

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 Blvd. Subdivision: 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.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I63424346	A1	2/6/2024	21	I63424366	V2	2/6/2024
2	I63424347	A2	2/6/2024	22	I63424367	V3	2/6/2024
3	I63424348	A3	2/6/2024	23	I63424368	V4	2/6/2024
4	I63424349	A4	2/6/2024	24	I63424369	V5	2/6/2024
5	I63424350	B1	2/6/2024	25	I63424370	V6	2/6/2024
6	I63424351	B2	2/6/2024	26	I63424371	V7	2/6/2024
7	I63424352	C1	2/6/2024				
8	I63424353	C2	2/6/2024				
9	I63424354	C3	2/6/2024				
10	I63424355	C4	2/6/2024				
11	I63424356	D1	2/6/2024				
12	I63424357	D2	2/6/2024				
13	I63424358	D3	2/6/2024				
14	I63424359	E1	2/6/2024				
15	I63424360	E2	2/6/2024				
16	I63424361	G1	2/6/2024				
17	I63424362	G1A	2/6/2024				
18	I63424363	G2	2/6/2024				
19	I63424364	G2A	2/6/2024				
20	I63424365	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.



February 06, 2024



Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	A1	Roof Special Structural Gable	1	1	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. Mon Feb 05 13:13:40 Page: 2
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03/04/2024

- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) 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

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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

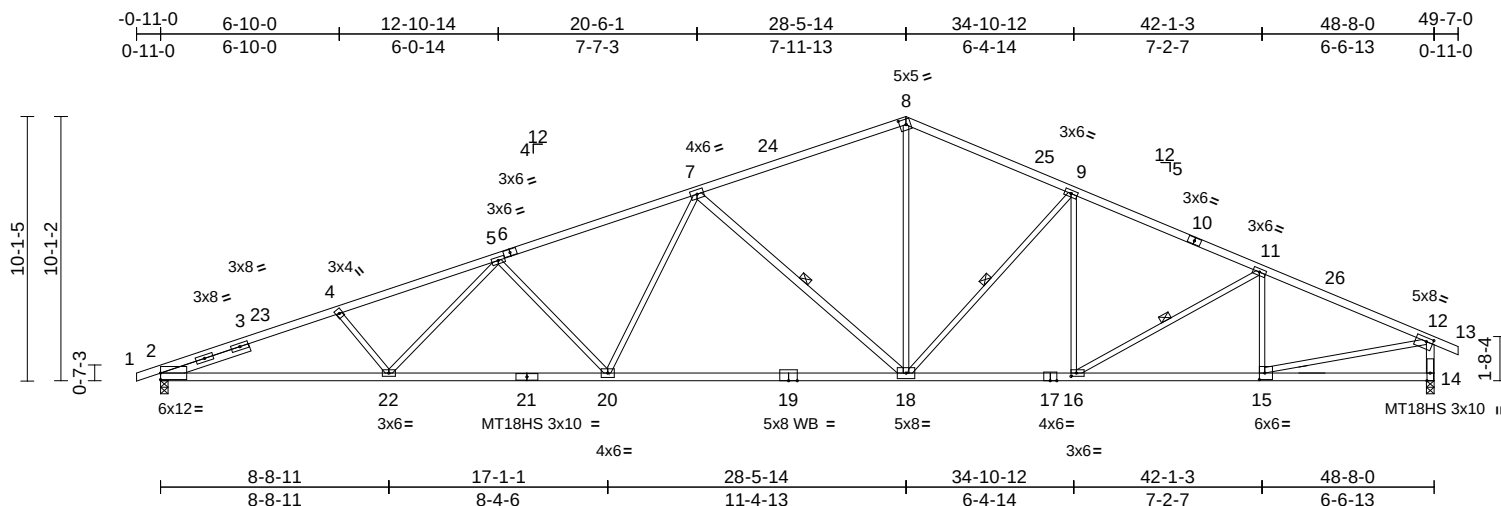
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424347
LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:14 Page: 1

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1rCDoi7J42J647

03/04/2024



Scale = 1:88

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]

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%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 10-13:2x4 SP 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 2x3 SPF No.2 *Except* 14-12,18-7:2x4 SP No.2
OTHERS 2x4 SPF No.3
SLIDER Left 2x4 SPF No.3 -- 3-6-9

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

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 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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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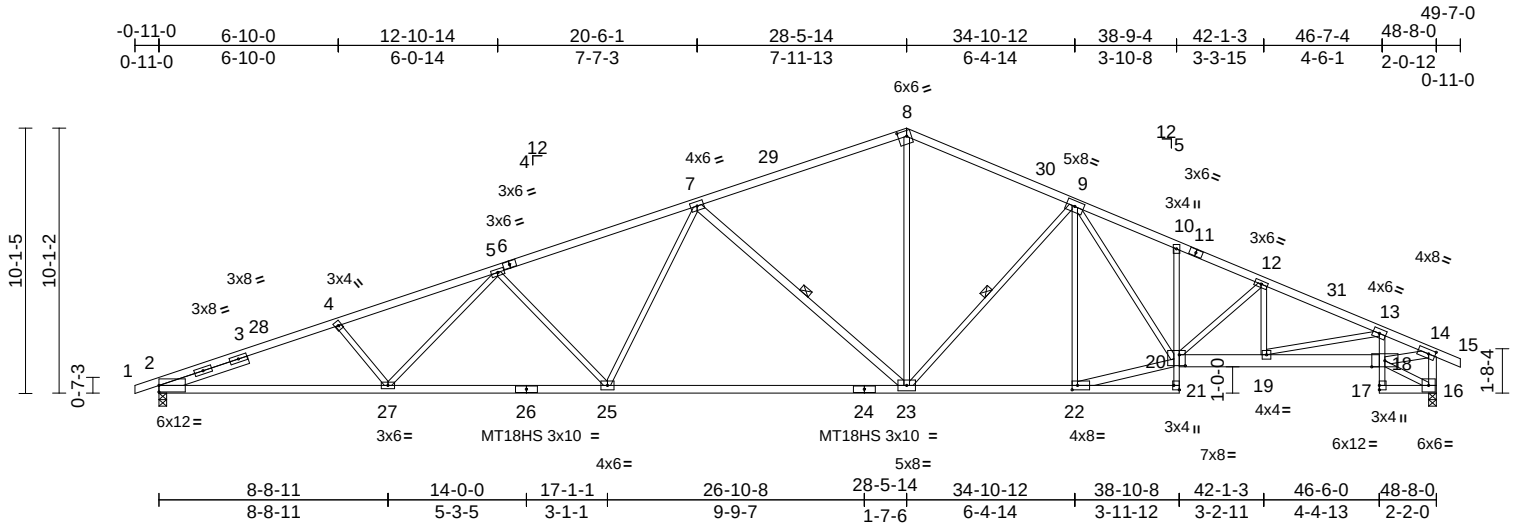
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	A3	Roof Special	5	1	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. Feb 02 17:14:55 Page: 1
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK?VrCDoi7J42J6Z4

03/04/2024



Scale = 1:87.8

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

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	
WEBS	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	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.	
WEBS	1 Row at midpt 9-23, 7-23	
REACTIONS	(size) 2=0-3-8, 16=0-3-8 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)	
FORCES	(lb) - Maximum Compression/Maximum 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
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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
- 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

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	A4	Roof Special Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424349 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. Feb 02 17:14:16 Page: 2

