



MiTek USA, Inc.

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

Re: 3405118
Summit/168 Hawthorne Ridge

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: I56269538 thru I56269607

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

Missouri COA: Engineering 001193



January 24, 2023

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.

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

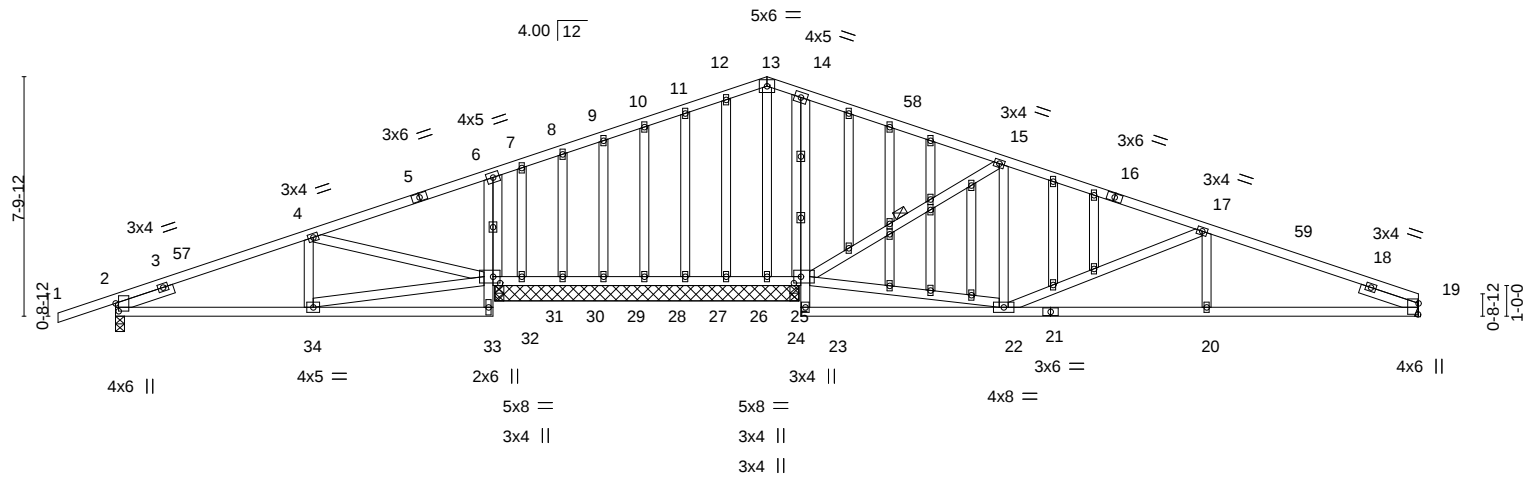
02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269538
3405118	A01	GABLE	1	1		

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Mon Jan 23 07:54:57 2023
Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-DpkMzPQpbUSGRyhyJr4RHL3ak7?HpVYanhjj??zsXhC
Job Reference (optional)

1-10-8
1-10-8
6-3-10
6-3-10
12-3-12
6-0-2
16-9-6
4-5-10
21-3-0
4-5-10
22-4-4
1-1-4
28-11-11
6-7-7
35-7-1
6-7-7
42-6-0
6-10-15

Scale = 1:75.2



	6-3-10 6-3-10	12-3-12 6-0-2	12-4-8 0-0-12	16-9-6 4-4-14	17-4-0 0-6-10	22-3-8 4-11-8	22-4-4 0-0-12	28-11-11 6-7-7	35-7-1 6-7-7	42-6-0 6-10-15
Plate Offsets (X,Y)--	[2:0-3-1,0-1-3], [19:0-4-5,0-0-3], [24:0-2-12,0-2-8], [32:0-2-12,0-2-8]									
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 0.47		Vert(LL) -0.05 20 >999 240		MT20		197/144	
TCDL 10.0	Lumber DOL 1.15		BC 0.41		Vert(CT) -0.10 20-22 >999 180					
BCLL 0.0	Rep Stress Incr YES		WB 0.71		Horz(CT) 0.01 19 n/a n/a					
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 243 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 15-24
OTHERS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0	

REACTIONS. All bearings 9-11-0 except (jt=length) 2=0-3-8, 19=Mechanical.

(lb) - Max Horz 2=132(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) 26, 27, 28, 29, 30, 31 except 2=-139(LC 8), 32=-149(LC 12), 24=-246(LC 13), 19=-141(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 26, 27, 28, 29, 30, 31 except 2=609(LC 25), 32=631(LC 25), 32=582(LC 1), 24=1094(LC 26), 24=1091(LC 1), 19=756(LC 26), 25=263(LC 1)

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

TOP CHORD 2-4=-590/79, 4-6=-65/531, 6-7=-29/508, 7-8=-21/535, 8-9=-4/532, 9-10=0/532, 10-11=0/532, 11-12=0/535, 12-13=0/518, 13-14=0/488, 14-15=0/572, 15-17=-585/172, 17-19=-1288/278

BOT CHORD 2-34=-137/538, 6-32=-310/118, 31-32=-492/198, 30-31=-491/198, 29-30=-491/198, 28-29=-491/198, 27-28=-491/198, 26-27=-491/198, 25-26=-491/198, 24-25=-491/198, 14-24=-400/166, 20-22=-207/1222, 19-20=-207/1222

WEBS 32-34=-155/497, 4-32=-861/185, 22-24=-59/435, 15-24=-1067/249, 15-22=-9/453, 17-22=-804/196

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-4-8, Interior(1) 2-4-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 42-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 27, 28, 29, 30, 31 except (jt=lb) 2=139, 32=149, 24=246, 19=141.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2.

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

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

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

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AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023



January 24,2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269538
3405118	A01	GABLE	1	1	Job Reference (optional)	

NOTES-

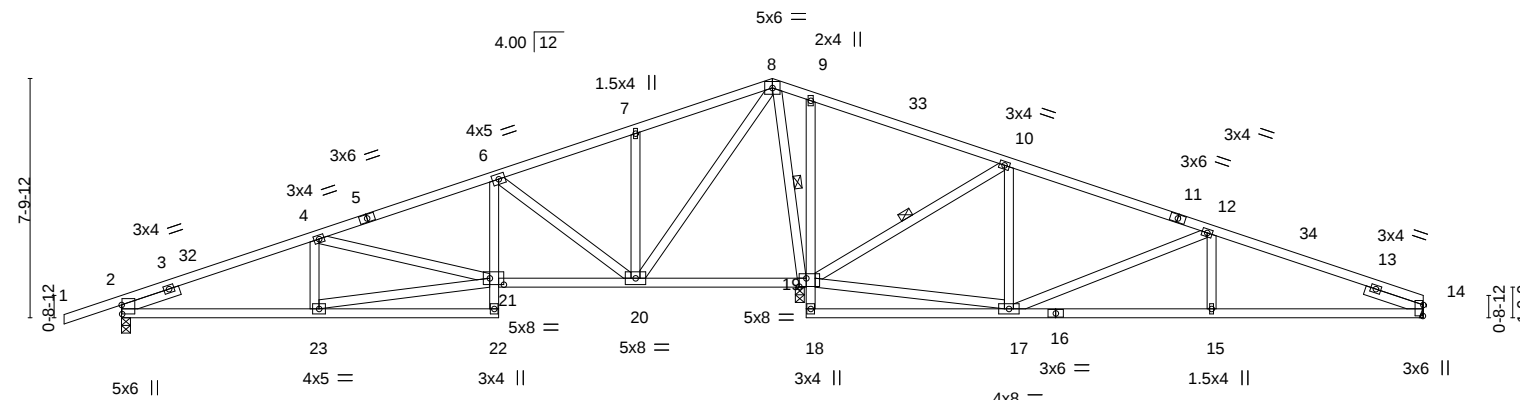
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:54:59 2023 Page 1

ID:Yzh5jGtdUuk3JFmon9oxEvzZifN-ABS6O5S466i_hFrLRf7vMm8uwXg_H00TE?Cq3tzsXhA

1-10-8	6-3-10	12-3-12	16-9-6	21-3-0	22-4-4	28-11-11	35-7-1	42-6-0
1-10-8	6-3-10	6-0-2	4-5-10	4-5-10	1-1-4	6-7-7	6-7-7	6-10-15

Scale = 1:75.2



6-3-10 12-3-12 16-9-6 22-3-8 22-4-4 28-11-11 35-7-1 42-6-0 6-3-10 6-0-2 4-5-10 5-6-2 0-0-12 6-7-7 6-7-7 6-10-15													
Plate Offsets (X,Y)-- [2:0-3-9,0-0-3], [14:0-4-5,0-0-3], [19:0-2-12,0-3-4], [21:0-5-8,0-2-8]													
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	0.59	Vert(LL)	-0.08	22-23	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.14	22-23	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.02	19	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 197 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied.
	19-21: 2x4 SP 2400F 2.0E	WEBS	1 Row at midpt 8-19, 10-19
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0		

REACTIONS. (size) 2=0-3-8, 19=0-3-8, 14=Mechanical
Max Horz 2=132(LC 16)
Max Uplift 2=-203(LC 8), 19=-304(LC 8), 14=-137(LC 13)
Max Gray 2=906(LC 25), 19=2573(LC 1), 14=662(LC 26)

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

TOP CHORD 2-4=-1352/247, 4-6=-909/214, 6-7=-133/332, 7-8=-134/326, 8-9=-51/1147,
9-10=-114/1236, 10-12=-315/390, 12-14=-1051/267

BOT CHORD 2-23=-293/1235, 6-21=-39/406, 20-21=-188/801, 19-20=-833/262, 9-19=-399/170,
15-17=-197/998, 14-15=-197/998

WEBS 21-23=-290/1139, 4-21=-526/121, 6-20=-910/219, 7-20=-330/148, 8-19=-1493/246,
17-19=-346/215, 10-19=-1174/261, 10-17=-24/514, 12-17=-878/200, 12-15=0/262,
8-20=-262/1198

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-4-8, Interior(1) 2-4-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 42-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=203, 19=304, 14=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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

 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.

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

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd
Chesterfield, MO 63017
LEE SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269540
3405118	A03	Roof Special	1	1	Job Reference (optional)	

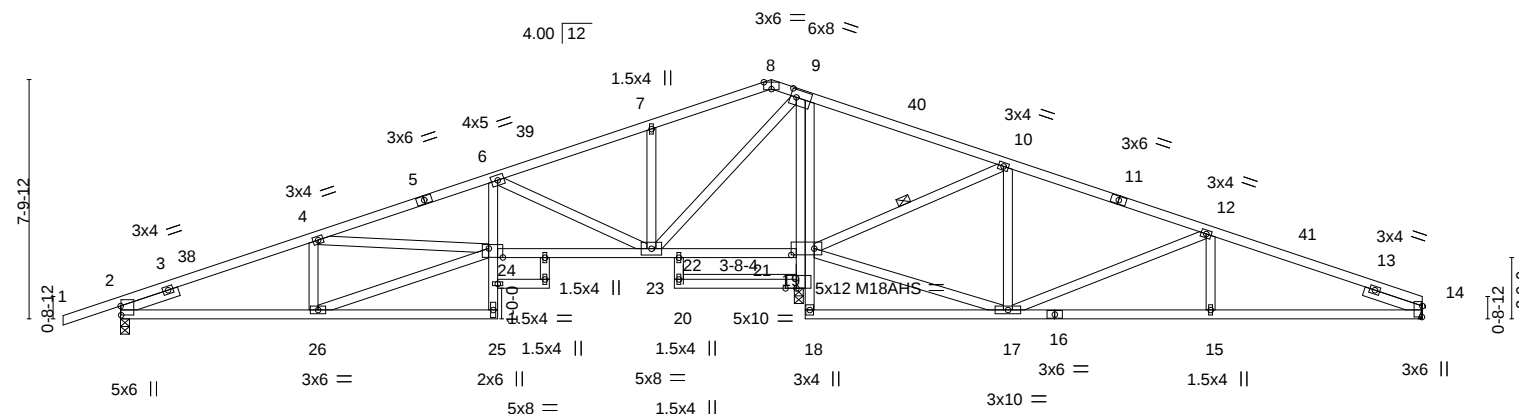
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:01 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-6aztpnTKejiwZ?jYg9NSBDDJIIKIWAjJhx8mzsXh8

1-10-8	6-3-10	12-3-12	14-0-0	17-4-0	19-6-0	21-3-0	22-4-4	28-11-11	35-7-1	42-6-0
1-10-8	6-3-10	6-0-2	1-8-4	3-4-0	2-2-0	1-9-0	1-1-4	6-7-7	6-7-7	6-10-15

Scale = 1:75.2



	6-3-10	12-3-12	14-0-0	17-4-0	18-1-0	22-3-8	22-4-4	28-11-11	35-7-1	42-6-0
	6-3-10	6-0-2	1-8-4	3-4-0	0-9-0	1-5-0	2-9-8	0-0-12	6-7-7	6-10-15

Plate Offsets (X,Y)-- [2:0-3-9,0-0-3], [8:0-3-0,Edge], [9:0-2-4,0-3-0], [14:0-4-5,0-0-3], [19:0-4-4,0-0-0], [21:0-9-0,0-2-8], [24:0-5-8,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.09	25-26	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.16	25-26	>999	M18AHS	142/136
BCLL 0.0	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.03	19	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 199 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 24-25
WEBS 1 Row at midpt 10-21

REACTIONS. (size) 2=0-3-8, 19=0-3-8, 14=Mechanical
Max Horz 2=132(LC 16)
Max Uplift 2=-197(LC 8), 19=-316(LC 8), 14=-148(LC 13)
Max Grav 2=896(LC 25), 19=2517(LC 1), 14=712(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1327/222, 4-6=-1217/252, 6-7=-12/313, 7-8=-4/298, 9-10=-154/1329,
10-12=-442/395, 12-14=-1178/295
BOT CHORD 2-26=-270/1211, 6-24=-57/535, 23-24=-222/1099, 22-23=-1195/350, 21-22=-1195/350,
19-21=-2404/474, 9-21=-1865/369, 15-17=-223/1117, 14-15=-223/1117
WEBS 4-26=-312/147, 17-21=-347/373, 10-21=-1302/288, 10-17=-26/505, 12-17=-878/197,
12-15=0/266, 24-26=-284/1236, 7-23=-366/147, 6-23=-1274/297, 9-23=-297/1397

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-4-8, Interior(1) 2-4-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 42-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 19 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=197, 19=316, 14=148.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269541
3405118	A04	ROOF SPECIAL	1	1		

Builders FirstSource (Valley Center),

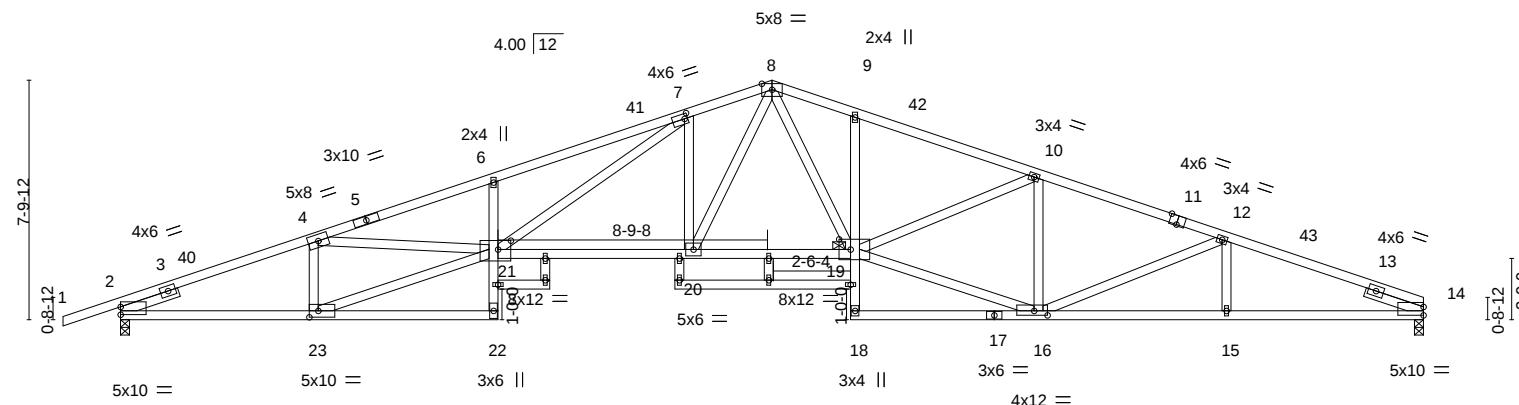
Valley Center, KS - 67147,

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ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-2z5dESVaAKDQ9t96g5BrXcJU2YwLD86S9dA2CezsXh6

1-10-8	6-3-10	12-3-12	14-0-0	17-5-14	19-1-0	21-3-0	23-9-12	29-11-5	36-0-15	42-6-0
1-10-8	6-3-10	6-0-2	1-8-4	3-5-14	0-7-2	3-2-0	2-6-12	6-1-9	6-1-9	6-5-1

Scale = 1:75.2



	6-3-10	12-3-12	14-0-0	17-5-14	19-1-0	21-3-0	23-9-12	29-11-5	36-0-15	42-6-0
	6-3-10	6-0-2	1-8-4	3-5-14	0-7-2	2-11-0	0-9-0	6-1-9	6-1-9	6-5-1

Plate Offsets (X,Y)-- [2:0-0-0,0-3-1], [7:0-1-4,0-2-0], [11:0-3-0,Edge], [14:Edge,0-3-5], [16:0-5-4,0-1-12], [19:0-4-8,0-4-0], [21:0-5-0,0-3-8], [23:0-3-8,0-2-8]

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 0.97	Vert(LL)	-0.73 20-21	>701	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-1.34 20-21	>382	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.47 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 216 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
1-5,11-14: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-22,14-17: 2x4 SP 2400F 2.0E, 19-21: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 21-22, 18-19
JOINTS 1 Brace at Jt(s): 19

REACTIONS. (size) 2=0-3-8, 14=0-3-8
Max Horz 2=132(LC 16)
Max Uplift 2=346(LC 8), 14=275(LC 9)
Max Grav 2=2047(LC 1), 14=1910(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-4230/732, 4-6=-7021/1220, 6-7=-7109/1302, 7-8=-4666/925, 8-9=-4596/902,
9-10=-4633/858, 10-12=-3979/736, 12-14=-4280/757
BOT CHORD 2-23=-644/3922, 6-21=-490/185, 20-21=-635/4383, 19-20=-494/3674, 9-19=-293/146,
15-16=-657/3972, 14-15=-657/3972
WEBS 4-23=-1326/290, 21-23=-647/3930, 4-21=-409/2715, 16-19=-601/3858, 10-19=-86/637,
10-16=-961/209, 12-16=-357/133, 7-20=-1261/334, 7-21=-520/2829, 8-20=-320/1609,
8-19=-303/1482

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-4-8, Interior(1) 2-4-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 42-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 1.5x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=346, 14=275.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

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DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Lee's Summit, MISSOURI 64081

02/21/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:06 2023 Page 1

ID:Yzh5jGTdUuk3JFmfon9oxEvzZifN-SXnmsUXTTFb?0KthLEIY9Ew_HmXgQXlvbOipzzsXh3

1-10-8 6-3-10 12-3-12 16-9-6 17-5-14 21-3-0 23-9-12 29-11-5 36-0-15 42-6-0 44-4-8
1-10-8 6-3-10 6-0-2 4-5-10 0-8-8 3-9-2 2-6-12 6-1-9 6-1-9 6-5-1 1-10-8

Scale = 1:75.6

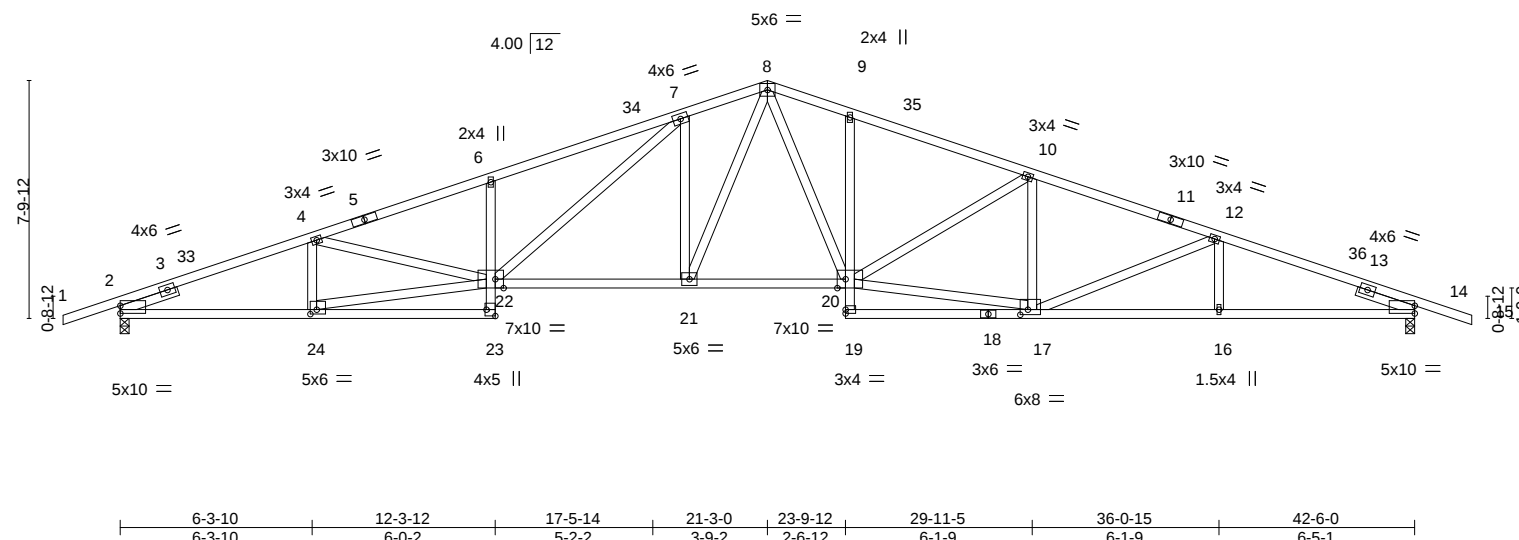


Plate Offsets (X,Y)-- [2:0-0-0-0-3-1], [14:Edge,0-3-1], [17:0-3-0-0-2-0], [20:0-3-4,Edge], [22:0-3-4,Edge], [23:Edge,0-3-8], [24:0-2-8,0-1-12]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.51	21-22	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.95	21-22	>538	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.29	14	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 212 lb	FT = 20%	

LUMBER-	
TOP CHORD	2x4 SPF No.2 *Except*
	1-5,11-15: 2x4 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-23,14-18: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0
BRACING-	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 14=0-3-8
 Max Horz 2=-122(LC 13)
 Max Uplift 2=-346(LC 8), 14=-346(LC 9)
 Max Grav 2=2044(LC 1), 14=2044(LC 1)

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

TOP CHORD 2-4=-4211/724, 4-6=-5032/884, 6-7=-5117/969, 7-8=-3825/788, 8-9=-3774/782,
9-10=-3803/727, 10-12=-3965/723, 12-14=-4230/731

BOT CHORD 2-24=-601/3903, 23-24=-66/406, 6-22=-516/190, 21-22=-470/3588, 20-21=-379/3099,
9-20=-303/148, 16-17=-616/3921, 14-16=-616/3921

WEBS 4-24=-664/174, 22-24=-542/3548, 4-22=-112/867, 17-20=-540/3557, 10-20=-402/165,
10-17=-325/108, 12-17=-315/124, 7-21=-997/293, 7-22=-339/1590, 8-21=-266/1273,
8-20=-254/1163

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 2-4-8, Interior(1) 2-4-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=346, 14=346.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

 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.

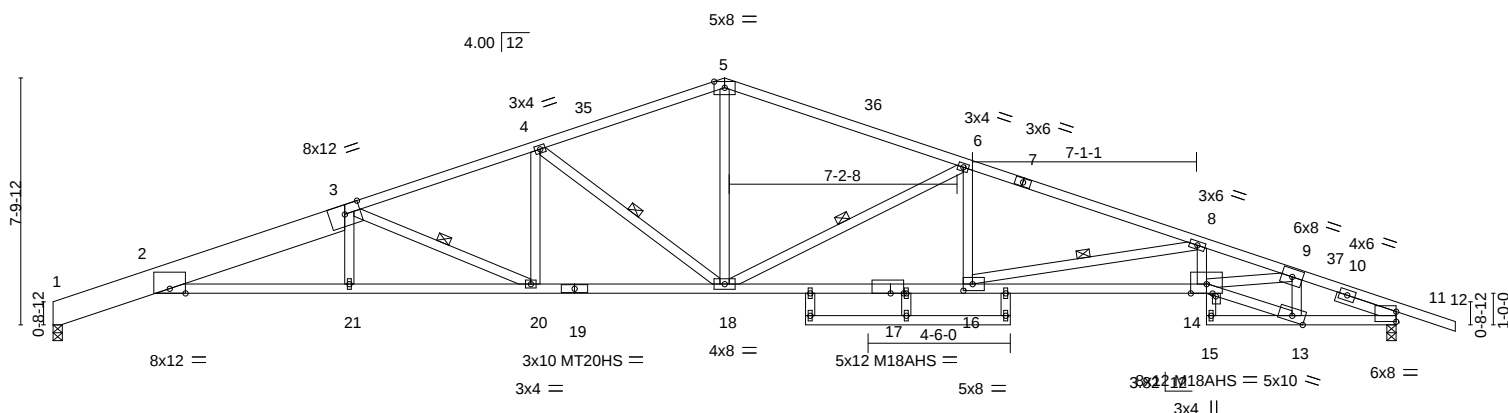
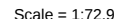
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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02/21/2023

Builders First Source, Valley Center, KS 67147

8.530 S May 26 2022 MREK Industries, Inc. Tue Jan 24 10:39:53 2023 Page 1
ID:Yzb5iGTdI Juk3 1Emen9oxEyz7ifN-mV7HNO8gn0eDeOitiS 1KwTl mBdYg77YV0SEInYzsAAa



	3-3-8	9-4-8	15-3-3	21-3-0	23-9-12	25-9-8	27-0-0	28-11-6	30-3-8	36-6-0	39-4-4	42-6-0
Plate Offsets (X,Y)--	3-3-8	6-1-0	5-10-11	5-11-13	2-6-12	1-11-12	1-2-8	1-11-6	1-4-2	6-2-8	2-10-4	3-1-12

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.95	Vert(LL) -0.61 18-20	>839	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 1.00	Vert(CT) -1.14 16-18	>448	180	MT20HS	187/143
BCLL 0.0	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.48 11	n/a	n/a	M18AHS	142/136
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS				Weight: 211 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SPF 2400F 2.0E, 7-12: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SP 2400F 2.0E *Except* 22-23,23-24: 2x4 SPF No.2, 11-15,13-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.	
BOT CHORD	Rigid ceiling directly applied.	
WEBS	1 Row at midpt	3-20, 4-18, 6-18, 8-16

REACTIONS.

(size) 11=0-3-8, 1=0-3-8
 Max Horz 1=-130(LC 17)
 Max Uplift 11=-324(LC 9), 1=-263(LC 8)
 Max Grav 11=2093(LC 1), 1=1929(LC 1)

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

FORCES max. comparisons: 1st-10=601/172, 2nd-10=601/172 except where shown:
TOP CHORD 1-2=-601/172, 2-3=-5756/966, 3-4=-4463/797, 4-5=-3394/665, 5-6=-3421/653,
6-8=-4924/843, 8-9=-7345/1133, 9-11=-3913/585
BOT CHORD 2-21=-832/5571, 20-21=-829/5581, 18-20=-573/4169, 16-18=-659/4605, 14-16=-1003/6895,
11-13=-491/3571, 13-14=-519/3803
WEBS 3-21=0/265, 3-20=-1529/293, 4-20=-62/688, 4-18=-1267/279, 5-18=-233/1648,
9-13=-1320/238, 6-16=-1/671, 6-18=-1627/320, 8-14=-32/801, 9-14=-522/3449,
8-16=-2335/351

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) 1 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 324 lb uplift at joint 11 and 263 lb uplift at joint 1.
- 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.



