6, 1-12=22, 12-13=22, 13-14=-19
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 23) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=-28, 12-13=-28, 14-20=-8
Horz: 1-20=-16, 1-12=-16, 12-13=-16, 13-14=-16
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)
- 24) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-12=4, 12-13=4, 14-20=-8
Horz: 1-20=16, 1-12=16, 12-13=16, 13-14=16
Concentrated Loads (lb)
Vert: 6=-711(F) 11=-800(F) 35=-760(F) 36=-760(F) 37=-760(F) 38=-750(F) 39=-711(F) 40=-800(F) 41=-800(F) 42=-800(F)

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 #12/MOAS NOTED FOR PLAN REVIEW
2894164	G2	Roof Special Girder	1	2	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION

147344037

LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:00 2021 Page 1
ID: sZNiC9?G94Kxejix5JOhrWzDFsh-A8WsqIsBLif_JNhdF0kuB?zh=ROvQm_VzApbycbz
20-3-8 08/23/2021
4-7-4

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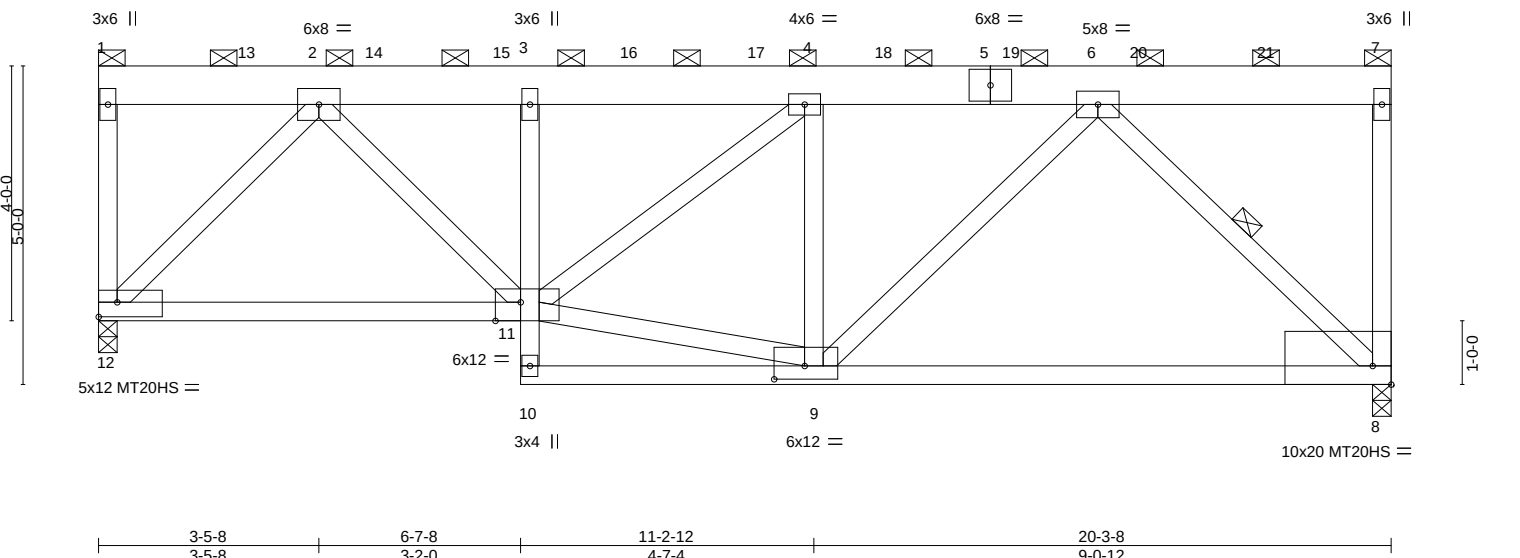


Plate Offsets (X,Y)--		[8:Edge,0-3-8], [9:0-5-12,0-2-8], [11:0-4-12,Edge], [12:Edge,0-2-12]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.24	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.36	Vert(LL) -0.09 3 >999 240
BCLL 0.0	Lumber DOL 1.15	WB 0.99	Vert(CT) -0.19 8-9 >999 180
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.08 8 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		MT20HS	148/108
		Weight: 289 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP 2400F 2.0E	TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-7, except end verticals.
BOT CHORD 2x4 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
3-10: 2x4 SPF No.2	WEBS 1 Row at midpt 6-8
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 12=0-3-8, 8=0-3-8
	Max Horz 12=164(LC 7)
	Max Uplift 12=-1139(LC 4), 8=-1223(LC 5)
	Max Grav 12=7103(LC 1), 8=7097(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-12=-1369/226, 2-3=-8868/1465, 3-4=-8800/1456, 4-6=-8214/1383, 7-8=-943/204
BOT CHORD	11-12=-970/5305, 3-11=-2389/431, 9-10=-118/460, 8-9=-1074/5979
WEBS	2-12=-7714/1296, 2-11=-859/5225, 9-11=-1358/8032, 4-11=-128/633, 4-9=-3950/733, 6-9=-492/3234, 6-8=-8485/1485

- 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, 2x8 - 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=25ft; 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=1139, 8=1223.
 - This truss 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) 1009 lb down and 154 lb up at 0-1-12, 981 lb down and 153 lb up at 2-4-4, 981 lb down and 153 lb up at 4-4-4, 979 lb down and 152 lb up at 6-4-4, 1404 lb down and 252 lb up at 8-4-4, 1416 lb down and 246 lb up at 10-4-4, 1416 lb down and 246 lb up at 12-4-4, 1404 lb down and 252 lb up at 14-4-4, 1404 lb down and 252 lb up at 16-4-4, and 1404 lb down and 252 lb up at 18-4-4, and 8 lb down and 27 lb up at 20-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.