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03/04/2024

- 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 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
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.
- 9) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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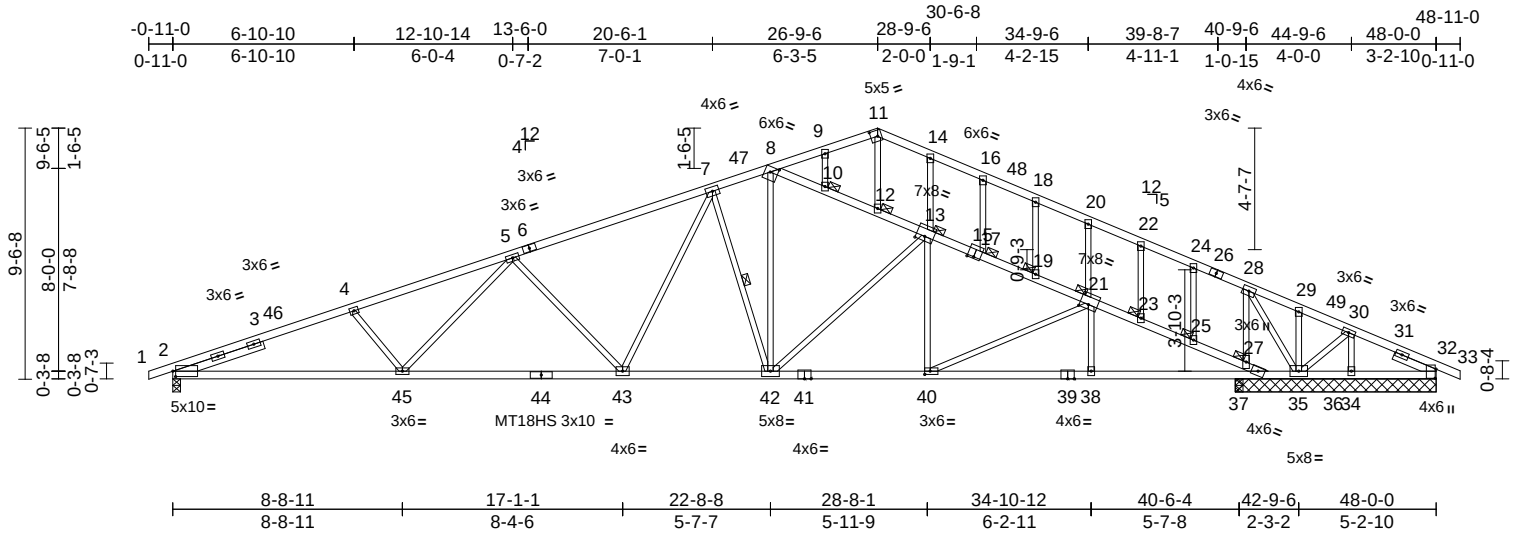
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	B1	Roof Special Structural Gable	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424350 LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:37 Page: 1

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03/04/2024



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], [32:0-4-3,0-0-7], [40:0-2-8,0-1-8]

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	0.80	Vert(LL)	-0.37	43-45	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.73	43-45	>669	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.23	35	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH								
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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SPF No.3 -- 3-7-3, Right 2x4 SPF No.3 -- 1-8-10

BRACING

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.
WEBS 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)

FORCES

(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

BOT CHORD

WEBS

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=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

Continued on page 2

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

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MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	B1	Roof Special Structural Gable	4	1	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. Feb 02 17:14:17 Page: 2
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JG41

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

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

LOAD CASE(S) Standard

03/04/2024

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

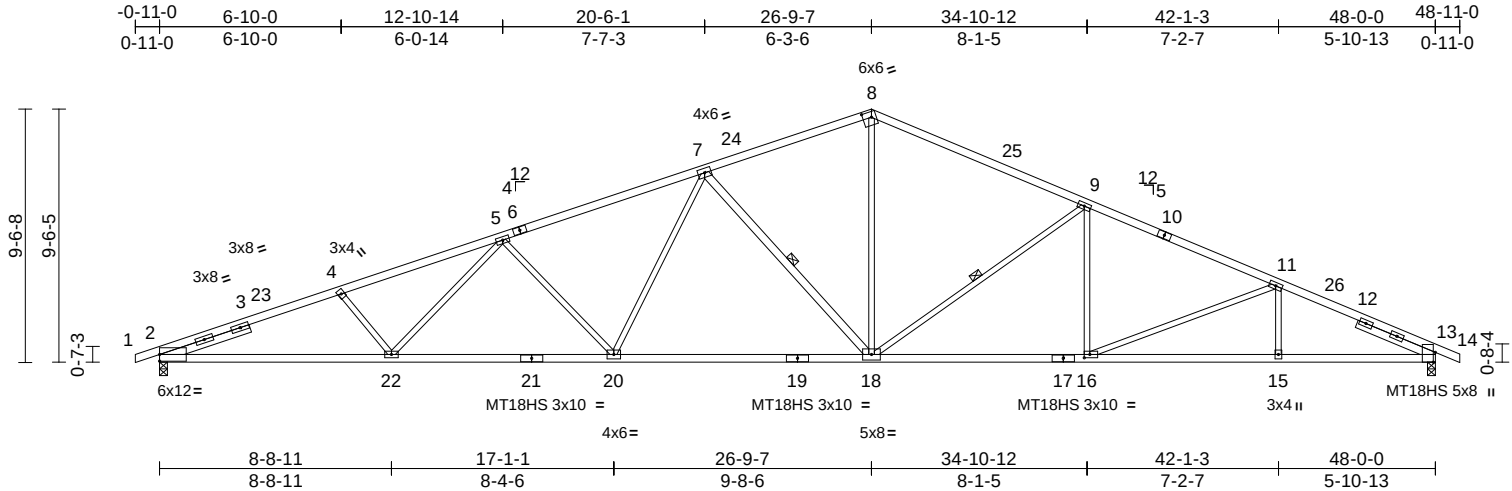
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424351
LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:17 Page: 1

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42J647

03/04/2024



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 Structural wood sheathing directly applied or 2-7-15 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 8-0-12 oc bracing.

WEBS 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)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/0, 2-4=-5291/1070, 4-5=-5047/1038, 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

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 3x6 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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 a truss system. Before use, the building designer must verify the applicability of the design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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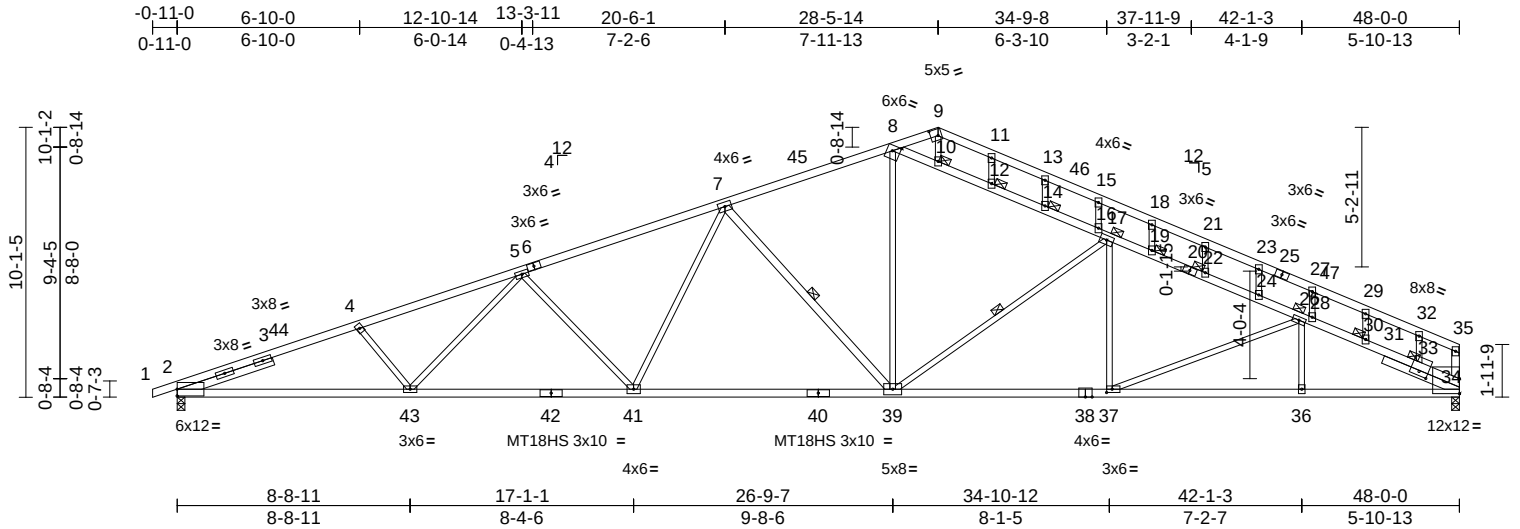
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASED FOR CONSTRUCTION
P240089-01	C1	Roof Special Structural Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424352 LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:18 Page: 1

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3uITXbGK?VrCDoi7J42J647

03/04/2024



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

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424352
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. Feb 02 17:14:18 Page: 2
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JG41

- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) 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

