### 03/04/2024



RE: P240089-01

Roof - Osage Lot 42

MiTek, Inc.

16023 Swingley Ridge Rd. Chesterfield, MO 63017

314.434.1200

### **Site Information:**

Customer: Clayton Properties Project Name: P240089-01

Lot/Block: 42 Model:

Address: 3710/3712/3716/3718 SW Clayton Bulivision: Osage

City: Lee's Summit State: MO

### General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6

Wind Code: ASCE 7-16 Wind Speed: 115 mph Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 26 individual, dated Truss Design Drawings and 0 Additional Drawings.

No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Seal# 163424346 163424347 163424348 163424349 163424350 163424351 163424353 163424353 163424355 163424356 163424357 163424358 163424360 163424361 163424362 163424363 163424364	Truss Name A1 A2 A3 A4 B1 B2 C1 C2 C3 C4 D1 D2 D3 E1 E2 G1 G1A G2 G2A	Date 2/6/2024	No. 21 22 23 24 25 26	Seal# I63424366 I63424367 I63424368 I63424370 I63424371	Truss Name V2 V3 V4 V5 V6 V7	Date 2/6/2024 2/6/2024 2/6/2024 2/6/2024 2/6/2024
19	163424364	G2A	2/6/2024				
20	163424365	V1	2/6/2024				

The truss drawing(s) referenced above have been prepared by

MiTek USA, Inc under my direct supervision

based on the parameters provided by .

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



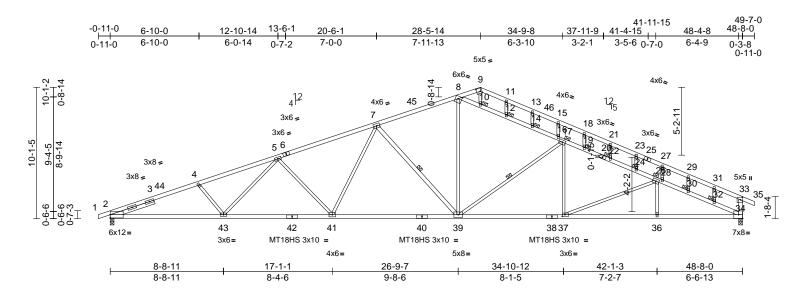
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	A1	Roof Special Structural Gable	1	1	Job Reference (optional)	

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424346 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Jun 15 2023 Print: 8.630 E Jun 15 2023 MiTek Industries, Inc. N on Feb (5) ID:kkw6VMCTKypljEPYbt576Oz\_rGt-9GhMRTE7BbEzNQVDnxozuCaBE3jnr vWNJQ



Scale = 1:88.7

LUMBER

Plate Offsets (X, Y): [8:0-3-8,0-2-7], [9:0-3-7,0-3-0], [33:0-2-8,0-1-12], [37:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.43	39-41	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.91	39-41	>640	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.26	34	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 262 lb	FT = 20%

TOP CHORD	2x4 SP No.2 *Except* 1-6:2x4 SP 2400F
	2.0E, 6-9:2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP 2400F 2.0E *Except* 0-0:2x4 SP
	No.2, 38-40,40-42:2x4 SP 1650F 1.5E
WEBS	2x3 SPF No.2 *Except* 34-33:2x4 SP 1650F
	1.5E, 39-7:2x4 SP No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SPF No.3 3-6-9
BRACING	

TOP CHORD Structural wood sheathing directly applied or 2-7-15 oc purlins, except end verticals.

Except: 1 Row at midpt 17-22, 22-26

BOT CHORD Rigid ceiling directly applied or 7-8-14 oc bracing.

WFBS 1 Row at midpt 17-39, 7-39 **JOINTS** 1 Brace at Jt(s): 26,

17, 10, 12, 14, 22, 30, 32

REACTIONS (lb/size) 2=2247/0-3-8. 34=2258/0-3-8 Max Horiz 2=176 (LC 16)

Max Uplift 2=-410 (LC 8), 34=-299 (LC 13)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0, 2-3=-5356/1055, 3-44=-5266/1070, 4-44=-5249/1080, 4-5=-5112/1047, 5-6=-4321/904, 6-7=-4307/933, 7-45=-3096/742, 8-45=-3018/760, 8-9=-514/398, 9-11=-513/397, 11-13=-525/359, 13-46=-522/339 15-46=-571/331, 15-18=-507/272, 18-21=-510/238, 21-23=-542/220, 23-25=-512/188, 25-27=-560/181, 27-29=-536/126, 29-31=-562/107, 31-33=-555/72, 33-35=0/29, 33-34=-388/146, 8-10=-2621/483, 10-12=-2554/428, 12-14=-2596/451, 14-16=-2610/458 16-17=-2727/509, 17-19=-3346/625 19-20=-3395/648. 20-22=-3395/648. 22-24=-3414/656, 24-26=-3455/681 26-28=-3802/809, 28-30=-3881/867 30-32=-3908/878, 32-34=-3976/917

**BOT CHORD** 2-43=-960/4934, 42-43=-854/4544, 41-42=-854/4544, 40-41=-645/3649, 39-40=-645/3649, 38-39=-607/3618, 37-38=-607/3618, 36-37=-816/4047, 34-36=-816/4047

WEBS 4-43=-226/176, 8-39=-283/1619, 5-43=-51/444, 5-41=-795/291,

7-41=-117/862, 26-36=0/217, 17-37=0/433, 26-37=-533/245, 17-39=-965/267, 7-39=-1204/363, 9-10=-154/173, 11-12=-107/75, 13-14=-38/27, 15-16=-310/150, 18-19=-129/66, 21-22=-48/24, 23-24=-110/67 27-28=-220/158, 29-30=-71/30, 31-32=-160/92

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 49-7-0 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
- 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 MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.



February 6,2024

· 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



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 P240089-01 Α1 Roof Special Structural Gable Job Reference (optional RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424346 LEE'S SUMMIT, MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Jun 15 2023 Print: 8.630 E Jun 15 2023 MiTek Industries, Inc. Non Feb 5 328:40 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-9GhMRTE7BbEzNQVDnxozuCaBE3jnryVVNJQD-H22A60 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-9GhMRTE7BbEzNQVDnxozuCaBE3jnr

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



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	A2	Roof Special	2	1	Job Reference (optional

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fi Feb 02 17 1424 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7342JC

DEVELOPMENT SERVICES 163424347 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW

MT18HS 3x10 u

6x6=

48-8-0

6-6-13

-0-11-0 49-7-0 6-10-0 12-10-14 20-6-1 28-5-14 34-10-12 42-1-3 48-8-0 6-10-0 6-0-14 7-7-3 7-11-13 6-4-14 7-2-7 6-6-13 0-11-0 0 - 11 - 05x5 = 8 3x6 412 24 1<u>2</u> 15 4x6 = 25 9 3x6 = 3x6**≈** 3x6 = 10 3x6**≈** 56 11 3x8 = 3x4 5x8≈ 3x8 = 12 13<sub>4</sub> 3 23 14 20 22 21 19 18 15 1716

5x8 WB =

5x8=

4x6=

34-10-12

6-4-14

3x6=

42-1-3

7-2-7

10-1-5

10-1

Plate Offsets (X, Y): [8:0-2-15,0-2-8], [12:0-3-0,0-1-12], [15:0-2-8,0-3-0], [16:0-2-8,0-1-8]

8-8-11

8-8-11

3x6=

MT18HS 3x10 =

17-1-1

8-4-6

4x6=

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.38	18-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.89	18-20	>651	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	1.00	Horz(CT)	0.20	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 229 lb	FT = 20%

28-5-14

11-4-13

LUMBER

2x4 SP 2400F 2.0E \*Except\* 10-13:2x4 SP TOP CHORD

No.2, 10-8:2x4 SP 1650F 1.5E

**BOT CHORD** 2x4 SP 2400F 2.0E \*Except\* 0-0,17-14:2x4 SP No.2

**WEBS** 

6x12=

2x3 SPF No.2 \*Except\* 14-12,18-7:2x4 SP No 2

OTHERS 2x4 SPF No.3

Left 2x4 SPF No.3 -- 3-6-9 SLIDER

**BRACING** 

TOP CHORD Structural wood sheathing directly applied,

except end verticals

BOT CHORD Rigid ceiling directly applied or 7-9-8 oc

bracing

WEBS 1 Row at midpt 11-16, 9-18, 7-18

REACTIONS (size) 2=0-3-8, 14=0-3-8 Max Horiz 2=176 (LC 12)

Max Uplift 2=-410 (LC 8), 14=-299 (LC 13)

Max Grav 2=2247 (LC 1), 14=2258 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0, 2-4=-5356/1084, 4-5=-5108/1050,

5-7=-4330/928, 7-8=-2894/728, 8-9=-2968/743, 9-11=-3396/769,

11-12=-3356/696, 12-13=0/29, 12-14=-2192/569

**BOT CHORD** 2-22=-964/4936, 20-22=-847/4538,

18-20=-654/3662, 16-18=-509/3047, 15-16=-565/3019, 14-15=-80/181

WEBS 4-22=-238/181, 8-18=-292/1534,

5-22=-63/443, 5-20=-764/283, 7-20=-94/866,

11-15=-503/205, 9-16=0/222, 11-16=-138/178, 9-18=-686/266,

7-18=-1372/407, 12-15=-497/2909

### NOTES

Unbalanced roof live loads have been considered for 1) this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 49-7-0 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
- 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. Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 14 SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024

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

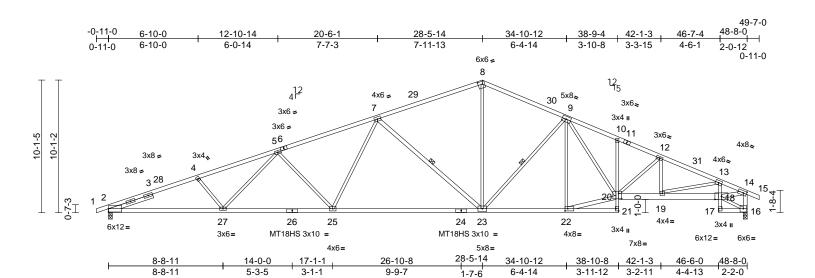


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	A3	Roof Special	5	1	Job Reference (optional)

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 7 1425 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 163424348 LEE'S SUMMIT. MISSOURI VrCDoi7342J6

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW



Scale = 1:87.8

Plate Offsets (X, Y): [8:	3:0-3-15,0-2-8], [14:0-2-	15,0-2-0], [20:0-2-12,0-5-0]	, [21:Edge,0-2-8], [22:0-2-8,0-2-0]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.40	23-25	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.94	23-25	>617	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.30	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 246 lb	FT = 20%

LUMBER

TOP CHORD 2x8 SPF No.2 \*Except\* 1-6,6-8:2x4 SP

2400F 2.0E, 11-8:2x4 SP 1650F 1.5E,

11-15:2x4 SP No.2

BOT CHORD 2x4 SP No.2 \*Except\* 21-10.13-17:2x3 SPF No.2, 20-18:2x6 SPF No.2, 26-2,24-26:2x4

SP 2400F 2.0E, 24-21:2x4 SP 1650F 1.5E 2x3 SPF No.2 \*Except\* 16-14:2x4 SPF No.3,

20-22,23-7,14-18:2x4 SP No.2

SLIDER Left 2x4 SPF No.3 -- 3-6-9

**BRACING** TOP CHORD

WFBS

Structural wood sheathing directly applied or

2-3-10 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 8-5-13 oc

bracing.

