



MiTek, Inc.  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

Re: 230472-2-F  
Lot 359 Park Ridge

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mid West Lumber & Supply.

Pages or sheets covered by this seal: I63886529 thru I63886554

My license renewal date for the state of Missouri is December 31, 2025.

Missouri COA: Engineering 001193



February 27, 2024

Sevier, Scott, Engineer

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

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F101	GABLE	1	1	163886529
					Job Reference (optional)

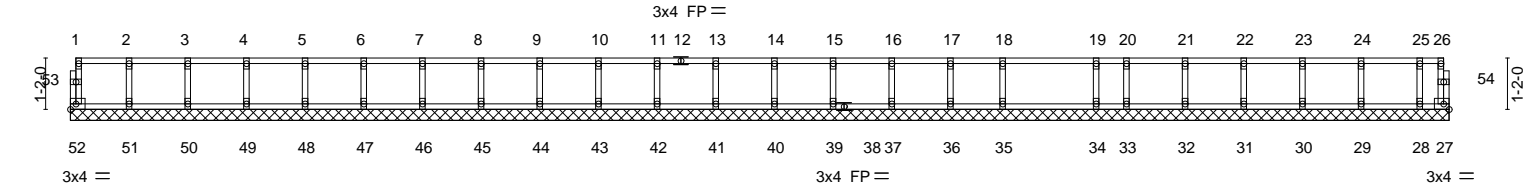
Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:21 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-HwbqbCk4WDYo58dqC6MOvKTqV1CmPQbaDQff3yzgySO

0-1-8  
H

0-1-8  
H

Scale = 1:52.4



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	20-0-0	21-3-0	23-3-0	24-0-0	25-4-0	26-8-0	28-0-0	29-4-0	30-8-0	31-4-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-0	2-0-0	0-9-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-8-0
<b>LOADING</b> (psf)		<b>SPACING-</b>		1-7-3		<b>CSI.</b>		<b>DEFL.</b>		in (loc)		l/defl		L/d		<b>PLATES</b>		<b>GRIP</b>					
TCLL 40.0		Plate Grip DOL		1.00		TC 0.10		Vert(LL)		n/a		n/a		999		MT20		244/190					
TCDL 10.0		Lumber DOL		1.00		BC 0.01		Vert(CT)		n/a		n/a		999									
BCLL 0.0		Rep Stress Incr		YES		WB 0.02		Horz(CT)		0.00		27		n/a									
BCDL 5.0		Code IRC2018/TPI2014				Matrix-R										Weight: 129 lb		FT = 20%F, 11%E					

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

All bearings 31-4-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 52, 27, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28

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

**NOTES-**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 27, 2024

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**MiTek®**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F102	Floor	1	1	163886530
					Job Reference (optional)

Mid West Lumber, Ulrich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:22 2024 Page 1  
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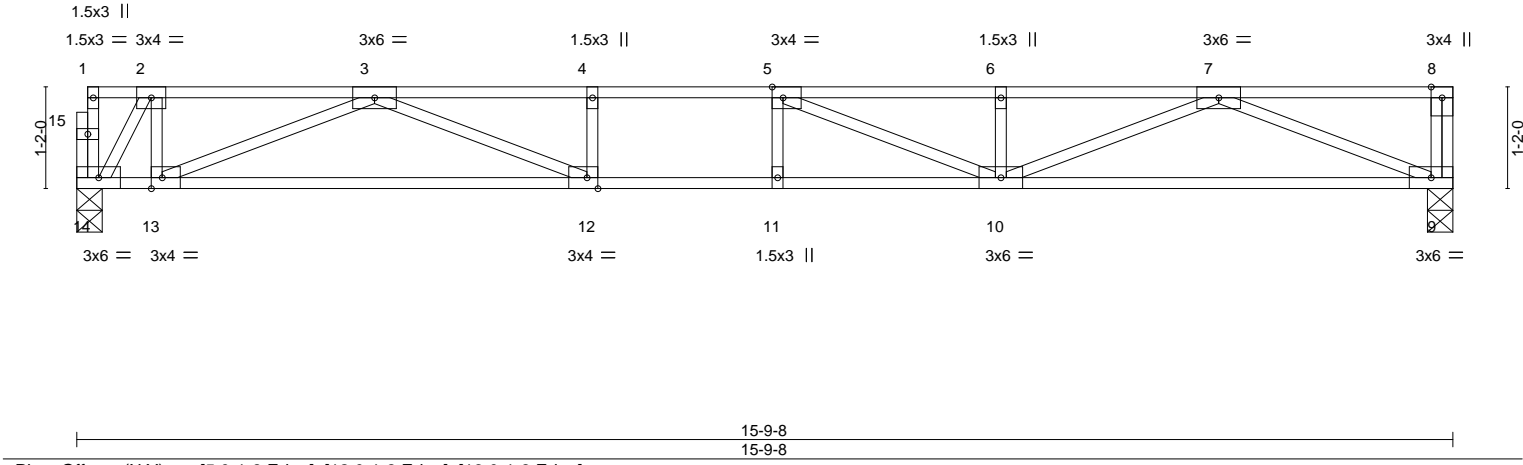
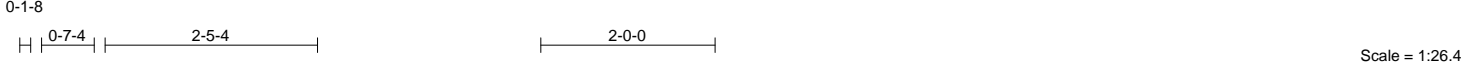


Plate Offsets (X,Y)--		[5:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge]	
LOADING (psf)		SPACING-	
TCLL	40.0	1-7-3	1.00
TCDL	10.0	Plate Grip DOL	1.00
BCLL	0.0	Lumber DOL	1.00
BCDL	5.0	Rep Stress Incr	YES
		Code	IRC2018/TPI2014
		CSI.	
		TC	0.53
		BC	0.78
		WB	0.25
		Matrix-S	
		DEFL.	
		in (loc)	l/defl
		Vert(LL)	-0.23 10-11 >819 600
		Vert(CT)	-0.30 10-11 >630 360
		Horz(CT)	0.04 9 n/a n/a
		PLATES	
		MT20	244/190
		GRIP	
		Weight: 78 lb	FT = 20%F, 11%E

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

REACTIONS. (size) 14=0-3-8, 9=0-3-8  
Max Grav 14=679(LC 1), 9=684(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-529/0, 3-4=-2489/0, 4-5=-2489/0, 5-6=-2303/0, 6-7=-2303/0  
BOT CHORD 13-14=0/494, 12-13=0/1725, 11-12=0/2489, 10-11=0/2489, 9-10=0/1433  
WEBS 3-12=0/908, 3-13=-1296/0, 2-13=0/519, 2-14=-871/0, 7-9=-1547/0, 7-10=0/942, 6-10=-252/0, 5-10=-498/86

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.



February 27, 2024

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F103	Floor	2	1	163886531
					Job Reference (optional)

Mid West Lumber, Ulrich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:22 2024 Page 1  
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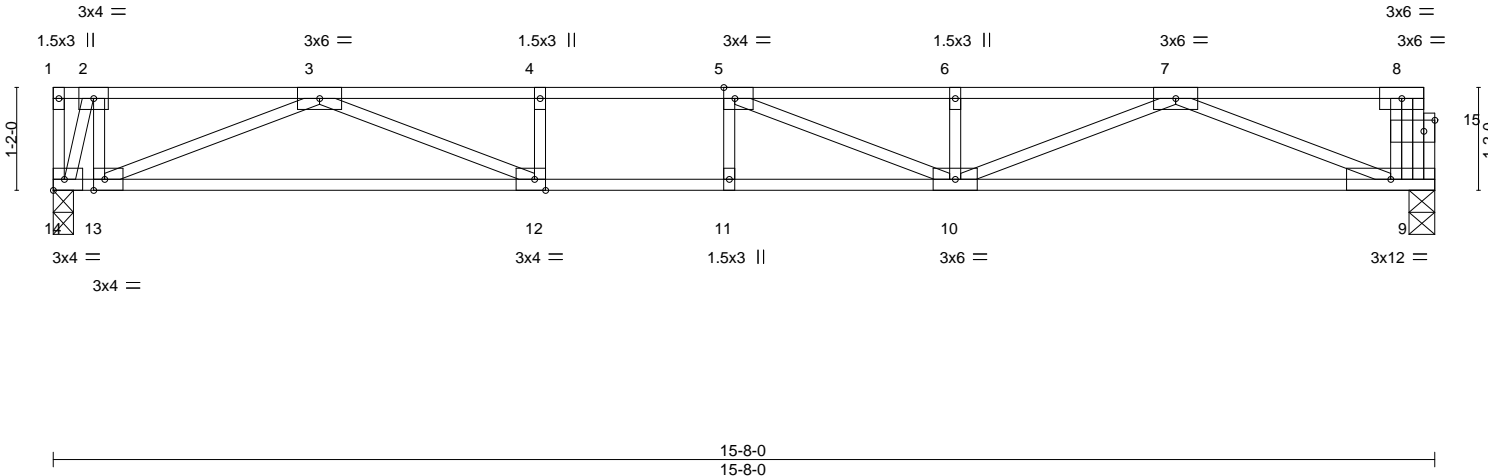
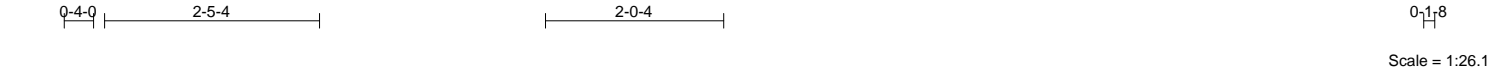


Plate Offsets (X,Y)--	[5:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge], [15:0-1-8,0-1-8]			
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>
TCLL 40.0	1-7-3	TC 0.57	in (loc) l/defl L/d	MT20
TCDL 10.0	Plate Grip DOL 1.00	BC 0.81	Vert(LL) -0.24 10-11 >769 600	GRIP 244/190
BCLL 0.0	Lumber DOL 1.00	WB 0.26	Vert(CT) -0.31 10-11 >591 360	
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 9 n/a n/a	
				Weight: 79 lb FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)

**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) 14=0-2-12, 9=0-3-8  
Max Grav 14=676(LC 1), 9=671(LC 1)

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

TOP CHORD 2-3=-325/0, 3-4=-2406/0, 4-5=-2406/0, 5-6=-2295/0, 6-7=-2295/0  
BOT CHORD 13-14=0/292, 12-13=0/1570, 11-12=0/2406, 10-11=0/2406, 9-10=0/1468  
WEBS 4-12=-261/0, 3-12=0/962, 3-13=-1349/0, 2-13=0/529, 5-10=-440/139, 6-10=-256/0, 7-10=0/896, 7-9=-1568/0, 2-14=-827/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 14.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.