August 9,2021

LOAD CASE(S) Standard	
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MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017	

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	G2	Roof Special Girder	1	2	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:00 2021 Page 2

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-70, 11-12=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 1=-1009 7=-1 13=-981 14=-981 15=-979 16=-1404 17=-1416 18=-1416 19=-1404 20=-1404 21=-1404

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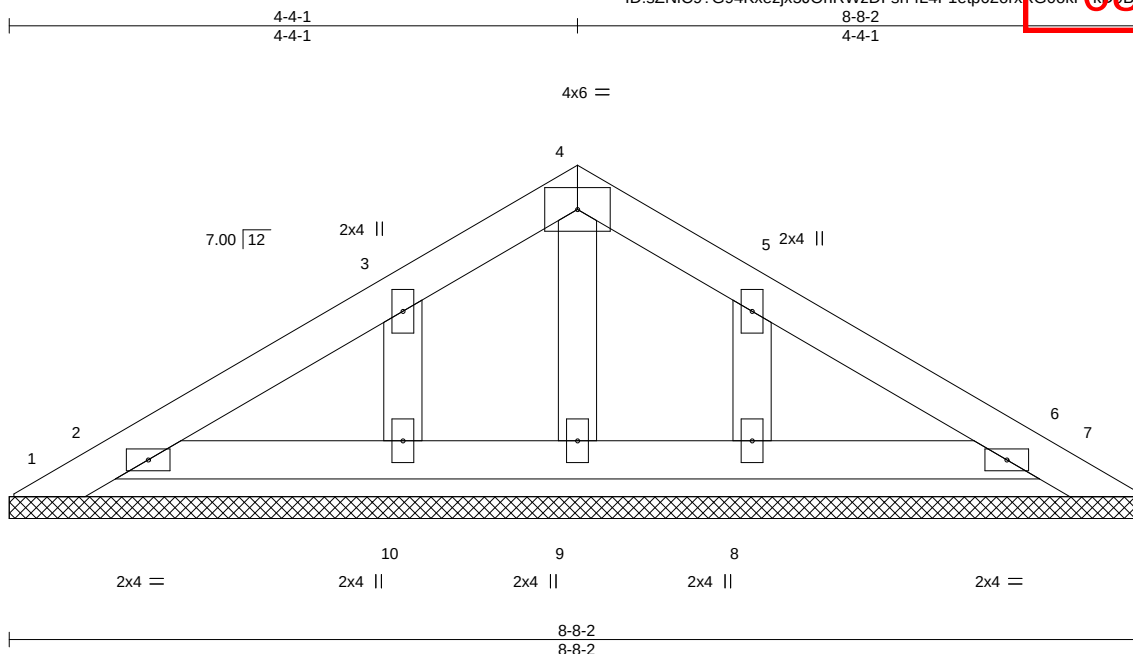


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	PB1	GABLE	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
Job Reference (optional)					LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:01 2021 Page 1
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08/23/2021



Scale = 1:17.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 24 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-8-2.
(lb) - Max Horz 1=-61(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10, 8, 6, 2
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 10, 8, 6, 2

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-4-1, Exterior(2R) 4-4-1 to 7-4-1, Interior(1) 7-4-1 to 8-4-7 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable 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) 1, 7, 10, 8, 6, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 9, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	PB3	Piggyback	9	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION

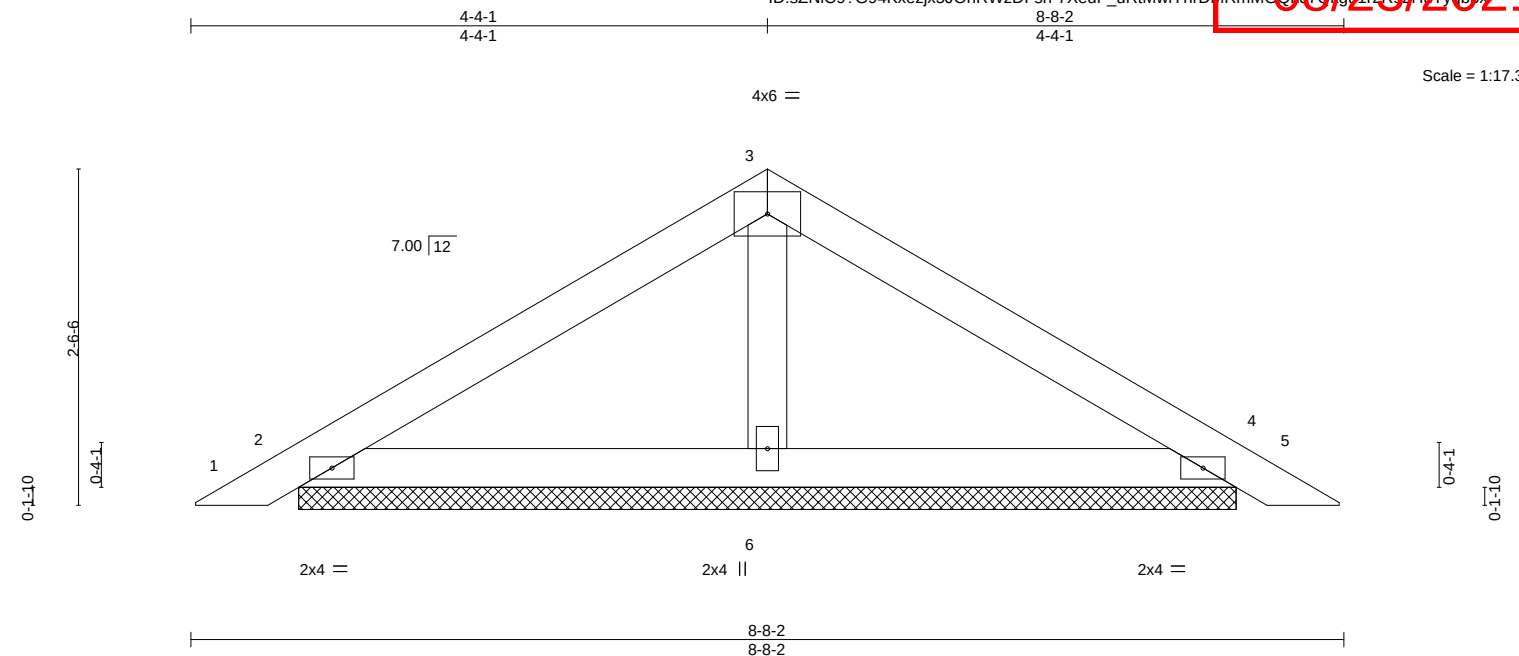
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

