

RE: P240445-01 - Roof - Osage Lot 60

Site Information:

Project Customer: Clayton Properties Project Name: Wildflower - Farmhouse

Lot/Block: 60 Subdivision: Osage

Model:

Address: 3804 SW Ravengate Pl

City: Lee's Summit

State: MO

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

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16 Wind Speed: 115 mph

Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Mean Roof Height (feet): 35

Exposure Category: C

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

No.	Seal#	Truss Name	Date
1	I65302604	B01	5/3/24
2	I65302605	C01	5/3/24
3	I65302606	C02	5/3/24
4	I65302607	C03	5/3/24
5	I65302608	C04	5/3/24
6	I65302609	C05	5/3/24
7	I65302610	C06	5/3/24
8	I65302611	C07	5/3/24
9	I65302612	C08	5/3/24
10	I65302613	PB1	5/3/24
11	I65302614	PB2	5/3/24

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott

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

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



May 3, 2024

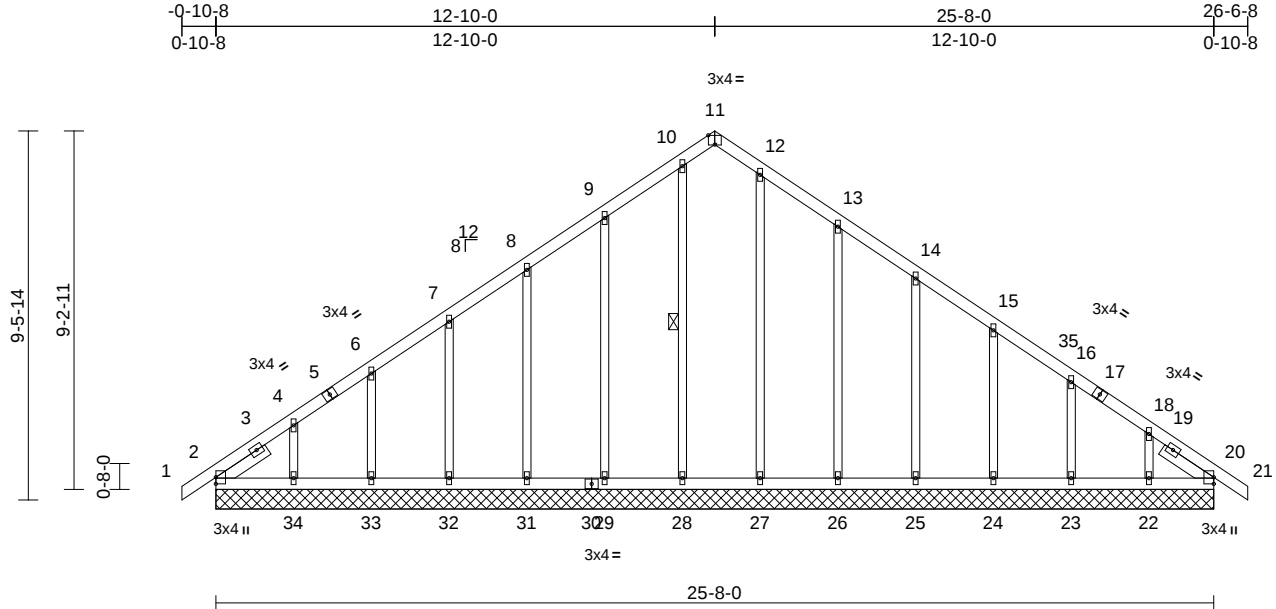
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	I65302604
P240445-01	B01	Common Supported Gable	1	1	Job Reference (optional)	

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Scale = 1:59.3

Plate Offsets (X, Y): [11:0-2-0,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	0.11	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	YES	WB	0.20	Horz(CT)	0.01	20	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 138 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-4, Right 2x4 SP No.2 -- 1-6-5

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 10-28

REACTIONS (size) 2=25-8-0, 20=25-8-0, 22=25-8-0, 23=25-8-0, 24=25-8-0, 25=25-8-0, 26=25-8-0, 27=25-8-0, 28=25-8-0, 29=25-8-0, 31=25-8-0, 32=25-8-0, 33=25-8-0, 34=25-8-0

Max Horiz 2=255 (LC 11)
Max Uplift 2=55 (LC 8), 20=16 (LC 9), 22=125 (LC 13), 23=76 (LC 13), 24=79 (LC 13), 25=75 (LC 13), 26=101 (LC 13), 29=98 (LC 12), 31=75 (LC 12), 32=80 (LC 12), 33=70 (LC 12), 34=137 (LC 12)
Max Grav 2=215 (LC 21), 20=189 (LC 22), 22=183 (LC 20), 23=192 (LC 20), 24=188 (LC 20), 25=188 (LC 20), 26=197 (LC 20), 27=163 (LC 1), 28=175 (LC 22), 29=192 (LC 19), 31=189 (LC 19), 32=190 (LC 19), 33=186 (LC 19), 34=213 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-4=-316/190, 4-6=-211/148, 6-7=-148/125, 7-8=-131/99, 8-9=-116/109, 9-10=-108/160, 10-11=-92/129, 11-12=-101/144, 12-13=-100/143, 13-14=-71/65, 14-15=-86/39, 15-16=-117/64, 16-18=-182/90, 18-20=-280/134, 20-21=0/16
BOT CHORD 2-34=-113/248, 33-34=-113/248, 32-33=-113/248, 31-32=-113/248, 29-31=-113/248, 28-29=-113/248, 27-28=-113/248, 26-27=-113/248, 25-26=-113/248, 24-25=-113/248, 23-24=-113/248, 22-23=-113/248, 20-22=-113/248
WEBS 4-34=-167/156, 6-33=-148/98, 7-32=-149/104, 8-31=-149/99, 9-29=-152/122, 10-28=-135/22, 12-27=-123/0, 13-26=-157/125, 14-25=-148/99, 15-24=-148/103, 16-23=-152/105, 18-22=-144/144