January 24, 2023



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

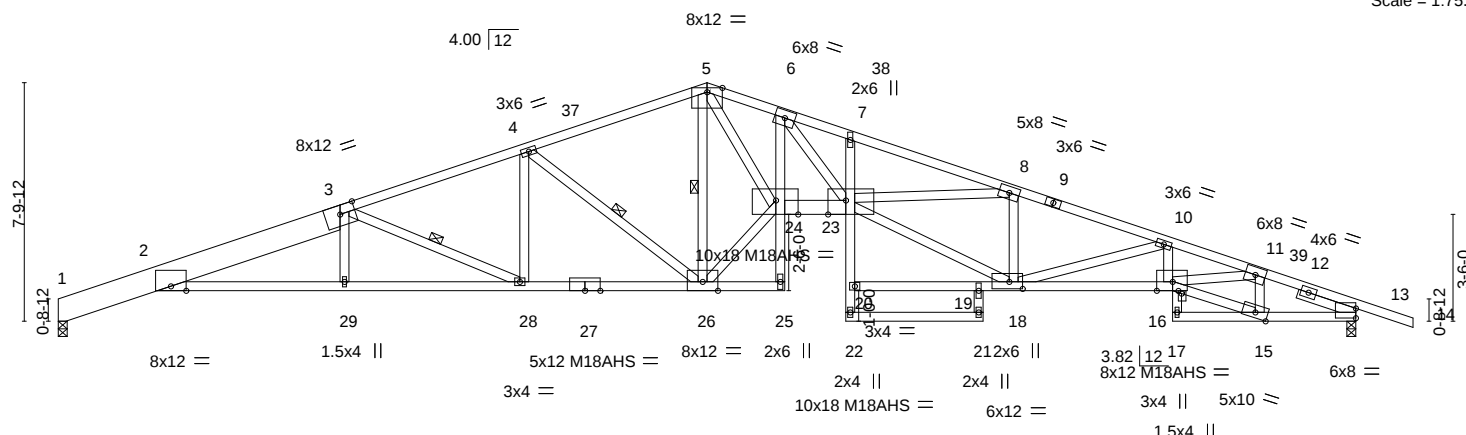
MIT
Mittek
16023 Swingley Ridge Rd.
Chesterfield, MO 63005
1-800-368-3688

02/21/2023

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:10 2023 Page 1

3-3-8	9-4-8	15-3-3	21-3-0	23-9-9	25-9-9	30-3-8	31-3-8	36-6-0	39-4-4	42-6-0	44-4-8
3-3-8	6-1-0	5-10-11	5-11-13	2-6-9	2-0-0	4-5-15	1-0-0	5-2-8	2-10-4	3-1-12	1-10-8

Scale = 1:75.5



	3-3-8	9-4-8	12-3-4	15-3-3	21-3-0	23-9-9	25-9-9	30-3-8	31-3-8	36-6-0	39-4-4	42-6-0
Plate Offsets (X,Y)-	3-3-8	6-1-0	2-10-12	2-11-15	5-11-13	2-6-9	2-0-0	4-5-15	1-0-0	5-2-8	2-10-4	3-1-12
		[13:0-0-0-3-13]	[15:0-4-14-0-2-2]	[16:0-6-4-Edgae]	[16:0-1-1-0-1-4]	[18:0-5-4-0-2-12]	[23:0-7-0-Edgae]	[24:0-8-12-Edgae]				

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	0.90	Vert(LL)	-1.01	23-24	>502	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-1.84	23-24	>275	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.85	13	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS								
											Weight: 232 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	3-5: 2x4 SPF No.2, 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	2-27,16-20,13-17: 2x4 SP 2400F 2.0E, 23-24: 2x6 SPF 2100F 1.8E
	15-16: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2 *Except*
	24-26,5-24,18-23: 2x4 SPF 1650F 1.5E
SLIDER	Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-26, 4-26, 3-28

REACTIONS.

(size) 13=0-3-8, 1=0-3-8
 Max Horz 1=-130(LC 17)
 Max Uplift 13=-324(LC 9), 1=-263(LC 8)
 Max Grav 13=2093(LC 1), 1=1929(LC 1)

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

TOP CHORD	1-2=-601/172, 2-3=-575/965, 3-4=-4467/797, 4-5=-3406/667, 5-6=-6627/1129, 6-7=-8367/1374, 7-8=-8485/1351, 8-10=-5381/902, 10-11=-7278/1123, 11-13=-3937/587
BOT CHORD	2-29=-830/5566, 28-29=-828/5576, 26-28=-574/4175, 6-24=-1643/305, 23-24=-830/6385, 19-20=-69/342, 18-19=-40/260, 16-18=-988/6825, 13-15=-495/3604, 15-16=-526/3834
WEBS	5-26=-2284/266, 24-26=-528/4431, 5-24=-827/5908, 6-23=-414/2609, 11-15=-134/250, 8-18=-1722/312, 18-23=-766/5344, 8-23=-363/2927, 4-28=-58/685, 4-26=-1276/274, 3-29=0/260, 3-28=-1518/93, 10-16=-49/801, 11-16=-505/3346, 10-18=-1825/268

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Valt=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 21-3-0, Exterior(2R) 21-3-0 to 25-6-0, Interior(1) 25-6-0 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) The Fabrication Tolerance at joint 24 = 0%
- 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) 1 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) 13=324, 1=263.
- 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.



January 24, 2023

 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.

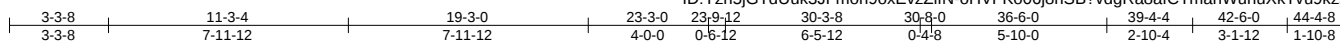
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DEVELOPMENT SERVICES
16023 Swingley Ridge Rd
Chesterfield, MO 63017
LEE SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	156269546
3405118	A09	Hip	1	1	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.530 s May 26 2022 MiTek Industries, Inc. Tue Jan 24 10:43:51 2023 Page 1
ID: Yzh5jGTdUuk3JFmon9oxEvzZiFN-oHVFKo06j8nSB?vdgRa8afCTmanWunuXkTvu9kzsA6s



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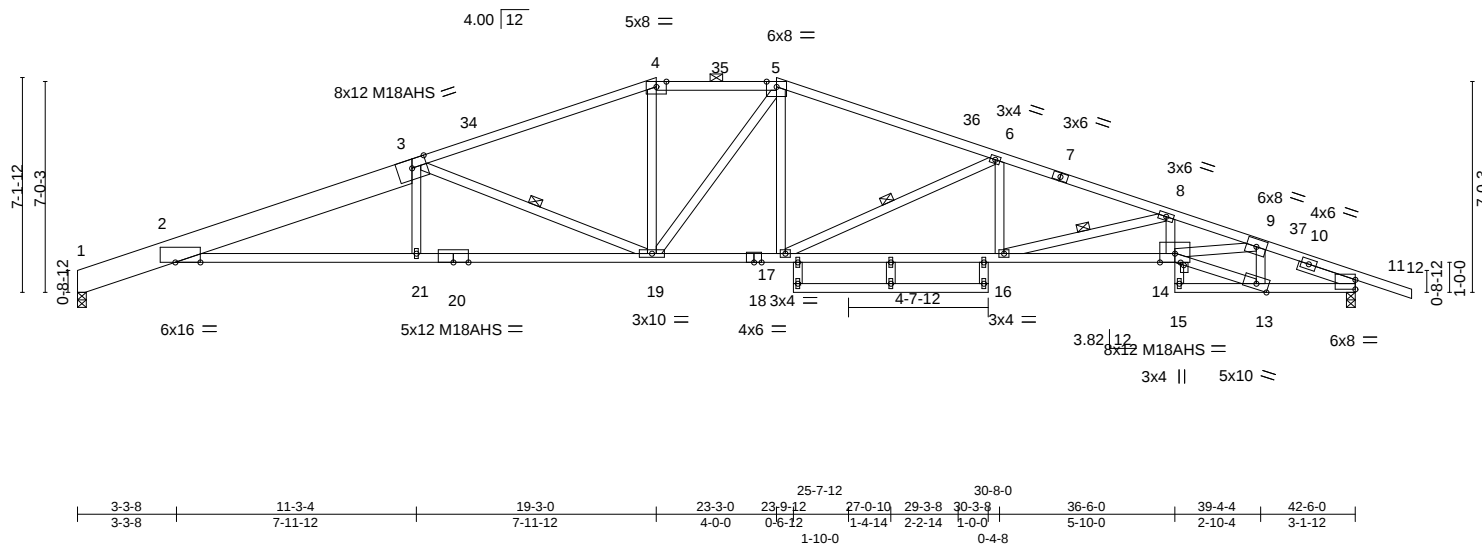


Plate Offsets (X,Y)-- [2:0-10-0,0-0-0], [11:0-0-0,0-3-13], [13:0-4-14,0-2-2], [14:0-1-1,0-1-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.78	Vert(LL)	-0.62	17-19	>822	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-1.17	19-21	>433	M18AHS	142/136
BCLL 0.0	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.52	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 212 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
4-5: 2x4 SPF No.2, 1-3: 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
22-23: 2x4 SPF No.2, 14-18,11-15: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-9-5 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-19, 6-17, 8-16

REACTIONS.

(size) 11=0-3-8, 1=0-3-8
Max Horz 1=-118(LC 17)
Max Uplift 1=-337(LC 9), 1=-276(LC 8)
Max Grav 11=2093(LC 1), 1=1929(LC 1)

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

TOP CHORD 1-2=-601/167, 2-3=-5363/1026, 3-4=-3815/783, 4-5=-3513/780, 5-6=-3803/772,
6-8=-5268/959, 8-9=-7274/1194, 9-11=-3938/626
BOT CHORD 2-21=-882/5159, 19-21=-879/5168, 17-19=-498/3515, 16-17=-785/4965, 14-16=-1053/6820,
11-13=-532/3605, 13-14=-565/3835
WEBS 3-21=0/337, 3-19=-1758/385, 4-19=-101/764, 5-19=-306/298, 9-13=-1343/267,
5-17=-91/774, 6-16=-10/657, 6-17=-1577/322, 9-14=-540/3340, 8-14=-59/802,
8-16=-1916/277

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 19-3-0, Exterior(2E) 19-3-0 to 23-3-0, Exterior(2R) 23-3-0 to 29-3-2, Interior(1) 29-3-2 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 1.5x4 MT20 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) 1 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 337 lb uplift at joint 11 and 276 lb uplift at joint 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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

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

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Builders First Source, Valley Center, KS 67147

8.530 s May 26 2022 MiTek Industries, Inc. Tue Jan 24 10:44:38 2023 Page 1
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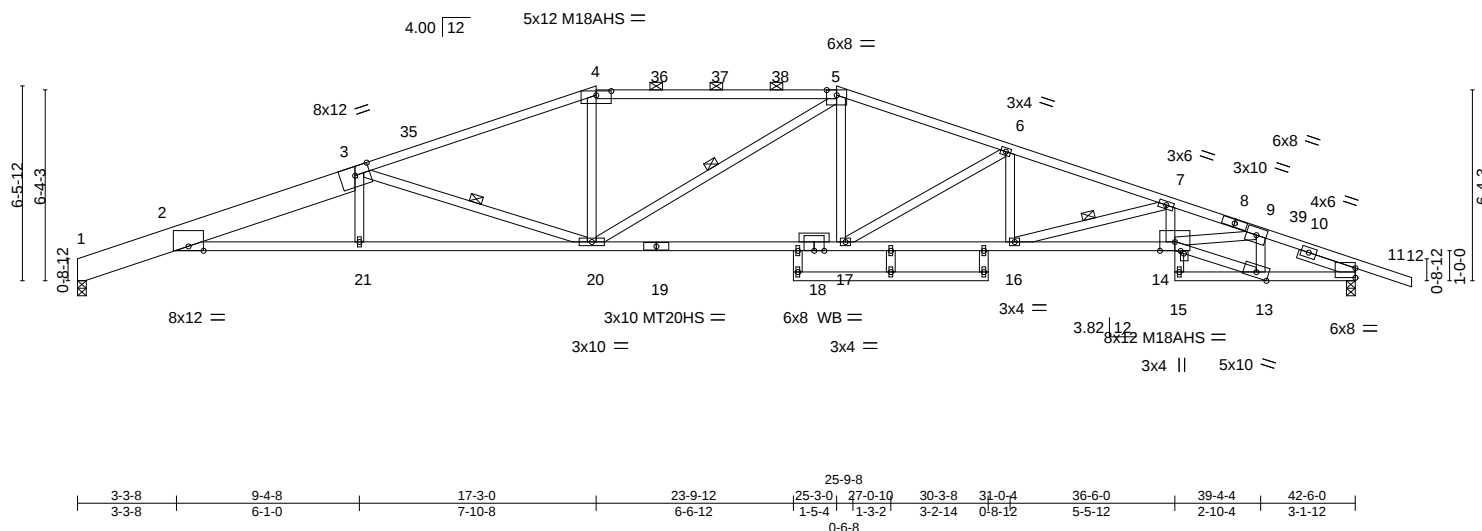
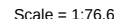


Plate Offsets (X,Y)--	[4:0-6-0,0-1-11], [11:Edge,0-3-13], [13:0-4-14,0-2-2], [14:0-1-1,0-1-4]
-----------------------	---

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 0.85	Vert(LL) -0.59 17-20	>855	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -1.15 17-20	>440	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr YES	WB 0.91	Horz(CT) 0.48 11	n/a	n/a	M18AHS	142/136
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS				Weight: 213 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 4-5: 2x4 SP 2400F 2.0E, 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SP 2400F 2.0E *Except* 22-23,23-24,18-19: 2x4 SPF No.2, 13-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-20, 5-20, 7-16

REACTIONS.

(size) 11=0-3-8, 1=0-3-8
 Max Horz 1=-107(LC 17)
 Max Uplift 11=-348(LC 9), 1=-287(LC 8)
 Max Grav 11=2093(LC 1), 1=1929(LC 1)

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

TOP CHORD	1-2=-601/163, 2-3=-5816/1141, 3-4=-4210/864, 4-5=-3898/861, 5-6=-4170/871, 6-7=-5306/1038, 7-9=-7292/1288, 9-11=-3935/670
BOT CHORD	2-21=-1012/5636, 20-21=-1009/5646, 16-20=-627/3892, 16-17=-858/4996, 14-16=-1144/6839, 11-13=-571/3601, 13-14=-607/3831
WEBS	3-21=0/289, 3-20=-1813/404, 4-20=-47/717, 5-20=-344/345, 5-17=-72/772, 9-13=-1342/280, 6-16=-38/629, 6-17=-1250/264, 7-14=-60/802, 9-14=-587/3363, 7-16=-1912/297

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 17-3-0, Exterior(2R) 17-3-0 to 23-3-2, Interior(1) 23-3-2 to 25-3-0, Exterior(2R) 25-3-0 to 31-0-4, Interior(1) 31-0-4 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 1.5x4 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) 1 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 348 lb uplift at joint 11 and 287 lb uplift at joint 1.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

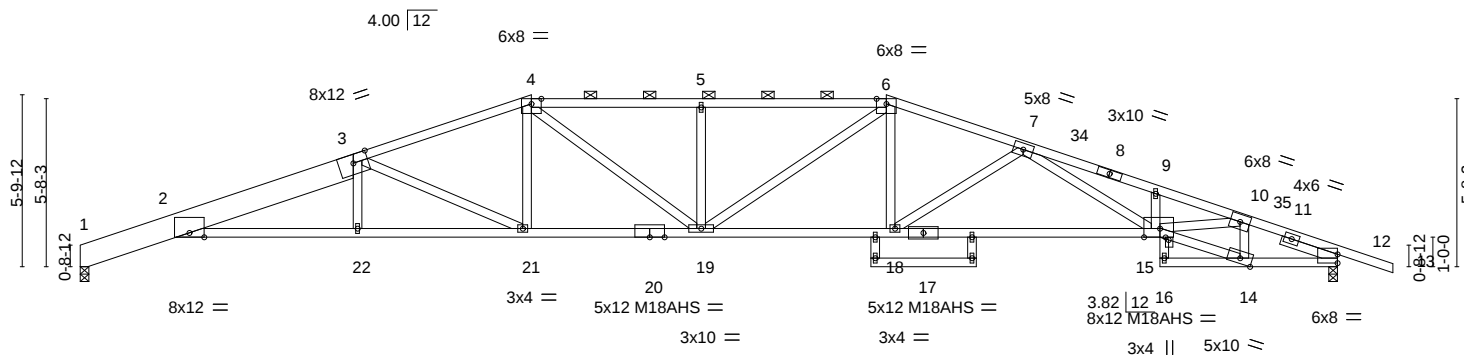
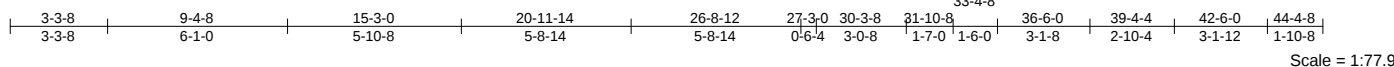


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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02/21/2023

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF 1650F 1.5E *Except*	TOP CHORD	Structural wood sheathing directly applied, except
	3-4: 2x4 SPF No.2, 1-3: 2x10 SP 2400F 2.0E		2-0-0 oc purlins (2-7-5 max.): 4-6.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied.
	2-20,12-16: 2x4 SP 2400F 2.0E		
	15-17,14-15,17-20: 2x4 SPF 1650F 1.5E		
WEBS	2x4 SPF No.2		
SLIDER	Right 2x4 SPF No.2 2-0-0		

REACTIONS. (size) 12=0-3-8, 1=0-3-8
 Max Horz 1=-96(LC 17)
 Max Uplift 12=-357(LC 9), 1=-297(LC 8)
 Max Grav 12=2093(LC 1), 1=1929(LC 1)

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

TOP CHORD 1-2=601/160, 2-3=5763/1128, 3-4=4531/916, 4-5=4679/979, 5-6=4678/980,
6-7=4552/908, 7-9=7347/1325, 9-10=7300/1265, 10-12=3933/676

BOT CHORD 2-22=997/5580, 21-22=995/5589, 19-21=683/4223, 18-19=676/4265, 15-18=908/5145,
12-14=578/3603, 14-15=610/3845

WEBS 3-22=0/253, 3-21=1461/336, 4-21=81/690, 4-19=168/798, 5-19=542/192,
6-19=180/737, 7-15=556/3359, 10-14=1388/273, 6-18=82/755, 9-15=286/116,
7-18=1025/274, 7-15=272/2139

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCFL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 15-3-0, Exterior(2R) 15-3-0 to 20-11-14, Interior(1) 20-11-14 to 27-3-0, Exterior(2R) 27-3-0 to 33-3-2, Interior(1) 33-3-2 to 44-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 1.5x4 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) 1 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) 12=357, 1=297.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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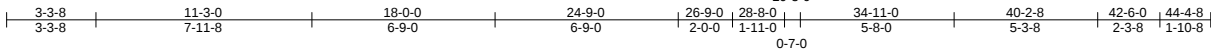
16023 Swingley Ridge Rd
Chesterfield, MO 63017
OFFICE SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	156269550
3405118	A13	Roof Special	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:18 2023 Page 1
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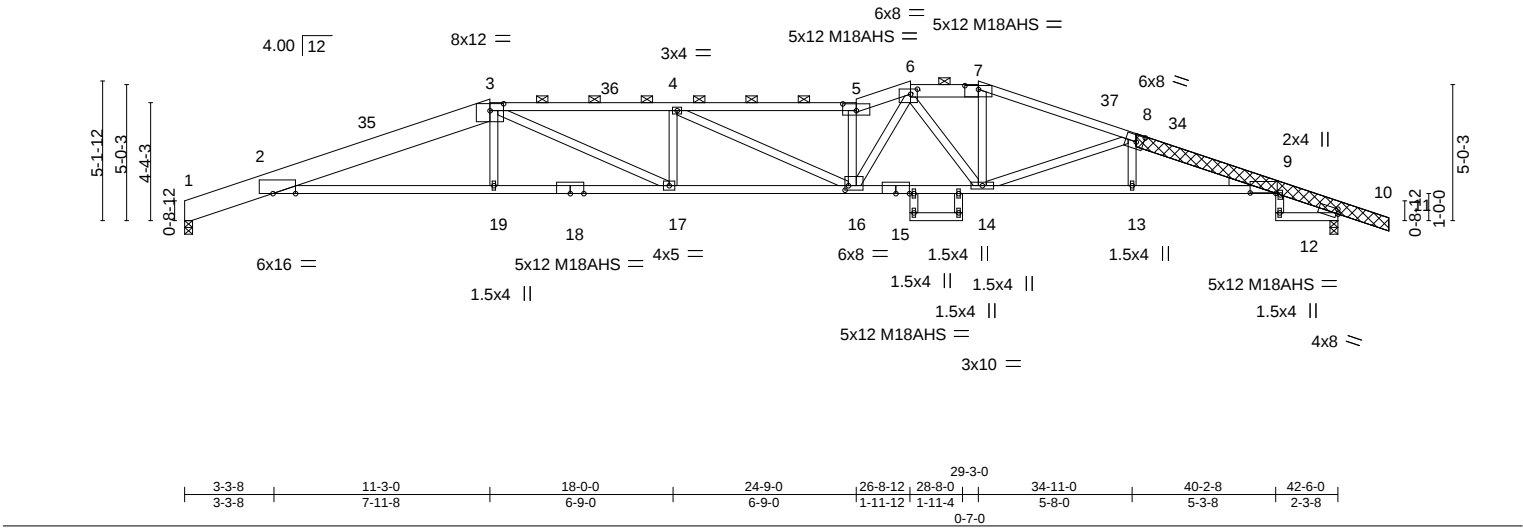


Plate Offsets (X,Y)--		[2:0-10-0,Edge], [3:0-6-0,0-3-1], [5:0-6-0,0-3-0], [6:0-3-0,0-2-4], [7:0-6-0,0-1-11], [8:0-3-4,0-3-0], [9:0-11-5,0-0-3], [10:0-0-12,0-2-1], [16:0-1-8,0-2-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.84 16-17	>603	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-1.55 16-17	>329	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.59 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 247 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
1-3: 2x10 SP 2400F 2.0E, 3-5: 2x4 SP 2400F 2.0E, 7-8: 2x4 SPF No.2
8-11: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-18,9-15,15-18: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 8-11 2x6 SPF 2100F 1.8E both sides
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-1 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-89(LC 17)
Max Uplift 1=-308(LC 8), 10=-290(LC 9)
Max Grav 1=1923(LC 1), 10=2042(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-599/149, 2-3=-5453/1009, 3-4=-6526/1244, 4-5=-6459/1226, 5-6=-6927/1332,
6-7=-4592/924, 7-8=-4941/950, 8-9=-6383/1188, 9-10=-582/160
BOT CHORD 2-19=-855/5248, 17-19=-853/5258, 16-17=-1086/6526, 14-16=-822/5098,
13-14=-1069/6199, 9-13=-1072/6187
WEBS 3-19=0/320, 3-17=-256/1392, 4-17=-463/166, 4-16=-312/310, 5-16=-2403/509,
8-13=0/252, 7-14=-195/1349, 8-14=-1646/339, 6-14=-1013/194, 6-16=-537/2938

- NOTES-**
- Attached 9-11-10 scab 8 to 11, both face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-5 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 3-6-6 from end at joint 8, nail 3 row(s) at 4" o.c. for 2-10-11; starting at 6-8-6 from end at joint 8, nail 2 row(s) at 7" o.c. for 2-1-12.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-8, Interior(1) 4-1-8 to 11-3-0, Exterior(2R) 11-3-0 to 15-6-0, Interior(1) 15-6-0 to 26-9-0, Exterior(2E) 26-9-0 to 29-3-0, Exterior(2R) 29-3-0 to 33-6-0, Interior(1) 33-6-0 to 44-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 1 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)



January 24, 2023

Continued on page 2

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

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LEE'S SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269550
3405118	A13	Roof Special	1	1	Job Reference (optional)	

- NOTES-**
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269551
3405118	A14	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:22 2023 Page 2
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN_clpDyjViAcjxo5IHb1JocbjHCU1AmlFX4HYM2zsXgp

NOTES-

- 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=554, 20=1934, 14=257.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-8 oc max. starting at 8-3-4 from the left end to 38-3-4 to connect truss(es) to back face of bottom chord.
- 13) Fill all nail holes where hanger is in contact with lumber.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1557 lb down and 312 lb up at 6-3-4, and 457 lb down and 126 lb up at 40-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-31=-91, 4-31=-70, 4-7=-70, 7-8=-70, 8-10=-70, 10-15=-70, 20-30=-20, 20-33=-20, 16-36=-20

Concentrated Loads (lb)

Vert: 23=-396(B) 20=-478(B) 19=-477(B) 22=-396(B) 26=-1557(B) 33=-457(B) 39=-391(B) 40=-396(B) 41=-396(B) 42=-396(B) 43=-396(B) 44=-383(B) 45=-480(B)
46=-485(B) 47=-469(B) 48=-469(B) 49=-469(B) 50=-469(B)

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

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

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02/21/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:23 2023 Page 1

Valley Center, KS - 67147.