February 27, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F104	Floor	5	1	163886532
					Job Reference (optional)

Mid West Lumber, Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:24 2024 Page 1  
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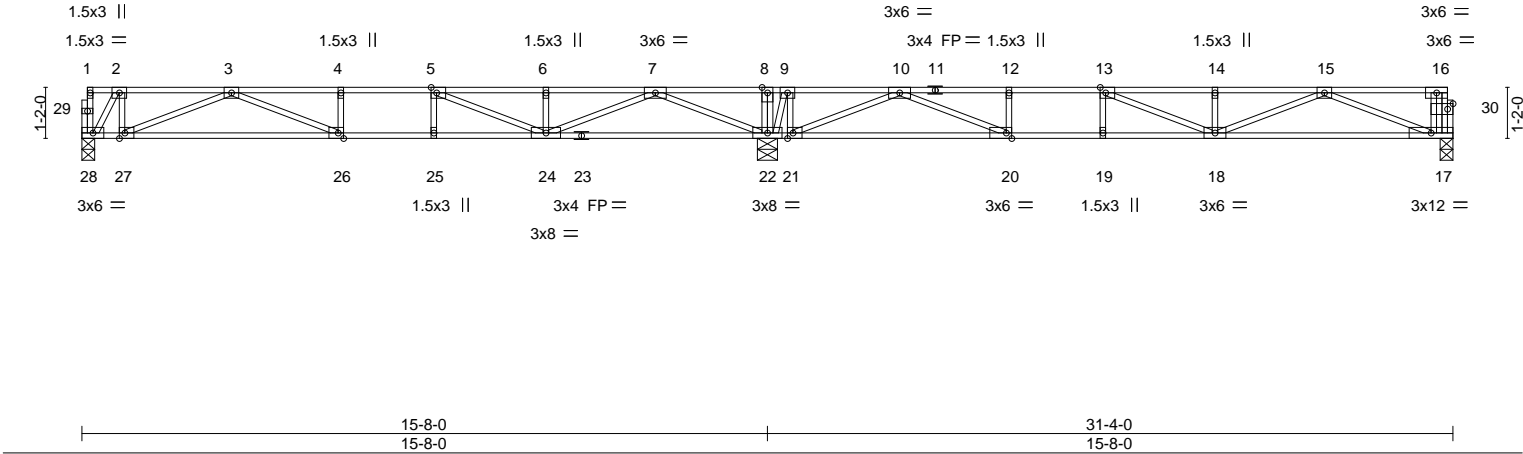
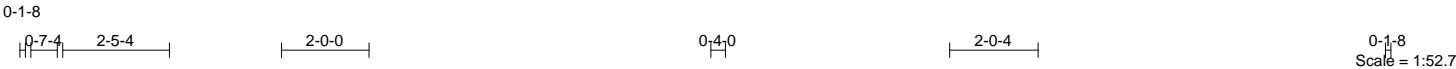


Plate Offsets (X,Y)--	[5:0-1-8,Edge], [13:0-1-8,Edge], [20:0-1-8,Edge], [21:0-1-8,Edge], [26:0-1-8,Edge], [27:0-1-8,Edge], [30:0-1-8,0-1-8]				
LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.76	Vert(LL)	-0.26 18-19 >723 600
TCDL 10.0	Lumber DOL	1.00	BC 0.90	Vert(CT)	-0.34 18-19 >550 360
BCLL 0.0	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.04 17 n/a n/a
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S		
					PLATES GRIP
					MT20 244/190
					Weight: 156 lb FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

(size) 28=0-3-8, 22=0-5-8, 17=0-3-8  
Max Grav 28=599(LC 3), 22=1578(LC 1), 17=616(LC 4)

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

TOP CHORD 2-3=-476/0, 3-4=-1969/0, 4-5=-1969/0, 5-6=-1480/0, 6-7=-1480/0, 7-8=0/1582,  
8-9=0/1579, 9-10=0/1274, 10-12=-1940/1, 12-13=-1940/1, 13-14=-2035/0,  
14-15=-2035/0  
BOT CHORD 27-28=0/445, 26-27=0/1477, 25-26=0/1969, 24-25=0/1969, 22-24=-342/437,  
21-22=-1304/0, 20-21=-506/916, 19-20=-1/1940, 18-19=-1/1940, 17-18=0/1327  
WEBS 12-20=-351/0, 3-26=0/534, 3-27=-1084/0, 2-27=0/464, 2-28=-785/0, 5-24=-775/0,  
7-24=0/1203, 7-22=-1751/0, 10-20=0/1297, 10-21=-1634/0, 9-21=0/549, 9-22=-812/0,  
13-18=-1/464, 14-18=-285/0, 15-18=0/767, 15-17=-1417/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.



February 27, 2024

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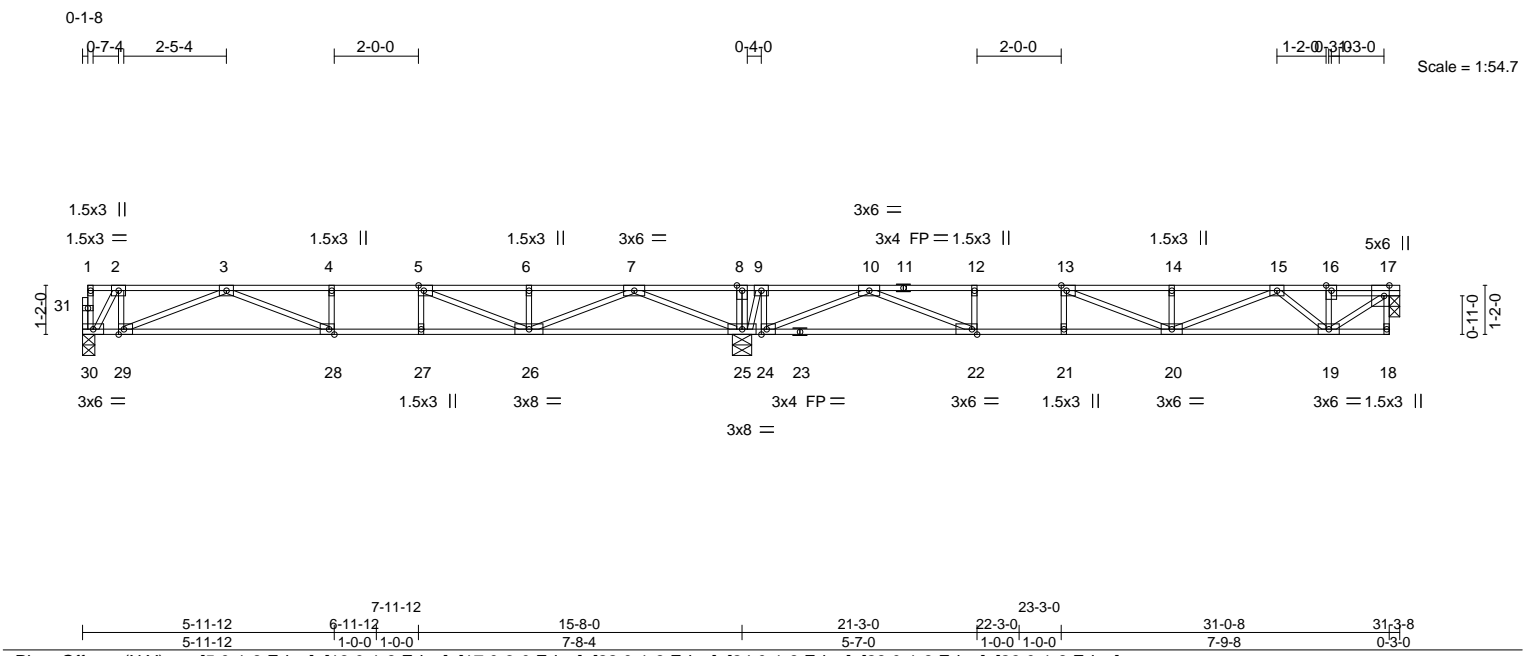
**MiTek®**

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F105	Floor	3	1	163886533
					Job Reference (optional)

Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:25 2024 Page 1  
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.24 20-21 >766 600	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.32 20-21 >576 360				
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.03 25 n/a n/a				
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							
										Weight: 156 lb	FT = 20%F, 11%E

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.1(flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.1(flat)		

**REACTIONS.** (size) 30=0-3-8, 17=0-3-0, 25=0-5-8  
Max Grav 30=599(LC 3), 17=617(LC 4), 25=1571(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-477/0, 3-4=-1972/0, 4-5=-1972/0, 5-6=-1484/0, 6-7=-1484/0, 7-8=0/1572, 8-9=0/1569, 9-10=0/1265, 10-12=-1928/7, 12-13=-1928/7, 13-14=-2004/0, 14-15=-2004/0, 15-16=-738/0, 16-17=-740/0  
BOT CHORD 29-30=0/445, 28-29=0/1478, 27-28=0/1972, 26-27=0/1972, 25-26=-327/442, 24-25=-1295/0, 22-24=-509/924, 21-22=-7/1928, 20-21=-7/1928, 19-20=0/1273  
WEBS 17-19=0/906, 12-22=-347/0, 3-28=0/535, 3-29=-1085/0, 2-29=0/464, 2-30=-785/0, 5-26=-769/0, 7-26=0/1202, 7-25=-1750/0, 10-22=0/1277, 10-24=-1620/0, 9-24=0/547, 9-25=-811/0, 13-20=-16/453, 14-20=-300/0, 15-20=0/793, 15-19=-701/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - 6) CAUTION, Do not erect truss backwards.



February 27,2024

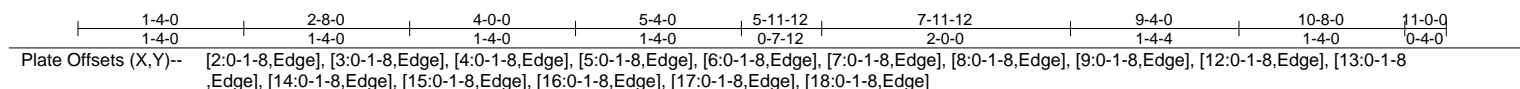
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8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:26 2024 Page 1  
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Scale = 1:18.5



**LUMBER-**

TOP CHORD	2x4 SP No.1 (flat)
BOT CHORD	2x4 SP No.1 (flat)
WEBS	2x4 SP No.1 (flat)
OTHERS	2x4 SP No.1 (flat)

**BRACING-**

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

### REACTIONS.

All bearings 11-0-0.

(lb) - Max Grav All reactions 250 lb or less at joint(s) 19, 18, 17, 16, 15, 14, 13, 12, 11

**FORCES.**

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

**NOTES-**

- 1) All plates are 3x4 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION. Do not erect truss backwards.