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 Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 12-10-0, Corner(3R) 12-10-0 to 18-0-0, Exterior(2N) 18-0-0 to 26-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 2, 137 lb uplift at joint 34, 70 lb uplift at joint 33, 80 lb uplift at joint 32, 75 lb uplift at joint 31, 98 lb uplift at joint 29, 101 lb uplift at joint 26, 75 lb uplift at joint 25, 79 lb uplift at joint 24, 76 lb uplift at joint 23, 125 lb uplift at joint 22 and 16 lb uplift at joint 20.
- 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



May 3, 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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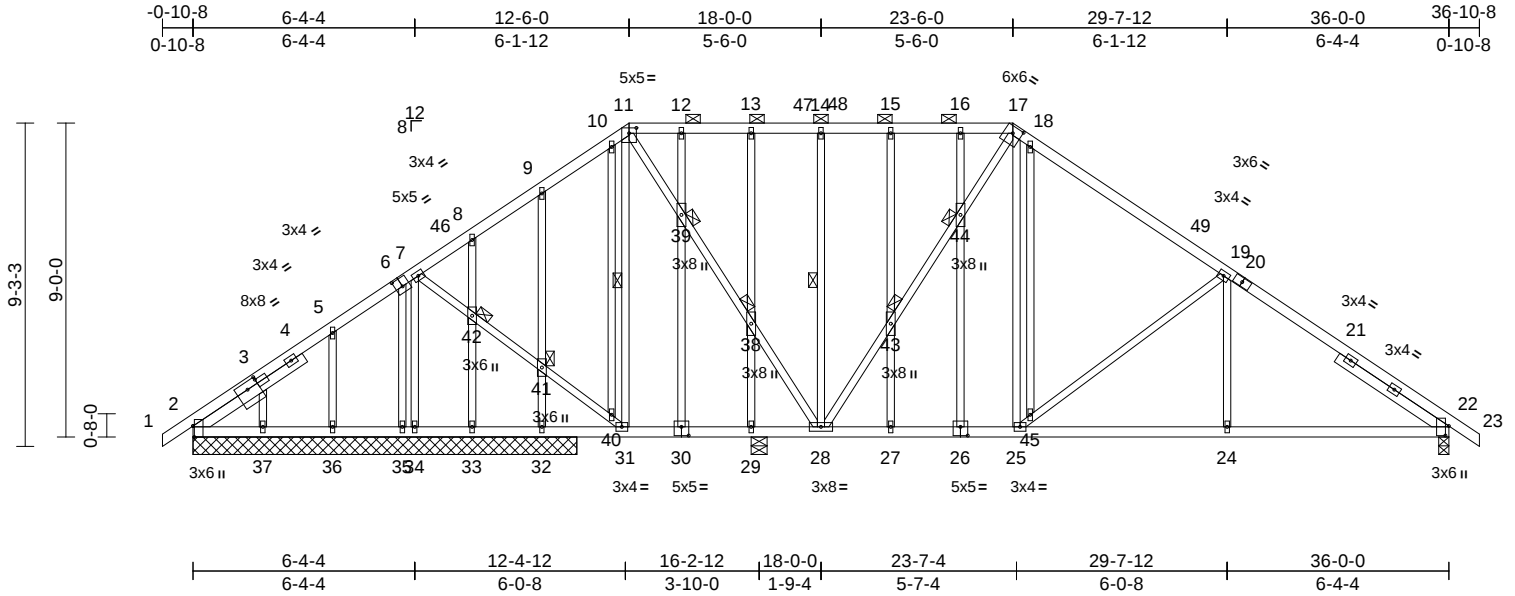
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	
P240445-01	C01	Piggyback Base Structural Gable	1	1	Job Reference (optional)	I65302605

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Scale = 1:66

Plate Offsets (X, Y): [2:0-3-13,Edge], [2:2-2-8,0-1-8], [3:0-4-0,0-2-8], [6:0-2-8,0-3-0], [11:0-2-8,0-1-13], [17:0-3-0,0-2-3], [22:0-3-5,0-1-3], [26:0-2-8,0-3-0], [30:0-2-8,0-3-0]

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	0.43	Vert(LL)	-0.07	26-27	>999	240	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.13	26-27	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.03	22	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 241 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
SLIDER Left 2x4 SP No.2 -- 3-9-4, Right 2x4 SP No.2 -- 3-9-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-17.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 11-31, 14-28
JOINTS 1 Brace at Jt(s): 38, 39, 41, 42, 43, 44

REACTIONS (size)
2=11-0-0, 22=0-3-8, 29=0-5-8, 32=11-0-0, 33=11-0-0, 34=11-0-0, 35=11-0-0, 36=11-0-0, 37=11-0-0
Max Horiz 2=249 (LC 11)
Max Uplift 2=-77 (LC 8), 22=-198 (LC 13), 29=-59 (LC 8), 32=-95 (LC 12), 33=-62 (LC 12), 34=-18 (LC 9), 35=-15 (LC 12), 36=-88 (LC 12), 37=-96 (LC 12)
Max Grav 2=138 (LC 20), 22=1174 (LC 1), 29=487 (LC 1), 32=392 (LC 1), 33=124 (LC 19), 34=485 (LC 1), 35=267 (LC 1), 36=189 (LC 19), 37=206 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-193/232, 3-5=-139/206, 5-7=-93/186, 7-8=-399/154, 8-9=-419/152, 9-10=-459/205, 10-11=-417/223, 11-12=-626/250, 12-13=-626/250, 13-14=-626/250, 14-15=-626/250, 15-16=-626/250, 16-17=-628/250, 17-18=-924/293, 18-19=-1106/264, 19-22=-1564/249, 22-23=0/16
BOT CHORD 2-37=-135/153, 36-37=-135/155, 35-36=-135/155, 34-35=-136/155, 33-34=-136/155, 32-33=-136/155, 31-32=-136/155, 29-31=-79/369, 28-29=-79/369, 27-28=0/817, 25-27=0/817, 24-25=-90/1194, 22-24=-90/1194
WEBS 7-34=-438/26, 7-42=-12/500, 41-42=-12/486, 40-41=-12/514, 31-40=-15/469, 11-31=-288/28, 11-39=-109/592, 38-39=-102/553, 28-38=-104/574, 14-28=-166/92, 28-43=-381/98, 43-44=-371/97, 17-44=-391/103, 17-25=-133/502, 25-45=-577/292, 19-45=-515/243, 19-24=0/263, 13-38=-266/78, 29-38=-291/80, 12-39=-86/46, 30-39=-40/38, 10-40=-67/24, 9-41=-212/119, 32-41=-259/122, 8-42=-143/85, 33-42=-125/84, 6-35=-259/35, 5-36=-148/112, 3-37=-164/121, 15-43=-76/52, 27-43=-59/50, 16-44=-37/70, 26-44=-30/52, 18-45=-96/75

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) -0-10-8 to 4-0-0, Interior (1) 4-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are 1.5x4 MT20 unless otherwise indicated.
- 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.