03/04/2024

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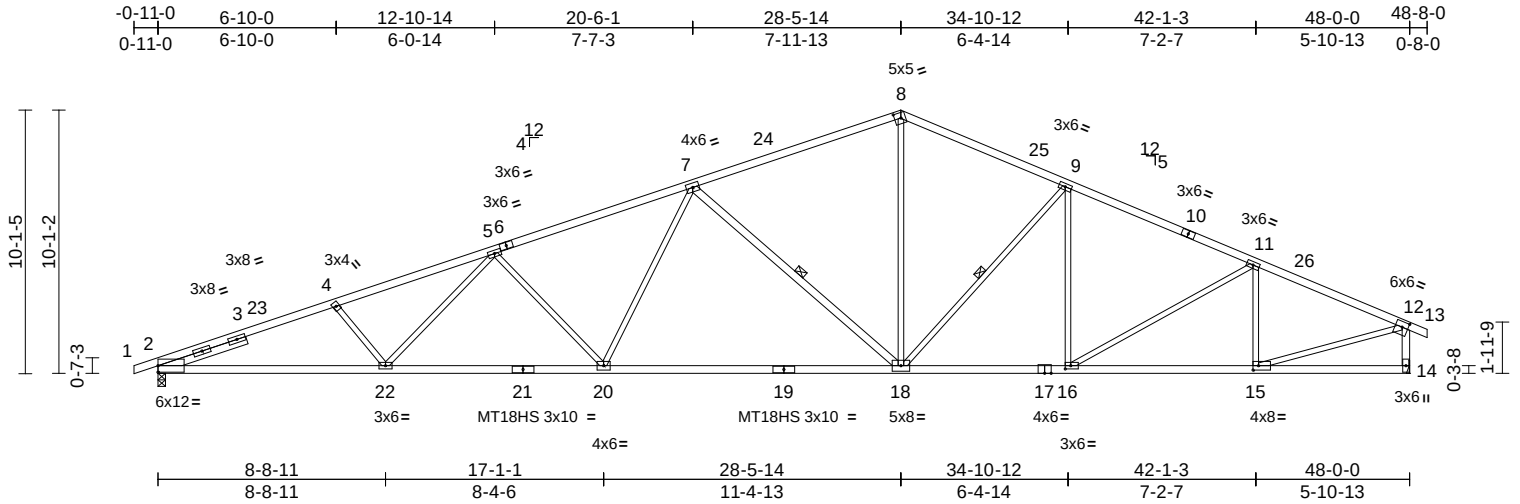
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	C2	Roof Special	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424353 LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:19 Page: 1

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKjVrCDoi7J42JGZt

03/04/2024



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

TOP CHORD 2x4 SP 2400F 2.0E *Except* 8-10:2x4 SP 1650F 1.5E, 10-13:2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except* 0-0:2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 14-12:2x4 SPF No.3, 18-7:2x4 SP No.2
SLIDER Left 2x4 SPF No.3 -- 3-6-9

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-5-3 oc bracing.

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

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 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

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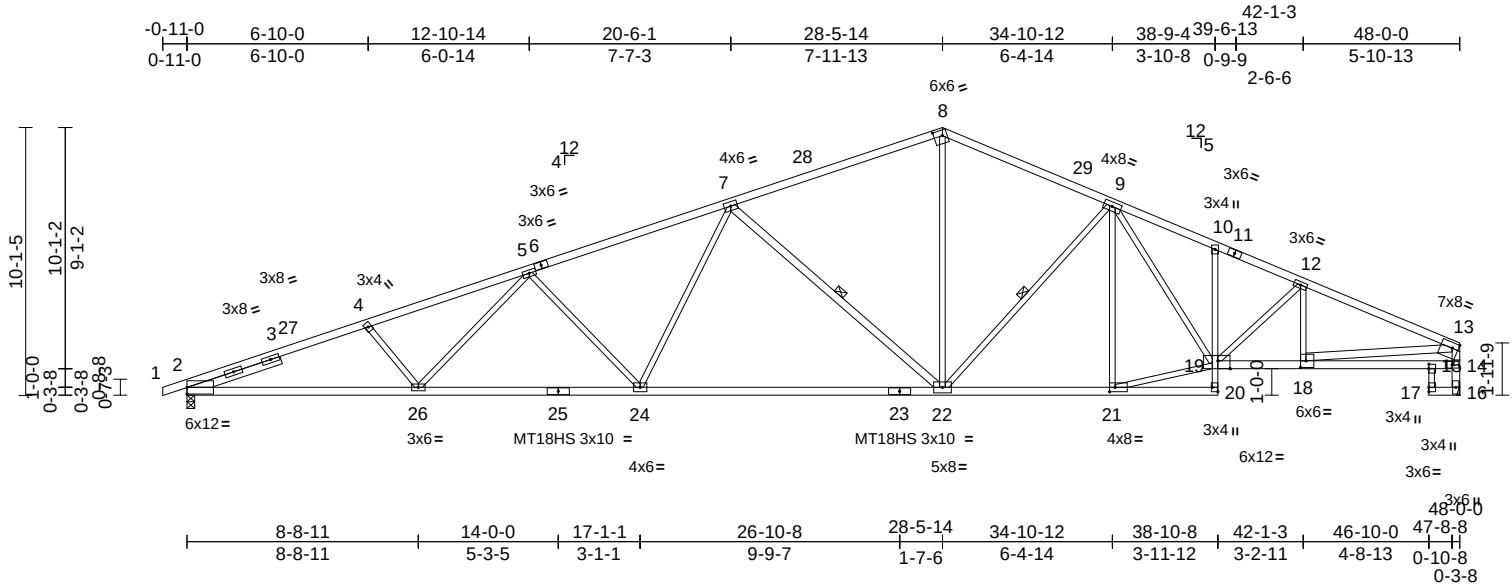
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424354 LEE'S SUMMIT, MISSOURI
P240089-01	C3	Roof Special	5	1	Job Reference (optional)	

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. Feb 02 17:14:00 Page: 1
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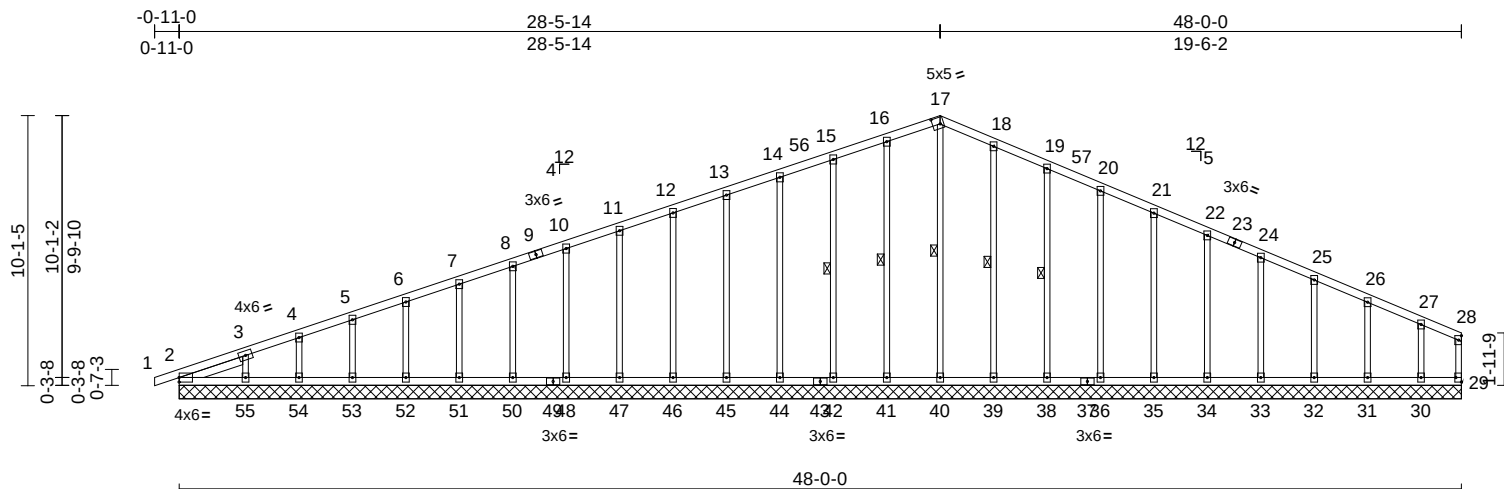
03/04/2024



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 14:31 Page: 1
ID:kkw6VMCTKypIIEPYbt576Zc rGt-RfC?PsB70Hg3NSaPqnL8w3ulTXbGK VcRDoi7J4zJ3Cf

03/04/2024



Scale = 1:86.2

Plate Offsets (X, Y): [17:0-3-7,0-3-0], [29:Edge,0-2-8]

[illegible]

LUMBER

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 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	1 Row at midpt	17-40, 16-41, 15-42, 18-39, 19-38