WFBS 1 Row at midpt 9-23, 7-23 REACTIONS 2=0-3-8, 16=0-3-8 (size)

Max Horiz 2=176 (LC 16)

Max Uplift 2=-410 (LC 8), 16=-299 (LC 13) Max Grav 2=2247 (LC 1), 16=2258 (LC 1)

(lb) - Maximum Compression/Maximum **FORCES** 

Tension

TOP CHORD

1-2=0/0. 2-4=-5355/1084. 4-5=-5108/1050.

5-7=-4330/928, 7-8=-2893/729, 14-16=-2200/543, 8-9=-2963/742, 9-10=-4143/954, 10-12=-4185/904 12-13=-4395/907, 13-14=-3505/748,

14-15=0/29

**BOT CHORD** 20-21=0/76, 10-20=-167/90,

19-20=-743/4004, 18-19=-692/3289, 17-18=0/34, 13-18=-714/196, 16-17=-26/86, 2-27=-964/4935, 25-27=-847/4539,

23-25=-654/3661, 22-23=-506/3031,

21-22=-26/165

**WEBS** 4-27=-238/180, 5-27=-63/443,

5-25=-764/283, 7-25=-93/867, 8-23=-286/1518, 12-19=-54/86 9-22=-726/188, 20-22=-499/2976,

9-23=-664/259, 7-23=-1372/405, 13-19=-101/739, 12-20=-312/114,

16-18=-74/58, 14-18=-676/3260,

9-20=-302/1433

### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) 2) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96: Cat. II: Exp C: Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 49-7-0 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
- 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.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



MARNING - 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

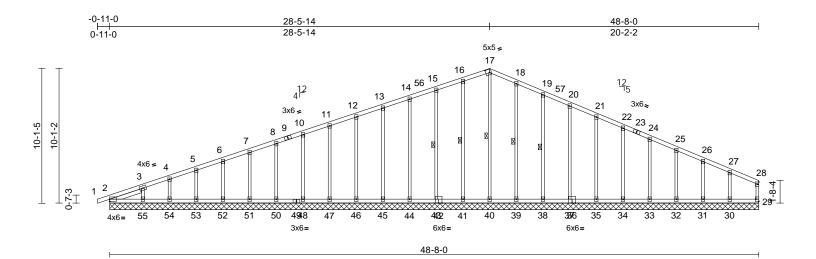


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	Г
P240089-01	A4	Roof Special Supported Gable	1	1	Job Reference (optional	

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 101426 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7342JS

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424349 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION



Scale = 1:86.4

Plate Offsets (X, Y):	Plate Offsets (X, Y): [17:0-3-7,0-3-0], [29:Edge,0-2-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a		n/a	999	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	29	n/a	n/a			
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 254 lb	FT = 20%	

LUMBER TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 2x3 SPF No.2 WEBS OTHERS 2x3 SPF No 2 SLIDER Left 2x4 SPF No.3 -- 2-6-2 **BRACING** 

TOP CHORD **BOT CHORD** 

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

WFBS

1 Row at midpt

18-39, 19-38

17-40, 16-41, 15-43,

REACTIONS (size) 2=48-8-0, 29=48-8-0, 30=48-8-0, 31=48-8-0, 32=48-8-0, 33=48-8-0, 34=48-8-0, 35=48-8-0, 37=48-8-0, 38=48-8-0. 39=48-8-0. 40=48-8-0. 41=48-8-0, 43=48-8-0, 44=48-8-0, 45=48-8-0, 46=48-8-0, 47=48-8-0, 48=48-8-0. 50=48-8-0. 51=48-8-0. 52=48-8-0, 53=48-8-0, 54=48-8-0,

55=48-8-0 Max Horiz 2=184 (LC 12)

Max Uplift 2=-50 (LC 13), 29=-1 (LC 8), 30=-87 (LC 13), 31=-42 (LC 13), 32=-53 (LC 13), 33=-51 (LC 13),

34=-51 (LC 13), 35=-51 (LC 13), 37=-50 (LC 13), 38=-57 (LC 13), 39=-40 (LC 13), 41=-39 (LC 12), 43=-50 (LC 8), 44=-45 (LC 12), 45=-46 (LC 8), 46=-46 (LC 12),

47=-46 (LC 8), 48=-46 (LC 12), 50=-46 (LC 8), 51=-46 (LC 12), 52=-46 (LC 8), 53=-46 (LC 12), 54=-46 (LC 8), 55=-76 (LC 12)

2=176 (LC 1), 29=83 (LC 1), 30=201 (LC 26), 31=175 (LC 1), 32=181 (LC 26), 33=180 (LC 1), 34=180 (LC 26), 35=180 (LC 26), 37=180 (LC 1), 38=180 (LC 26), 39=188 (LC 26), 40=218 (LC 22), 41=188 (LC 25), 43=180 (LC 25), 44=180 (LC 1), 45=180 (LC 25), 46=180 (LC 1), 47=180 (LC 25), 48=180 (LC 1), 50=180 (LC 1), 51=180 (LC 1), 52=180 (LC 25), 53=182 (LC 1), 54=174 (LC 25),

55=210 (LC 25) (lb) - Maximum Compression/Maximum Tension

1-2=0/0, 2-3=-205/124, 3-4=-163/127, 4-5=-141/144, 5-6=-120/161, 6-7=-99/178, 7-8=-78/195, 8-10=-88/219, 10-11=-99/247,

11-12=-111/275, 12-13=-122/303, 13-14=-133/331, 14-15=-145/358, 15-16=-157/388, 16-17=-167/411, 17-18=-171/409, 18-19=-158/352, 19-20=-142/292. 20-21=-128/253. 21-22=-113/218. 22-24=-99/182. 24-25=-84/146, 25-26=-69/110,

26-27=-56/76, 27-28=-50/41, 28-29=-65/27 2-55=-34/63, 54-55=-34/63, 53-54=-34/63, 52-53=-34/63, 51-52=-34/63, 50-51=-34/63,

48-50=-34/63, 47-48=-34/63, 46-47=-34/63, 45-46=-34/63, 44-45=-34/63, 43-44=-34/63, 41-43=-34/63, 40-41=-34/63, 39-40=-34/63, 38-39=-34/63, 37-38=-34/63, 35-37=-34/63,

34-35=-34/63, 33-34=-34/63, 32-33=-34/63, 31-32=-34/63, 30-31=-34/63, 29-30=-34/63

17-40=-186/38, 16-41=-148/118, 15-43=-140/123, 14-44=-140/71,

13-45=-140/70, 12-46=-140/70, 11-47=-140/70, 10-48=-140/70,

8-50=-140/70, 7-51=-140/70, 6-52=-140/70, 5-53=-141/70, 4-54=-137/69, 3-55=-161/101, 18-39=-148/123, 19-38=-140/134,

20-37=-140/75, 21-35=-140/75, 22-34=-140/75, 24-33=-140/75,

25-32=-141/76, 26-31=-136/69, 27-30=-157/100

NOTES

**WEBS** 

Unbalanced roof live loads have been considered for 1) this design.



February 6,2024

**FORCES** 

TOP CHORD

**BOT CHORD** 



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	A4	Roof Special Supported Gable	1	1	Job Reference (optional)	

DEVELOPMENT SERVICES 163424349 LEE'S SUMMIT, MISSOURI 

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

- Wind: ASCE 7-16: Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 28-5-14, Corner(3R) 28-5-14 to 33-5-14, Exterior(2N) 33-5-14 to 48-6-12 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 3x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing. 5)
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

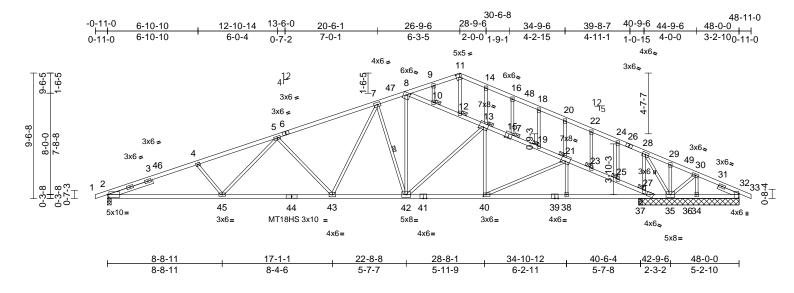


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	B1	Roof Special Structural Gable	4	1	Job Reference (optional

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 171227 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 163424350 LEE'S SUMMIT. MISSOURI VrCDoi7342J6

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW



Scale = 1:87.5

Plate Offsets (X, Y): [2:0-1-4,0-2-8], [8:0-3-8,0-2-7], [11:0-3-3,0-2-12], [13:0-4-0,0-2-0], [15:0-3-0,0-0-12], [21:0-4-0,0-2-0], [32:0-4-3,0-12], [21:0-4-0,0-2-0], [21:0-4-0	-3,0-0-7], [40:0-2-8,0-1-8]
--	-----------------------------

**BOT CHORD** 

WEBS

NOTES

Loading TCLL (roof)	(psf) 25.0	Spacing Plate Grip DOL	1-11-4 1.15	CSI TC	0.80	DEFL Vert(LL)	in -0.37	(loc) 43-45	l/defl >999		PLATES MT20	<b>GRIP</b> 244/190
TCDL	10.0	Lumber DOL	1.15	ВС	0.94	Vert(CT)	-0.73	43-45	>669	180	MT18HS	244/190
BCLL BCDL	0.0 10.0	Rep Stress Incr Code	NO IRC2018/TPI2014	WB Matrix-SH	0.78	Horz(CT)	0.23	35	n/a	n/a	Weight: 263 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2 *Except* 1-6,6-11:2x4 SP 1650F

1.5E

**BOT CHORD** 2x4 SP 1650F 1.5E 2x3 SPF No 2 WFBS **OTHERS** 2x3 SPF No.2

SLIDER Left 2x4 SPF No.3 -- 3-7-3, Right 2x4 SPF

No.3 -- 1-8-10

**BRACING** 

FORCES

TOP CHORD Structural wood sheathing directly applied or

2-7-9 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing.