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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60
P240445-01	C01	Piggyback Base Structural Gable	1	1	I65302605
					Job Reference (optional)

- 8) * 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.
- 9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 2, 18 lb uplift at joint 34, 198 lb uplift at joint 22, 59 lb uplift at joint 29, 95 lb uplift at joint 32, 62 lb uplift at joint 33, 15 lb uplift at joint 35, 88 lb uplift at joint 36 and 96 lb uplift at joint 37.
- 11) 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.
- 12) 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

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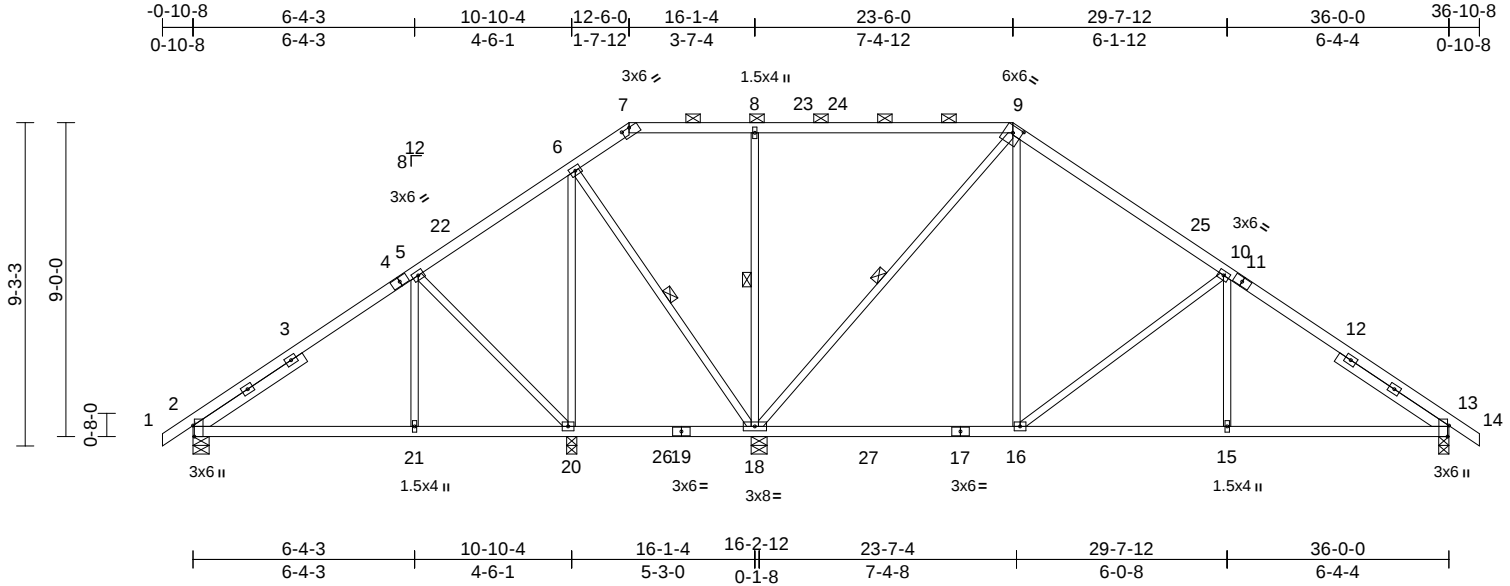
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	I65302606
P240445-01	C02	Piggyback Base	2	1	Job Reference (optional)	

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Scale = 1:66

Plate Offsets (X, Y): [2:0-3-13,Edge], [7:0-3-0,0-0-2], [9:0-3-0,0-2-3], [13:0-3-13,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	0.80	Vert(LL)	-0.11	16-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.18	16-18	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.03	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 183 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-9-3, Right 2x4 SP No.2 -- 3-9-4

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-10 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-20.
WEBS	1 Row at midpt 8-18, 6-18, 9-18

REACTIONS	(size) 2=0-5-8, 13=0-3-8, 18=0-5-8, 20=0-3-8
	Max Horiz 2=-250 (LC 10)
	Max Uplift 2=-91 (LC 12), 13=-145 (LC 13), 18=-213 (LC 8), 20=-67 (LC 12)
	Max Grav 2=602 (LC 19), 13=1018 (LC 20), 18=1381 (LC 2), 20=712 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/16, 2-5=-577/82, 5-6=-185/120, 6-7=-92/97, 7-8=-42/95, 8-9=-42/95, 9-10=-721/158, 10-13=-1234/161, 13-14=0/16
BOT CHORD	2-21=-143/525, 20-21=-143/525, 18-20=-145/245, 16-18=0/558, 15-16=-15/919, 13-15=-15/919
WEBS	9-16=-72/662, 10-16=-617/260, 10-15=0/253, 5-20=-567/225, 5-21=0/247, 6-20=-169/5, 8-18=-516/232, 6-18=-129/150, 9-18=-830/170

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 3x4 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) * 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, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2, 145 lb uplift at joint 13, 67 lb uplift at joint 20 and 213 lb uplift at joint 18.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