08/23/2021

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:02 2021 Page 1
ID:sZNiC9?G94Kxezjx5JOhrWzDFsh-7XedF_uRtMwiYhrDMRmMGOL70Vguzr2R32HuTybbx



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	5	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.01	5	n/r		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 21 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. (size) 6=7-0-11, 4=7-0-11, 2=7-0-11
Max Horz 2=-61(LC 10)
Max Uplift 6=-15(LC 12), 4=-64(LC 13), 2=-56(LC 12)
Max Grav 6=297(LC 1), 4=204(LC 1), 2=204(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-4-1, Exterior(2R) 4-4-1 to 7-4-1, Interior(1) 7-4-1 to 8-4-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4, 2.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



August 9, 2021

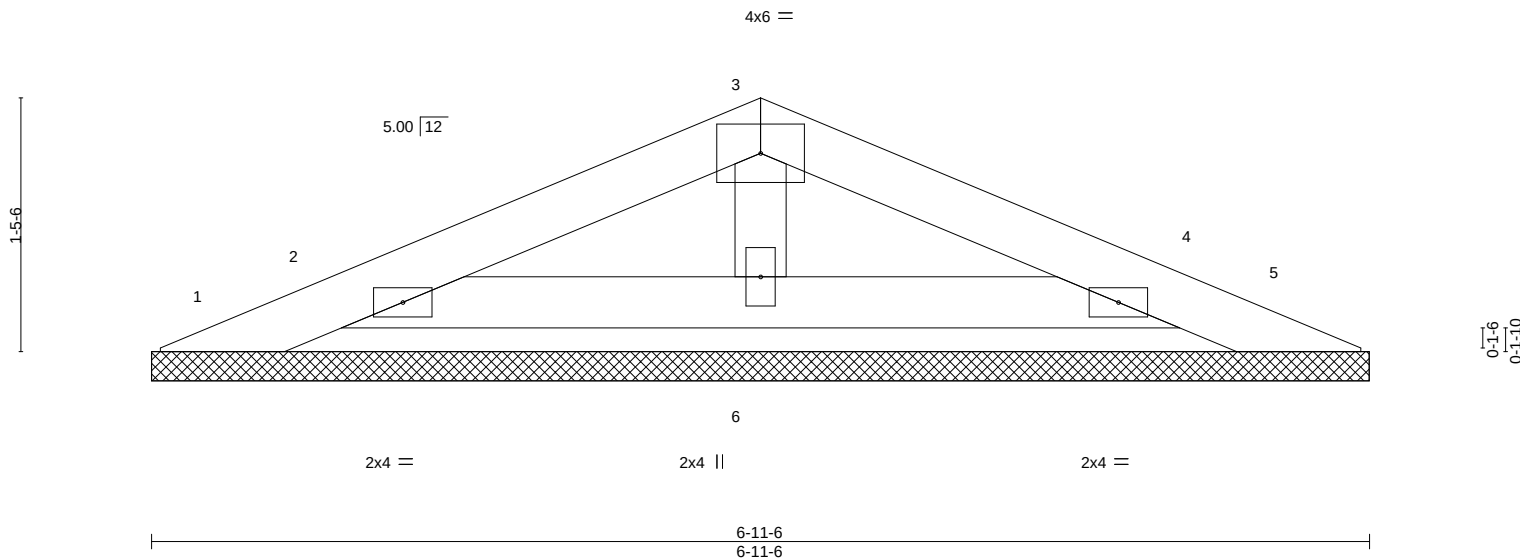
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	PB4	GABLE	2	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

ID: sZNiC9?G94Kxezjx5JOhrWzDFsh-bjC?SKv3eg2ZAqQPwHbpeEW5p4udUHCgVnQwq65v

6-11-6
6-11-6

08/23/2021

Scale = 1:13.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	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 0.02	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					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 or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 6-11-6.
(lb) - Max Horz 1=23(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6, 4, 2
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 4, 2

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=25ft; 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable 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) 1, 5, 6, 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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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

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	V1	Valley	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:04 2021 Page 1					LEE'S SUMMIT, MISSOURI
ID:sZNiC9?G94Kxezjx5JOhRWzDFsh-3wmNgfwiPzAPo_?lUsqLme72CmWwLvAXOvmyub3v					147344982
Job Reference (optional)					