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:23 2023 Page 1

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5-3-4

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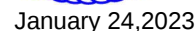
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

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

(size) 1=0-3-8, 7=Mechanical
Max Horz 1=54(LC 16)
Max Uplift 1=-133(LC 8), 7=-133(LC 9)
Max Grav 1=923(LC 1), 7=923(LC 1)

TOP CHORD 1-3=-1807/374, 3-4=-1642/352, 4-5=-1642/352, 5-7=-1807/374
BOT CHORD 1-10=-317/1666, 8-10=-206/1249, 7-8=-310/1666
WEBS 4-8=-69/454, 5-8=-290/141, 4-10=-69/454, 3-10=-290/140

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-3-0, Exterior(2R) 10-3-0 to 13-3-0, Interior(1) 13-3-0 to 20-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=133, 7=133.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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



02/21/2023

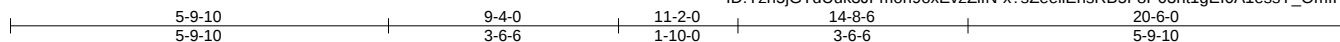
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269553
3405118	B02	Hip	1	1		

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

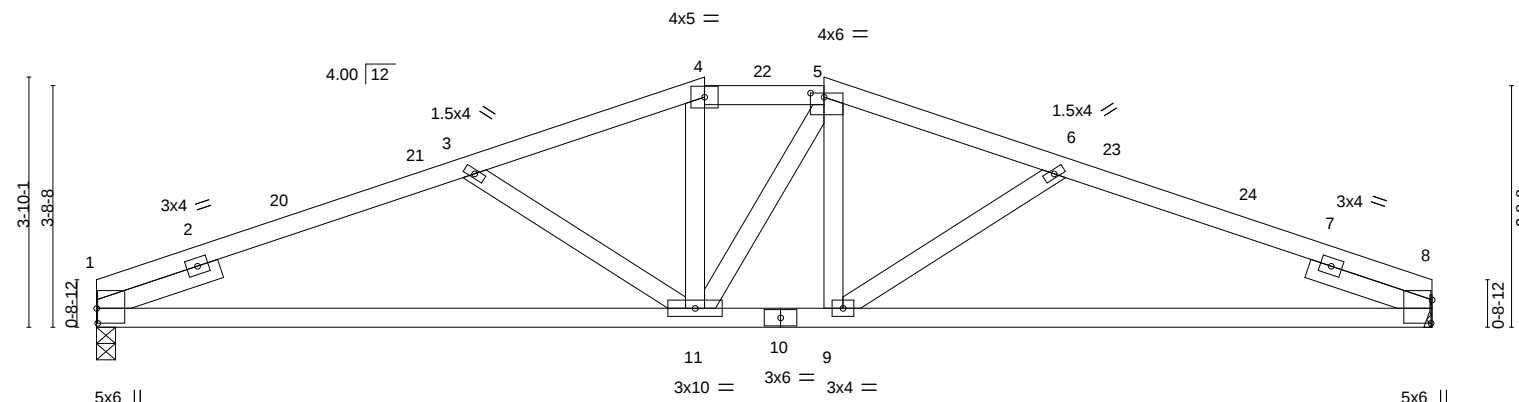
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:24 2023 Page 1

ID:Yzh5jGtdUuk3JFmon9oxEvzZifN-x?SZeellEnsRB5F8P03nt1gEI0A1essY_OmfrwzsXgn

Job Reference (optional)



Scale = 1:35.4



	9-4-0	11-2-0	20-6-0
	9-4-0	1-10-0	9-4-0

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

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 0.29	Vert(LL)	-0.12	9-18	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.26	9-18	>962	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.05	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 73 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 (4-11-9 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0	

REACTIONS. (size) 1=0-3-8, 8=Mechanical
Max Horz 1=48(LC 12)
Max Uplift 1=-138(LC 8), 8=-138(LC 9)
Max Grav 1=923(LC 1), 8=923(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1756/438, 3-4=-1497/365, 4-5=-1381/370, 5-6=-1496/360, 6-8=-1756/421
BOT CHORD 1-11=-374/1619, 9-11=-245/1379, 8-9=-347/1619
WEBS 3-11=-313/140, 4-11=-42/250, 5-9=-36/276, 6-9=-314/140

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 9-4-0, Exterior(2E) 9-4-0 to 11-2-0, Exterior(2R) 11-2-0 to 15-4-15, Interior(1) 15-4-15 to 20-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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=138, 8=138.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
LEE'S SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269554
3405118	B03	Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

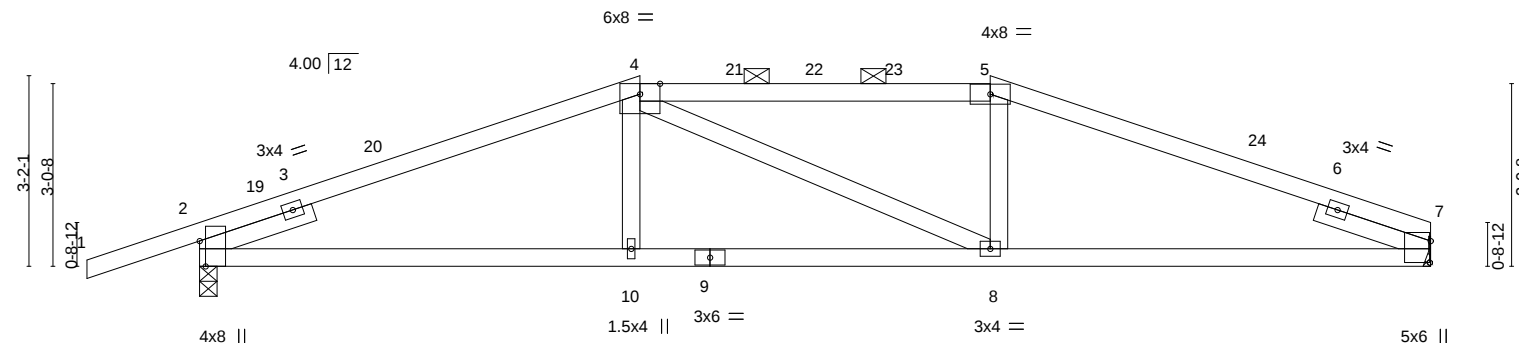
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:25 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-PBQxr_mN?5_loFqKyja0QFDLhQWTNIKID2VCzNzsXgm

Job Reference (optional)

-1-10-8	7-4-0	13-2-0	20-6-0
1-10-8	7-4-0	5-10-0	7-4-0

Scale = 1:38.4



	7-4-0	13-2-0	20-6-0
	7-4-0	5-10-0	7-4-0

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [7:0-4-5,0-0-3]

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 0.57	Vert(LL)	-0.10	8-10	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.20	8-10	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.05	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 68 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 (3-10-6 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0	

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=58(LC 8)
Max Uplift 7=-148(LC 9), 2=-221(LC 8)
Max Grav 7=916(LC 1), 2=1060(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1723/430, 4-5=-1598/444, 5-7=-1746/426
BOT CHORD 2-10=-356/1578, 8-10=-359/1573, 7-8=-341/1604

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 11-6-15, Interior(1) 11-6-15 to 13-2-0, Exterior(2R) 13-2-0 to 17-4-15, Interior(1) 17-4-15 to 20-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=148, 2=221.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269555
3405118	B04	Hip Girder	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:26 2023 Page 1

ID: Yzh5jGTdUuk3JFmon9oxEvzZifN-to_J3Kn0IO69QPPXWQ6FzSIQKpoA6ikrRiFmVpzsXgl

Job Reference (optional)



Scale = 1:38.3

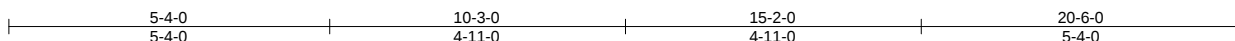
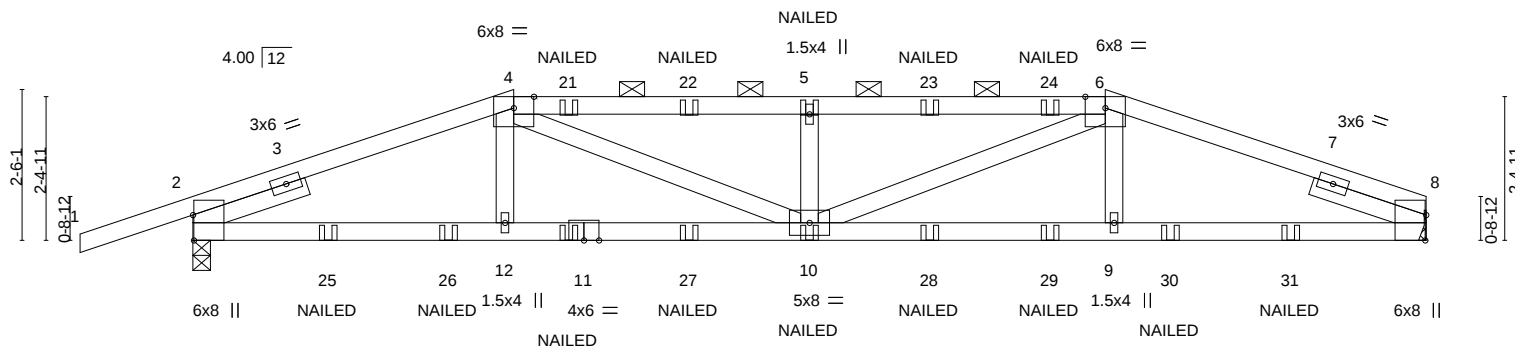


Plate Offsets (X,Y)--	[2:0-5-1,Edge], [8:0-5-1,Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.21 10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.39 10-12	>632	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.07 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 80 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E
 BOT CHORD 2x4 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-14 oc purlins, except
 2-0-0 oc purlins (2-10-11 max.): 4-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 2=0-3-8
 Max Horz 2=50(LC 4)
 Max Uplift 8=-315(LC 5), 2=-388(LC 4)
 Max Grav 8=1559(LC 1), 2=1702(LC 1)

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

TOP CHORD 2-4=-3157/604, 4-5=-4082/783, 5-6=-4082/783, 6-8=-3197/629
 BOT CHORD 2-12=-545/2947, 10-12=-546/2933, 9-10=-551/2973, 8-9=-550/2988
 WEBS 4-12=0/275, 4-10=-243/1343, 5-10=-753/262, 6-10=-234/1320, 6-9=0/281

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=315, 2=388.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-70, 4-6=-70, 6-8=-70, 13-17=-20
 Concentrated Loads (lb)
 Vert: 11=-41(F) 10=-41(F) 5=-83(F) 21=-83(F) 22=-83(F) 23=-83(F) 24=-83(F) 25=-143(F) 26=-190(F) 27=-41(F) 28=-41(F)
 29=-41(F) 30=-190(F) 31=-143(F)



January 24, 2023

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

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RELEASE FOR CONSTRUCTION
 AS NOTED FOR PLAN REVIEW
 DEVELOPMENT SERVICES
 16023 Swinley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

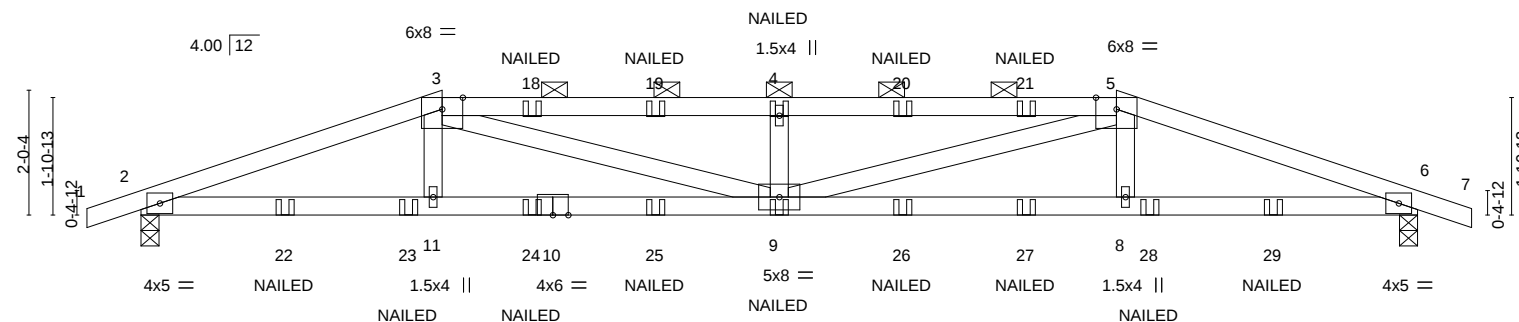
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	C01	Hip Girder	1	1	I56269556

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:28 2023 Page 1
ID:Yzh5jGTDUuk3JFmon9oxEvzZifN-pm64U0oGH0MtfjZver8j2tromdSaac18v0ksaizsXgj

0-10-8	4-10-8	10-4-0	15-9-8	20-8-0	21-6-8
0-10-8	4-10-8	5-5-8	5-5-8	4-10-8	0-10-8

Scale = 1:37.3



	4-10-8	10-4-0	15-9-8	20-8-0	
	4-10-8	5-5-8	5-5-8	4-10-8	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	Vert(LL) -0.26	9	>949 240
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(CT) -0.47	9	>525 180
BCLL 0.0	Rep Stress Incr NO	WB 0.34	Horz(CT) 0.09	6	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS			
					PLATES MT20
					GRIP 197/144
					Weight: 67 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-9 oc purlins, except 2-0-0 oc purlins (2-9-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 7-9-1 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=29(LC 33)
Max Uplift 2=-297(LC 4), 6=-297(LC 5)
Max Grav 2=1314(LC 1), 6=1314(LC 1)

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

TOP CHORD 2-3=-3136/624, 3-4=-4142/810, 4-5=-4142/810, 5-6=-3136/625
BOT CHORD 2-11=-568/2943, 9-11=-568/2920, 8-9=-541/2920, 6-8=-542/2943
WEBS 3-11=-6/284, 3-9=-259/1396, 4-9=-594/216, 5-9=-260/1396, 5-8=-7/284

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 6=297.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 12-15=-20
Concentrated Loads (lb)
Vert: 9=-20(F) 4=-30(F) 18=-30(F) 19=-30(F) 20=-30(F) 21=-30(F) 22=-85(F) 23=-115(F) 24=-20(F) 25=-20(F) 26=-20(F) 27=-20(F) 28=-115(F) 29=-85(F)



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269557
3405118	C02	Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

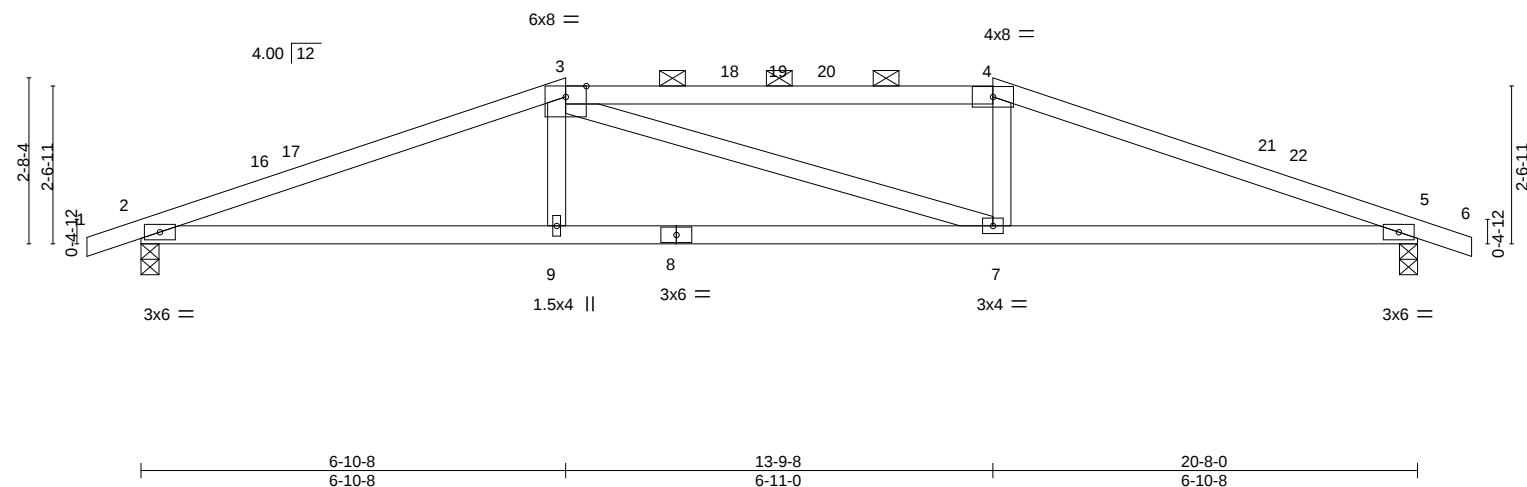
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:29 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-HzgShLpu2JUkHs86BZfya5NyH1toJ5yH8gTQ68zsXgi

Job Reference (optional)

0-10-8	6-10-8	13-9-8	20-8-0	21-6-8
0-10-8	6-10-8	6-11-0	6-10-8	0-10-8

Scale = 1:37.3



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 0.85	Vert(LL)	-0.10 9-12	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.22 7-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.23	Horz(CT)	0.06 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 63 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 (2-2-0 max.): 3-4.
WEBS	2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=40(LC 12)
Max Uplift 2=-186(LC 8), 5=-186(LC 9)
Max Grav 2=991(LC 1), 5=991(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2117/494, 3-4=-1946/510, 4-5=-2117/493
BOT CHORD 2-9=-408/1955, 7-9=-411/1945, 5-7=-403/1955
WEBS 3-9=0/286, 4-7=0/286

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-10-8, Exterior(2R) 6-10-8 to 11-1-7, Interior(1) 11-1-7 to 13-9-8, Exterior(2R) 13-9-8 to 18-0-7, Interior(1) 18-0-7 to 21-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=186, 5=186.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269558
3405118	C03	Hip	1	1		

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:30 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-I9EquhqWpdcbv0jIGAB7lwGwRDR2ZpRMKDzfazsXgh

Job Reference (optional)

0-10-8	5-1-2	8-10-8	11-9-8	15-6-14	20-8-0	21-6-8
0-10-8	5-1-2	3-9-6	2-11-0	3-9-6	5-1-2	0-10-8

Scale = 1:37.3

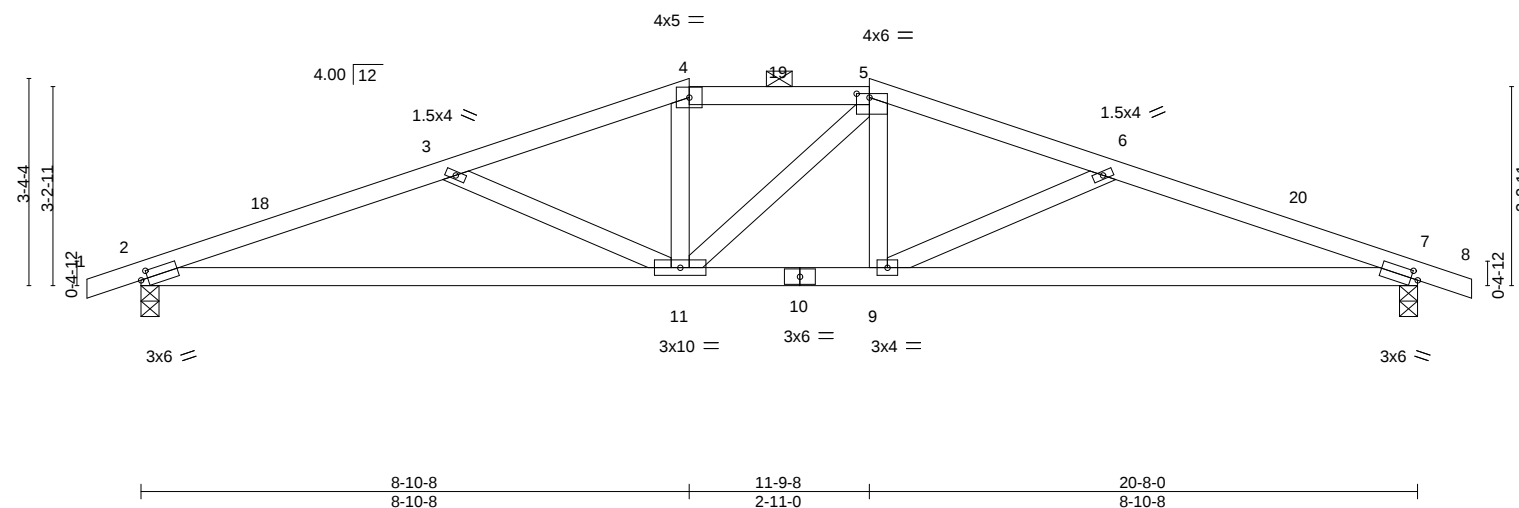


Plate Offsets (X,Y)--		[2:0-1-6,0-1-8], [5:0-2-8,0-0-12], [7:0-1-6,0-1-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code	IRC2018/TPI2014
	CSI.	
	TC	0.28
	BC	0.64
	WB	0.13
	Matrix-AS	
	DEFL.	
	in (loc)	l/defl
	Vert(LL)	-0.13 9-17 >999 240
	Vert(CT)	-0.29 9-17 >851 180
	Horz(CT)	0.06 7 n/a n/a
	PLATES	GRIP
	MT20	197/144
	Weight: 70 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 (4-7-6 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=50(LC 16)
Max Uplift 2=-176(LC 8), 7=-176(LC 9)
Max Grav 2=991(LC 1), 7=991(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2136/530, 3-4=-1745/420, 4-5=-1606/424, 5-6=-1744/406, 6-7=-2136/499
BOT CHORD 2-11=-454/1997, 9-11=-280/1605, 7-9=-423/1997
WEBS 3-11=-431/167, 4-11=-30/298, 5-9=-22/299, 6-9=-431/170

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-10-8, Exterior(2E) 8-10-8 to 11-9-8, Exterior(2R) 11-9-8 to 15-9-5, Interior(1) 15-9-5 to 21-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=176, 7=176.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	C04	Common Girder	1	2	I56269559
					Job Reference (optional)

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.530 s Aug 11 2022 MiTek Industries, Inc.
Mon Jan 23 07:55:31 2023
Page 2
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-ELnC61q8axkSWAIUJ_hQfWTJaQtnuhab_yWB0zsXgg

NOTES-

14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 27 lb up at 1-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

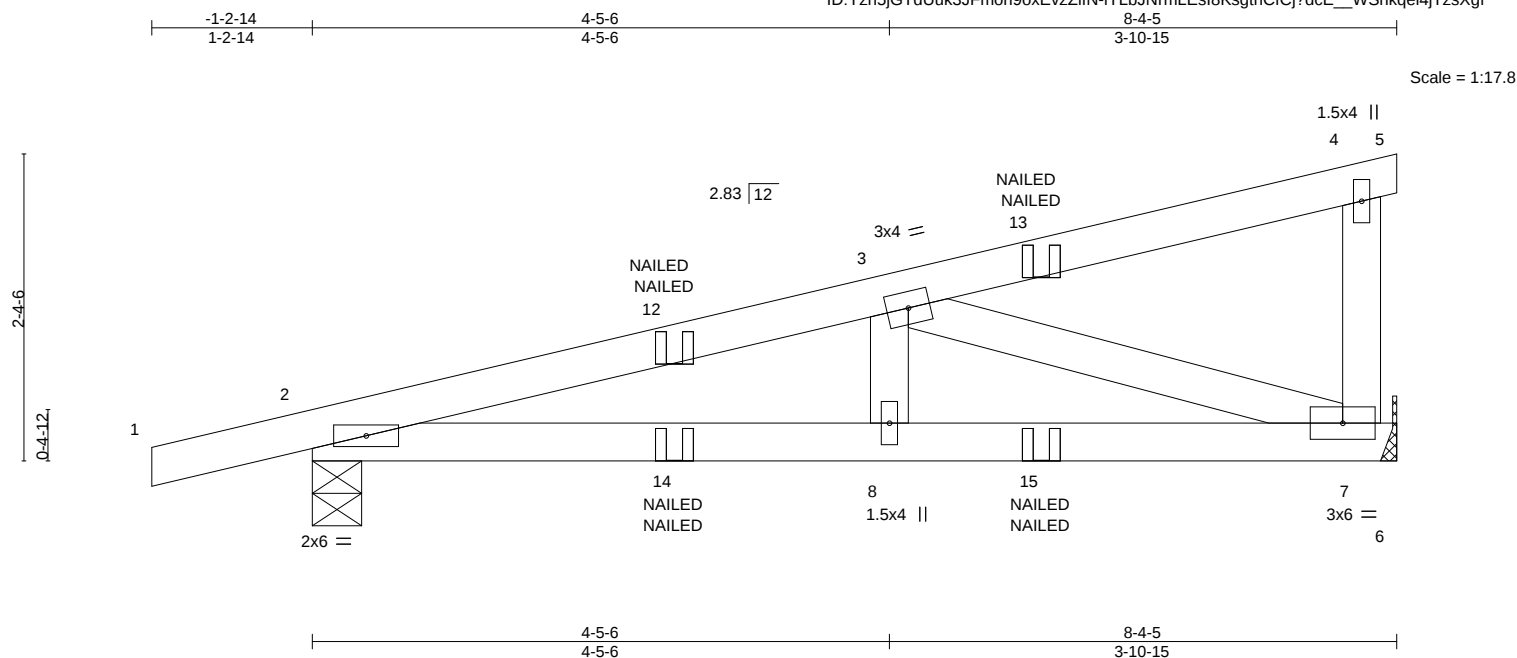
Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 10-13=-20

Concentrated Loads (lb)

Vert: 6=-736(B) 9=-896(B) 12=-69 16=-1539(B) 17=-903(B) 18=-903(B) 19=-903(B) 20=-903(B) 21=-642(B) 22=-692(B)

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:32 2023 Page 1
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[illegible]

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) 2=0-4-9, 7=Mechanical
Max Horz 2=82(LC 7)
Max Uplift 2=-111(LC 4), 7=-75(LC 8)
Max Grav 2=489(LC 1), 7=427(LC 1)

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

TOP CHORD 2-3=-876/126
BOT CHORD 2-8=-133/829, 7-8=-133/829
WEBS 3-7=-869/158

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=111.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-29(F=-14, B=-14) 14=-12(F=-6, B=-6) 15=-49(F=-25, B=-25)



January 24, 2023



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

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



02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269561
3405118	CJ02	Jack-Closed	1	1		

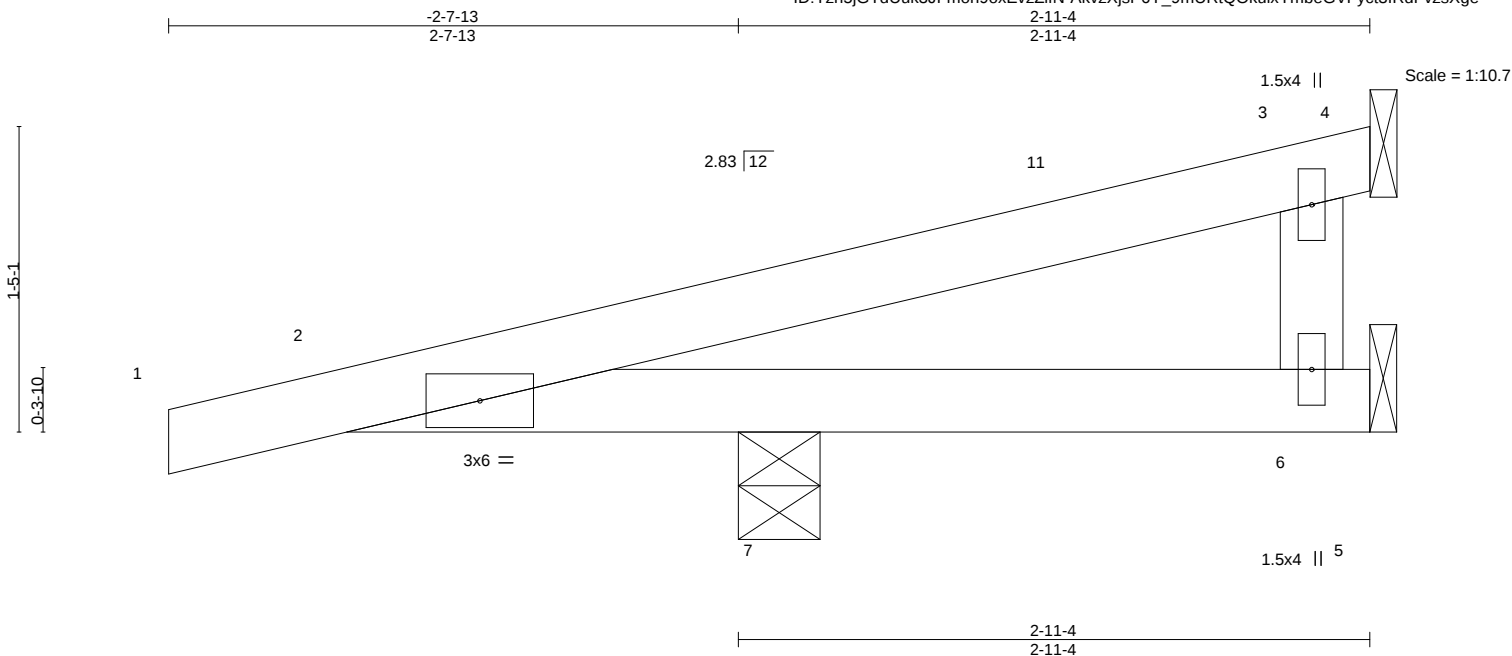
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:33 2023 Page 1

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Job Reference (optional)



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	0.02	6-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 6=Mechanical, 7=0-4-9
Max Horz 7=45(LC 9)
Max Uplift 4=-96(LC 1), 6=-67(LC 12), 7=-169(LC 8)
Max Grav 4=63(LC 12), 6=106(LC 1), 7=472(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; TCCL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269562
3405118	CJ03	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:34 2023 Page 1