May 3, 2024

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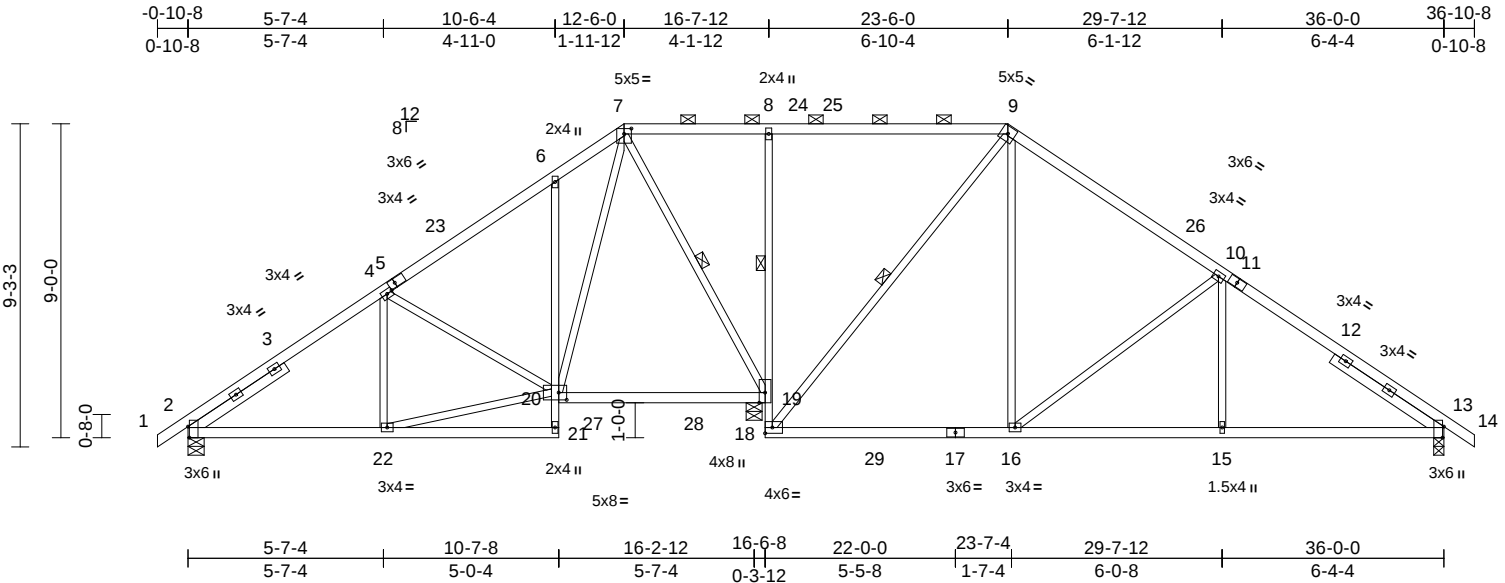
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	
P240445-01	C03	Piggyback Base	8	1	Job Reference (optional)	I65302607

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Scale = 1:66

Plate Offsets (X, Y): [2:0-3-13,Edge], [5:0-2-5,0-1-8], [7:0-2-8,0-1-13], [13:0-3-13,Edge], [20:0-2-12,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.12	16-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.20	16-18	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.02	19	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 191 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 21-6,8-18:2x3 SPF No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-3-13, Right 2x4 SP No.2 -- 3-9-4

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-5 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 21-22.

1 Row at midpt 8-19

WEBS 1 Row at midpt 7-19, 9-18

REACTIONS

(size)	2=0-5-8, 13=0-3-8, 19=0-5-8
Max Horiz	2=-249 (LC 10)
Max Uplift	2=-178 (LC 12), 13=-262 (LC 13), 19=-158 (LC 9)
Max Grav	2=807 (LC 19), 13=1024 (LC 20), 19=1832 (LC 2)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/16, 2-4=-953/255, 4-6=-618/289, 6-7=-566/390, 7-8=-148/348, 8-9=-151/350, 9-10=-732/357, 10-13=-1242/358, 13-14=0/16
BOT CHORD	2-22=-231/852, 21-22=-40/9, 20-21=0/80, 6-20=-281/187, 19-20=-53/295, 18-19=0/765, 8-19=-478/221, 16-18=0/456, 15-16=-169/926, 13-15=-169/926
WEBS	4-22=-12/145, 20-22=-215/886, 4-20=-397/167, 7-19=-736/104, 9-18=-822/32, 9-16=-68/672, 10-16=-615/249, 10-15=0/250, 7-20=-264/891

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 3x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 2, 158 lb uplift at joint 19 and 262 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



May 3,2024

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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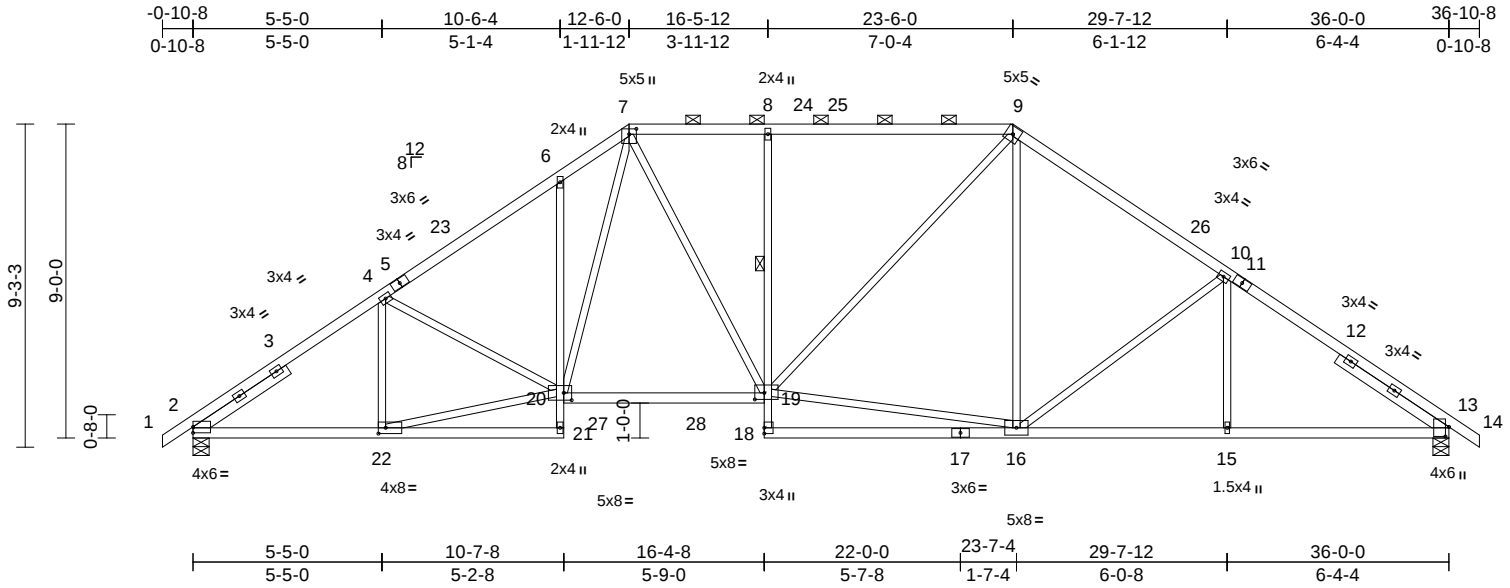
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	I65302608
P240445-01	C04	Piggyback Base	4	1	Job Reference (optional)	

