



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

02/22/2021

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

Re: 2646690
SUMMIT/WOODSIDE RIDGE#51/MO

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

Pages or sheets covered by this seal: I44821276 thru I44821313

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

Missouri COA: Engineering 001193



February 16, 2021

Sevier, Scott, Engineer

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

Job

2646690

Truss

A1

Truss Type

Common Supported Gable

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#500

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 500

Job Reference (optional)

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-XBwgmbOaVQRH2PWs6QRyS8v?aa3XANlvzrF?PylzqkVM

CONSTRUCTION

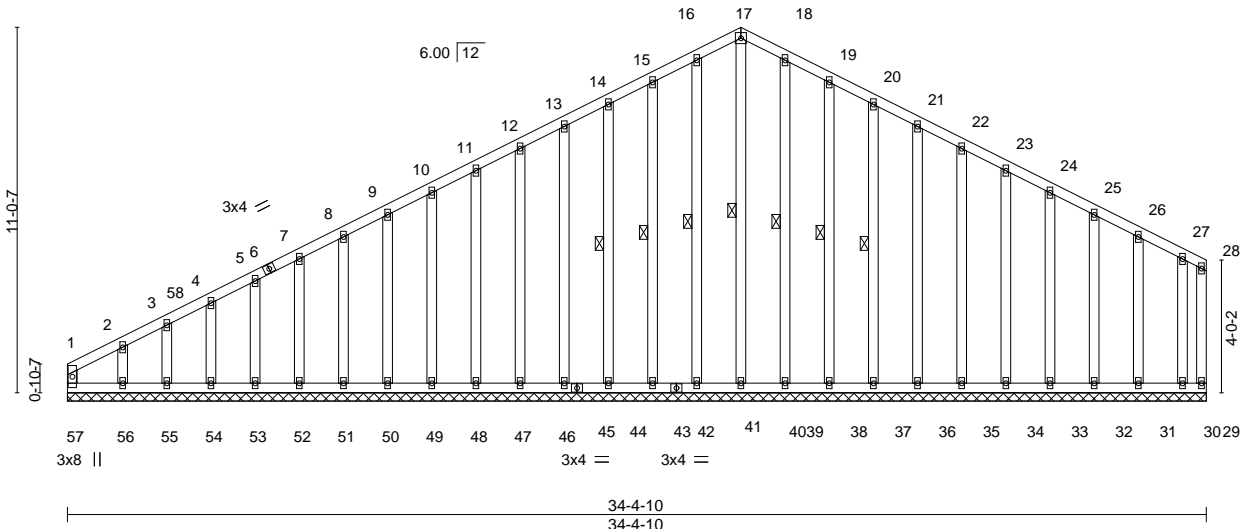
AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021

Scale = 1:69.6



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 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	29	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 265 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 17-40, 16-41, 15-43, 14-44, 18-39, 19-38, 20-37
OTHERS 2x4 SPF No.2	

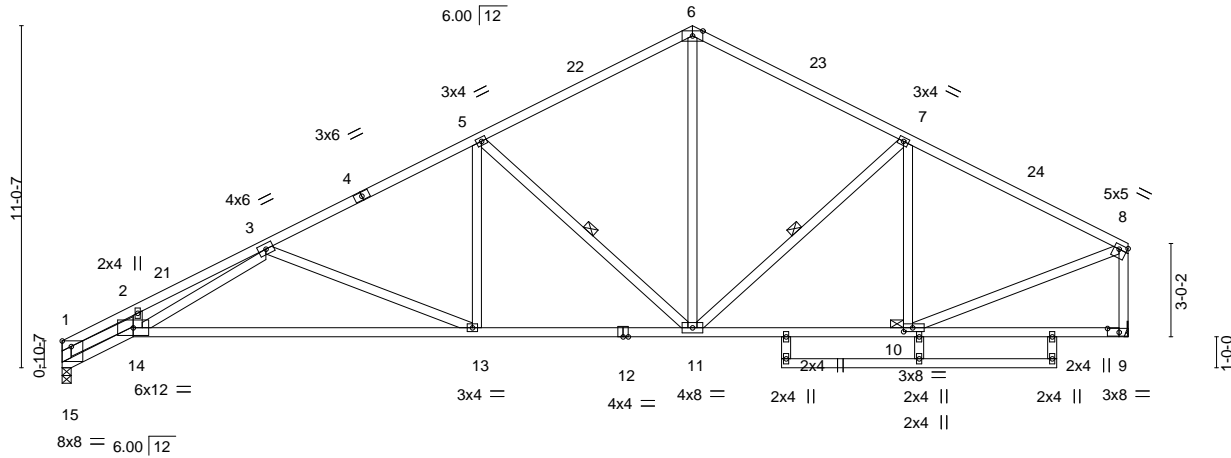
REACTIONS. All bearings 34-4-10.
(lb) - Max Horz 57=244(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 57, 29, 41, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30 except 56=192(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 57, 29, 40, 41, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-134/269, 13-14=-146/303, 14-15=-158/336, 15-16=-172/376, 16-17=-175/390, 17-18=-175/390, 18-19=-172/376, 19-20=-158/336, 20-21=-146/303, 21-22=-134/269
WEBS 17-40=-254/85

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-7-0, Exterior(2N) 3-7-0 to 20-4-0, Corner(3R) 20-4-0 to 23-9-4, Exterior(2N) 23-9-4 to 34-2-14 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 7) Gable studs spaced at 1-4-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 57, 29, 41, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30 except (jt=lb) 56=192.
 - 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.



February 16, 2021



	2-3-8	9-3-3	13-6-5	16-2-13	20-4-0	23-2-8	27-3-7	27-7-12	32-1-0	34-4-10	
Plate Offsets (X,Y)--	2-3-8	6-11-11	4-3-2	2-8-8	4-1-3	2-10-8	4-0-15	0-4-5	4-5-4	2-3-10	
	[8:Edge,0-1-12], [9:0-4-8,0-1-8], [10:0-3-8,0-1-8], [15:Edge,0-2-3], [15:0-1-12,0-0-14]										
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 0.84	Vert(LL)	-0.44	13-14	>930	240	MT20	197/144	
TCDL 10.0	Lumber DOL 1.15		BC 0.86	Vert(CT)	-0.98	13-14	>415	180			
BCLL 0.0	Rep Stress Incr YES		WB 0.94	Horz(CT)	0.24	9	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 170 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied.
	12-14: 2x4 SPF 1650F 1.5E	WEBS	1 Row at midpt 7-11, 5-11
WEBS	2x4 SPF No.2	JOINTS	1 Brace at Jt(s): 10

REACTIONS. (size) 15=0-3-8, 9=Mechanical
 Max Horz 15=229(LC 9)
 Max Uplift 15=267(LC 12), 9=224(LC 13)
 Max Grav 15=1534(LC 1), 9=1534(LC 1)

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

TOP CHORD 1-15=-1634/360, 1-2=-4664/967, 2-3=-4539/1028, 3-5=-2417/447, 5-6=-1595/380,
6-7=-1597/377, 7-8=-1690/307, 8-9=-1467/282

BOT CHORD 14-15=-293/383, 13-14=-707/2837, 11-13=-382/2068, 10-11=-241/1424

WEBS 1-14=-751/3831, 6-11=-172/870, 7-11=-278/176, 7-10=-391/146, 8-10=-212/1453,
5-13=-52/587, 5-11=-1006/333, 13-8=-831/352, 3-14=-390/1471

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-7-0, Interior(1) 3-7-0 to 20-4-0, Exterior(2R) 20-4-0 to 23-9-4, Interior(1) 23-9-4 to 34-2-14 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=267, 9=224.
- 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.



February 16, 2021



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

Safety Information available from Truss Plate Institute, 2602 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2646690

Truss

B1

Truss Type

ROOF SPECIAL

Qty

3

Ply

1

SUMMIT/WOODS

IDE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

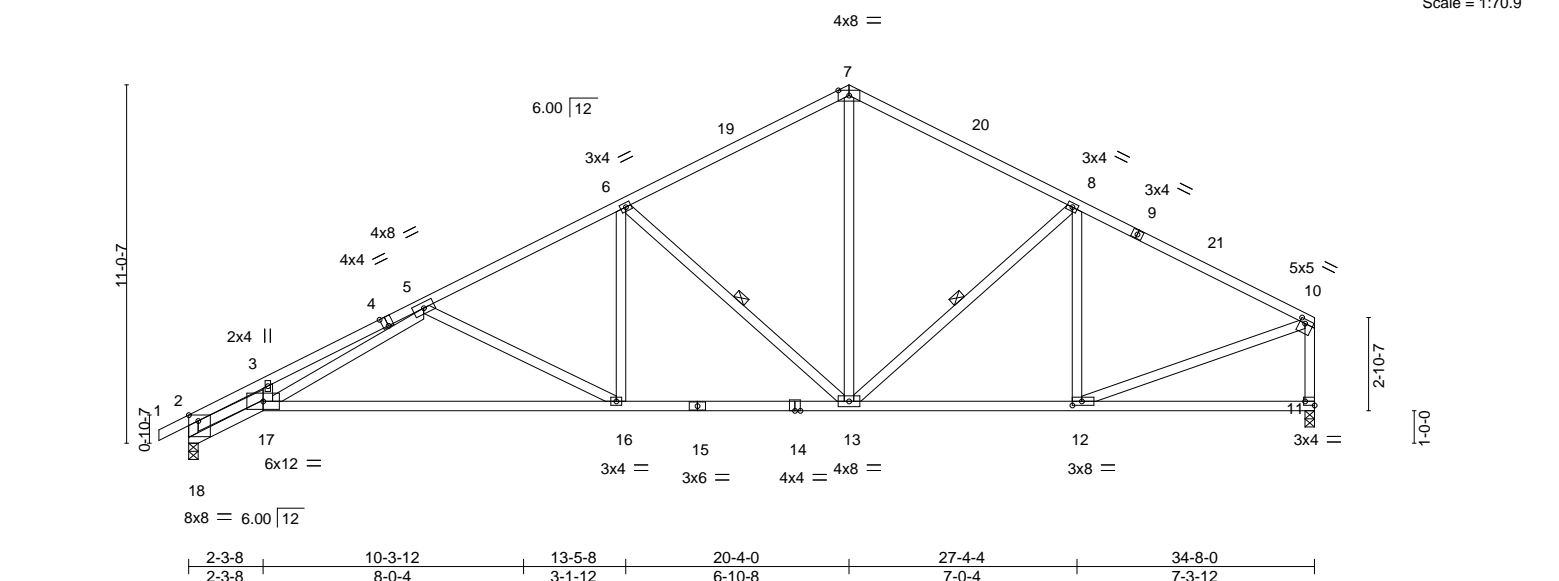
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02/22/2021

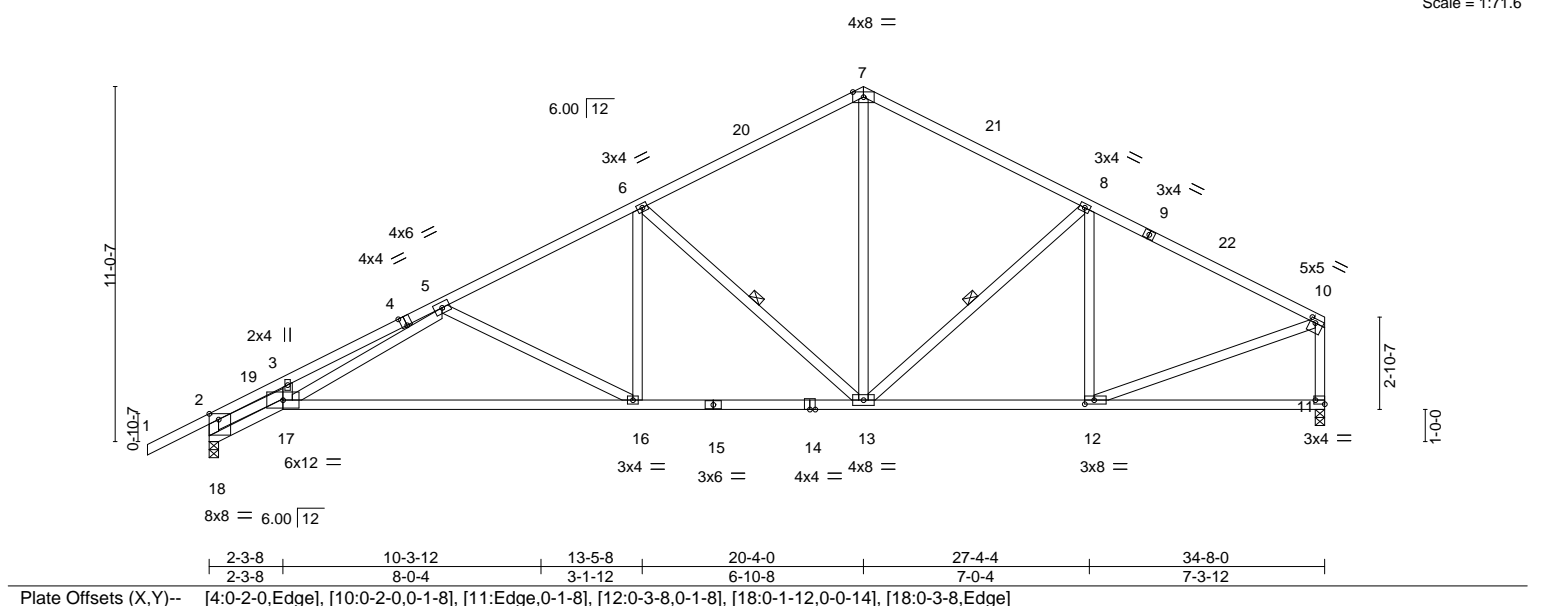
0-11-0 2-3-8 7-2-14 8-3-11 13-5-8 14-3-13 20-4-0 27-4-4 34-8-0

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

Scale = 1:70.9



Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODS	IDE RIDGE#5	CONSTRUCTION
2646690	B1A	Roof Special	1	1			AS NOTED ON PLANS REVIEW
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)		
8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 75581					LIFE'S SUMMIT MISSOURI		
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-PzABcyS5YeyjX1pdLGVud_4VHhIQlwJ9mtzd5WzkdqVI					02/22/2021		
-1-11-0	2-3-8	7-2-14	8-3-11	13-5-8	14-3-13	20-4-0	
1-11-0	2-3-8	4-11-6	1-0-13	5-1-13	0-10-5	6-0-3	
						27-4-4	34-8-0
						7-0-4	7-3-12



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 0.88	Vert(LL)	-0.44 16-17	>941	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.98 16-17	>419	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.24 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 160 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2 "Except"	BOT CHORD Rigid ceiling directly applied.
15-17: 2x4 SPF 1650F 1.5E	WEBS 1 Row at midpt 8-13, 6-13
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 18=0-3-8, 11=0-3-8
	Max Horz 18=245(LC 9)
	Max Uplift 18=317(LC 12), 11=227(LC 13)
	Max Grav 18=1696(LC 1), 11=1543(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-18=-1733/393, 2-3=-4531/935, 3-5=-4424/1016, 5-6=-2422/450, 6-7=-1617/376, 7-8=-1622/382, 8-10=-1750/310, 10-11=-1473/283
BOT CHORD	17-18=-255/289, 16-17=-657/2720, 13-16=-381/2082, 12-13=-245/1475
WEBS	2-17=-759/3829, 7-13=-168/881, 8-13=-310/184, 8-12=-360/142, 10-12=-212/1480, 6-16=-61/591, 6-13=-990/326, 5-16=-717/311, 5-17=-417/1453

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-6-10, Interior(1) 1-6-10 to 20-4-0, Exterior(2R) 20-4-0 to 23-9-10, Interior(1) 23-9-10 to 34-6-4 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Bearing at joint(s) 18 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) except (jt=lb) 18=317, 11=227.
 - 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.