08/23/2021

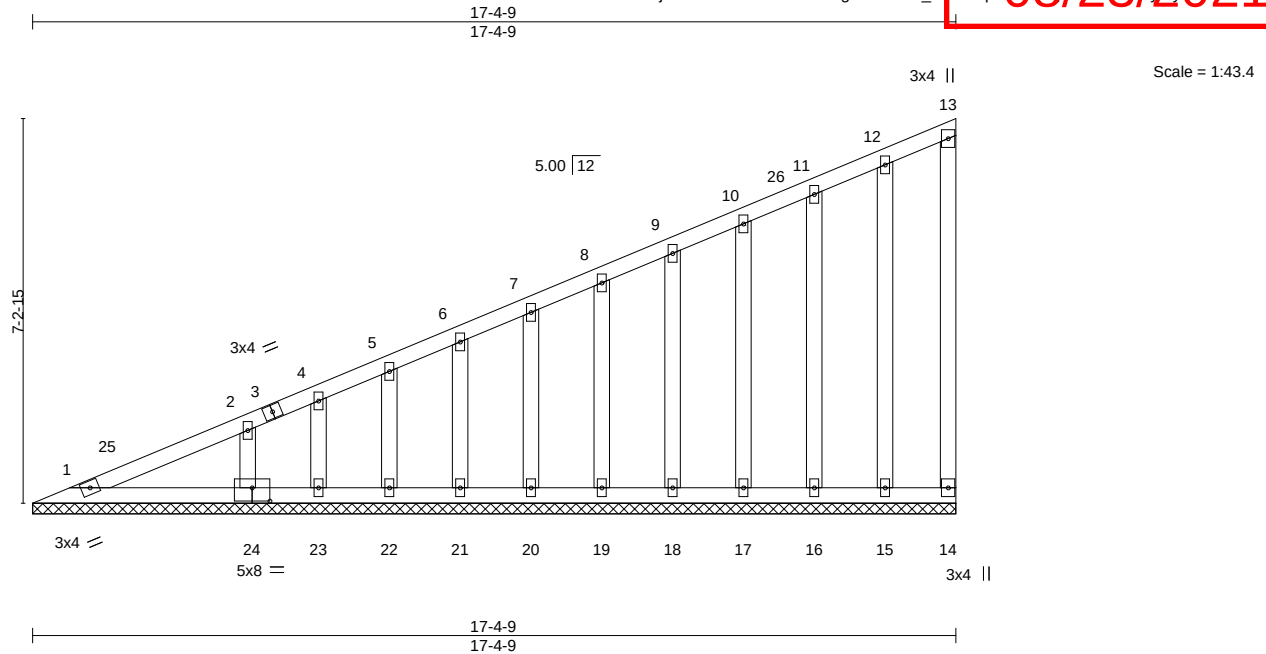


Plate Offsets (X,Y)--	[24:0-4-0,0-3-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	n/a	-	n/a
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	14	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 90 lb	FT = 20%		

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 17-4-9.

(lb) - Max Horz 1=300(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24

Max Grav All reactions 250 lb or less at joint(s) 14, 1, 15, 16, 17, 18, 19, 20, 21, 22, 23 except 24=309(LC 1)

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

TOP CHORD 1-2=-440/218, 2-4=-375/187, 4-5=-360/191, 5-6=-326/179, 6-7=-296/170, 7-8=-265/161

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-8-12 to 3-8-12, Exterior(2N) 3-8-12 to 17-2-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.
- 7) Non Standard bearing condition. Review required.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

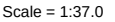
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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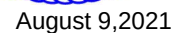
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:08 2021 Page 1
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Weight: 47 lb FT = 20%

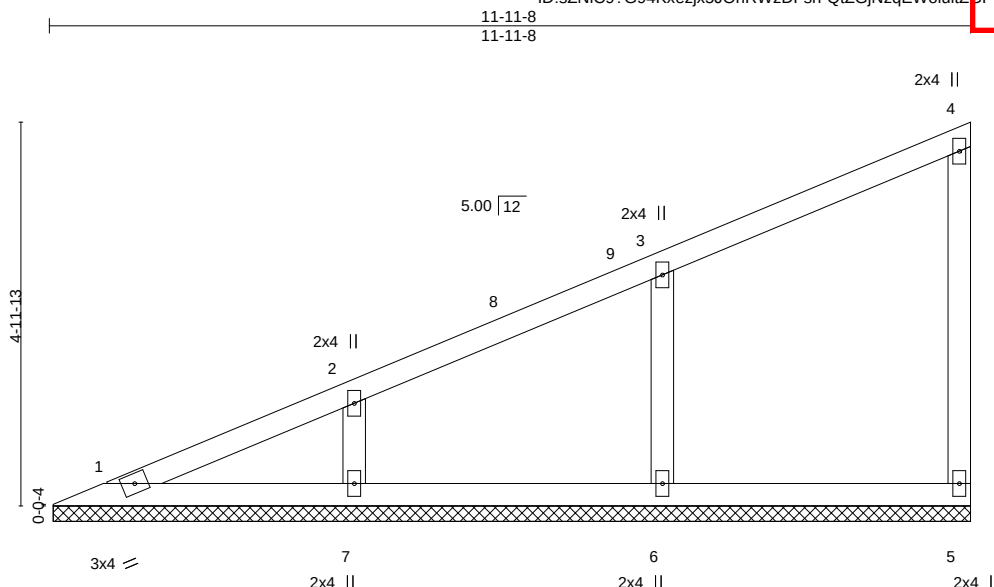
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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 14-7-5 zone; cantilever left and right exposed ; and vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 5, 6 except (jt=lb) 7=169.
- 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.



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	V3	Valley	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:09 2021 Page 1					LEE'S SUMMIT, MISSOURI
ID:sZNiC9?G94Kxejx5JOhRWzDFsh-QtZGjNzqEWoiultZGPO?2VUJf6W10842SE9dZyub5r					147344984

08/23/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 37 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-10-14.
(lb) - Max Horz 1=202(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=106(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=386(LC 1), 7=354(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-258/163
WEBS 3-6=-302/200, 2-7=-270/163

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-11-8, Interior(1) 3-11-8 to 11-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 5, 6 except (jt=lb) 7=106.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V4	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