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 14:49:46

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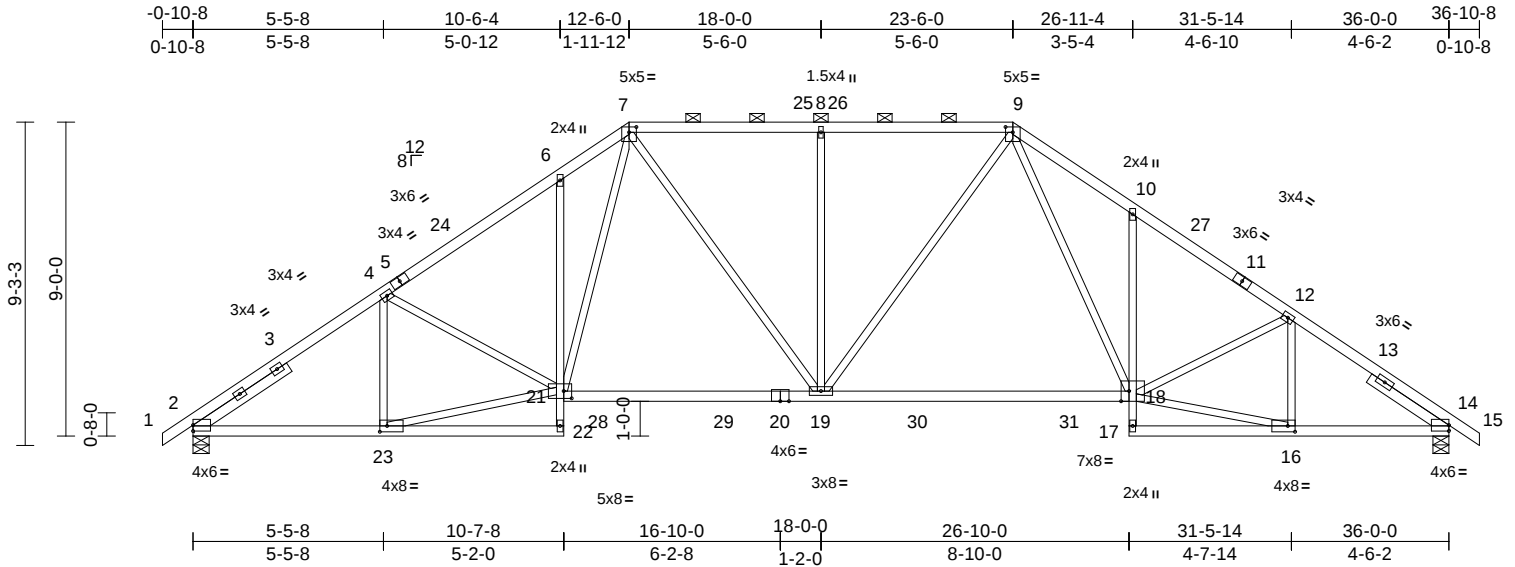
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	
P240445-01	C05	Piggyback Base	1	1	Job Reference (optional)	I65302609

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Scale = 1:66

Plate Offsets (X, Y): [2:Edge,0-2-1], [7:0-2-8,0-1-13], [9:0-2-8,0-1-13], [14:Edge,0-2-1], [16:0-2-8,0-2-0], [18:0-2-12,Edge], [21:0-2-12,0-2-8], [23:0-2-8,0-2-0]

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	0.69	Vert(LL)	-0.34	18-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.59	18-19	>734	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.16	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 193 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 22-6,10-17:2x3 SPF No.2, 20-18:2x4 SP 1650F 1.5E
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-12, Right 2x4 SP No.2 -- 2-7-15

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-6-11 oc purlins, except 2-0-0 oc purlins (3-8-1 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.

REACTIONS

(size)	2=0-5-8, 14=0-5-8
Max Horiz	2=249 (LC 11)
Max Uplift	2=-212 (LC 12), 14=-212 (LC 13)
Max Grav	2=1773 (LC 2), 14=1777 (LC 2)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/16, 2-4=-2604/356, 4-6=-2548/412, 6-7=-2523/524, 7-8=-2110/407, 8-9=-2110/407, 9-10=-2745/538, 10-12=-2719/410, 12-14=-2618/351, 14-15=0/16
BOT CHORD	2-23=-280/2100, 22-23=-16/57, 21-22=0/91, 6-21=-315/194, 19-21=-194/1847, 18-19=-78/1838, 17-18=0/85, 10-18=-347/214, 16-17=-71/31, 14-16=-206/2043
WEBS	4-23=-267/121, 21-23=-269/2103, 4-21=-124/154, 7-19=-166/552, 8-19=-432/203, 9-19=-163/569, 12-16=-342/102, 16-18=-176/2118, 12-18=-100/271, 7-21=-272/996, 9-18=-255/1079

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 212 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



May 3, 2024

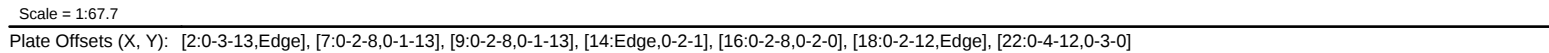
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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.sbcscomponents.com)