REACTIONS (size)

(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)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD

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

BOT CHORD

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

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



February 6, 2024

Continued on page 2



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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	C4	Roof Special Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW 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. Feb 02 17:14:11 Page: 2
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JG47

- 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 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
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing
capacity of 565 psi.
- 9) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

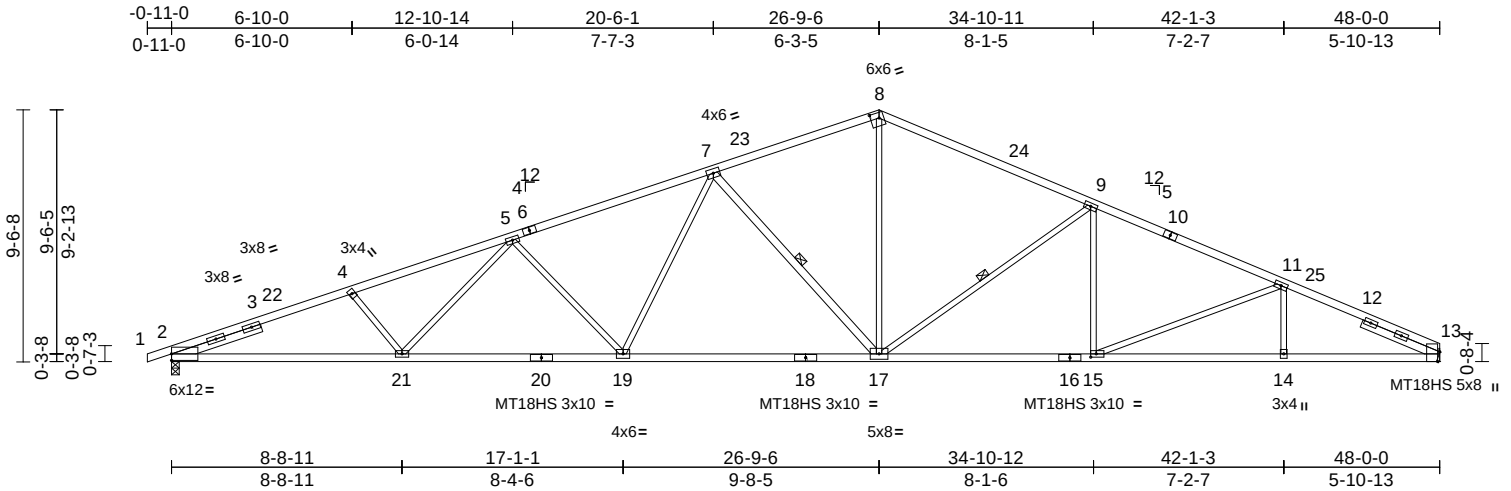
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	D1	Roof Special	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424356 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. Feb 02 17:14:11 Page: 1
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JG47

03/04/2024



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]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.40	19	>999
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.85	17-19	>680
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.25	13	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH					
Weight: 217 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* 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	
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.
WEBS	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	
TOP CHORD	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
WEBS	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
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 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



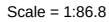
February 6, 2024

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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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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	0.90	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%

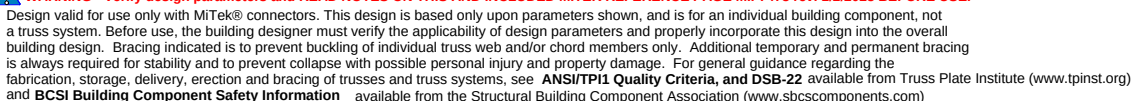
WEBS 4-29=234/178, 5-29=53/455,
7-27=119/863, 5-27=799/293,
8-25=296/1628, 7-25=1206/360,
12-21=117/741, 9-24=662/225,
9-25=987/313, 22-24=612/3318,
12-22=1149/265, 9-22=412/2005,
13-21=1347/289, 16-18=2099/457,
15-18=80/36, 13-20=1951/418,
14-20=697/3743, 14-18=4086/884

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=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
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E
crushing capacity of 805 psi, Joint 16 SP No.3
crushing capacity of 425 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 9) 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



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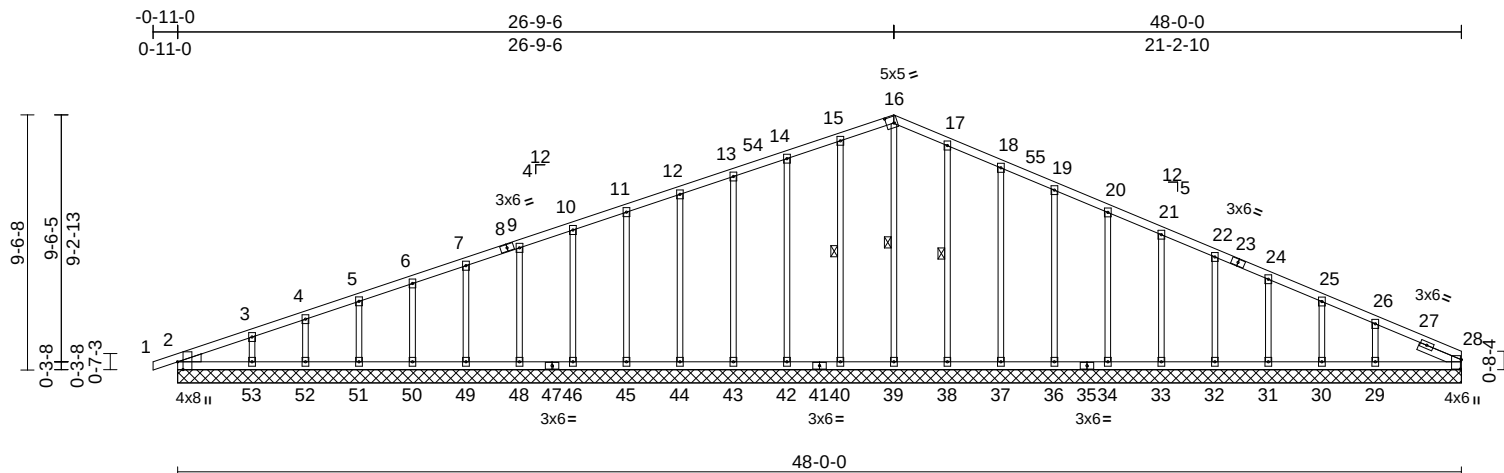
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	D3	Roof Special Supported Gable	2	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
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. Feb 02 17:14:33 Page: 1
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03/04/2024



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
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999	244/190
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.

WEBS 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)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 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
BOT CHORD 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 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

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW
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. Feb 02 17:14:33 Page: 2
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- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0" oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

03/04/2024

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

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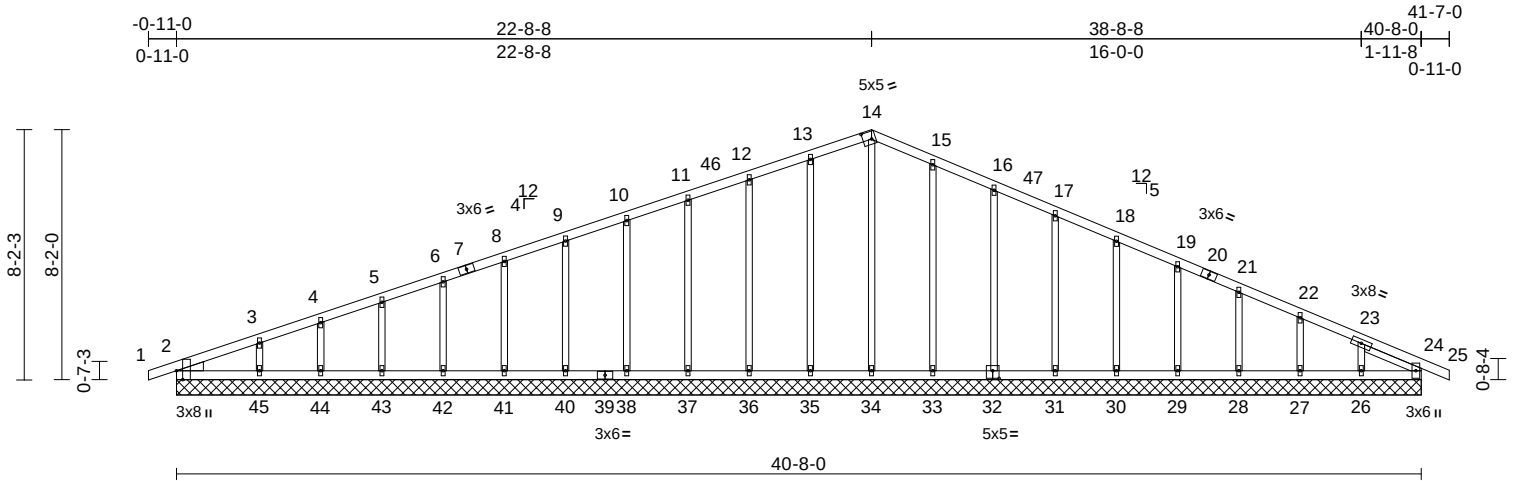
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	E1	Roof Special Supported Gable	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424359 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. Feb 02 17:14:44 Page: 1
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3uITXbGK?VrCDoi7J42JG4