WFBS 1 Row at midpt 7-42 **JOINTS** 1 Brace at Jt(s): 12, 10, 17, 19, 23, 25,

27, 13, 21

REACTIONS (size) 2=0-3-8. 32=7-7-8. 34=7-7-8.

35=7-7-8, 36=7-7-8, 37=0-3-8

Max Horiz 2=163 (LC 12)

Max Uplift 2=-354 (LC 8), 34=-37 (LC 26),

35=-592 (LC 13), 36=-8 (LC 8) Max Grav 2=1905 (LC 1), 32=152 (LC 1)

34=206 (LC 13), 35=1876 (LC 1),

36=239 (LC 1), 37=270 (LC 3)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0, 2-4=-4430/866, 4-5=-4194/834, 5-7=-3356/716, 7-8=-2655/646,

8-9=-741/252, 9-11=-742/281, 11-14=-760/292, 14-16=-761/253, 16-18=-790/234, 18-20=-822/212,

20-22=-753/143, 22-24=-778/118, 24-28=-817/100, 28-29=-329/412,

29-30=-355/376, 30-32=-159/138, 32-33=0/0, 8-10=-1901/410, 10-12=-1952/434,

12-13=-1844/396, 13-17=-2221/485 17-19=-2238/498, 19-21=-2263/512, 21-23=-2773/665, 23-25=-2800/680,

25-27=-2818/690, 27-36=-2584/630 2-45=-774/4081, 43-45=-633/3635,

42-43=-382/2755, 40-42=-360/2767, 38-40=-525/3270, 37-38=-525/3270

36-37=-525/3270, 35-36=-694/0, 34-35=-105/174, 32-34=-105/174

11-12=-99/280, 9-10=-131/64, 13-14=-168/120, 16-17=-46/34

18-19=-69/40, 20-21=-282/157, 22-23=-73/43, 24-25=-52/31,

27-28=-236/935, 29-35=-42/44 30-34=-183/129, 4-45=-248/176, 5-45=-51/484, 5-43=-800/284, 8-42=-297/1354, 7-42=-1021/315, 13-42=-494/112, 13-40=-16/408,

21-40=-604/212, 21-38=0/184, 30-35=-326/319, 28-35=-1953/558,

7-43=-141/814

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-6, Exterior(2R) 26-9-6 to 31-9-6, Interior (1) 31-9-6 to 48-11-0 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
- 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 MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.



February 6,2024



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 P240089-01 В1 Roof Special Structural Gable 4 Job Reference (optional

AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424350 LEE'S SUMMIT, MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

i Feb 02 17 142.7/ VrCDoi7 142.7

RELEASE FOR CONSTRUCTION

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

11) N/A

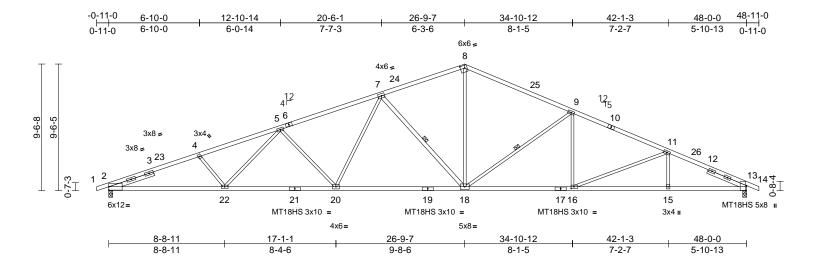


Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	B2	Roof Special	8	1	Job Reference (optional

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 12 7 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

LEE'S SUMMIT. MISSOURI VrCDoi7

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424351



Scale = 1:86.7

Plate Offsets (X, Y): [8:0-3-15,0-2-8], [13:0-4-7,Edge], [16:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.40	20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.85	18-20	>679	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.25	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 218 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 6-8:2x4 SP

1650F 1.5E

**BOT CHORD** 2x4 SP 2400F 2.0E \*Except\* 17-19,19-21:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 \*Except\* 18-7:2x4 SP No.2 SLIDER Left 2x4 SPF No.3 -- 3-6-9, Right 2x4 SPF

No.3 -- 3-2-1

**BRACING** TOP CHORD

WEBS

Structural wood sheathing directly applied or

2-7-15 oc purlins. **BOT CHORD** 

Rigid ceiling directly applied or 8-0-12 oc

bracing.

1 Row at midpt 7-18, 9-18

REACTIONS (size) 2=0-3-8, 13=0-3-8

Max Horiz 2=169 (LC 12)

Max Uplift 2=-399 (LC 8), 13=-308 (LC 13)

Max Grav 2=2224 (LC 1), 13=2224 (LC 1) (lb) - Maximum Compression/Maximum

FORCES Tension

1-2=0/0, 2-4=-5291/1070, 4-5=-5047/1038, TOP CHORD

5-7=-4251/923, 7-8=-3028/756,

8-9=-3158/759. 9-11=-3964/856.

11-13=-4430/895, 13-14=0/0 **BOT CHORD** 

2-22=-917/4874, 20-22=-787/4479, 18-20=-572/3581, 16-18=-601/3609,

15-16=-715/3920, 13-15=-715/3920

**WEBS** 4-22=-234/178, 8-18=-308/1652, 5-22=-53/454, 7-20=-119/864,

7-18=-1208/360, 5-20=-798/292,

11-15=0/226, 9-16=0/396, 11-16=-423/169,

9-18=-1028/324

### 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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-7, Exterior(2R) 26-9-7 to 31-9-7, Interior (1) 31-9-7 to 48-11-0 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
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- 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) Standard



February 6,2024





Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	C1	Roof Special Structural Gable	1	1	Job Reference (optional)	

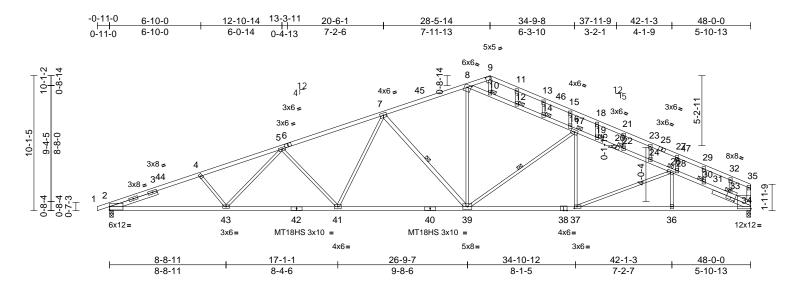
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424352 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fi Feb 02 17 1428 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

VrCDoi7342J6



Scale = 1:86.2

Plate Offsets (X, Y): [8:0-3-8,0-2-7], [9:0-3-7,0-3-0], [33:0-4-0,0-1-12], [34:Edge,0-6-12], [37:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.40	39-41	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.87	39-41	>661	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.24	34	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 261 lb	FT = 20%

LUMBER TOP CHORD 2x4 SP No.2 \*Except\* 1-6:2x4 SP 2400F 2.0E, 6-9,20-34:2x4 SP 1650F 1.5E **BOT CHORD** 2x4 SP 2400F 2 0F \*Except\* 38-40,40-42:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 \*Except\* 39-7,34-35:2x4 SP No 2

OTHERS 2x3 SPF No 2

SLIDER Left 2x4 SPF No.3 -- 3-9-1, Right 2x4 SPF

No.3 -- 3-0-13

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

2-8-3 oc purlins, except end verticals.

Except:

1 Row at midpt 8-12, 17-22, 30-34

BOT CHORD Rigid ceiling directly applied or 7-7-3 oc

bracing.

WEBS 1 Row at midpt 17-39, 7-39

**JOINTS** 1 Brace at Jt(s): 26,

17, 12, 14, 22, 30 REACTIONS (size)

2=0-3-8, 34=0-3-8 Max Horiz 2=185 (LC 12)

Max Uplift 2=-406 (LC 8), 34=-269 (LC 13) Max Grav 2=2212 (LC 1), 34=2156 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0, 2-4=-5253/1061, 4-5=-5015/1028, 5-7=-4214/912, 7-8=-2991/742,

8-9=-334/357, 9-11=-314/351, 11-13=-331/313, 13-15=-377/295, 15-18=-297/225, 18-21=-306/191, 21-23=-334/172, 23-27=-353/141, 27-29=-387/91, 29-32=-305/56, 32-35=-334/20, 8-10=-2694/514, 10-12=-2661/468, 12-14=-2698/490, 14-16=-2712/497, 16-17=-2840/551, 17-19=-3369/654, 19-22=-3419/677, 22-24=-3440/687, 24-26=-3474/709, 26-28=-3556/790. 28-30=-3581/839. 30-33=-3733/874, 33-34=-3733/930, 34-35=-160/9

BOT CHORD 2-43=-993/4846, 41-43=-887/4445

39-41=-677/3546, 37-39=-635/3461, 36-37=-784/3556, 34-36=-784/3556

WEBS 4-43=-229/176, 8-39=-273/1566, 5-43=-51/451, 5-41=-798/291,

7-41=-118/864, 26-36=0/190, 17-37=0/347, 26-37=-246/189, 17-39=-907/259, 7-39=-1197/362, 9-10=-134/102, 11-12=-96/72, 13-14=-37/27

15-16=-334/157, 18-19=-131/66, 21-22=-54/26, 23-24=-97/64, 27-28=-110/135, 29-30=-339/84,

32-33=-50/113

### **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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 47-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.



February 6,2024



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 C1 P240089-01 Roof Special Structural Gable Job Reference (optional

DEVELOPMENT SERVICES 163424352 LEE'S SUMMIT, MISSOURI i Feb 02 17 142.8 VrCDoi7 142.8

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

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

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



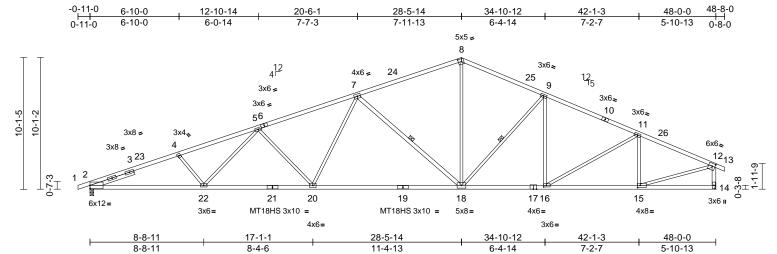
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	C2	Roof Special	2	1	Job Reference (optional)

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fi Feb 02 17 1429 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 163424353 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW

VrCDoi7



Scale = 1:88.3

Plate Offsets (X, Y): [8:0-2-15,0-2-8], [12:0-2-12,0-2-8], [15:0-2-8,0-2-0], [16:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.37	18-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.86	18-20	>666	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.18	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 225 lb	FT = 20%

LUMBER

2x4 SP 2400F 2.0E \*Except\* 8-10:2x4 SP TOP CHORD

1650F 1.5E, 10-13:2x4 SP No.2 2x4 SP 2400F 2.0E \*Except\* 0-0:2x4 SP

**BOT CHORD** No.2

**WEBS** 2x3 SPF No.2 \*Except\* 14-12:2x4 SPF No.3,

18-7:2x4 SP No 2

Left 2x4 SPF No.3 -- 3-6-9 SLIDER

**BRACING** 

WEBS

TOP CHORD Structural wood sheathing directly applied,

except end verticals

**BOT CHORD** Rigid ceiling directly applied or 8-5-3 oc

bracing.