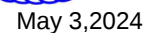
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 14:49:46 Page: 1
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LUMBER		1) Unbalanced roof live loads have been considered for this design.
TOP CHORD	2x4 SP No.2 *Except* 1-5,11-15:2x4 SP 2400F 2.0E	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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
BOT CHORD	2x4 SP No.2 *Except* 22-20,20-18:2x4 SP 1650F 1.5E, 10-17:2x3 SPF No.2	3) Provide adequate drainage to prevent water ponding.
WEBS	2x3 SPF No.2	4) All plates are MT20 plates unless otherwise indicated.
SLIDER	Left 2x4 SP No.2 -- 2-2-0, Right 2x4 SP No.2 -- 2-8-4	5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
BRACING		6) * 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, with BCDL = 10.0psf.
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-4 max.); 7-9.	7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-22 6-0-0 oc bracing: 16-17.	8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
REACTIONS	(size) 2=0-5-8, 14=0-5-8 Max Horiz 2=250 (LC 10) Max Uplift 2=212 (LC 12), 14=211 (LC 13) Max Grav 2=1766 (LC 2), 14=1768 (LC 2)	9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 211 lb uplift at joint 14.
FORCES	(lb) - Maximum Compression/Maximum Tension	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.
TOP CHORD	1-2=0/9, 2-4=-4023/489, 4-6=-3658/612, 6-7=-2340/411, 7-8=-2078/409, 8-9=-2078/408, 9-10=-2718/533, 10-12=-2696/408, 12-14=-2609/351, 14-15=0/16	11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
BOT CHORD	2-22=-495/3382, 21-22=-274/2279, 19-21=-184/1863, 18-19=-77/1822, 17-18=0/84, 10-18=-342/210, 16-17=-90/21, 14-16=-206/2036	
WEBS	4-22=0/427, 7-21=-124/798, 7-19=-197/474, 8-19=-435/204, 9-19=-168/543, 6-21=-674/288, 6-22=-310/1286, 12-16=-334/102, 16-18=-173/2128, 12-18=-102/260, 9-18=-249/1086	
		LOAD CASE(S) Standard



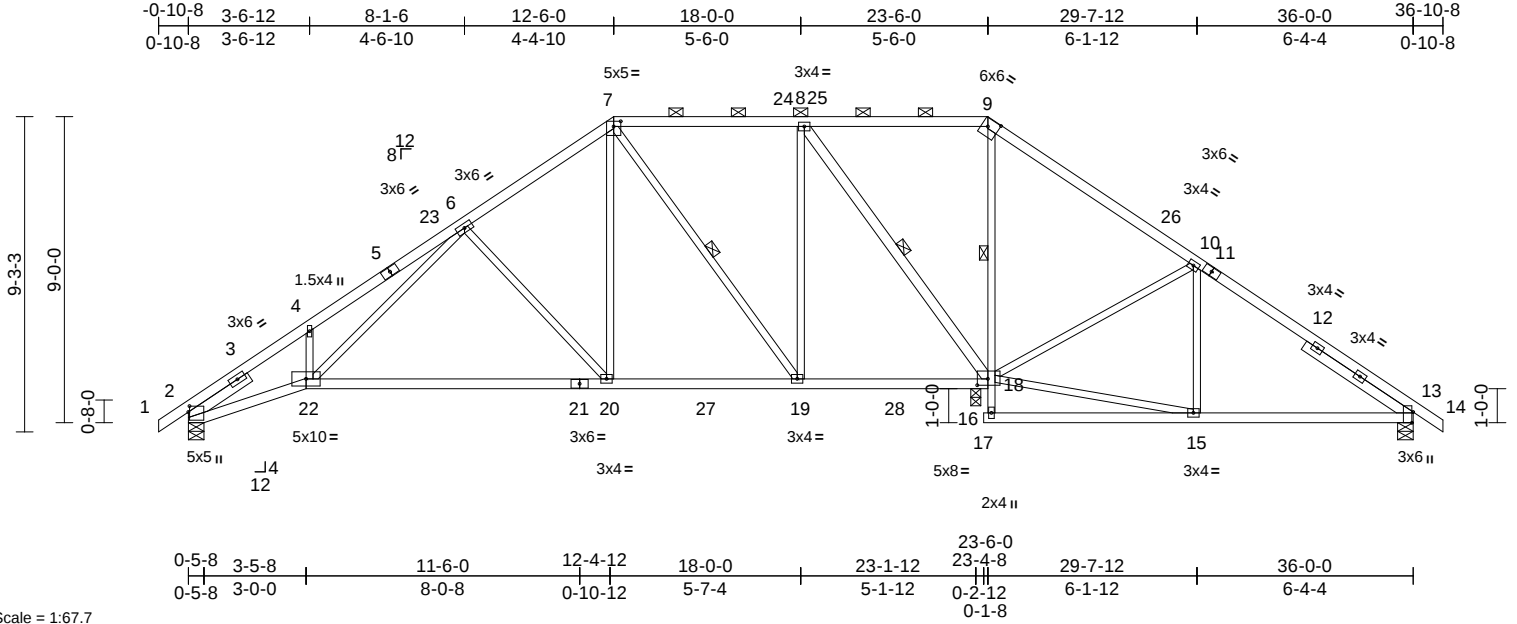
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	
P240445-01	C07	Piggyback Base	7	1	Job Reference (optional)	I65302611

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

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Scale = 1:67.7

Plate Offsets (X, Y): [2:0-2-1,0-0-6], [7:0-2-8,0-1-13], [9:0-3-12,0-2-11], [13:0-3-13,Edge], [18:0-3-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.22	20-22	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.46	20-22	>618	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.08	18	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 193 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-9:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-8:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-2-0, Right 2x4 SP No.2 -- 3-9-4

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 9-18
10-0-0 oc bracing: 16-18
WEBS 1 Row at midpt 7-19, 8-18