February 16, 2021

Job 2646690	Truss C1	Truss Type Roof Special	Qty 2	Ply 1	SUMMIT/WOODS	DE RIDGE#509
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 179Ccb40Z1PNI_XjAdyzkqVH			
0-11-0 2-3-8 8-3-11 14-3-13 14-9-8 20-4-0 22-0-8 25-10-8 30-3-8			ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-t9JzPjSjy4a9BOpy_179Ccb40Z1PNI_XjAdyzkqVH			
0-11-0 2-3-8 6-0-3 6-0-3 0-5-11 5-6-8 1-8-8 3-10-0 4-5-0			Job Reference (optional)			
			Scale = 1:71.8			

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/22/2021

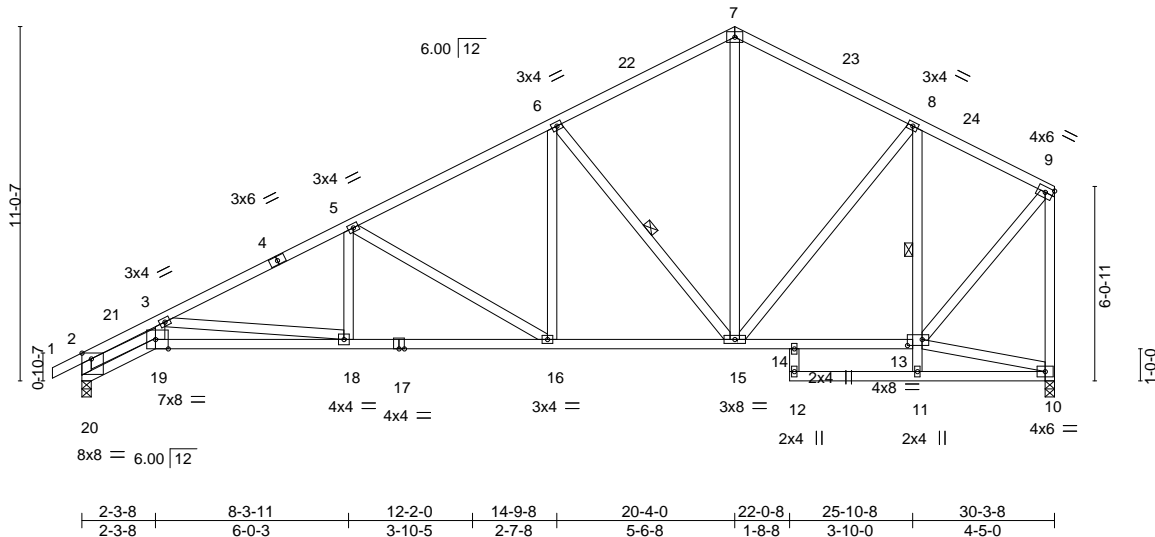


Plate Offsets (X,Y)--		[13:0-5-8,0-2-4], [19:0-4-12,Edge], [20:0-1-12,0-0-14], [20:0-3-8,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.66	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.98	Vert(LL) -0.18 18-19 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.82	Vert(CT) -0.35 18-19 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.22 10 n/a n/a
		Weight: 167 lb FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 8-11, 6-15

REACTIONS. (size) 20=0-3-8, 10=0-3-8
Max Horz 20=315(LC 9)
Max Uplift 20=267(LC 12), 10=197(LC 12)
Max Grav 20=1426(LC 1), 10=1349(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-20=-1428/355, 2-3=-4023/981, 3-5=-2564/505, 5-6=-1785/370, 6-7=-1140/314,
7-8=-1137/307, 8-9=-848/223, 9-10=-1287/264
BOT CHORD 19-20=-368/409, 18-19=-1013/3418, 16-18=-553/2250, 15-16=-367/1503, 14-15=-199/715,
13-14=-189/632
WEBS 2-19=-812/3350, 3-19=-223/651, 7-15=-145/554, 8-13=-759/214, 9-13=-220/1082,
8-15=-60/391, 6-16=-97/549, 6-15=-900/314, 5-16=-865/296, 5-18=-17/386,
3-18=-1178/481

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-6, Interior(1) 2-1-6 to 20-4-0, Exterior(2R) 20-4-0 to 23-4-6, Interior(1) 23-4-6 to 30-1-12 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
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 20, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=267, 10=197.
 - This truss 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.



February 16, 2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

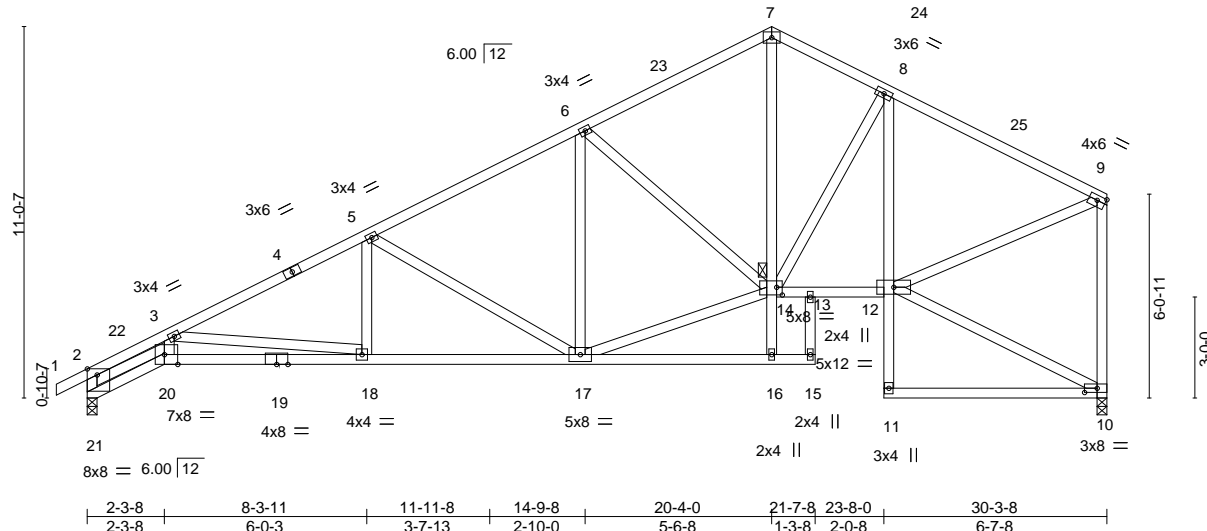


Plate Offsets (X,Y)-- [9:Edge,0-1-12], [10:0-4-8,0-1-8], [14:0-2-0,0-2-12], [20:0-4-12,Edge], [21:0-1-12,0-0-14], [21:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.18 18-20 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.35 18-20 >999 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.24 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 173 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	JOINTS	1 Brace at Jt(s): 14

REACTIONS. (size) 21=0-3-8, 10=0-3-8
 Max Horz 21=315(LC 9)
 Max Uplift 21=-267(LC 12), 10=-197(LC 12)
 Max Grav 21=1426(LC 1), 10=1349(LC 1)

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

TOP CHORD 2-21=-1428/355, 2-3=-4024/981, 3-5=-2563/505, 5-6=-1786/370, 6-7=-1377/328,
7-8=-1362/361, 8-9=-1389/300, 9-10=-1289/304

BOT CHORD 2-21=-368/409, 18-20=-1013/3419, 17-18=-553/2249, 13-14=-287/1119,
12-13=-299/1151, 8-12=-401/115

WEBS 2-20=-812/3352, 3-20=-223/651, 7-18=-191/877, 9-12=-272/1243, 5-17=-861/296,
5-18=-17/385, 6-14=-526/248, 3-18=-1180/481, 14-17=-378/1544

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-6, Interior(1) 2-1-6 to 20-4-0, Exterior(2R) 20-4-0 to 23-4-6, Interior(1) 23-4-6 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Bearing at joint(s) 21, 10 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) except (jt=lb) 21=267, 10=197.
- 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.



February 16, 2021



Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2602 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2646690

Truss

C2

Truss Type

Roof Special

Qty

2

Ply

1

SUMMIT/WOODS

DE RIDGE#509

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 750

14821282

Job Reference (optional)

LEE'S SUMMIT MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

0-11-0

6-8-0

13-0-8

14-9-8

20-4-0

22-0-8

26-0-4

30-3-8

0-11-0

6-8-0

6-4-8

1-9-0

5-6-8

1-8-8

3-11-12

4-3-4

4x6 =

Scale = 1:71.8

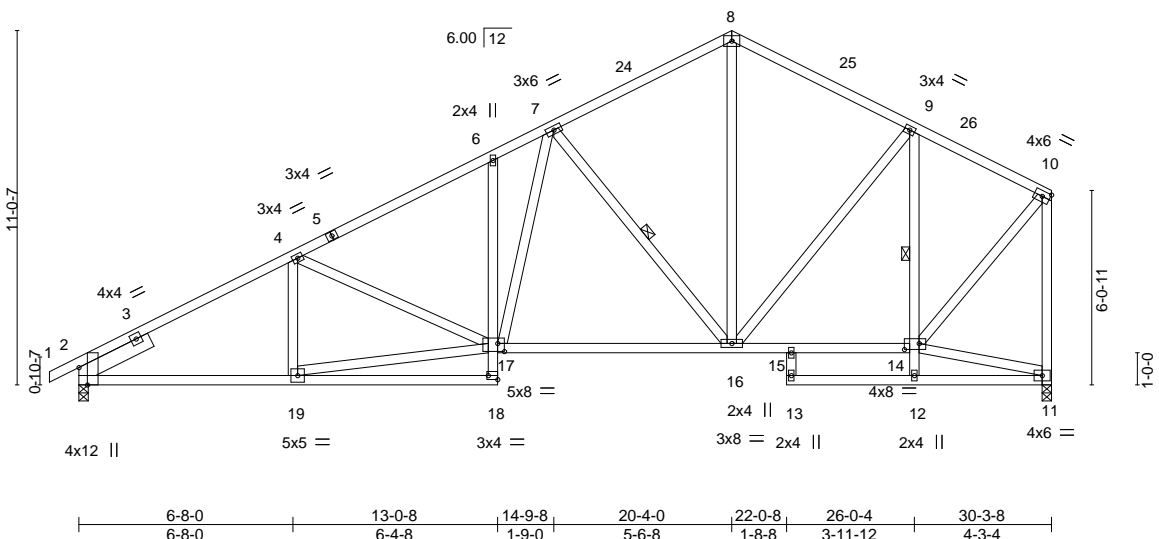


Plate Offsets (X,Y)-- [2:0-6-8,Edge], [14:0-5-8,0-2-4], [17:0-2-8,0-3-0], [18:Edge,0-1-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.11 16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.26 16-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08 11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 175 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 9-12, 7-16
SLIDER Left 2x6 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=307(LC 11)
Max Uplift 2=265(LC 12), 11=198(LC 12)
Max Grav 2=1422(LC 1), 11=1356(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2133/398, 4-6=-1988/400, 6-7=-1918/460, 7-8=-1146/312, 8-9=-1149/307, 9-10=-851/225, 10-11=-1292/265
BOT CHORD 2-19=-458/1829, 6-17=-288/127, 16-17=-368/1490, 15-16=-200/717, 14-15=-190/633
WEBS 17-19=-441/1760, 9-14=-773/211, 10-14=-221/1084, 8-16=-137/550, 7-16=-865/316, 9-16=-59/407, 7-17=-208/798

- NOTES-
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-6, Interior(1) 2-1-6 to 20-4-0, Exterior(2R) 20-4-0 to 23-4-6, Interior(1) 23-4-6 to 30-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Bearing at joint(s) 11 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) except (jt=lb) 2=265, 11=198.
 - 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.



February 16, 2021

Job

2646690

Truss

C3

Truss Type

Roof Special

Qty

4

Ply

1

SUMMIT/WOODS

DE RIDGE#500

8.240 s Mar 9 2020

MiTek Industries, Inc.