03/04/2024



Scale = 1:75.3

Plate Offsets (X, Y): [2:0-3-8,Edge], [14:0-3-7,0-3-0], [32:0-2-8,0-3-0]

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
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	244/190
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%

LUMBER

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

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) 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
Max Horiz 2=139 (LC 12)
Max Uplift 2=-20 (LC 13), 24=-6 (LC 9), 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)

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 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

Continued on page 2

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

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424359
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. Feb 02 17:14:14 Page: 2
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- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0" oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

03/04/2024

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

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MiTek®

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

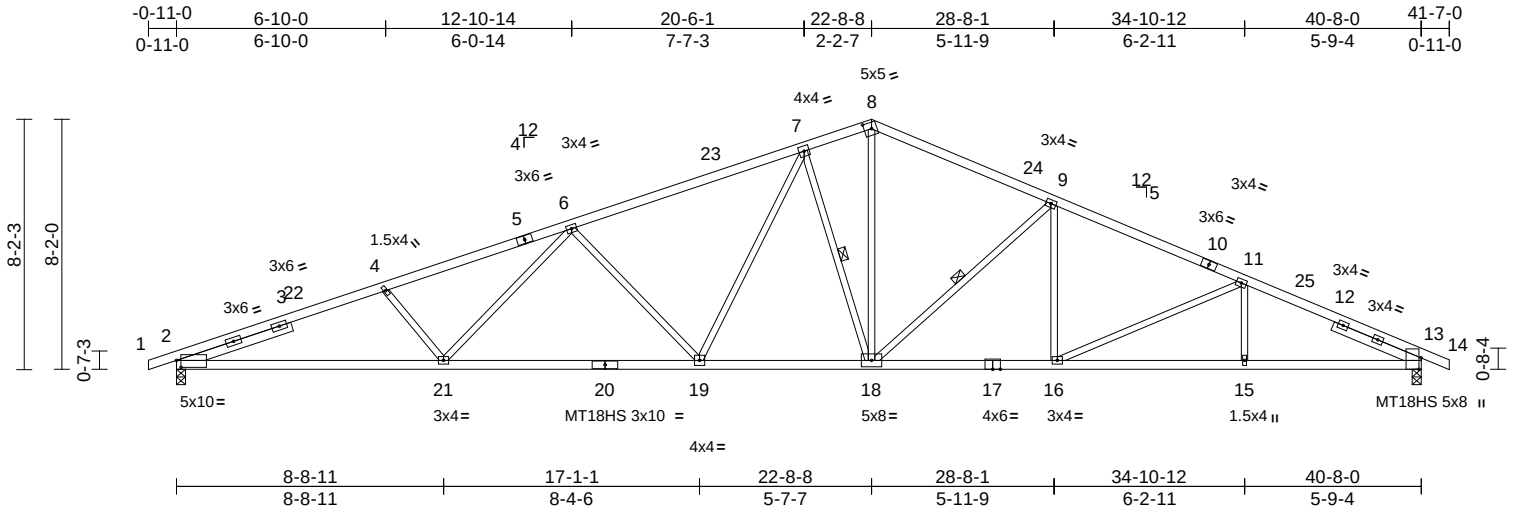
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	E2	Roof Special	8	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424360 LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:05 Page: 1

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42J6Z1

03/04/2024



Scale = 1:75.3

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
WEBS 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.

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

REACTIONS (size) 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

WEBS 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

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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.

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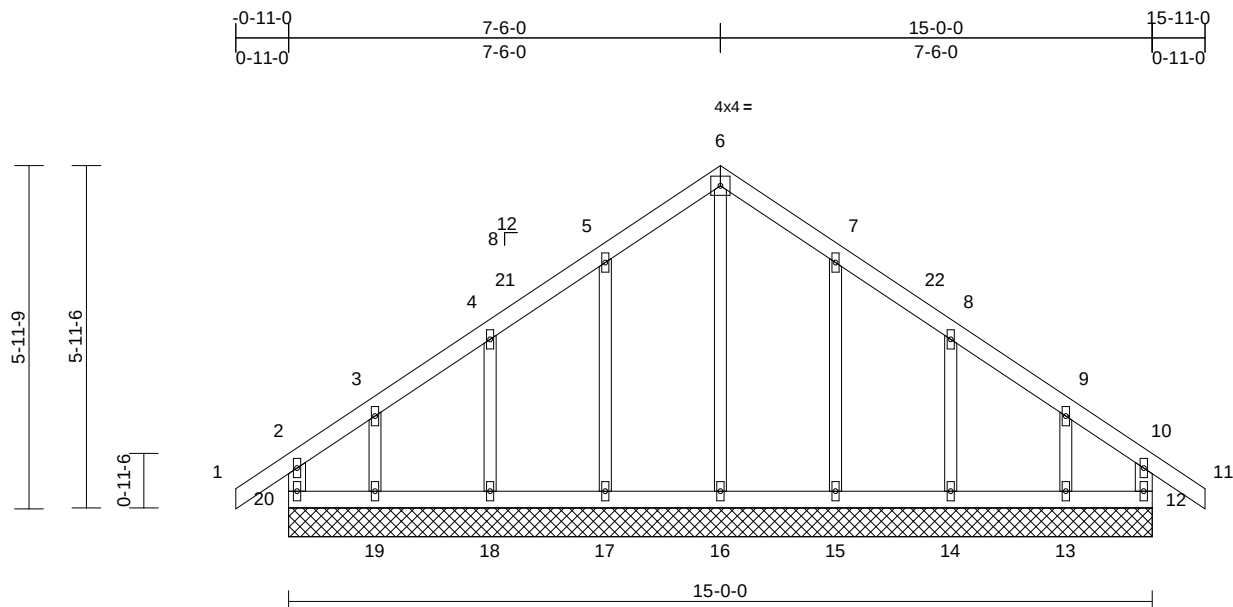
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	G1	Common Supported Gable	2	1	Job Reference (optional)

AS 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. Feb 02 17:14:05 Page: 1
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3uITXbGK1VrCDoi7J42JGZ1

03/04/2024



Scale = 1:40

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	0.10	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 72 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Sheathed or 6-0-0 oc purlins, except end 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
	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)
	Max Grav 12=155 (LC 19), 13=178 (LC 20), 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
WEBS	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

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=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
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 1.5x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely
braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 9) 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

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

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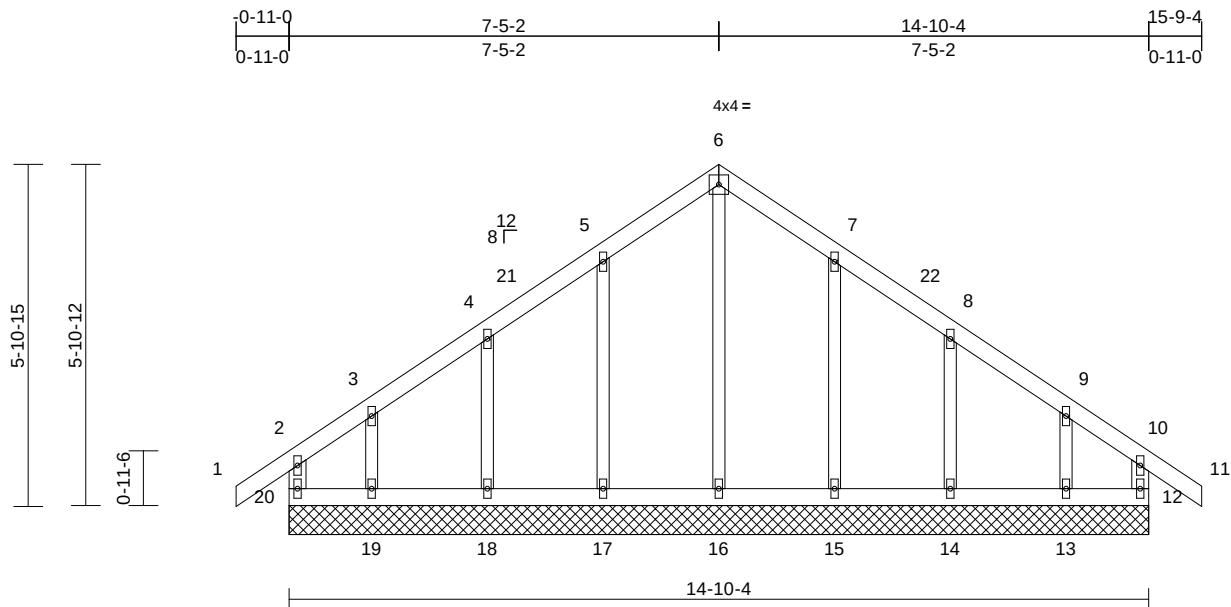
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	G1A	Common Supported Gable	1	1	Job Reference (optional)