REACTIONS

(size) 2=0-5-8, 13=0-5-8, 18=0-3-8
Max Horiz 2=-250 (LC 10)
Max Uplift 2=-152 (LC 12), 13=-181 (LC 13), 18=-170 (LC 12)
Max Grav 2=970 (LC 19), 13=386 (LC 26), 18=2326 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-4=-2124/343, 4-6=-1977/479, 6-7=-785/231, 7-8=-221/199, 8-9=-61/686, 9-10=-95/900, 10-13=-245/389, 13-14=0/16
BOT CHORD 2-22=-377/1873, 20-22=-221/1007, 19-20=-134/654, 18-19=-108/287, 16-18=0/110, 9-18=-736/111, 16-17=0/0, 15-16=-22/12, 13-15=-281/176
WEBS 4-22=-33/177, 7-20=-110/766, 7-19=-763/134, 8-19=-48/838, 8-18=-1370/236, 15-18=-265/171, 10-18=-730/252, 10-15=0/298, 6-20=-586/282, 6-22=-295/1077

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) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-6-0, Exterior(2R) 12-6-0 to 17-6-0, Interior (1) 17-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 28-6-0, Interior (1) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * 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, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 152 lb uplift at joint 2, 181 lb uplift at joint 13 and 170 lb uplift at joint 18.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



May 3, 2024

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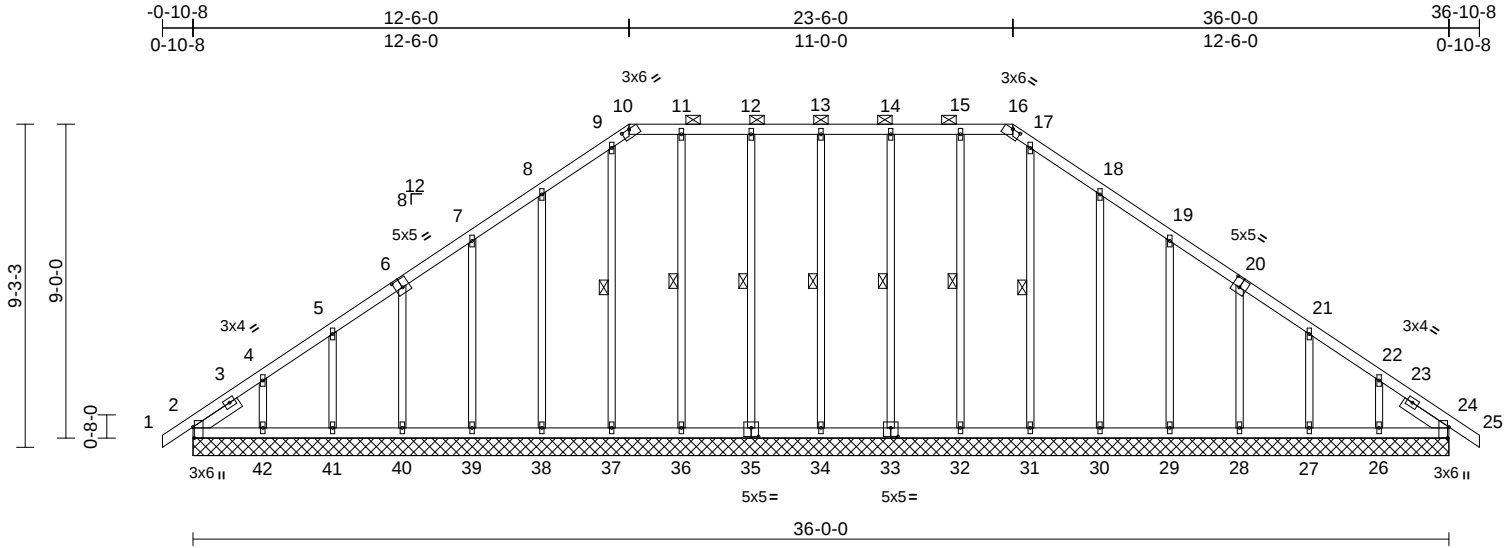
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	I65302612
P240445-01	C08	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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Scale = 1:66

Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-2-8,0-3-0], [10:0-3-0,0-0-2], [16:0-3-0,0-0-2], [20:0-2-8,0-3-0], [24:0-3-13,Edge], [33:0-2-8,0-3-0], [35:0-2-8,0-3-0]

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	0.09	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	YES	WB	0.19	Horz(CT)	0.01	24	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 204 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-6-4, Right 2x4 SP No.2 -- 1-6-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 10-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-34, 12-35, 11-36, 9-37, 14-33, 15-32, 17-31

REACTIONS (size)
2=36-0-0, 24=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0, 37=36-0-0, 38=36-0-0, 39=36-0-0, 40=36-0-0, 41=36-0-0, 42=36-0-0
Max Horiz 2=250 (LC 11)
Max Uplift 2=-83 (LC 8), 24=-15 (LC 9), 26=-119 (LC 13), 27=-69 (LC 13), 28=-79 (LC 13), 29=-79 (LC 13), 30=-94 (LC 13), 32=-35 (LC 9), 33=-44 (LC 8), 34=-39 (LC 9), 35=-45 (LC 8), 36=-36 (LC 9), 37=-18 (LC 9), 38=-91 (LC 12), 39=-79 (LC 12), 40=-79 (LC 12), 41=-68 (LC 12), 42=-131 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-4=-272/211, 4-5=-170/166, 5-7=-150/144, 7-8=-119/166, 8-9=-139/212, 9-10=-133/193, 10-11=-126/204, 11-12=-126/204, 12-13=-126/204, 13-14=-126/204, 14-15=-126/204, 15-16=-126/204, 16-17=-133/193, 17-18=-139/207, 18-19=-96/134, 19-21=-78/67, 21-22=-114/70, 22-24=-201/106, 24-25=0/16
BOT CHORD 2-42=-91/196, 41-42=-91/196, 40-41=-91/196, 39-40=-91/197, 38-39=-91/197, 37-38=-91/197, 36-37=-91/197, 34-36=-91/197, 32-34=-91/197, 31-32=-91/197, 30-31=-91/197, 29-30=-91/197, 28-29=-91/197, 27-28=-89/195, 26-27=-89/195, 24-26=-89/195, 13-34=-140/63, 12-35=-142/69, 11-36=-136/60, 9-37=-135/42, 8-38=-152/115, 7-39=-152/103, 6-40=-148/103, 5-41=-143/93, 4-42=-170/150, 14-33=-142/68, 15-32=-136/59, 17-31=-127/0, 18-30=-156/118, 19-29=-152/103, 20-28=-148/103, 21-27=-144/94, 22-26=-158/139
WEBS

