



RE: P250400-01 - Roof - BY Lot 2310

Site Information:

Project Customer: Clayton Properties Project Name: Twin Tupelo - Farmhouse

Lot/Block: 2310

Subdivision: Bailey Farms

Model:

Address: 1210/1212 SE Windbreak Dr

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

Mean Roof Height (feet): 35

Design Program: MiTek 20/20 8.6

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

Floor Load: N/A psf

Exposure Category: C

MiTek, Inc.

16023 Swingley Ridge Rd.

Chesterfield, MO 63017

314.434.1200

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I74494491	A1	6/27/25	35	I74494525	V12	6/27/25
2	I74494492	A2	6/27/25	36	I74494526	V13	6/27/25
3	I74494493	A3	6/27/25	37	I74494527	V14	6/27/25
4	I74494494	A4	6/27/25				
5	I74494495	A5	6/27/25				
6	I74494496	A6	6/27/25				
7	I74494497	A7	6/27/25				
8	I74494498	A8	6/27/25				
9	I74494499	A9	6/27/25				
10	I74494500	A10	6/27/25				
11	I74494501	A11	6/27/25				
12	I74494502	B1	6/27/25				
13	I74494503	B2	6/27/25				
14	I74494504	B3	6/27/25				
15	I74494505	B4	6/27/25				
16	I74494506	C1	6/27/25				
17	I74494507	C2	6/27/25				
18	I74494508	D1	6/27/25				
19	I74494509	D2	6/27/25				
20	I74494510	D3	6/27/25				
21	I74494511	J1	6/27/25				
22	I74494512	LG1	6/27/25				
23	I74494513	LG2	6/27/25				
24	I74494514	V1	6/27/25				
25	I74494515	V2	6/27/25				
26	I74494516	V3	6/27/25				
27	I74494517	V4	6/27/25				
28	I74494518	V5	6/27/25				
29	I74494519	V6	6/27/25				
30	I74494520	V7	6/27/25				
31	I74494521	V8	6/27/25				
32	I74494522	V9	6/27/25				
33	I74494523	V10	6/27/25				
34	I74494524	V11	6/27/25				

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: Galinski, John

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.



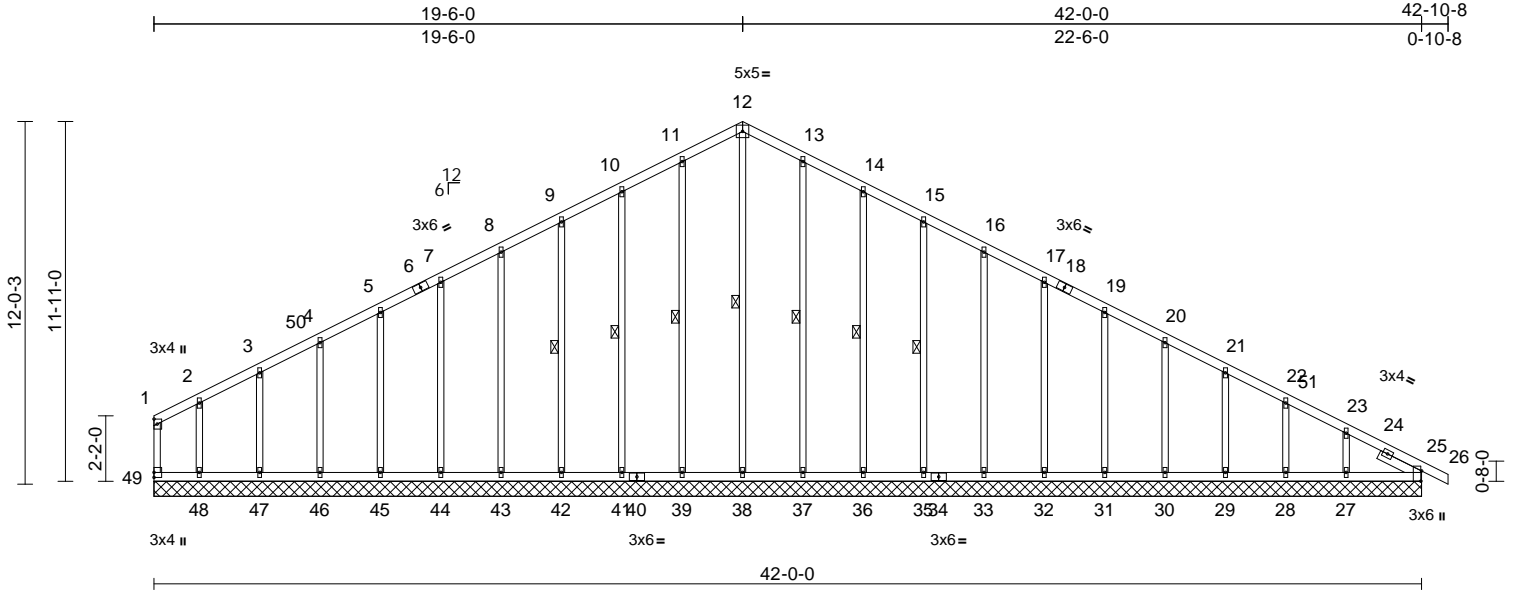
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494491
P250400-01	A1	Common Supported Gable	2	1	Job Reference (optional)	

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

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Page: 1

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Scale = 1:76.3

Plate Offsets (X, Y): [25:0-4-1,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	0.14	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	25	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 Right 2x4 SP No.2 -- 1-6-7

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 12-38, 11-39, 10-41, 9-42, 13-37, 14-36, 15-35

REACTIONS (size) 25=42-0-0, 27=42-0-0, 28=42-0-0, 29=42-0-0, 30=42-0-0, 31=42-0-0, 32=42-0-0, 33=42-0-0, 35=42-0-0, 36=42-0-0, 37=42-0-0, 38=42-0-0, 39=42-0-0, 41=42-0-0, 42=42-0-0, 43=42-0-0, 44=42-0-0, 45=42-0-0, 46=42-0-0, 47=42-0-0, 48=42-0-0, 49=42-0-0

Max Horiz 49=228 (LC 17)

Max Uplift 25=84 (LC 9), 27=120 (LC 13), 28=48 (LC 13), 29=64 (LC 13), 30=60 (LC 13), 31=61 (LC 13), 32=61 (LC 13), 33=61 (LC 13), 35=60 (LC 13), 36=68 (LC 13), 37=47 (LC 13), 39=38 (LC 12), 41=72 (LC 12), 42=60 (LC 12), 43=61 (LC 12), 44=61 (LC 12), 45=61 (LC 12), 46=63 (LC 12), 47=55 (LC 12), 48=106 (LC 12), 49=23 (LC 13)

Max Grav 25=199 (LC 19), 27=216 (LC 26), 28=171 (LC 1), 29=182 (LC 26), 30=179 (LC 1), 31=180 (LC 26), 32=180 (LC 1), 33=180 (LC 26), 35=180 (LC 1), 36=180 (LC 26), 37=188 (LC 26), 38=314 (LC 12), 39=188 (LC 25), 41=180 (LC 25), 42=180 (LC 1), 43=180 (LC 25), 44=180 (LC 25), 45=180 (LC 1), 46=179 (LC 25), 47=184 (LC 1), 48=163 (LC 25), 49=73 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-49=50/34, 1-2=58/53, 2-3=65/107, 3-4=84/161, 4-5=103/215, 5-7=121/269, 7-8=140/323, 8-9=159/377, 9-10=177/430, 10-11=198/489, 11-12=213/530, 12-13=213/530, 13-14=198/489, 14-15=177/430, 15-16=159/377, 16-17=140/323, 17-19=121/281, 19-20=125/253, 20-21=184/225, 21-22=157/198, 22-23=184/169, 23-25=250/162, 25-26=0/6

BOT CHORD

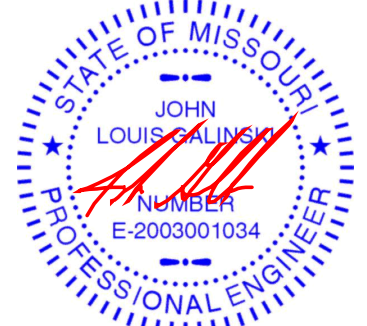
48-49=125/245, 47-48=125/245, 46-47=125/245, 45-46=125/245, 44-45=125/245, 43-44=125/245, 42-43=125/245, 41-42=125/245, 39-41=125/245, 38-39=125/245, 37-38=125/245, 36-37=125/245, 35-36=125/245, 33-35=125/245, 32-33=125/245, 31-32=125/245, 30-31=125/245, 29-30=125/245, 28-29=125/245, 27-28=125/245, 25-27=125/245

WEBS

12-38=365/99, 11-39=148/66, 10-41=140/110, 9-42=140/95, 8-43=140/97, 7-44=140/97, 5-45=140/96, 4-46=139/113, 3-47=143/151, 2-48=128/158, 13-37=148/71, 14-36=140/110, 15-35=140/95, 16-33=140/97, 17-32=140/96, 19-31=140/97, 20-30=140/97, 21-29=141/98, 22-28=135/105, 23-27=163/189

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) 3-1-4 to 8-1-4, Exterior(2N) 8-1-4 to 22-6-0, Corner(3R) 22-6-0 to 27-6-0, Exterior(2N) 27-6-0 to 45-10-8 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



June 27, 2025

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 - BY Lot 2310
P250400-01	A1	Common Supported Gable	2	1	174494491
					Job Reference (optional)

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

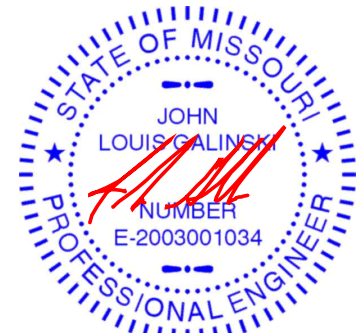
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Page: 2

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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 2-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 49, 38 lb uplift at joint 39, 72 lb uplift at joint 41, 60 lb uplift at joint 42, 61 lb uplift at joint 43, 61 lb uplift at joint 44, 61 lb uplift at joint 45, 63 lb uplift at joint 46, 55 lb uplift at joint 47, 106 lb uplift at joint 48, 47 lb uplift at joint 37, 68 lb uplift at joint 36, 60 lb uplift at joint 35, 61 lb uplift at joint 33, 61 lb uplift at joint 32, 61 lb uplift at joint 31, 60 lb uplift at joint 30, 64 lb uplift at joint 29, 48 lb uplift at joint 28, 120 lb uplift at joint 27 and 84 lb uplift at joint 25.
- 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



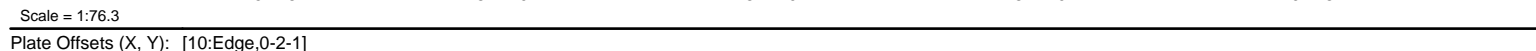
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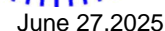
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LOAD CASE(S) Standard



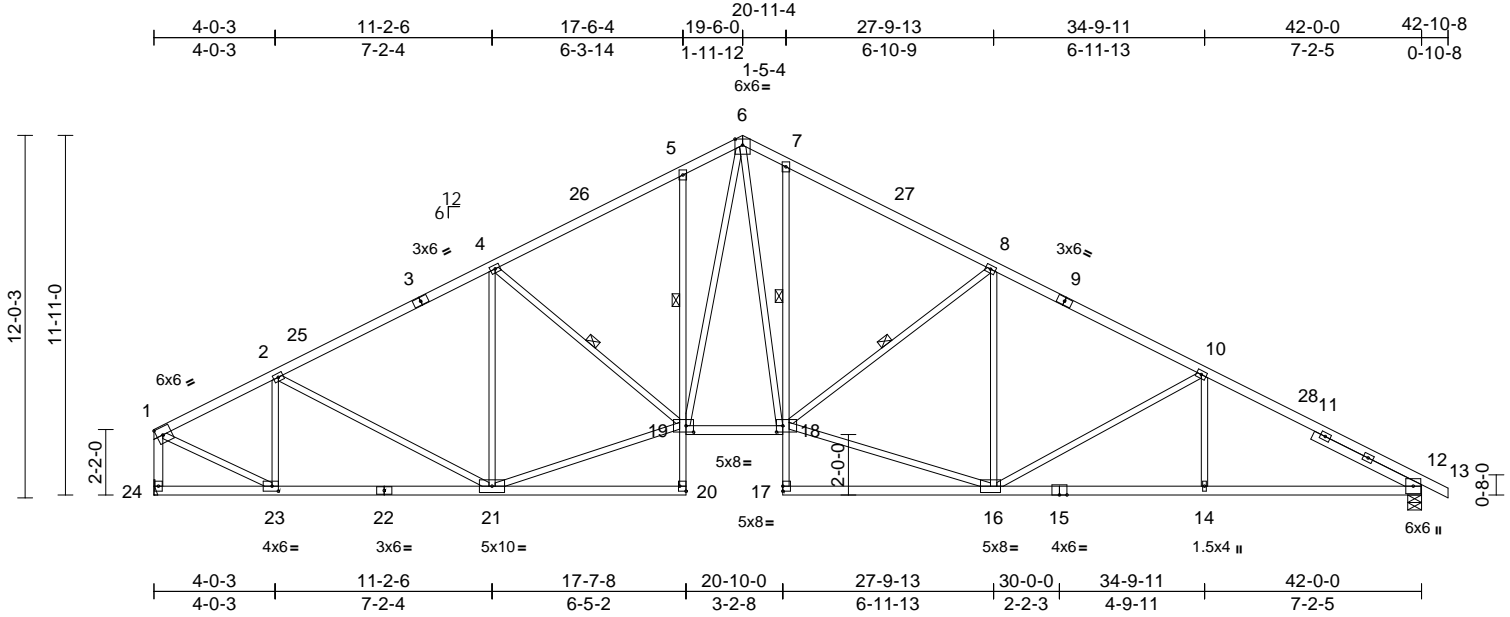
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494493
P250400-01	A3	Roof Special	2	1	Job Reference (optional)	

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Scale = 1:76.3

Plate Offsets (X, Y): [12:0-3-9,0-0-5], [18:0-2-8,0-2-8], [19:0-3-0,0-2-8], [20:Edge,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	0.80	Vert(LL)	-0.23	7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.44	16-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.21	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 233 lb	FT = 20%

LUMBER		
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x4 SP No.2 *Except* 20-5,7-17:2x3 SP No.2	
WEBS	2x3 SP No.2 *Except* 24-1:2x4 SP No.2	
SLIDER	Right 2x4 SP No.2 -- 3-11-13	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 9-8-14 oc bracing. Except:	
1 Row at midpt	5-19, 7-18	
WEBS	1 Row at midpt 4-19, 8-18	
REACTIONS (size) 12=0-5-8, 24=Mechanical		
Max Horiz	24=-229 (LC 13)	
Max Uplift	12=-319 (LC 13), 24=-269 (LC 12)	
Max Grav	12=1945 (LC 1), 24=1883 (LC 1)	
FORCES (lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-2=-2028/314, 2-4=-2462/436, 4-5=-2606/494, 5-6=-2536/592, 6-7=-2541/600, 7-8=-2612/505, 8-10=-2809/491, 10-12=-3378/519, 12-13=0/6, 1-24=-1851/301	
BOT CHORD	23-24=-133/246, 21-23=-362/1781, 20-21=0/28, 19-20=0/104, 5-19=-300/214, 18-19=-107/2039, 17-18=0/120, 7-18=-339/257, 16-17=0/40, 14-16=-348/2883, 12-14=-348/2883	
WEBS	2-23=-764/207, 2-21=-30/370, 4-21=-684/149, 19-21=-310/2180, 4-19=-48/281, 16-18=-219/2487, 8-18=-380/280, 8-16=-286/112, 10-16=-557/229, 10-14=0/284, 1-23=-292/1963, 6-18=-402/1280, 6-19=-345/952	

- 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) 3-1-12 to 8-1-12, Interior (1) 8-1-12 to 22-6-0, Exterior(2R) 22-6-0 to 27-6-0, Interior (1) 27-6-0 to 45-10-8 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
- 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.
- Bearings are assumed to be: , Joint 12 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 24 and 319 lb uplift at joint 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.