14821283

Job Reference (optional)

VENBa0eioa8p53K2nPbiQozAXuv9hOmizkqVD

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-mwz4fgVENBa0eioa8p53K2nPbiQozAXuv9hOmizkqVD

02/22/2021

0-11-0 2-1-10 2-3-8 6-8-4 8-5-13 11-1-0 13-0-8 14-9-8 20-4-0 22-0-8 26-0-4 30-3-8 4-3-4

0-11-0 2-1-10 0-1-14 4-4-12 1-9-9 2-7-3 1-11-8 1-9-0 5-6-8 1-8-8 3-11-12 4-3-4

4x6 =

Scale = 1:70.3

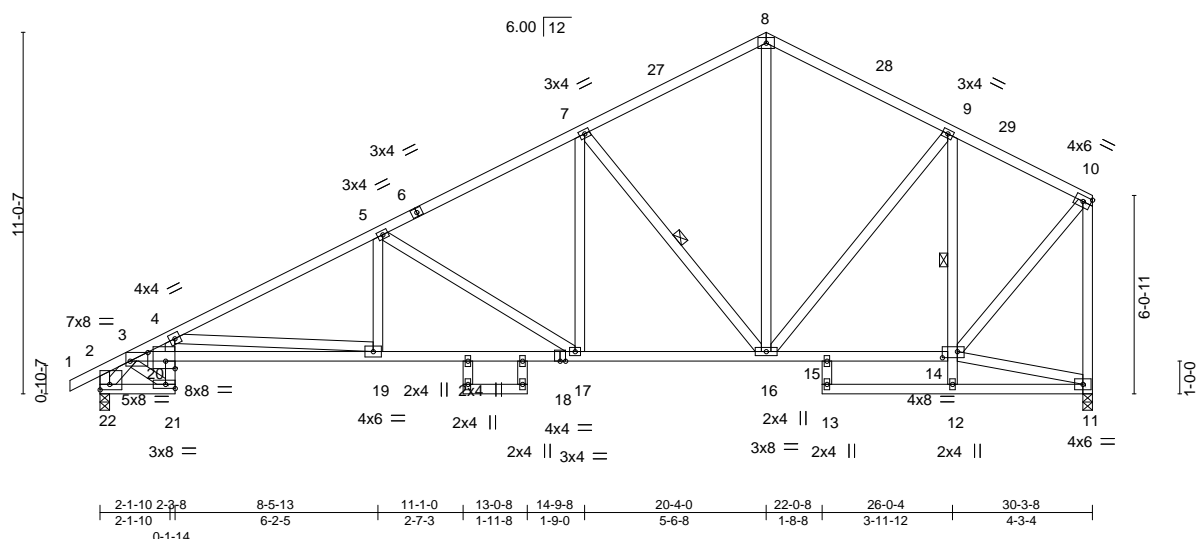


Plate Offsets (X,Y)--		[2:Edge,0-2-0], [2:0-1-12,0-0-14], [3:0-6-8,0-3-3], [14:0-5-8,0-2-4], [20:0-3-7,0-2-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66
TCDL 10.0	Lumber DOL	1.15	BC 0.83
BCLL 0.0	Rep Stress Incr	YES	WB 1.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.20 19-20 >999 240
			Vert(CT) -0.38 19-20 >947 180
			Horz(CT) 0.22 11 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 173 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2 "Except"	BOT CHORD Rigid ceiling directly applied. Except:
3-18: 2x4 SPF 1650F 1.5E	8-1-0 oc bracing: 17-19
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 9-12, 7-16

REACTIONS.	(size) 22=0-3-8, 11=0-3-8
Max Horz	22=307(LC 11)
Max Uplift	22=267(LC 12), 11=197(LC 12)
Max Grav	22=1426(LC 1), 11=1349(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-4=-4049/969, 4-5=-2559/501, 5-7=-1780/371, 7-8=-1139/313, 8-9=-1137/307, 9-10=-847/224, 10-11=-1287/263
BOT CHORD	21-22=-390/1015, 20-21=-348/954, 3-20=-987/3451, 19-20=-1052/3639, 17-19=-546/2236, 16-17=-364/1500, 15-16=-199/715, 14-15=-188/632
WEBS	9-14=-760/214, 8-16=-143/551, 9-16=-60/393, 7-16=-894/311, 7-17=-101/556, 10-14=-219/1081, 5-17=-865/296, 5-19=-17/388, 2-22=-274/154, 3-22=-1535/232, 3-21=-1223/469, 4-20=-158/597, 4-19=-1410/538

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-10, Interior(1) 2-1-10 to 20-4-0, Exterior(2R) 20-4-0 to 23-4-6, Interior(1) 23-4-6 to 30-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Bearing at joint(s) 11 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) except (jt=lb) 22=267, 11=197.
 - 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.



February 16, 2021

Job

2646690

Truss

C4

Truss Type

Roof Special

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#500

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod. Feb 13 2021

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqFnP0P0b1j2tZrIQezdKbx-E7XSS0W8UitFyHniXclsFJaO5kQieN18pQxJAzkqVC

02/22/2021

1-11-0

2-3-8

8-3-11

14-3-13

14-9-8

20-4-0

22-0-8

26-0-4

30-3-8

1-11-0

2-3-8

6-0-3

6-0-3

0-5-11

5-6-8

1-8-8

3-11-12

4-3-4

6.00

12

4x6

=

Scale = 1:69.4

RELEASE FOR

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021

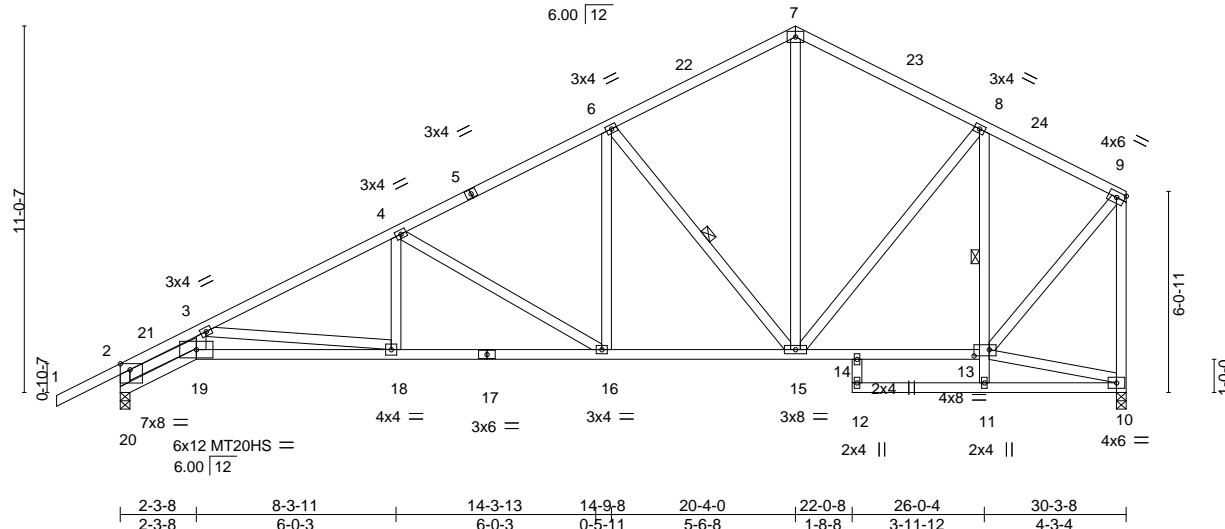


Plate Offsets (X,Y)--		[13:0-5-8,0-2-4], [20:0-3-8,Edge], [20:0-1-12,0-0-14]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65
TCDL 10.0	Lumber DOL	1.15	BC 0.94
BCLL 0.0	Rep Stress Incr	YES	WB 0.90
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.18 18-19 >999 240
		Vert(CT)	-0.35 18-19 >999 180
		Horz(CT)	0.21 10 n/a n/a
		PLATES	GRIP
		MT20	197/144
		MT20HS	148/108
		Weight: 168 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 6-15, 8-11

REACTIONS. (size) 20=0-3-8, 10=0-3-8
Max Horz 20=316(LC 11)
Max Uplift 20=291(LC 12), 10=196(LC 12)
Max Grav 20=1499(LC 1), 10=1345(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3880/939, 3-4=-2539/498, 4-6=-1776/368, 6-7=-1135/310, 7-8=-1132/306,
8-9=-845/221, 9-10=-1284/263
BOT CHORD 19-20=-445/99, 18-19=-976/3297, 16-18=-547/2228, 15-16=-364/1495, 14-15=-199/713,
13-14=-188/630
WEBS 3-19=-212/588, 3-18=-1078/444, 4-18=-11/382, 4-16=-849/291, 6-15=-893/312,
7-15=-144/550, 8-13=-757/214, 2-20=-1348/362, 8-15=-59/389, 2-19=-839/3678,
6-16=-95/542, 9-13=-219/1078

- NOTES-
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-11-0 to 1-1-6, Interior(1) 1-1-6 to 20-4-0, Exterior(2R) 20-4-0 to 23-4-6, Interior(1) 23-4-6 to 30-1-12 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
 - 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) 20, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=291, 10=196.
 - This truss 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.



February 16,2021

Job

2646690

Truss

C5

Truss Type

Common Supported Gable

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#500

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 500

Job Reference (optional)

ID:VPVqFnP0P0b1j2tZrIQezdKbx-AVeDHhYggYbVFR9pyfmxgP1EvdxAIEKb7v2N2zkqVA

0-11-0

20-4-0

30-3-8

9-11-8

0-11-0

20-4-0

30-3-8

9-11-8

4x4 =

6.00

12

11-0-7

6-0-11

Scale = 1:67.6

RELEASE FOR

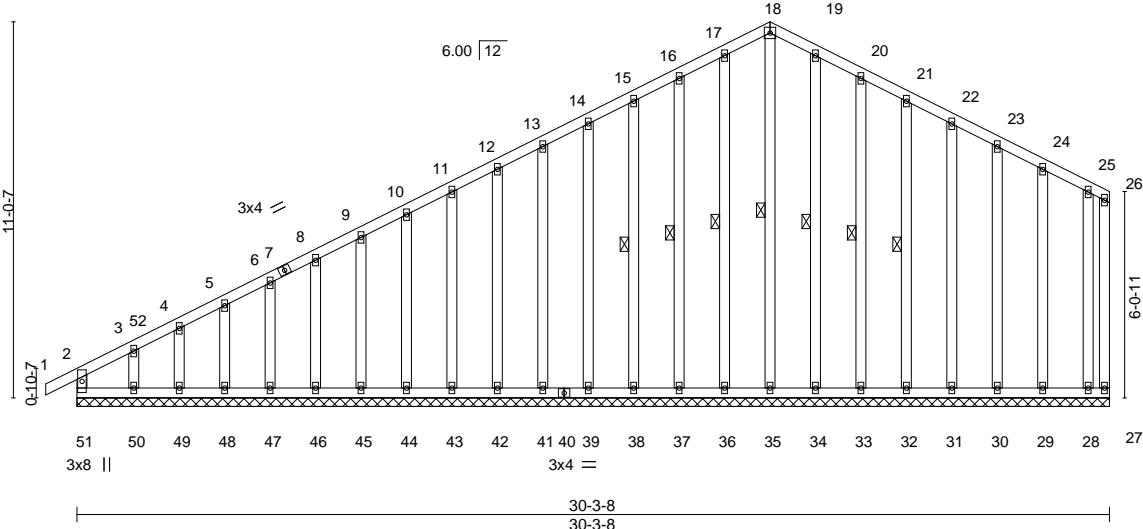
CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	27	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R							
									Weight: 243 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 18-35, 17-36, 16-37, 15-38, 19-34, 20-33, 21-32
OTHERS 2x4 SPF No.2	

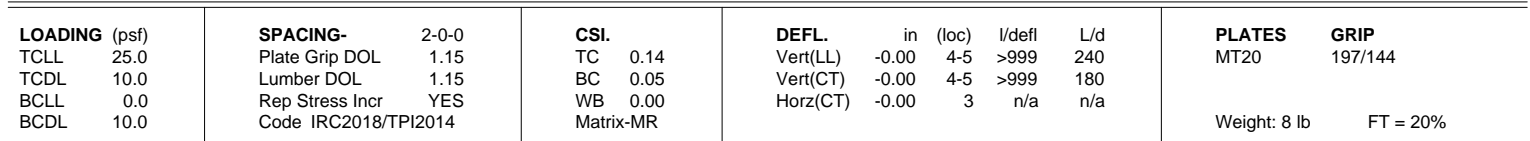
REACTIONS. All bearings 30-3-8.
(lb) - Max Horz 51=313(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 51, 27, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 34, 33, 32, 31, 30, 29, 28 except 50=-204(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 27, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 34, 33, 32, 31, 30, 29, 28 except 51=273(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-303/181, 15-16=-159/277, 16-17=-173/316, 17-18=-175/333, 18-19=-175/333, 19-20=-173/316, 20-21=-159/277

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-6, Exterior(2N) 2-1-6 to 20-4-0, Corner(3R) 20-4-0 to 23-4-6, Exterior(2N) 23-4-6 to 30-1-12 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 51, 27, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 34, 33, 32, 31, 30, 29, 28 except (jt=lb) 50=204.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16,2021



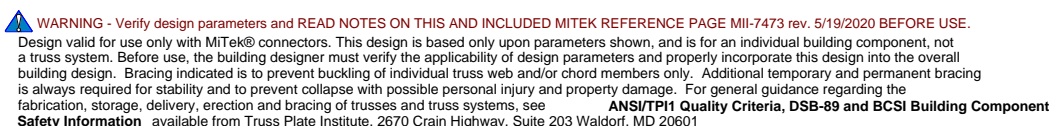
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021



Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODS	DE RIDGE#500
2646690	D1	Hip Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 7585			
			ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-a4KLwja7y1K9Mj9kV4CTZJ1X?6bfN48mH58i_NzkqV7			
			Job Reference (optional)			
			0-11-0 2-0-0 6-0-0 10-0-0 12-0-0 2-0-0 0-11-0			
			0-11-0 2-0-0 4-0-0 4-0-0 0-11-0			
			Scale = 1:22.9			