AS 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. Feb 02 17:14:36 Page: 1
ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JGZ1

03/04/2024



Scale = 1:39.8

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	0.10	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 71 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Sheathed or 6-0-0 oc purlins, except end 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, 20=14-10-4
Max Horiz	20=-179 (LC 10)
Max Uplift	12=-55 (LC 9), 13=-105 (LC 13), 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
WEBS	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

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 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 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 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.

LOAD CASE(S) Standard



February 6, 2024

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

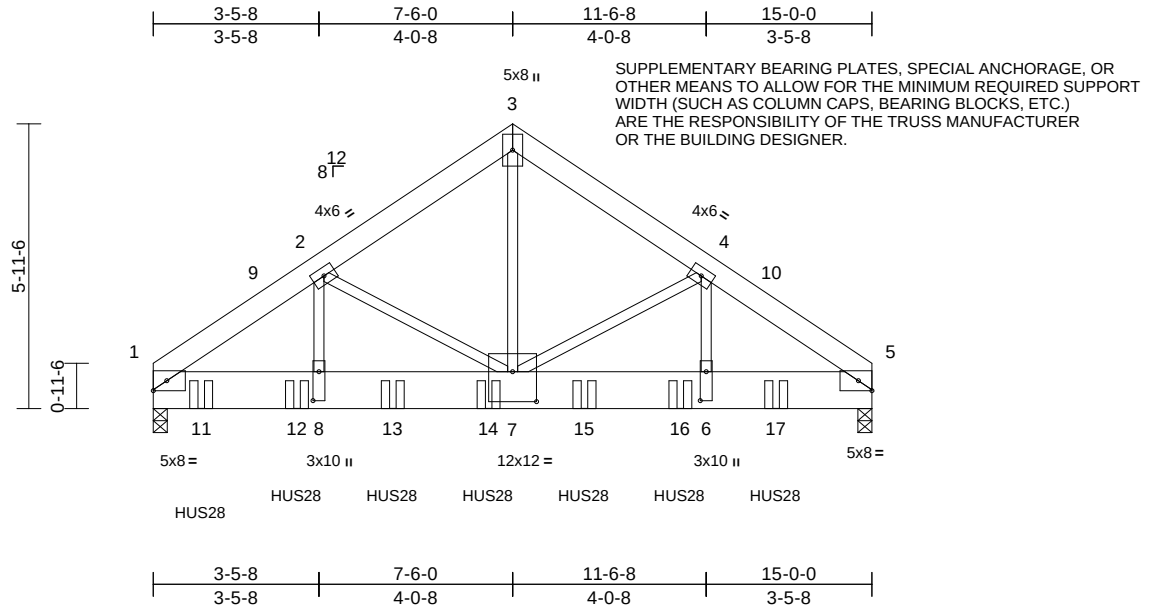
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424363
LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:16 Page: 1

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03/04/2024



Scale = 1:48.1

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

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

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
TOP CHORD 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
WEBS 2-8=-424/3292, 2-7=-2266/415, 3-7=-1123/7876, 4-7=-2150/402, 4-6=-404/3182

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.
- 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 7-6-0, 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.
- 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.

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MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	G2A	Common Girder	1	3	Job Reference (optional)

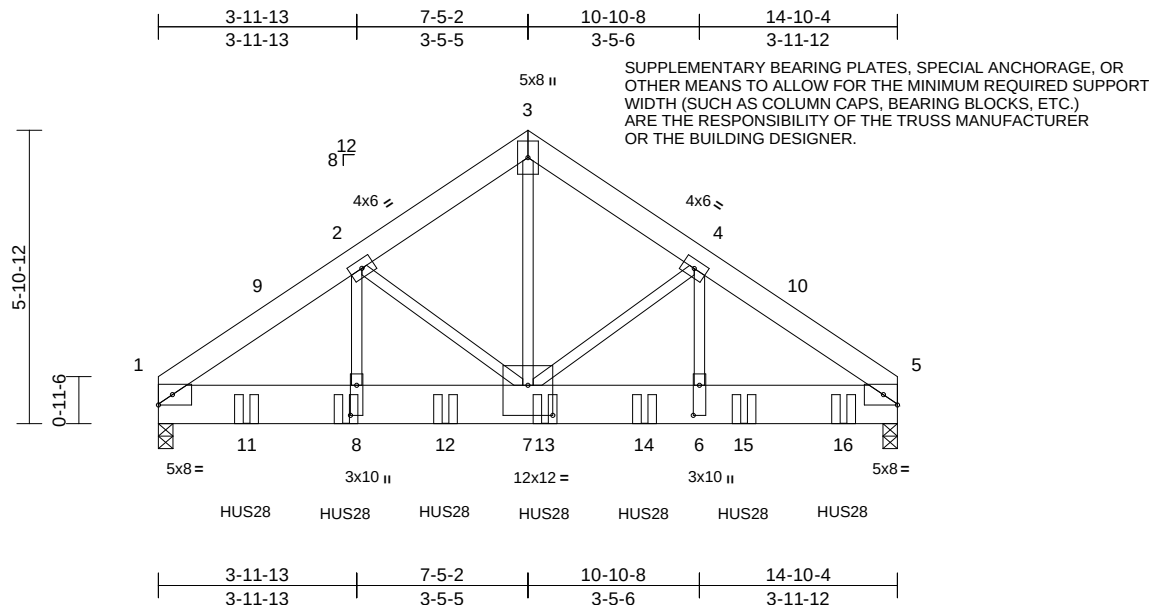
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424364
LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:37 Page: 1

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03/04/2024



Scale = 1:46.3

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

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

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)
Max Horiz 1=142 (LC 11)
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
TOP CHORD 1-2=-10106/1373, 2-3=-7483/1081, 3-4=-7485/1081, 4-5=-10143/1375
BOT CHORD 1-8=-1066/7957, 7-8=-1069/7983, 6-7=-1030/8023, 5-6=-1027/7996
WEBS 2-8=-400/3344, 2-7=-2301/403, 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.
- 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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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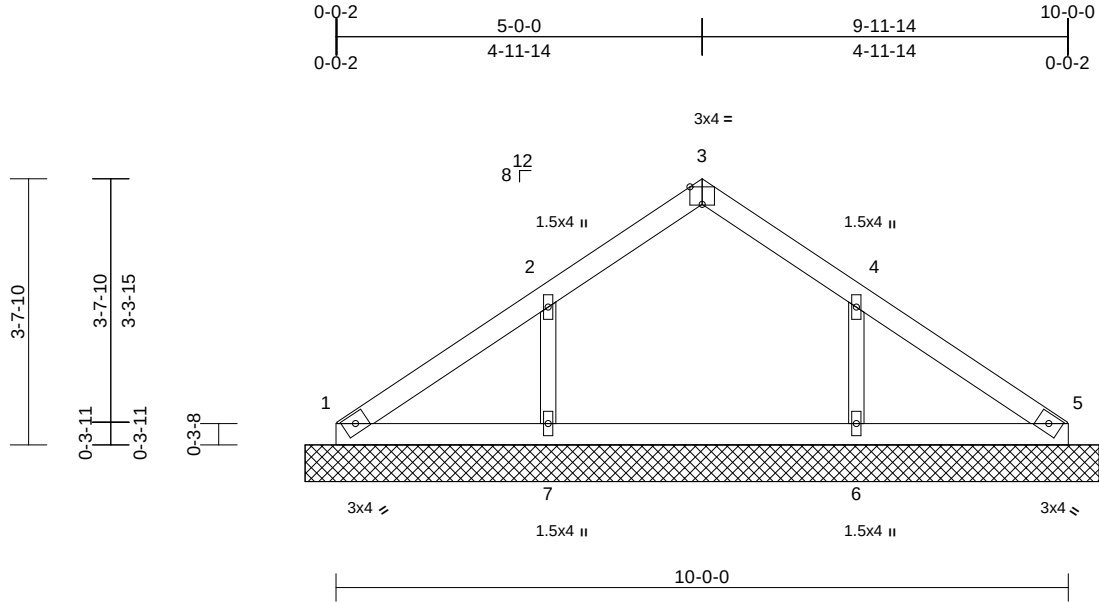
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION
P240089-01	V1	Valley	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						163424365
						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. Feb 02 17:14:37 Page: 1
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03/04/2024