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 12-6-0, Corner(3R) 12-6-0 to 17-6-0, Exterior(2N) 17-6-0 to 23-6-0, Corner(3R) 23-6-0 to 28-6-0, Exterior(2N) 28-6-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



May 3, 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.sbcscomponents.com)

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60
P240445-01	C08	Piggyback Base Supported Gable	1	1	I65302612
					Job Reference (optional)

- 9) * 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.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 2, 15 lb uplift at joint 24, 39 lb uplift at joint 34, 45 lb uplift at joint 35, 36 lb uplift at joint 36, 18 lb uplift at joint 37, 91 lb uplift at joint 38, 79 lb uplift at joint 39, 79 lb uplift at joint 40, 68 lb uplift at joint 41, 131 lb uplift at joint 42, 44 lb uplift at joint 33, 35 lb uplift at joint 32, 94 lb uplift at joint 30, 79 lb uplift at joint 29, 79 lb uplift at joint 28, 69 lb uplift at joint 27 and 119 lb uplift at joint 26.
- 12) 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.
- 13) 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.**

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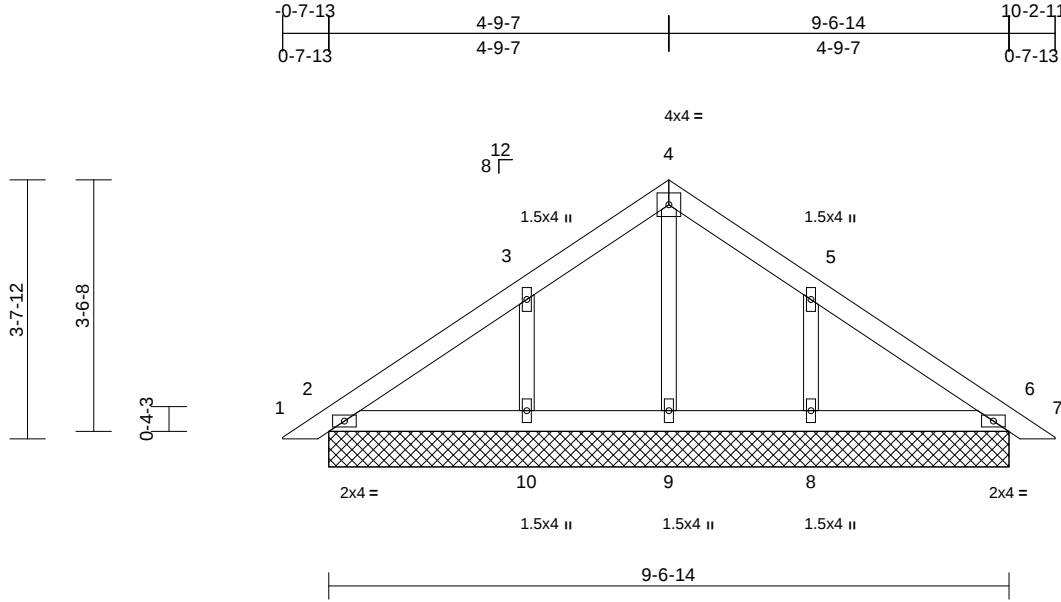
Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 60	
P240445-01	PB1	Piggyback	2	1	Job Reference (optional)	I65302613

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

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Page: 1

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Scale = 1:32.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 39 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)	2=9-6-14, 6=9-6-14, 8=9-6-14, 9=9-6-14, 10=9-6-14
	Max Horiz	2=-97 (LC 10)
	Max Uplift	2=-16 (LC 13), 6=-15 (LC 13), 8=-115 (LC 13), 10=-116 (LC 12)
	Max Grav	2=144 (LC 1), 6=144 (LC 1), 8=280 (LC 20), 9=109 (LC 22), 10=281 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/14, 2-3=-99/75, 3-4=-81/105, 4-5=-80/104, 5-6=-74/51, 6-7=0/14
BOT CHORD	2-10=-35/76, 9-10=-35/76, 8-9=-35/76, 6-8=-35/76
WEBS	4-9=-83/0, 3-10=-211/172, 5-8=-210/172

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=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 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 2, 15 lb uplift at joint 6, 116 lb uplift at joint 10 and 115 lb uplift at joint 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



May 3,2024

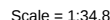
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Wed May 01 14:49:47 Page: 1
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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	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 2, 71 lb uplift at joint 4 and 26 lb uplift at joint 6.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

- 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/TP1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4'-0" oc.



May 3, 2024

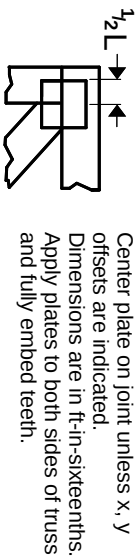


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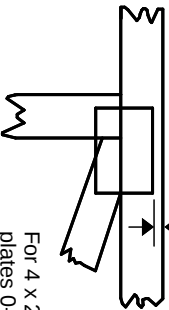
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Symbols

PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

—
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

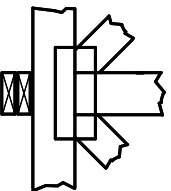
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

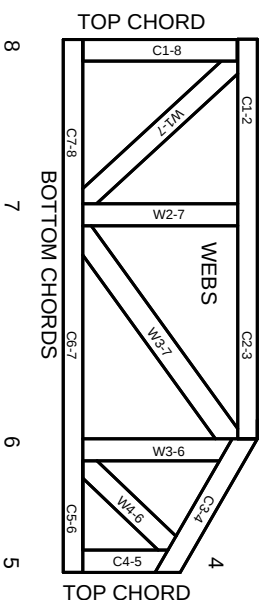
Industry Standards:

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

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

1 2 3 Joint ID typ.



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.