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/22/2021

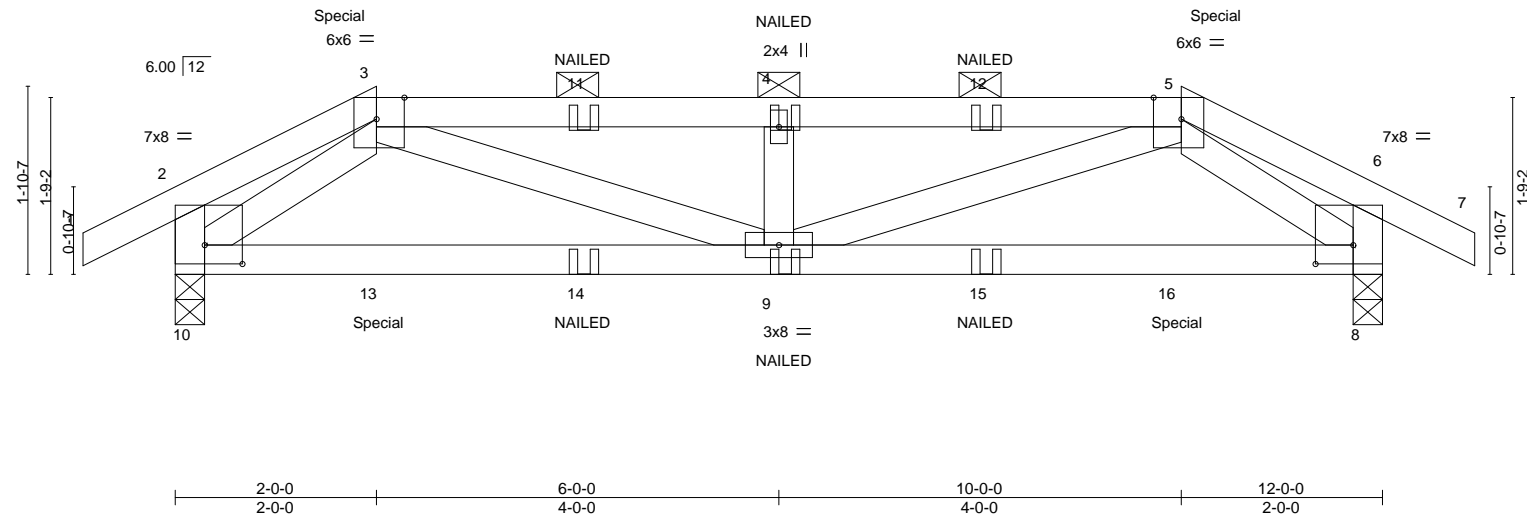


Plate Offsets (X,Y)-- [2:0-4-8,0-2-4], [2:0-1-12,0-0-14], [3:0-3-5,Edge], [5:0-3-5,Edge], [6:0-1-12,0-0-14], [6:0-4-8,0-2-4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.04 9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.08 9-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.01 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 47 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (5-4-3 max.): 3-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.	(size) 10=0-3-8, 8=0-3-8
	Max Horz 10=24(LC 29)
	Max Uplift 10=159(LC 8), 8=159(LC 9)
	Max Grav 10=597(LC 1), 8=597(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-4=-1125/319, 4-5=-1125/319
BOT CHORD	9-10=-153/504, 8-9=-148/504
WEBS	3-9=-158/670, 4-9=-332/142, 5-9=-158/670, 5-8=-650/191, 3-10=-650/191

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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) Bearing at joint(s) 10, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=159, 8=159.
 - 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 35 lb down and 79 lb up at 2-0-0, and 35 lb down and 79 lb up at 10-0-0 on top chord, and 21 lb down and 9 lb up at 2-0-0, and 21 lb down and 9 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)	Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15	
Uniform Loads (plf)	
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 8-10=-20	



February 16, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODSIDE RIDGE#5770	<div>RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 02/22/2021</div>
2646690	D1	Hip Girder	1	1	Job Reference (optional)	
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	8.240 s Mar 9 2020 MiTek Industries, Inc. Mod. Sess. SUMMIT MISSOURI			
			ID:VPVqvFnP0P0b1j2tZrIQezydKbx-a4KLwja?y1K9Mj9kv4CTZJ1X?6bfN48mH58i_NzsqV7			
LOAD CASE(S) Standard						
Concentrated Loads (lb)						
Vert: 9=1(B) 13=3(B) 14=1(B) 15=1(B) 16=3(B)						

Job

2646690

Truss

D2

Truss Type

Hip

Qty

1

Ply

1

SUMMIT/WOODS

IDE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

8.240 s Mar 9 2020

144821288

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

02/22/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-3Guj73bdjKS0ztkw2nji6WZiLWzr6ZRwWltFWpzqV6

0-11-0

4-0-0

8-0-0

12-0-0

12-11-0

0-11-0

0-11-0

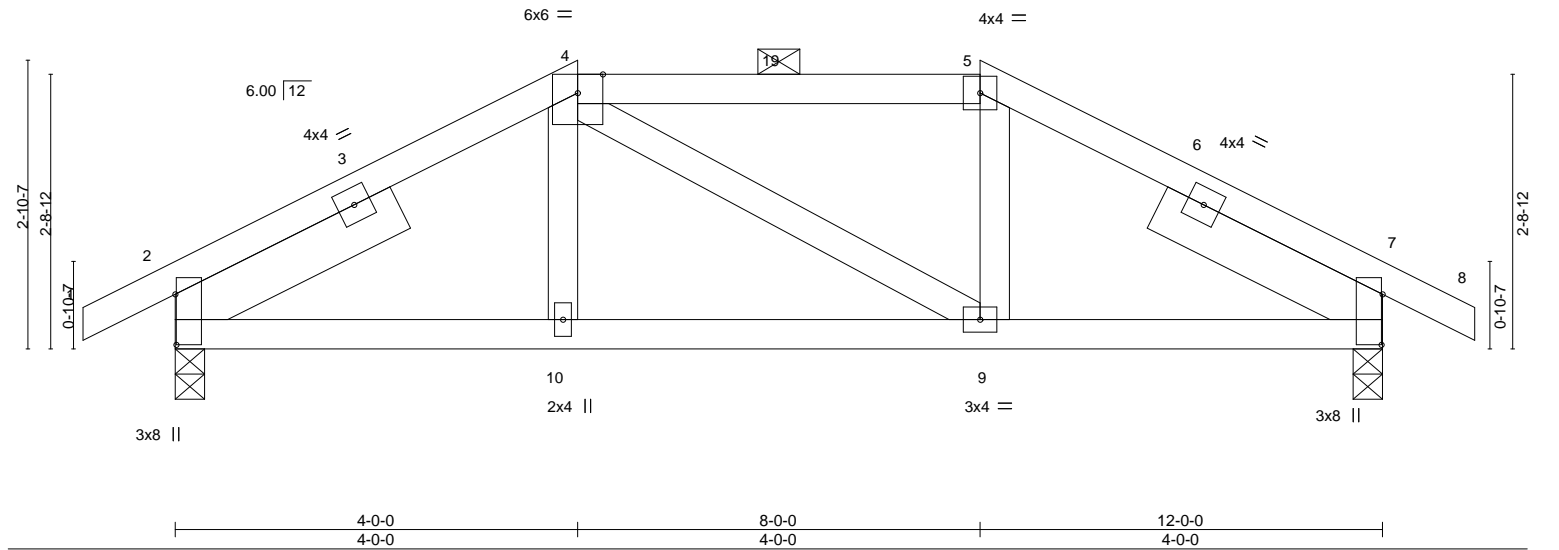
4-0-0

4-0-0

4-0-0

0-11-0

Scale = 1:22.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.04				
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.01				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 50 lb		FT = 20%	

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
 Max Horz 2=42(LC 12)
 Max Uplift 2=113(LC 12), 7=113(LC 13)
 Max Grav 2=604(LC 1), 7=604(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-682/266, 4-5=-586/276, 5-7=-682/266
 BOT CHORD 2-10=-151/590, 9-10=-153/586, 7-9=-154/590

- 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; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-0-0, Exterior(2E) 4-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) Provide adequate drainage to prevent water ponding.
 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=113, 7=113.
 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 16, 2021

Job

2646690

Truss

E3

Truss Type

Monopitch Supported Gable

Qty

1

Ply

1

SUMMIT/WOODS

IDE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

Ueatb1J7cVExek6uYwJJr0U3IPdp2GzkqV5

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-XTS5LPcFUEatb1J7cVExek6uYwJJr0U3IPdp2GzkqV5

RELEASE FOR

CONSTRUCTION

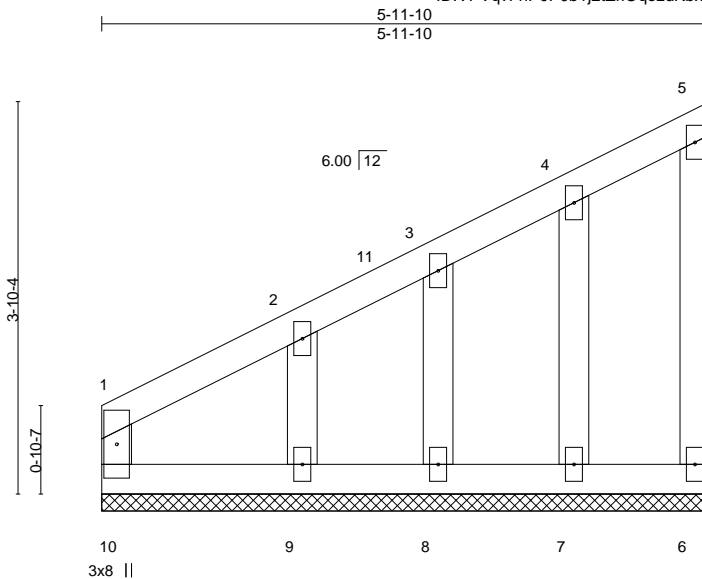
AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021

Scale = 1:22.6



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 0.15	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 0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-10 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-11-10.
 (lb) - Max Horz 10=142(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 10, 6, 7, 8 except 9=104(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 10, 6, 7, 8, 9

FORCES.

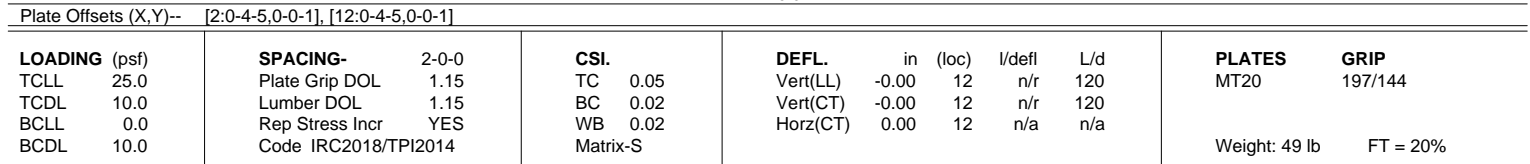
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-328/170
 WEBS 2-9=-144/260

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-3-10, Exterior(2N) 3-3-10 to 5-9-14 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) 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 6, 7, 8 except (jt=lb) 9=104.
- 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.



February 16,2021



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.

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

- 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 18, 19, 20, 16, 15, 14.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 12.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

Job: 2646690

Truss: F2

Truss Type: Roof Special

Qty: 3

Ply: 1

Job Reference (optional):

Summit/Woods Development Services

8.240 s Mar 9 2020 MiTek Industries, Inc.

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-Transl5dV0FrBqKTvkwHPk9BDaky6JuMMC6w78zkqV3

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

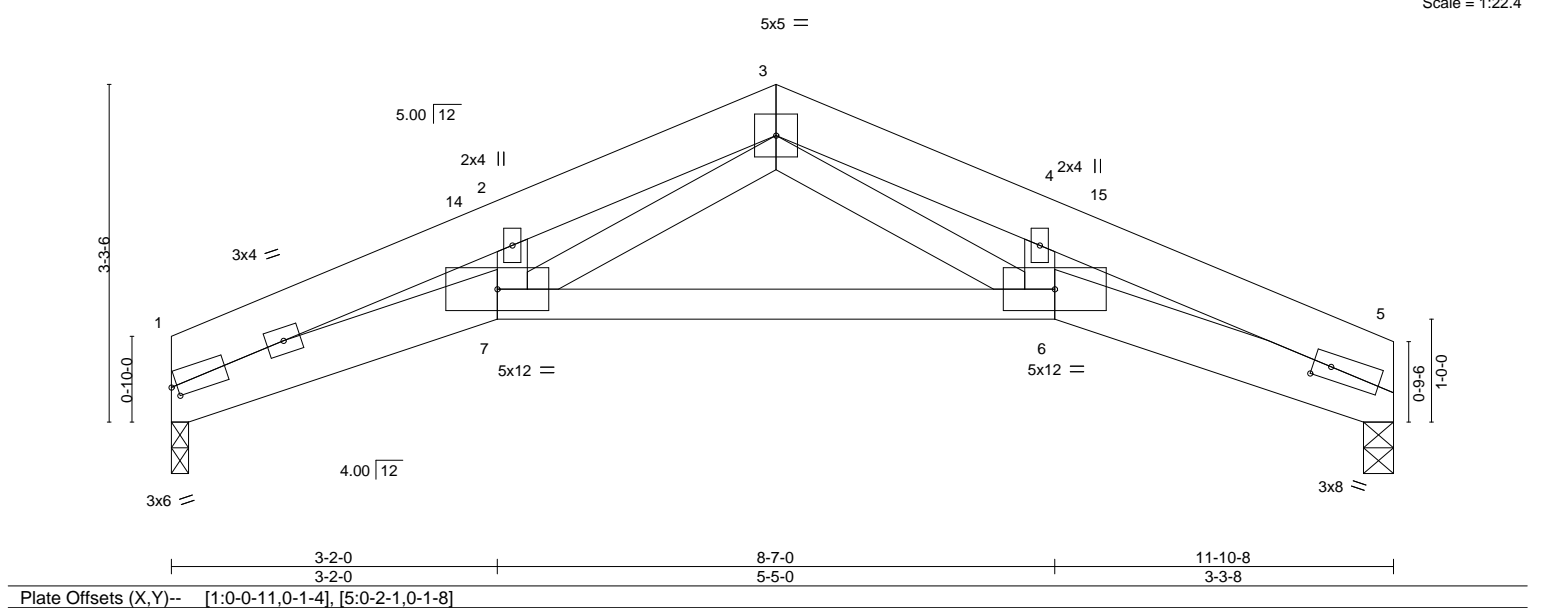
DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021

Scale = 1:22.4

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



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.20	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) -0.05 6-7 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.12 6-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.05 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 50 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SPF No.2 *Except* 6-7: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 1=0-2-0, 5=0-3-8
	Max Horz 1=45(LC 13)
	Max Uplift 1=89(LC 12), 5=90(LC 13)
	Max Grav 1=534(LC 1), 5=534(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-1565/552, 2-3=-1426/589, 3-4=-1470/600, 4-5=-1604/560
BOT CHORD	1-7=-471/1421, 6-7=-275/883, 5-6=-470/1463
WEBS	3-7=-228/566, 3-6=-245/608

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-10-8, Exterior(2R) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 11-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 1.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 16,2021

Job: 2646690

Truss: F3

Truss Type: Roof Special

Qty: 1

Ply: 1

SUMMIT/WOODS

DE RIDGE#5

8.240 s Mar 9 2020 MiTek Industries, Inc.