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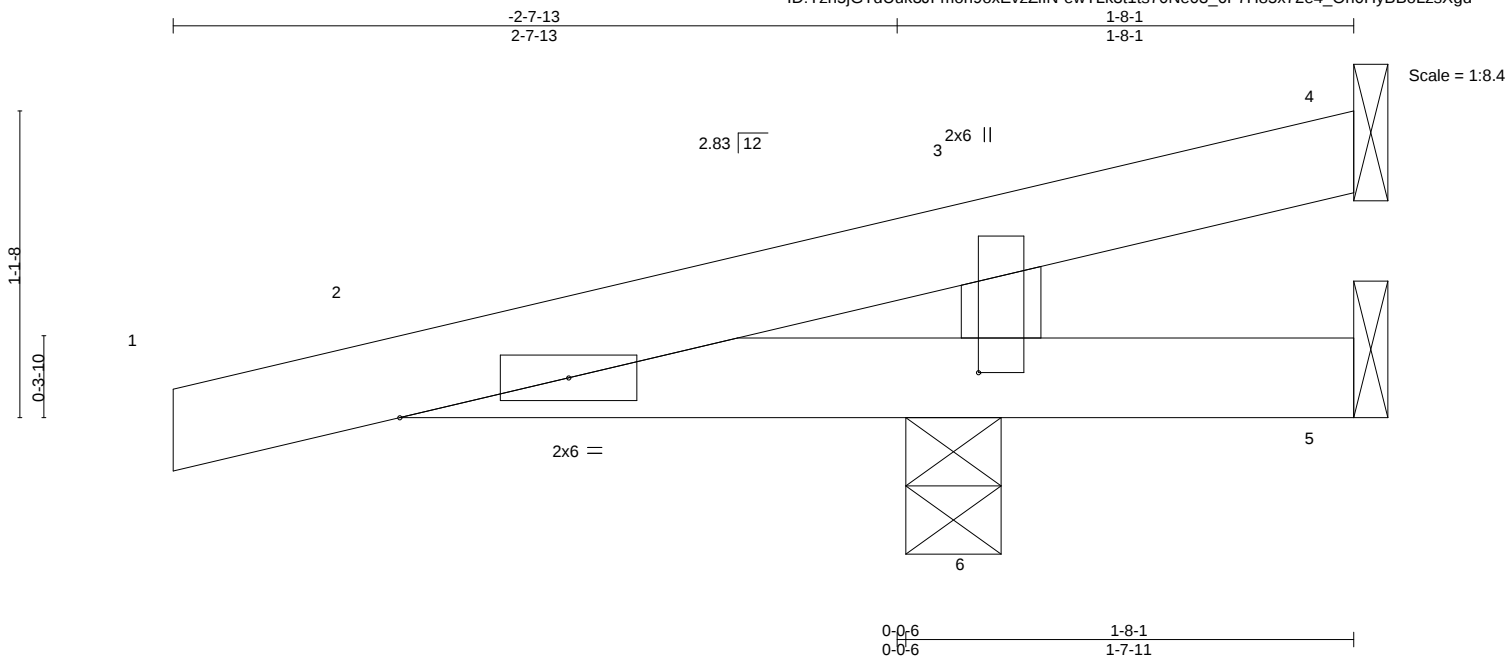


Plate Offsets (X,Y)-- [3:0-2-0,2-1-7]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 6=0-4-3
Max Horz 6=40(LC 8)
Max Uplift 4=-100(LC 1), 5=-132(LC 1), 6=-232(LC 8)
Max Grav 4=43(LC 8), 5=64(LC 8), 6=603(LC 1)

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

WEBS 3-6=-327/392

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=132, 6=232.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269563
3405118	CJ04	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:35 2023 Page 1

ID:Yzh5jGtdUuk3JFmon9oxEvzZifN-671jyPufe9Ft?nbFYpmMqMd6aSzWjr2AWbwkKozsXgc

Job Reference (optional)

2-7-13
2-7-13

2-11-10
2-11-10

Scale = 1:10.8

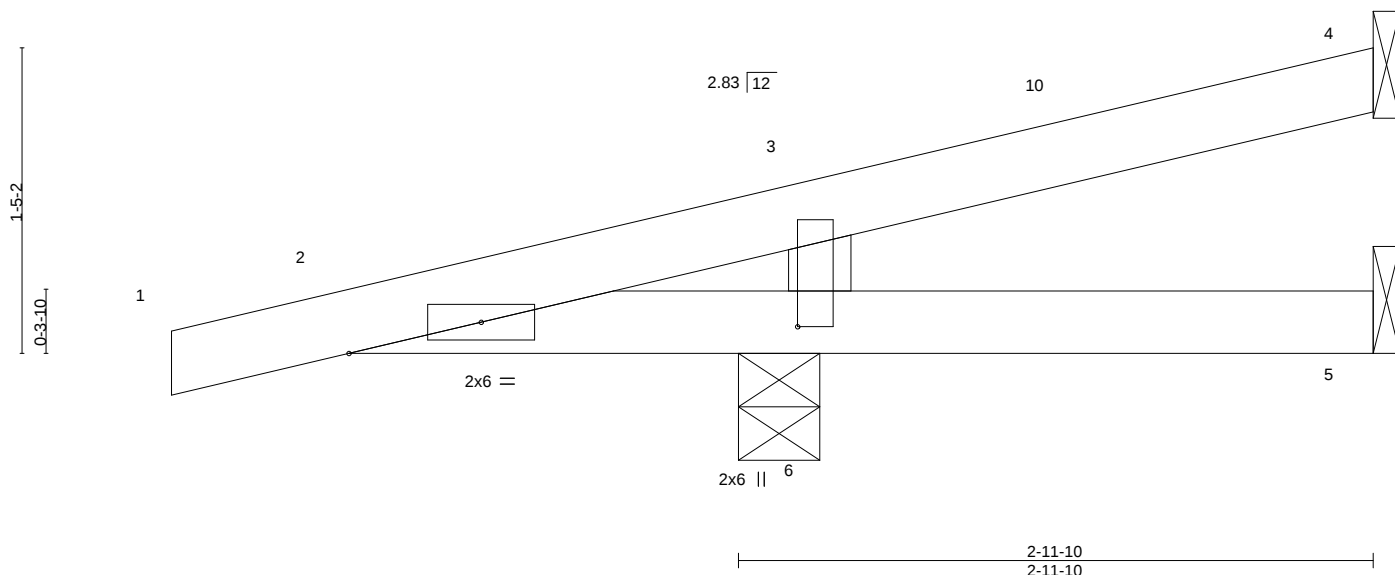


Plate Offsets (X,Y)--		[6:0-1-8,2-1-3]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144	
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	0.01	5-6	>999	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.03	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP								
									Weight: 12 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 6=0-4-9
Max Horz 6=50(LC 8)
Max Uplift 4=-17(LC 12), 5=-43(LC 1), 6=-180(LC 8)
Max Grav 4=10(LC 1), 5=36(LC 8), 6=516(LC 1)

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

WEBS 3-6=-323/380

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -2-7-13 to 1-7-1, Exterior(2R) 1-7-1 to 2-10-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=180.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269565
3405118	D01	Monopitch	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:36 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZiffN-aJb59luHPTNkdXAS6XHbMZAHRKjSAYJIFgHsEzsXgb

Job Reference (optional)

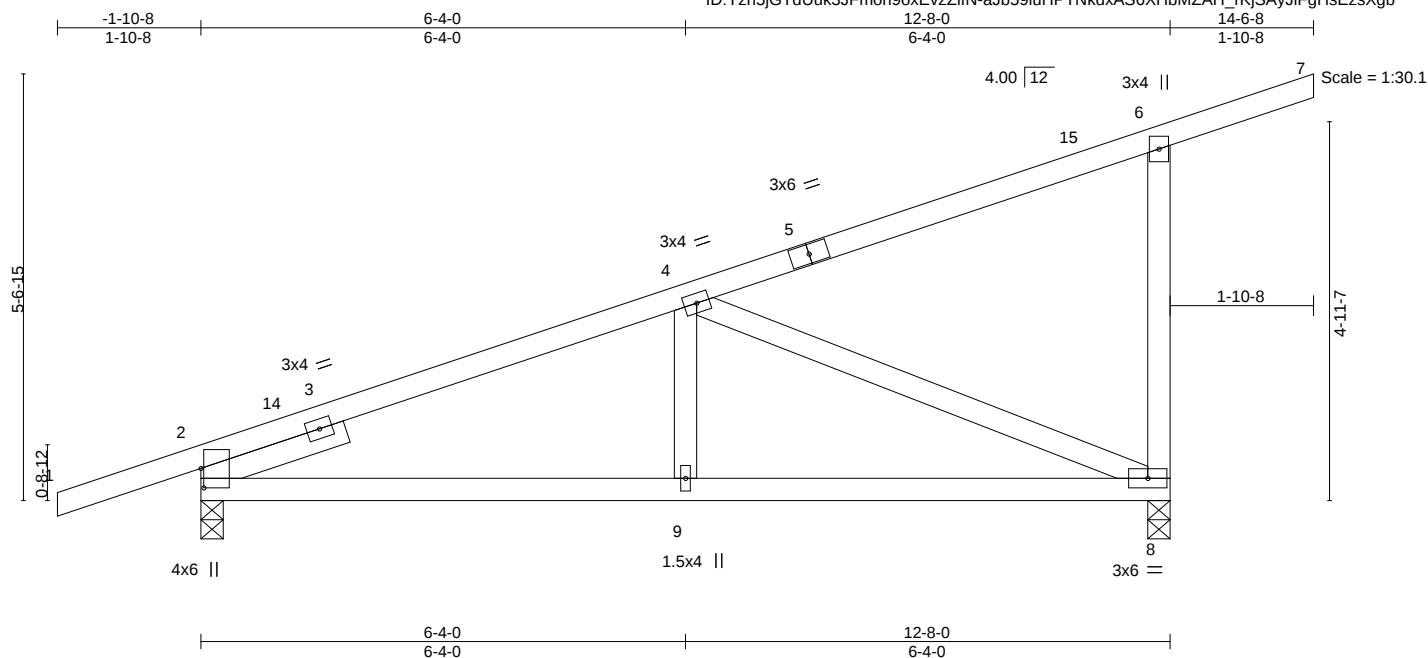


Plate Offsets (X,Y)-- [2:0-3-1,0-0-7]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.04	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.08	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 51 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=211(LC 9)
Max Uplift 2=-150(LC 8), 8=-165(LC 12)
Max Grav 2=693(LC 1), 8=706(LC 1)

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

TOP CHORD 2-4=-731/106, 6-8=-351/179
BOT CHORD 2-9=-249/740, 8-9=-249/740
WEBS 4-9=0/260, 4-8=-778/220

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 14-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=150, 8=165.
- 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269566
3405118	D02	GABLE	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:37 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-2V9UN4vvAnVbE5lefEqvnlSLFk?Bm?TzvPrOgzsXga

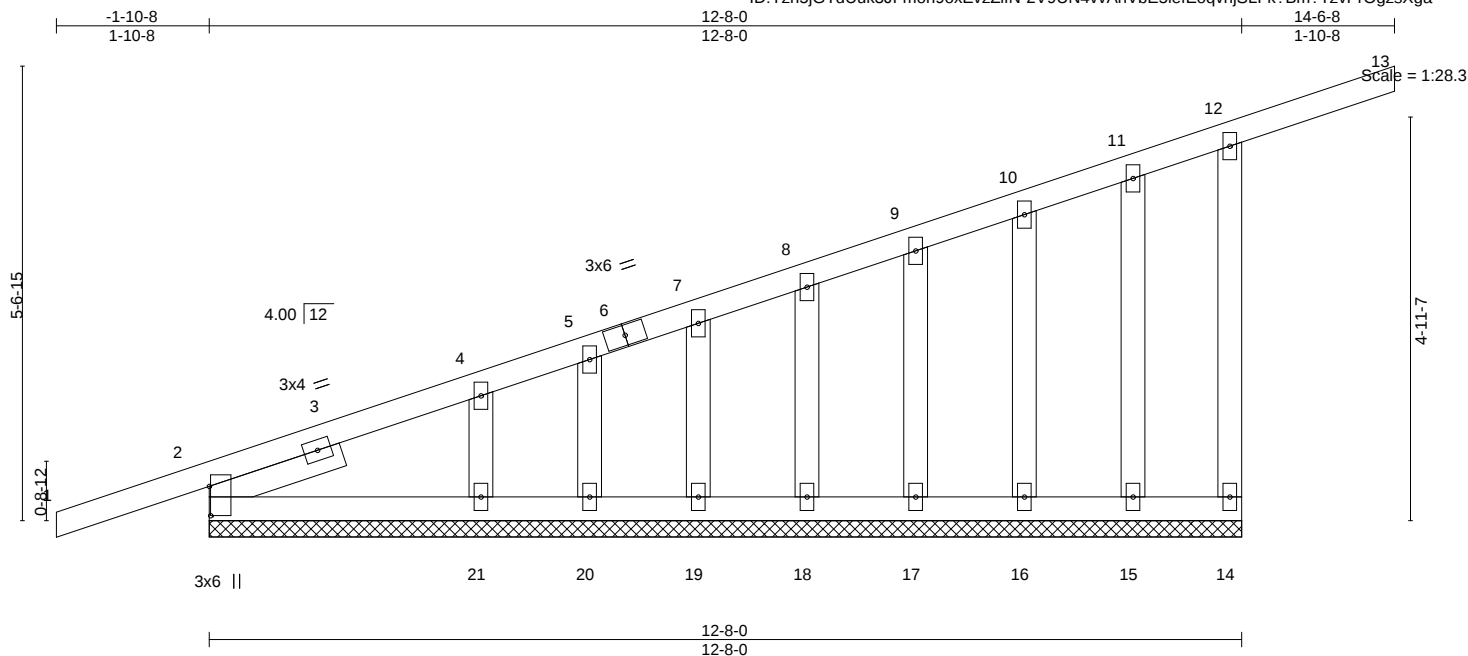


Plate Offsets (X,Y)--	[2:0-4-5,0-0-3]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.01 13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01 13	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 62 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 1-8-10

BRACING-

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

REACTIONS.

All bearings 12-8-0.
 (lb) - Max Horz 2=213(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 18, 19, 20, 21 except 14=123(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 15, 16, 17, 18, 19, 20, 21 except 14=297(LC 1), 2=300(LC 1)

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

TOP CHORD 2-4=-351/161, 4-5=-268/127, 5-7=-257/129, 12-14=-292/322

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-10-8 to 1-1-8, Exterior(2N) 1-1-8 to 14-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 19, 20, 21 except (jt=lb) 14=123.
- 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.



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
 AS NOTED FOR PLAN REVIEW
 MITEK DEVELOPMENT SERVICES
 16023 Swinley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269567
3405118	E01	Hip Girder	1	1		

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

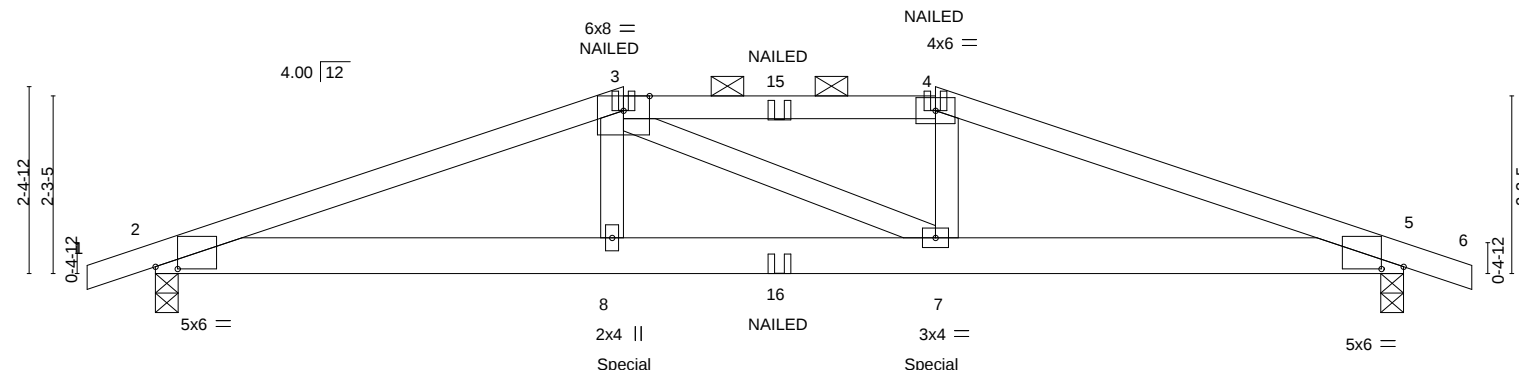
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:39 2023 Page 1

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Job Reference (optional)

-0-10-8	3-3-11	6-0-0	10-0-0	12-8-5	16-0-0	16-10-8
0-10-8	3-3-11	2-8-5	4-0-0	2-8-5	3-3-11	0-10-8

Scale = 1:29.5



	3-3-11	6-0-0	10-0-0	12-8-5	16-0-0	
	3-3-11	2-8-5	4-0-0	2-8-5	3-3-11	

Plate Offsets (X,Y)-- [2:0-3-7,0-0-5], [5:0-3-7,0-0-5]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.13	7-8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.23	7-8	>823	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.17	Horz(CT)	0.05	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except
2-0-0 oc purlins (2-6-7 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-0-6 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=35(LC 8)
Max Uplift 2=-303(LC 4), 5=-303(LC 5)
Max Grav 2=1439(LC 1), 5=1439(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3653/731, 3-4=-3367/707, 4-5=-3641/728
BOT CHORD 2-8=-661/3427, 7-8=-654/3377, 5-7=-627/3416
WEBS 3-8=-97/685, 4-7=-96/668

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=303, 5=303.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 483 lb down and 133 lb up at 6-0-0, and 483 lb down and 133 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20
Concentrated Loads (lb)
Vert: 3=-88(B) 4=-88(B) 8=-483(B) 7=-483(B) 15=-88(B) 16=-85(B)



January 24, 2023

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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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

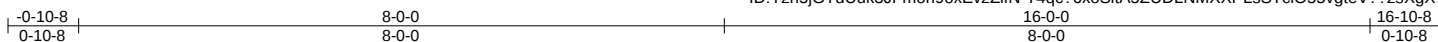
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269568
3405118	E02	Common	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:40 2023 Page 1

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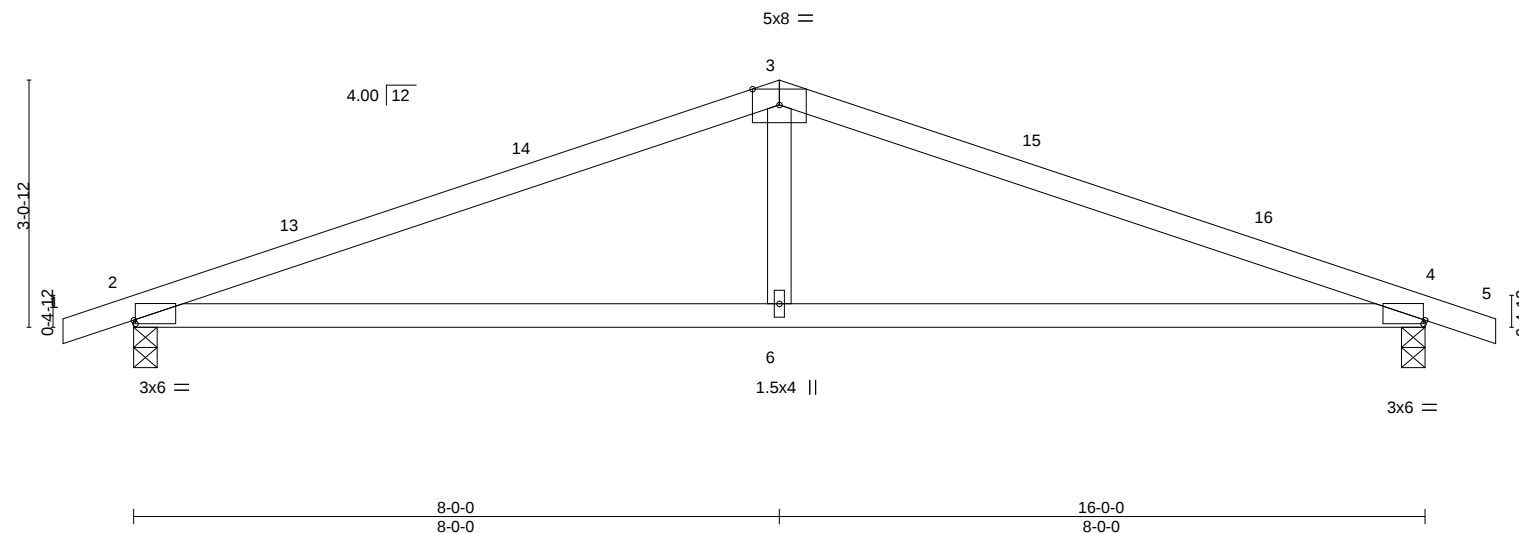


Plate Offsets (X,Y)--		[2:0-0-4,0-0-8], [4:0-0-4,0-0-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73
TCDL 10.0	Lumber DOL	1.15	BC 0.64
BCLL 0.0	Rep Stress Incr	YES	WB 0.08
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.14 6-9 >999 240
			Vert(CT) -0.25 6-9 >771 180
			Horz(CT) 0.02 4 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 43 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=47(LC 16)
Max Uplift 2=-137(LC 8), 4=-137(LC 9)
Max Grav 2=781(LC 1), 4=781(LC 1)

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

TOP CHORD 2-3=-1353/322, 3-4=-1353/322
BOT CHORD 2-6=-219/1214, 4-6=-219/1214
WEBS 3-6=0/355

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 16-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 4=137.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269569
3405118	E03	Common	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:40 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-T4qc?6xoSitA5ZUDLNMXXPLutTeRO4kvgteV??zsXgX



5x8 =

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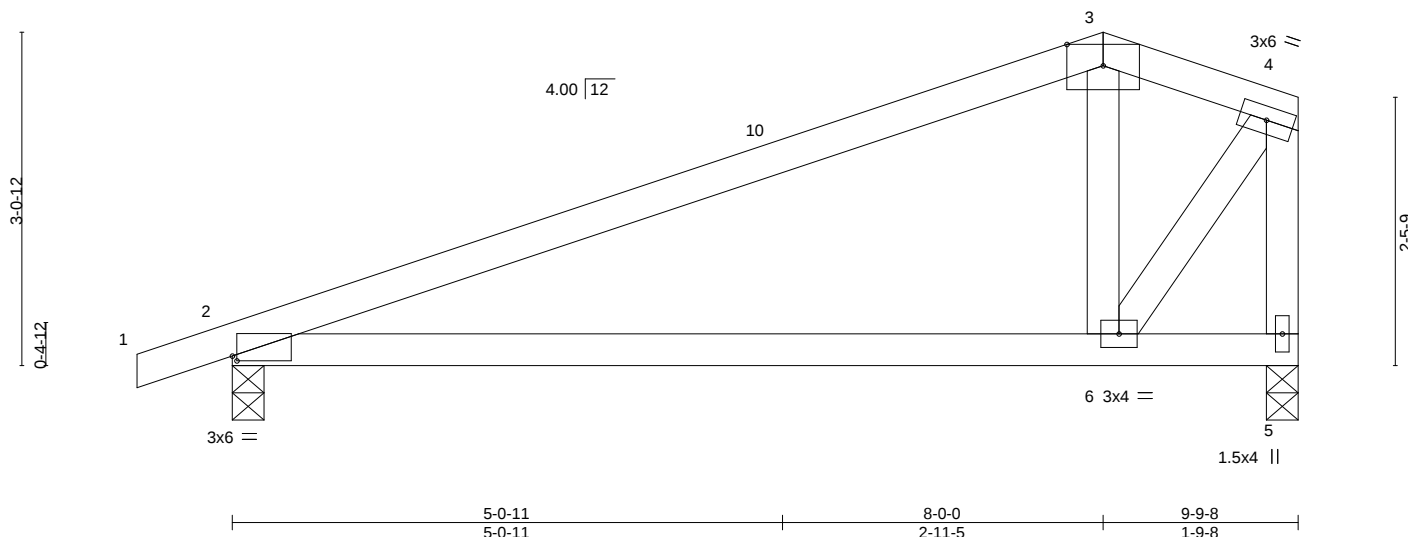


Plate Offsets (X,Y)--		[2:0-0-8,0-0-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.64		Vert(LL) -0.10 6-9 >999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.53		Vert(CT) -0.22 6-9 >528 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.17		Horz(CT) 0.01 2 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 32 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=86(LC 11)
Max Uplift 2=-104(LC 8), 5=-65(LC 8)
Max Grav 2=498(LC 1), 5=431(LC 1)

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

TOP CHORD 2-3=-456/148, 3-4=-361/161, 4-5=-552/239
BOT CHORD 2-6=-214/378
WEBS 3-6=-268/263, 4-6=-341/681

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2E) 8-0-0 to 9-7-12 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
- 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) 5 except (jt=lb) 2=104.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

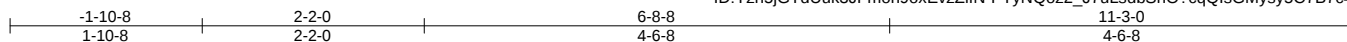
Job 3405118	Truss F01	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/168 Hawthorne Ridge I56269570
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:42 2023 Page 1

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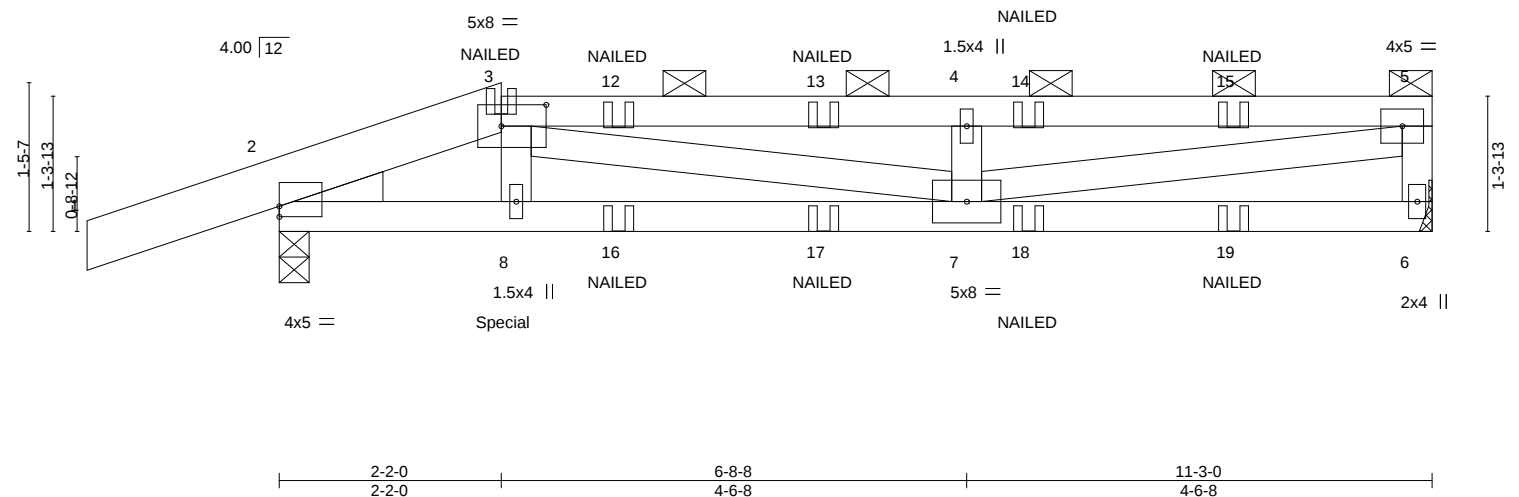


Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [3:0-5-4,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.05	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-13 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=48(LC 35)
Max Uplift 6=106(LC 5), 2=228(LC 4)
Max Grav 6=477(LC 1), 2=675(LC 1)

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

TOP CHORD 2-3=-959/277, 3-4=-1308/312, 4-5=-1308/312, 5-6=-428/118
BOT CHORD 2-8=-277/858, 7-8=-282/870
WEBS 3-7=-70/508, 4-7=-334/123, 5-7=-303/1239

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=106, 2=228.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 85 lb up at 2-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 6-9=-20

Continued on page 2

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

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

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



January 24, 2023

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
LEE'S SUMMIT, MISSOURI

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269570
3405118	F01	Half Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:42 2023 Page 2
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-PTyNQoz2_J7uLsdbSnO?cqQlSGMysy5C7B7c4uzsXgV

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 8=-67(B) 16=11(B) 17=11(B) 18=11(B) 19=11(B)

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269571
3405118	F02	Half Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

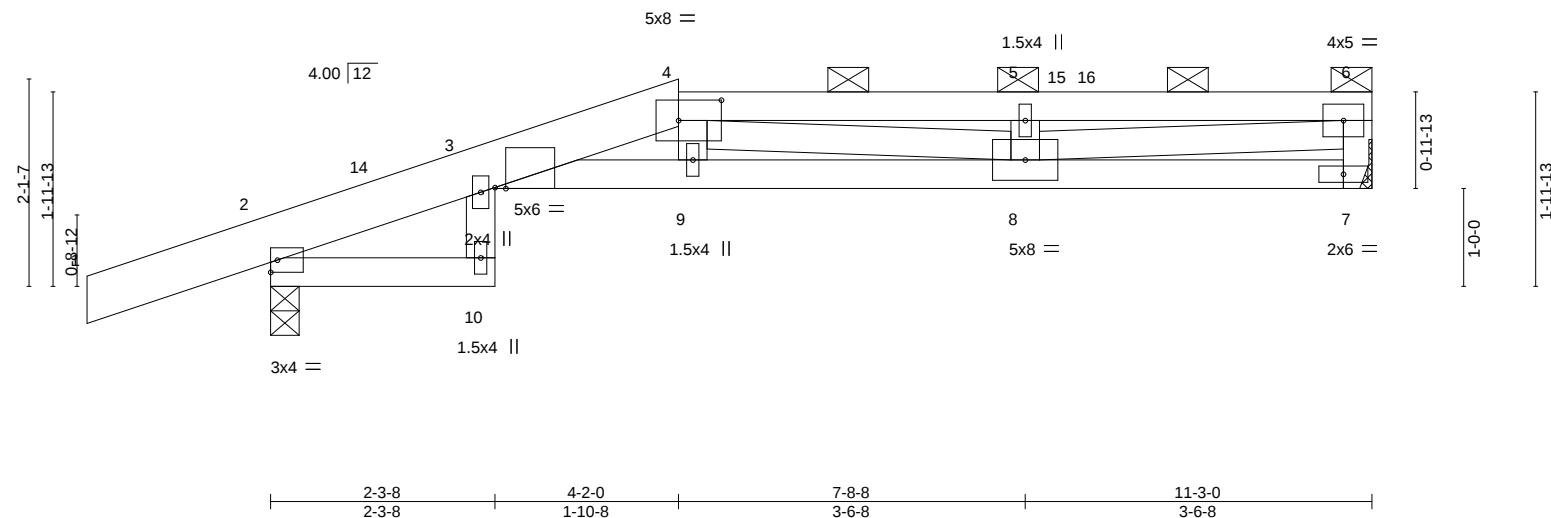
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:43 2023 Page 1

ID: Yzh5jGTdUuk3JFmon9oxEvzZifN-tfWld8_gldFly0Co0VvE92zPQgeMbOmLMrs9cKzsXgU

Job Reference (optional)

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

Scale = 1:23.5



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 0.62	Vert(LL)	-0.11	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.21	8-9	>649		
BCLL 0.0	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.10	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
Max Horz 2=67(LC 8)
Max Uplift 2=-162(LC 8), 7=-87(LC 8)
Max Grav 2=642(LC 1), 7=489(LC 1)

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

TOP CHORD 3-4=-1798/597, 4-5=-1581/556, 5-6=-1581/556, 6-7=-420/152
BOT CHORD 3-9=-638/1786, 8-9=-636/1805
WEBS 6-8=-490/1389

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-2-0, Exterior(2R) 4-2-0 to 8-4-15, Interior(1) 8-4-15 to 11-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to bearing connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=162.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269572
3405118	F03	Half Hip	1	1		

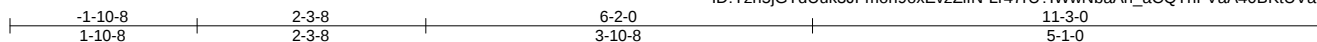
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:44 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-Lr47rU?IWwNbaAn_aCQThFVaA40BKtUVaVci8mzsXgT

Job Reference (optional)



Scale = 1:23.1

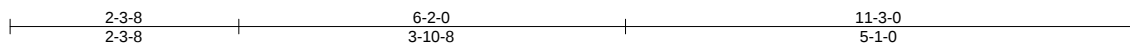
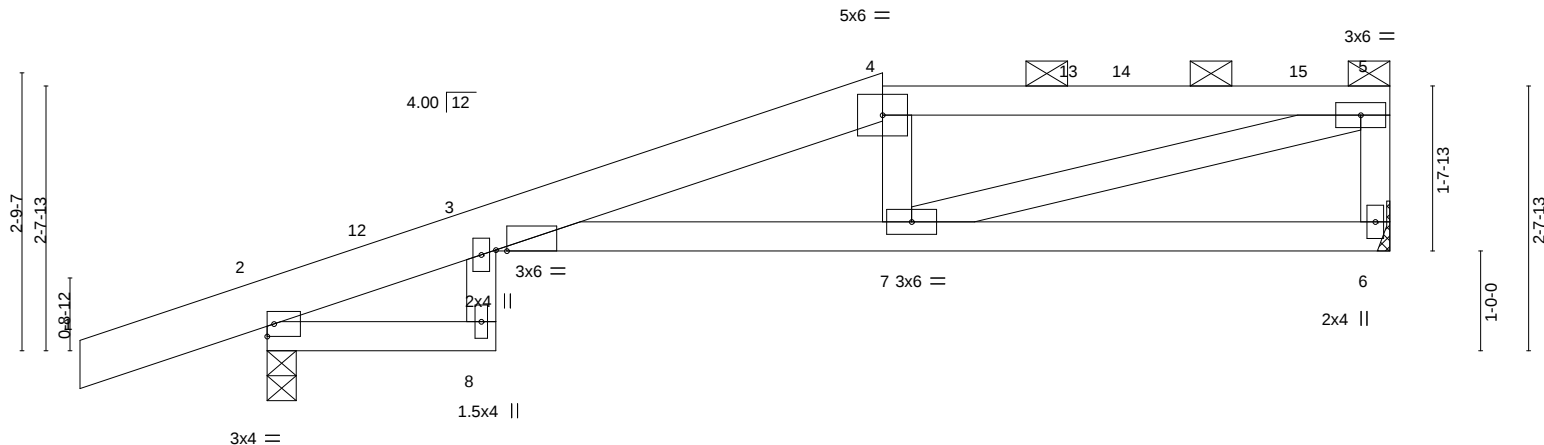


Plate Offsets (X,Y)--		[3:0-1-5,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.11	3-7	>999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.20	3-7	>661		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.09	6	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS						Weight: 43 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=83(LC 9)
Max Uplift 6=-89(LC 8), 2=-160(LC 8)
Max Grav 6=489(LC 25), 2=642(LC 1)

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

TOP CHORD 3-4=-1125/385, 4-5=-1067/408, 5-6=-442/193
BOT CHORD 3-7=-451/1083
WEBS 5-7=-408/1003

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-2-0, Exterior(2R) 6-2-0 to 10-4-15, Interior(1) 10-4-15 to 11-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=160.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
MiTek
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269573
3405118	F04	Half Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:44 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-Lr47rU?IWwNbaAn_aCQThFVZz401Ku2VaVci8mzsXgT

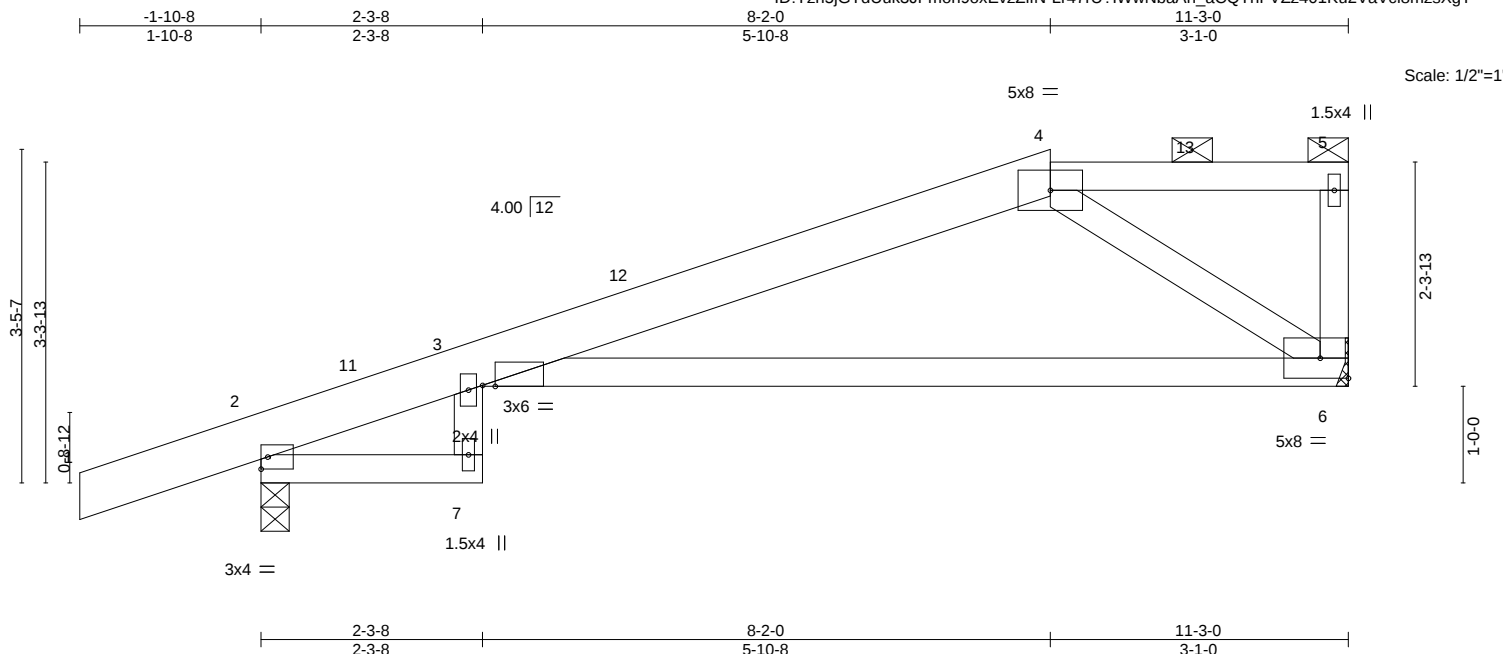


Plate Offsets (X,Y)--		[3:0-1-9,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.19	3-6	>698	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.44	3-6	>302		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.13	6	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 42 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=110(LC 9)
Max Uplift 6=-92(LC 8), 2=-157(LC 8)
Max Grav 6=489(LC 1), 2=642(LC 1)

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

TOP CHORD 3-4=-599/222
BOT CHORD 3-6=-315/565
WEBS 4-6=-600/365

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-2-0, Exterior(2E) 8-2-0 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=157.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
MiTek
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MISSOURI 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269574
3405118	F05	Half Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:45 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-p2eV2q?wHEVSCkMA7wxiET2jmUM93LRep9LGgDzsXgS



6x8 = 2x4 || Scale = 1:26.8

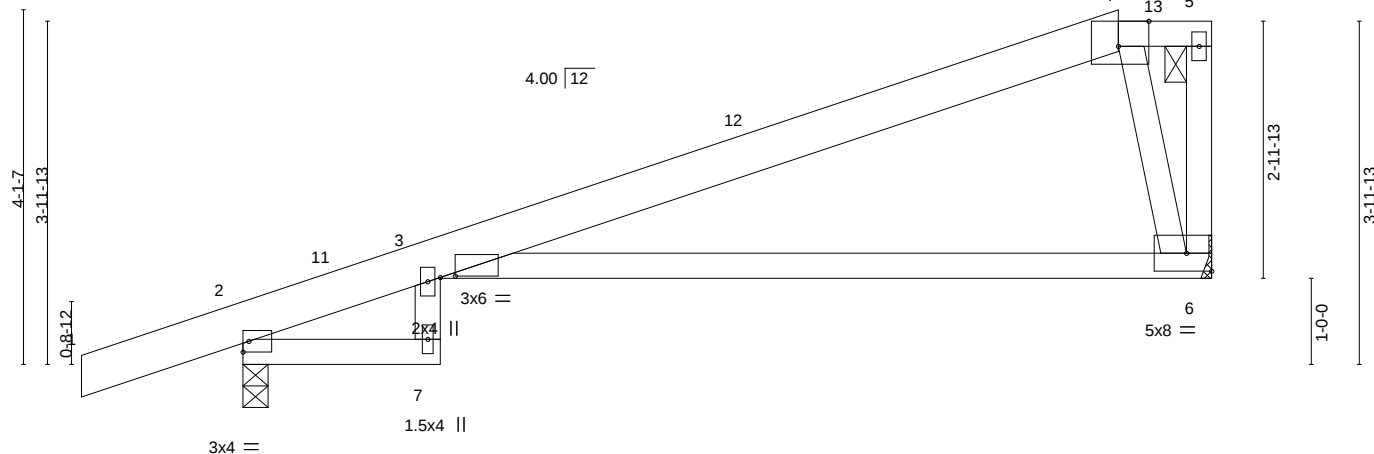


Plate Offsets (X,Y)--	[3:0-2-1,0-0-3], [4:0-4-4,Edge]
-----------------------	---------------------------------

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 0.75	Vert(LL)	-0.23	3-6	>590	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.50	3-6	>267	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.16	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=136(LC 9)
Max Uplift 6=-96(LC 8), 2=-154(LC 8)
Max Grav 6=489(LC 25), 2=642(LC 1)

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

TOP CHORD 3-4=-366/86, 5-6=-220/380
BOT CHORD 3-6=-180/322
WEBS 4-6=-802/485

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-2-0, Exterior(2E) 10-2-0 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=154.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

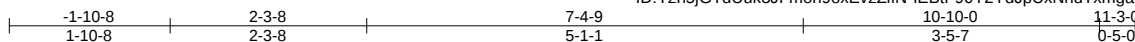
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269575
3405118	F06	Jack-Closed	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:46 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-IEBtF90Y2YdJpUxNhdTxmgar8tinopho2p5pDfzsXgR



Scale = 1:26.9

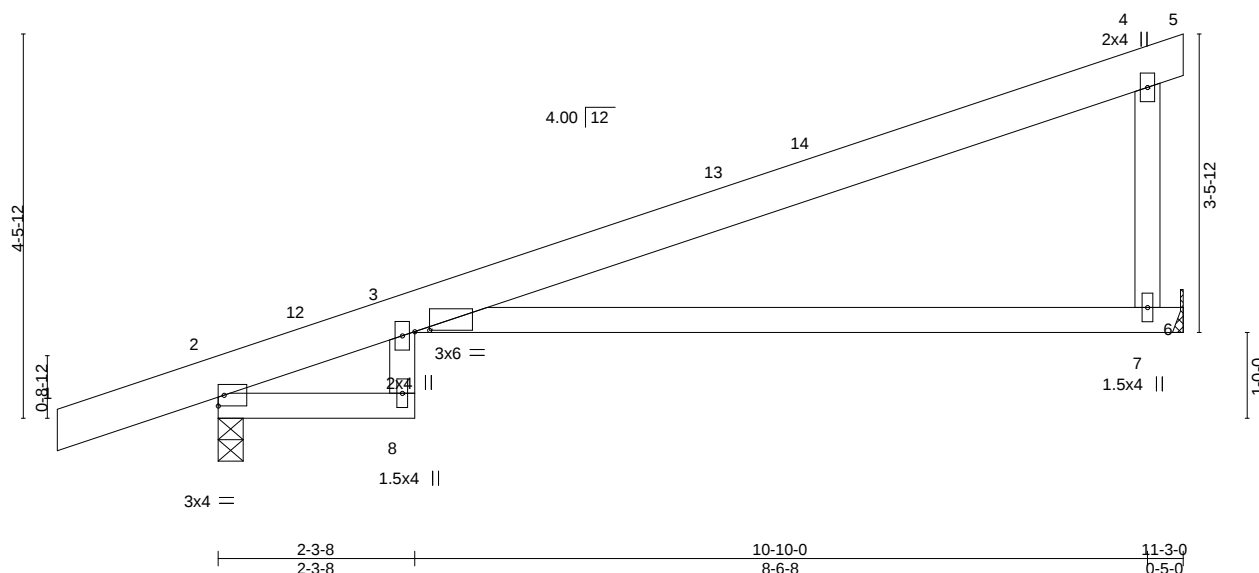


Plate Offsets (X,Y)--		[3:0-2-1,0-0-3]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.91		Vert(LL) -0.34 3-7 >392 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.47		Vert(CT) -0.72 3-7 >187 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.07		Horz(CT) 0.20 6 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 46 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=167(LC 8)
Max Uplift 2=-139(LC 8), 6=-111(LC 8)
Max Grav 2=646(LC 1), 6=497(LC 1)

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

WEBS 4-7=-408/239

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 11-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 6=111.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

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

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
MiTek
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MISSOURI 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269576
3405118	F07	Jack-Closed	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:47 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-mQIGTV1BprlARdWZFL_AJu7AqH6WXBdxHTqNI5zsXgQ

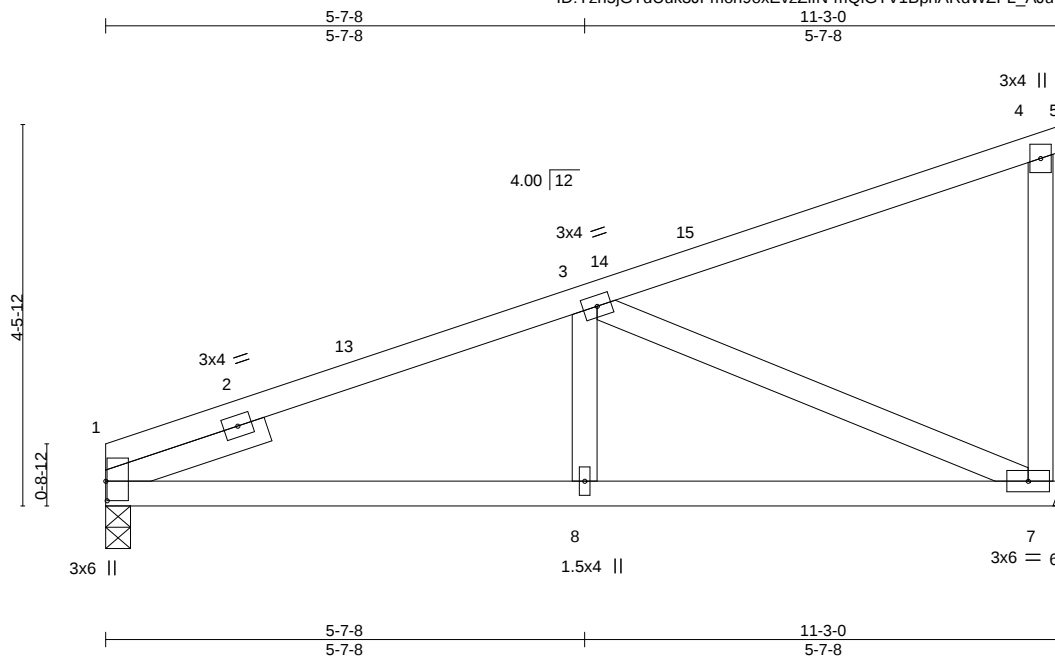


Plate Offsets (X,Y)--	[1:0-2-12,0-0-3]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	-0.02	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.04	7-8	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 42 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 7=Mechanical
 Max Horz 1=159(LC 11)
 Max Uplift 1=-75(LC 8), 7=-106(LC 8)
 Max Grav 1=494(LC 1), 7=505(LC 1)

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

TOP CHORD 1-3=-718/184
 BOT CHORD 1-8=-296/681, 7-8=-296/681
 WEBS 3-7=-706/259

NOTES-

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



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
 AS NOTED FOR PLAN REVIEW
 DEVELOPMENT SERVICES
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269578
3405118	F09	Half Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:49 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-ipt0uB2RLT?uhxyMm0eOJCWm5m3?1xEknJTp_zsXgO

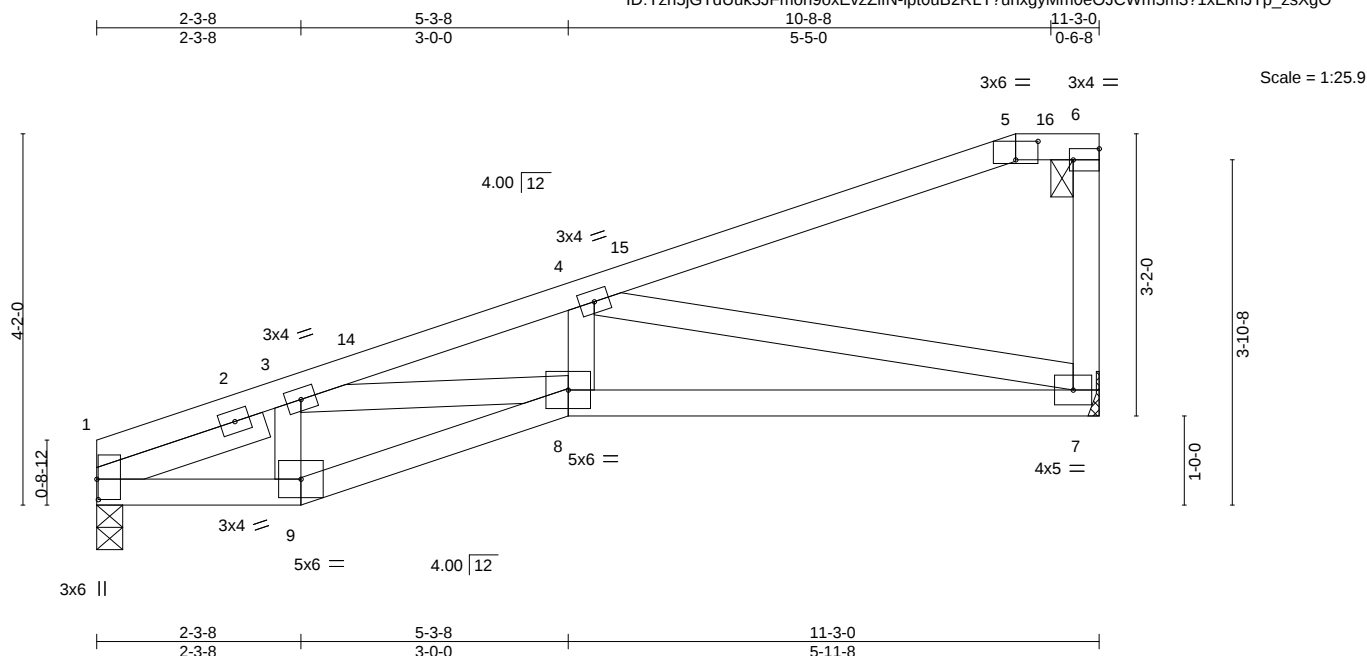


Plate Offsets (X,Y)-- [1:0-2-12,0-0-3], [5:0-3-0,0-2-8], [6:Edge,0-1-8]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.05	8	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.10	7-8	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.03	7	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 44 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 7=Mechanical
 Max Horz 1=129(LC 9)
 Max Uplift 1=-78(LC 8), 7=-102(LC 8)
 Max Grav 1=500(LC 1), 7=500(LC 25)

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

TOP CHORD 1-3=-816/208, 3-4=-1330/386
 BOT CHORD 1-9=-322/748, 8-9=-325/768, 7-8=-541/1212
 WEBS 3-8=-237/526, 4-8=-34/337, 4-7=-1170/486

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-3-12, Exterior(2E) 10-3-12 to 11-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 7=102.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
Mitek DEVELOPMENT SERVICES
 16023 Swingley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269579
3405118	F10	Half Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:50 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-A?RO5X336m8II5E8wTXtxWfPV8HkdGNzR31MQzsXgN

Job Reference (optional)

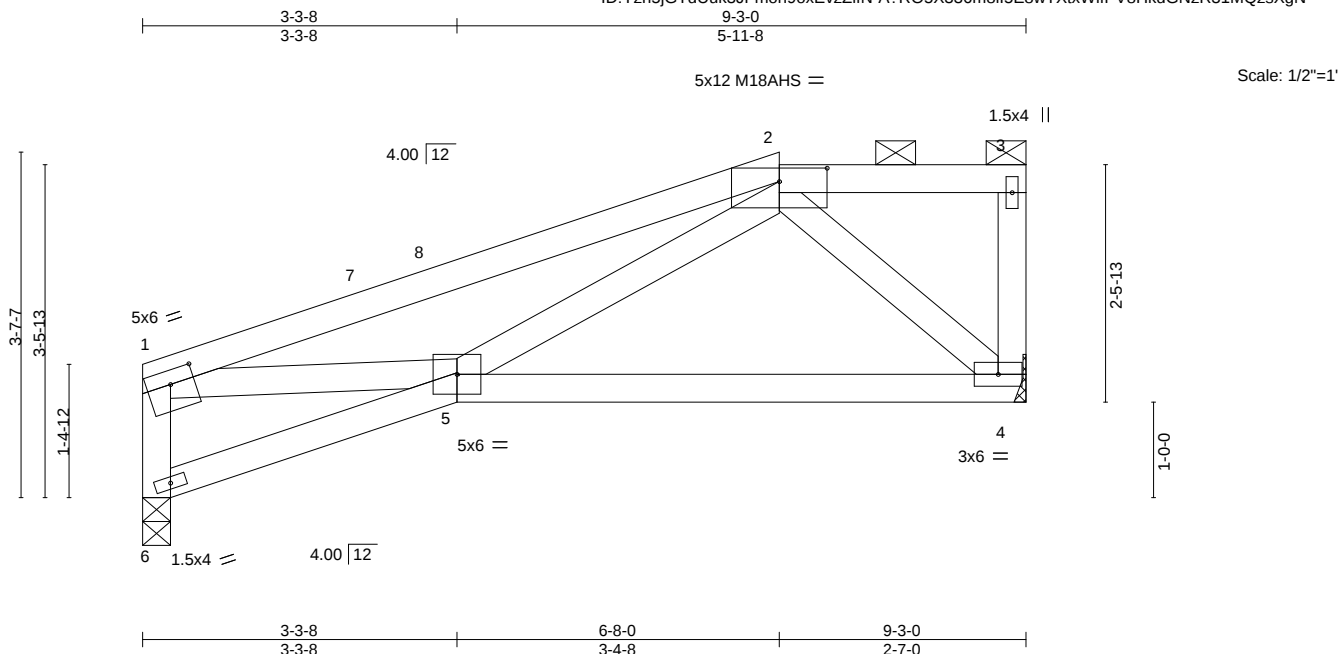


Plate Offsets (X,Y)-- [1:0-3-0,0-1-12], [2:0-6-0,0-1-11]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.04 4-5 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.08 4-5 >999 180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01 4 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 36 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 6=0-3-8
Max Horz 6=106(LC 9)
Max Uplift 4=-80(LC 8), 6=-66(LC 8)
Max Grav 4=403(LC 1), 6=403(LC 1)

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

TOP CHORD 1-6=-426/203, 1-2=-645/249
BOT CHORD 5-6=-310/238, 4-5=-267/362
WEBS 1-5=-41/418, 2-4=-466/348, 2-5=-82/343

NOTES-

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



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

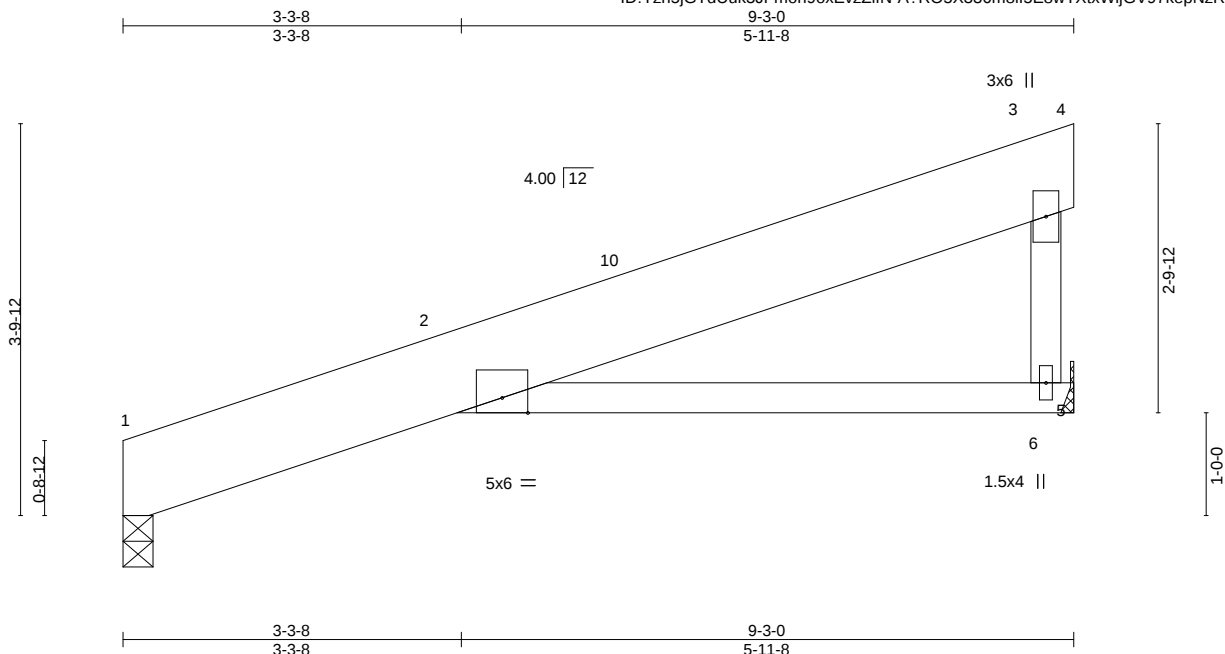
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269580
3405118	F11	Jack-Closed	6	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:50 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-A?RO5X336m8II5E8wTXtxWljGV97kepNzR31MQzsXgN



Scale = 1:22.4

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 0.13	Vert(LL)	-0.03	9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.07	6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 48 lb	FT = 20%

LUMBER-

TOP CHORD 2x10 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied, except end verticals.

