RE: P240270

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

Site Information:

Customer: Clayton Properties Project Name: P240270
Lot/Block: 149 Model: Marmalade - Farmhouse 3Car
Address: 3220 SW Arboridge Dr Subdivision: Hawthorne Ridge
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 22 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I65245301	A1	5/1/2024	21	I65245321	VE1	5/1/2024
2	I65245302	A2	5/1/2024	22	I65245322	VE2	5/1/2024
3	I65245303	B1	5/1/2024				
4	I65245304	B2	5/1/2024				
5	I65245305	B3	5/1/2024				
6	I65245306	B4	5/1/2024				
7	I65245307	B5	5/1/2024				
8	I65245308	C1	5/1/2024				
9	I65245309	C2	5/1/2024				
10	I65245310	C3	5/1/2024				
11	I65245311	D1	5/1/2024				
12	I65245312	E1	5/1/2024				
13	I65245313	E2	5/1/2024				
14	I65245314	J1	5/1/2024				
15	I65245315	J2	5/1/2024				
16	I65245316	VC1	5/1/2024				
17	I65245317	VC2	5/1/2024				
18	I65245318	VC3	5/1/2024				
19	I65245319	VC4	5/1/2024				
20	I65245320	VC5	5/1/2024				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by .

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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

May 01, 2024

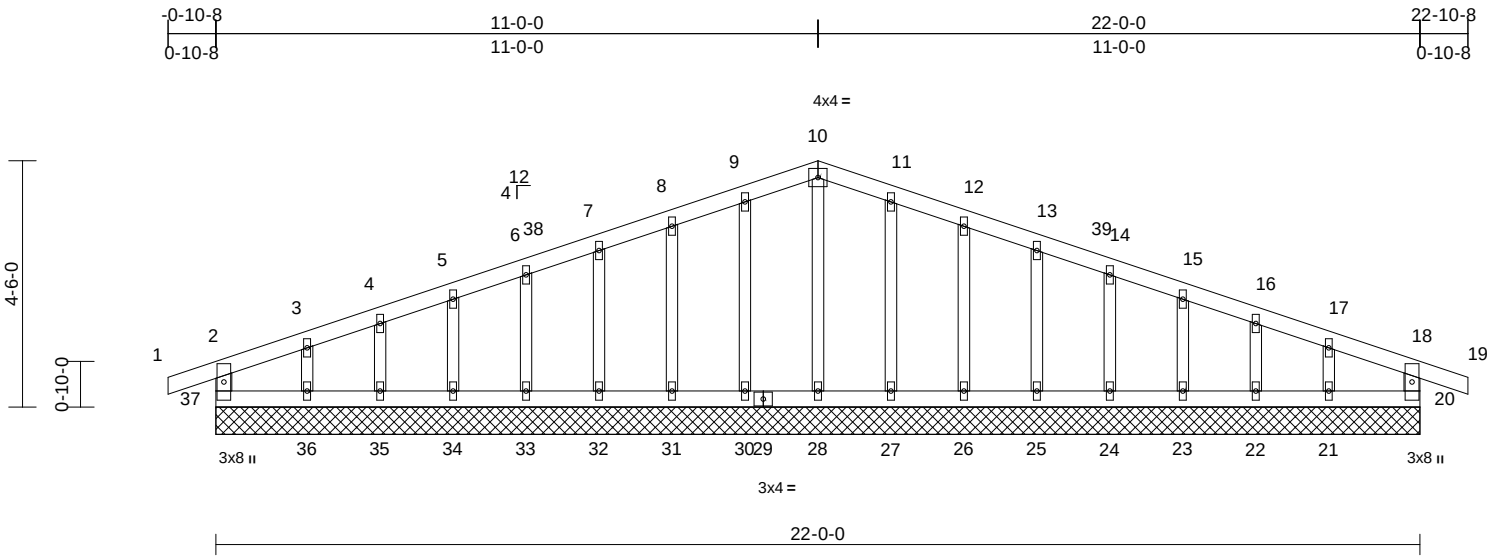
Sevier, Scott

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2024 4:50:41

Job	Truss	Truss Type	Qty	Ply	
P240270	A1	Common	1	1	I65245301 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:16 ID:lbo7?FG7yJkZZ3zxBLk9UcySZOj-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:42.1