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	
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=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)
	Max Grav	1=152 (LC 1), 5=152 (LC 1), 6=299 (LC 20), 7=301 (LC 19)
FORCES	(lb) - Maximum Compression/Maximum 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	
WEBS	2-7=-210/161, 4-6=-209/160	

- 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) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 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.

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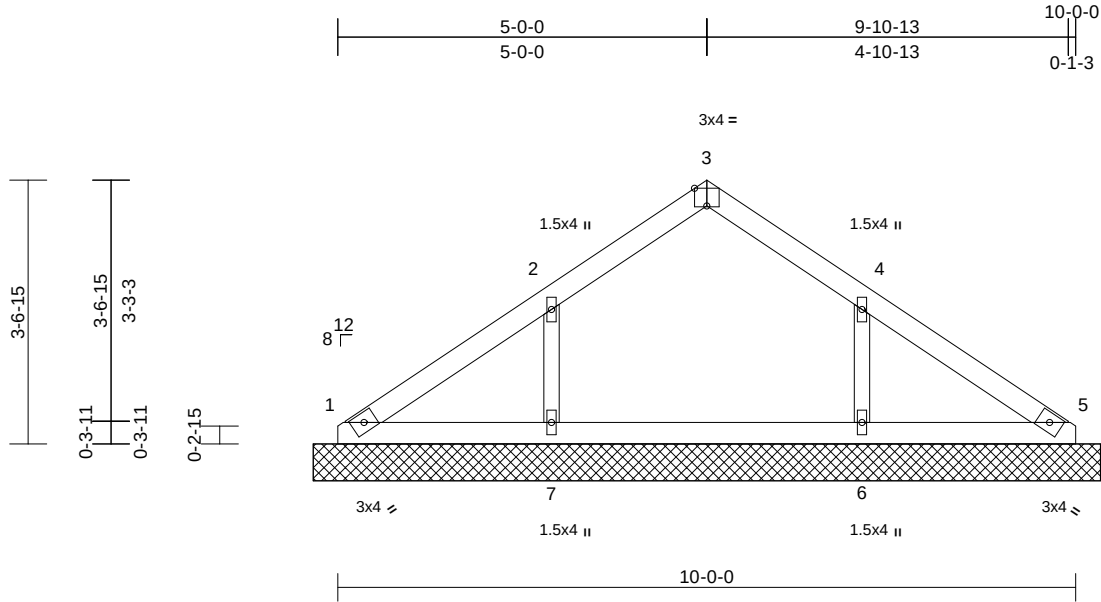
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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424366 LEE'S SUMMIT, MISSOURI
P240089-01	V2	Valley	2	1	Job Reference (optional)	

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

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03/04/2024



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)	PLATES
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	GRIP
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.04	Horiz(TL)	0.00	5	
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
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=10-8-0, 5=10-8-0, 6=10-8-0, 7=10-8-0
Max Horiz 1=-91 (LC 8)
Max Uplift 6=-100 (LC 13), 7=-101 (LC 12)
Max Grav 1=150 (LC 1), 5=150 (LC 1), 6=301 (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

- 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

- 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 DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4'-0-0 oc.



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.

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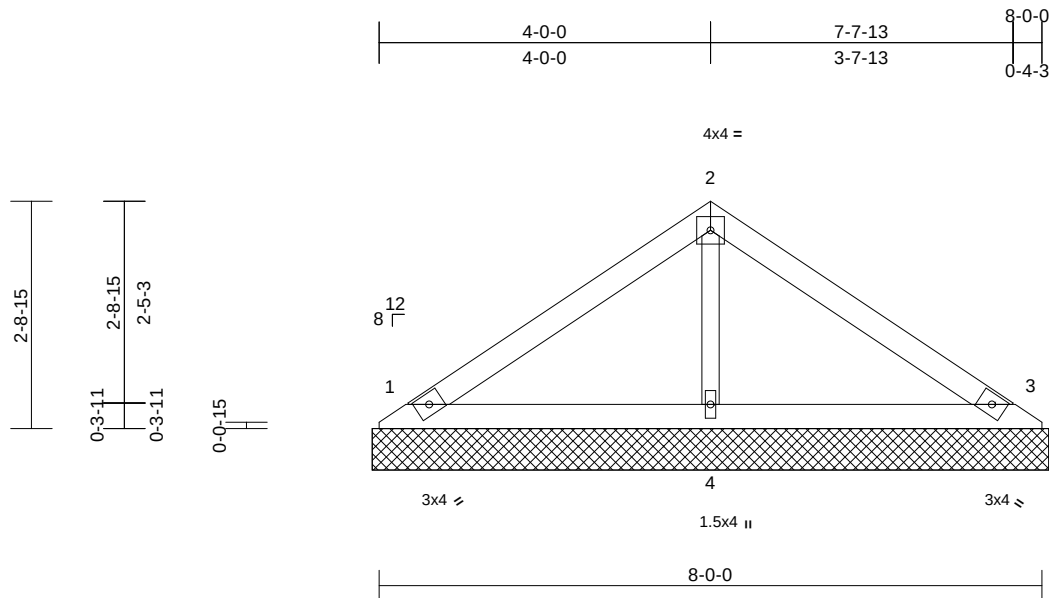
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	V3	Valley	2	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424367
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. Feb 02 17:14:38
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03/04/2024



Scale = 1:27.8

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	0.34	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
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=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
WEBS 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 DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 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.

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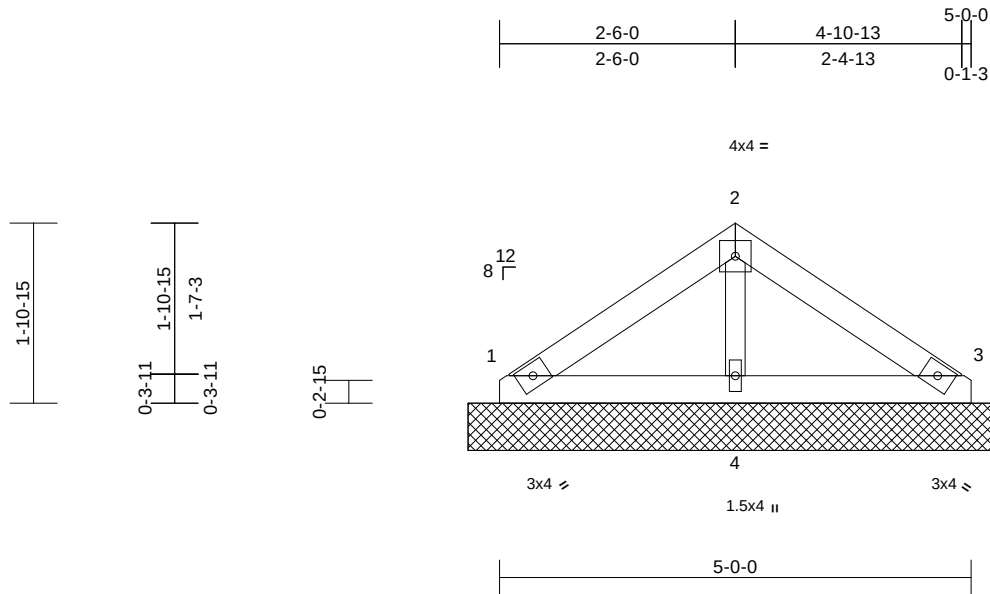
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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	V4	Valley	2	1	Job Reference (optional)

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03/04/2024

[illegible]

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

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.