1 Row at midpt 9-18, 7-18

REACTIONS (size) 2=0-3-8, 14= Mechanical

Max Horiz 2=179 (LC 12)

Max Uplift 2=-407 (LC 8), 14=-284 (LC 13)

Max Grav 2=2218 (LC 1), 14=2210 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

1-2=0/0, 2-4=-5274/1068, 4-5=-5025/1034, TOP CHORD

5-7=-4241/911, 7-8=-2803/711,

8-9=-2875/726, 9-11=-3237/739 11-12=-3010/634, 12-13=0/22,

12-14=-2151/543

BOT CHORD 2-22=-975/4859, 20-22=-857/4455,

18-20=-664/3577, 16-18=-508/2901,

15-16=-534/2712, 14-15=-67/111 **WEBS** 12-15=-487/2716, 4-22=-241/181,

8-18=-280/1470, 5-22=-63/447,

5-20=-765/283, 7-20=-94/866,

11-15=-650/234, 9-16=-33/160,

11-16=-46/296, 9-18=-615/255,

7-18=-1373/407

### NOTES

Unbalanced roof live loads have been considered for 1) this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 48-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 14 SPF No.3 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- 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) Standard



February 6,2024



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



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	C3	Roof Special	5	1	Job Reference (optional

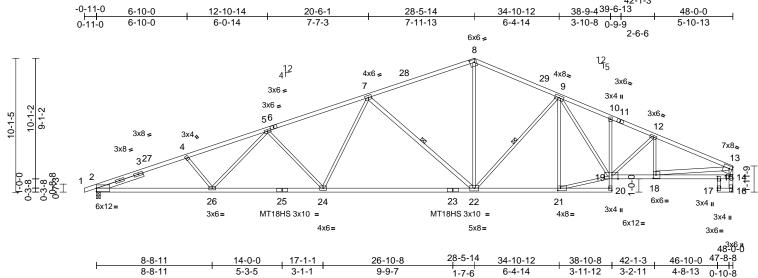
Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fi Feb 02 17 1420 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 163424354 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW



0 - 3 - 8



Scale = 1:86.9

Plate Offsets (X, Y): [8:0-3-	15,0-2-8], [13:Edge,0-2-8], [15:0-2	2-0,Edge], [18:0-2-8,0-3-0], [19:0-5	5-8,Edge], [20:Edge,0-2-8], [21:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.39	22-24	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.92	22-24	>624	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.25	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 239 lb	FT = 20%

LUMBER TOP CHORD

**BOT CHORD** 

2x4 SP 2400F 2.0E \*Except\* 11-13,11-8:2x4

SP 1650F 1.5E

2x4 SP No 2 \*Except\* 20-10 15-17:2x3 SPF No.2, 19-14,23-20:2x4 SP 1650F 1.5E,

25-2,23-25:2x4 SP 2400F 2.0E

WFBS 2x3 SPF No.2 \*Except\* 16-13:2x4 SPF No.3.

22-7.18-13:2x4 SP No.2 Left 2x4 SPF No.3 -- 3-8-5 SLIDER

**BRACING** 

WEBS

TOP CHORD Structural wood sheathing directly applied or 2-10-10 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc

bracing

9-22, 7-22 1 Row at midpt

REACTIONS (size) 2=0-3-8, 16= Mechanical Max Horiz 2=185 (LC 12)

Max Uplift 2=-407 (LC 8), 16=-265 (LC 13)

Max Grav 2=2218 (LC 1), 16=2153 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/0, 2-4=-5273/1068, 4-5=-5028/1034. 5-7=-4242/910, 7-8=-2804/711,

8-9=-2871/715, 9-10=-3803/869

10-12=-3854/823, 12-13=-3900/773,

14-16=-2092/420, 13-14=-2060/442

**BOT CHORD** 19-20=0/77, 10-19=-152/75,

18-19=-703/3527, 15-18=-124/465, 14-15=-122/529, 15-17=-42/13, 16-17=-63/7,

2-26=-1016/4862, 24-26=-897/4457,

22-24=-703/3577, 21-22=-536/2888,

20-21=-23/145

**WEBS** 

12-18=-319/145, 4-26=-241/181, 8-22=-274/1455, 5-26=-64/448, 5-24=-765/283, 9-21=-636/187, 12-19=-141/100, 9-22=-594/247

7-22=-1373/406, 13-18=-584/3086, 7-24=-93/868, 19-21=-530/2833,

9-19=-247/1129

### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-14, Exterior(2R) 28-5-14 to 33-5-14, Interior (1) 33-5-14 to 47-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI = 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.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SPF No.3 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- 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 6,2024



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	C4	Roof Special Supported Gable	1	1	Job Reference (optional	

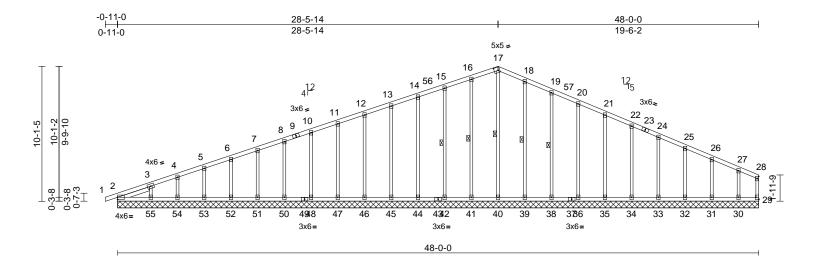
DEVELOPMENT SERVICES 163424355 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 1421 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

VrCDoi7342J6

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW



Scale = 1:86.2

Plate Offsets (X, Y):	[17:0-3-7,0-3-0	], [29:Edge,0-2-8]										
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a		n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	29	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 252 lb	FT = 20%

LONDLIN	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SPF No.3 2-6-2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or

TOP CHORD

LUMBER

6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing. 17-40, 16-41, 15-42,

WFBS 1 Row at midpt

18-39, 19-38

REACTIONS (size) 2=48-0-0, 29=48-0-0, 30=48-0-0, 31=48-0-0, 32=48-0-0, 33=48-0-0, 34=48-0-0, 35=48-0-0, 36=48-0-0, 38=48-0-0, 39=48-0-0, 40=48-0-0, 41=48-0-0, 42=48-0-0, 44=48-0-0, 45=48-0-0, 46=48-0-0, 47=48-0-0, 48=48-0-0. 50=48-0-0. 51=48-0-0. 52=48-0-0, 53=48-0-0, 54=48-0-0, 55=48-0-0

Max Horiz 2=185 (LC 16)

Max Uplift 2=-46 (LC 13), 30=-80 (LC 13), 31=-47 (LC 13), 32=-52 (LC 13), 33=-51 (LC 13), 34=-51 (LC 13), 35=-51 (LC 13), 36=-50 (LC 13), 38=-57 (LC 13), 39=-41 (LC 13), 41=-39 (LC 12), 42=-50 (LC 8), 44=-45 (LC 12), 45=-46 (LC 8), 46=-46 (LC 12), 47=-46 (LC 8), 48=-46 (LC 12), 50=-46 (LC 8), 51=-46 (LC 12), 52=-46 (LC 8),

53=-46 (LC 12), 54=-46 (LC 8),

55=-76 (LC 12)

2=174 (LC 1), 29=57 (LC 22), 30=165 (LC 26), 31=184 (LC 1), 32=179 (LC 26), 33=180 (LC 1), 34=180 (LC 26), 35=180 (LC 26), 36=180 (LC 1), 38=179 (LC 26), 39=189 (LC 26), 40=216 (LC 22), 41=189 (LC 25), 42=179 (LC 25), 44=180 (LC 1), 45=180 (LC 25), 46=180 (LC 1), 47=180 (LC 25), 48=180 (LC 1), 50=180 (LC 25), 51=180 (LC 1), 52=180 (LC 25), 53=182 (LC 1), 54=174 (LC 25), 55=210 (LC 25)

(lb) - Maximum Compression/Maximum Tension

1-2=0/0, 2-3=-207/118, 3-4=-163/120, 4-5=-142/137, 5-6=-121/154, 6-7=-100/171, 7-8=-79/193, 8-10=-89/221, 10-11=-100/249, 11-12=-112/277, 12-13=-123/305, 13-14=-135/333, 14-15=-146/361, 15-16=-158/391, 16-17=-168/413, 17-18=-173/412, 18-19=-159/355, 19-20=-144/294, 20-21=-129/256, 21-22=-115/221, 22-24=-100/185,

24-25=-85/149, 25-26=-71/113, 26-27=-56/77, 27-28=-43/48, 28-29=-40/21 2-55=-40/64, 54-55=-40/64, 53-54=-40/64, 52-53=-40/64, 51-52=-40/64, 50-51=-40/64

48-50=-40/64, 47-48=-40/64, 46-47=-40/64, 45-46=-40/64, 44-45=-40/64, 42-44=-40/64, 41-42=-40/64, 40-41=-40/64, 39-40=-40/64, 38-39=-40/64, 36-38=-40/64, 35-36=-40/64, 34-35=-40/64, 33-34=-40/64, 32-33=-40/64, 31-32=-40/64, 30-31=-40/64, 29-30=-40/64

**WEBS** 17-40=-187/39, 16-41=-149/119, 15-42=-139/123, 14-44=-140/71, 13-45=-140/70, 12-46=-140/70, 11-47=-140/70, 10-48=-140/70, 8-50=-140/70, 7-51=-140/70, 6-52=-140/70, 5-53=-141/70, 4-54=-137/69, 3-55=-161/101, 18-39=-149/123, 19-38=-139/134, 20-36=-140/75, 21-35=-140/75,

22-34=-140/75, 24-33=-140/75, 25-32=-139/75, 26-31=-143/74, 27-30=-129/87

### NOTES

Unbalanced roof live loads have been considered for 1) this design.