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	20	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

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

REACTIONS (size) 20=22-0-0, 21=22-0-0, 22=22-0-0, 23=22-0-0, 24=22-0-0, 25=22-0-0, 26=22-0-0, 27=22-0-0, 28=22-0-0, 30=22-0-0, 31=22-0-0, 32=22-0-0, 33=22-0-0, 34=22-0-0, 35=22-0-0, 36=22-0-0, 37=22-0-0
Max Horiz 37=53 (LC 12)
Max Uplift 20=-47 (LC 9), 21=-55 (LC 13), 22=-30 (LC 9), 23=-34 (LC 13), 24=-32 (LC 9), 25=-32 (LC 13), 26=-35 (LC 9), 27=-28 (LC 13), 30=-29 (LC 12), 31=-35 (LC 8), 32=-32 (LC 12), 33=-32 (LC 8), 34=-34 (LC 12), 35=-28 (LC 8), 36=-63 (LC 12), 37=-40 (LC 8)
Max Grav 20=154 (LC 26), 21=113 (LC 1), 22=122 (LC 26), 23=120 (LC 1), 24=120 (LC 26), 25=120 (LC 1), 26=120 (LC 26), 27=125 (LC 26), 28=116 (LC 1), 30=125 (LC 25), 31=120 (LC 25), 32=120 (LC 1), 33=120 (LC 25), 34=120 (LC 1), 35=122 (LC 25), 36=113 (LC 1), 37=154 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-55/42, 3-4=-35/48, 4-5=-22/68, 5-6=-30/92, 6-7=-37/116, 7-8=-45/139, 8-9=-53/164, 9-10=-61/185, 10-11=-61/181, 11-12=-53/151, 12-13=-45/121, 13-14=-37/97, 14-15=-30/74, 15-16=-22/50, 16-17=-22/36, 17-18=-40/31, 18-19=0/23, 2-37=-138/101, 18-20=-138/91
BOT CHORD 36-37=-23/75, 35-36=-23/75, 34-35=-23/75, 33-34=-23/75, 32-33=-23/75, 31-32=-23/75, 30-31=-23/75, 28-30=-23/75, 27-28=-23/75, 26-27=-23/75, 25-26=-23/75, 24-25=-23/75, 23-24=-23/75, 22-23=-23/75, 21-22=-23/75, 20-21=-23/75
WEBS 10-28=-89/0, 9-30=-99/80, 8-31=-93/90, 7-32=-93/86, 6-33=-93/67, 5-34=-93/59, 4-35=-96/62, 3-36=-84/80, 11-27=-99/79, 12-26=-93/91, 13-25=-93/86, 14-24=-93/67, 15-23=-93/59, 16-22=-96/60, 17-21=-84/74

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 Corner(3E) -0-10-8 to 4-4-0, Exterior(2N) 4-4-0 to 11-0-0, Corner(3R) 11-0-0 to 16-0-0, Exterior(2N) 16-0-0 to 22-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 37, 47 lb uplift at joint 20, 29 lb uplift at joint 30, 35 lb uplift at joint 31, 32 lb uplift at joint 32, 32 lb uplift at joint 33, 34 lb uplift at joint 34, 28 lb uplift at joint 35, 63 lb uplift at joint 36, 28 lb uplift at joint 27, 35 lb uplift at joint 26, 32 lb uplift at joint 25, 32 lb uplift at joint 24, 34 lb uplift at joint 23, 30 lb uplift at joint 22 and 55 lb uplift at joint 21.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	A2	Common	5	1	I65245302 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:17