BOT CHORD

Rigid ceiling directly applied.

REACTIONS.

(size) 1=0-3-8, 6=Mechanical

Max Horz 1=108(LC 9)

Max Uplift 1=-56(LC 8), 6=-82(LC 12)

Max Grav 1=411(LC 1), 6=416(LC 1)

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

TOP CHORD 3-6=-363/262

NOTES-

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



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
 16023 Swinley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269582
3405118	F13	Half Hip Girder	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:52 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-6OZ9WD5JeQOTYPOW2uZL0xqvelh7CNhgQIY8QJzsXgL

3-3-8	6-2-8	9-3-0
3-3-8	2-11-0	3-0-8

Scale = 1:18.6

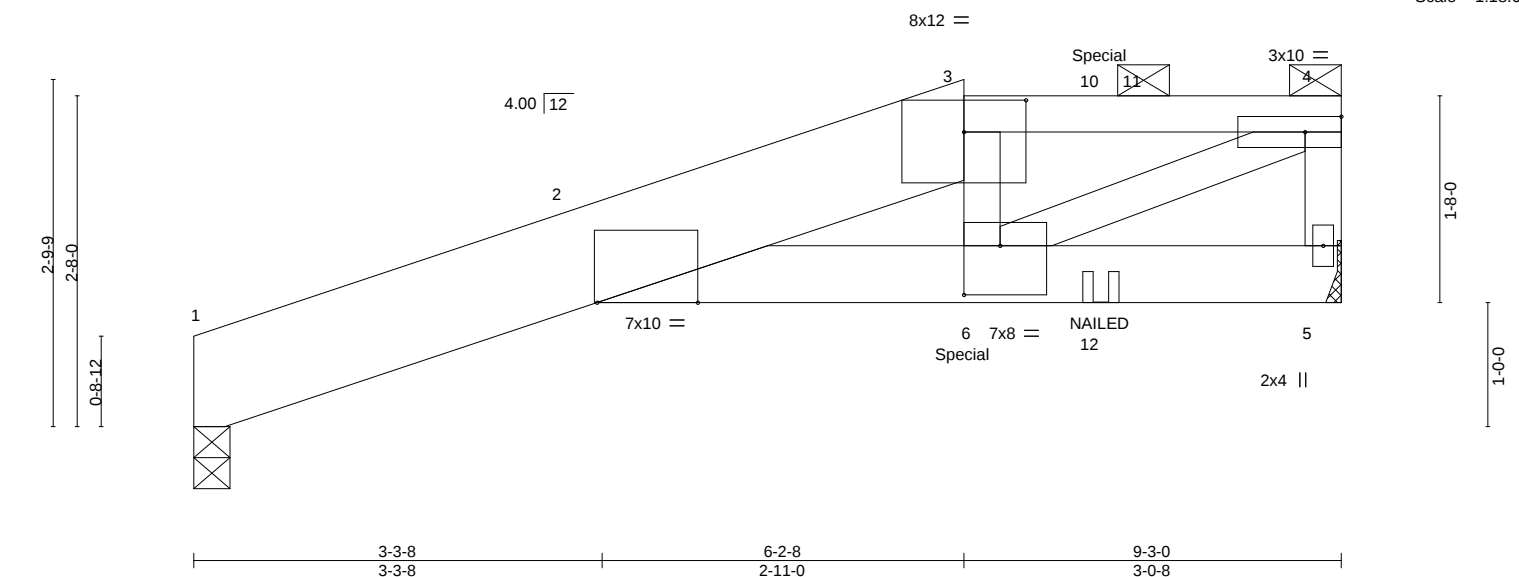


Plate Offsets (X,Y)-- [2:0-9-12,Edge], [3:0-6-0,0-3-1], [6:0-3-8,0-4-12]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.07	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.12	9	>894	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 46 lb	FT = 20%

LUMBER-

TOP CHORD 2x10 SP 2400F 2.0E *Except*
3-4: 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-8 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 5=Mechanical
Max Horz 1=73(LC 26)
Max Uplift 1=-151(LC 4), 5=-292(LC 4)
Max Grav 1=907(LC 1), 5=1577(LC 1)

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

TOP CHORD 1-2=-278/18, 2-3=-2688/494, 3-4=-2747/514, 4-5=-1462/285
BOT CHORD 2-6=-490/2736
WEBS 4-6=-554/3034

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 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=151, 5=292.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 185 lb down and 65 lb up at 7-3-12 on top chord, and 1454 lb down and 293 lb up at 6-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



January 24, 2023

Continued on page 2

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

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269582
3405118	F13	Half Hip Girder	1	1	Job Reference (optional)	

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:52 2023 Page 2
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-6OZ9WD5JeOOTYPOW2uZL0xqvelh7CNhgQIY8QJzsXgL

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-8=-91, 3-8=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-1454(F) 10=-185(F) 12=-7(F)

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269583
3405118	J01	Jack-Open	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:53 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-aa7XjZ5xPhWK9Yzjbb5aZ9NA0i65x?FpfPHhZlsXgK

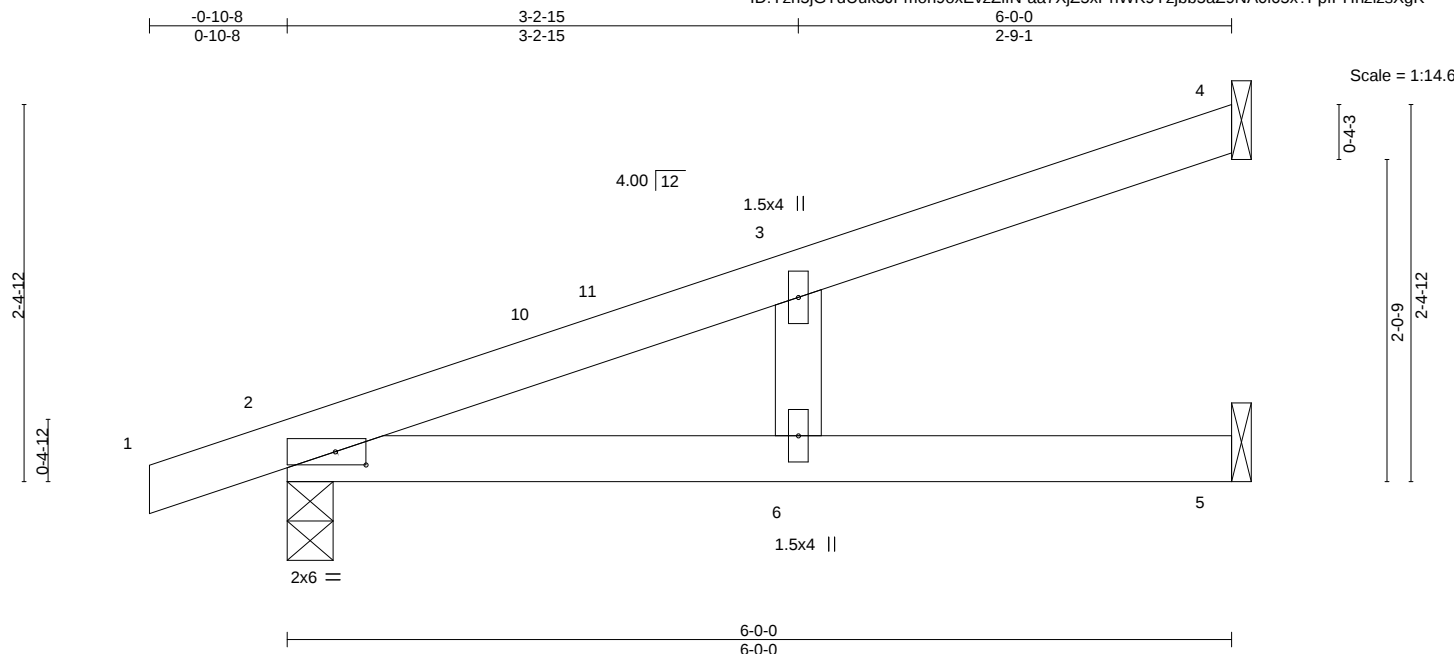


Plate Offsets (X,Y)-- [2:0-2-5,0-1-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	0.10	6	>730	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.16	6-9	>445	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=87(LC 8)
Max Uplift 4=-50(LC 12), 2=-70(LC 8), 5=-10(LC 12)
Max Grav 4=158(LC 1), 2=333(LC 1), 5=105(LC 1)

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

NOTES-

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



January 24, 2023

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

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

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job 3405118	Truss J02	Truss Type Jack-Open	Qty 4	Ply 1	Summit/168 Hawthorne Ridge I56269584
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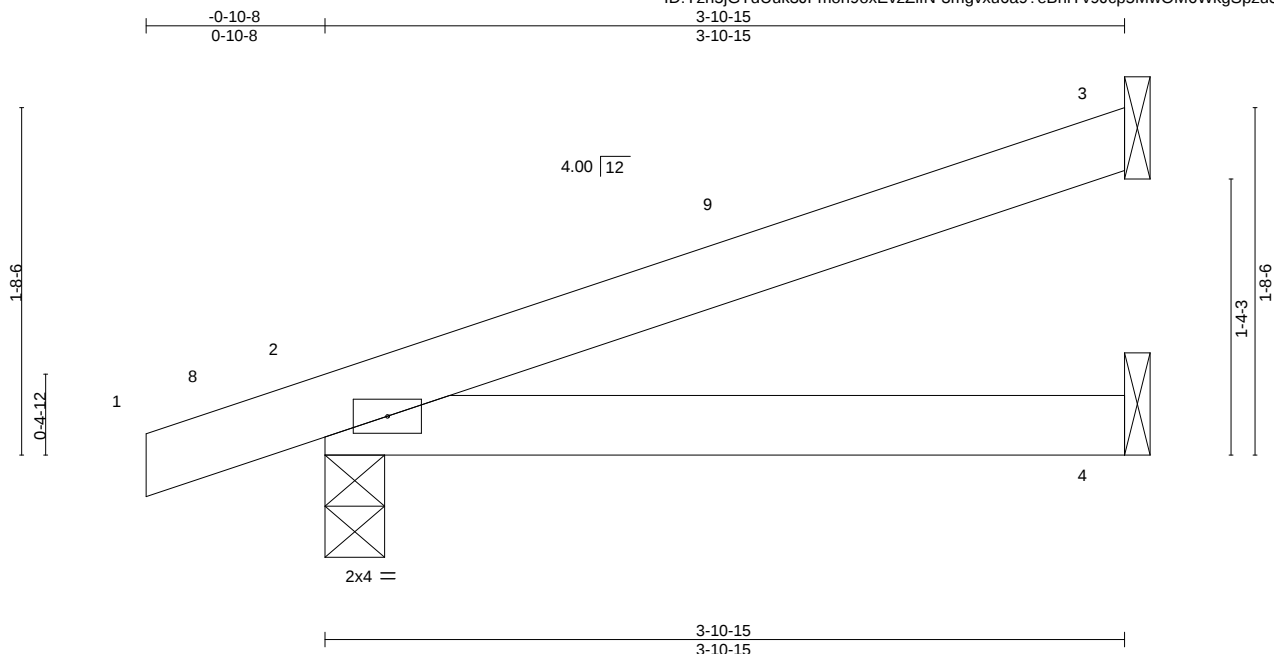
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:54 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-3mgvXu6a9?eBniYv9Jcp5MwOM6WkgSpzu31EVBzsXgJ

Job Reference (optional)



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=61(LC 8)
Max Uplift 3=-42(LC 12), 2=-58(LC 8)
Max Grav 3=113(LC 1), 2=241(LC 1), 4=70(LC 3)

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

NOTES-

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



January 24, 2023

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

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

RELEASE FOR CONSTRUCTION
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16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

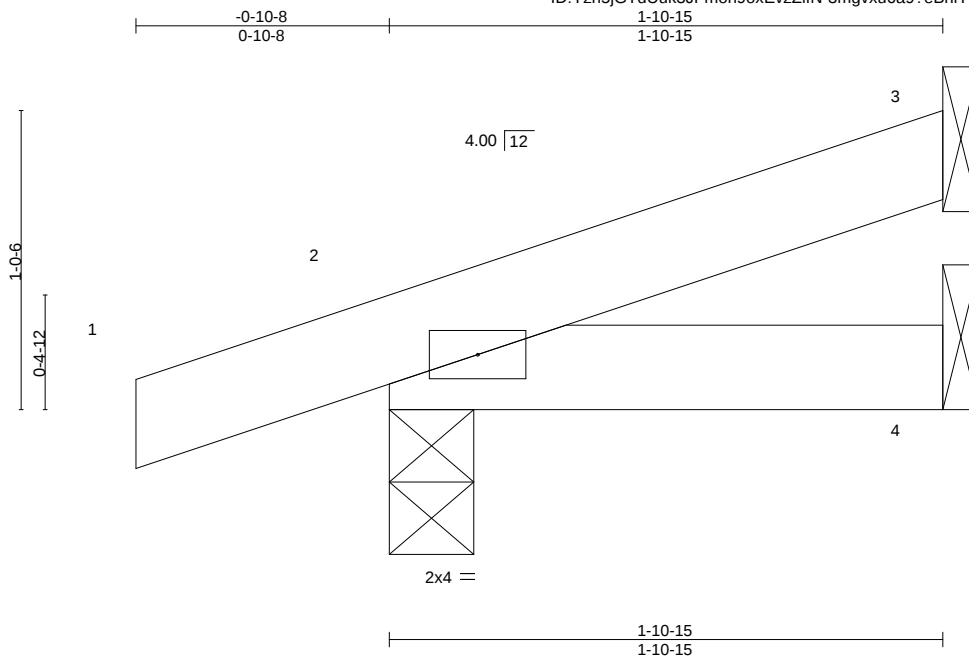
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269585
3405118	J03	Jack-Open	4	1		
Job Reference (optional)						

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:54 2023 Page 1

ID: Yzh5jGTdUuk3JFmon9oxEvzZifN-3mgvXu6a9?eBniYv9Jcp5MwQU6YggSpzu31EVBzsXgJ



Scale: 1.5"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=37(LC 8)
Max Uplift 3=-17(LC 12), 2=-50(LC 8)
Max Grav 3=48(LC 1), 2=161(LC 1), 4=32(LC 3)

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

NOTES-

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



January 24, 2023

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

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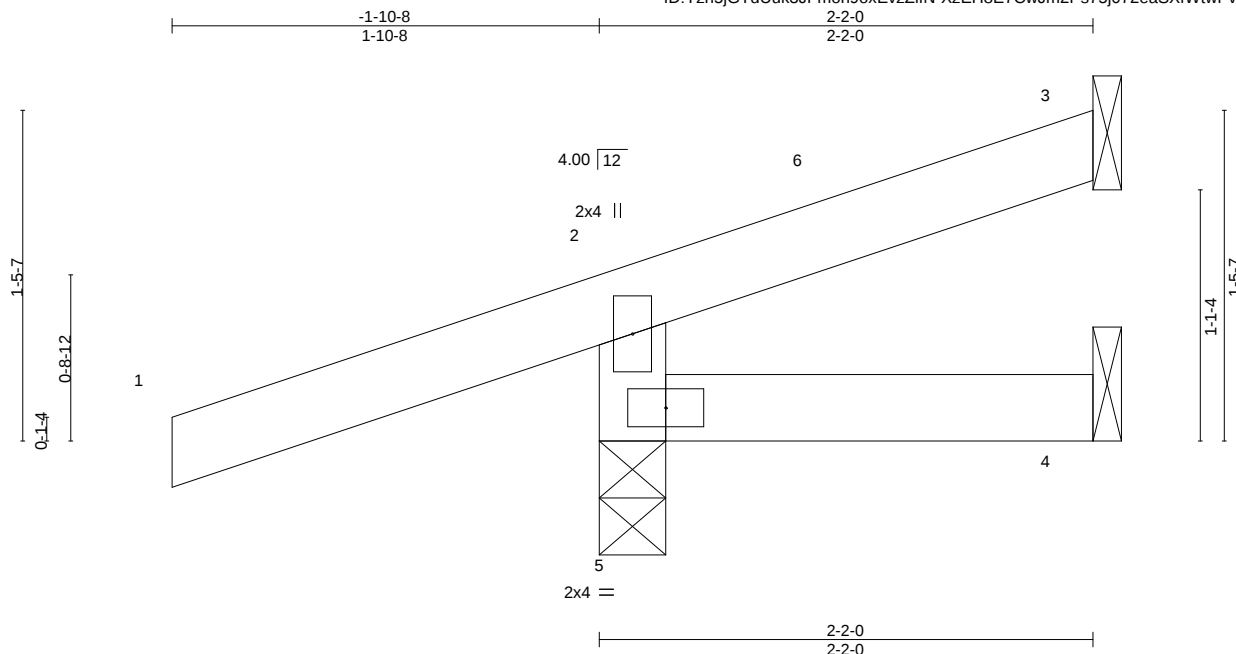
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269586
3405118	J04	Jack-Open	5	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:55 2023 Page 1

ID:Yzh5jGTdUuk3Jfmon9oxEvzZifN-XzEH8E7CwJm2Ps75j072eaSXfWtwPv266jmo1dZsXgl



Scale = 1:10.1

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 0.28	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

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

REACTIONS.

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

Max Horz 5=50(LC 8)

Max Uplift 3=-15(LC 12), 4=-3(LC 1), 5=-117(LC 8)

Max Grav 3=19(LC 1), 4=30(LC 3), 5=303(LC 1)

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

TOP CHORD 2-5=-260/185

NOTES-

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

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

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

4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=-117.

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



January 24, 2023

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

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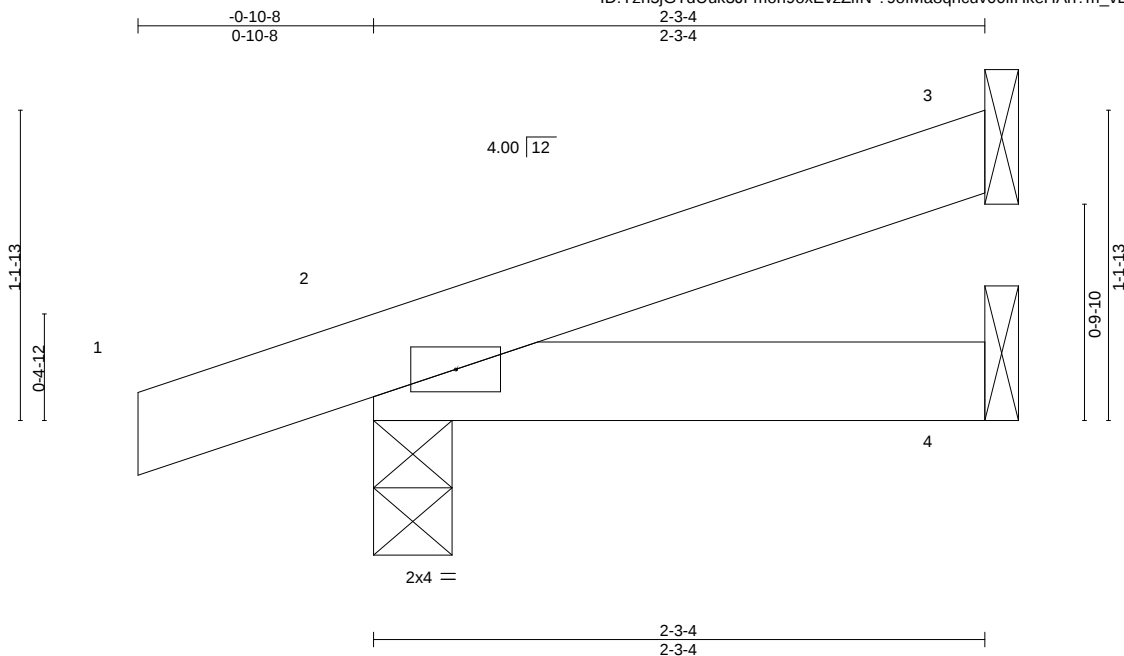
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269587
3405118	J05	Jack-Open	2	1		
Job Reference (optional)						

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:56 2023 Page 1

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Scale = 1:8.6

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)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=41(LC 8)
Max Uplift 3=-21(LC 12), 2=-51(LC 8)
Max Grav 3=59(LC 1), 2=173(LC 1), 4=38(LC 3)

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

NOTES-

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



January 24, 2023

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

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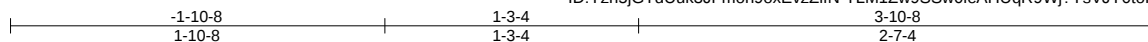
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269588
3405118	J06	Half Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

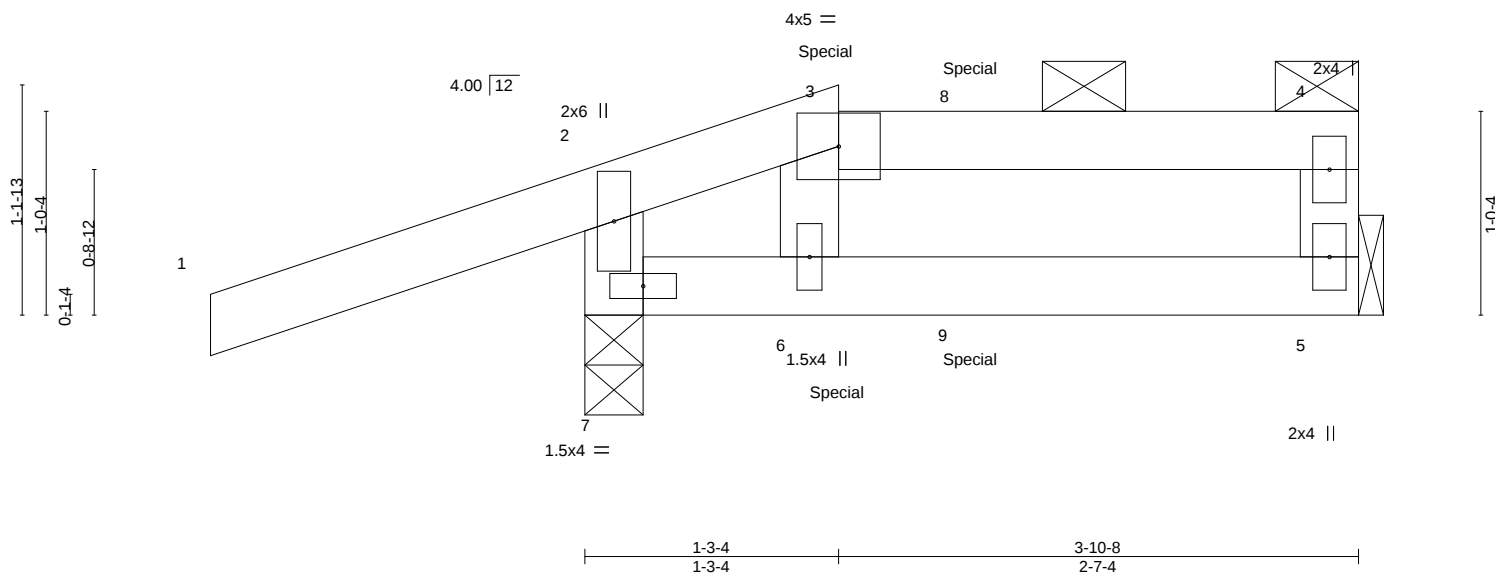
Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:57 2023 Page 1

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Scale = 1:11.5



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 0.32	Vert(LL)	0.01	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.01	6	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.01	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
Max Horz 7=39(LC 5)
Max Uplift 5=-42(LC 5), 7=-157(LC 4)
Max Grav 5=117(LC 44), 7=270(LC 45)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=157.
- This truss 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) 79 lb down and 199 lb up at 1-3-4, and 19 lb down and 28 lb up at 1-11-4 on top chord, and 53 lb down and 157 lb up at 1-3-4, and 12 lb down at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
- Concentrated Loads (lb)
Vert: 3=69(F) 6=69(F) 8=-0(F) 9=-8(F)



January 24, 2023

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02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269589
3405118	J07	Half Hip	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:57 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-TLM1Zw9SSw0leAHUqR9Wj?Yu0JZOtoHPa1Fv6WzsXgG