February 6,2024

### ontinued on page 2

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

**FORCES** 

TOP CHORD

**BOT CHORD** 



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	C4	Roof Special Supported Gable	1	1	Job Reference (optional)	

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 141/04/2924

ID:kkw6VMCTKypljEPYbt5760z\_rGt-RfC?PsB70Hq3NSgPqnL8w3uITXbGK VrCDoi7 21541/04/2924

DEVELOPMENT SERVICES 163424355 LEE'S SUMMIT, MISSOURI

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

Wind: ASCE 7-16: Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 28-5-14, Corner(3R) 28-5-14 to 33-5-14, Exterior(2N) 33-5-14 to 47-10-12 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 3x4 MT20 unless otherwise indicated.

Gable requires continuous bottom chord bearing. 5)

Gable studs spaced at 2-0-0 oc.

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

All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

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



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	D1	Roof Special	4	1	Job Reference (optional

8-4-6

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17142 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7342J6

8-1-6

7-2-7

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424356 LEE'S SUMMIT. MISSOURI

5-10-13

RELEASE FOR CONSTRUCTION

-0-11-0 6-10-0 12-10-14 20-6-1 34-10-11 48-0-0 26-9-6 42-1-3 0-11-0 6-10-0 6-0-14 7-7-3 6-3-5 8-1-5 7-2-7 5-10-13 6x6 = 8 4x6 = 23 1<u>2</u> 15 412 9 56 10 9-6-E 3x4, 3x8 = <sup>11</sup>25 21 20 19 18 17 1615 14 6x12= MT18HS 3x10 MT18HS 3x10 = MT18HS 3x10 = 3x4<sub>1</sub> 4x6= 5x8= 8-8-11 17-1-1 26-9-6 34-10-12 42-1-3 48-0-0

Scale = 1:87.2

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

8-8-11

							-					
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.40	19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.85	17-19	>680	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.25	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 217 lb	FT = 20%

9-8-5

### LUMBER

**BOT CHORD** 

TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 6-8:2x4 SP

1650F 1.5E

2x4 SP 2400F 2.0E \*Except\* 18-20,18-16:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 \*Except\* 17-7:2x4 SP No.2

SLIDER Left 2x4 SPF No.3 -- 3-6-9, Right 2x4 SPF

No.3 -- 3-2-1

**BRACING** 

WEBS

TOP CHORD

TOP CHORD Structural wood sheathing directly applied or

2-7-15 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 8-0-10 oc

bracing.

1 Row at midpt 7-17, 9-17

REACTIONS (size) 2=0-3-8, 13= Mechanical

Max Horiz 2=169 (LC 16)

Max Uplift 2=-399 (LC 8), 13=-285 (LC 13)

Max Grav 2=2225 (LC 1), 13=2159 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

1-2=0/0, 2-4=-5293/1071, 4-5=-5048/1039, 5-7=-4252/924, 7-8=-3031/757,

8-9=-3160/765, 9-11=-3969/870

11-13=-4442/927

**BOT CHORD** 2-21=-917/4876, 19-21=-788/4481, 17-19=-572/3583, 15-17=-602/3614,

14-15=-743/3934, 13-14=-743/3934

4-21=-234/178, 8-17=-312/1653, 5-21=-53/454, 7-19=-119/864,

7-17=-1207/360, 5-19=-798/292,

11-14=0/227, 9-15=0/398, 9-17=-1031/325,

11-15=-432/172

### NOTES

**WEBS** 

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-6, Exterior(2R) 26-9-6 to 31-9-6, Interior (1) 31-9-6 to 48-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 13 SPF No.3 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- 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) Standard



February 6,2024



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



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 P240089-01 D2 Roof Special 10 Job Reference (optiona

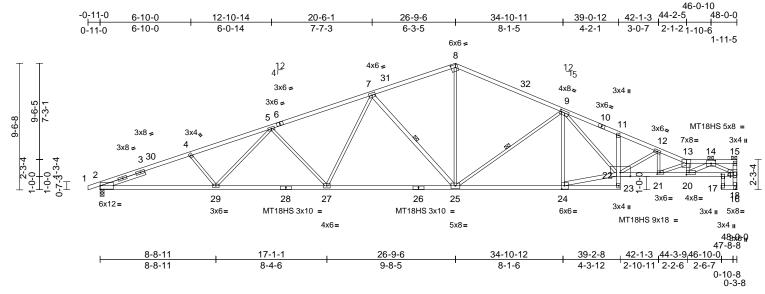
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424357 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

Feb 02**17**14**2**2 VrCDoi7342J6



Scale = 1:86.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.49	24-25	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-1.00	25-27	>571	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.41	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 236 lb	FT = 20%

LUMBER TOP CHORD 2x4 SP 2400F 2.0E \*Except\* 10-13:2x4 SP No.2, 13-15,6-8:2x4 SP 1650F 1.5E

2x4 SP 2400F 2.0E \*Except\* 23-11,17-16:2x4 **BOT CHORD** SP No.2, 19-17:2x3 SPF No.2,

26-23,26-28:2x4 SP 1650F 1.5E 2x3 SPF No.2 \*Except\*

25-7,22-24,16-15,20-14:2x4 SP No.2

Left 2x4 SPF No.3 -- 3-6-9 SLIDER

**BRACING** 

TOP CHORD

WFBS

TOP CHORD Structural wood sheathing directly applied,

except

2-0-0 oc purlins (2-2-4 max.): 13-15. Rigid ceiling directly applied or 6-0-0 oc

BOT CHORD bracing.

WFBS 1 Row at midpt 7-25, 9-25 REACTIONS 2=0-3-8, 16= Mechanical (size)

Max Horiz 2=216 (LC 12)

Max Uplift 2=-397 (LC 8), 16=-285 (LC 13) Max Grav 2=2218 (LC 1), 16=2153 (LC 1)

(lb) - Maximum Compression/Maximum **FORCES** 

Tension

1-2=0/0, 2-4=-5275/1063, 4-5=-5030/1030,

5-7=-4232/915, 7-8=-3012/748, 8-9=-3137/747, 9-11=-5272/1132 11-12=-5396/1104, 12-13=-6411/1291, 13-14=-6938/1396, 14-15=-80/10

**BOT CHORD** 2-29=-988/4859, 27-29=-879/4463

25-27=-669/3564, 24-25=-665/3555, 23-24=-70/328, 22-23=0/60, 11-22=-110/71, 21-22=-1178/5924, 20-21=-1440/7145, 19-20=-787/3668, 18-19=-797/3747,

17-19=-35/11, 16-17=-78/10

**WEBS** 4-29=-234/178, 5-29=-53/455,

7-27=-119/863, 5-27=-799/293, 8-25=-296/1628, 7-25=-1206/360, 12-21=-117/741, 9-24=-662/225, 9-25=-987/313, 22-24=-612/3318, 12-22=-1149/265, 9-22=-412/2005 13-21=-1347/289, 16-18=-2099/457,

15-18=-80/36, 13-20=-1951/418,

14-20=-697/3743, 14-18=-4086/884

### **NOTES**

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-6, Exterior(2R) 26-9-6 to 31-9-6, Interior (1) 31-9-6 to 47-10-4 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SPF No.3 crushing capacity of 425 psi.
- Refer to girder(s) for truss to truss connections.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 6,2024



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	D3	Roof Special Supported Gable	2	1	Job Reference (optional	

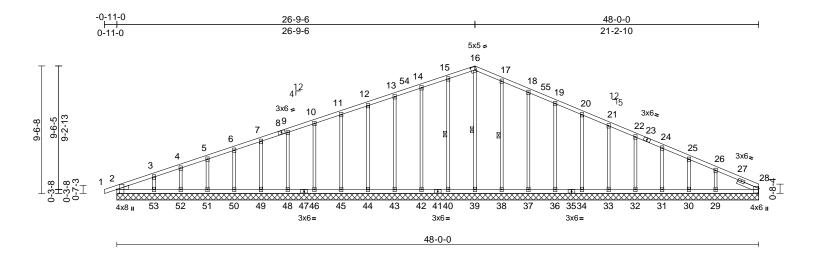
DEVELOPMENT SERVICES 163424358 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 12 3 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

VrCDoi7

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW



Scale = 1:86.1

Plate Offsets (X, Y):	[2:0-3-8,Edge],	[16:0-3-7,0-3-0],	[28:0-4-3,0-0-7]
-----------------------	-----------------	-------------------	------------------

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	28	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 240 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2
WEDGE	Left: 2x4 SP No.2
SLIDER	Right 2x4 SPF No.3 1-8-10
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.

WFBS 1 Row at midpt 16-39, 15-40, 17-38 **REACTIONS** (size) 2=48-0-0, 28=48-0-0, 29=48-0-0, 30=48-0-0, 31=48-0-0, 32=48-0-0, 33=48-0-0, 34=48-0-0, 36=48-0-0,

37=48-0-0, 38=48-0-0, 39=48-0-0, 40=48-0-0, 42=48-0-0, 43=48-0-0, 44=48-0-0 45=48-0-0 46=48-0-0 48=48-0-0, 49=48-0-0, 50=48-0-0, 51=48-0-0, 52=48-0-0, 53=48-0-0

Max Horiz 2=169 (LC 12) Max Uplift

2=-25 (LC 13), 29=-107 (LC 13), 30=-33 (LC 13), 31=-55 (LC 13), 32=-50 (LC 13), 33=-51 (LC 13), 34=-51 (LC 13), 36=-50 (LC 13), 37=-56 (LC 13), 38=-44 (LC 13),

40=-41 (LC 12), 42=-49 (LC 8), 43=-45 (LC 12), 44=-46 (LC 8), 45=-46 (LC 8), 46=-46 (LC 12), 48=-46 (LC 8), 49=-46 (LC 12), 50=-46 (LC 8), 51=-47 (LC 12), 52=-42 (LC 8), 53=-83 (LC 12)

Max Grav 2=190 (LC 1), 28=133 (LC 1), 29=285 (LC 26), 30=145 (LC 1), 31=189 (LC 26), 32=178 (LC 1), 33=180 (LC 26), 34=180 (LC 26), 36=180 (LC 1), 37=180 (LC 26), 38=188 (LC 26), 39=189 (LC 22), 40=188 (LC 25), 42=180 (LC 25), 43=180 (LC 1), 44=180 (LC 25), 45=180 (LC 1), 46=180 (LC 25), 48=180 (LC 25), 49=180 (LC 1), 50=179 (LC 25), 51=185 (LC 1), 52=160 (LC 25), 53=240 (LC 25)

(lb) - Maximum Compression/Maximum Tension

1-2=0/0, 2-3=-208/85, 3-4=-155/87 4-5=-128/96, 5-6=-107/109, 6-7=-91/126, 7-9=-76/142, 9-10=-60/159, 10-11=-65/176, 11-12=-76/193, 12-13=-88/221, 13-14=-99/248, 14-15=-111/278, 15-16=-122/302, 16-17=-125/297,