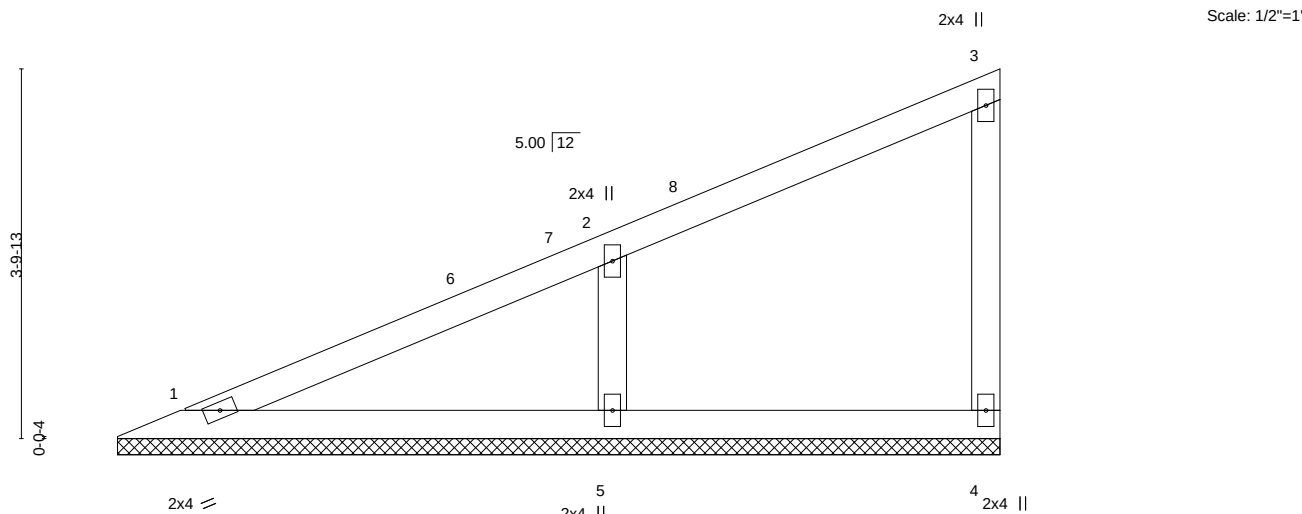
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8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:10 2021 Page 1

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08/23/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-1-5, 4=9-1-5, 5=9-1-5
Max Horz 1=151(LC 9)
Max Uplift 1=-8(LC 12), 4=-28(LC 9), 5=-120(LC 12)
Max Grav 1=159(LC 1), 4=128(LC 1), 5=456(LC 1)

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

WEBS 2-5=-347/243

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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 9-0-2 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=120.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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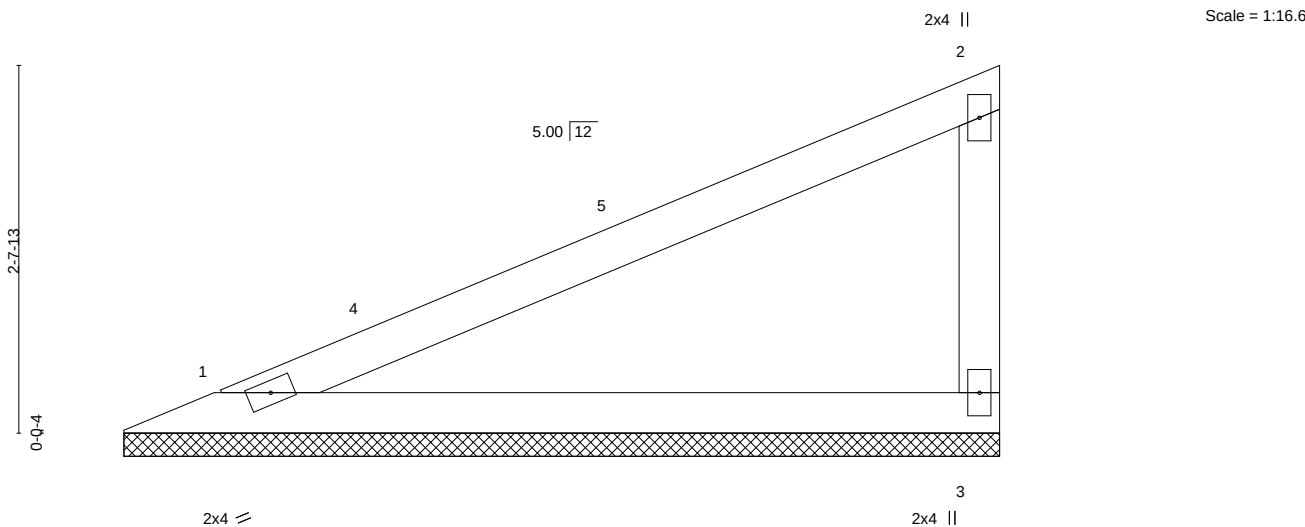
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V5	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:10 2021 Page 1
ID:sZNiC9?G94Kxezjx5JOhrWzDFsh-u47ewj_S?pwZWVSlq7vEb611618FmHFEH5jIA2yubsp
6-4-5
6-4-5



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 0.58	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-3-11, 3=6-3-11
Max Horz 1=100(LC 9)
Max Uplift 1=-43(LC 12), 3=-68(LC 12)
Max Grav 1=246(LC 1), 3=246(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=25ft; 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 6-2-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

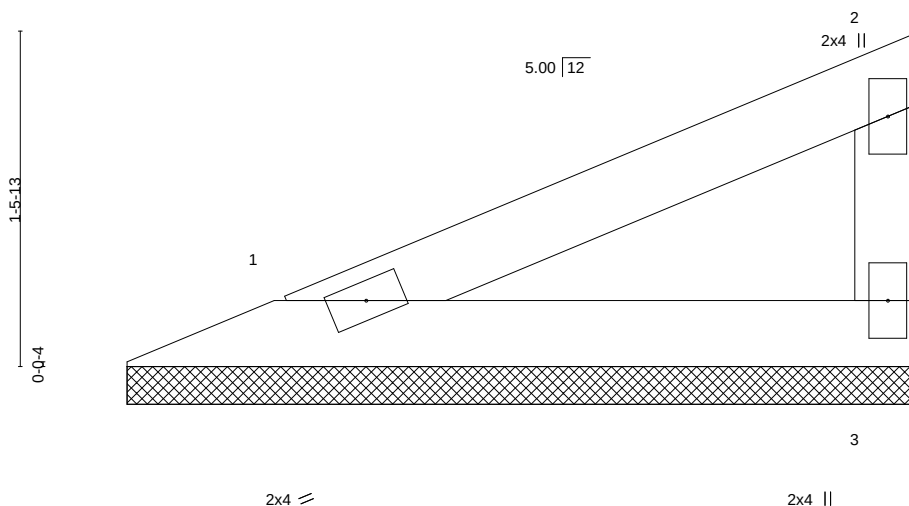
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MO
2894164	V6	Valley	1	1	AS NOTED FOR PLAN REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					DEVELOPMENT SERVICES
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:12 2021 Page 1					LEE'S SUMMIT, MISSOURI
Job Reference (optional)					147344987