LOAD CASE(S) Standard



June 27, 2025

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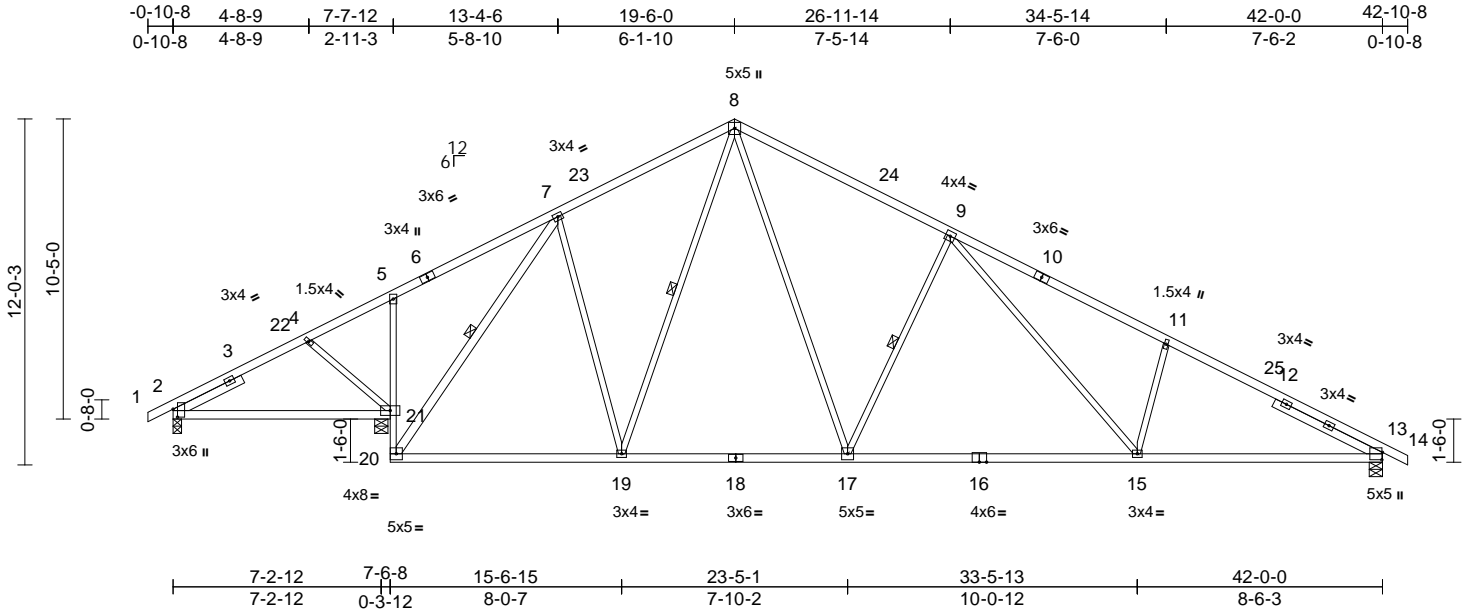
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494494
P250400-01	A4	Roof Special	4	1	Job Reference (optional)	

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Scale = 1:80

Plate Offsets (X, Y): [2:0-3-5,0-1-13], [13:0-3-1,0-0-4]

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	0.89	Vert(LL)	-0.23	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.50	15-17	>817	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.06	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 213 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 5-20:2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 7-20:2x4 SP No.2
 SLIDER Left 2x4 SP No.2 -- 2-7-14, Right 2x4 SP No.2 -- 4-2-0

BRACING

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

WEBS 1 Row at midpt 7-20, 8-19, 9-17

REACTIONS (size) 2=0-3-8, 13=0-5-8, 21=0-5-8
 Max Horiz 2=-258 (LC 13)
 Max Uplift 2=-159 (LC 13), 13=-328 (LC 13), 21=-301 (LC 12)
 Max Grav 2=377 (LC 25), 13=1599 (LC 1), 21=1936 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-4=-266/343, 4-5=-102/351, 5-7=-134/433, 7-8=-1167/456, 8-9=-1631/508, 9-11=-2519/639, 11-13=-2659/539, 13-14=0/6

BOT CHORD 2-21=-102/181, 20-21=-61/1380, 5-21=-309/181, 19-20=-60/854, 17-19=0/1026, 15-17=-163/1681, 13-15=-363/2254

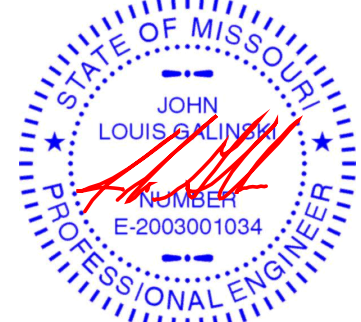
WEBS 4-21=-259/155, 7-20=-1578/123, 8-19=-312/20, 7-19=0/477, 8-17=-264/993, 9-17=-835/394, 9-15=-204/760, 11-15=-397/284

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 19-6-0, Exterior(2R) 19-6-0 to 24-6-0, Interior (1) 24-6-0 to 42-10-8 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 2, 301 lb uplift at joint 21 and 328 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.

LOAD CASE(S) Standard



June 27, 2025

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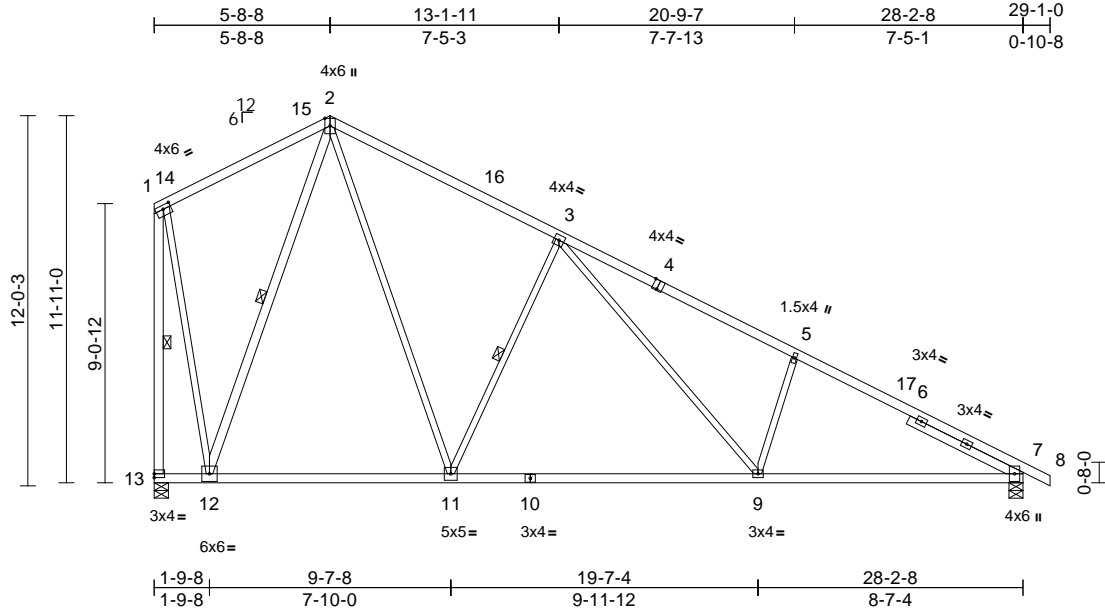
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	A5	Common	4	1	Job Reference (optional)	174494495

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:08

Page: 1

ID:GVmq9hl9rumyufqelxLdzlt8l-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i



Scale = 1:74.8

Plate Offsets (X, Y): [1:0-3-0,0-1-8], [4:0-2-0,Edge], [7:0-3-9,0-1-5]

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	0.88	Vert(LL)	-0.19	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.42	9-11	>810	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 162 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-2,13-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-1-7

BRACING

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

WEBS 1 Row at midpt 3-11, 2-12, 1-13

REACTIONS (size) 7=0-5-8, 13=0-5-8
Max Horiz 13=433 (LC 8)
Max Uplift 7=238 (LC 13), 13=231 (LC 13)
Max Grav 7=1325 (LC 1), 13=1262 (LC 1)

FORCES

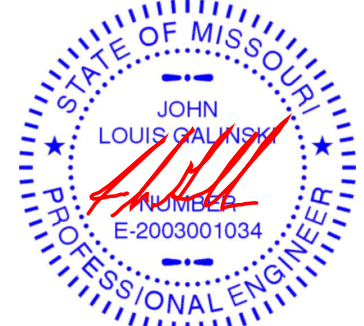
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-372/308, 2-3=-1042/377, 3-5=-1951/448, 5-7=-2101/361, 7-8=0/6, 1-13=-1254/285
BOT CHORD 12-13=-267/438, 11-12=0/548, 9-11=-65/1155, 7-9=-210/1766
WEBS 2-11=-266/1015, 3-11=-844/399, 3-9=-210/775, 5-9=-418/292, 2-12=-940/358, 1-12=-186/997

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) 16-11-4 to 21-11-4, Interior (1) 21-11-4 to 22-6-0, Exterior(2R) 22-6-0 to 27-6-0, Interior (1) 27-6-0 to 45-10-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 13 and 238 lb uplift at joint 7.
- 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



June 27, 2025

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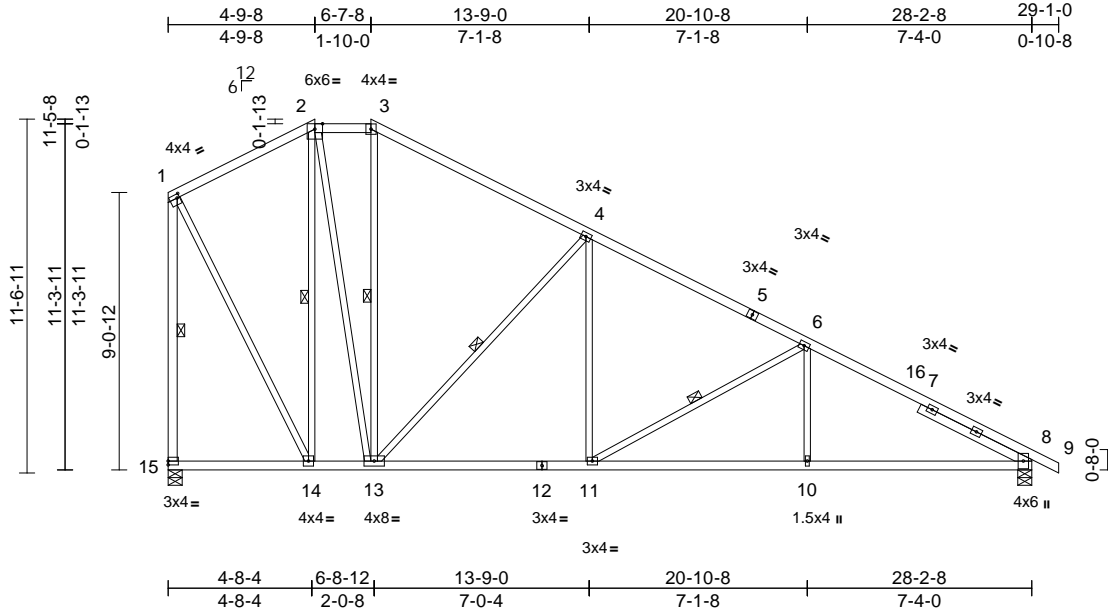
Job P250400-01	Truss A6	Truss Type Hip	Qty 2	Ply 1	Roof - BY Lot 2310 Job Reference (optional)	174494496
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:08

Page: 1

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Scale = 1:75.3

Plate Offsets (X, Y): [1:0-1-0,0-1-8], [8:0-3-9,0-1-5]

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	0.87	Vert(LL)	-0.08	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.19	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 167 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 15-1:2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 4-0-12

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 2-14, 3-13, 4-13, 6-11, 1-15

REACTIONS

(size)	8=0-5-8, 15=0-5-8
Max Horiz	15=424 (LC 8)
Max Uplift	8=238 (LC 13), 15=213 (LC 13)
Max Grav	8=1325 (LC 1), 15=1262 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-561/290, 2-3=-590/298, 3-4=-780/292, 4-6=-1471/308, 6-8=-2108/352, 8-9=0/6, 1-15=-1223/302
BOT CHORD	14-15=-272/425, 13-14=0/514, 11-13=-37/1223, 10-11=-201/1770, 8-10=-201/1770
WEBS	2-14=-776/297, 2-13=-214/818, 3-13=-44/124, 4-13=-936/330, 4-11=-32/500, 6-11=-631/241, 6-10=0/301, 1-14=-263/963