February 27, 2024



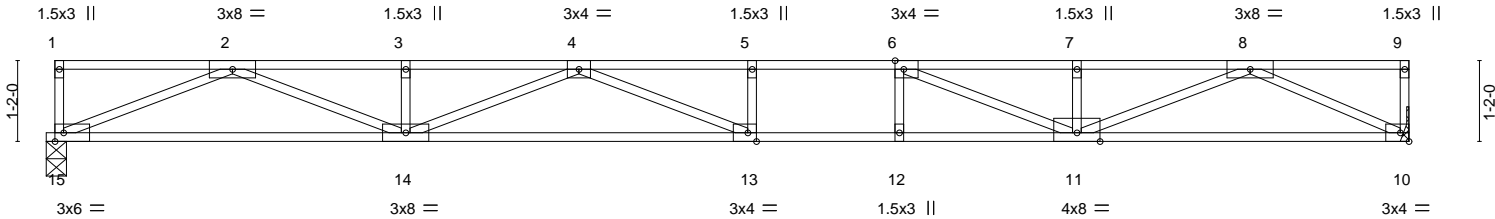
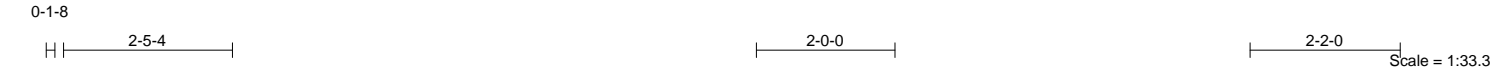
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TP1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

**MiTek®**  
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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F107	Floor	1	1	163886535
					Job Reference (optional)

Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:27 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-64y6sFpr63lpx34zYNT08bjm2S6vp3lSbL6zHczgySI



	10-3-0	11-3-0	12-3-0	19-8-0
	10-3-0	1-0-0	1-0-0	7-5-0
Plate Offsets (X,Y)--	[6:0-1-8,Edge], [13:0-1-8,Edge], [15:0-1-8,Edge]			

<b>LOADING</b> (psf)	<b>SPACING-</b>	1-7-3	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.48	Vert(LL)	-0.37 13-14	>622	600	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.60	Vert(CT)	-0.53 13-14	>443	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.06 10	n/a	n/a		
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S					Weight: 93 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.1(flat)	

<b>REACTIONS.</b>	(size) 15=0-3-8, 10=Mechanical
	Max Grav 15=854(LC 1), 10=854(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3091/0, 3-4=-3091/0, 4-5=-3881/0, 5-6=-3881/0, 6-7=-2946/0, 7-8=-2946/0
BOT CHORD	14-15=0/1820, 13-14=0/3791, 12-13=0/3881, 11-12=0/3881, 10-11=0/1639
WEBS	2-15=-1972/0, 2-14=0/1376, 4-14=-759/0, 4-13=-226/520, 6-11=-1181/0, 8-11=0/1415, 8-10=-1809/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



February 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F108	Floor	13	1	163886536
					Job Reference (optional)

Mid West Lumber, Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:28 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-aHWU3bpTtMQoRDfA64\_1hpFxsS7YWYcq?rXp2zgySH

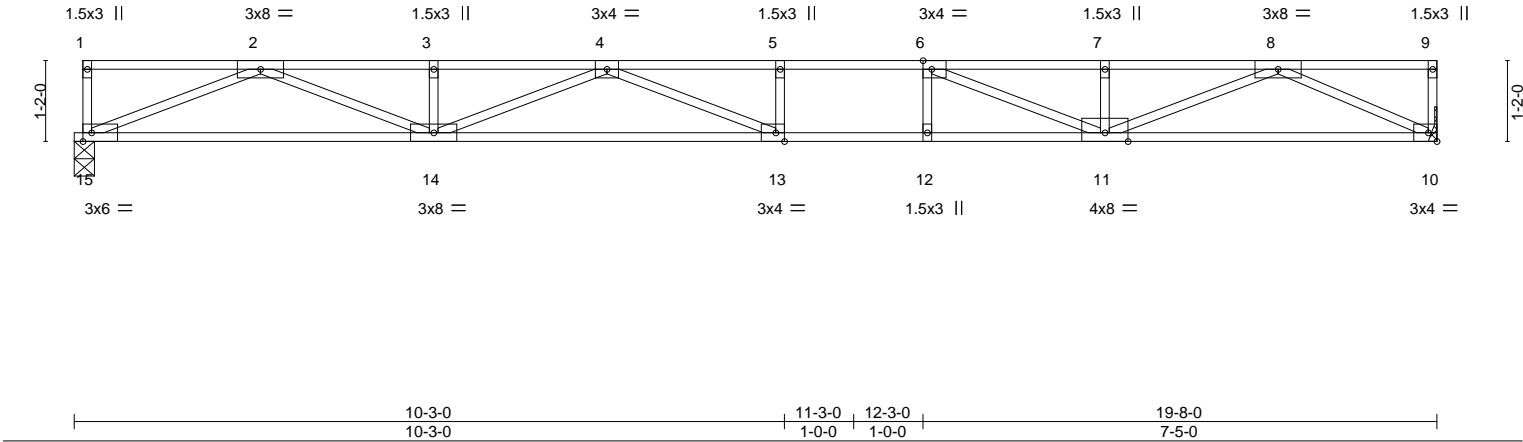
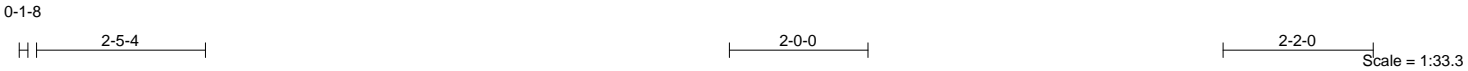


Plate Offsets (X,Y)--		[6:0-1-8,Edge], [13:0-1-8,Edge], [15:0-1-8,Edge]							
LOADING (psf)		SPACING- 1-7-3		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 40.0		Plate Grip DOL 1.00		TC 0.48		Vert(LL) -0.37 13-14 >622 600		MT20	244/190
TCDL 10.0		Lumber DOL 1.00		BC 0.60		Vert(CT) -0.53 13-14 >443 360			
BCLL 0.0		Rep Stress Incr YES		WB 0.32		Horz(CT) 0.06 10 n/a n/a			
BCDL 5.0		Code IRC2018/TPI2014		Matrix-S				Weight: 93 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.1(flat)	

<b>REACTIONS.</b>	(size) 15=0-3-8, 10=Mechanical
	Max Grav 15=854(LC 1), 10=854(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3091/0, 3-4=-3091/0, 4-5=-3881/0, 5-6=-3881/0, 6-7=-2946/0, 7-8=-2946/0
BOT CHORD	14-15=0/1820, 13-14=0/3791, 12-13=0/3881, 11-12=0/3881, 10-11=0/1639
WEBS	2-15=-1972/0, 2-14=0/1376, 4-14=-759/0, 4-13=-226/520, 6-11=-1181/0, 8-11=0/1415, 8-10=-1809/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.



February 27, 2024

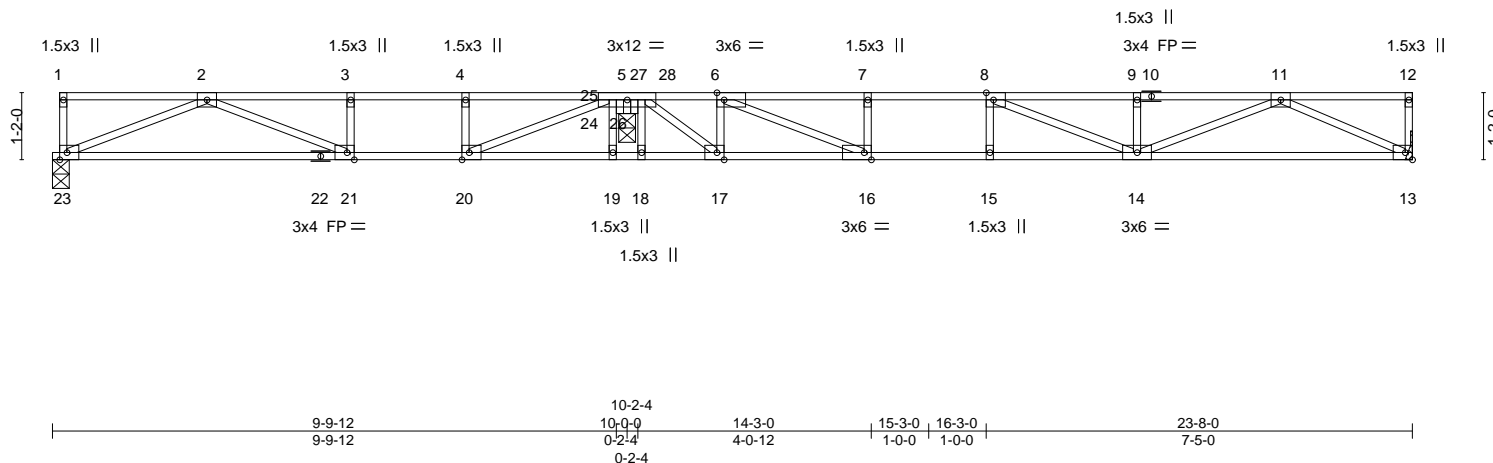
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:29 2024 Page 1  
ID: J9IWtEYxuTeU7vVoRXaeJcy4Sfv-2T4sHxa5eaZf3MEMaoVGD0o4wGJIh?Ql3fb4L VzavSG

Scale = 1:40.1



**LUMBER-**

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.1(flat)

**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, Except: 6-0-0 oc bracing: 19-20, 17-18.

## REACTIONS.

(size) 23=0-3-8, 13=Mechanical, 24=0-3-8

Max Grav 23=425(LC 3), 13=593(LC 7), 24=1050(LC 1)

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

TOP CHORD 2-3=-927/0, 3-4=-927/0, 4-27=-927/0, 5-27=0/494, 5-28=0/494, 6-28=-750/0,  
6-7=-1786/0, 7-8=-1786/0, 8-9=-1824/0, 9-11=-1824/0

BOT CHORD 21-23=0/786, 20-21=0/927, 16-17=0/750, 15-16=0/1786, 13-14=0/1083

WEBS 7-16=-302/0, 2-23=-851/0, 9-17=0/968, 4-20=-287/0, 6-16=0/1149, 6-17=-560/0,  
17-28=0/868, 8-14=-254/214, 9-24=-265/0, 11-14=0/803, 11-13=-1195/0, 5-24=-316/82

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) The Fabrication Tolerance at joint 5 = 7%, joint 5 = 7%
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10'-0" oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 8) CAUTION, Do not erect truss backwards.
- 9) Bottom chord under the bearing from joint 18 to joint 19 is required to be field removed at time of installation. No plates are to be damaged or removed.



February 27, 2024



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Chesterfield, MO 63017  
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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F110	Floor	3	1	163886538
Mid West Lumber, Urich, MO - 64788,					Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:30 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SFV-WfeEUHrJP\_hWgWpYDV1VmELHzf800R1vJKduxzgySF