-1-10-8	3-3-4	3-10-8
1-10-8	3-3-4	0-7-4

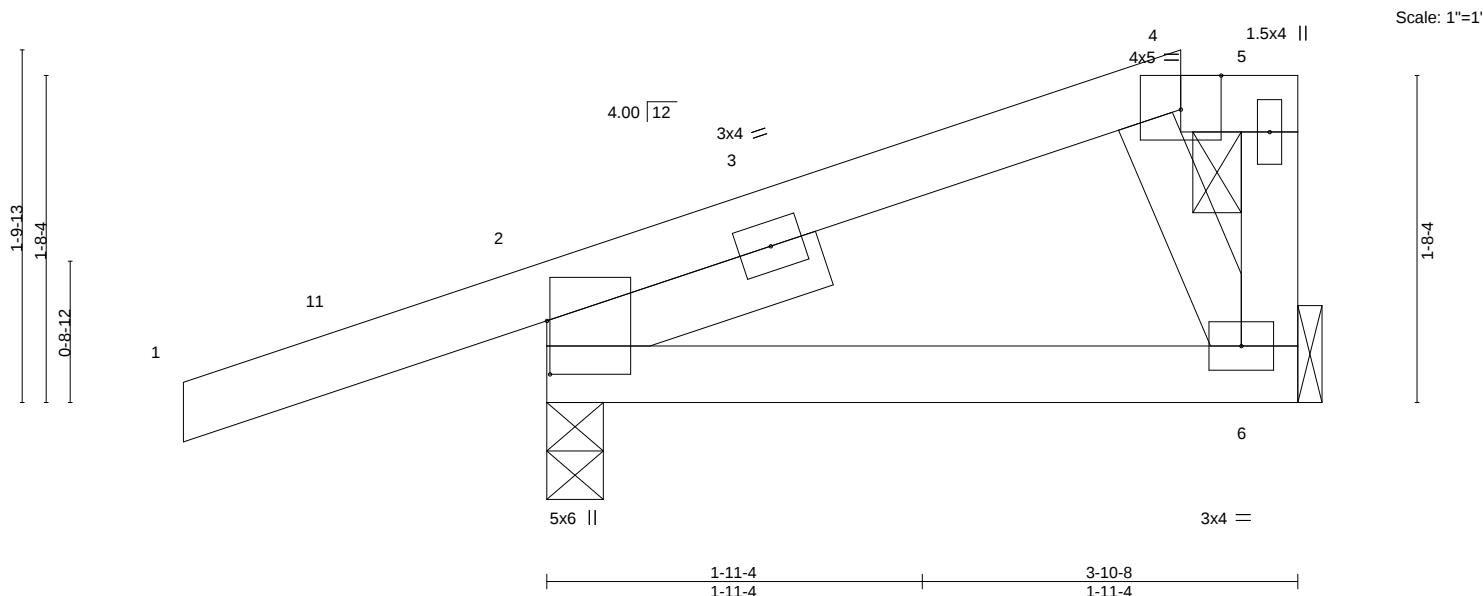


Plate Offsets (X,Y)--		[2:0-3-5,0-0-3], [4:0-2-8,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.22	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(LL) -0.01 6-9 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.02	Vert(CT) -0.01 6-9 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	Horz(CT) 0.00 2 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 16 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
 Max Horz 2=61(LC 11)
 Max Uplift 2=-112(LC 8), 6=-20(LC 9)
 Max Grav 2=332(LC 1), 6=135(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-3-4, Exterior(2E) 3-3-4 to 3-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=112.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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

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

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

RELEASE FOR CONSTRUCTION
 AS NOTED FOR PLAN REVIEW
 DEVELOPMENT SERVICES
 16023 Swinley Ridge Rd.
 Chesterfield, MO 63017

02/21/2023

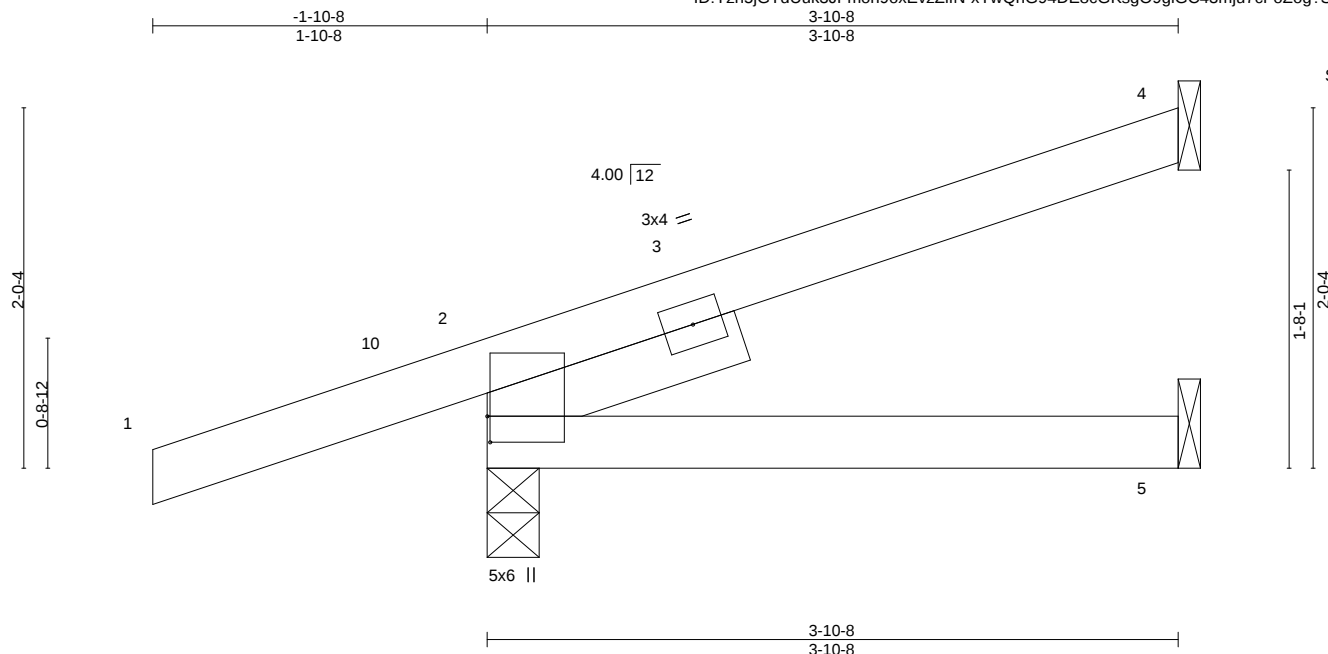
Job 3405118	Truss J08	Truss Type Jack-Open	Qty 5	Ply 1	Summit/168 Hawthorne Ridge I56269590
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:58 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-xYwQnG94DE8cGKsgO9glGC43mju7cFoZog?SeyzsXgF



Scale = 1:12.9

Plate Offsets (X,Y)--		[2:0-1-12,0-0-3]									
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)	-0.01	5-8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.12	Vert(CT)	-0.02	5-8	>999	180	
BCLL	0.0	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.01	2	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 13 lb FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=77(LC 8)
Max Uplift 4=41(LC 12), 2=103(LC 8)
Max Grav 4=100(LC 1), 2=335(LC 1), 5=65(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=103.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	J10	Jack-Open	2	1	I56269591
Job Reference (optional)					

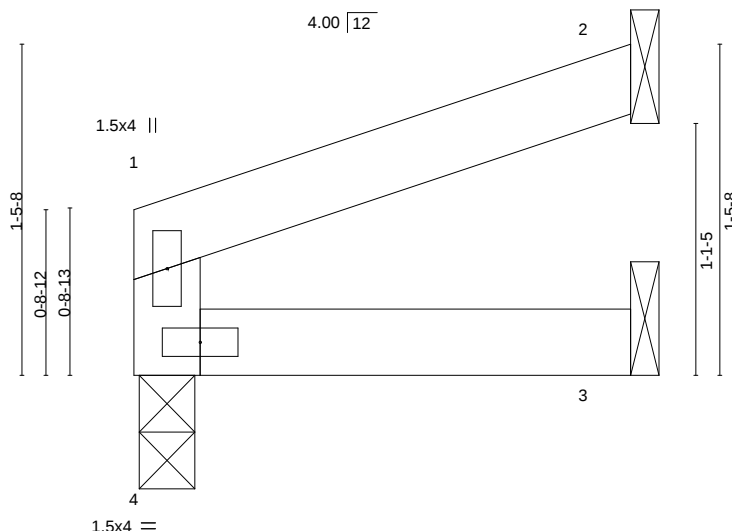
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:55:59 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-PkUo_cAi_XGTiTRtysB_oQdH87FZLi2i1Kk?APzsXgE

0-0-5 2-2-4
0-0-5 2-2-0



Scale = 1:10.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	3-4	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						
									Weight: 5 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 4=0-2-15
Max Horz 4=26(LC 9)
Max Uplift 2=28(LC 12), 4=7(LC 8)
Max Grav 2=65(LC 1), 3=38(LC 3), 4=89(LC 1)

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

NOTES-

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



January 24, 2023

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

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16023 Swinley Ridge Rd.
Chesterfield, MO 63017

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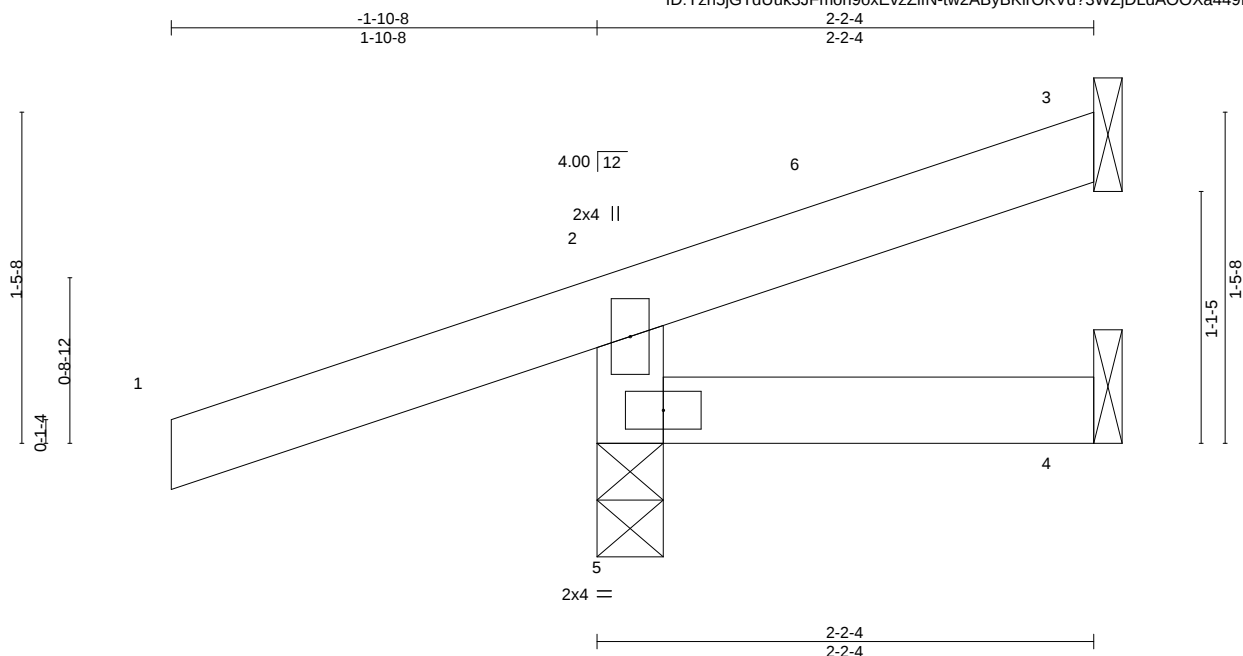
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269592
3405118	J12	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:00 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-tw2ABYBKlrOKVd?3WZjDLdA0OXa449lrG_UZirzsXgD



Scale = 1:10.1

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 0.28	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

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

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

REACTIONS.

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

Max Horz 5=50(LC 8)

Max Uplift 3=-15(LC 12), 4=-3(LC 1), 5=-117(LC 8)

Max Grav 3=20(LC 1), 4=30(LC 3), 5=303(LC 1)

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

TOP CHORD 2-5=-260/185

NOTES-

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

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

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

4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=-117.

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



January 24, 2023

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

RELEASE FOR CONSTRUCTION
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16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

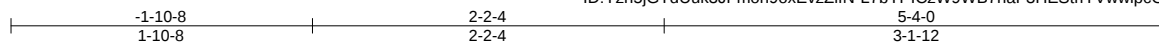
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269593
3405118	J13	Half Hip Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

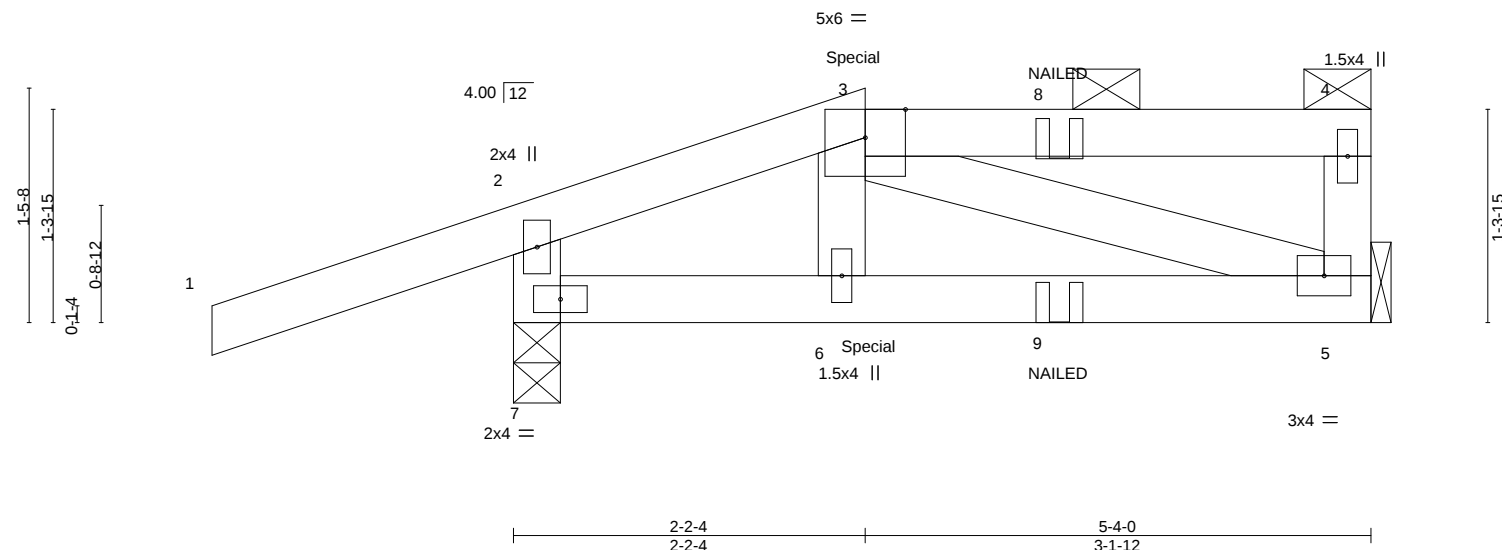
Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:01 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-L7bYPICzW9WB7naF3HEStriYVwwlpcG?VeD6FHzsXgC



Scale = 1:14.3



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 0.32	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 20 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.

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

REACTIONS.

(size) 5=Mechanical, 7=0-3-8

Max Horz 7=51(LC 5)

Max Uplift 5=50(LC 5), 7=-148(LC 4)

Max Grav 5=163(LC 1), 7=348(LC 1)

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

TOP CHORD 2-7=-293/136

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=148.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 22 lb down and 53 lb up at 2-2-4 on top chord, and 42 lb down and 86 lb up at 2-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20

Concentrated Loads (lb)

Vert: 3=30(B) 6=42(B) 9=11(B)



January 24, 2023

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Chesterfield, MISSOURI 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269594
3405118	J14	Half Hip	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:02 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-qJ9wceCbHSe2kx9Rd_lhQ2FleKF3Y3O8jlzfnjzsXgB



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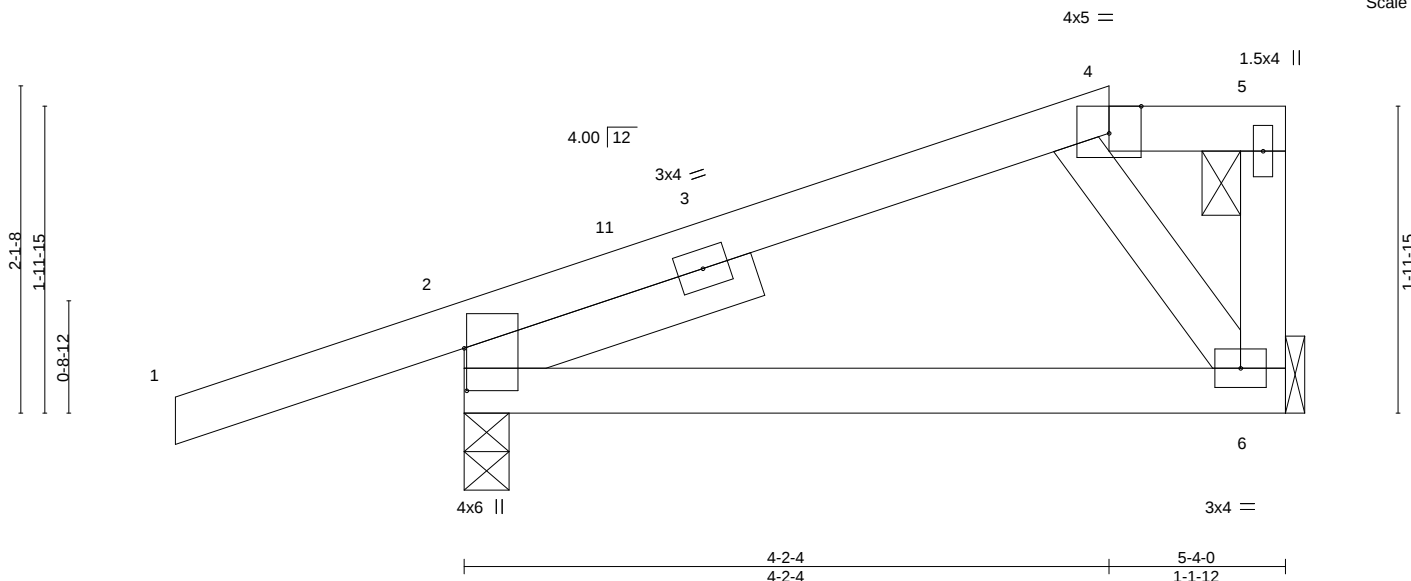


Plate Offsets (X,Y)--		[2:0-3-5,0-0-3], [4:0-2-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.23	Vert(LL)	-0.02	6-9	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.18	Vert(CT)	-0.05	6-9	>999	180	
BCLL	0.0	Rep Stress Incr YES		WB	0.03	Horz(CT)	0.01	2	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 21 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=73(LC 11)
Max Uplift 2=-119(LC 8), 6=-35(LC 8)
Max Grav 2=388(LC 1), 6=210(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-2-4, Exterior(2E) 4-2-4 to 5-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=119.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 24, 2023

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

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269595
3405118	J15	Jack-Open	5	1		

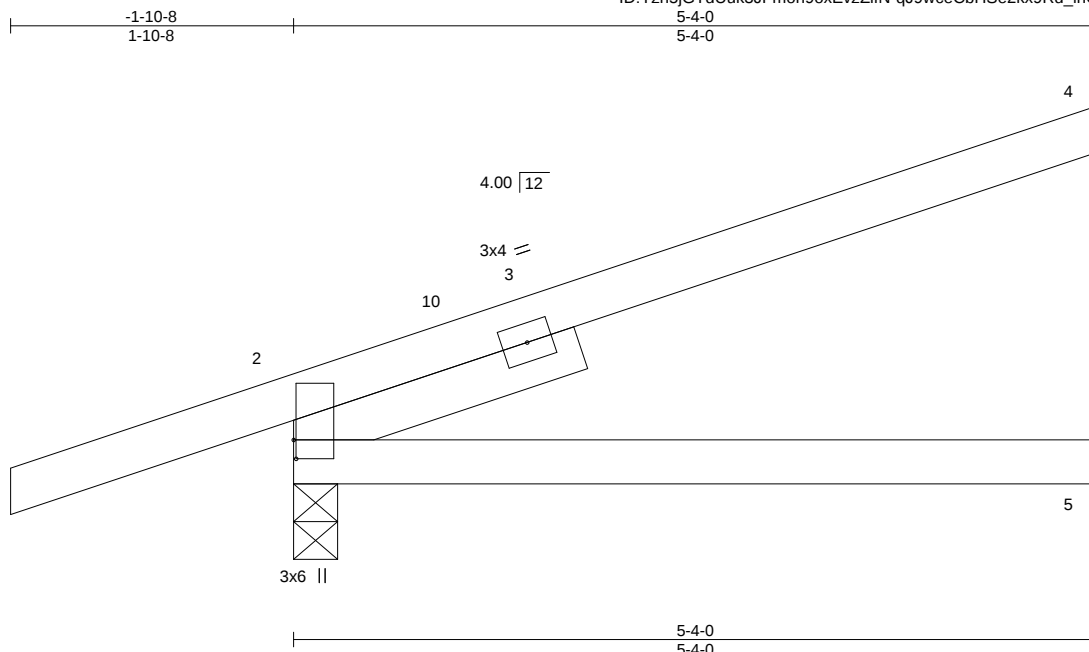
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:02 2023 Page 1

ID: Yzh5jGTdUuk3JFmon9oxEvzZifN-qJ9wceCbHSe2kx9Rd_lhQ2FjAKEXY3n8jlzfnjzsXgB

Job Reference (optional)



Scale = 1:15.3

Plate Offsets (X,Y)--		[2:0-1-8,0-0-3]									
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 0.33		Vert(LL)	0.04 5-8	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.22		Vert(CT)	-0.06 5-8	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.02 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=95(LC 8)
Max Uplift 4=60(LC 12), 2=107(LC 8)
Max Grav 4=153(LC 1), 2=392(LC 1), 5=91(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-3-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=107.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269596
3405118	J16	Jack-Open	1	1		

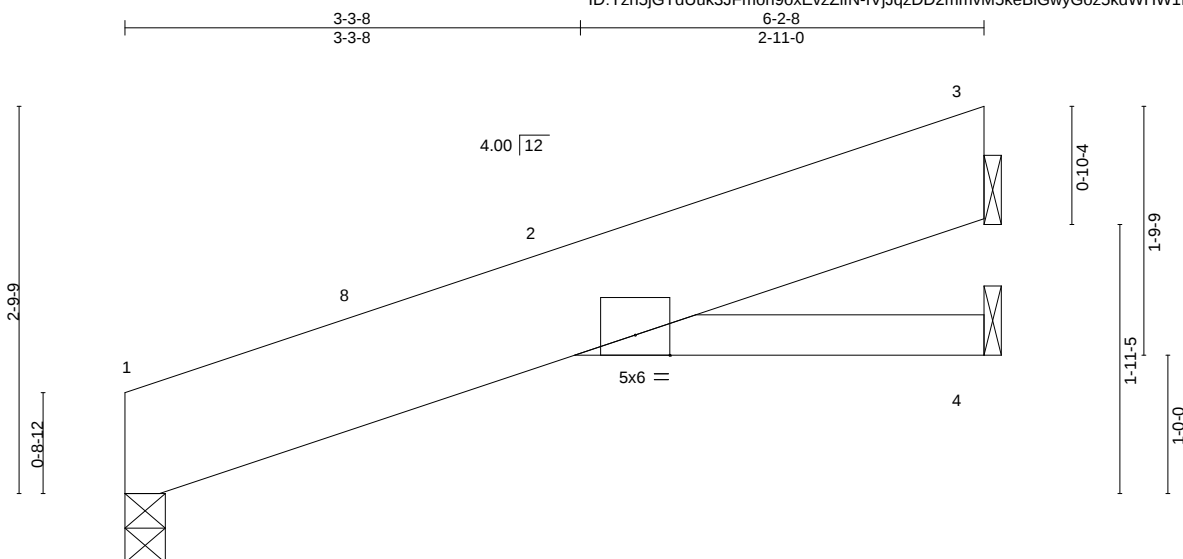
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:03 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-IVjJqzDD2mmvM5keBiGwyGoz5kdWHW1IyyiDJAZsXgA

Job Reference (optional)



Scale = 1:16.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.01	5	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.01	5	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 30 lb	FT = 20%

LUMBER-

TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 1=73(LC 8)
Max Uplift 1=-32(LC 8), 3=-60(LC 8)
Max Grav 1=280(LC 1), 3=255(LC 1), 4=38(LC 3)

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

NOTES-

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



January 24, 2023

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

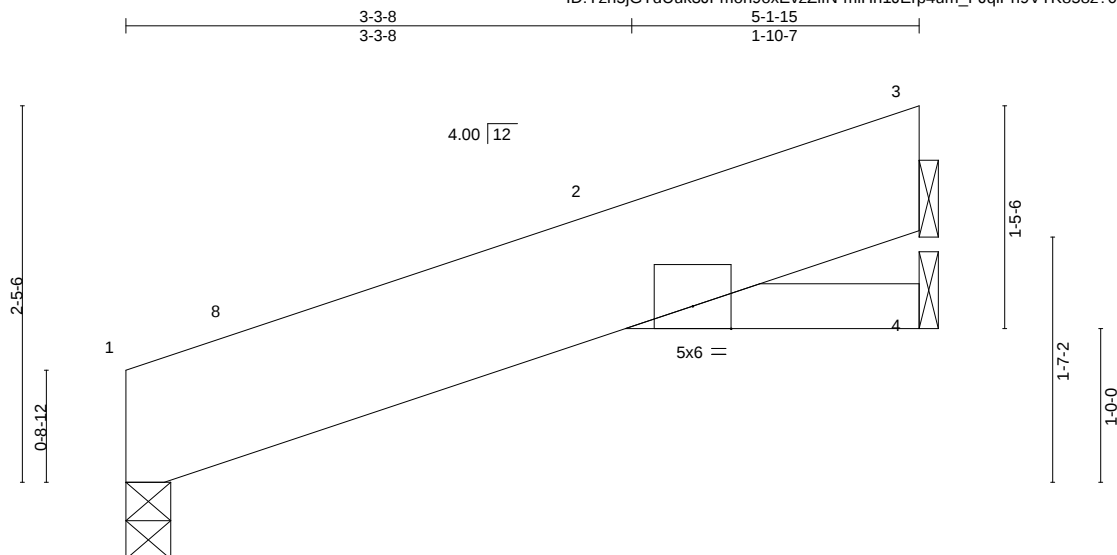
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269597
3405118	J17	Jack-Open	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:04 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZiffN-miHh1JErp4um_FJqIPn9VTK858z?0zHRBcSmrczsXg9



Scale = 1:15.0

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 0.04	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.01	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 24 lb	FT = 20%

LUMBER-

TOP CHORD 2x10 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 1=63(LC 8)
Max Uplift 1=-28(LC 8), 3=-47(LC 8)
Max Grav 1=238(LC 1), 3=221(LC 1), 4=25(LC 3)

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

NOTES-

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



January 24, 2023

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	LG1	GABLE	1	1	I56269598

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:05 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-Eur3FFtAN1dbOu0l7IO2htleYlulOwPGBKO2zsXg8



3x6 =

Scale = 1:80.0

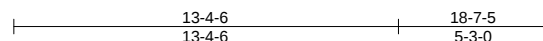
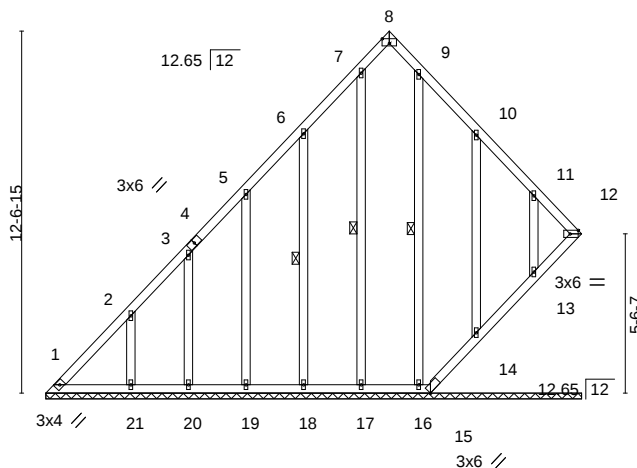


Plate Offsets (X,Y)--	[8:Edge,0-1-15], [12:Edge,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999	GRIP
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	12	n/a	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 117 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.
WEBS 1 Row at midpt 6-18, 7-17, 9-16

REACTIONS.