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) 16-11-4 to 23-5-0, Exterior(2R) 23-5-0 to 30-6-8, Interior (1) 30-6-8 to 45-10-8 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.
- 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 213 lb uplift at joint 15 and 238 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.
- 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



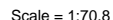
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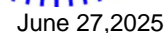
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:08 Page: 1
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[illegible]

- 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) 16-11-4 to 26-1-0,
Exterior(2R) 26-1-0 to 33-1-14, Interior (1) 33-1-14 to
45-0-0 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
- 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) Bearings are assumed to be: Joint 13 SP No.2 crushing
capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 175 lb uplift at
joint 13 and 211 lb uplift at joint 8.
- 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

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

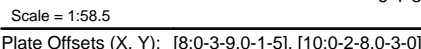


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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:09 Page: 1
ID:VEPE2mPpfvaTJ3Or1y2CWZlt8c-RfC?PsB70Hq3NSaPanL8w3uITxbGKWRcDol7J4Jc?c



LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 2-11-9

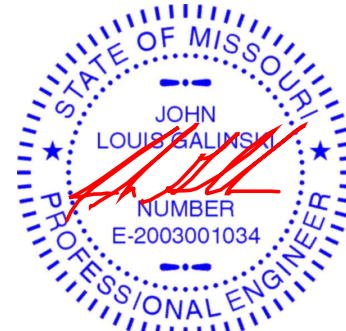
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-7-9 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-15 max.): 1-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-12, 3-11, 2-11

REACTIONS (size) 8= Mechanical, 12=0-5-8
Max Horiz 12=-371 (LC 8)
Max Uplift 8=-201 (LC 13), 12=-251 (LC 8)
Max Grav 8=1263 (LC 1), 12=1263 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-1208/294, 1-2=-749/284,
2-3=-752/286, 3-4=-1268/316,
4-6=-1917/349, 6-8=-2148/368
BOT CHORD 11-12=-258/418, 9-11=-126/1498,
8-9=-243/1810
WEBS 3-10=-107/601, 3-11=-521/174,
2-11=-492/231, 1-11=-287/1270,
4-10=-641/265, 4-9=-42/409, 6-9=-231/199

- 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) 0-1-12 to 5-1-12,
Interior (1) 5-1-12 to 11-11-8, Exterior(2R) 11-11-8 to
19-0-6, Interior (1) 19-0-6 to 28-2-8 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) Bearings are assumed to be: Joint 12 SP No.2 crushing
capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 251 lb uplift at
joint 12 and 201 lb uplift at joint 8.
- 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



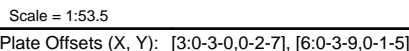
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LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 11-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 4-1-10

TOP CHORD	Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-1 max.): 1-3.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

(size) 6= Mechanical, 11=0-5-8
 Max Horiz 11=-314 (LC 8)
 Max Uplift 6=-185 (LC 13), 11=-259 (LC 8)
 Max Grav 6=1263 (LC 1), 11=1263 (LC 1)

Tension

TOP CHORD 1-11=-1198/290, 1-2=-1036/301,
2-3=-1038/302, 3-4=-1527/329,
4-6=-2103/341

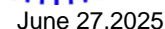
BOT CHORD 10-11=-215/358, 8-10=-63/1272,
7-8=-198/1766, 6-7=-198/1766

WEBS 3-8=-63/462, 3-10=-332/139, 2-10=-598/275,
1-10=-287/1415, 4-8=-590/249, 4-7=0/286

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=35ft;
 Ke=1.00; 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 14-7-8, Exterior(2R) 14-7-8 to
 21-8-6, Interior (1) 21-8-6 to 28-2-8 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) Bearings are assumed to be: Joint 11 SP No.2 crushing capacity of 565 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 259 lb uplift at joint 11 and 185 lb uplift at joint 6.
- 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

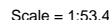


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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.25	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.52	7-8	>643	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 125 lb	FT = 20%

- 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) 0-1-4 to 5-1-4,
Interior (1) 5-1-4 to 17-3-8, Exterior(2R) 17-3-8 to
24-4-6, Interior (1) 24-4-6 to 28-2-8 zone; cantilever left
and right exposed ; d: 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 11 SP No.2 crushing
capacity of 565 psi.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 265 lb uplift at
joint 11 and 164 lb uplift at joint 7.
- 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

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



June 27, 2025



WARNING – verify design parameters and noted notes on this and included MiTek Reference Tag M-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/TP1 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)

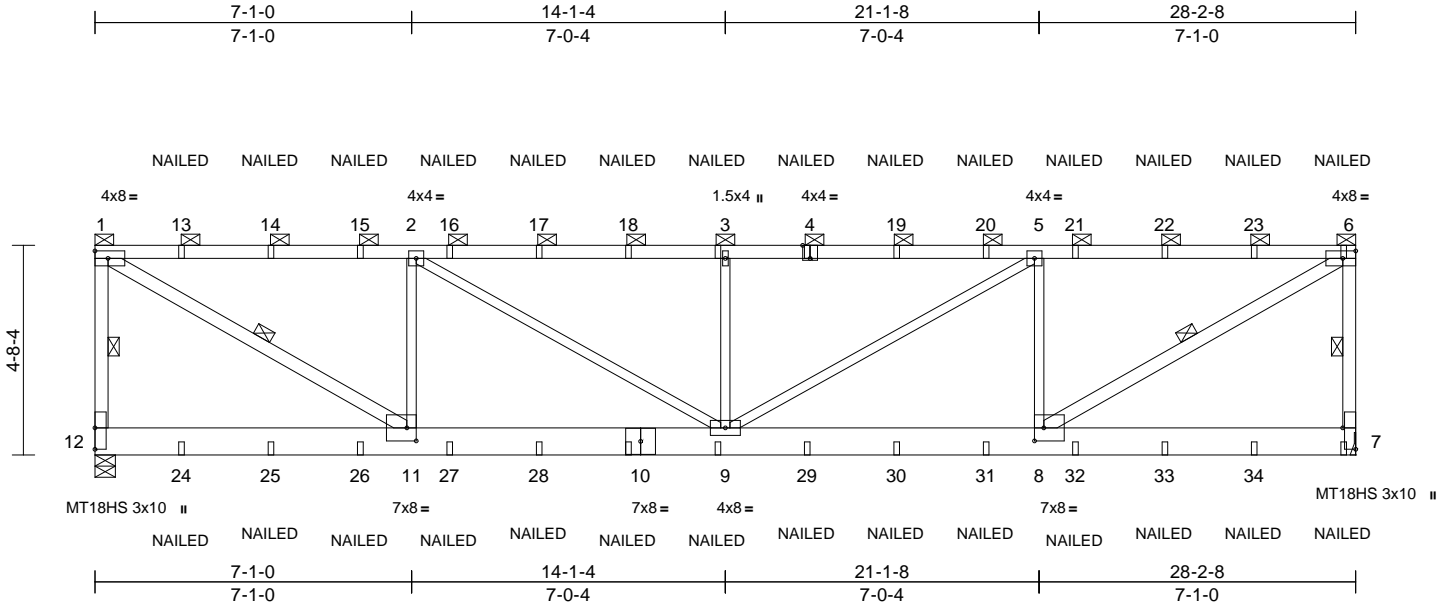
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
16023 Swingley Ridge Rd
Crestwood, MO 63070
844.620.1100
LEE'S SUMMIT, MISSOURI
07/10/2025 9:07:03

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494501
P250400-01	A11	Flat Girder	2	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:09
ID:VEPE2mPpfjvgTJ3Or1y2CWzlt8c-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC7f

Page: 1



Scale = 1:51.5

Plate Offsets (X, Y): [4:0-2-0,Edge], [7:Edge,0-3-8], [8:0-2-8,0-3-8], [11:0-2-8,0-3-8]

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	0.77	Vert(LL)	0.21	9	>999	240	MT18HS 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.33	9	>999	180	MT20 244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.03	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 165 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x8 SPF No.2
WEBS 2x3 SPF No.2 *Except* 12-1,6-7,6-8,11-1:2x4 SP No.2

BRACING

TOP CHORD 2-0-0 oc purlins (3-6-0 max.): 1-6, except end verticals.

BOT CHORD Rigid ceiling directly applied or 7-0-3 oc bracing.

WEBS 1 Row at midpt 1-12, 6-7, 6-8, 1-11

REACTIONS (size) 7= Mechanical, 12=0-5-8
Max Horiz 12=-173 (LC 8)
Max Uplift 7=-878 (LC 9), 12=-802 (LC 8)
Max Grav 7=2496 (LC 1), 12=2316 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-2182/1013, 1-2=-3088/1317, 2-3=-4015/1653, 3-5=-4015/1653, 5-6=-3092/1317, 6-7=-2308/1104
BOT CHORD 11-12=-244/265, 9-11=-1438/3088, 8-9=-1359/3092, 7-8=-97/115
WEBS 6-8=-1479/3559, 2-11=-1506/963, 1-11=-1479/3553, 2-9=-484/1083, 3-9=-833/622, 5-9=-486/1078, 5-8=-1506/965

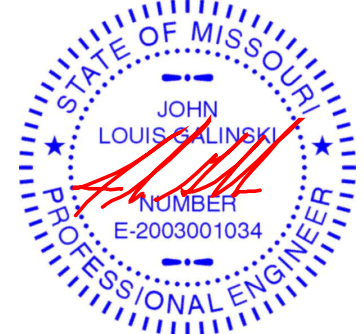
NOTES

- 1) 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 (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 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) Bearings are assumed to be: Joint 12 SPF No.2 crushing capacity of 425 psi.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 802 lb uplift at joint 12 and 878 lb uplift at joint 7.
- 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.
- 10) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-70, 7-12=-20
Concentrated Loads (lb)
Vert: 4=-109 (B), 6=-140 (B), 7=-61 (B), 10=-52 (B), 9=-52 (B), 3=-109 (B), 13=-109 (B), 14=-109 (B), 15=-109 (B), 16=-109 (B), 17=-109 (B), 18=-109 (B), 19=-109 (B), 20=-109 (B), 21=-109 (B), 22=-109 (B), 23=-109 (B), 24=-52 (B), 25=-52 (B), 26=-52 (B), 27=-52 (B), 28=-52 (B), 29=-52 (B), 30=-52 (B), 31=-52 (B), 32=-52 (B), 33=-52 (B), 34=-52 (B)



June 27, 2025

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)

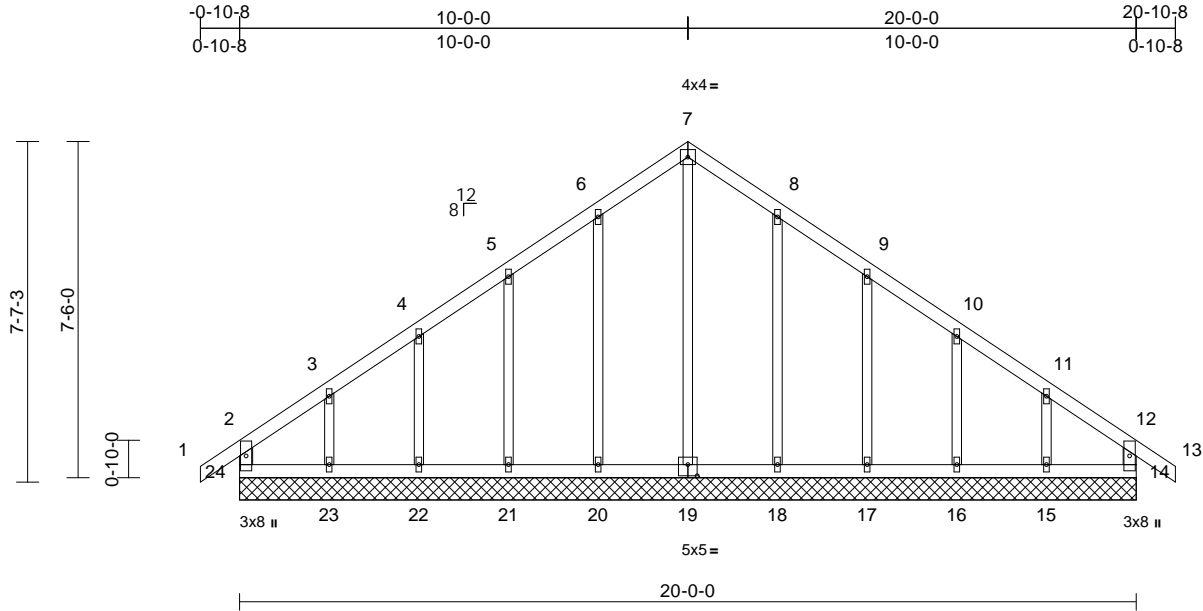
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DEVELOPMENT SERVICES
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07/10/2025 9:07:03

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494502
P250400-01	B1	Common Supported Gable	2	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10
ID:GVmQ9hl9rummywtfqelxLdzlt8l-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?i

Page: 1



Scale = 1:51.4

Plate Offsets (X, Y): [19:0-2-8,0-3-0]

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	0.08	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 99 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

WEBS
7-19=-219/66, 6-20=-159/98, 5-21=-148/115,
4-22=-147/117, 3-23=-160/138,
8-18=-157/98, 9-17=-148/115,
10-16=-148/117, 11-15=-153/139