17-18=-111/248, 18-19=-96/211, 19-20=-81/175, 20-21=-66/139, 21-22=-52/103. 22-24=-52/67. 24-25=-52/36. 25-26=-76/19. 26-28=-119/36

2-53=-38/138, 52-53=-38/138 51-52=-38/138, 50-51=-38/138, 49-50=-38/138, 48-49=-38/138, 46-48=-38/138, 45-46=-38/138,

44-45=-38/138, 43-44=-38/138, 42-43=-38/138, 40-42=-38/138, 39-40=-38/138, 38-39=-38/138, 37-38=-38/138, 36-37=-38/138, 34-36=-38/138, 33-34=-38/138, 32-33=-38/138, 31-32=-38/138, 30-31=-38/138, 29-30=-38/138,

28-29=-38/138

**WEBS** 16-39=-149/21, 15-40=-148/120, 14-42=-140/123, 13-43=-140/70, 12-44=-140/70, 11-45=-140/70, 10-46=-140/70, 9-48=-140/70, 7-49=-140/70, 6-50=-139/70, 5-51=-143/71, 4-52=-127/65,

3-53=-179/109, 17-38=-148/129, 18-37=-140/131, 19-36=-140/76, 20-34=-140/75, 21-33=-140/75, 22-32=-139/74, 24-31=-145/79, 25-30=-118/59, 26-29=-211/127

### NOTES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0. Exterior(2N) 4-1-0 to 26-9-6, Corner(3R) 26-9-6 to 31-9-6, Exterior(2N) 31-9-6 to 48-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



February 6,2024

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

**FORCES** 

TOP CHORD

**BOT CHORD** 



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 P240089-01 D3 Roof Special Supported Gable 2 Job Reference (optional i Feb 02 17 1423 VrCDoi7 42 JS 1

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424358 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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.

- All plates are 3x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



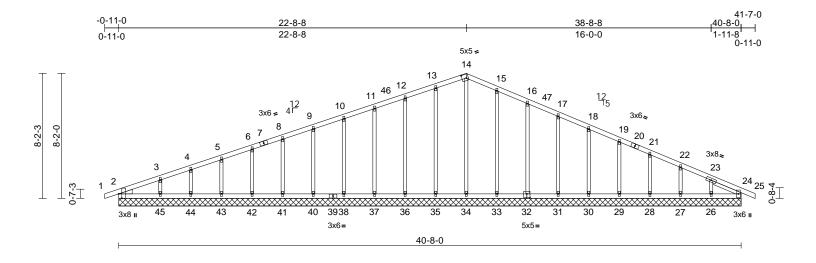
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	
P240089-01	E1	Roof Special Supported Gable	4	1	Job Reference (optional)	

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424359 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 771424 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi732Jcf



Scale = 1:75.3

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 195 lb	FT = 20%

Max Grav 2=177 (LC 1), 24=155 (LC 1),

26=170 (LC 26), 27=175 (LC 26),

28=174 (LC 1), 29=174 (LC 1),

30=174 (LC 26), 31=175 (LC 1),

32=173 (LC 26), 33=182 (LC 26),

34=174 (LC 22), 35=183 (LC 25),

36=174 (LC 25), 37=174 (LC 1),

38=174 (LC 25), 40=174 (LC 1),

43=179 (LC 1), 44=157 (LC 25),

41=175 (LC 25), 42=173 (LC 25),

LONDLIN	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
OTHERS	2x3 SPF No.2
WEDGE	Left: 2x4 SP No.2

### **BRACING**

LUMBER

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.

Max Horiz

REACTIONS (	size)
-------------	-------

2=40-8-0, 24=40-8-0, 26=40-8-0,
27=40-8-0, 28=40-8-0, 29=40-8-0,
30=40-8-0, 31=40-8-0, 32=40-8-0,
33=40-8-0, 34=40-8-0, 35=40-8-0,
36=40-8-0, 37=40-8-0, 38=40-8-0,
40=40-8-0, 41=40-8-0, 42=40-8-0,
43=40-8-0, 44=40-8-0, 45=40-8-0
2=139 (LC 12)
2=-20 (LC 13) 24=-6 (LC 9)

Max Uplift

26=-71 (LC 13), 27=-49 (LC 13), 28=-50 (LC 13), 29=-49 (LC 13), 30=-50 (LC 13), 31=-48 (LC 13), 32=-52 (LC 13), 33=-46 (LC 13), 35=-42 (LC 12), 36=-47 (LC 8), 37=-44 (LC 12), 38=-44 (LC 8), 40=-44 (LC 8), 41=-44 (LC 12), 42=-44 (LC 8), 43=-46 (LC 12),

44=-41 (LC 8), 45=-77 (LC 12)

45=227 (LC 25) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0, 2-3=-171/69, 3-4=-121/72, 4-5=-95/81, 5-6=-76/93, 6-8=-61/110, 8-9=-46/126, 9-10=-51/142, 10-11=-62/168, 11-12=-73/195, 12-13=-84/223,

13-14=-95/247, 14-15=-97/242, 15-16=-83/194, 16-17=-69/159, 17-18=-55/124, 18-19=-41/89, 19-21=-39/54,

21-22=-47/28, 22-23=-67/21, 23-24=-117/41, 24-25=0/0

**BOT CHORD** 2-45=-36/121, 44-45=-36/121,

43-44=-36/121, 42-43=-36/121, 41-42=-36/121, 40-41=-36/121, 38-40=-36/121, 37-38=-36/121, 36-37=-36/121, 35-36=-36/121 34-35=-36/121, 33-34=-36/121, 31-33=-36/121, 30-31=-35/120, 29-30=-35/120, 28-29=-35/120,

27-28=-35/120, 26-27=-35/120, 24-26=-35/120

**WEBS** 

14-34=-135/7, 13-35=-144/120, 12-36=-135/118, 11-37=-136/68, 10-38=-136/68, 9-40=-136/68, 8-41=-136/68,

6-42=-135/67, 5-43=-138/69, 4-44=-125/63, 3-45=-170/101, 15-33=-144/128, 16-32=-134/126, 17-31=-136/73, 18-30=-136/73, 19-29=-136/73, 21-28=-136/73, 22-27=-136/73,

23-26=-132/92

### **NOTES**

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16: Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 22-8-8, Corner(3R) 22-8-8 to 27-8-8, Exterior(2N) 27-8-8 to 41-7-0 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



February 6,2024

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



Ply Job Truss Truss Type Qty Roof - Osage Lot 42 P240089-01 E1 Roof Special Supported Gable 4 Job Reference (optional

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

LEE'S SUMMIT. MISSOURI i Feb 02 17 143 4/ VrCDoi7 143 4/ Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES 163424359

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.

- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	E2	Roof Special	8	1	Job Reference (optional)

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 171425 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 163424360 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW

VrCDoi7342J6

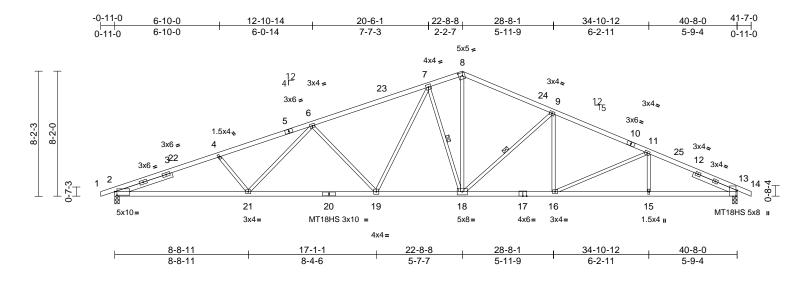


Plate Offsets (X, Y): [2:0-1-12,0-2-12], [8:0-2-15,0-2-8], [13:0-4-7,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.34	19-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.68	19-21	>716	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.21	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 184 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E

**BOT CHORD** 2x4 SP 1650F 1.5E \*Except\* 0-0:2x4 SP

No.2

WFBS 2x3 SPF No 2

**SLIDER** Left 2x4 SPF No.3 -- 3-11-3, Right 2x4 SPF

No.3 -- 3-1-3

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

2-3-9 oc purlins.

BOT CHORD Rigid ceiling directly applied or 8-2-6 oc

bracing

WFBS 1 Row at midpt REACTIONS (size)

7-18, 9-18 2=0-3-8, 13=0-3-8

Max Horiz 2=144 (LC 12)

Max Uplift 2=-344 (LC 8), 13=-264 (LC 13)

Max Grav 2=1894 (LC 1), 13=1894 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/0. 2-4=-4371/905. 4-6=-4128/869.

6-7=-3246/749, 7-8=-2517/675, 8-9=-2634/661, 9-11=-3231/722

11-13=-3680/763, 13-14=0/0

**BOT CHORD** 2-21=-762/4030, 19-21=-626/3551,

18-19=-393/2633, 16-18=-487/2935 15-16=-596/3241, 13-15=-596/3241

4-21=-276/186, 8-18=-389/1572,

6-19=-837/296, 7-18=-1016/316, 6-21=-55/525, 11-16=-414/164,

9-18=-816/250, 9-16=0/355, 11-15=0/210,

7-19=-148/847

### NOTES

**WEBS** 

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 22-8-8, Exterior(2R) 22-8-8 to 27-8-8, Interior (1) 27-8-8 to 41-7-0 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
- 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.
- All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- 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) Standard



February 6,2024



MARNING - 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



Job Truss Truss Type Qty Ply Roof - Osage Lot 42 P240089-01 G1 2 Common Supported Gable Job Reference (optiona

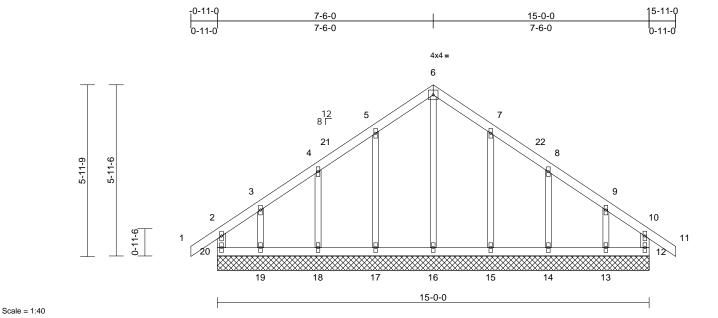
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424361 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

Feb 02/17

RELEASE FOR CONSTRUCTION



BCDL	
LUME	BER

Loading

TCDI

**BCLL** 

TCLL (roof)

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 WEBS OTHERS 2x3 SPF No.2

### BRACING

TOP CHORD Sheathed or 6-0-0 oc purlins, except end

(psf)

25.0

10.0

0.0

10.0

verticals.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing.