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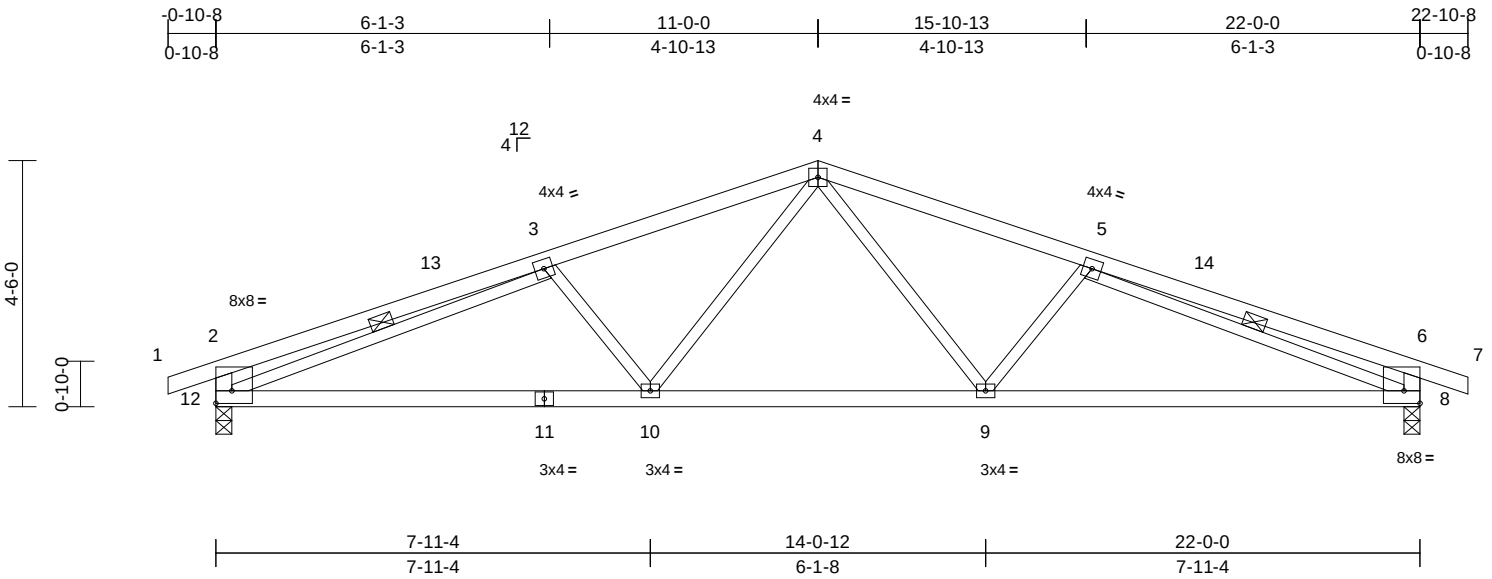

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Plate Offsets (X, Y): [2:Edge,0-2-12], [8:Edge,0-2-12]

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	0.51	Vert(LL)	-0.11	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.23	10-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x3 SPF No.2 *Except* 12-2,8-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-6 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 8-11-0 oc bracing.

WEBS 1 Row at midpt 3-12, 5-8

REACTIONS (size) 8=0-3-8, 12=0-3-8

Max Horiz 12=53 (LC 16)

Max Uplift 8=-218 (LC 9), 12=-218 (LC 8)

Max Grav 8=1048 (LC 1), 12=1048 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-600/231, 3-4=-1661/473, 4-5=-1661/473, 5-6=-600/231, 6-7=0/23, 2-12=-460/282, 6-8=-460/282

BOT CHORD 10-12=-420/1679, 9-10=-242/1267, 8-9=-400/1678

WEBS 4-9=-92/468, 5-9=-303/204, 4-10=-91/468, 3-10=-303/204, 3-12=-1281/349, 5-8=-1281/349

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 16-0-0, Interior (1) 16-0-0 to 22-10-8 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 218 lb uplift at joint 12 and 218 lb uplift at joint 8.
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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	B1	Common Supported Gable	1	1	I65245303 Job Reference (optional)