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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 0.12	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-6-1, 3=3-6-1
Max Horz 1=49(LC 9)
Max Uplift 1=-22(LC 12), 3=-32(LC 12)
Max Grav 1=120(LC 1), 3=120(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

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

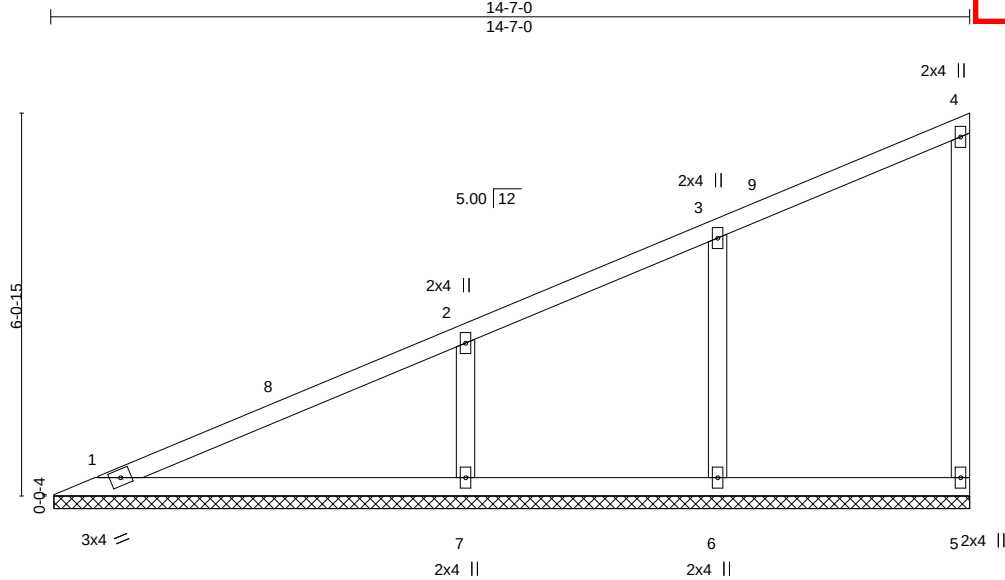


16023 Swingley Ridge Rd
Chesterfield, MO 63017

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:11 2021 Page 1
ID:sZNiC9?G94Kxejx5JOhRWZDFsh-MGH183?5m72Q831x0qQT8KZojgm0w5jNWwqjSi8ydcb5

08/23/2021



Scale = 1:36.6

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.23	Vert(CT) n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S				Weight: 47 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 14-6-6.
(lb) - Max Horz 1=249(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=-164(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=322(LC 1), 7=537(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-305/188
WEBS 3-6=-257/169, 2-7=-403/236

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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 14-5-4 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) 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) 5, 6 except (jt=lb) 7=164.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021



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

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

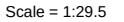


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:12 2021 Page 1

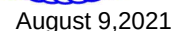
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Weight: 36 lb FT = 20%

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.

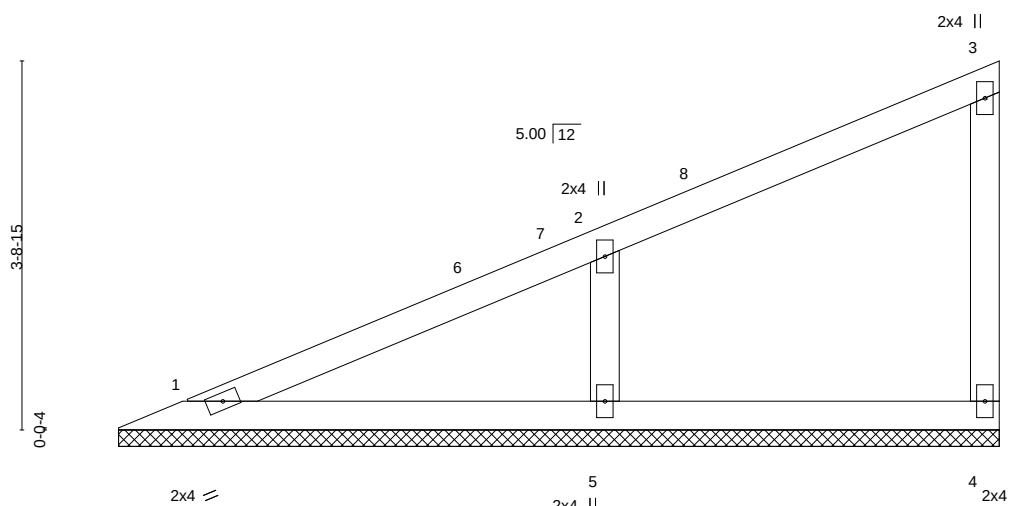
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-6, Interior(1) 3-9-6 to 11-7-10 zone; cantilever left and right exposed ; and vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 5, 6 except (jt=lb) 7=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.