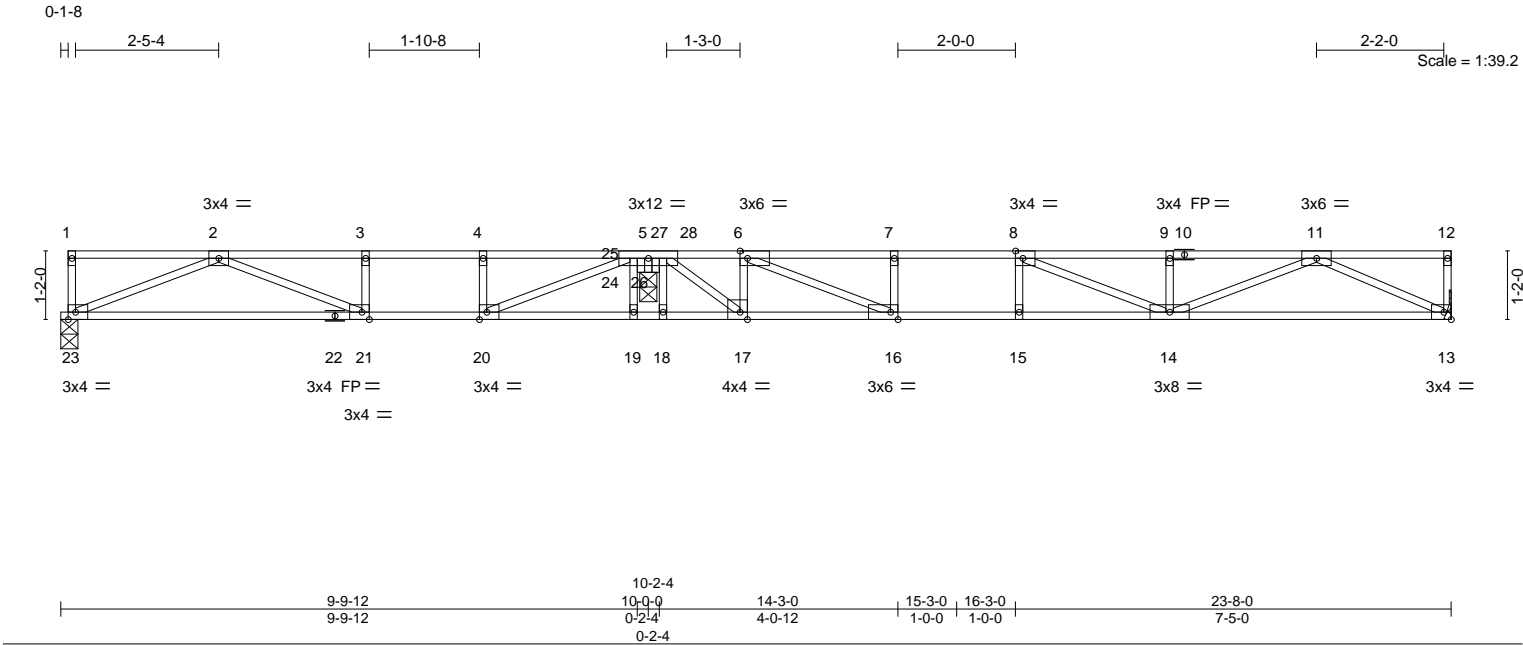


Plate Offsets (X,Y)--	[6:0-1-8,Edge], [8:0-1-8,Edge], [16:0-1-8,Edge], [17:0-1-8,Edge], [20:0-1-8,Edge], [21:0-1-8,Edge], [23:0-1-8,Edge]					
LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 40.0	Plate Grip DOL	1.00	TC 0.50	Vert(LL)	-0.17 14-15	>980 600
TCDL 10.0	Lumber DOL	1.00	BC 0.58	Vert(CT)	-0.25 14-15	>650 360
BCLL 0.0	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.03 13	n/a n/a
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S			
			Weight: 114 lb		FT = 20%F, 11%E	

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP 2400F 2.0E(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.1(flat)	6-0-0 oc bracing: 19-20,17-18.

REACTIONS.	(size) 23=0-3-8, 13=Mechanical, 24=0-3-8
	Max Grav 23=423(LC 3), 13=653(LC 7), 24=1151(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-916/0, 3-4=-916/0, 4-27=-916/0, 5-27=0/510, 5-28=0/510, 6-28=-891/0, 6-7=-2126/0, 7-8=-2126/0, 8-9=-2106/0, 9-11=-2106/0
BOT CHORD	21-23=0/781, 20-21=0/916, 16-17=0/891, 15-16=0/2126, 14-15=0/2126, 13-14=0/1210
WEBS	7-16=-368/0, 2-23=-846/0, 20-27=0/969, 4-20=-287/0, 6-16=0/1362, 6-17=-673/0, 17-28=0/1045, 8-14=-317/152, 9-14=-301/0, 11-14=0/971, 11-13=-1335/0, 5-24=-362/21

- NOTES-
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 3) The Fabrication Tolerance at joint 5 = 0%, joint 5 = 0%
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 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) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - 8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 9) CAUTION, Do not erect truss backwards.
  - 10) Bottom chord under the bearing from joint 18 to joint 19 is required to be field removed at time of installation. No plates are to be damaged or removed.

LOAD CASE(S)
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 19-23=-8, 13-18=-8, 1-6=-80, 6-9=-102, 9-12=-80
2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 19-23=-8, 13-18=-8, 1-6=-80, 6-9=-102, 9-12=-80



February 27,2024

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F110	Floor	3	1	I63886538
					Job Reference (optional)

Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:30 2024 Page 2  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SFV-WfeEUHrjP\_hWgWpYDV1VmELHzf800R1viJKduxzgySF

LOAD CASE(S)

- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-5=-80, 5-6=-16, 6-9=-38, 9-12=-16
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-5=-16, 5-6=-80, 6-9=-102, 9-12=-80
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-5=-80, 5-6=-16, 6-9=-38, 9-12=-16
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-5=-16, 5-6=-80, 6-9=-102, 9-12=-80
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-4=-80, 4-28=-16, 6-28=-80, 6-9=-102, 9-12=-80
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-3=-16, 3-6=-80, 6-9=-102, 9-12=-80
- 9) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-6=-80, 6-8=-102, 8-9=-38, 9-12=-16
- 10) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-27=-80, 6-27=-16, 6-7=-38, 7-9=-102, 9-12=-80
- 11) 5th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-4=-80, 4-28=-16, 6-28=-80, 6-9=-102, 9-12=-80
- 12) 6th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-3=-16, 3-6=-80, 6-9=-102, 9-12=-80
- 13) 7th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-6=-80, 6-8=-102, 8-9=-38, 9-12=-16
- 14) 8th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 19-23=-8, 13-18=-8, 1-27=-80, 6-27=-16, 6-7=-38, 7-9=-102, 9-12=-80

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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**MiTek®**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F111	Floor	2	1	163886539
Mid West Lumber, Urich, MO - 64788,					Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:31 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-\_sCcidsLAHpNlgOlnDYkJRtNH3O1lvO2Wz4BQNzgySE

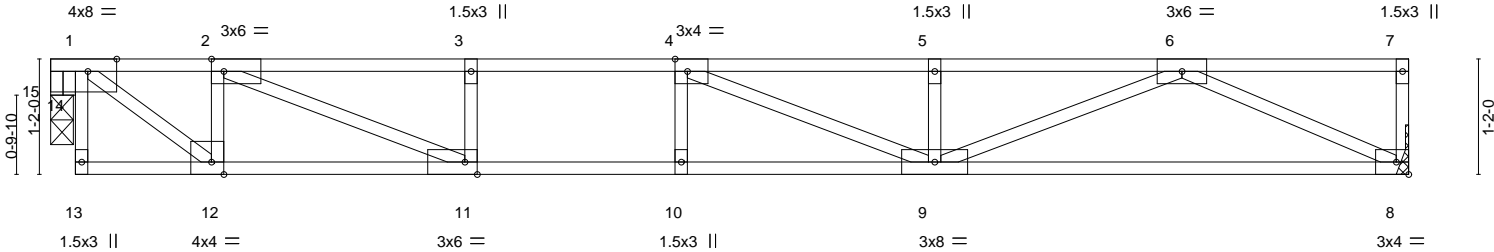


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [2:0-1-8,Edge], [4:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.78	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.00	BC 0.97	Vert(LL) -0.20 9-10 >793 600
BCLL 0.0	Rep Stress Incr NO	WB 0.25	Vert(CT) -0.31 9-10 >529 360
BCDL 5.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.02 8 n/a n/a
		Weight: 67 lb FT = 20%F, 11%E	

#### LUMBER-

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

#### 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) 8=Mechanical, 15=0-2-12  
Max Grav 8=655(LC 1), 15=680(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-910/0, 2-3=-2140/0, 3-4=-2140/0, 4-5=-2114/0, 5-6=-2114/0  
BOT CHORD 11-12=0/910, 10-11=0/2140, 9-10=0/2140, 8-9=0/1213  
WEBS 2-12=-671/0, 1-12=0/1041, 3-11=-360/0, 4-9=-343/136, 5-9=-300/0, 6-9=0/975, 6-8=-1339/0, 2-11=0/1328, 1-15=-765/0

#### NOTES-

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 15.
- This truss 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 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

#### LOAD CASE(S) Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-80, 2-5=-102, 5-7=-80
- Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-80, 2-5=-102, 5-7=-80
- 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-80, 2-4=-102, 4-5=-38, 5-7=-16



February 27,2024

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**  
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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F111	Floor	2	1	I63886539
					Job Reference (optional)

- LOAD CASE(S)** Standard
- 4) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-16, 2-3=-38, 3-5=-102, 5-7=-80
- 5) 3rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-80, 2-4=-102, 4-5=-38, 5-7=-16
- 6) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 8-13=-8, 1-2=-16, 2-3=-38, 3-5=-102, 5-7=-80

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F112	GABLE	1	1	163886540
					Job Reference (optional)

Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:32 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-T2I?vztzwbxEwqzxLw3zrfQjITzBUO9CldpkyqzgySD

0-1-8  
H

Scale = 1:37.9

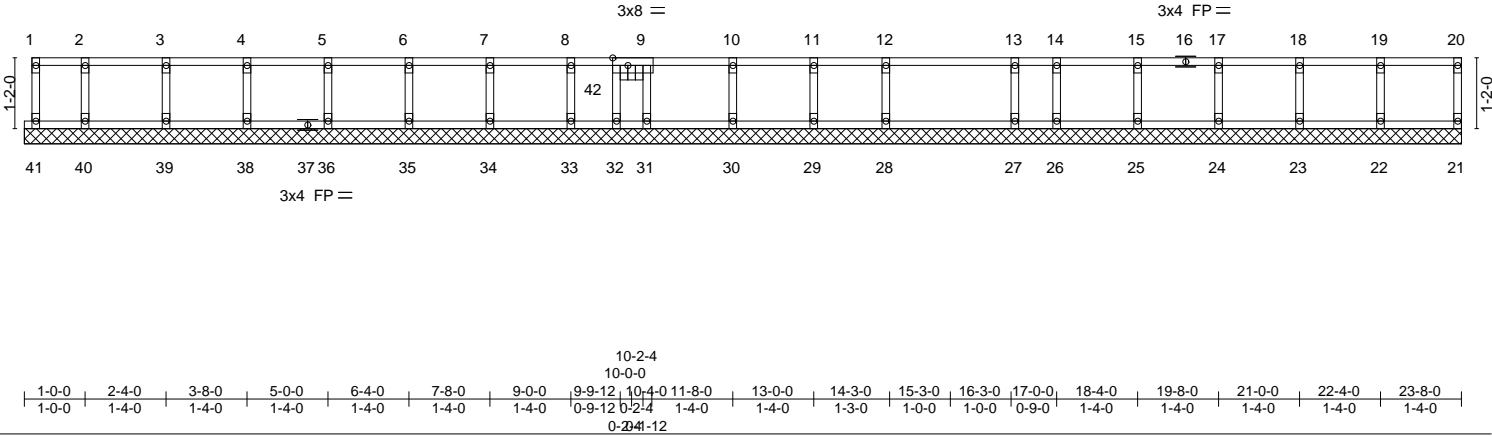


Plate Offsets (X, Y)--		[9:0-3-0,Edge]	
LOADING (psf)	SPACING-	1-7-3	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.10
TCDL 10.0	Lumber DOL	1.00	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.09
BCDL 5.0	Code IRC2018/TPI2014		Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 21 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 99 lb FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

All bearings 23-8-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 41, 21, 32, 31, 40, 39, 38, 36, 35, 34, 33, 30, 29, 28, 27, 26, 25, 24, 23, 22

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

**NOTES-**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 7) CAUTION, Do not erect truss backwards.
- 8) Bottom chord under the bearing from joint 31 to joint 32 is required to be field removed at time of installation. No plates are to be damaged or removed.