ID:VPVqvFnP0P0b1j2tZr0QezdKbx-x27EzQe7nZzSSU2iHdoeGMkOw7IK2LiVRMrTfzskqV2

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

02/22/2021

Scale = 1:22.5

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

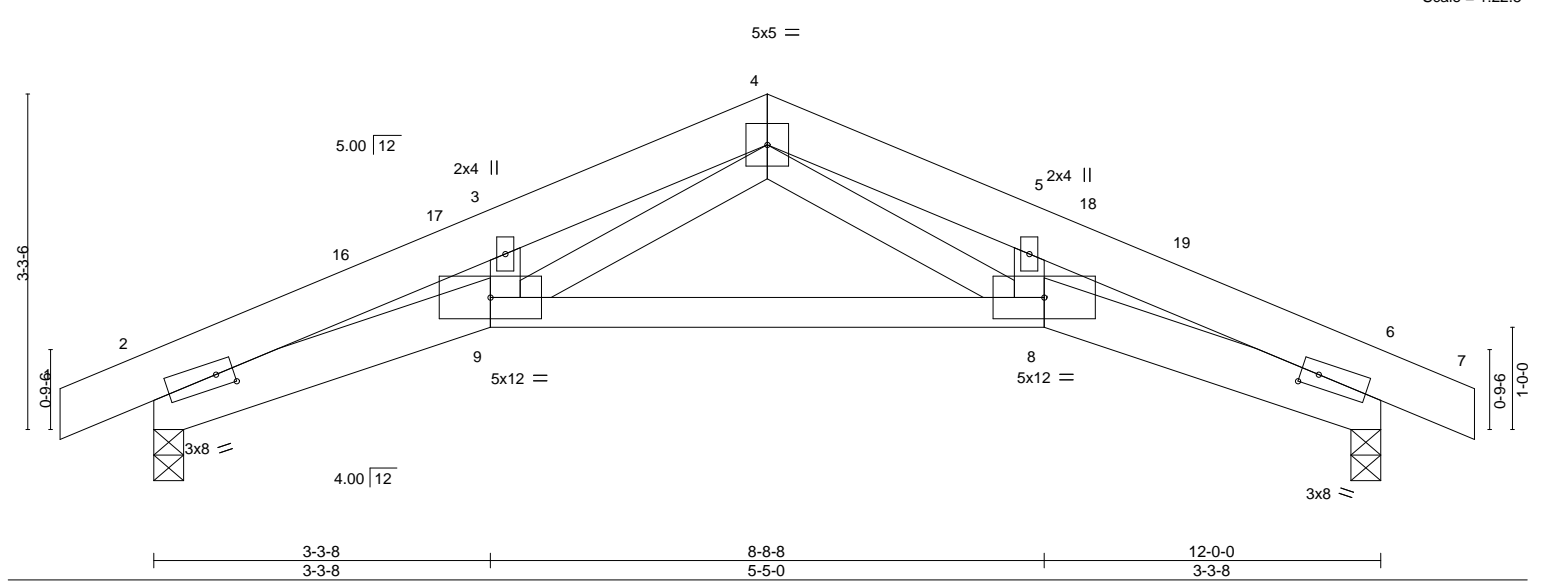


Plate Offsets (X, Y)--		[2:0-2-1,0-1-8], [6:0-2-1,0-1-8]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	in (loc)	l/defl	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(LL)	-0.05	Weight: 54 lb FT = 20%	
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Vert(CT)	-0.12		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.05		

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

REACTIONS.	
(size)	2=0-3-8, 6=0-3-8
Max Horz	2=51(LC 12)
Max Uplift	2=111(LC 12), 6=111(LC 13)
Max Grav	2=604(LC 1), 6=604(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1589/525, 3-4=-1453/568, 4-5=-1453/567, 5-6=-1589/523
BOT CHORD	2-9=-423/1447, 8-9=-229/886, 6-8=-420/1447
WEBS	4-8=-229/586, 4-9=-230/586

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=111, 6=111.
 - This truss 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.



February 16,2021

Job

2646690

Truss

GR1

Truss Type

Roof Special Girder

Qty

1

Ply

2

SUMMIT/WOODS

DE RIDGE#500

Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 500

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 500

ID:VPVqvFnP0P0b1j2tZnOqezdKbx-PEhcAmfmYt5J4edurLtpaHXiXZqnfWfg0b0C1zkqV1

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT MISSOURI

02/22/2021

Scale = 1:24.7

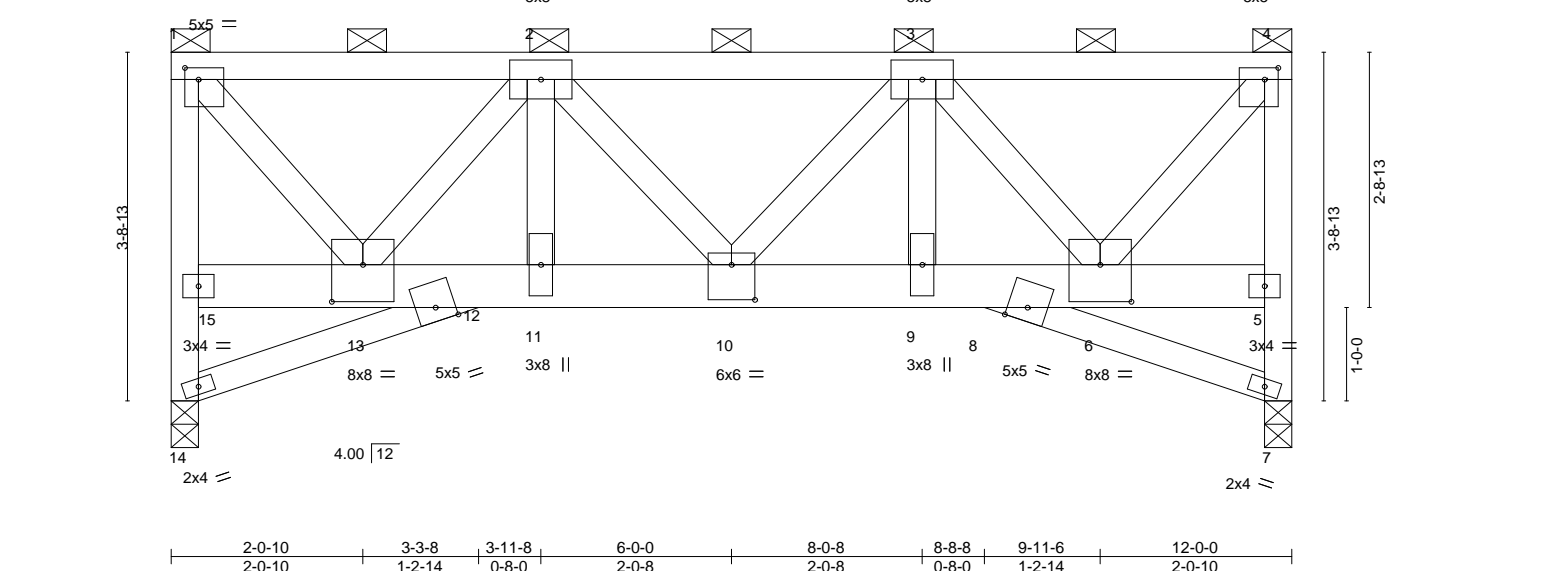


Plate Offsets (X, Y)--		[1:0-1-12,0-1-8], [4:0-1-12,0-1-8], [6:0-4-0,0-4-12], [10:0-3-0,0-4-8], [13:0-4-0,0-4-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33
TCDL 10.0	Lumber DOL	1.15	BC 0.69
BCLL 0.0	Rep Stress Incr	NO	WB 0.75
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 11 >999 240
			Vert(CT) -0.09 10 >999 180
			Horz(CT) 0.07 7 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 144 lb FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 "Except"
5-15: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (4-10-4 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 14=0-3-8, 7=0-3-8
Max Horz 14=133(LC 11)
Max Grav 14=4314(LC 1), 7=4314(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-4284/0, 1-15=-4040/0, 1-2=-3249/0, 2-3=-6114/0, 3-4=-3249/0, 5-7=-4284/0, 4-5=-4040/0
BOT CHORD 12-14=-1222/301, 12-13=0/5310, 11-12=0/5407, 10-11=0/5407, 9-10=0/5407, 8-9=0/5407, 6-8=0/5310
WEBS 2-11=0/1641, 2-10=0/1120, 3-10=0/1118, 3-9=0/1641, 2-13=-3433/0, 1-13=0/5009, 3-6=-3433/0, 4-6=0/5009

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 14, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.



February 16, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/WOODS	DE RIDGE#500
2646690	GR1	Roof Special Girder	1	2	Job Reference (optional)	14821294

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Mo. Sec. 18.25, Missour


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RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/22/2021

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 12-14=-20, 8-12=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-58, 12-14=-20, 8-12=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-20, 12-14=-40, 8-12=-40, 7-8=-40
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=75, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=23, 4-7=38
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=75, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=-38, 4-7=-23
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-33, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=-26, 4-7=-35
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-33, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=35, 4-7=26
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=29, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=17, 4-7=22
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=29, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=-22, 4-7=-17
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=9, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=28, 4-7=10
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=9, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=-10, 4-7=-28
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=29, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=14, 4-7=20
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)
- Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=29, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=-20, 4-7=-14
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

Continued on page 3

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


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Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LET'S SUMMIT TOGETHER!

02/22/2021

8.240 s Mar. 9 2020 MiTek Industries, Inc. Mar. 9 5:11:03 25213 Page 1

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14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=16, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=7, 4-7=15
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=16, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=-15, 4-7=-7
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=9, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=26, 4-7=8
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=9, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=-8, 4-7=-26
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-4=-20, 12-14=-20, 8-12=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

19) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=21, 4-7=7
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

20) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=-7, 4-7=-21
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

21) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=19, 4-7=6
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

22) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-36, 12-14=-20, 8-12=-20, 7-8=-20
Horz: 1-14=-6, 4-7=-19
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

23) Dead + 0.6 C-C Wind Min. Down: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=-28, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=-16, 4-7=-16
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)

24) Dead + 0.6 C-C Wind Min. Upward: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-4=4, 12-14=-8, 8-12=-8, 7-8=-8
Horz: 1-14=16, 4-7=16
Concentrated Loads (lb)
Vert: 11=-1515(F) 10=-1515(F) 9=-1515(F) 13=-1515(F) 6=-1515(F)



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2646690

Truss

J1

Truss Type

Jack-Open

Qty

5

Ply

1

SUMMIT/WOODS

DE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-tQF_O6gOJADAh0B4P2q6LnpmNx34WHRougKakTzkqV0

RELEASE FOR

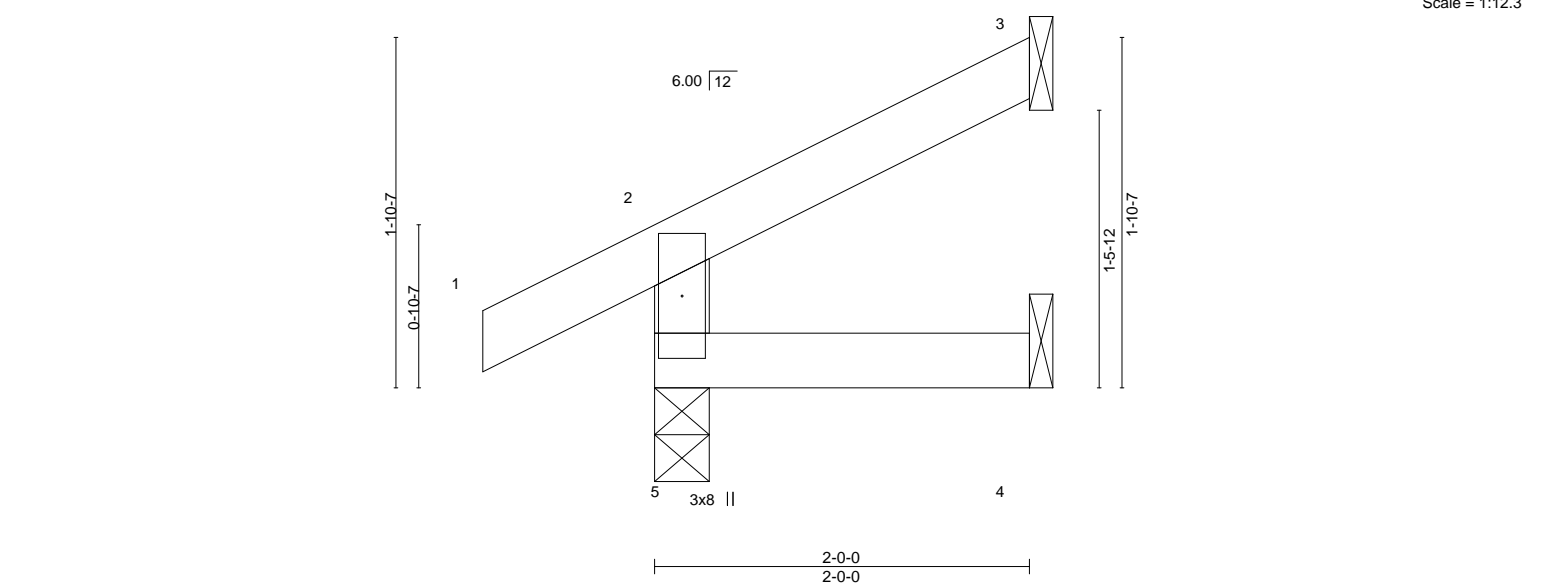
CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

02/22/2021

Scale = 1:12.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 12)
Max Uplift 5=26(LC 12), 3=35(LC 12), 4=2(LC 12)
Max Grav 5=179(LC 1), 3=46(LC 1), 4=33(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

Job

2646690

Truss

LG1

Truss Type

GABLE

Qty

1

Ply

1

SUMMIT/WOODS

IDE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mo 785 S. Summit St. 6401

Page 1

Job Reference (optional)

UL1JymGzmLLu?MyMLOjFkCy7K47GvzkqV?