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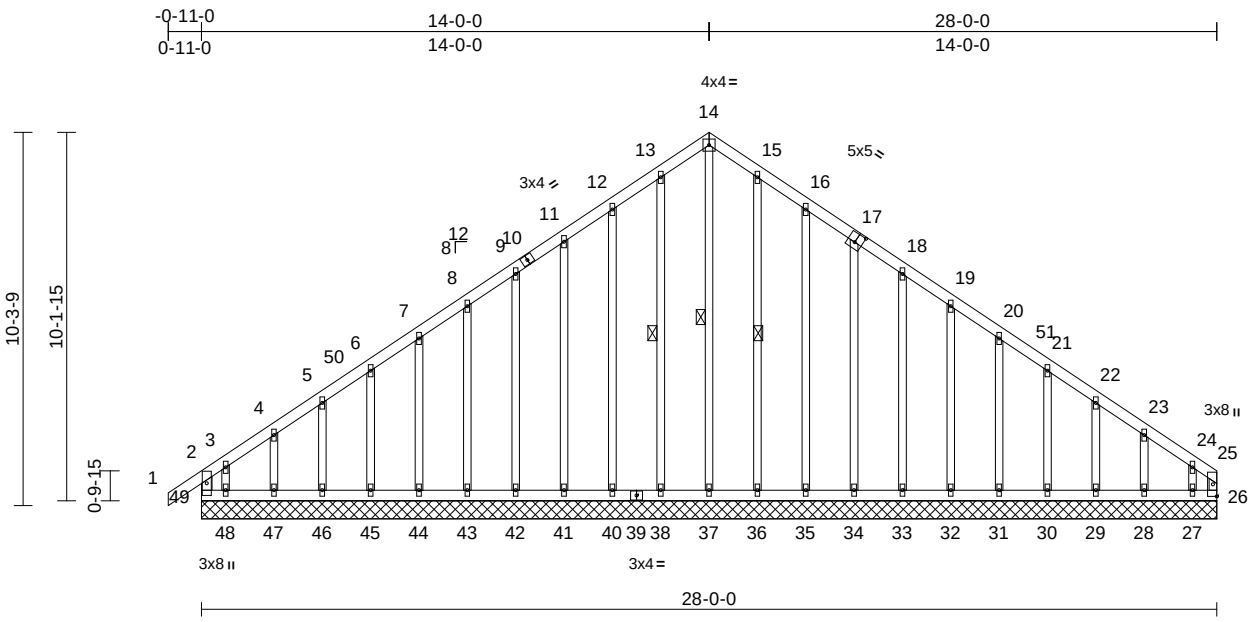

Scale = 1:63.5

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

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	26	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 179 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 25-26:2x3 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 14-37, 13-38, 15-36

REACTIONS (size) 26=28-0-0, 27=28-0-0, 28=28-0-0, 29=28-0-0, 30=28-0-0, 31=28-0-0, 32=28-0-0, 33=28-0-0, 34=28-0-0, 35=28-0-0, 36=28-0-0, 37=28-0-0, 38=28-0-0, 40=28-0-0, 41=28-0-0, 42=28-0-0, 43=28-0-0, 44=28-0-0, 45=28-0-0, 46=28-0-0, 47=28-0-0, 48=28-0-0, 49=28-0-0
Max Horiz 49=286 (LC 9)
Max Uplift 26=-159 (LC 11), 27=-217 (LC 13), 28=-43 (LC 13), 29=-52 (LC 13), 30=-50 (LC 13), 31=-51 (LC 13), 32=-51 (LC 13), 33=-45 (LC 13), 34=-52 (LC 13), 35=-66 (LC 13), 36=-9 (LC 13), 37=-5 (LC 11), 38=-17 (LC 12), 40=-61 (LC 12), 41=-51 (LC 12), 42=-50 (LC 12), 43=-50 (LC 12), 44=-51 (LC 12), 45=-50 (LC 12), 46=-53 (LC 12), 47=-41 (LC 12), 48=-278 (LC 12), 49=-264 (LC 10)
Max Grav 26=267 (LC 13), 27=179 (LC 11), 28=122 (LC 20), 29=122 (LC 20), 30=122 (LC 20), 31=122 (LC 20), 32=123 (LC 20), 33=117 (LC 20), 34=123 (LC 20), 35=129 (LC 20), 36=118 (LC 1), 37=226 (LC 13), 38=127 (LC 19), 40=122 (LC 19), 41=122 (LC 19), 42=122 (LC 19), 43=122 (LC 19), 44=122 (LC 19), 45=122 (LC 19), 46=123 (LC 19), 47=122 (LC 1), 48=263 (LC 10), 49=371 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-49=-246/167, 1-2=0/40, 2-3=-292/242, 3-4=-213/190, 4-5=-187/173, 5-6=-166/157, 6-7=-154/152, 7-8=-141/149, 8-9=-128/173, 9-11=-116/199, 11-12=-135/225, 12-13=-164/269, 13-14=-173/286, 14-15=-173/286, 15-16=-164/269, 16-18=-135/218, 18-19=-87/135, 19-20=-62/96, 20-21=-68/71, 21-22=-77/64, 22-23=-102/80, 23-24=-149/97, 24-25=-223/134, 25-26=-172/100
BOT CHORD 48-49=-105/147, 47-48=-105/147, 46-47=-105/147, 45-46=-105/147, 44-45=-105/147, 43-44=-105/147, 42-43=-105/147, 41-42=-105/147, 40-41=-105/147, 38-40=-105/147, 37-38=-105/147, 36-37=-105/147, 35-36=-105/147, 34-35=-105/147, 33-34=-104/146, 32-33=-104/146, 31-32=-104/146, 30-31=-104/146, 29-30=-104/146, 28-29=-104/146, 27-28=-104/146, 26-27=-104/146
WEBS 14-37=-231/105, 13-38=-102/33, 12-40=-96/77, 11-41=-96/67, 9-42=-96/65, 8-43=-96/66, 7-44=-96/66, 6-45=-96/66, 5-46=-96/65, 4-47=-100/68, 3-48=-119/144, 15-36=-92/25, 16-35=-103/81, 17-34=-97/68, 18-33=-91/61, 19-32=-97/67, 20-31=-96/66, 21-30=-96/66, 22-29=-96/65, 23-28=-99/68, 24-27=-111/128