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V9	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:12 2021 Page 1
ID:sZNiC9?G94Kxejx5JOhRWzDFsh-leonYk1LHkI8NNBLVFTxDfALv1w0hgZ3Cymkyob5m

08/23/2021



Scale = 1:23.4

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 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-11-3, 4=8-11-3, 5=8-11-3
Max Horz 1=148(LC 9)
Max Uplift 1=-6(LC 12), 4=-28(LC 9), 5=-120(LC 12)
Max Grav 1=147(LC 1), 4=126(LC 1), 5=455(LC 1)

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

WEBS 2-5=-354/252

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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 8-10-1 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) 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=120.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

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

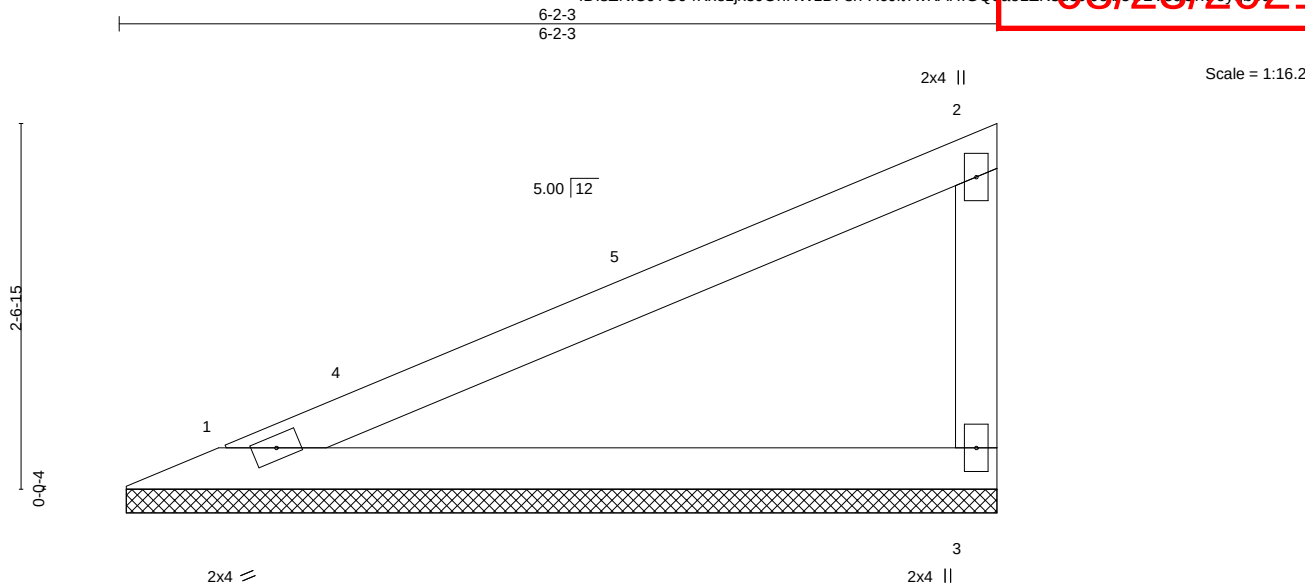


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V10	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:05 2021 Page 1
ID: sZNiC9?G94Kxejx5JOhRWzDFsh-X6Jlt?wKAHIGQ&ao1ZK3u3Jubt502V80GxUoyubw

08/23/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-1-9, 3=6-1-9
Max Horz 1=97(LC 9)
Max Uplift 1=-44(LC 12), 3=-64(LC 12)
Max Grav 1=238(LC 1), 3=238(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=25ft; 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 6-0-7 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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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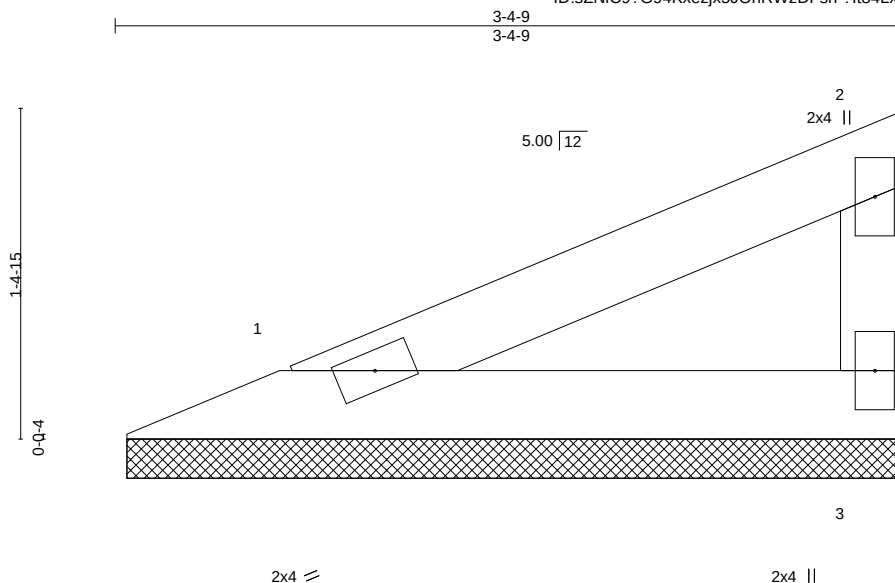


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V11	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:06:30 2021 Page 1
ID:sZNiC9?G94Kxezjx5JOhrWzDFsh-?lt84LxyxbQ7119_bHrlRGs0015XqtleMjUV2Fq057

08/23/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-4-0, 3=3-4-0
Max Horz 1=46(LC 9)
Max Uplift 1=-21(LC 12), 3=-30(LC 12)
Max Grav 1=112(LC 1), 3=112(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



August 9, 2021

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

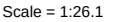


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:06 2021 - Page 1
ID:sZNiC9?G94Kxejxj5JOhRWzDFsh-?lt84LxyxbQ719_bHrRlG6?tl55arQeMjVZFYqbt5t

08/23/2021



Weight: 39 lb FT = 20%

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.

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-10-2, Exterior(2R) 6-10-2 to 9-10-2, Interior(1) 9-10-2 to 13-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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, 5 except (jt=lb) 8=138, 6=137.
- 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.