February 27, 2024

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F113	GABLE	1	1	163886541
					Job Reference (optional)

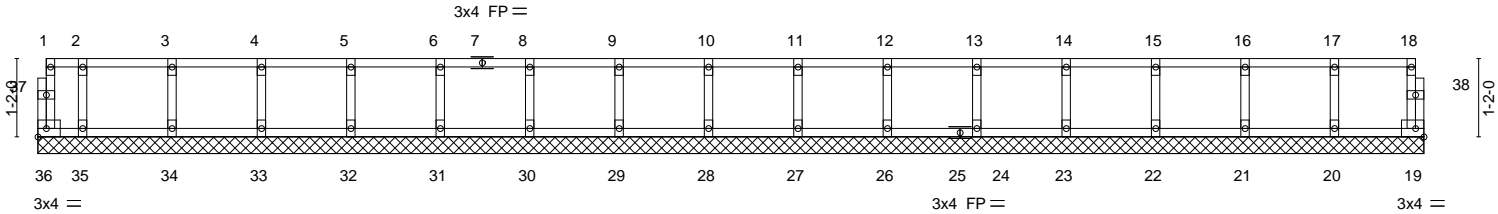
Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:34 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-PRtlKeuESCBY987KSL5Rw4V4?HenryItUCxlr1izgySB

0-1-8

0-1-8

Scale = 1:34.4



0-8-0	2-0-0	3-4-0	4-8-0	6-0-0	7-4-0	8-8-0	10-0-0	11-4-0	12-8-0	14-0-0	15-4-0	16-8-0	18-0-0	19-4-0	20-8-0
0-8-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0
<b>LOADING</b> (psf)		<b>SPACING-</b>		1-7-3	<b>CSI.</b>		<b>DEFL.</b>		in (loc)	l/defl	L/d	<b>PLATES</b>		<b>GRIP</b>	
TCLL	40.0	Plate Grip DOL	1.00		TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00		BC	0.01	Vert(CT)	n/a	-	n/a	999				
BCLL	0.0	Rep Stress Incr	YES		WB	0.01	Horz(CT)	0.00	19	n/a	n/a				
BCDL	5.0	Code IRC2018/TPI2014			Matrix-R										
												Weight: 86 lb		FT = 20%F, 11%E	

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

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

**REACTIONS.** All bearings 20-8-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 36, 19, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 24, 23, 22, 21, 20

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

**NOTES-**  
1) All plates are 1.5x3 MT20 unless otherwise indicated.  
2) Gable requires continuous bottom chord bearing.  
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
4) Gable studs spaced at 1-4-0 oc.  
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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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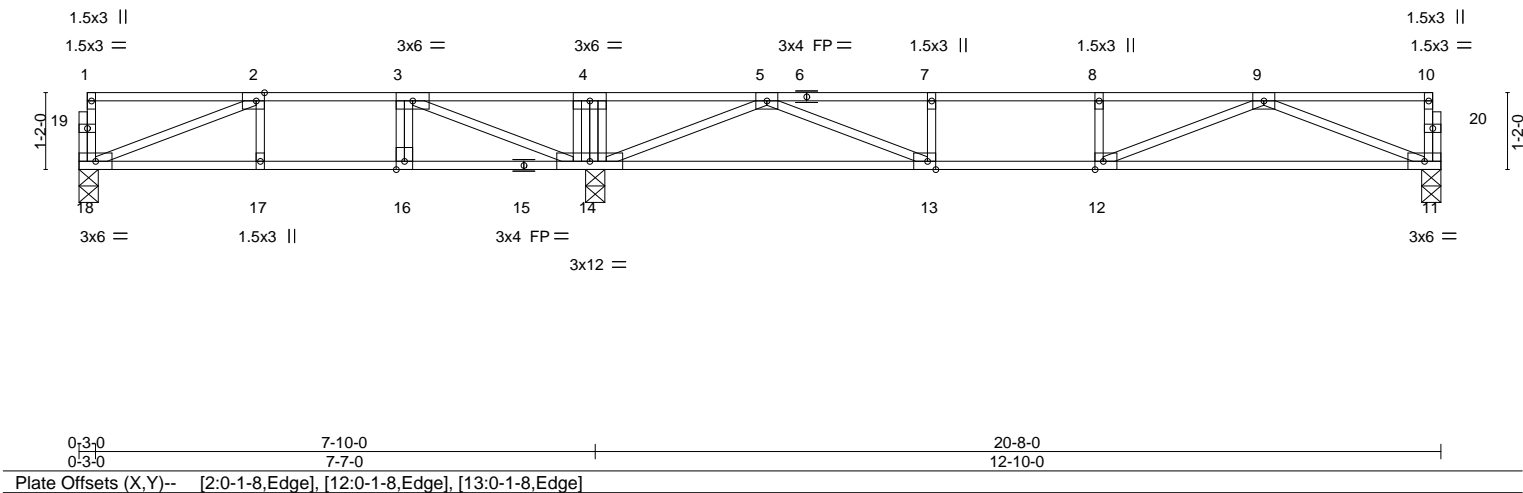
**MiTek®**

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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F114	Floor	1	1	163886542
					Job Reference (optional)

Mid West Lumber,      Ulrich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:35 2024 Page 1  
ID:J9lWtEYxuTeU7yVoRXqeJcy4SfV-tdR7X\_vsDWJonHhW03cgTH2AsguLhi1eRb2OZ8zgySA



LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.36	Vert(LL)	-0.14 11-12	>999	600	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.44	Vert(CT)	-0.20 11-12	>752	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.03 11	n/a	n/a		
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S					Weight: 102 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)

**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) 18=0-3-8, 14=0-3-8, 11=0-3-8  
Max Grav 18=320(LC 10), 14=980(LC 1), 11=541(LC 7)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-568/0, 3-4=0/457, 4-5=0/457, 5-7=-1602/0, 7-8=-1602/0, 8-9=-1602/0  
BOT CHORD 17-18=0/568, 16-17=0/568, 14-16=0/568, 13-14=0/1016, 12-13=0/1602, 11-12=0/1093  
WEBS 3-14=-857/0, 2-18=-606/0, 9-11=-1175/0, 5-14=-1293/0, 9-12=0/551, 5-13=0/741

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.



February 27, 2024

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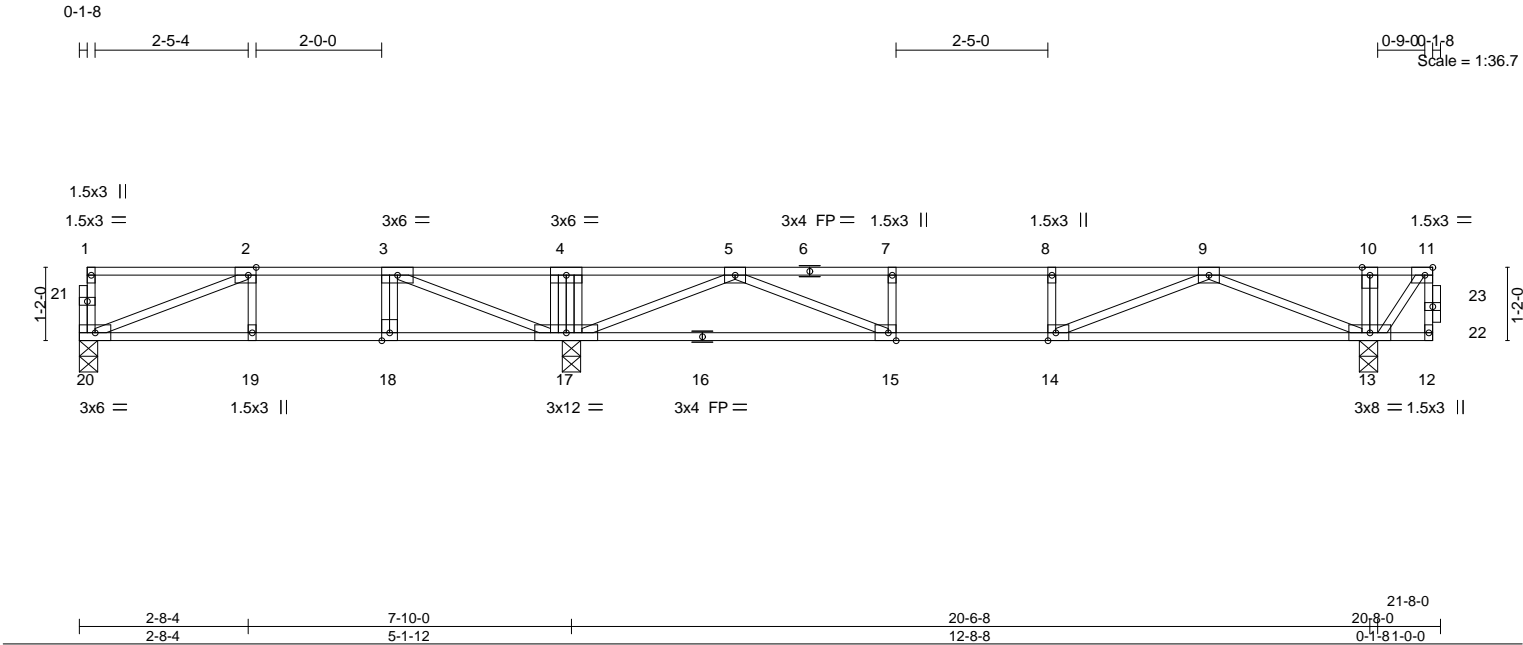
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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F115	Floor	4	1	163886543
					Job Reference (optional)

Mid West Lumber, Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:36 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-Lp?VIKwU\_qRfORGiam7v0VbKR4EhQ9LNgFny5bzgyS9



LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.44	Vert(LL)	-0.13 13-14	>999	600	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.43	Vert(CT)	-0.15 13-14	>999	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.02 13	n/a	n/a		
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S					Weight: 109 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

(size) 20=0-3-8, 17=0-3-8, 13=0-3-8  
Max Grav 20=314(LC 14), 17=974(LC 3), 13=856(LC 4)

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

TOP CHORD 2-3=-547/13, 3-4=0/501, 4-5=0/501, 5-7=-1490/0, 7-8=-1490/0, 8-9=-1490/0  
BOT CHORD 19-20=-13/547, 18-19=-13/547, 17-18=-13/547, 15-17=0/949, 14-15=0/1490, 13-14=0/939  
WEBS 2-20=-583/16, 3-17=-881/0, 9-13=-1145/0, 5-17=-1263/0, 9-14=0/597, 5-15=0/691, 11-13=-314/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 12-20=-8, 1-11=-80  
Concentrated Loads (lb)  
Vert: 11=-220