LOAD CASE(S) Standard

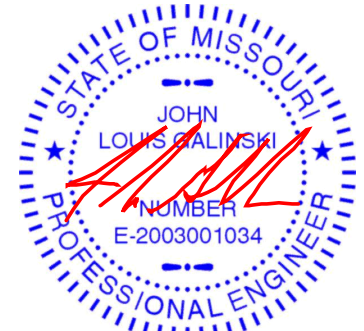
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)
14=20-0-0, 15=20-0-0, 16=20-0-0,
17=20-0-0, 18=20-0-0, 19=20-0-0,
20=20-0-0, 21=20-0-0, 22=20-0-0,
23=20-0-0, 24=20-0-0
Max Horiz 24=-227 (LC 10)
Max Uplift 14=-45 (LC 9), 15=-125 (LC 13),
16=-66 (LC 13), 17=-85 (LC 13),
18=-72 (LC 13), 20=-73 (LC 12),
21=-85 (LC 12), 22=-64 (LC 12),
23=-134 (LC 12), 24=-80 (LC 8)
Max Grav 14=174 (LC 19), 15=207 (LC 20),
16=185 (LC 20), 17=189 (LC 20),
18=197 (LC 20), 19=210 (LC 22),
20=198 (LC 19), 21=189 (LC 19),
22=184 (LC 1), 23=220 (LC 19),
24=203 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-24=-168/71, 1-2=0/40, 2-3=-153/141,
3-4=-115/109, 4-5=-102/136, 5-6=-113/204,
6-7=-150/272, 7-8=-150/272, 8-9=-113/204,
9-10=-73/127, 10-11=-81/75, 11-12=-109/94,
12-13=0/40, 12-14=-148/69
BOT CHORD 23-24=-96/117, 22-23=-96/117,
21-22=-96/117, 20-21=-96/117,
18-20=-96/117, 17-18=-96/117,
16-17=-96/117, 15-16=-96/117,
14-15=-96/117

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 10-0-0, Corner(3R) 10-0-0 to 15-0-0, Exterior(2N) 15-0-0 to 20-10-8 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 24, 45 lb uplift at joint 14, 73 lb uplift at joint 20, 85 lb uplift at joint 21, 64 lb uplift at joint 22, 134 lb uplift at joint 23, 72 lb uplift at joint 18, 85 lb uplift at joint 17, 66 lb uplift at joint 16 and 125 lb uplift at joint 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 27, 2025

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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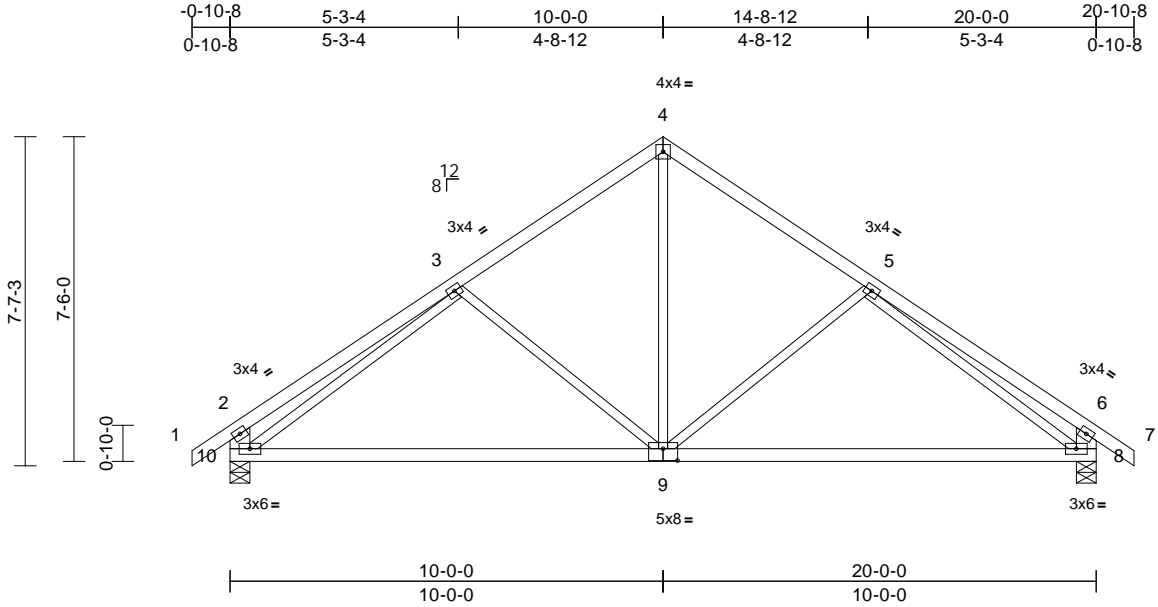
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	B2	Common	6	1	Job Reference (optional)	I74494503

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10
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Page: 1



Scale = 1:53.2

Plate Offsets (X, Y): [9:0-4-0,0-3-4]

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	0.34	Vert(LL)	-0.18	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.36	8-9	>660	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 10-2,8-6:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS

(size) 8=0-5-8, 10=0-5-8
Max Horiz 10=-230 (LC 10)
Max Uplift 8=-150 (LC 13), 10=-150 (LC 12)
Max Grav 8=957 (LC 1), 10=957 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

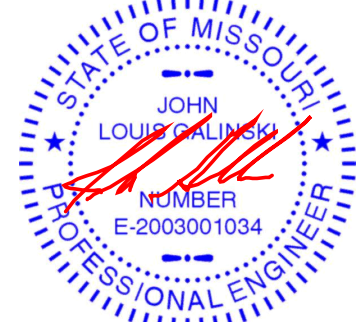
TOP CHORD 1-2=0/43, 2-3=-477/153, 3-4=-858/199, 4-5=-858/199, 5-6=-477/152, 6-7=0/43, 2-10=-463/177, 6-8=-463/177
BOT CHORD 8-10=-169/857
WEBS 4-9=-84/524, 3-10=-651/114, 5-8=-651/114, 3-9=-286/233, 5-9=-287/233

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 10-0-0, Exterior(2R) 10-0-0 to 14-10-3, Interior (1) 14-10-3 to 20-10-8 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
- 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 10 and 150 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.

LOAD CASE(S) Standard



June 27, 2025

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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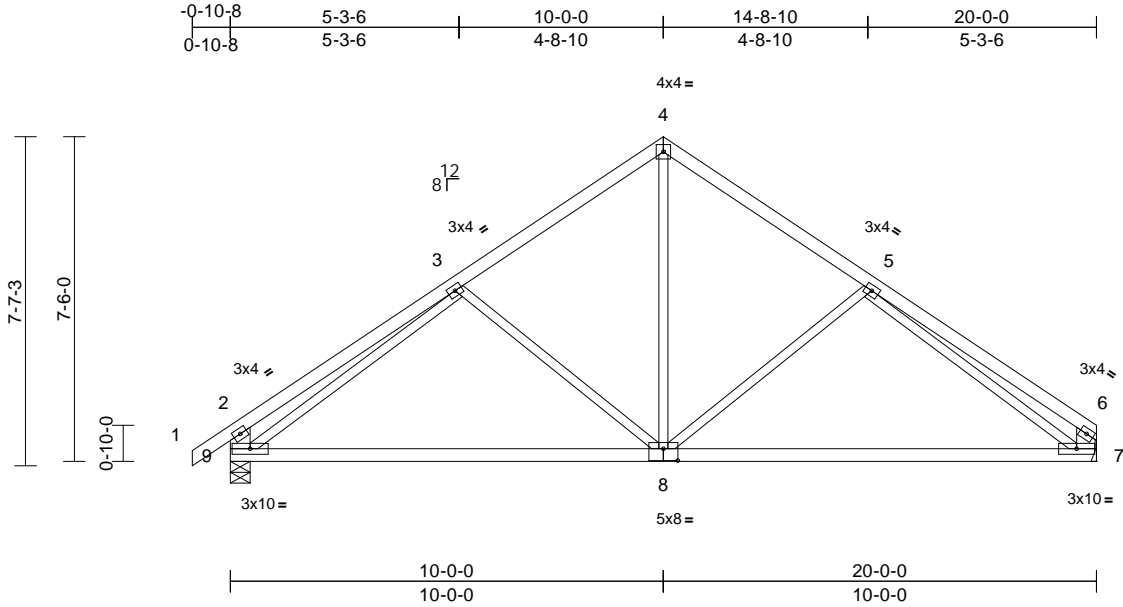
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	B3	Common	2	1	Job Reference (optional)	I74494504

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10

Page: 1

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Scale = 1:53.2

Plate Offsets (X, Y): [8:0-4-0,0-3-4]

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	0.35	Vert(LL)	-0.18	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.36	8-9	>659	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 95 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-2,7-6:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 7= Mechanical, 9=0-5-8
Max Horiz 9=223 (LC 9)
Max Uplift 7=-122 (LC 13), 9=-150 (LC 12)
Max Grav 7=877 (LC 1), 9=959 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-479/154, 3-4=-861/199, 4-5=-863/201, 5-6=-419/98, 2-9=-464/178, 6-7=-348/113
BOT CHORD 7-9=-183/849
WEBS 4-8=-87/533, 3-9=-653/114, 5-7=-715/152, 3-8=-287/233, 5-8=-299/238

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 10-0-0, Exterior(2R) 10-0-0 to 14-10-1, Interior (1) 14-10-1 to 19-9-4 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
- 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 9 SP No.2 crushing capacity of 565 psi.

- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 9 and 122 lb uplift at joint 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



June 27, 2025

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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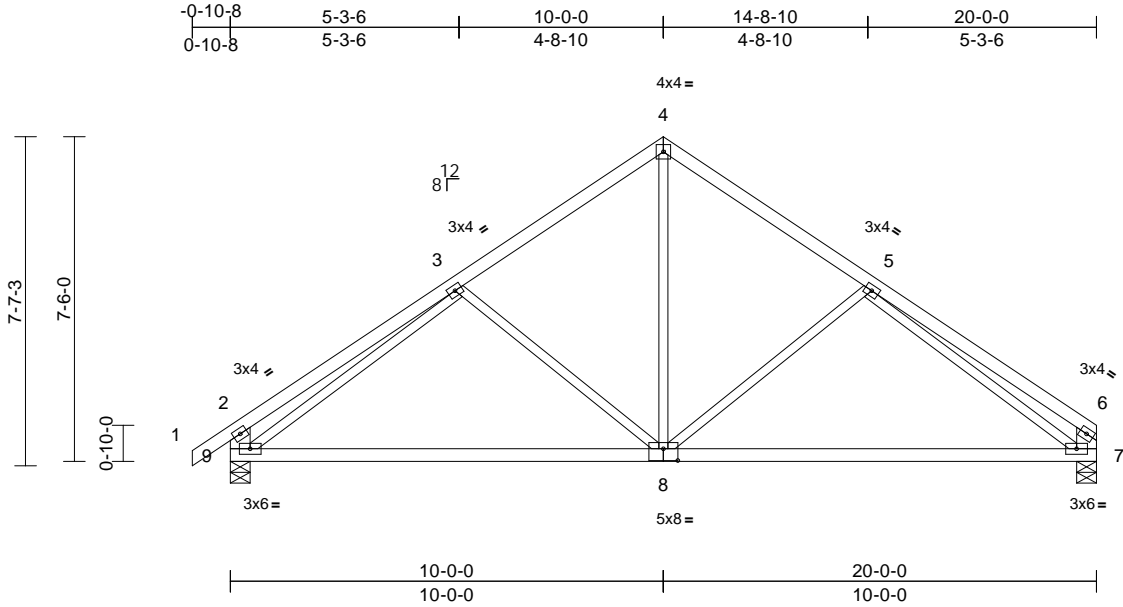
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494505
P250400-01	B4	Common	14	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10

Page: 1

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Scale = 1:53.2

Plate Offsets (X, Y): [8:0-4-0,0-3-4]

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	0.35	Vert(LL)	-0.18	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.36	8-9	>659	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 95 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-2,7-6:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS

(size) 7=0-5-8, 9=0-5-8
Max Horiz 9=223 (LC 9)
Max Uplift 7=122 (LC 13), 9=150 (LC 12)
Max Grav 7=877 (LC 1), 9=959 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-479/154, 3-4=-861/199, 4-5=-863/201, 5-6=-419/98, 2-9=-464/178, 6-7=-348/113
BOT CHORD 7-9=-183/849
WEBS 4-8=-87/533, 3-9=-653/114, 5-7=-715/152, 3-8=-287/233, 5-8=-299/238

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 10-0-0, Exterior(2R) 10-0-0 to 14-10-1, Interior (1) 14-10-1 to 19-9-4 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
- 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 9 and 122 lb uplift at joint 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



June 27, 2025

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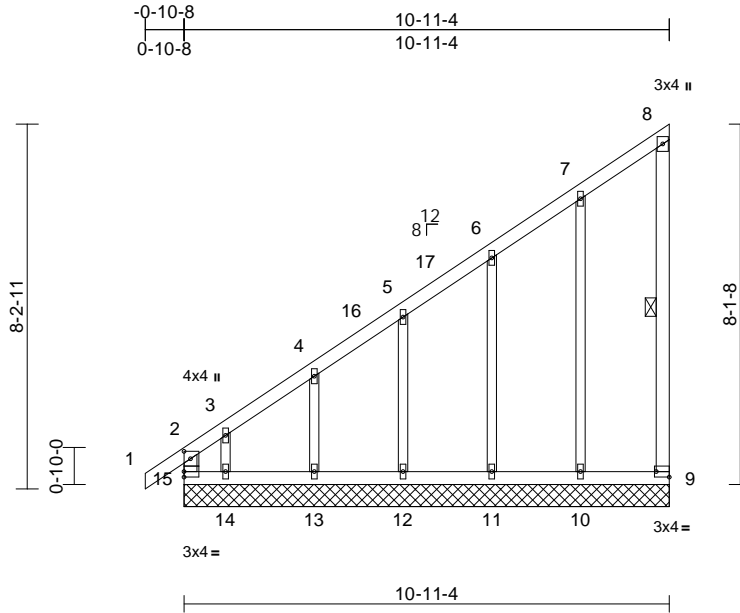
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	C1	Monopitch Supported Gable	2	1	Job Reference (optional)	I74494506

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10

Page: 1

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Scale = 1:51.9

Plate Offsets (X, Y): [2:0-2-0,0-1-12], [9:Edge,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	0.56	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	9	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 64 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	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 8-9

REACTIONS

(size)	9=10-11-4, 10=10-11-4, 11=10-11-4, 12=10-11-4, 13=10-11-4, 14=10-11-4, 15=10-11-4
Max Horiz	15=340 (LC 9)
Max Uplift	9=-67 (LC 11), 10=-84 (LC 12), 11=-75 (LC 12), 12=-82 (LC 12), 13=-67 (LC 12), 14=-260 (LC 12), 15=-186 (LC 10)
Max Grav	9=95 (LC 19), 10=193 (LC 19), 11=191 (LC 19), 12=188 (LC 19), 13=191 (LC 19), 14=231 (LC 10), 15=373 (LC 9)