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 27-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

May 1,2024

Continued on page 2

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

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 264 lb uplift at joint 49, 159 lb uplift at joint 26, 5 lb uplift at joint 37, 17 lb uplift at joint 38, 61 lb uplift at joint 40, 51 lb uplift at joint 41, 50 lb uplift at joint 42, 50 lb uplift at joint 43, 51 lb uplift at joint 44, 50 lb uplift at joint 45, 53 lb uplift at joint 46, 41 lb uplift at joint 47, 278 lb uplift at joint 48, 9 lb uplift at joint 36, 66 lb uplift at joint 35, 52 lb uplift at joint 34, 45 lb uplift at joint 33, 51 lb uplift at joint 32, 51 lb uplift at joint 31, 50 lb uplift at joint 30, 52 lb uplift at joint 29, 43 lb uplift at joint 28 and 217 lb uplift at joint 27.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
P240270	B2	Common	4	1	I65245304 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:17 Page: 1
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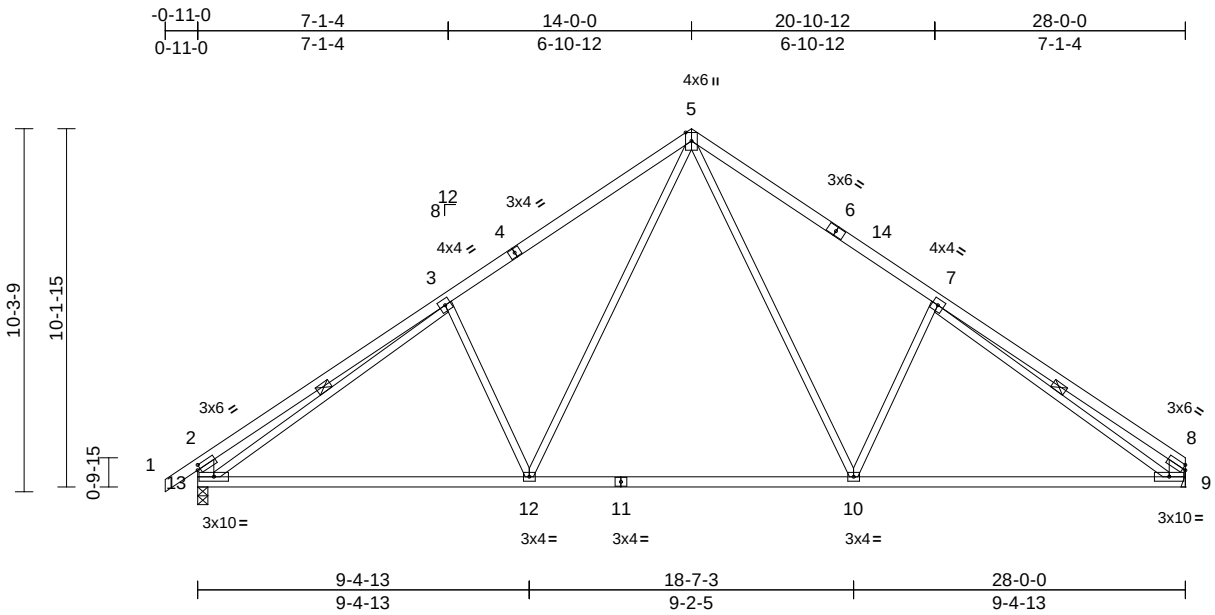