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LIFE'S SUMMIT MISSOURI

02/22/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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3-10-4

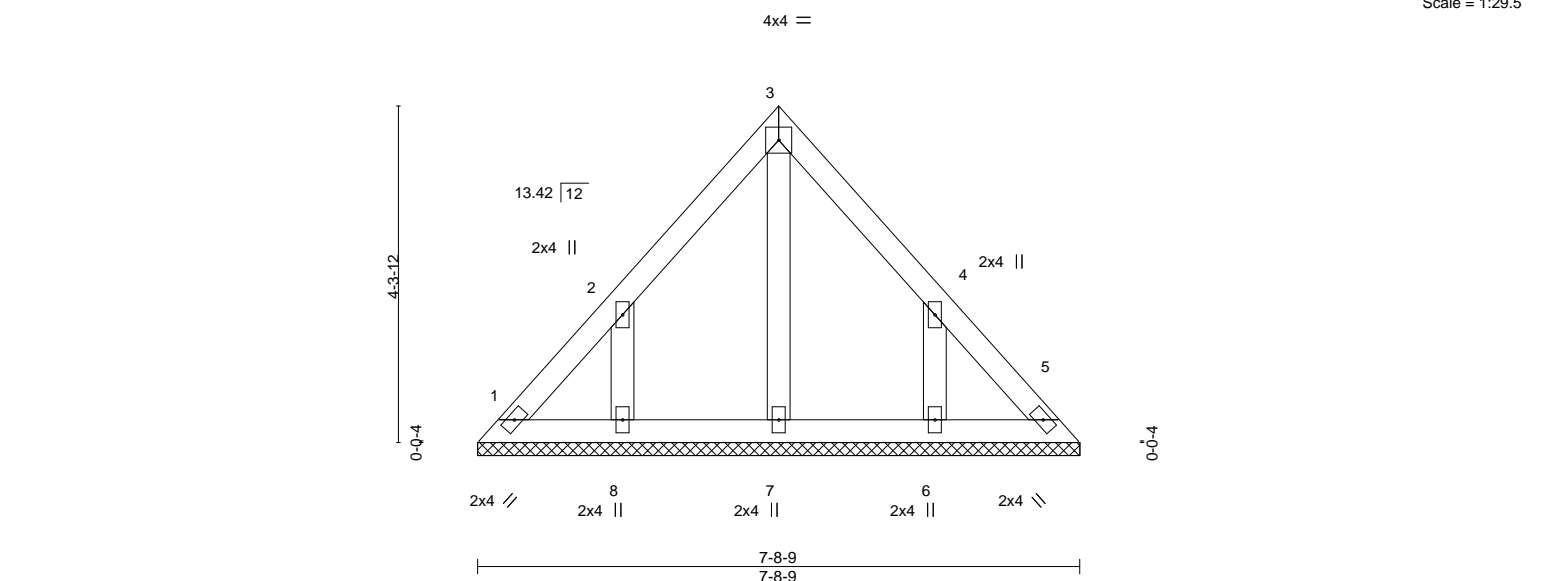
3-10-4

7-8-9

3-10-4

4x4 =

Scale = 1:29.5



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 0.06	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 29 lb FT = 20%

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

REACTIONS. All bearings 7-8-9.
 (lb) - Max Horz 1=-106(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-159(LC 12), 6=-159(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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-4, Exterior(2R) 3-10-4 to 6-10-4, Interior(1) 6-10-4 to 7-4-10 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, 5 except (jt=lb) 8=159, 6=159.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

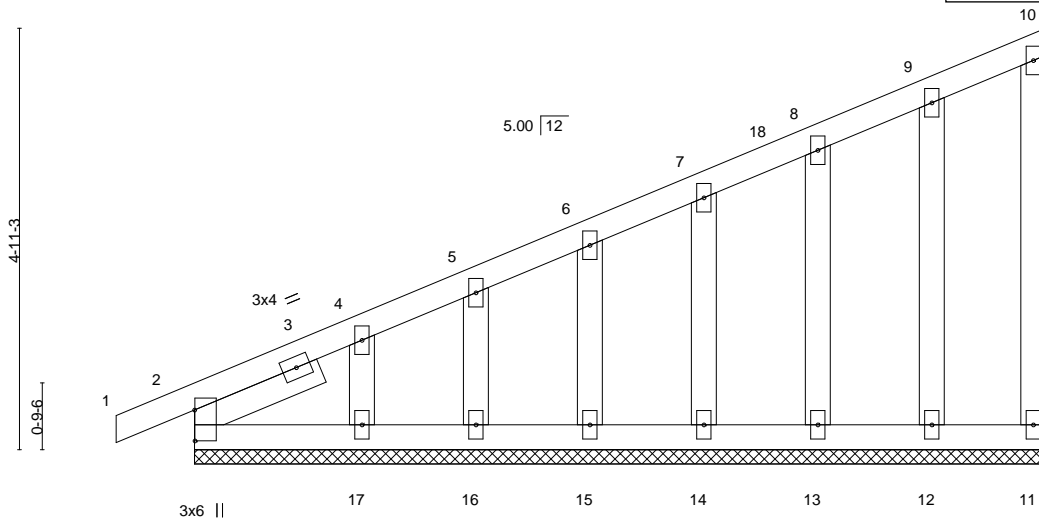


Plate Offsets (X,Y)-- [2:0-4-5,0-0-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 48 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
OTHERS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 1-7-6		

REACTIONS. All bearings 9-11-8.
(lb) - Max Horz 2=197(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 13, 14, 15, 16, 17
Max Grav All reactions 250 lb or less at joint(s) 11, 2, 12, 13, 14, 15, 16, 17

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-395/196, 4-5=-285/156, 5-6=-251/147

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 1-11-8, Exterior(2N) 1-11-8 to 9-9-12 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) 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" 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) 11, 12, 13, 14, 15, 16, 17.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 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.



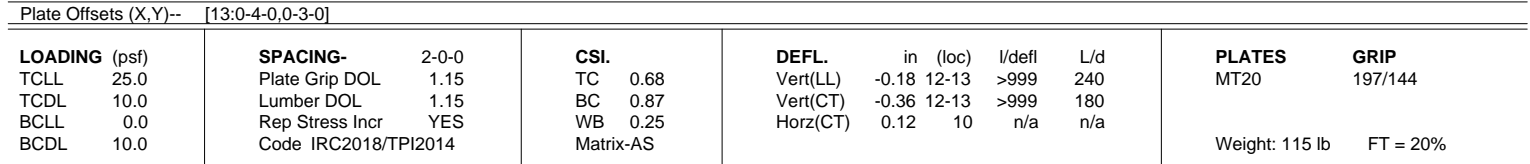
February 16, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017



BRACING-	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-13, 4-13

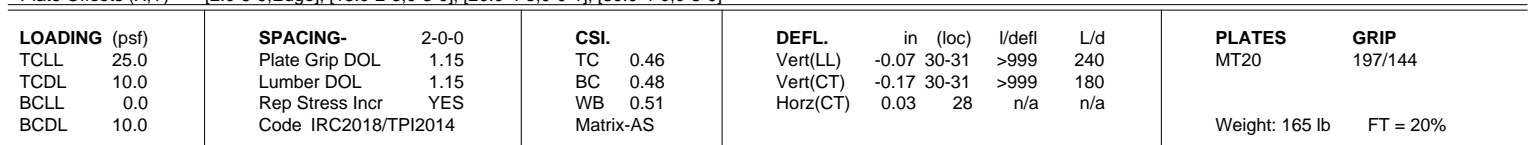
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown

TOP CHORD	2-4=-247/1415, 4-6=-1826/359, 6-8=-1826/359, 8-10=-247/1416
BOT CHORD	2-14=-405/2208, 13-14=-405/2208, 12-13=-286/2208, 10-12=-286/2208
WEBS	6-13=-80/789, 8-13=-756/275, 8-12=0/271, 4-13=-756/274, 4-14=0/271

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-13, Interior(1) 2-1-13 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-13, Interior(1) 18-4-13 to 31-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 10=253.
- 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.



February 16, 2021



BRACING-	
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
JOINTS	1 Brace at Jt(s): 33, 36, 38

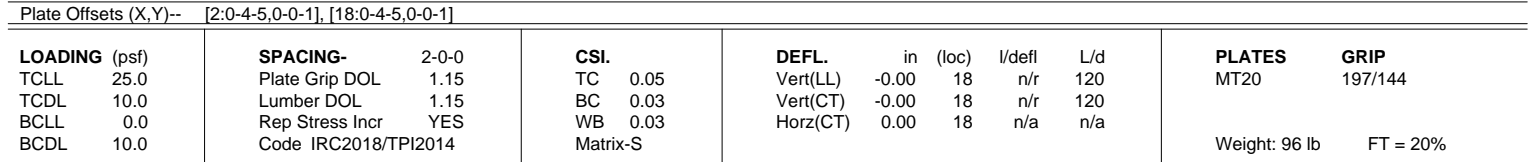
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
2-4=-1460/321, 4-6=-768/192, 6-7=-678/198, 7-8=-677/218, 8-9=-627/216,
9-10=-629/224, 10-11=-692/229, 11-12=-707/213, 12-13=-715/198, 13-14=-696/180,
15-16=0/255, 18-20=-92/281

BOT CHORD
2-31=-318/1348, 30-31=-318/1348

WEBS
30-35=-128/945, 35-36=-111/909, 36-37=-119/937, 37-38=-120/944, 38-39=-122/927,
14-39=-121/947, 14-26=-632/93, 4-34=-810/272, 33-34=-818/272, 32-33=-856/293,
30-32=-845/286, 4-31=0/305, 28-38=-300/108, 15-25=-257/36, 18-22=-250/104

February 16, 2021



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.

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-4-0, Exterior(2N) 2-4-0 to 10-4-0, Corner(3R) 10-4-0 to 13-4-0, Exterior(2N) 13-4-0 to 21-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 21, 20, 18.
- 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.



February 16, 2021



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2602 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2646690

Truss

M6

Truss Type

Common

Qty

6

Ply

1

SUMMIT/WOODS

DE RIDGE#500

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-AmAesVlnfK5A1tEQJ0SI7Gcp9mEsfPBqVGXRTZzkqUv

22-10-4

7-6-4

30-8-0

7-9-12

31-7-0

0-11-0

02/22/2021

Scale = 1:52.1

7-9-12

7-9-12

15-4-0

7-6-4

22-10-4

7-6-4

30-8-0

7-9-12

31-7-0

0-11-0

5.00

12

4x8

5

3x6

23

3x4

4

3x6

6

3x4

7

4x4

8

4x4

22

3x4

3

3x6

24

4x4

9

4x4

10

5x8

11

2x4

12

2x4

13

5x8

14

7-9-12

7-9-12

15-4-0

7-6-4

22-10-4

7-6-4

30-8-0

7-9-12

Plate Offsets (X,Y)--

[12:0-4-0,0-3-0]

LOADING (psf)

TCLL 25.0

TCDL 10.0

BCLL 0.0

BCDL 10.0

SPACING-

2-0-0

Plate Grip DOL 1.15

Lumber DOL 1.15

Rep Stress Incr YES

Code IRC2018/TPI2014

CSI.

TC 0.68

BC 0.87

WB 0.26

Matrix-AS

DEFL.

in (loc)

l/defl

L/d

Vert(LL) -0.18 11-12 >999 240

Vert(CT) -0.36 11-12 >999 180

Horz(CT) 0.12 9 n/a n/a

PLATES

MT20

Weight: 114 lb

GRIP

197/144

FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

REACTIONS. (size) 1=0-3-8, 9=0-3-8

Max Horz 1=-126(LC 13)

Max Uplift 1=-232(LC 12), 9=-253(LC 13)

Max Grav 1=1379(LC 1), 9=1445(LC 1)

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

TOP CHORD 1-3=-2479/417, 3-5=-1828/362, 5-7=-1828/359, 7-9=-2474/416

BOT CHORD 1-13=-407/2216, 12-13=-407/2216, 11-12=-286/2210, 9-11=-286/2210

WEBS 5-12=-83/791, 7-12=-756/275, 7-11=0/271, 3-12=-763/276, 3-13=0/271

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-13, Interior(1) 3-0-13 to 15-4-0, Exterior(2R) 15-4-0 to 18-4-13, Interior(1) 18-4-13 to 31-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=232, 9=253.
- This truss 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.