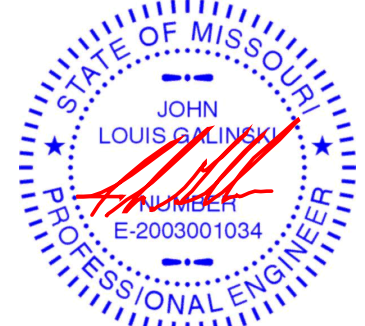
FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	2-15=-566/398, 1-2=0/40, 2-3=-810/524, 3-4=-599/395, 4-5=-508/350, 5-6=-407/302, 6-7=-298/263, 7-8=-148/167, 8-9=-80/94
BOT CHORD	14-15=-152/198, 13-14=-152/198, 12-13=-152/198, 11-12=-152/198, 10-11=-152/198, 9-10=-152/198
WEBS	7-10=-209/245, 6-11=-147/173, 5-12=-148/157, 4-13=-153/186, 3-14=-273/371

NOTES

- 1) 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 4-1-8, Exterior(2N) 4-1-8 to 10-9-8 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 1.5x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 15, 67 lb uplift at joint 9, 84 lb uplift at joint 10, 75 lb uplift at joint 11, 82 lb uplift at joint 12, 67 lb uplift at joint 13 and 260 lb uplift at joint 14.
- 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

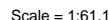


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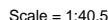
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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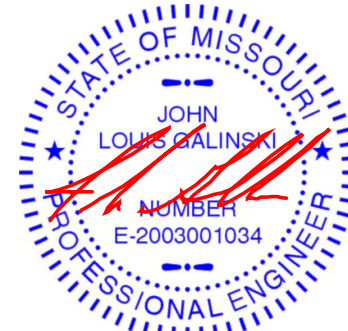
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:10 Page: 1
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LUMBER		2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
TOP CHORD	2x4 SP No.2	Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
BOT CHORD	2x4 SP No.2	Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
WEBS	2x4 SP No.2	exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8,
OTHERS	2x3 SPF No.2	Exterior(2N) 4-1-8 to 7-6-0, Corner(3R) 7-6-0 to 12-6-0,
BRACING		Exterior(2N) 12-6-0 to 15-10-8 zone; cantilever left and
TOP CHORD	Structural wood sheathing directly applied or	right exposed ; end vertical left and right exposed;C-C
	6-0-0 oc purlins, except end verticals.	for members and forces & MWFRS for reactions shown;
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc	Lumber DOL=1.60 plate grip DOL=1.60
	bracing.	
REACTIONS (size)		3) Truss designed for wind loads in the plane of the truss
	12=15-0-0, 13=15-0-0, 14=15-0-0,	only. For studs exposed to wind (normal to the face),
	15=15-0-0, 16=15-0-0, 17=15-0-0,	see Standard Industry Gable End Details as applicable,
	18=15-0-0, 19=15-0-0, 20=15-0-0	or consult qualified building designer as per ANSI/TPI 1.
Max Horiz	20=181 (LC 11)	4) All plates are 1.5x4 MT20 unless otherwise indicated.
Max Uplift	12=-44 (LC 9), 13=-106 (LC 13),	5) Gable requires continuous bottom chord bearing.
	14=-76 (LC 13), 15=-79 (LC 13),	6) Truss to be fully sheathed from one face or securely
	17=-80 (LC 12), 18=-75 (LC 12),	braced against lateral movement (i.e. diagonal web).
	19=-113 (LC 12), 20=-74 (LC 8)	7) Gable studs spaced at 2-0-0 oc.
Max Grav	12=148 (LC 19), 13=174 (LC 20),	8) This truss has been designed for a 10.0 psf bottom
	14=191 (LC 20), 15=197 (LC 20),	chord live load nonconcurrent with any other live loads.
	16=190 (LC 22), 17=199 (LC 19),	9) All bearings are assumed to be SP No.2 crushing
	18=189 (LC 19), 19=186 (LC 19),	capacity of 565 psi.
	20=172 (LC 20)	10) Provide mechanical connection (by others) of truss to
FORCES (lb) - Maximum Compression/Maximum		bearing plate capable of withstanding 74 lb uplift at joint
Tension		20, 44 lb uplift at joint 12, 80 lb uplift at joint 17, 75 lb
TOP CHORD	2-20=-141/79, 1-2=0/40, 2-3=-116/110,	uplift at joint 18, 113 lb uplift at joint 19, 79 lb uplift at
	3-4=-85/86, 4-5=-75/152, 5-6=-116/234,	joint 15, 76 lb uplift at joint 14 and 106 lb uplift at joint
	6-7=-117/234, 7-8=-75/152, 8-9=-61/69,	13.
	9-10=-82/74, 10-11=0/40, 10-12=-130/79	11) This truss is designed in accordance with the 2018
BOT CHORD	19-20=-79/99, 18-19=-79/99, 17-18=-79/99,	International Residential Code sections R502.11.1 and
	16-17=-79/99, 15-16=-79/99, 14-15=-79/99,	R802.10.2 and referenced standard ANSI/TPI 1.
	13-14=-79/99, 12-13=-79/99	
WEBS	6-16=-168/28, 5-17=-159/123,	LOAD CASE(S) Standard
	4-18=-150/158, 3-19=-134/136,	
	7-15=-157/123, 8-14=-152/158,	
	9-13=-128/136	

NOTES

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



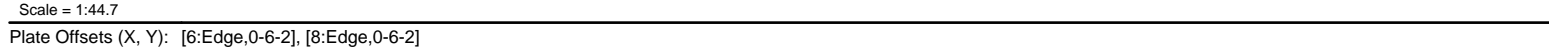
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LUMBER 6) This truss is designed in accordance with the 2018

BRACING

5-9-0 oc purlins, except end verticals.

REACTIONS (size) 6=0-5-8, 8=0-5-8
Max Horiz 8=-181 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

BOT CHORD 7-8=-386/711, 6-7=-308/585
WEBS 3-7=0/322, 2-7=-223/385, 4-7=-236/391

1) Unbalanced roof live loads have been considered for

-

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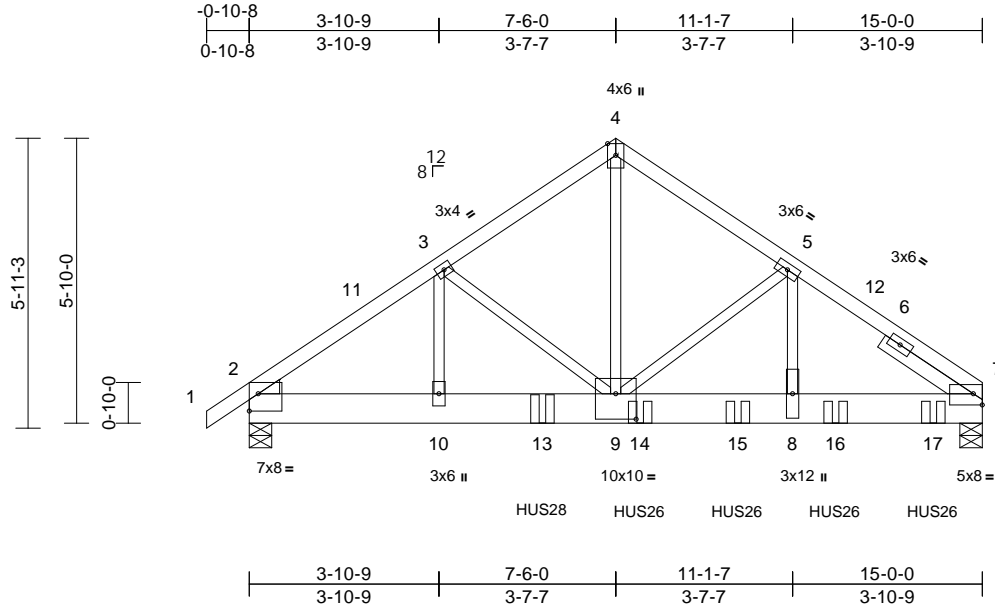
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494510
P250400-01	D3	Common Girder	2	2	Job Reference (optional)	

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Page: 1



Scale = 1:47.2

Plate Offsets (X, Y): [2:Edge,0-4-4], [7:Edge,0-2-12], [9:0-5-0,0-6-4]

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	0.55	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 167 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 4-7:2x4 SP 2400F 2.0E
BOT CHORD	2x8 SPF No.2
WEBS	2x3 SPF No.2
WEDGE	Left: 2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 2-1-15

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-4-1 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	2=0-5-8, 7=0-5-8
Max Horiz	2=154 (LC 9)
Max Uplift	2=-855 (LC 12), 7=-1051 (LC 13)
Max Grav	2=3518 (LC 1), 7=5319 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/16, 2-3=-5316/1371, 3-4=-4561/1162, 4-5=-4522/1155, 5-7=-6066/1289
BOT CHORD	2-10=-1047/4066, 9-10=-1047/4066, 8-9=-946/4735, 7-8=-946/4735
WEBS	3-10=-287/835, 3-9=-494/292, 4-9=-1151/4619, 5-9=-1282/230, 5-8=-199/1862

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 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=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-10-9, Interior (1) 3-10-9 to 7-6-0, Exterior(2R) 7-6-0 to 12-6-0, Interior (1) 12-6-0 to 14-9-4 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1051 lb uplift at joint 7 and 855 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS28 (22-16d Girder, 8-16d Truss, Single Ply Girder) or equivalent at 6-0-0 from the left end to connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-0 from the left end to 14-0-0 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: 1-4=-70, 4-7=-70, 2-7=-20
Concentrated Loads (lb)
Vert: 13=-2476 (B), 14=-1245 (B), 15=-1243 (B), 16=-1243 (B), 17=-1245 (B)



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Plate Offsets (X, Y): [5:0-5-0,0-0-8]

LUMBER

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

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

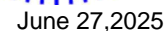
REACTIONS (size) 3= Mechanical, 4= Mechanical,
5=0-5-8
Max Horiz 5=183 (LC 12)
Max Uplift 3=-133 (LC 12), 5=-10 (LC 12)
Max Grav 3=193 (LC 19), 4=109 (LC 3),
5=336 (LC 1)

FORCES

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-5=-294/152, 1-2=0/40, 2-3=-149/89
BOT CHORD	4-5=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vesd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
K=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 5-10-8 zone; cantilever left and right
exposed ; and vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 3) Bearings are assumed to be : Joint 5 SP No.2 crushing
capacity of 565 psi.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 10 lb uplift at joint
5 and 133 lb uplift at joint 3.



WARNING – verify design parameters and noted notes on this and included MiTek Reference Tag M7473 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/TP1 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)

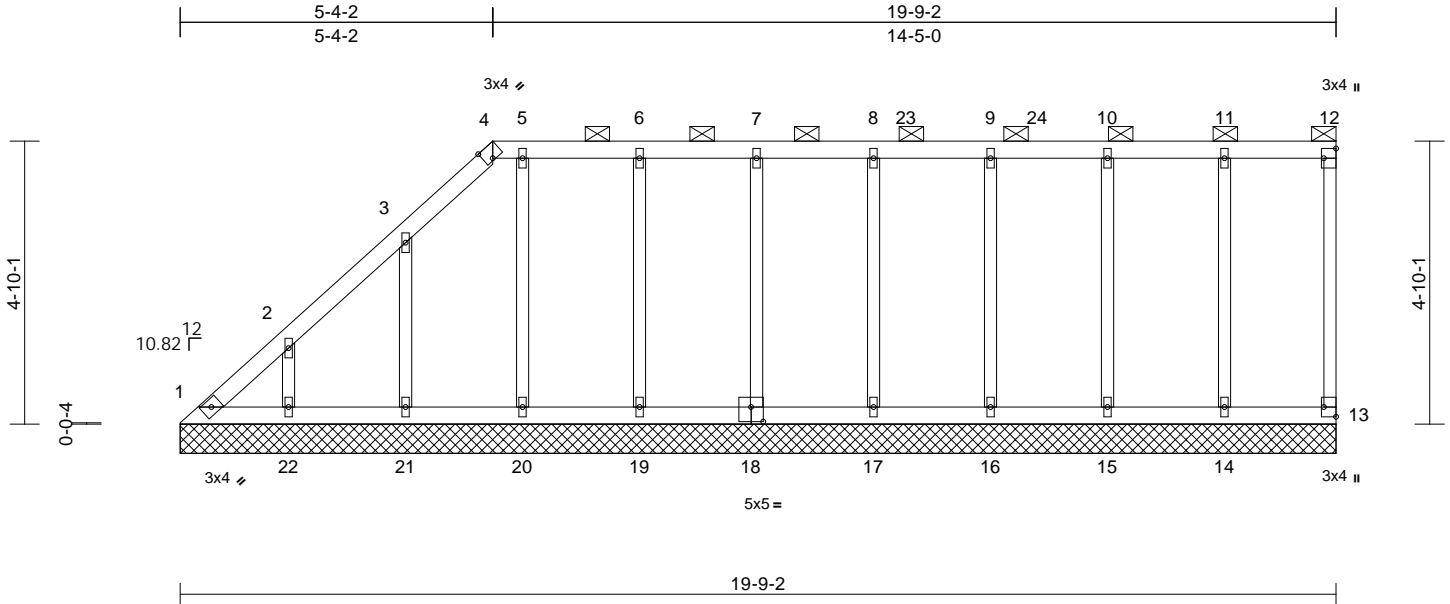
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
16023 Swinley Ridge Rd
Chesham, MO 63017
#314-620-1100, www.mitek-us.com
LEE'S SUMMIT, MISSOURI
07/10/2025 9:07:04

Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494512
P250400-01	LG1	Lay-In Gable	2	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:11
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Page: 1