February 27, 2024

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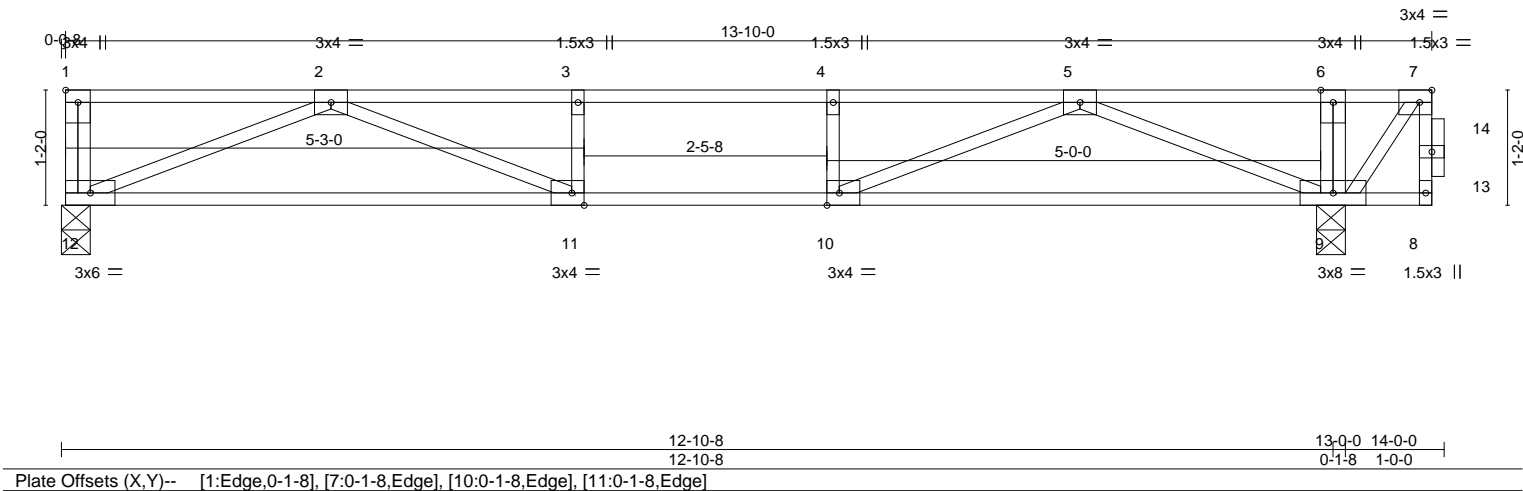
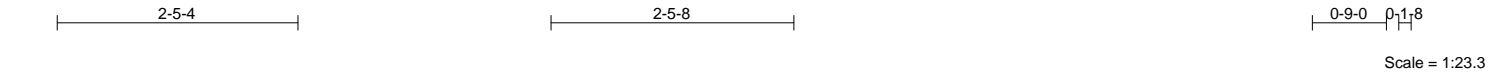
**MiTek®**

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16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / [MiTek-LLS.com](http://MiTek-LLS.com)

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F117	Floor	1	1	163886545
Mid West Lumber, Urich, MO - 64788,					Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:38 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-HC7GA0xkWRhNelQ5hBAN5wgd7uuru3?47ZG2ATzgyS7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.15 11-12 >999 600	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.23 11-12 >676 360				
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.02 9 n/a n/a				
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 69 lb FT = 20%F, 11%E			

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

REACTIONS.	
(size)	12=0-3-8, 9=0-3-8
Max Grav	12=544(LC 3), 9=882(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1587/0, 3-4=-1587/0, 4-5=-1587/0
BOT CHORD	11-12=0/1090, 10-11=0/1587, 9-10=0/976
WEBS	2-12=-1176/0, 5-9=-1198/0, 2-11=0/624, 5-10=0/759, 7-9=-269/0

NOTES-	
1) Unbalanced floor live loads have been considered for this design.	
2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.	
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.	
4) CAUTION, Do not erect truss backwards.	

LOAD CASE(S) Standard	
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00	
Uniform Loads (plf)	
Vert: 8-12=-8, 1-7=-80	
Concentrated Loads (lb)	
Vert: 7=-220	



February 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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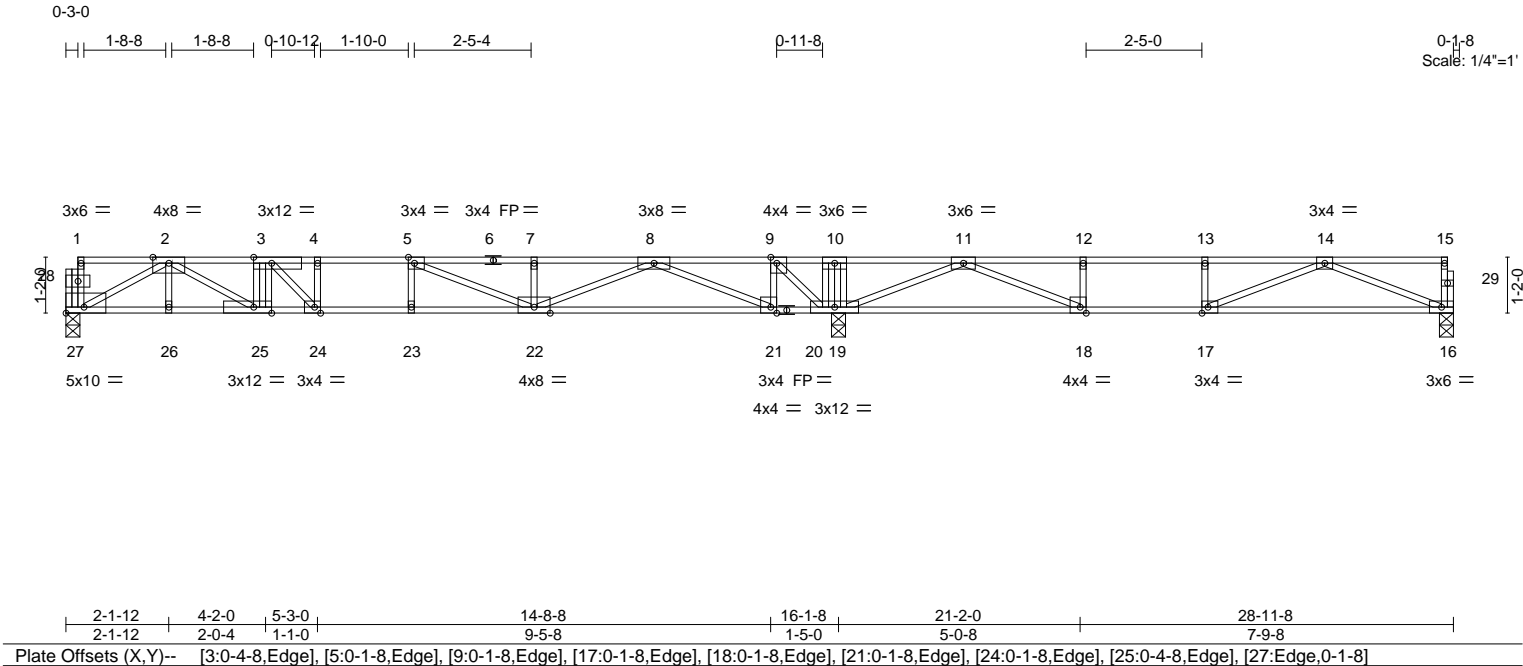
**MiTek®**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F118	Floor	1	1	163886546
					Job Reference (optional)

Mid West Lumber,      Ulrich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:40 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-EaE0biz?22x5t3aTpcCrALizahXNMw0Nbt9EMzgyS5



LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.55	Vert(LL)	-0.18 23-24	>999	600	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.70	Vert(CT)	-0.25 16-17	>602	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.42	Horz(CT)	0.05 16	n/a	n/a		
BCDL 5.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 148 lb    FT = 20%F, 11%E

**LUMBER-**

TOP CHORD    2x4 SP 2400F 2.0E(flat)  
BOT CHORD    2x4 SP 2400F 2.0E(flat)  
WEBS    2x4 SP No.1(flat)

**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, Except: 6-0-0 oc bracing: 19-21,18-19,17-18.

**REACTIONS.**

(size)    27=0-3-8, 16=0-3-8, 19=0-3-8  
Max Grav 27=1784(LC 10), 16=496(LC 4), 19=1666(LC 1)

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

TOP CHORD    1-27=-309/0, 2-3=-3708/0, 3-4=-3663/0, 4-5=-3663/0, 5-7=-2932/0, 7-8=-2932/0, 8-9=-19/569, 9-10=0/1725, 10-11=0/1733, 11-12=-1329/159, 12-13=-1329/159, 13-14=-1329/159  
BOT CHORD    26-27=0/2787, 25-26=0/2787, 24-25=0/3757, 23-24=0/3663, 22-23=0/3663, 21-22=0/1725, 19-21=-569/19, 18-19=-707/575, 17-18=-159/1329, 16-17=0/981  
WEBS    2-27=-3115/0, 9-21=0/791, 3-25=-463/0, 8-21=-1962/0, 8-22=0/1407, 14-16=-1054/0, 14-17=-211/377, 12-18=-332/0, 11-19=-1537/0, 11-18=0/1093, 9-19=-1474/0, 5-22=-1155/0, 2-25=0/1052, 3-24=-606/406

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 16-27=-8, 1-3=-430(B=-350), 3-15=-80



February 27, 2024

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**MiTek®**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F119	GABLE	1	1	I63886547
					Job Reference (optional)

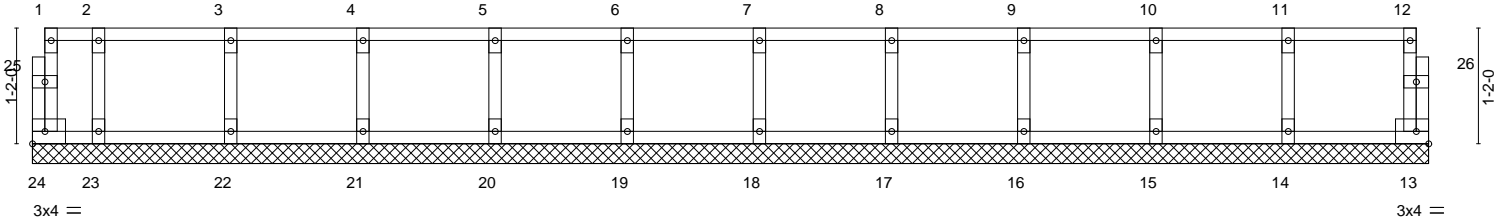
Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:41 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-inoOo1zdpM3yVC9gNJ4jYIGE51N5TcWpXVjnozgyS4

0 1/8

0 1/8

Scale = 1:23.2



0-8-0	2-0-0	3-4-0	4-8-0	6-0-0	7-4-0	8-8-0	10-0-0	11-4-0	12-8-0	14-1-0
0-8-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-5-0
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>		<b>GRIP</b>
TCLL	40.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	n/a	MT20	244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a			
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00			
BCDL	5.0	Code IRC2018/TPI2014		Matrix-R						
										Weight: 60 lb      FT = 20%F, 11%E

**LUMBER-**

TOP CHORD    2x4 SP No.1(flat)  
BOT CHORD    2x4 SP No.1(flat)  
WEBS          2x4 SP No.1(flat)  
OTHERS        2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

All bearings 14-1-0.  
(lb) - Max Grav    All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