February 16, 2021

Job

2646690

Truss

P1

Truss Type

Monopitch

Qty

4

Ply

1

SUMMIT/WOODS

IDE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQeZdKbx-ezk03rmPQeD1f0pdkz_gT81e9iOOuA_kwG???zkqUu

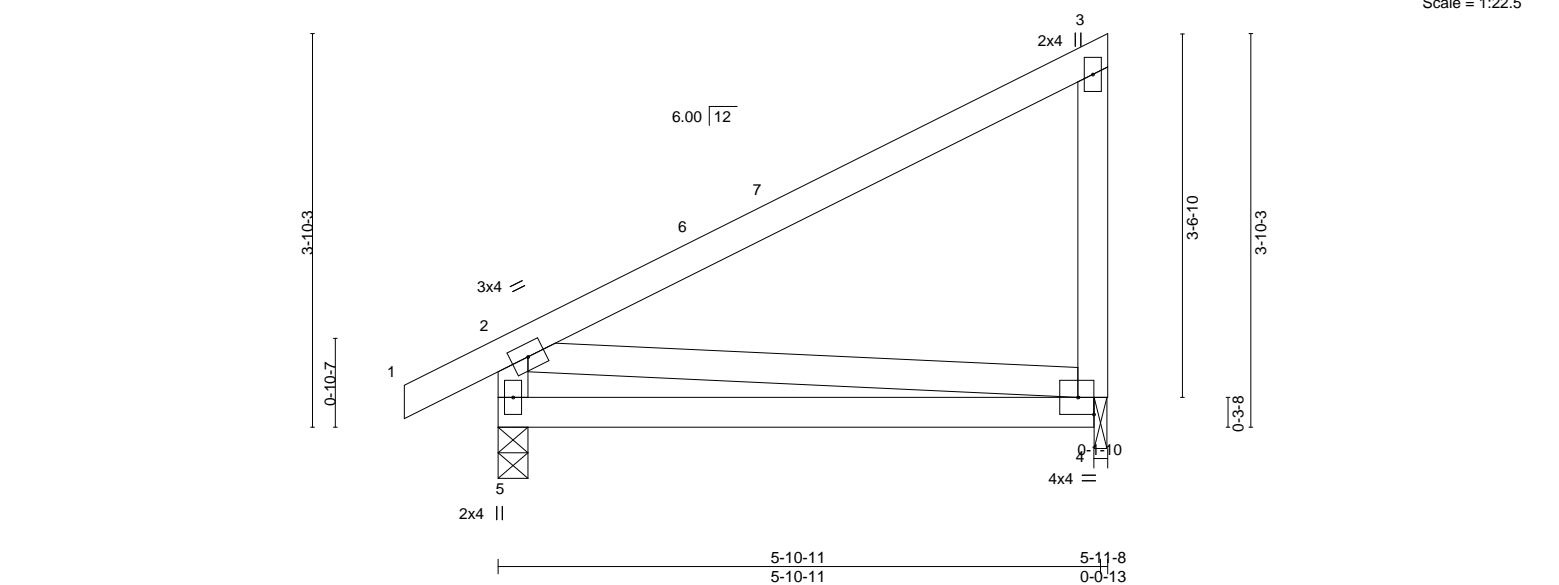
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

02/22/2021

Scale = 1:22.5



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 0.51	Vert(LL)	-0.06 4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.12 4-5	>550	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 26 lb	FT = 20%

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

REACTIONS. (size) 5=0-3-8, 4=0-1-8
 Max Horz 5=146(LC 11)
 Max Uplift 5=63(LC 12), 4=77(LC 12)
 Max Grav 5=336(LC 1), 4=248(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 BOT CHORD 4-5=-294/193
 WEBS 2-5=-280/206, 2-4=-142/250

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-9-12 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) 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.
 - 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 16, 2021

Job

2646690

Truss

V1

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5200

8.240 s Mar 9 2020

MiTek Industries, Inc. Mod 750

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

ID:VPVqvFnP0P0b1j2Zr1OqezdKbx-791OHbM1BxLuGAOpRRUDDhhEPZ4V7Mn7za0YXSzkqUt

11-7-2

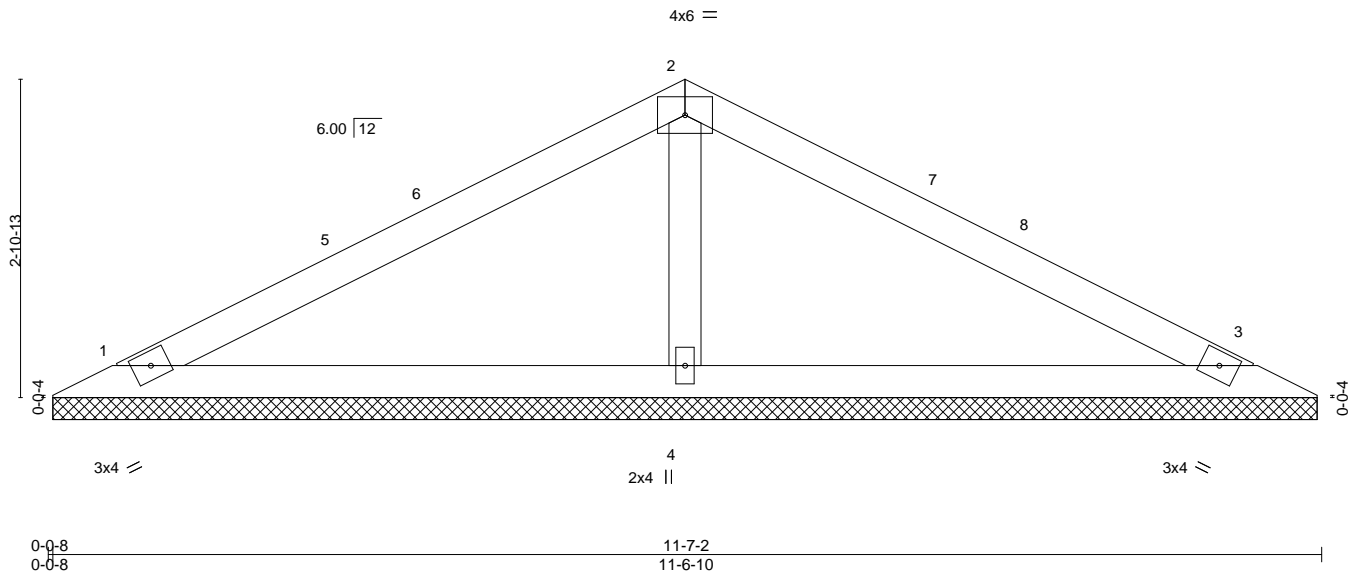
5-9-9

02/22/2021

Scale = 1:21.0

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,



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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 29 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=11-6-2, 3=11-6-2, 4=11-6-2
Max Horz 1=46(LC 12)
Max Uplift 1=-50(LC 12), 3=-59(LC 13), 4=-54(LC 12)
Max Grav 1=215(LC 25), 3=215(LC 26), 4=506(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-350/196

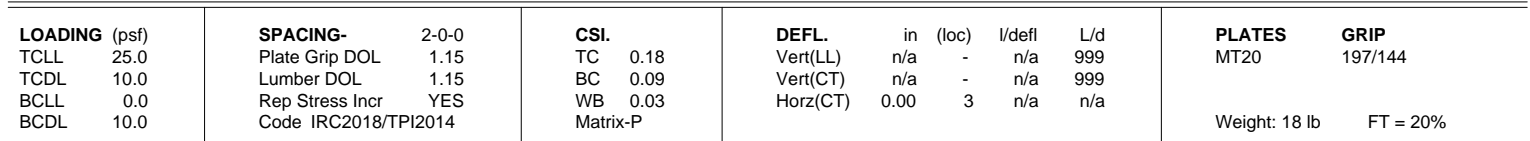
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-9, Exterior(2R) 5-9-9 to 8-9-9,
Interior(1) 8-9-9 to 10-11-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces &
MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017



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.

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C 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, 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.



February 16, 2021

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2646690

Truss

V5

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 755

Summit 370

Missouri

Page 1

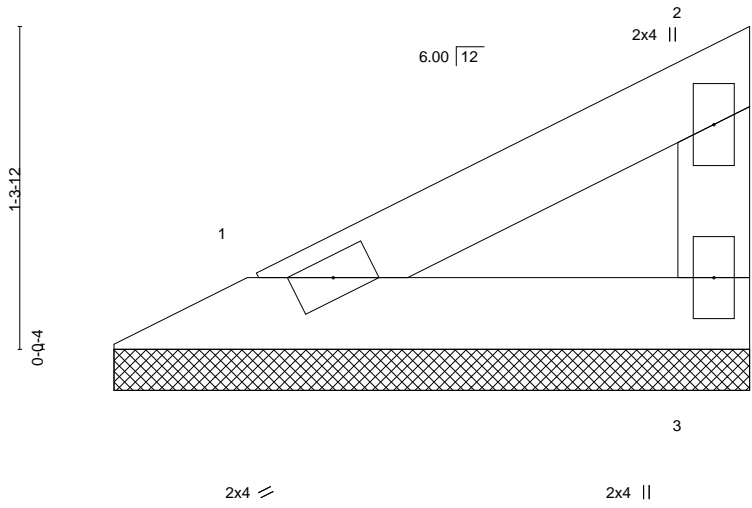
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Job Reference (optional)

LEE'S SUMMIT, MISSOURI

02/22/2021

Scale = 1:9.4



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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 6 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-7-8 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 1=2-7-0, 3=2-7-0
 Max Horz 1=39(LC 9)
 Max Uplift 1=-14(LC 12), 3=-24(LC 12)
 Max Grav 1=83(LC 1), 3=83(LC 1)

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

- NOTES-**
 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 2) Gable requires continuous bottom chord bearing.
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

Job

2646690

Truss

V6

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 755

Summit 38

Page 1

Job Reference (optional)

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-?wXv6ZqYFAsKlohagHZ9NXs?IAVN39fjuC_mgDzkqUp

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LIFE'S SUMMIT MISSOURI

02/22/2021

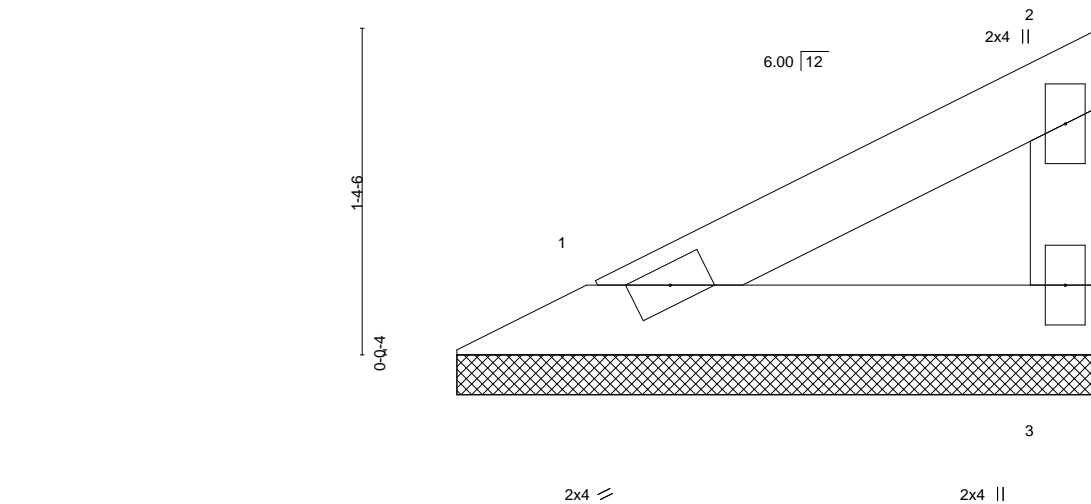
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

2-8-12

2-8-12

Scale = 1:9.6



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 0.06	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 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-8-4, 3=2-8-4
Max Horz 1=41(LC 9)
Max Uplift 1=15(LC 12), 3=25(LC 12)
Max Grav 1=88(LC 1), 3=88(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

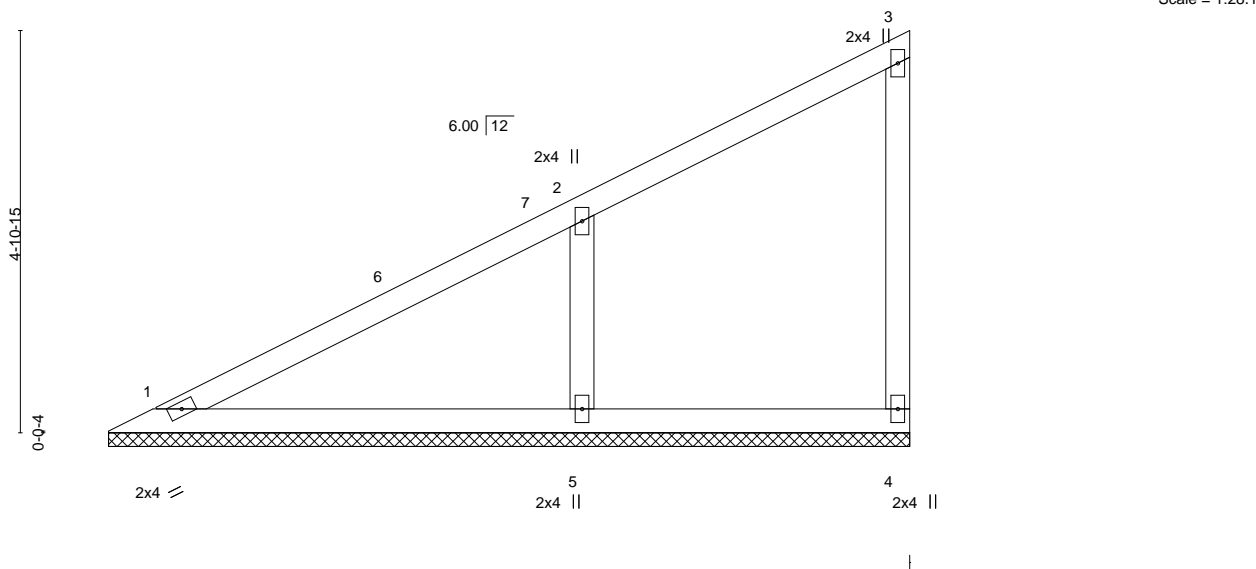


February 16, 2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2646690	Truss V8	Truss Type Valley	Qty 1	Ply 1	SUMMIT/WOODS	DE RIDGE#5
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					8.240 s Mar 9 2020 MiTek Industries, Inc. Mod: 8221309 Page 1	
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-T75HKvqA0U_BNxBmD_4OwkO5iaoJocxs6sjJCfzkqUo					Job Reference (optional) LIFE'S SUMMIT MISSOURI	
					02/22/2021	



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-9-6, 4=9-9-6, 5=9-9-6
Max Horz 1=188(LC 9)
Max Uplift 1=-2(LC 12), 4=-33(LC 9), 5=-141(LC 12)
Max Grav 1=189(LC 1), 4=113(LC 1), 5=512(LC 1)

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

TOP CHORD 1-2=-268/178
WEBS 2-5=-387/278

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-8-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=141.
- 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.