All bearings 18-7-5.
(lb) - Max Horz 1=306(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 17, 16 except 12=132(LC 11), 15=187(LC 13), 21=156(LC 12), 20=101(LC 12), 19=114(LC 12), 18=134(LC 12), 14=131(LC 13), 13=105(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 15, 20, 19, 18, 17, 16, 14, 13 except 12=343(LC 13), 1=338(LC 12), 21=271(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-493/366, 2-3=-348/241
BOT CHORD 14-15=-179/268, 13-14=-183/263, 12-13=-184/262

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 11-11-3, Exterior(2R) 11-11-3 to 14-11-7, Interior(1) 14-11-7 to 18-4-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 16 except (jt=lb) 12=132, 15=187, 21=156, 20=101, 19=114, 18=134, 14=131, 13=105.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

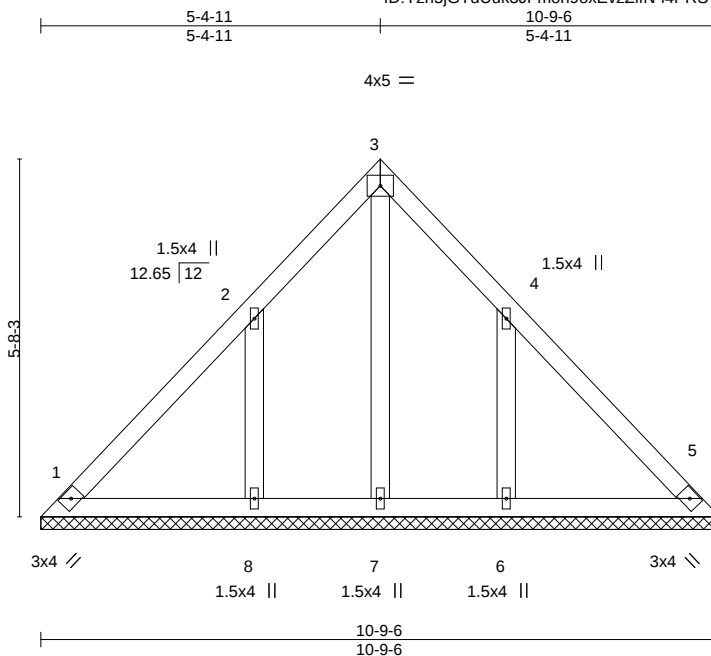
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	LG2	GABLE	1	1	I56269599
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:06 2023 Page 1

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4x5 =

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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 42 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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 10-9-6.

(lb) - Max Horz 1=-127(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-182(LC 12), 6=-182(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=321(LC 19), 6=320(LC 20)

FORCES.

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

WEBS

2-8=-263/196, 4-6=-263/196

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-11, Interior(1) 3-4-11 to 5-4-11, Exterior(2R) 5-4-11 to 8-4-11, Interior(1) 8-4-11 to 10-5-4 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=182, 6=182.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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MiTek DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

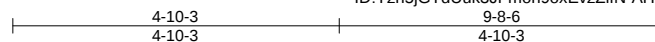
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	LG3	GABLE	1	1	I56269600
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

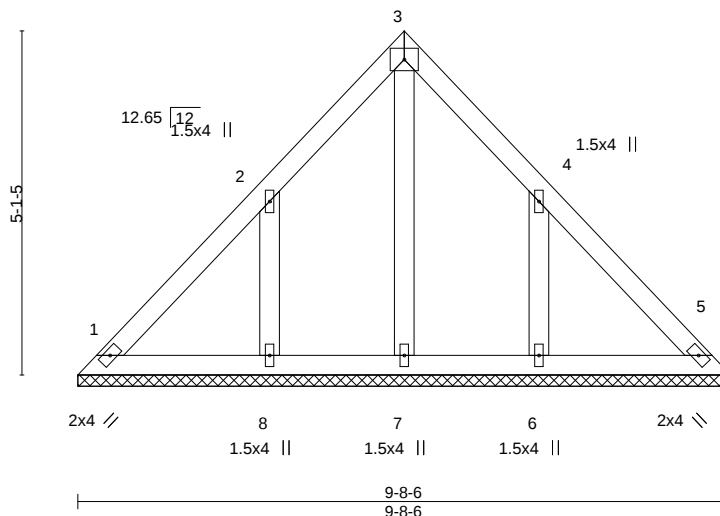
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:07 2023 Page 1

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4x5 =

Scale = 1:34.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	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
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 9-8-6.
(lb) - Max Horz 1=113(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=157(LC 12), 6=156(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=274(LC 19), 6=273(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 4-10-3, Exterior(2R) 4-10-3 to 7-10-3, Interior(1) 7-10-3 to 9-4-4 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=157, 6=156.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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

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

RELEASE FOR CONSTRUCTION
NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269601
3405118	LG4	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

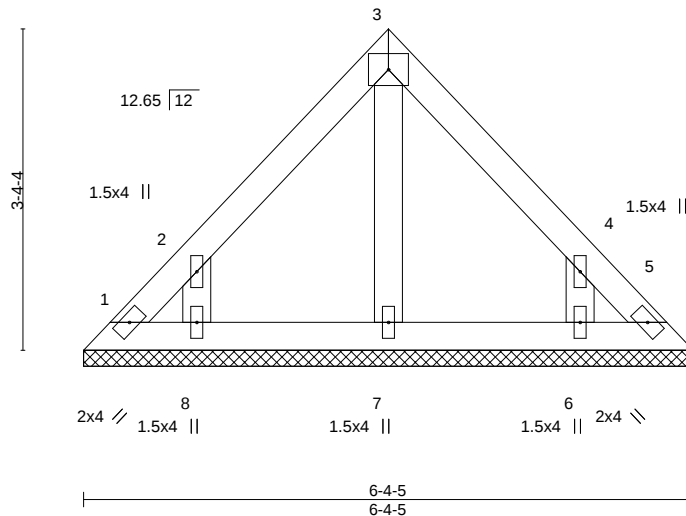
8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:08 2023 Page 1

ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-eTXCthHMsIPCSsdb_Fs5fJVpxIKvynv16EQ__NzsXg5

3-2-3 3-2-3 6-4-5 3-2-3

4x5 =

Scale: 1/2"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	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	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 21 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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 6-4-5.
(lb) - Max Horz 1=-71(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-118(LC 12), 6=-118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=118, 6=118.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

RELEASE FOR CONSTRUCTION
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16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job 3405118	Truss LG5	Truss Type Lay-In Gable	Qty 1	Ply 1	Summit/168 Hawthorne Ridge I56269602
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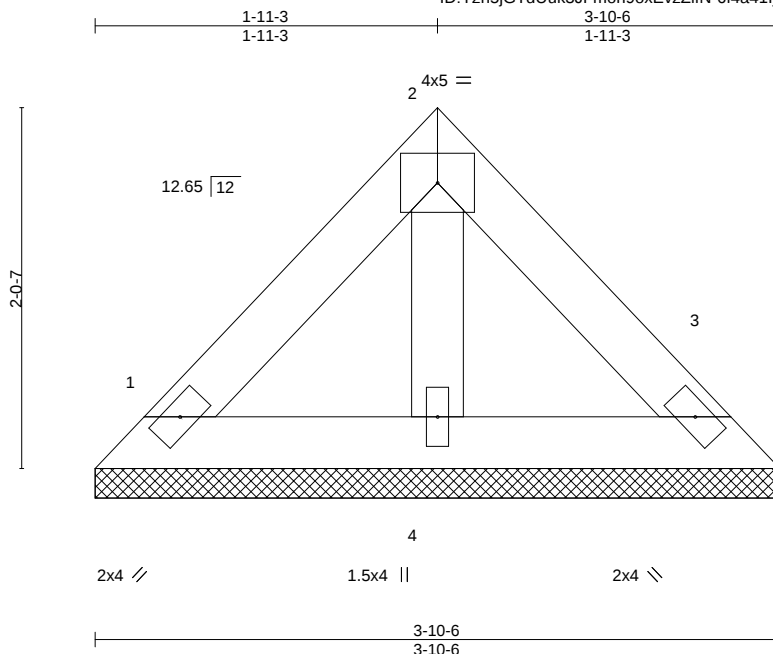
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:09 2023 Page 1

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Job Reference (optional)



Scale = 1:13.0

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 0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 11 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-6 oc purlins.

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

REACTIONS.

(size) 1=3-10-6, 3=3-10-6, 4=3-10-6

Max Horz 1=40(LC 11)

Max Uplift 1=-20(LC 13), 3=-19(LC 13)

Max Grav 1=88(LC 1), 3=88(LC 1), 4=110(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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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

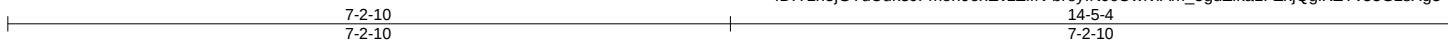
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Chesterfield, MO 63017
LEE'S SUMMIT, MISSOURI

02/21/2023

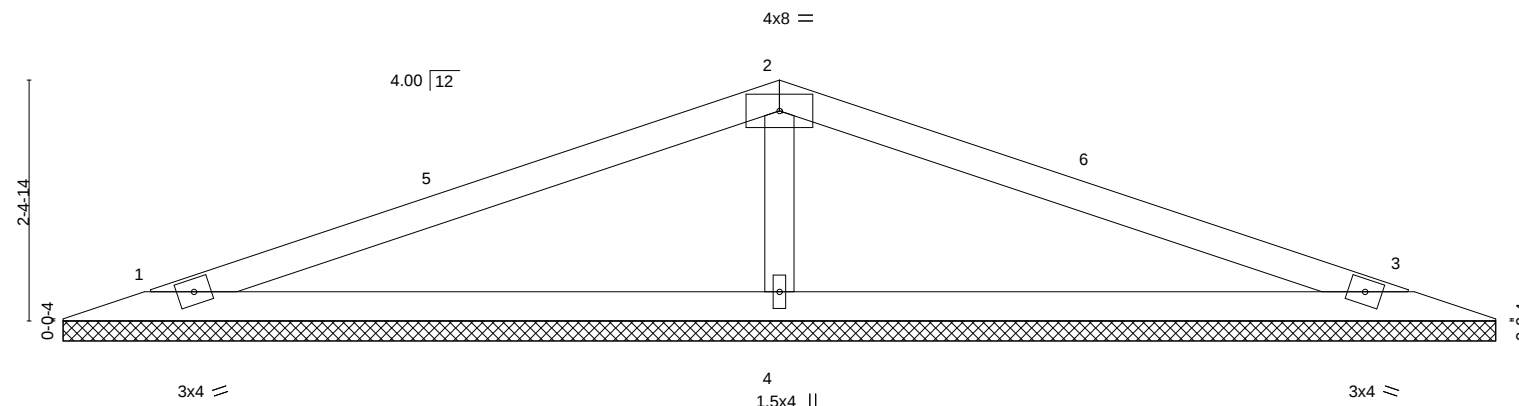
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	V01	Valley	1	1	I56269603
Job Reference (optional)					

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

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:10 2023 Page 1
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Scale = 1:23.0



0-0-12			14-5-4								
0-0-12			14-4-8								
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	0.57	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL 1.15	BC	0.32	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr YES	WB	0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-S							Weight: 33 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=14-3-12, 3=14-3-12, 4=14-3-12
Max Horz 1=33(LC 13)
Max Uplift 1=50(LC 8), 3=54(LC 13), 4=64(LC 8)
Max Grav 1=251(LC 25), 3=251(LC 26), 4=646(LC 1)

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

WEBS 2-4=-457/208

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 7-2-10, Exterior(2R) 7-2-10 to 10-2-10, Interior(1) 10-2-10 to 13-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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Chesterfield, MO 63017

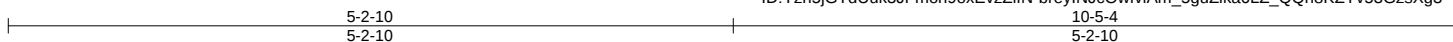
02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	V02	Valley	1	1	I56269604
Job Reference (optional)					

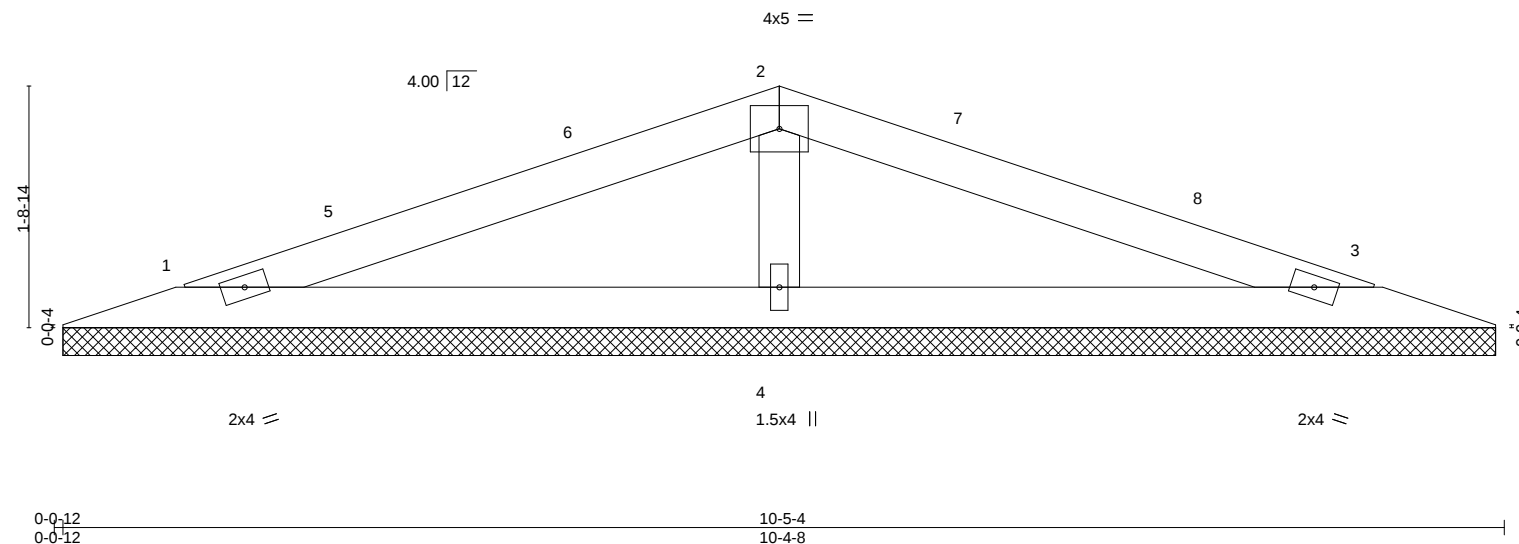
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:10 2023 Page 1

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Scale = 1:16.6



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 0.25	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 23 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=10-3-12, 3=10-3-12, 4=10-3-12
Max Horz 1=23(LC 12)
Max Uplift 1=34(LC 8), 3=37(LC 13), 4=43(LC 8)
Max Grav 1=171(LC 25), 3=171(LC 26), 4=440(LC 1)

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

WEBS 2-4=-311/196

NOTES-

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



January 24, 2023

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16023 Swinley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

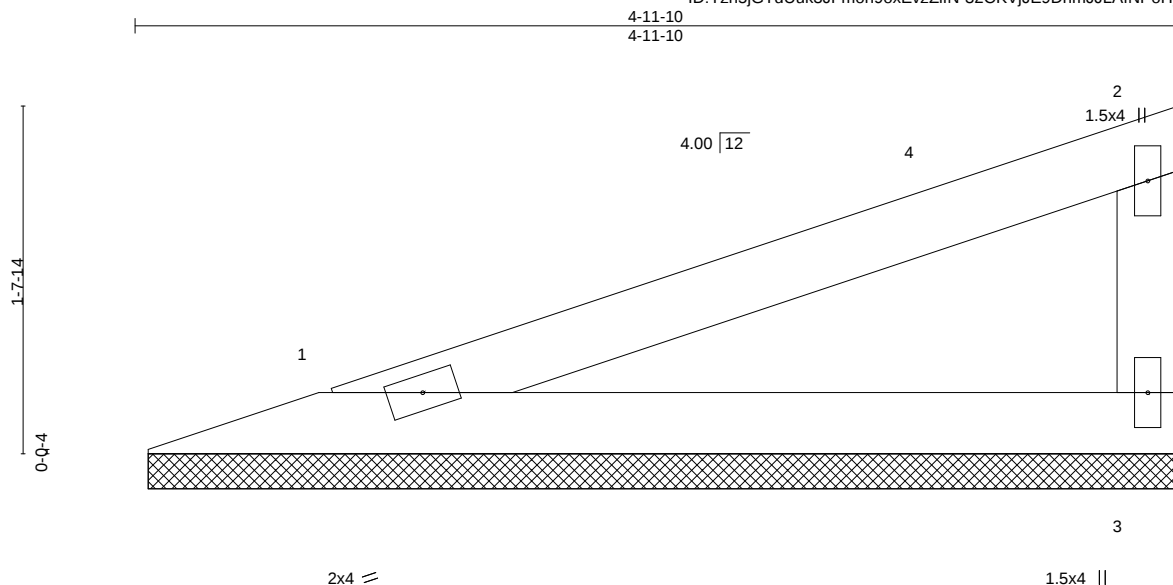
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge
3405118	V03	Valley	1	1	I56269605
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:11 2023 Page 1

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Scale = 1:11.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-10-14, 3=4-10-14
Max Horz 1=52(LC 9)
Max Uplift 1=28(LC 8), 3=36(LC 12)
Max Grav 1=175(LC 1), 3=175(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 4-9-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269606
3405118	V04	Valley	1	1		

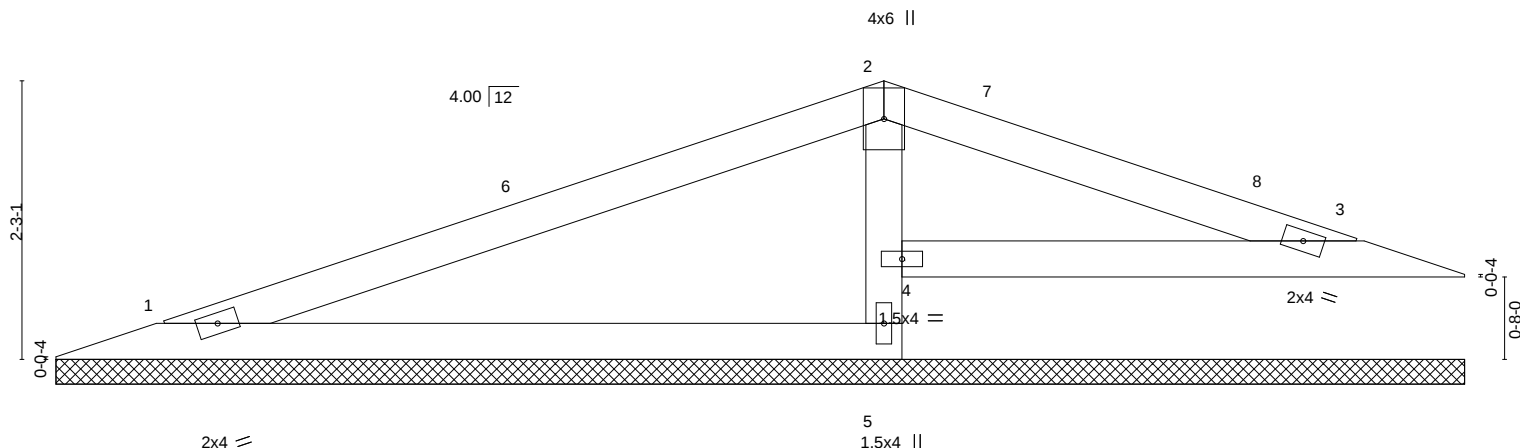
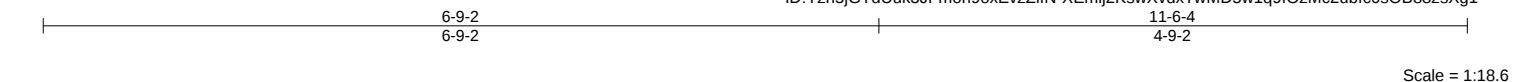
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:12 2023 Page 1

ID:Yzh5jGtdUuk3JFmon9oxEvzZifN-XEmij2KswXvdxTwMD5w1q9fOzMc2ubfc0sOB88zsXg1

Job Reference (optional)



0-0-12 0-0-12	6-10-14 6-10-2	11-6-4 4-7-6
LOADING (psf)	SPACING-	CSI.
TCLL 25.0	2-0-0	TC 0.50
TCDL 10.0	Plate Grip DOL 1.15	BC 0.33
BCLL 0.0	Lumber DOL 1.15	WB 0.04
BCDL 10.0	Rep Stress Incr YES	Matrix-S
	Code IRC2018/TPI2014	
DEFL.	DEFL.	DEFL.
in (loc)	in (loc)	in (loc)
Vert(LL) n/a - n/a	Vert(LL) n/a - n/a	Vert(LL) n/a - n/a
Vert(CT) n/a - n/a	Vert(CT) n/a - n/a	Vert(CT) n/a - n/a
Horz(CT) 0.00 3 n/a	Horz(CT) 0.00 3 n/a	Horz(CT) 0.00 3 n/a
PLATES	GRIP	
MT20	197/144	
Weight: 26 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.

(size) 1=11-4-12, 3=11-4-12, 5=11-4-12
Max Horz 1=45(LC 12)
Max Uplift 1=-39(LC 8), 3=-31(LC 13), 5=-68(LC 8)
Max Grav 1=247(LC 25), 3=160(LC 26), 5=478(LC 1)

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

WEBS 4-5=-412/201, 2-4=-371/213

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 6-9-2, Exterior(2R) 6-9-2 to 9-9-2, Interior(1) 9-9-2 to 10-6-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 5.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 24, 2023

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

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DEVELOPMENT SERVICES
16023 Swingley Ridge Rd.
Chesterfield, MO 63017

02/21/2023

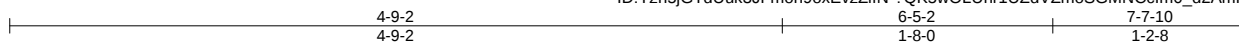
Job	Truss	Truss Type	Qty	Ply	Summit/168 Hawthorne Ridge	I56269607
3405118	V05	Valley	1	1		

Builders FirstSource (Valley Center),

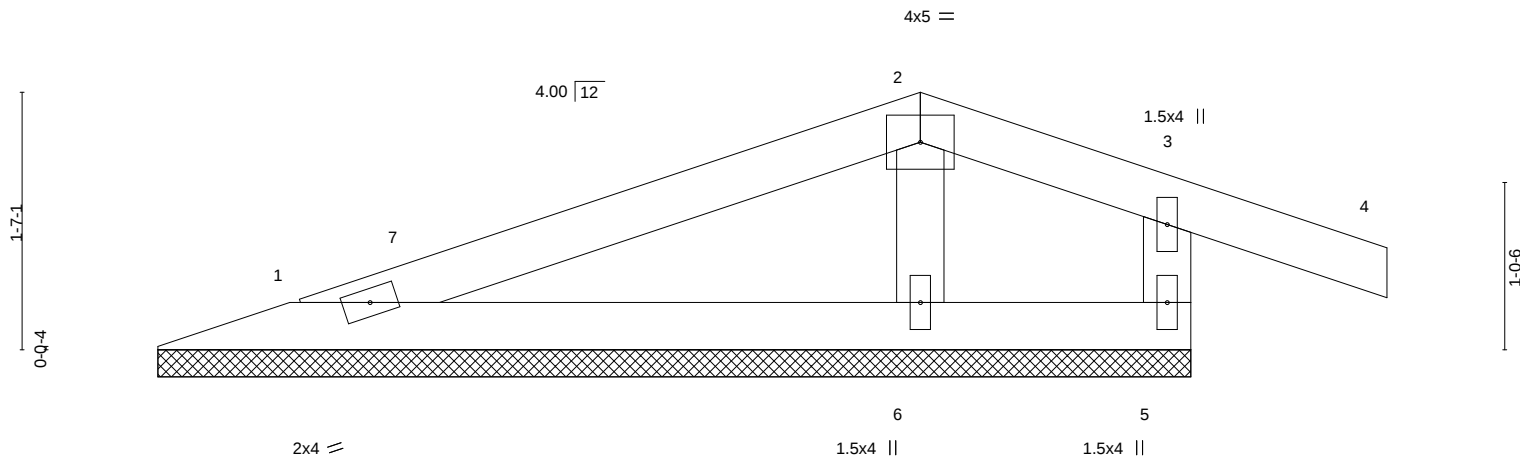
Valley Center, KS - 67147,

8.530 s Aug 11 2022 MiTek Industries, Inc. Mon Jan 23 07:56:13 2023 Page 1

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Scale = 1:14.2



0-0-12 0-0-12	4-9-2 4-8-6	6-5-2 1-8-0
LOADING (psf)	SPACING- 2-0-0	CSI.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.27
TCDL 10.0	Lumber DOL 1.15	BC 0.10
BCLL 0.0	Rep Stress Incr YES	WB 0.02
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P
		DEFL. in (loc) l/defl L/d
		Vert(LL) -0.01 4 n/r 120
		Vert(CT) -0.01 4 n/r 120
		Horz(CT) 0.00 5 n/a n/a
		PLATES MT20
		GRIP 197/144
		Weight: 17 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-4-6, 5=6-4-6, 6=6-4-6
Max Horz 1=16(LC 16)
Max Uplift 1=-36(LC 8), 5=-104(LC 9), 6=-11(LC 12)
Max Grav 1=165(LC 1), 5=187(LC 1), 6=224(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 4-9-2, Exterior(2E) 4-9-2 to 7-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6 except (jt=lb) 5=104.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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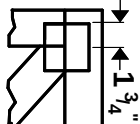
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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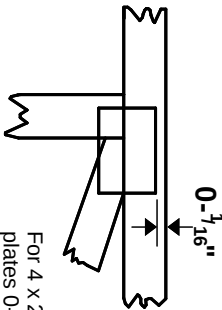
02/21/2023

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

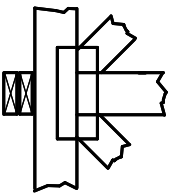
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



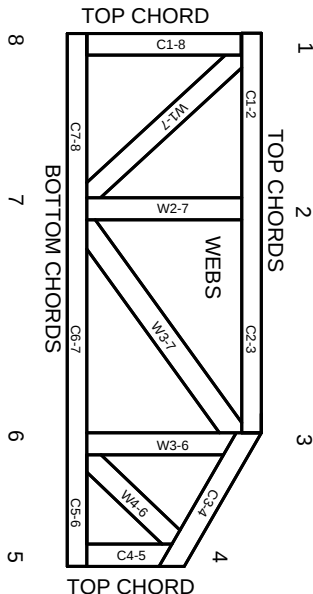
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor1 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.

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