 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

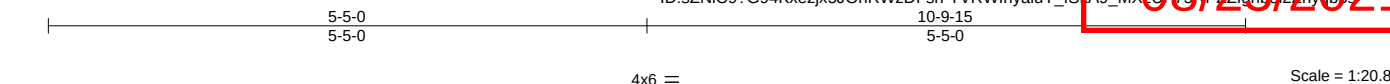
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW
2894164	V13	Valley	1	1	DEVELOPMENT SERVICES
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					LEE'S SUMMIT, MISSOURI

8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:07 2021 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	197/144
BCDL 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	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 28 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=10-9-1, 3=10-9-1, 4=10-9-1
Max Horz 1=-74(LC 8)
Max Uplift 1=-47(LC 12), 3=-57(LC 13), 4=-47(LC 12)
Max Grav 1=208(LC 25), 3=208(LC 26), 4=462(LC 1)

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

WEBS 2-4=-314/125

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-5-0, Exterior(2R) 5-5-0 to 8-5-0, Interior(1) 8-5-0 to 10-3-7 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
- 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.



August 9, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2894164	Truss V14	Truss Type Valley	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #12/MOAS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

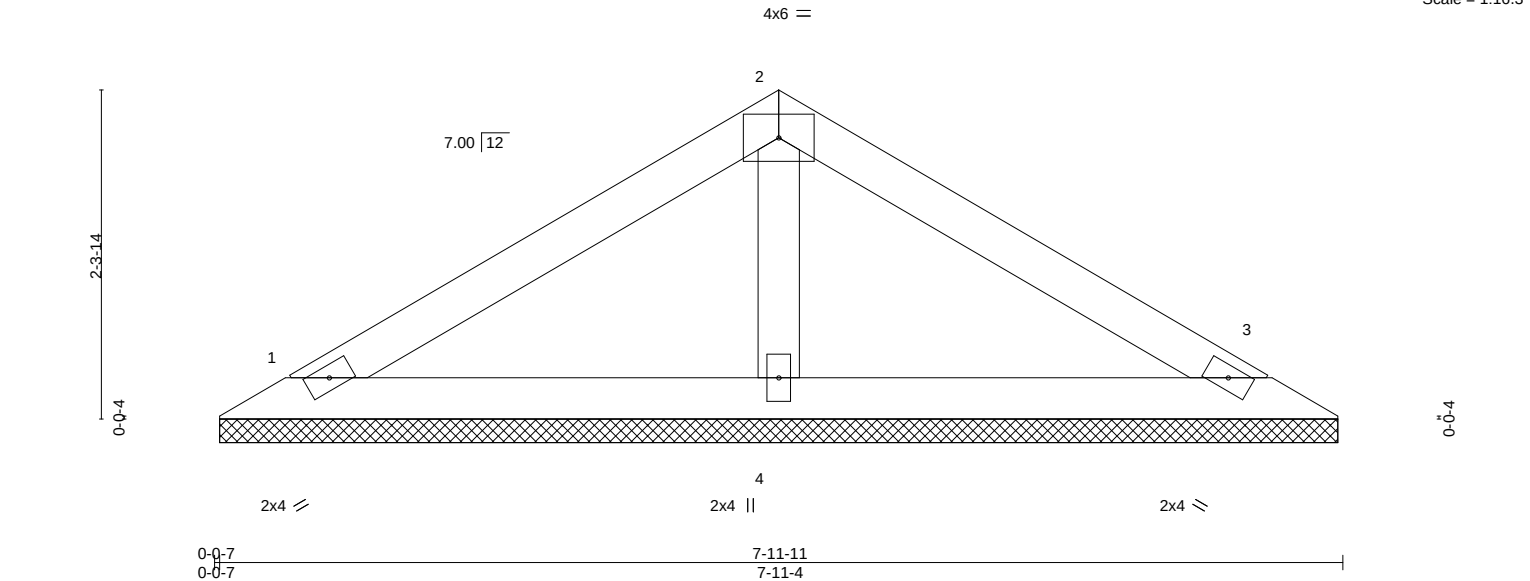
8.430 s Jun 2 2021 MiTek Industries, Inc. Fri Aug 6 11:08:09 2021 Page 1

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7-11-11
3-11-13

08/23/2021

Scale = 1:16.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-10-13, 3=7-10-13, 4=7-10-13
 Max Horz 1=-53(LC 8)
 Max Uplift 1=-41(LC 12), 3=-48(LC 13), 4=-18(LC 12)
 Max Grav 1=163(LC 1), 3=163(LC 1), 4=295(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 3-11-13, Exterior(2R) 3-11-13 to 6-11-13, Interior(1) 6-11-13 to 7-5-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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.



August 9, 2021

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

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

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

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

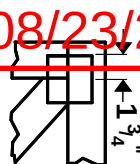


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

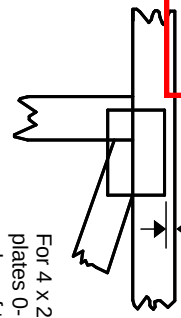
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Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 3/16" from outside edge of truss.



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

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

PLATE SIZE

4 X 4

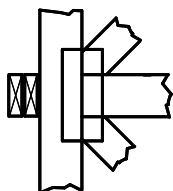
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

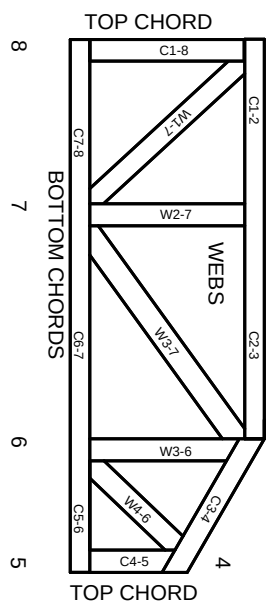


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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 T or 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.