Scale = 1:39.4

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

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	0.26	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	YES	WB	0.08	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 92 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-12.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	1=19-9-2, 13=19-9-2, 14=19-9-2, 15=19-9-2, 16=19-9-2, 17=19-9-2, 18=19-9-2, 19=19-9-2, 20=19-9-2, 21=19-9-2, 22=19-9-2
	Max Horiz	1=194 (LC 9)
	Max Uplift	1=48 (LC 10), 13=-16 (LC 9), 14=-43 (LC 8), 15=-41 (LC 9), 16=40 (LC 8), 17=-39 (LC 9), 18=40 (LC 9), 19=-52 (LC 8), 20=-77 (LC 9), 21=-102 (LC 12), 22=-110 (LC 12)
	Max Grav	1=127 (LC 9), 13=66 (LC 1), 14=187 (LC 26), 15=180 (LC 1), 16=180 (LC 26), 17=182 (LC 26), 18=180 (LC 1), 19=183 (LC 26), 20=183 (LC 1), 21=204 (LC 19), 22=191 (LC 19)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-2=314/201, 2-3=227/168, 3-4=117/107, 4-5=92/100, 5-6=92/100, 6-7=92/100, 7-8=94/101, 8-9=94/101, 9-10=94/101, 10-11=94/101, 11-12=94/101, 12-13=55/46

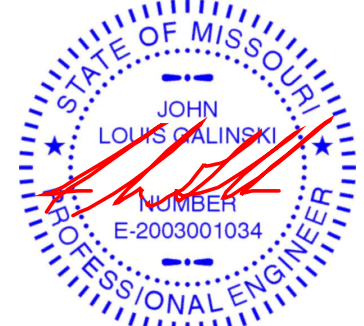
BOT CHORD	1-22=95/103, 21-22=95/103, 20-21=95/103, 19-20=95/103, 17-19=95/103, 16-17=93/102, 15-16=93/102, 14-15=93/102, 13-14=93/102
WEBS	2-22=148/129, 3-21=164/142, 5-20=146/124, 6-19=145/75, 7-18=140/64, 8-17=140/63, 9-16=140/64, 10-15=140/66, 11-14=145/80

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) 0-4-9 to 5-4-6, Exterior(2R) 5-4-6 to 12-5-4, Interior (1) 12-5-4 to 19-8-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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 48 lb uplift at joint 1, 16 lb uplift at joint 13, 110 lb uplift at joint 22, 102 lb uplift at joint 21, 77 lb uplift at joint 20, 52 lb uplift at joint 19, 40 lb uplift at joint 18, 39 lb uplift at joint 17, 40 lb uplift at joint 16, 41 lb uplift at joint 15 and 43 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



June 27, 2025

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)

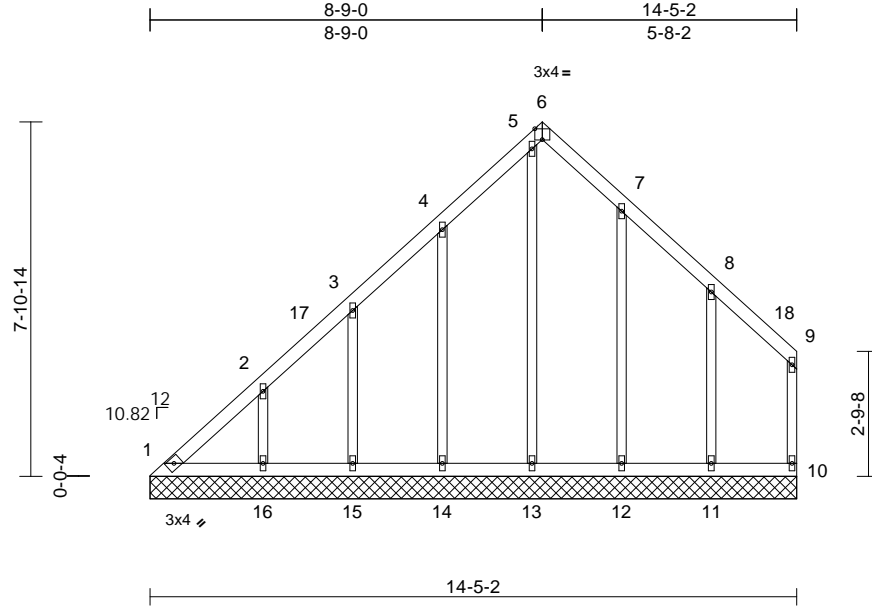
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	LG2	Lay-In Gable	2	1	Job Reference (optional)	I74494513

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:11
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Page: 1



Scale = 1:51.4

Plate Offsets (X, Y): [6:0-2-0,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	0.15	Vert(LL)	n/a	-	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horiz(TL)	0.00	10	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 74 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

BRACING

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

REACTIONS (size)	1=14-5-2, 10=14-5-2, 11=14-5-2, 12=14-5-2, 13=14-5-2, 14=14-5-2, 15=14-5-2, 16=14-5-2
Max Horiz	1=249 (LC 9)
Max Uplift	1=-130 (LC 8), 10=-30 (LC 12), 11=-138 (LC 13), 12=-63 (LC 13), 13=-117 (LC 11), 14=-128 (LC 12), 15=-104 (LC 12), 16=-131 (LC 12)
Max Grav	1=202 (LC 11), 10=92 (LC 20), 11=218 (LC 20), 12=184 (LC 26), 13=269 (LC 8), 14=203 (LC 19), 15=186 (LC 19), 16=236 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-280/254, 2-3=-245/227, 3-4=-215/235, 4-5=-226/344, 5-6=-84/111, 6-7=-210/311, 7-8=-175/241, 8-9=-100/112, 9-10=-95/91
BOT CHORD	1-16=-56/64, 15-16=-56/64, 14-15=-56/64, 13-14=-56/64, 12-13=-56/64, 11-12=-56/64, 10-11=-56/64
WEBS	2-16=-181/152, 3-15=-151/139, 4-14=-162/165, 5-13=-353/173, 7-12=-144/87, 8-11=-167/171

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) 0-4-9 to 5-4-9, Interior (1) 5-4-9 to 8-9-4, Exterior(2R) 8-9-4 to 13-9-4, Interior (1) 13-9-4 to 14-4-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 2-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 1, 30 lb uplift at joint 10, 131 lb uplift at joint 16, 104 lb uplift at joint 15, 128 lb uplift at joint 14, 117 lb uplift at joint 13, 63 lb uplift at joint 12 and 138 lb uplift at joint 11.
- 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



June 27, 2025

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)

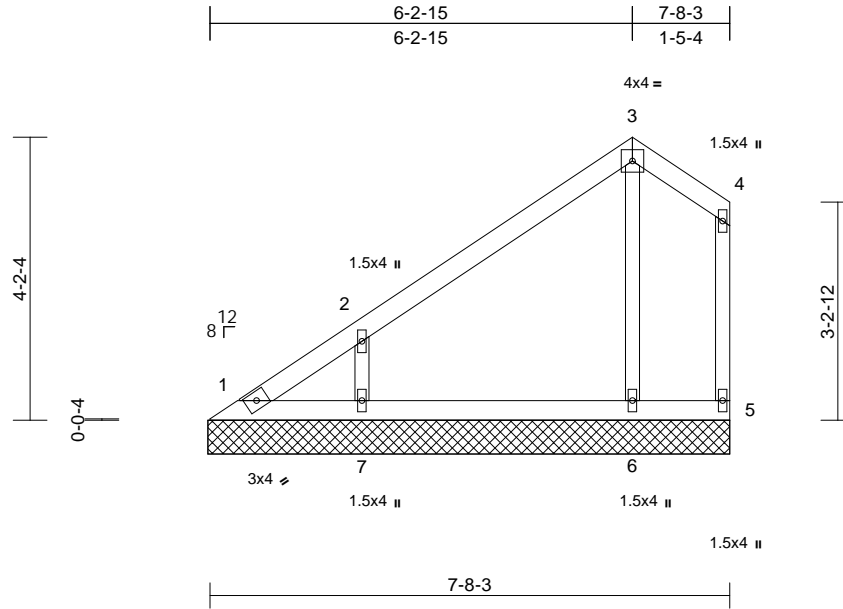
MiTek®
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V1	Valley	2	1	Job Reference (optional)	I74494514

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

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Page: 1



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	0.24	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	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 31 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

BRACING

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

REACTIONS	(size)	1=7-8-9, 5=7-8-9, 6=7-8-9, 7=7-8-9
	Max Horiz	1=152 (LC 9)
	Max Uplift	1=-50 (LC 10), 5=-41 (LC 8), 6=-24 (LC 9), 7=-167 (LC 12)
	Max Grav	1=85 (LC 9), 5=69 (LC 20), 6=248 (LC 19), 7=376 (LC 19)

FORCES

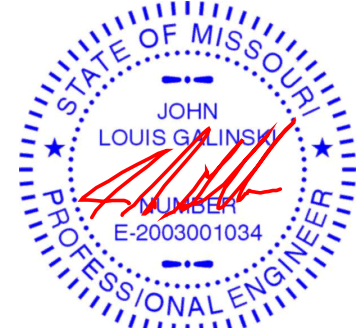
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-258/195, 2-3=-141/80, 3-4=-98/115, 4-5=-87/93
BOT CHORD	1-7=-61/66, 6-7=-61/66, 5-6=-61/66
WEBS	3-6=-181/155, 2-7=-306/300

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) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 6-3-5, Exterior(2E) 6-3-5 to 7-7-5 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 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1, 41 lb uplift at joint 5, 24 lb uplift at joint 6 and 167 lb uplift at joint 7.
- 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



June 27, 2025

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)

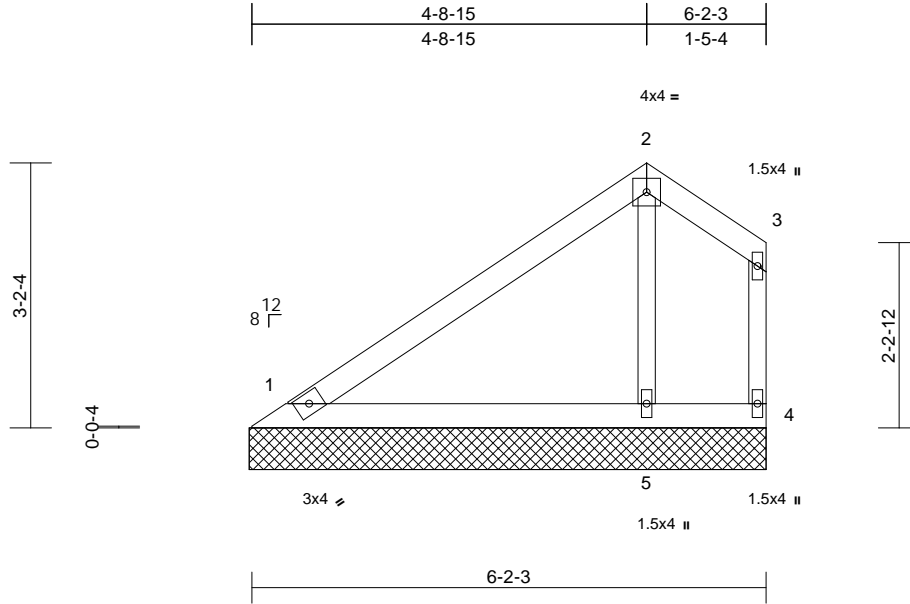
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V2	Valley	2	1	Job Reference (optional)	I74494515

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:11
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Page: 1



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	0.42	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-2-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=6-2-9, 4=6-2-9, 5=6-2-9
Max Horiz	1=109 (LC 9)
Max Uplift	1=-34 (LC 12), 4=-39 (LC 8), 5=-13 (LC 12)
Max Grav	1=185 (LC 1), 4=51 (LC 20), 5=303 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

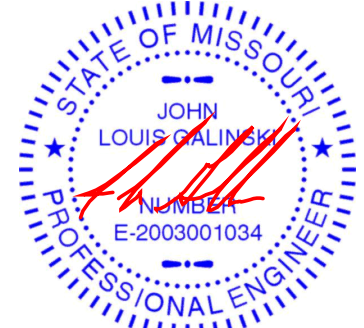
TOP CHORD	1-2=-110/94, 2-3=-74/92, 3-4=-75/84
BOT CHORD	1-5=-41/44, 4-5=-41/44
WEBS	2-5=-211/192

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.
- 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 34 lb uplift at joint 1, 39 lb uplift at joint 4 and 13 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

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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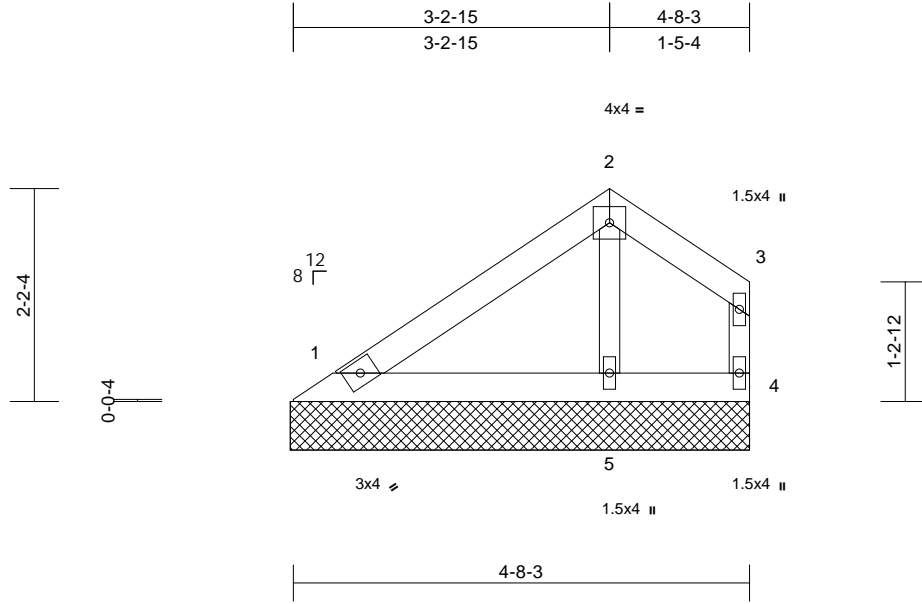
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V3	Valley	2	1	Job Reference (optional)	I74494516

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

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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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-8-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	1=4-8-9, 4=4-8-9, 5=4-8-9
Max Horiz	1=66 (LC 9)
Max Uplift	1=-25 (LC 12), 4=-28 (LC 13), 5=-9 (LC 12)
Max Grav	1=121 (LC 1), 4=59 (LC 20), 5=207 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-72/63, 2-3=-50/67, 3-4=-63/73
BOT CHORD	1-5=-20/22, 4-5=-20/22
WEBS	2-5=-150/118