**NOTES-**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

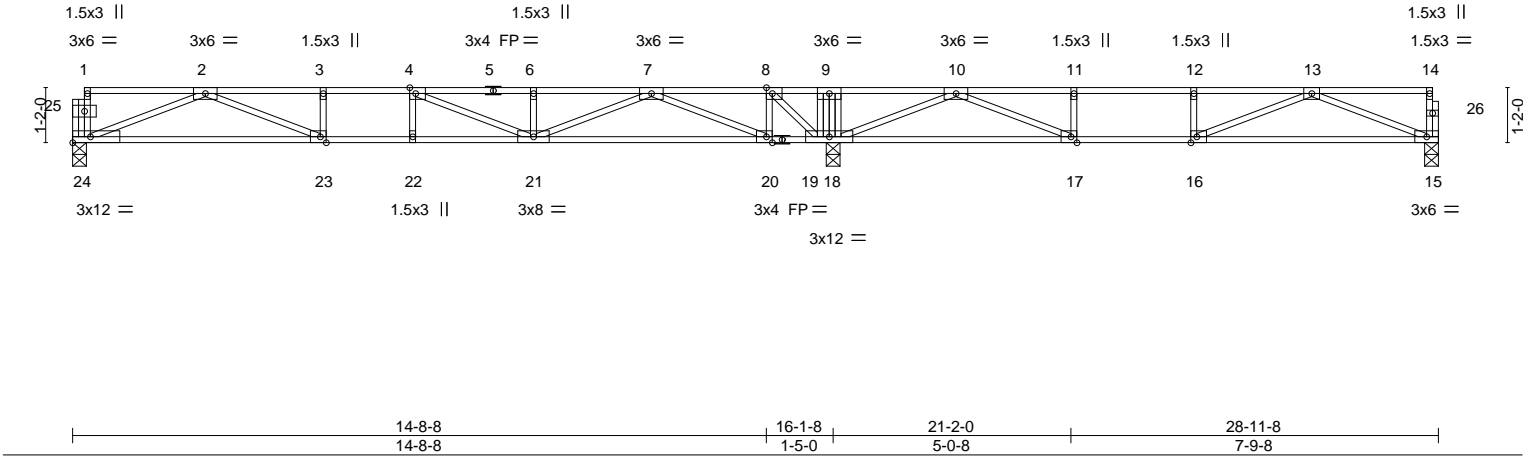
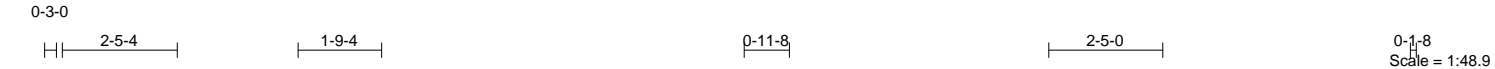
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**MiTek®**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F120	Floor	1	1	163886548
					Job Reference (optional)

Mid West Lumber, Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:42 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-AzMn?N\_FagBp7Mksw1EJFmrGfVE1qtBg2BEGJEzgyS3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.71	in (loc)	l/defl	MT20	GRIP
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(LL)	-0.21 15-16 >735 600		244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Vert(CT)	-0.30 15-16 >508 360		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S		Horz(CT)	0.04 15 n/a n/a		
								Weight: 142 lb	FT = 20%F, 11%E

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

**REACTIONS.** (size) 24=0-3-8, 15=0-3-8, 18=0-3-8  
Max Grav 24=623(LC 10), 15=501(LC 4), 18=1472(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2113/0, 3-4=-2113/0, 4-6=-2007/0, 6-7=-2007/0, 7-8=0/654, 8-9=0/1578, 9-10=0/1585, 10-11=-1358/91, 11-12=-1358/91, 12-13=-1358/91  
BOT CHORD 23-24=0/1335, 22-23=0/2113, 21-22=0/2113, 20-21=0/1199, 18-20=-654/0, 17-18=-596/621, 16-17=-91/1358, 15-16=0/993  
WEBS 2-24=-1426/0, 8-20=0/602, 2-23=0/842, 7-20=-1495/0, 7-21=0/972, 13-15=-1067/0, 13-16=-167/395, 11-17=-319/0, 10-18=-1509/0, 10-17=0/1046, 8-18=-1179/0, 4-21=-499/0

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) All plates are 3x4 MT20 unless otherwise indicated.  
3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
5) CAUTION, Do not erect truss backwards.



February 27, 2024

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:43 2024 Page 1  
ID: J9lWtEYxuTeU7vVoRXqeJcv4Sfv-e9w9Dj?tlZJqkWJ2UkmYozNVbvYQZKapHr prhzqvS2

0-3-0



1-9-4

0-1-8  
Scale = 1:24.9

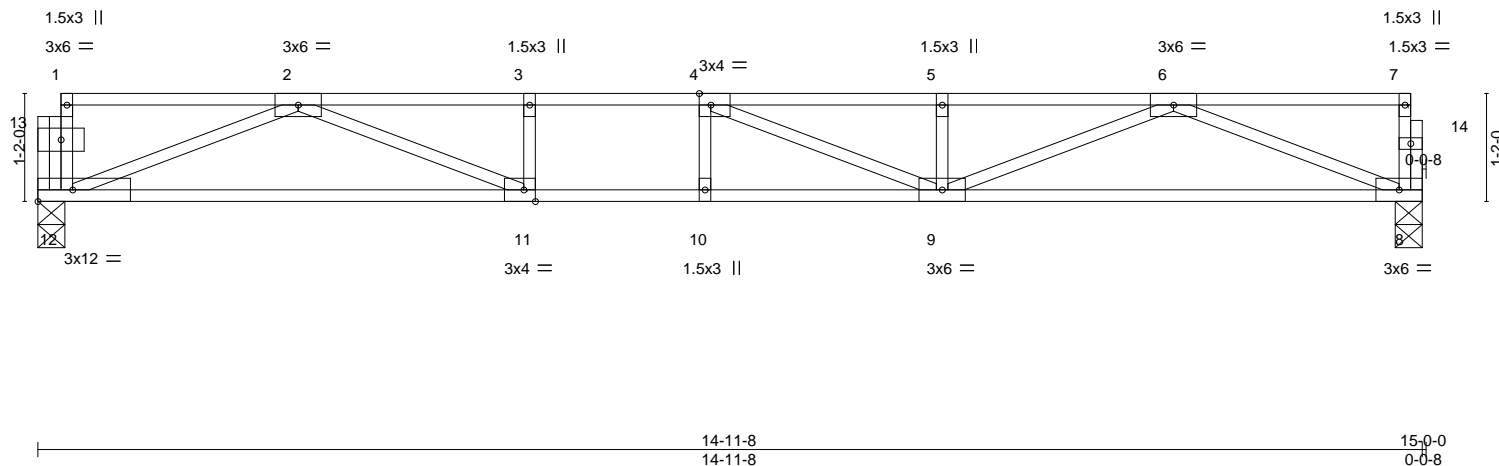


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [11:0-1-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 1-7-3		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.20 9-10 >860 600	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.26 9-10 >667 360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.03 8 n/a n/a		
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S				Weight: 74 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.1(flat)

**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) 8=0-3-8, 12=0-3-8  
Max Grav 8=639(LC 1), 12=634(LC 1)

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

TOP CHORD 2-3=-2178/0, 3-4=-2178/0, 4-5=-2117/0, 5-6=-2117/0  
BOT CHORD 11-12=0/1364, 10-11=0/2178, 9-10=0/2178, 8-9=0/1335  
WEBS 6-8=-1436/0, 2-12=-1457/0, 6-9=0/847, 2-11=0/912, 5-9=-256/0, 4-9=-379/167

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 27, 2024

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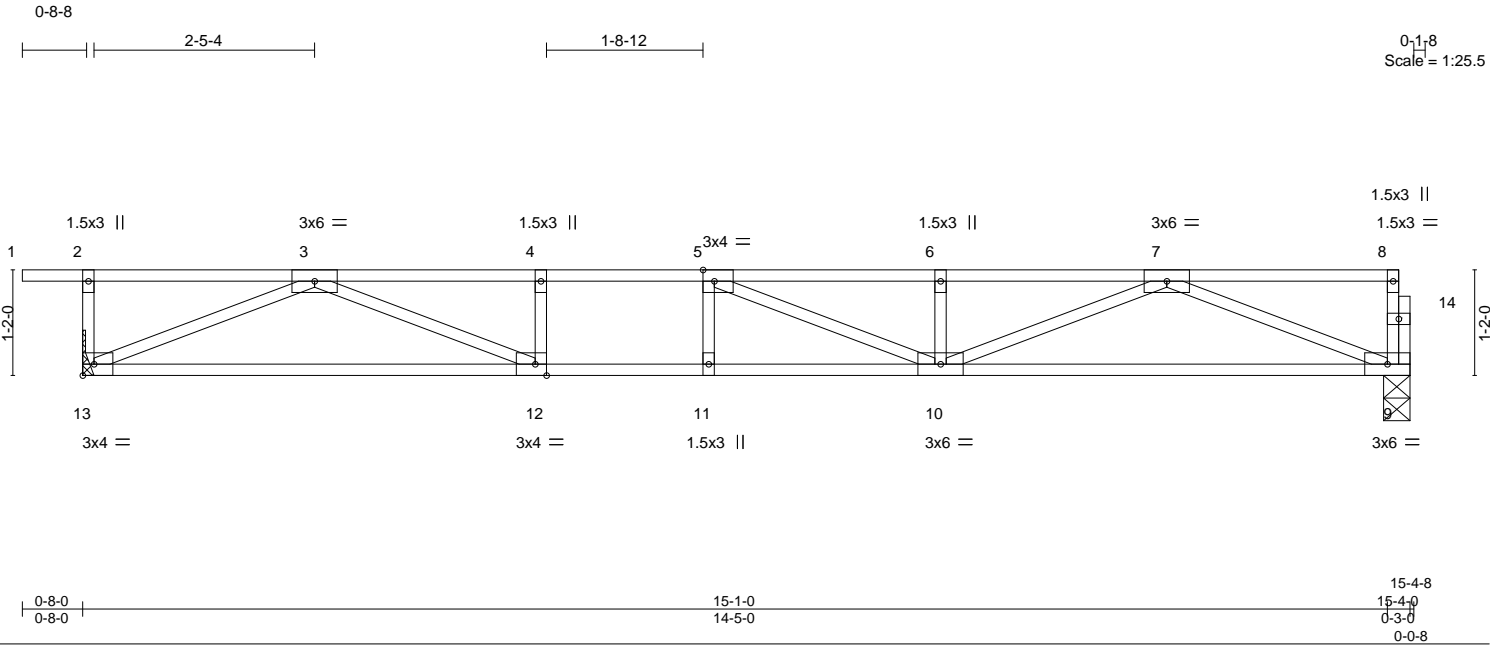
MiTek®

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F122	Floor	4	1	163886550
					Job Reference (optional)

Mid West Lumber,      Ulrich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:44 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SFV-6MUXQ30V6HRXMgtF2RHnKBwgNJumInxzWVjNN7zgyS1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	-0.20 10-11 >875 600	MT20		244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.26 10-11 >677 360				
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03 9 n/a n/a				
BCDL	5.0	Code IRC2018/TPI2014		Matrix-S							
										Weight: 72 lb	FT = 20%F, 11%E

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

REACTIONS. (size) 9=0-3-8, 13=Mechanical  
Max Grav 9=632(LC 4), 13=697(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-2119/0, 4-5=-2119/0, 5-6=-2081/0, 6-7=-2081/0  
BOT CHORD 12-13=0/1294, 11-12=0/2119, 10-11=0/2119, 9-10=0/1316  
WEBS 3-13=-1402/0, 3-12=0/916, 7-10=0/829, 4-12=-253/0, 6-10=-256/0, 7-9=-1416/0, 5-10=-356/183

- NOTES-
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Refer to girder(s) for truss to truss connections.
  - 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) CAUTION, Do not erect truss backwards.