**REACTIONS** (size)

12=15-0-0, 13=15-0-0, 14=15-0-0, 15=15-0-0, 16=15-0-0, 17=15-0-0, 18=15-0-0, 19=15-0-0, 20=15-0-0

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

2-0-0

1.15

1 15

NO

IRC2018/TPI2014

Max Horiz 20=180 (LC 11)

Max Uplift 12=-53 (LC 9), 13=-105 (LC 13), 14=-72 (LC 13), 15=-74 (LC 13),

17=-75 (LC 12), 18=-70 (LC 12), 19=-111 (LC 12), 20=-79 (LC 8)

12=155 (LC 19), 13=178 (LC 20), Max Grav 14=189 (LC 20), 15=197 (LC 20),

16=195 (LC 22), 17=198 (LC 19), 18=187 (LC 25), 19=190 (LC 19), 20=176 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD

2-20=-143/91, 1-2=0/41, 2-3=-110/106, 3-4=-80/85, 4-5=-78/165, 5-6=-117/243, 6-7=-117/243, 7-8=-77/165, 8-9=-59/80,

9-10=-80/76, 10-11=0/41, 10-12=-133/91 **BOT CHORD** 19-20=-83/90. 18-19=-83/90. 17-18=-83/90.

16-17=-83/90. 15-16=-83/90. 14-15=-83/90.

13-14=-83/90, 12-13=-83/90 6-16=-181/31, 5-17=-157/117

4-18=-149/152, 3-19=-135/128 7-15=-156/117, 8-14=-150/152,

9-13=-128/128

### NOTES

WEBS

1) 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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 7-6-0, Corner(3R) 7-6-0 to 12-6-0, Exterior(2N) 12-6-0 to 15-11-0 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

**DEFL** 

Vert(LL)

Vert(CT)

Horz(CT)

0.10

0.06

0.14

I/defI

n/a 999

n/a 999

n/a n/a

(loc)

12

n/a

n/a

0.00

L/d

**PLATES** 

Weight: 72 lb

MT20

GRIP

244/190

FT = 20%

CSI

TC

BC

WB

Matrix-R

- 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 1.5x4 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 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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.

LOAD CASE(S) Standard



February 6,2024



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, 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/TP11 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcscomponents.com)

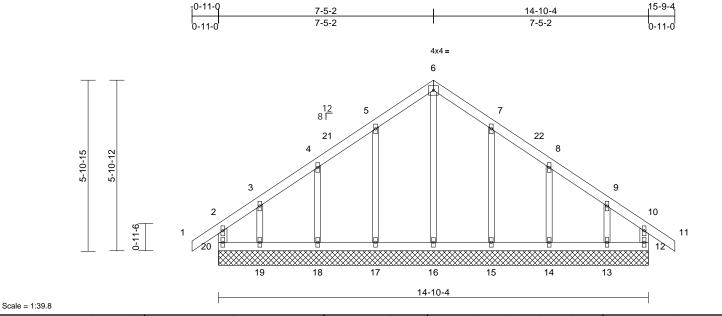


Job Truss Truss Type Qty Ply Roof - Osage Lot 42 P240089-01 G<sub>1</sub>A Common Supported Gable Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424362 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

Feb 02/17



E	BCDL	
	CDL	

Loading

TCDI

**BCLL** 

TCLL (roof)

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 WEBS 2x3 SPF No.2 OTHERS

### BRACING

TOP CHORD Sheathed or 6-0-0 oc purlins, except end

(psf)

25.0

10.0

0.0

10.0

verticals.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS (size) 12=14-10-4, 13=14-10-4,

14=14-10-4, 15=14-10-4, 16=14-10-4, 17=14-10-4, 18=14-10-4, 19=14-10-4,

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

2-0-0

1.15

1 15

NO

IRC2018/TPI2014

20=14-10-4

Max Horiz 20=-179 (LC 10)

12=-55 (LC 9), 13=-105 (LC 13), Max Uplift 14=-72 (LC 13), 15=-74 (LC 13),

17=-75 (LC 12), 18=-71 (LC 12), 19=-112 (LC 12), 20=-82 (LC 8)

Max Grav 12=154 (LC 19), 13=175 (LC 20),

14=190 (LC 20), 15=197 (LC 20), 16=194 (LC 22), 17=198 (LC 19), 18=187 (LC 19), 19=187 (LC 19),

20=176 (LC 20)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 2-20=-143/89, 1-2=0/41, 2-3=-110/107, 3-4=-79/85, 4-5=-76/162, 5-6=-116/241,

6-7=-116/241, 7-8=-76/162, 8-9=-59/77, 9-10=-81/76, 10-11=0/41, 10-12=-131/88

BOT CHORD 19-20=-82/90, 18-19=-82/90, 17-18=-82/90, 16-17=-82/90, 15-16=-82/90, 14-15=-82/90,

13-14=-82/90, 12-13=-82/90

WFBS 6-16=-179/29, 5-17=-157/118 4-18=-150/154, 3-19=-132/125,

7-15=-156/118, 8-14=-151/154,

9-13=-125/126

Unbalanced roof live loads have been considered for this design

**DEFL** 

Vert(LL)

Vert(CT)

Horz(CT)

0.10

0.06

0.13

I/defI

n/a 999

n/a 999

n/a n/a

(loc)

12

n/a

n/a

0.00

L/d

**PLATES** 

Weight: 71 lb

MT20

GRIP

244/190

FT = 20%

CSI

TC

BC

WB

Matrix-R

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 7-5-2, Corner(3R) 7-5-2 to 12-5-2, Exterior(2N) 12-5-2 to 15-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For study 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 1.5x4 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 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 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.

LOAD CASE(S) Standard



February 6,2024



MARNING - 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 besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, 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/TP11 Quality Criteria, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcscomponents.com)



Job Truss Truss Type Qty Ply Roof - Osage Lot 42 3 P240089-01 G2 2 Common Girder

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424363 LEE'S SUMMIT. MISSOURI Job Reference (optiona

RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 142 6 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7

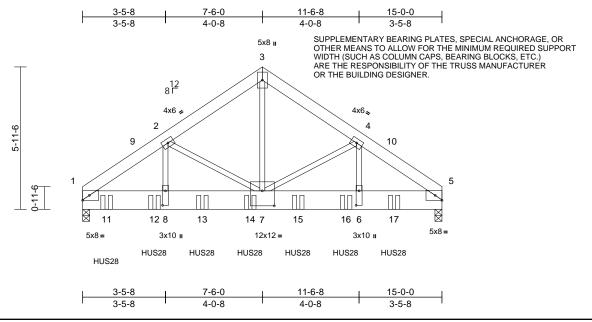


Plate Offsets (X, Y): [6:0-7-4,0-1-8], [7:0-6-0,0-7-8], [8:0-7-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.05	7-8	>999	240	MT20	185/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.09	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 281 lb	FT = 20%

### LUMBER

Scale = 1:48.1

TOP CHORD 2x6 SPF No.2 **BOT CHORD** 2x10 HF No.2 2x3 SPF No.2 WEBS

**BRACING** 

TOP CHORD Sheathed or 6-0-0 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing

**REACTIONS** (size) 1=0-3-8, (req. 0-4-12), 5=0-3-8,

(req. 0-4-3) Max Horiz 1=143 (LC 32)

Max Uplift 1=-1193 (LC 12), 5=-1052 (LC 13)

Max Grav 1=8643 (LC 1), 5=7625 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

1-2=-10445/1493, 2-3=-7588/1148, 3-4=-7588/1148, 4-5=-10338/1478

**BOT CHORD** 1-8=-1169/8174, 7-8=-1173/8203,

6-7=-1112/8105, 5-6=-1108/8077

2-8=-424/3292, 2-7=-2266/415,

3-7=-1123/7876, 4-7=-2150/402,

4-6=-404/3182

### NOTES

WEBS

TOP CHORD

3-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x6 - 2 rows

staggered at 0-9-0 oc. Bottom chords connected as follows: 2x10 - 4 rows

staggered at 0-4-0 oc. Web connected as follows: 2x3 - 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.
- 3) 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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-6-0, Exterior(2R) 7-6-0 to 12-6-0, Interior (1) 12-6-0 to 14-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size
- All bearings are assumed to be HF No.2 crushing capacity of 405 psi.
- 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.
- Use Simpson Strong-Tie HUS28 (22-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 13-0-0 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

### LOAD CASE(S) Standard

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

Plate Increase=1.15

Uniform Loads (lb/ft)

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

Concentrated Loads (lb)

Vert: 11=-2141 (B), 12=-2133 (B), 13=-2133 (B), 14=-2133 (B), 15=-2133 (B), 16=-2133 (B),

17=-2139 (B)



February 6,2024



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



Job Truss Truss Type Qty Ply Roof - Osage Lot 42 3 P240089-01 G2A Common Girder Job Reference (optional

DEVELOPMENT SERVICES 163424364 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 1427 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7

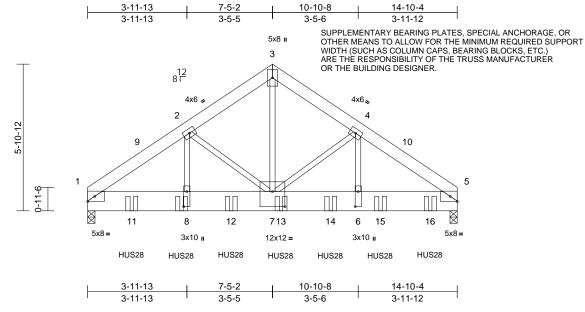


Plate Offsets (X, Y): [6:0-7-4,0-1-8], [7:0-6-0,0-7-4], [8:0-7-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.05	7-8	>999	240	MT20	185/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.09	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 279 lb	FT = 20%

### LUMBER

Scale = 1:46.3

TOP CHORD 2x6 SPF No.2 **BOT CHORD** 2x10 HF No.2 2x3 SPF No.2 WEBS

BRACING

TOP CHORD Sheathed or 6-0-0 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

**REACTIONS** (size) 1=0-3-8, (req. 0-4-4), 5=0-3-8, (req. 0-4-11)

1=142 (LC 11)

Max Horiz Max Uplift 1=-1021 (LC 12), 5=-1122 (LC 13)

Max Grav 1=7791 (LC 1), 5=8564 (LC 1)

**FORCES** 

(lb) - Maximum Compression/Maximum

Tension

1-2=-10106/1373, 2-3=-7483/1081,

3-4=-7485/1081, 4-5=-10143/1375 **BOT CHORD** 

TOP CHORD

1-8=-1066/7957, 7-8=-1069/7983, 6-7=-1030/8023, 5-6=-1027/7996

2-8=-400/3344, 2-7=-2301/403, WEBS

3-7=-1067/7769, 4-7=-2350/410,

4-6=-404/3379

### NOTES

3-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.