Scale = 1:65.3

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

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	0.75	Vert(LL)	-0.16	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.33	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 135 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 13-2,9-8:2x6 SPF No.2

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 3-13, 7-9

REACTIONS (size) 9= Mechanical, 13=0-3-8
Max Horiz 13=297 (LC 9)
Max Uplift 9=-173 (LC 13), 13=-202 (LC 12)
Max Grav 9=1238 (LC 1), 13=1321 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-739/302, 3-5=-1488/355, 5-7=-1496/359, 7-8=-601/203, 2-13=-655/283, 8-9=-488/191
BOT CHORD 12-13=-259/1296, 10-12=-36/874, 9-10=-154/1276
WEBS 5-10=-209/636, 7-10=-426/335, 5-12=-205/626, 3-12=-413/330, 3-13=-960/63, 7-9=-1101/126

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 27-9-4 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 13 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 13 and 173 lb uplift at joint 9.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	B3	Common	3	1	I65245305 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:17

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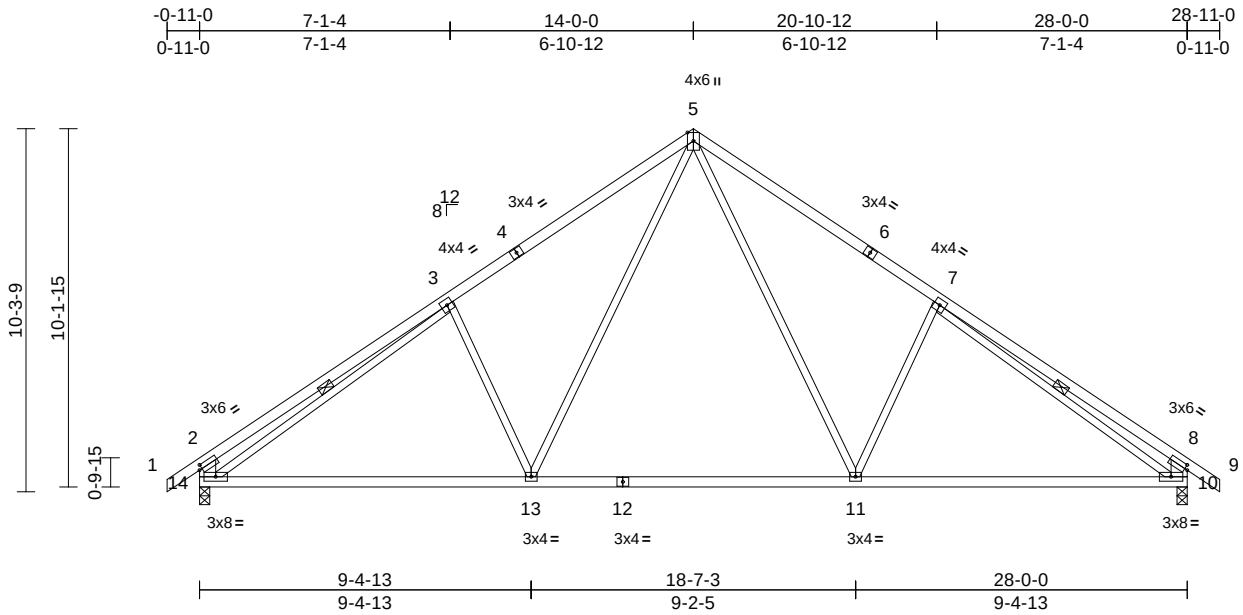