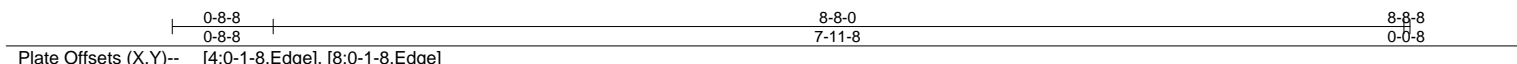


February 27, 2024

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8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:44 2024 Page 1  
ID: J9lWtEYxuTeU7vYoRXqeJcy4Sfv-6MUXQ30V6HRXMatF2RHnKBwdjJwdlpxzWVlNN7zqvS1



**LUMBER-**

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.1(flat)

**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.

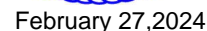
**REACTIONS.** (size) 6=0-3-8, 1=0-8-0  
Max Grav 6=337(LC 1), 1=342(LC 1)

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

TOP CHORD 1-9=0/271, 2-3=-488/0, 3-4=-488/0  
BOT CHORD 8-9=0/585, 7-8=0/488, 6-7=0/473  
WEBS 2-9=-634/0, 4-6=-793/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 5) CAUTION. Do not erect truss backwards.

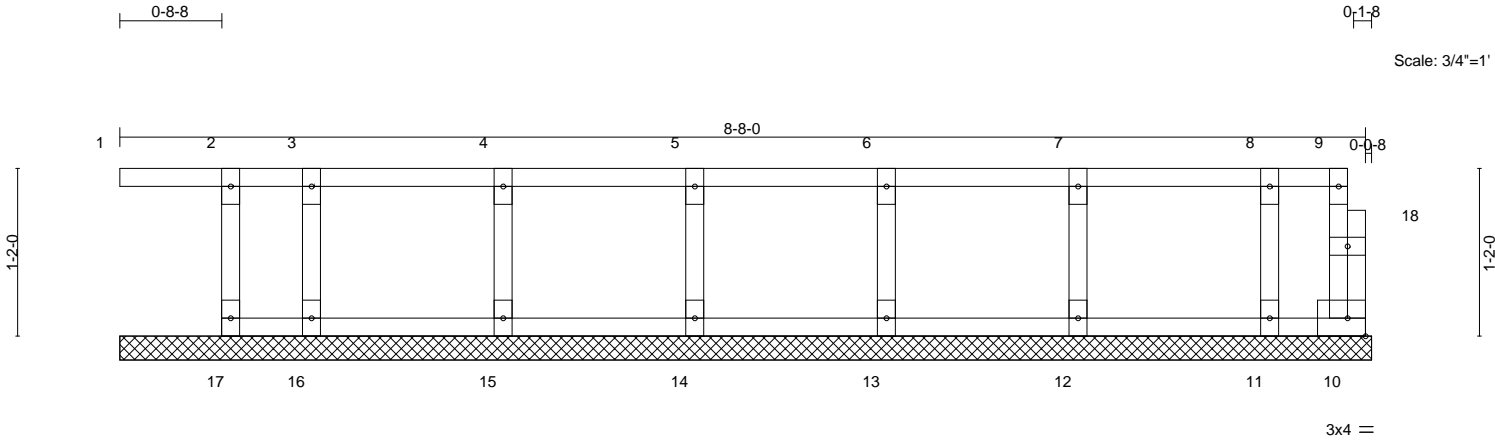


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Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F125	GABLE	1	1	I63886552
Mid West Lumber, Urich, MO - 64788,					Job Reference (optional)

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:52 2024 Page 1  
ID:J9lWtEYxuTeU7yVoRXqeJcy4SfV-tuzY6o6WDkSOJvVnW7Qfftf9SXn6ARK8LkfoefzgyRv



0-8-8		1-4-0		2-8-0		4-0-0		5-4-0		6-8-0		8-0-0		8-8-8							
0-8-8		0-7-8		1-4-0		1-4-0		1-4-0		1-4-0		1-4-0		0-8-8							
<b>LOADING</b> (psf)		<b>SPACING-</b>		1-7-3		<b>CSI.</b>		<b>DEFL.</b>		in (loc)		l/defl		L/d		<b>PLATES</b>		<b>GRIP</b>			
TCLL 40.0		Plate Grip DOL		1.00		TC 0.05		Vert(LL)		n/a		-		n/a		999		MT20		244/190	
TCDL 10.0		Lumber DOL		1.00		BC 0.00		Vert(CT)		n/a		-		n/a		999					
BCLL 0.0		Rep Stress Incr		YES		WB 0.01		Horz(CT)		0.00		17		n/a		n/a					
BCDL 5.0		Code IRC2018/TPI2014				Matrix-R												Weight: 37 lb		FT = 20%F, 11%E	

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 8-8-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

All bearings 8-8-8.  
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 10  
Max Grav All reactions 250 lb or less at joint(s) 17, 1, 16, 15, 14, 13, 12, 11

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

**NOTES-**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) N/A
- 6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 9) CAUTION, Do not erect truss backwards.



February 27, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

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Job	Truss	Truss Type	Qty	Ply	Lot 359 Park Ridge
230472-2-F	F126	GABLE	1	1	I63886553
					Job Reference (optional)

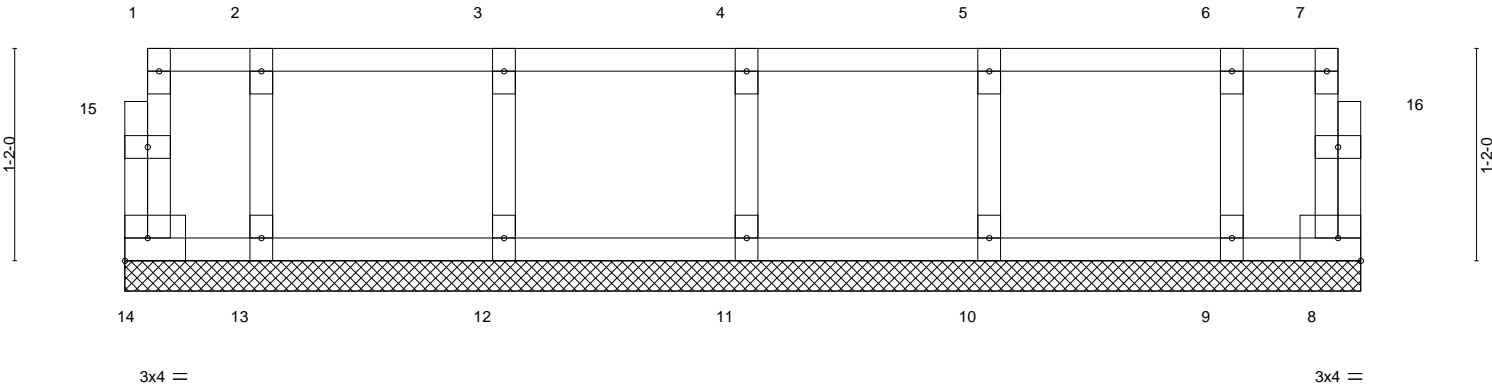
Mid West Lumber,      Urich, MO - 64788,

8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:53 2024 Page 1  
ID:J9IWtEYxuTeU7yVoRXqeJcy4SfV-L4XxJ878\_2aFx24z4qxuC4oJCx7LvuaHaOPLB6zgyRu

Q-1-8

Q-1-8

Scale = 1:12.7



0-9-0		2-1-0		3-5-0		4-9-0		6-1-0		6-9-8	
0-9-0		1-4-0		1-4-0		1-4-0		1-4-0		0-8-8	
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>		<b>GRIP</b>	
TCLL 40.0		1-7-3		TC 0.05		in (loc) l/defl L/d		MT20		244/190	
TCDL 10.0		Plate Grip DOL 1.00		BC 0.00		Vert(LL) n/a - n/a 999					
BCLL 0.0		Lumber DOL 1.00		WB 0.01		Vert(CT) n/a - n/a 999					
BCDL 5.0		Rep Stress Incr YES		Matrix-R		Horz(CT) 0.00 8 n/a n/a					
		Code IRC2018/TPI2014						Weight: 32 lb		FT = 20%F, 11%E	

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.1(flat)  
OTHERS 2x4 SP No.1(flat)

**BRACING-**

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

**REACTIONS.**

All bearings 6-9-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

**NOTES-**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 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) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 27, 2024

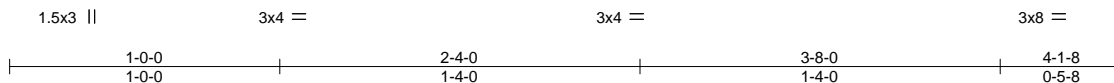
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcsccomponents.com](http://www.sbcsccomponents.com))

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8.530 s Aug 2 2023 MiTek Industries, Inc. Tue Feb 27 11:16:54 2024 Page 1  
ID: J9IWtEYxuTeU7vVoRXqeJcv4Sfv-pH4JXU8nIMi6ZCAdYS7kIKUnLTDeLwRp28viYzgvRt



**LUMBER-**

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.1(flat)
OTHERS	2x4 SP No.1(flat)

**BRACING-**

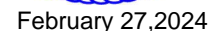
TOP CHORD	Structural wood sheathing directly applied or 4-1-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-1-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 6, 9, 8, 7

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

**NOTES-**

- 1) Gable requires continuous bottom chord bearing.
- 2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 3) Gable studs spaced at 1-4-0 oc.
- 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION. Do not erect truss backwards.

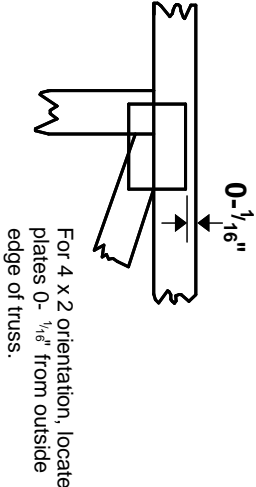
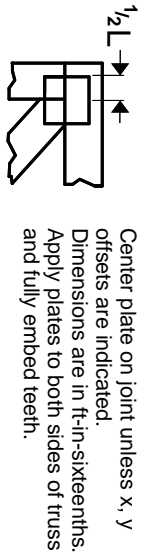


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TP1 Quality Criteria, and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcscomponents.com](http://www.sbcscomponents.com))

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# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

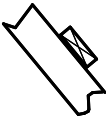
This symbol indicates the required direction of slots in connector plates.

## PLATE SIZE

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

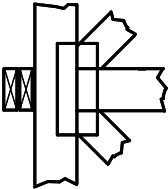
4 X 4

## 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.

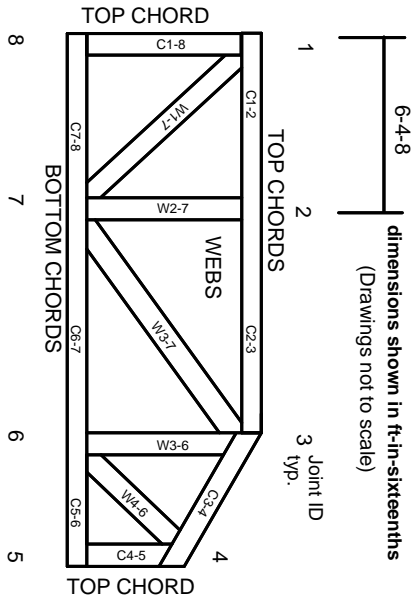
## BEARING



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

**Industry Standards:**  
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## Product Code Approvals

ICC-ES Reports:  
ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.  
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.