Bottom chords connected as follows: 2x10 - 4 rows

staggered at 0-4-0 oc.

Web connected as follows: 2x3 - 1 row at 0-9-0 oc, Except member 2-8 2x3 - 1 row at 0-4-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-5-2, Exterior(2R) 7-5-2 to 12-5-2, Interior (1) 12-5-2 to 14-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 1, 5 greater than input bearing size
- All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 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.
- Use Simpson Strong-Tie HUS28 (22-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-9-4 from the left end to 13-9-4 to connect truss(es) to back face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.

### LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

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

Concentrated Loads (lb)

Vert: 8=-2133 (B), 11=-2190 (B), 12=-2133 (B), 13=-2133 (B), 14=-2133 (B), 15=-2133 (B),

16=-2191 (B)



February 6,2024



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



Truss Type Job Truss Qty Ply Roof - Osage Lot 42 P240089-01 V1 Valley 2 Job Reference (optional S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424365 LEE'S SUMMIT. MISSOURI

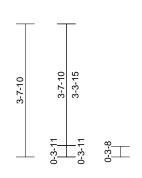
RELEASE FOR CONSTRUCTION

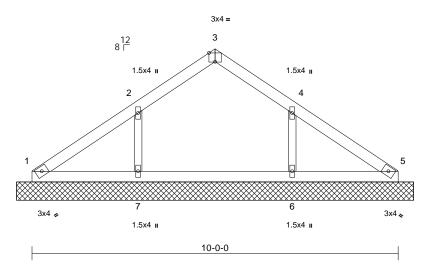
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 17 1427 ID:kkw6VMCTKypljEPYbt576Oz\_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

VrCDoi7







Scale = 1:31.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 35 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x3 SPF No.2 **OTHERS** 

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=10-10-1, 5=10-10-1, 6=10-10-1,

7=10-10-1 Max Horiz 1=90 (LC 9)

Max Uplift 6=-96 (LC 13), 7=-98 (LC 12) 1=152 (LC 1), 5=152 (LC 1), 6=299 Max Grav

(LC 20), 7=301 (LC 19) (lb) - Maximum Compression/Maximum

**FORCES** Tension

TOP CHORD 1-2=-153/33, 2-3=-149/64, 3-4=-149/64,

4-5=-151/30

**BOT CHORD** 1-7=-24/111, 6-7=-24/111, 5-6=-24/111 2-7=-210/161, 4-6=-209/160 **WEBS** 

NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



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



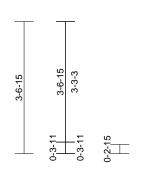
Truss Type Job Truss Qty Ply Roof - Osage Lot 42 P240089-01 V2 Valley 2 Job Reference (optional S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424366 LEE'S SUMMIT. MISSOURI

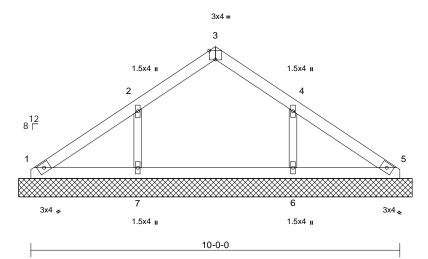
RELEASE FOR CONSTRUCTION

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Fi Feb 02 17 1428 ID:7VegtIUg48?DqlhT5TOJ?Mz8aV1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi73423







Scale = 1:31.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 35 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x3 SPF No.2 OTHERS

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=10-8-0, 5=10-8-0, 6=10-8-0,

Max Horiz 1=-91 (LC 8)

Max Uplift 6=-100 (LC 13), 7=-101 (LC 12)

1=150 (LC 1), 5=150 (LC 1), 6=301 Max Grav

(LC 20), 7=303 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-151/33, 2-3=-149/67, 3-4=-149/67,

4-5=-150/30

**BOT CHORD** 1-7=-24/111, 6-7=-24/111, 5-6=-24/111

**WEBS** 2-7=-213/165. 4-6=-211/165

### NOTES

- 1) 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=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



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



Job Truss Truss Type Qty Ply Roof - Osage Lot 42 P240089-01 V3 Valley 2 Job Reference (optional

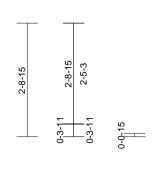
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

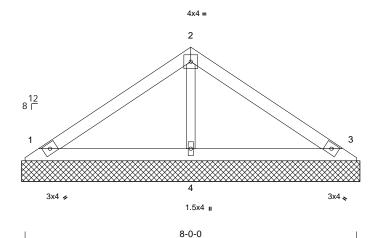
Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F ID:ty0?Hnm2CiRkdX6xatJFZiz8aVz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKV rCDoi7J

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424367 LEE'S SUMMIT. MISSOURI

Feb 02 17 1428







Scale = 1:27.8

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 **OTHERS** 

### **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=8-2-0, 3=8-2-0, 4=8-2-0

Max Horiz 1=68 (LC 11)

Max Uplift 1=-46 (LC 12), 3=-55 (LC 13) Max Grav 1=184 (LC 1), 3=184 (LC 1), 4=286

(LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-116/68, 2-3=-110/68

**BOT CHORD** 1-4=-14/54, 3-4=-14/54

WFBS 2-4=-195/101

### 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=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 6) chord live load nonconcurrent with any other live loads.

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



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



Job Truss Truss Type Qty Ply Roof - Osage Lot 42 P240089-01 V4 Valley 2 Job Reference (optional

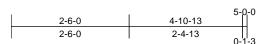
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

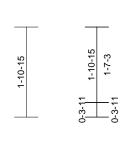
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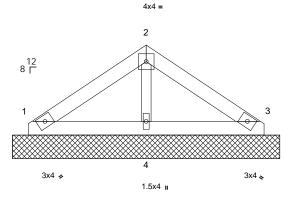
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424368 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION









5-0-0

Scale = 1:24.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD** 2x3 SPF No.2 **OTHERS** 

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

5-8-12 oc purlins.

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

bracing.

REACTIONS (size) 1=5-8-0, 3=5-8-0, 4=5-8-0

Max Horiz 1=44 (LC 9)

Max Uplift 1=-30 (LC 12), 3=-36 (LC 13) Max Grav 1=120 (LC 1), 3=120 (LC 1), 4=184

(LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-76/53, 2-3=-72/53 **BOT CHORD** 1-4=-9/36, 3-4=-9/36

WFBS 2-4=-126/82

### 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=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 6) chord live load nonconcurrent with any other live loads.

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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 6,2024



 Job
 Truss
 Truss Type
 Qty
 Ply
 Roof - Osage Lot 42

 P240089-01
 V5
 Valley
 1
 1
 Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
[63424369]
LEE'S SUMMIT, MISSOURI

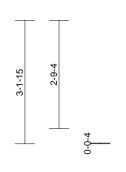
RELEASE FOR CONSTRUCTION

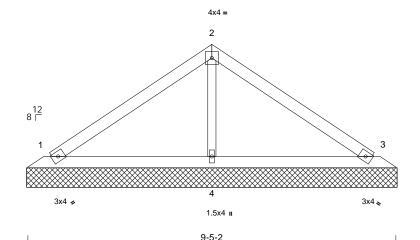
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Feb 02/01/28/04/29:24







Scale = 1:29.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 31 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 OTHERS 2x3 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=9-5-14, 3=9-5-14, 4=9-5-14

Max Horiz 1=-77 (LC 8)

Max Uplift 1=-35 (LC 12), 3=-44 (LC 13),

4=-25 (LC 12)

Max Grav 1=187 (LC 1), 3=187 (LC 1), 4=363

(LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-145/72, 2-3=-145/72

BOT CHORD 1-4=-15/64, 3-4=-15/64

WEBS 2-4=-217/88

### NOTES

- 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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 6,2024





Job Truss Truss Type Qty Ply Roof - Osage Lot 42 P240089-01 V6 Valley Job Reference (optional

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

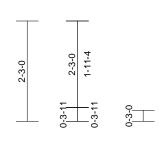
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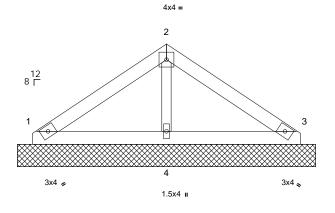
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424370 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Feb 02**/17**/1428







6-0-0

Scale = 1:25.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 2x4 SP No.2 **BOT CHORD OTHERS** 2x3 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=6-8-3, 3=6-8-3, 4=6-8-3

Max Horiz 1=-54 (LC 8)

Max Uplift 1=-36 (LC 12), 3=-43 (LC 13) Max Grav 1=145 (LC 1), 3=145 (LC 1), 4=224

(LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-92/62, 2-3=-87/62

**BOT CHORD** 1-4=-11/43, 3-4=-11/43

WFBS 2-4=-152/94

### 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=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 6) chord live load nonconcurrent with any other live loads.

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



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



Truss Type Job Truss Qty Ply Roof - Osage Lot 42 P240089-01 V7 Valley

Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424371 LEE'S SUMMIT. MISSOURI

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. F Feb 02 7 1429 ID:c7yuCyLHpTPNIQT46p9QEqz8aSd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoF442dC



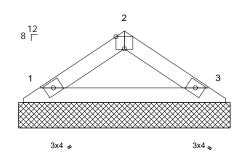
3x4 =











4-0-0

Scale = 1:22.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 2x4 SP No.2 BOT CHORD

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 4-2-15 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=4-2-3, 3=4-2-3

Max Horiz 1=-31 (LC 8)

Max Uplift 1=-21 (LC 12), 3=-21 (LC 13) Max Grav 1=148 (LC 1), 3=148 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-129/89, 2-3=-129/89

BOT CHORD 1-3=-33/86

### NOTES

- 1) 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=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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) Standard



February 6,2024



## Center plate on joint unless x Offsets are indicated. Dimensions are in ft-in-sixtee Apply plates to both sides of and fully embed teeth. mbols Center plate on joint unless x, y

plates 0- 1/16" from outside For 4 x 2 orientation, locate Apply plates to both sides of truss Dimensions are in ft-in-sixteenths

₹

edge of truss.

\* Plate location details available in MiTek software or upon request

connector plates.

required direction of slots in This symbol indicates the

### PLATE SIZE

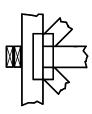
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



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

### **BEARING**



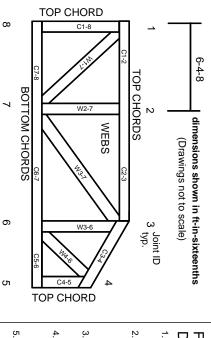
Min size shown is for crushing only number/letter where bearings occur reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

DSB-22: ANSI/TPI1:

## 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

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

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

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## Mile

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# General Safety Notes

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- œ Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- 10. Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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.