Scale = 1:65.3

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

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	0.72	Vert(LL)	-0.16	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.33	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 137 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x3 SPF No.2 *Except* 14-2,10-8:2x6 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 3-14, 7-10

REACTIONS (size) 10=0-3-8, 14=0-3-8

Max Horiz 14=-305 (LC 10)

Max Uplift 10=-202 (LC 13), 14=-202 (LC 12)

Max Grav 10=1320 (LC 1), 14=1320 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/44, 2-3=-739/302, 3-5=-1485/355, 5-7=-1485/355, 7-8=-739/302, 8-9=0/44, 2-14=-655/283, 8-10=-655/283

BOT CHORD 13-14=-244/1305, 11-13=-22/872, 10-11=-106/1264

WEBS 5-11=-205/625, 7-11=-413/329, 5-13=-205/625, 3-13=-413/329, 3-14=-956/61, 7-10=-956/61

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 28-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 202 lb uplift at joint 14 and 202 lb uplift at joint 10.
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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

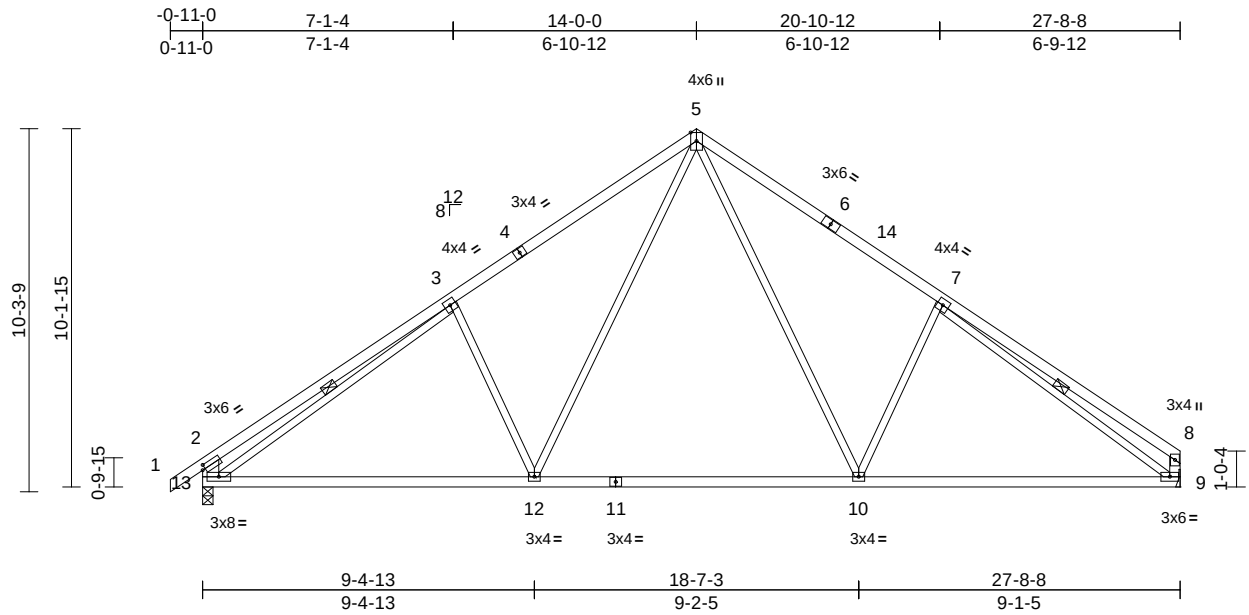
May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	B4	Common	10	1	I65245306 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:17

ID:ioZG1tOs6NJ7zCxSa4U1OozRAdm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:65.3

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

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	0.74	Vert(LL)	-0.16	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.33	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 13-2:2x6 SPF No.2, 9-8:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-13, 7-9

REACTIONS (size) 9= Mechanical, 13=0-3-8
Max Horiz 13=299 (LC 9)
Max Uplift 9=-170 (LC 13), 13=-201 (LC 12)
Max Grav 9=1228 (LC 1), 13=1312 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-737/302, 3-5=-1473/353, 5-7=-1463/354, 7-8=-476/174, 2-13=-653/283, 8-9=-412/171
BOT CHORD 12-13=-258/1285, 10-12=-35/861, 9-10=-156/1237
WEBS 5-10=-203/607, 7-10=-399/329, 5-12=-205/627, 3-12=-414/330, 3-13=-947/60, 7-9=-1197/144