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)

TOP CHORD 1-2=-76/53, 2-3=-72/53
BOT CHORD 1-4=-9/36, 3-4=-9/36
WEBS 2-4=-126/82

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=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
DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2'-0" oc.
- 6) This truss has been designed for a 10.0 psf bottom
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.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 6, 2024



WARNING – Verify design parameters and READ NOTES ON THIS and INCLUDED MITER REFERENCE PAGE mtr-7475 rev. 12/2023 BEFORE USE. Design valid for use only with MiTeK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinet.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcscomponents.com)

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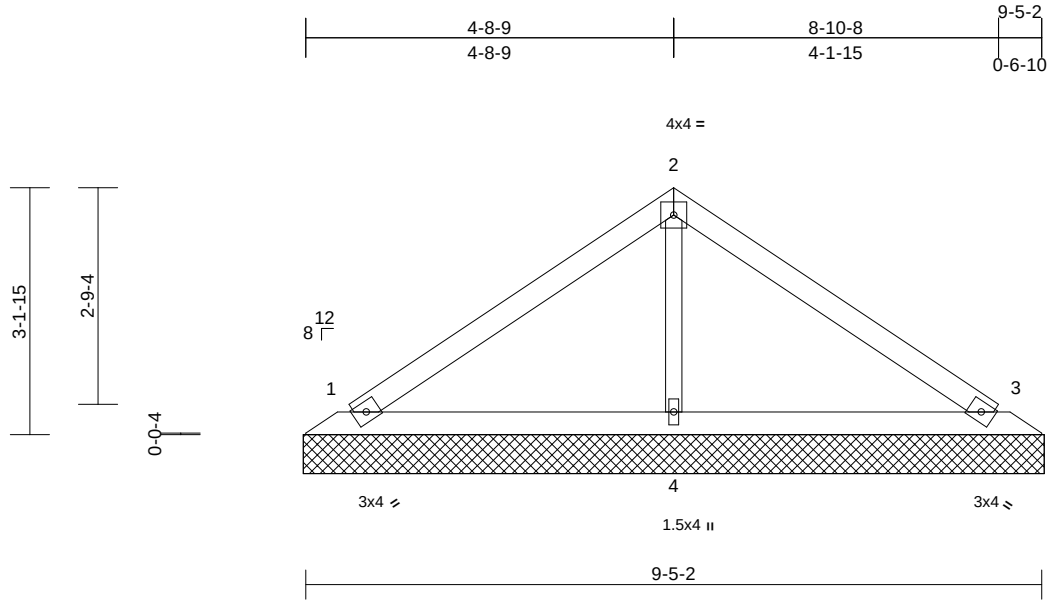
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Chesterfield, MO 63017
314.434.1200 / MiTek-LLS.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424369 LEE'S SUMMIT, MISSOURI
P240089-01	V5	Valley	1	1	Job Reference (optional)	

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

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03/04/2024



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

- 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.

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.

LOAD CASE(S) Standard

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.
- 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.
- 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.



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 a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

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

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42
P240089-01	V6	Valley	1	1	Job Reference (optional)

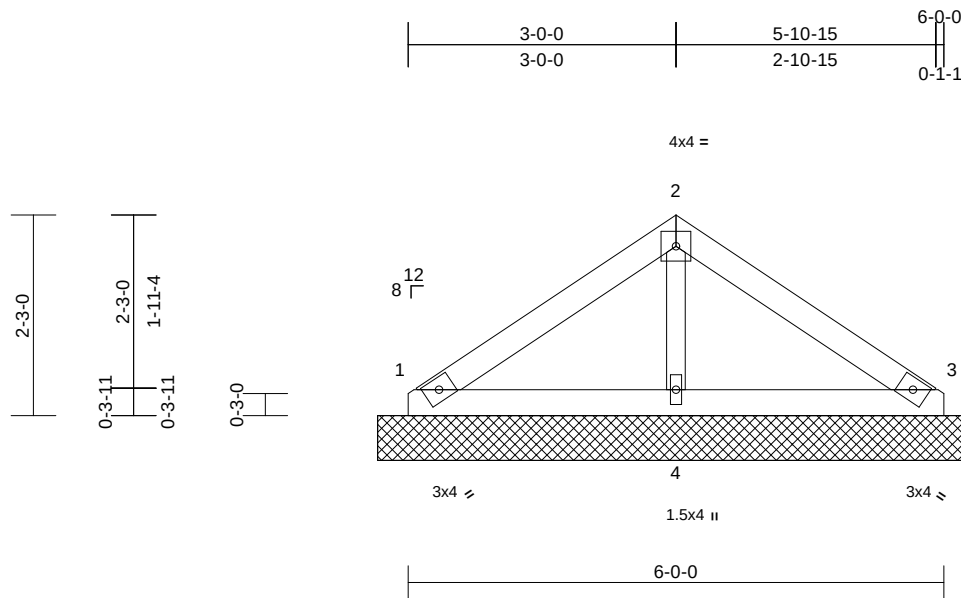
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
163424370
LEE'S SUMMIT, MISSOURI

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. Feb 02 17:14:38
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Page: 1

03/04/2024



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
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=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
WEBS 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 DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 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

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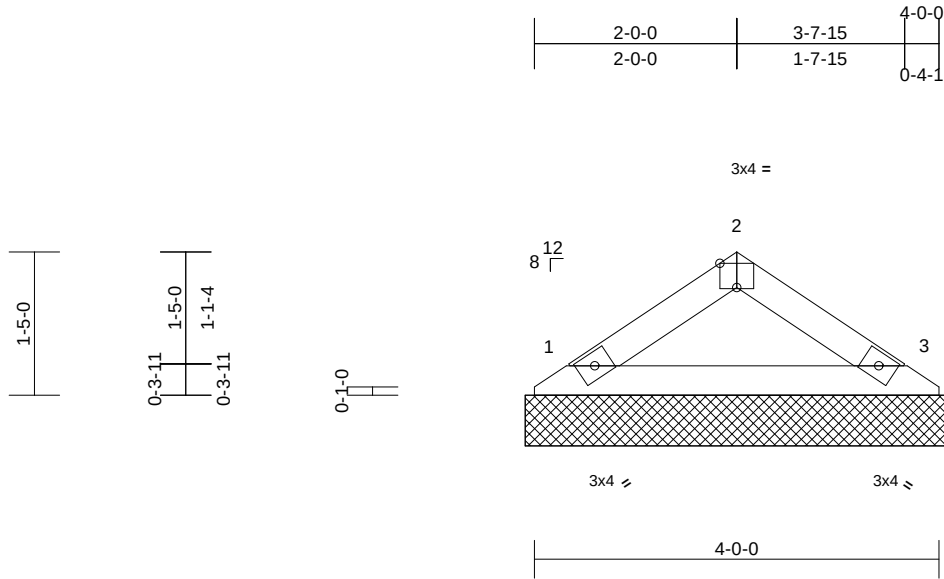
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 42	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 163424371 LEE'S SUMMIT, MISSOURI
P240089-01	V7	Valley	1	1	Job Reference (optional)	

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

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03/04/2024



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
BOT CHORD 2x4 SP No.2
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.
 - 2) 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 DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 2-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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



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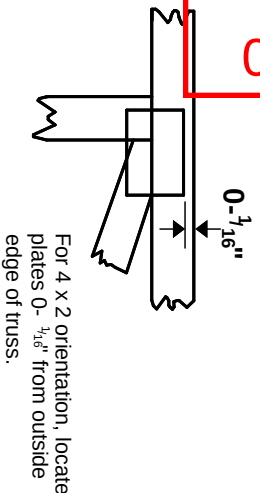
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Symbols

PLATE LOCATION AND ORIENTATION

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



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

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

PLATE SIZE

4 X 4

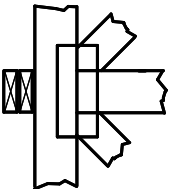
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

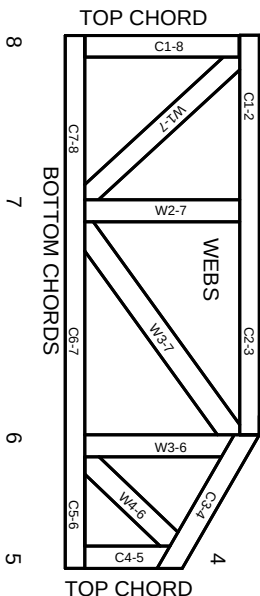
BEARING



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

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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