February 16, 2021

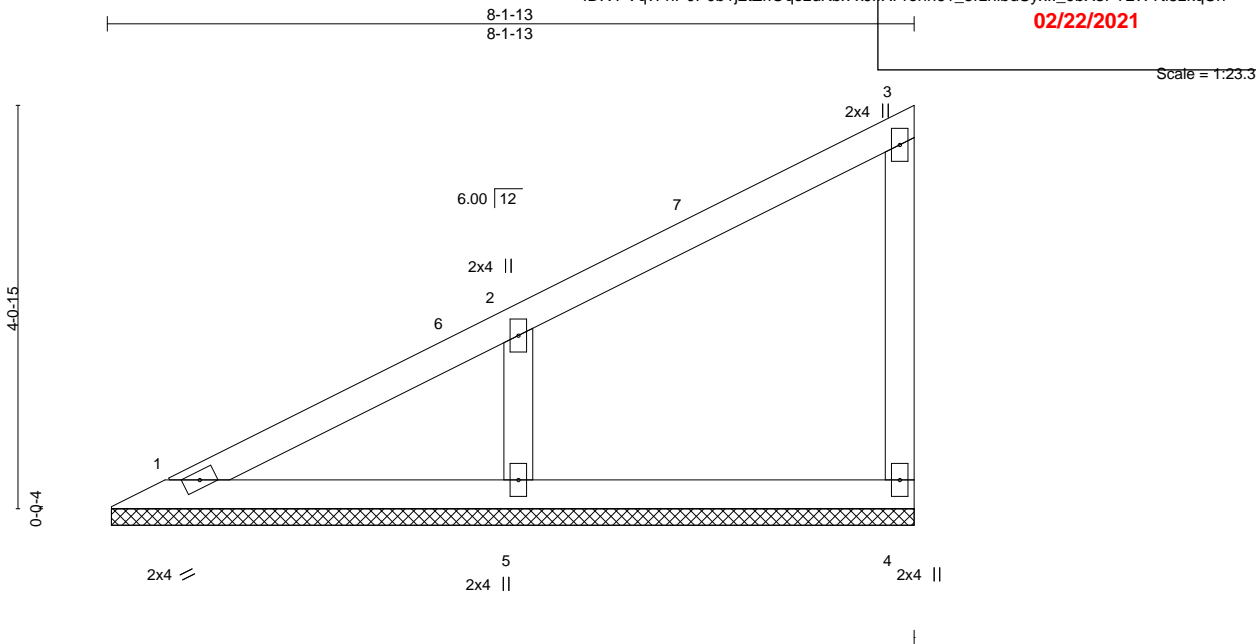
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2646690	Truss V9	Truss Type Valley	Qty 1	Ply 1	SUMMIT/WOODS	DE RIDGE#5
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 1585 SUMMIT MISSOURI			
			Job Reference (optional) ID:VPVqVFnP0P0b1j2Zr1QezdKbx-xJfXFrnn61_5rznibdSyxll_9bX3P?LWTt15zkqUn			
			<div style="text-align: right;"> RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LIFE'S SUMMIT MISSOURI 02/22/2021 </div>			



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 25 lb	FT = 20%

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

REACTIONS. (size) 1=8-1-5, 4=8-1-5, 5=8-1-5
 Max Horz 1=154(LC 9)
 Max Uplift 4=31(LC 9), 5=130(LC 12)
 Max Grav 1=121(LC 20), 4=134(LC 1), 5=415(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-255/161
 WEBS 2-5=-323/270

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-0-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=130.
 - 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.



February 16, 2021

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

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2646690

Truss

V10

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5

Job Reference (optional)

Builders FirstSource (Valley Center),

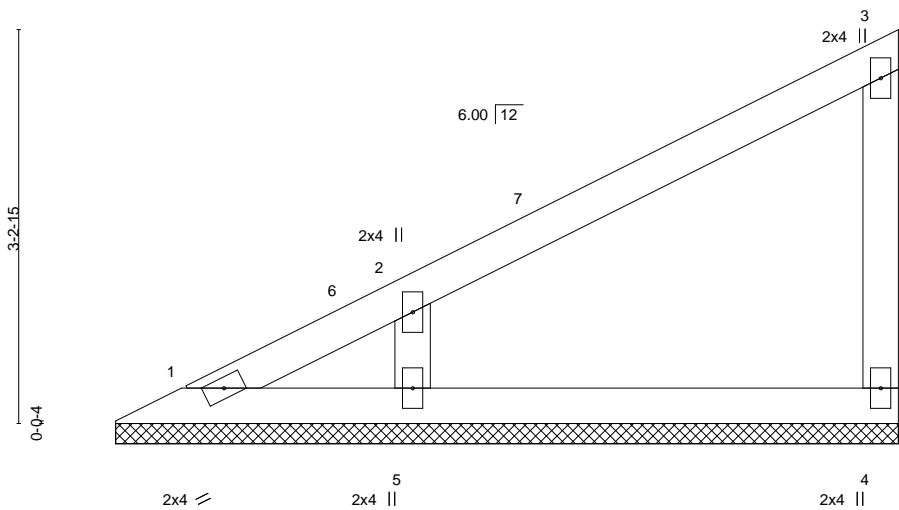
Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 755-1818342155081

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02/22/2021

Scale = 1:19.0



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 0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

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

REACTIONS. (size) 1=6-5-6, 4=6-5-6, 5=6-5-6
 Max Horz 1=119(LC 9)
 Max Uplift 4=37(LC 12), 5=121(LC 12)
 Max Grav 1=46(LC 9), 4=141(LC 1), 5=357(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-5=-277/272

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-4-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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) 4 except (jt=lb) 5=121.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

Job

2646690

Truss

V11

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5

Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mod 755-14881352

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RELEASE FOR

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

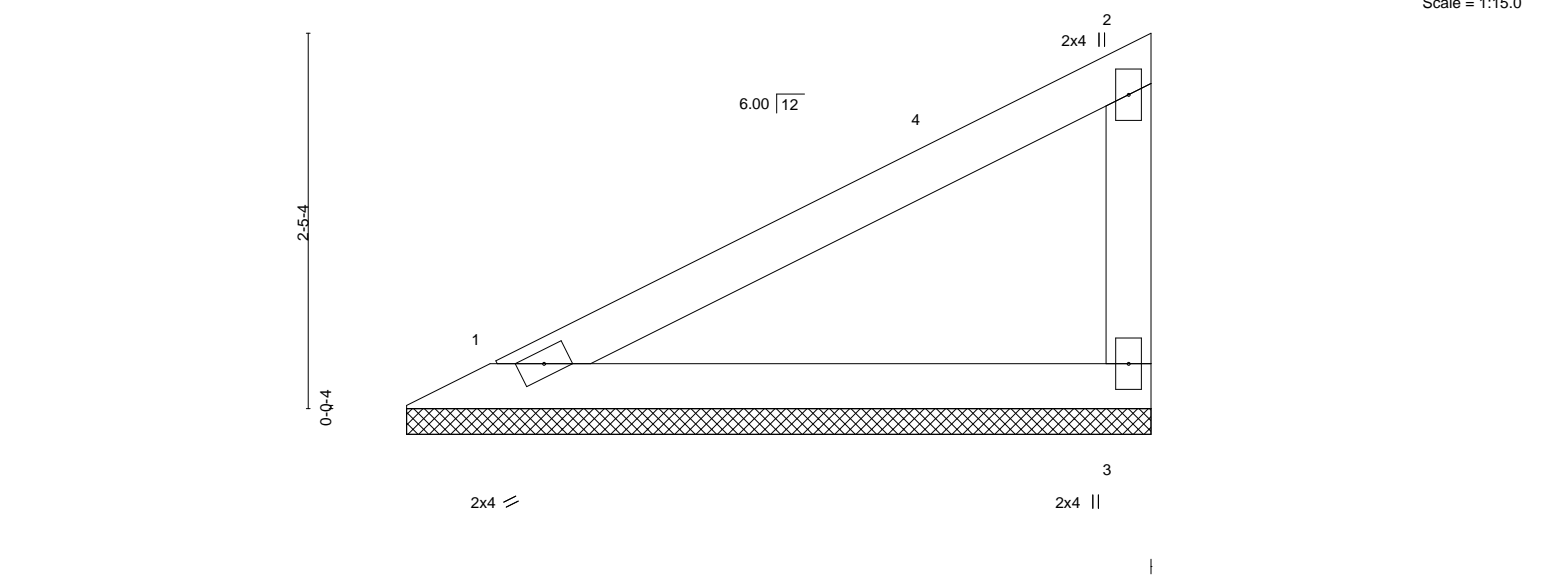
02/22/2021

14821312

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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 0.31	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 13 lb	FT = 20%

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

REACTIONS.	(size)	1=4-10-0, 3=4-10-0
Max Horz	1=86(LC 9)	
Max Uplift	1=31(LC 12), 3=53(LC 12)	
Max Grav	1=184(LC 1), 3=184(LC 1)	

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) 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.



February 16,2021

Job

2646690

Truss

V12

Truss Type

Valley

Qty

1

Ply

1

SUMMIT/WOODS

DE RIDGE#5

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020

MiTek Industries, Inc.

Mod 755

Summit MO 350

Page 1

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Job Reference (optional)

Life's Summit Missouri

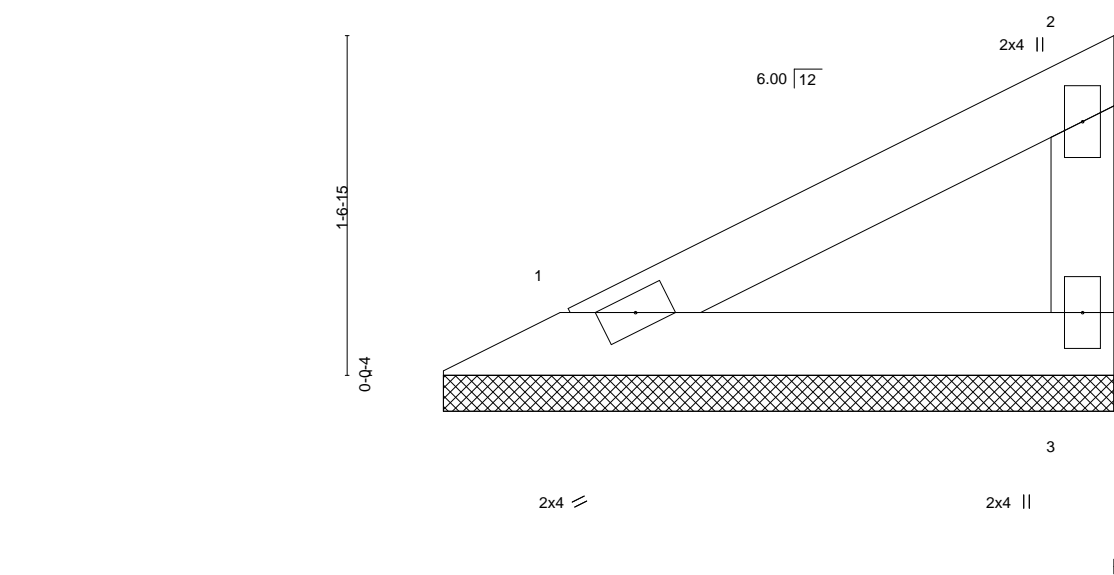
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

02/22/2021

Scale = 1:10.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 1=3-1-6, 3=3-1-6
Max Horz	1=50(LC 9)
Max Uplift	1=18(LC 12), 3=31(LC 12)
Max Grav	1=107(LC 1), 3=107(LC 1)

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

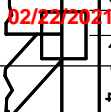
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 16, 2021

Symbols

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



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- 1/16" from outside edge of truss.

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

* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

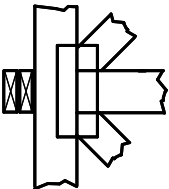
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



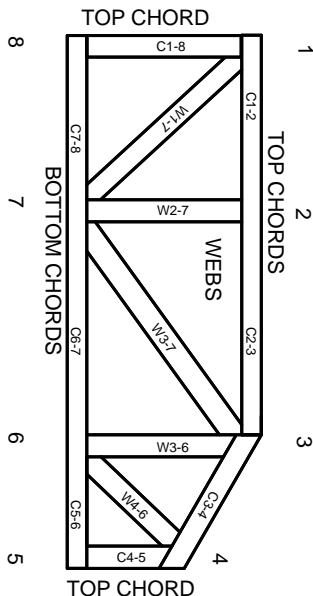
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.