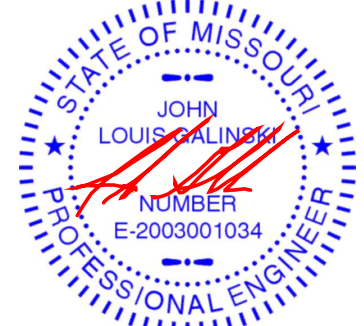
NOTES

- 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.
- 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 25 lb uplift at joint 1, 28 lb uplift at joint 4 and 9 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)

Standard

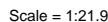


June 27, 2025

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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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Page: 1

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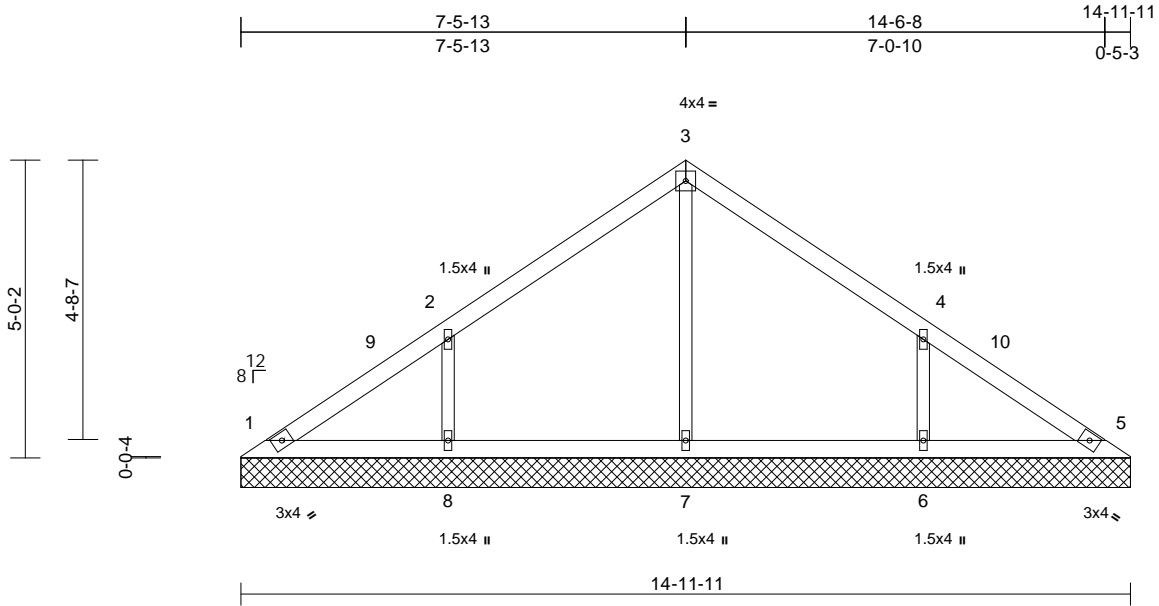
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16023 Swingley Ridge Rd
Crestwood, MO 63017
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P.O. Box 12000, Naperville, IL 60561
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494518
P250400-01	V5	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:11
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Scale = 1:38.8

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 54 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=14-11-11, 5=14-11-11, 6=14-11-11, 7=14-11-11, 8=14-11-11
Max Horiz	1=131 (LC 8)
Max Uplift	1=16 (LC 13), 6=169 (LC 13), 8=169 (LC 12)
Max Grav	1=136 (LC 20), 5=127 (LC 1), 6=392 (LC 20), 7=275 (LC 1), 8=392 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

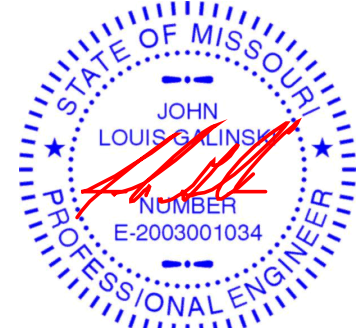
TOP CHORD	1-2=137/96, 2-3=148/119, 3-4=140/110, 4-5=104/52
BOT CHORD	1-8=36/83, 7-8=36/83, 6-7=36/83, 5-6=36/83
WEBS	3-7=195/10, 2-8=310/211, 4-6=310/211

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) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 7-6-3, Exterior(2R) 7-6-3 to 12-6-3, Interior (1) 12-6-3 to 14-6-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1, 169 lb uplift at joint 8 and 169 lb uplift at joint 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



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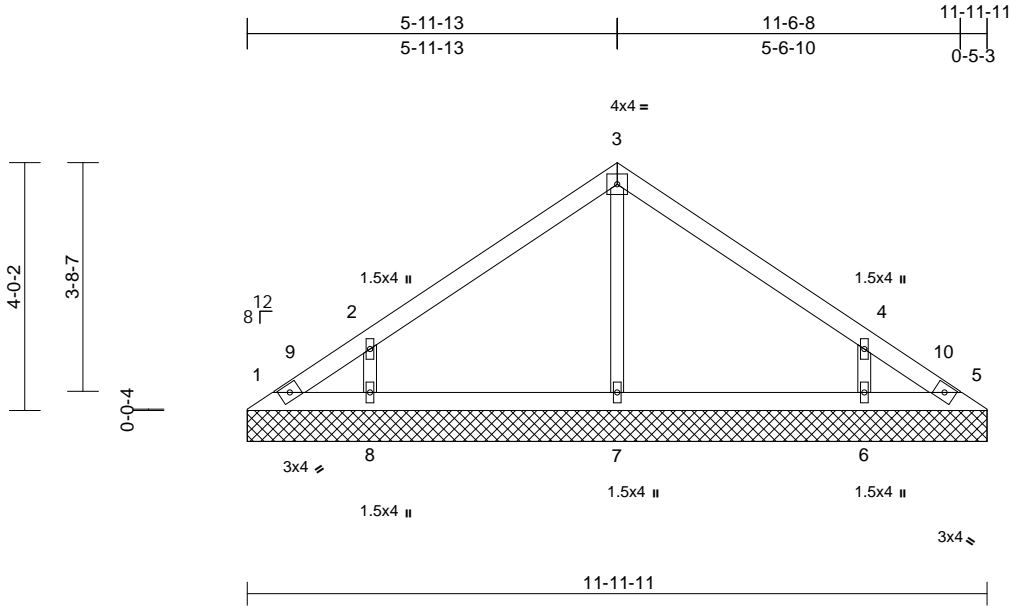
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494519
P250400-01	V6	Valley	1	1	Job Reference (optional)	

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

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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	0.20	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 42 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=11-11-11, 5=11-11-11, 6=11-11-11, 7=11-11-11, 8=11-11-11
Max Horiz	1=-103 (LC 8)
Max Uplift	1=-38 (LC 10), 5=-19 (LC 11), 6=-154 (LC 13), 8=-154 (LC 12)
Max Grav	1=62 (LC 20), 5=50 (LC 22), 6=347 (LC 20), 7=285 (LC 1), 8=347 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

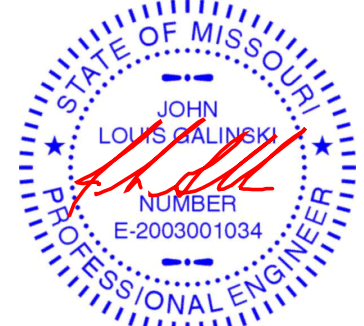
TOP CHORD	1-2=-106/86, 2-3=-145/99, 3-4=-140/97, 4-5=-85/51
BOT CHORD	1-8=-25/71, 7-8=-25/71, 6-7=-25/71, 5-6=-25/71
WEBS	3-7=-199/39, 2-8=-287/215, 4-6=-286/215

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) 0-5-12 to 5-5-12, Interior (1) 5-5-12 to 6-0-3, Exterior(2R) 6-0-3 to 11-0-3, Interior (1) 11-0-3 to 11-6-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 19 lb uplift at joint 5, 154 lb uplift at joint 8 and 154 lb uplift at joint 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

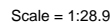


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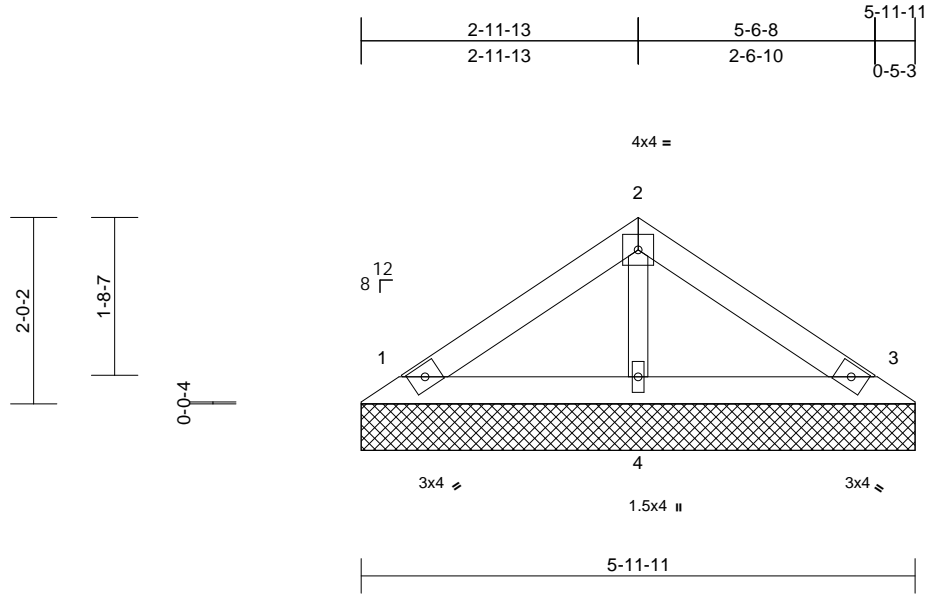
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16023 Swindley Bridge Rd
Development Services
Chesterfield, MO 63005
Lee's Summit, Missouri
#34-0209-1000 US Pat.
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	174494521
P250400-01	V8	Valley	1	1	Job Reference (optional)	

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

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Scale = 1:24.8

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 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=5-11-11, 3=5-11-11, 4=5-11-11
Max Horiz 1=-47 (LC 10)
Max Uplift 1=-32 (LC 12), 3=-38 (LC 13)
Max Grav 1=128 (LC 1), 3=128 (LC 1), 4=200 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

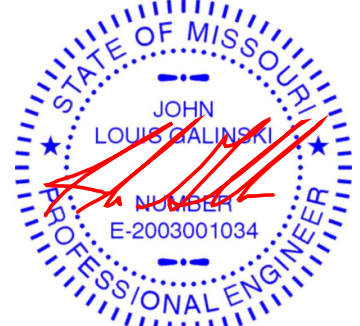
TOP CHORD 1-2=-81/55, 2-3=-77/55
BOT CHORD 1-4=-10/38, 3-4=-10/38
WEBS 2-4=-136/85

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.

- 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 32 lb uplift at joint 1 and 38 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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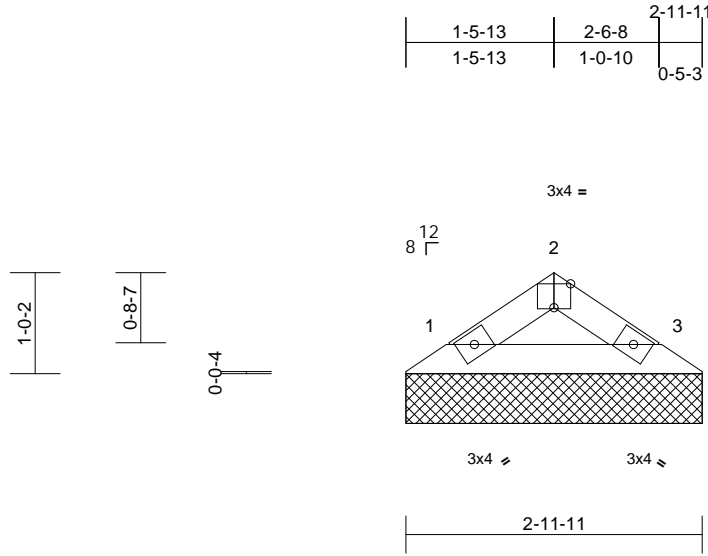
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V9	Valley	1	1	Job Reference (optional)	I74494522

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

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ID:4fj5PkMwRkX5crLpAuPLauzt8f-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:23.1

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	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 20%

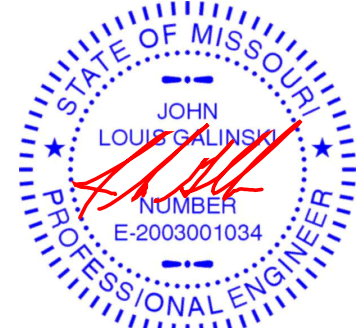
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size) 1=2-11-11, 3=2-11-11
Max Horiz 1=-19 (LC 8)
Max Uplift 1=-13 (LC 12), 3=-13 (LC 13)
Max Grav 1=93 (LC 1), 3=93 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-81/56, 2-3=-81/56
BOT CHORD 1-3=-21/54

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 13 lb uplift at joint 3.
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

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



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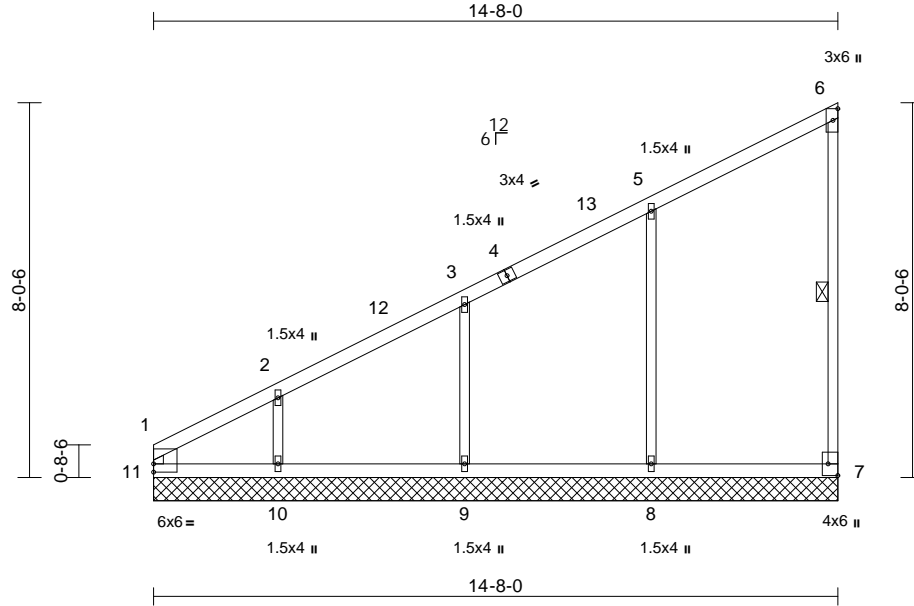
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V10	Valley	2	1	Job Reference (optional)	I74494523

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Thu Jun 26 09:03:12
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Page: 1



Scale = 1:49.4

Plate Offsets (X, Y): [7:Edge,0-2-8], [11:Edge,0-2-2]												
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	0.77	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 61 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	
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 6-7	
REACTIONS	(size)	7=14-8-0, 8=14-8-0, 9=14-8-0, 10=14-8-0, 11=14-8-0
	Max Horiz	11=340 (LC 9)
	Max Uplift	7=49 (LC 9), 8=135 (LC 12), 9=113 (LC 12), 10=167 (LC 12)
	Max Grav	7=142 (LC 1), 8=393 (LC 1), 9=359 (LC 1), 10=330 (LC 1), 11=178 (LC 9)
FORCES		(lb) - Maximum Compression/Maximum Tension
TOP CHORD		1-11=-235/115, 1-2=-514/298, 2-3=-399/248, 3-5=-301/213, 5-6=-162/143, 6-7=-110/113
BOT CHORD		10-11=-150/164, 9-10=-150/164, 8-9=-150/164, 7-8=-150/164
WEBS		5-8=-306/264, 3-9=-280/202, 2-10=-255/227

NOTES
1) 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) 0-1-4 to 5-1-4,
Interior (1) 5-1-4 to 14-6-12 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

- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) The Fabrication Tolerance at joint 11 = 12%, joint 1 = 16%, joint 11 = 12%
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 4-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 7, 135 lb uplift at joint 8, 113 lb uplift at joint 9 and 167 lb uplift at joint 10.
- 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



June 27, 2025

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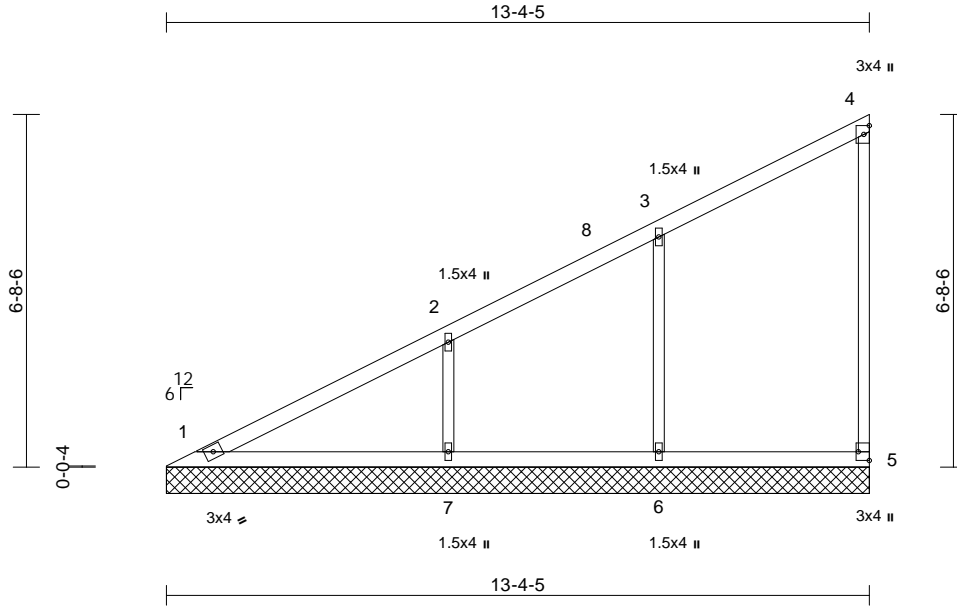
Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V11	Valley	2	1	Job Reference (optional)	I74494524

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

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Plate Offsets (X, Y): [5:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 51 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

BRACING

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

REACTIONS	(size)	1=13-4-5, 5=13-4-5, 6=13-4-5, 7=13-4-5
	Max Horiz	1=282 (LC 9)
	Max Uplift	5=44 (LC 9), 6=124 (LC 12), 7=154 (LC 12)
	Max Grav	1=195 (LC 20), 5=147 (LC 1), 6=364 (LC 1), 7=453 (LC 1)

FORCES

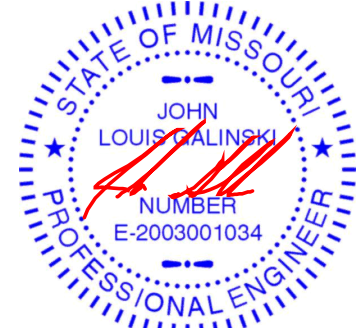
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-414/251, 2-3=-286/191, 3-4=-152/129, 4-5=-113/120
BOT CHORD	1-7=-126/138, 6-7=-126/138, 5-6=-126/138
WEBS	3-6=-287/252, 2-7=-341/267

NOTES

- 1) 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) 0-7-9 to 5-4-13, Interior (1) 5-4-13 to 13-3-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 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 No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 5, 124 lb uplift at joint 6 and 154 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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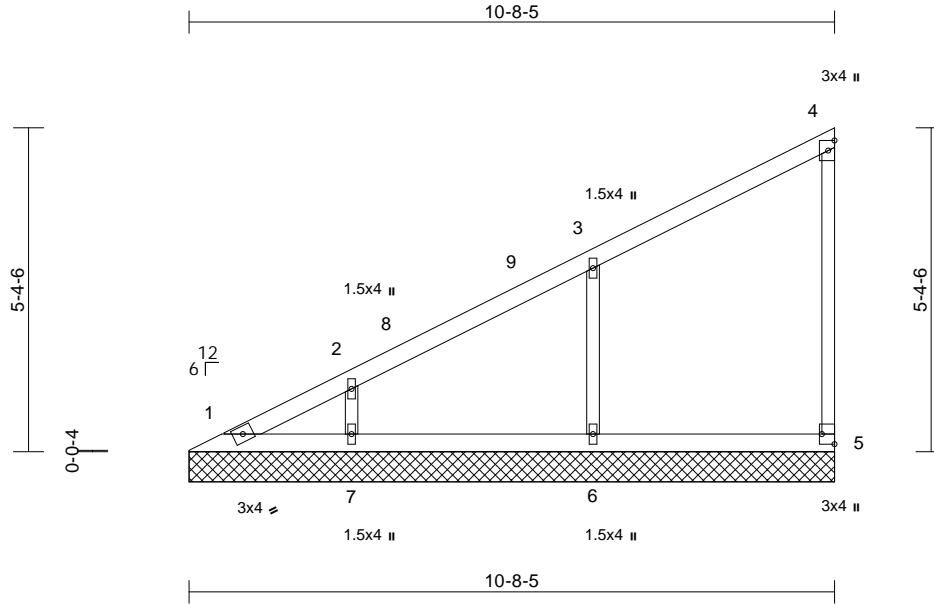
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V12	Valley	2	1	Job Reference (optional)	I74494525

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Page: 1



Scale = 1:38.2

Plate Offsets (X, Y): [5:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 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

BRACING

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

REACTIONS (size) 1=10-8-5, 5=10-8-5, 6=10-8-5, 7=10-8-5
Max Horiz 1=223 (LC 9)
Max Uplift 5=-37 (LC 9), 6=-137 (LC 12), 7=-103 (LC 12)
Max Grav 1=95 (LC 20), 5=140 (LC 1), 6=404 (LC 1), 7=301 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-377/218, 2-3=-294/184, 3-4=-138/112, 4-5=-108/124
BOT CHORD 1-7=-101/111, 6-7=-101/111, 5-6=-101/111
WEBS 3-6=-315/300, 2-7=-233/225

NOTES

- 1) 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) 0-7-9 to 5-7-9,
Interior (1) 5-7-9 to 10-7-9 zone; cantilever left and right
exposed ; end vertical left and right exposed;C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 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 No.2 crushing
capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 37 lb uplift at joint
5, 137 lb uplift at joint 6 and 103 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



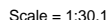
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LUMBER

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4 and 140 lb uplift at joint 5.
- 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

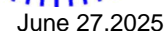
LOAD CASE(S) Standard

REACTIONS

FORCES

NOTES

- 1) 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) 0-7-9 to 5-7-9,
Interior (1) 5-7-9 to 7-11-9 zone; cantilever left and right
exposed ; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 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 No.2 crushing
capacity of 565 psi.



 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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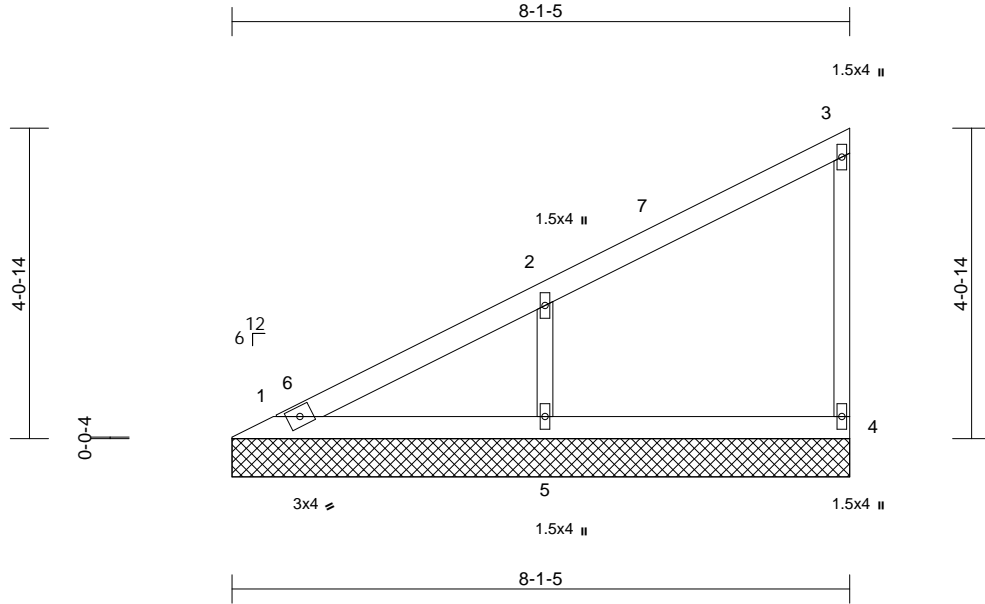
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Job	Truss	Truss Type	Qty	Ply	Roof - BY Lot 2310	
P250400-01	V14	Valley	1	1	Job Reference (optional)	174494527

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Page: 1



Scale = 1:30.2

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	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 29 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

BRACING

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

REACTIONS	(size)	1=8-1-5, 4=8-1-5, 5=8-1-5
	Max Horiz	1=165 (LC 9)
	Max Uplift	4=-31 (LC 9), 5=-142 (LC 12)
	Max Grav	1=123 (LC 20), 4=136 (LC 1), 5=418 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
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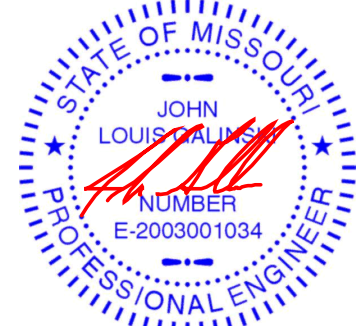
TOP CHORD	1-2=-295/176, 2-3=-129/99, 3-4=-109/135
BOT CHORD	1-5=-77/83, 4-5=-77/83
WEBS	2-5=-325/333

NOTES

- 1) 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) 0-7-9 to 5-7-9,
Interior (1) 5-7-9 to 8-0-9 zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 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 No.2 crushing
capacity of 565 psi.

- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 31 lb uplift at joint
4 and 142 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 27, 2025

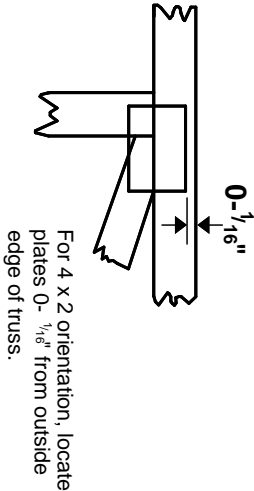
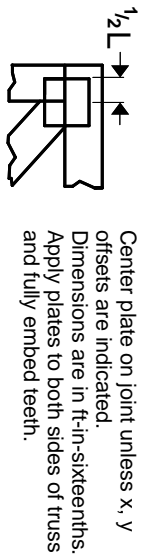
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Symbols

PLATE LOCATION AND ORIENTATION



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

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

PLATE SIZE

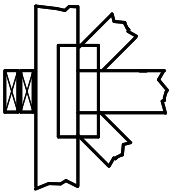
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

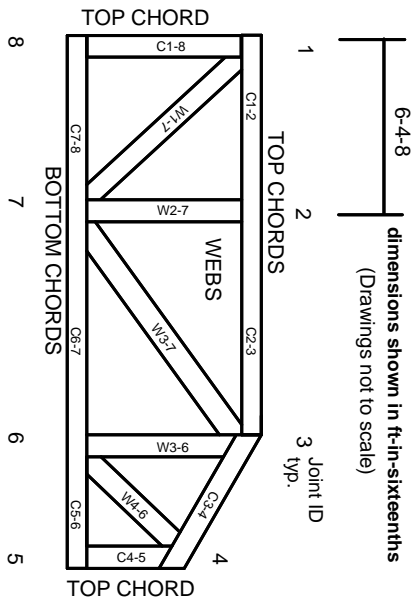
BEARING



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

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

Numbering System



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

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

Product Code Approvals

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

Design General Notes

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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