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 27-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 13 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 201 lb uplift at joint 13 and 170 lb uplift at joint 9.
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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	B5	Common Supported Gable	1	1	I65245307 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:18 Page: 1

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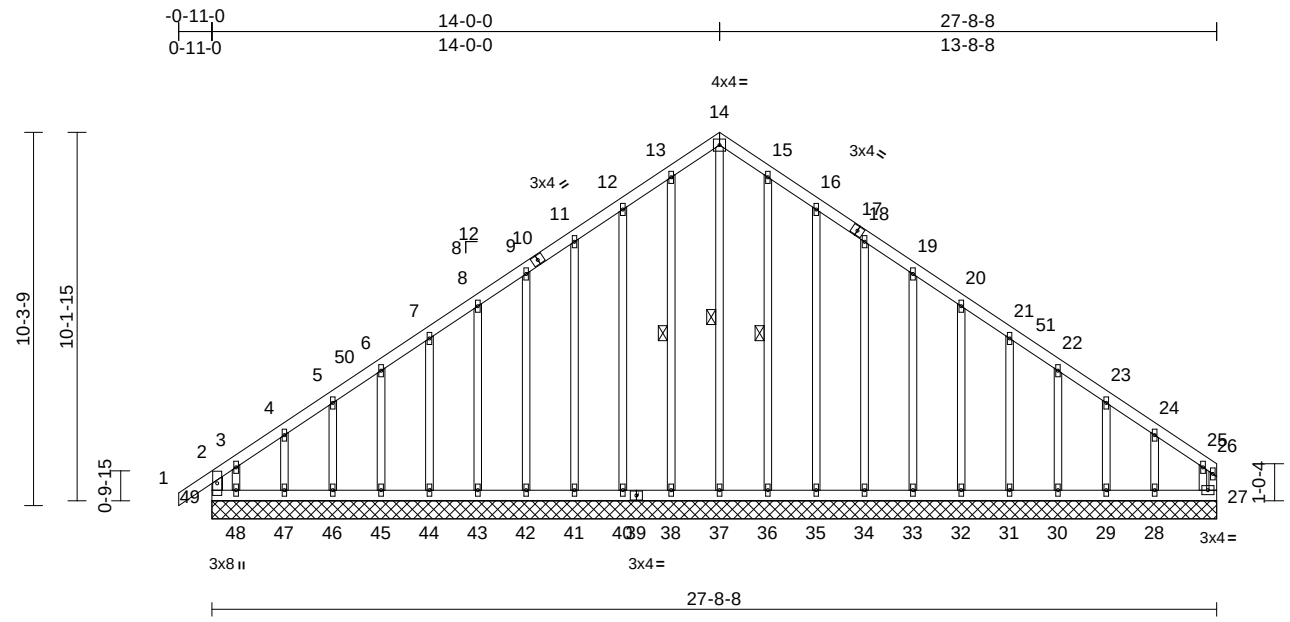

Scale = 1:63.5

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	27	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 178 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 26-27:2x3 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 14-37, 13-38, 15-36

REACTIONS (size) 27=27-8-8, 28=27-8-8, 29=27-8-8, 30=27-8-8, 31=27-8-8, 32=27-8-8, 33=27-8-8, 34=27-8-8, 35=27-8-8, 36=27-8-8, 37=27-8-8, 38=27-8-8, 40=27-8-8, 41=27-8-8, 42=27-8-8, 43=27-8-8, 44=27-8-8, 45=27-8-8, 46=27-8-8, 47=27-8-8, 48=27-8-8, 49=27-8-8
Max Horiz 49=298 (LC 9)
Max Uplift 27=-64 (LC 11), 28=-174 (LC 13), 29=-23 (LC 13), 30=-57 (LC 13), 31=-51 (LC 13), 32=-52 (LC 13), 33=-51 (LC 13), 34=-53 (LC 13), 35=-67 (LC 13), 36=-5 (LC 13), 37=-26 (LC 11), 38=-17 (LC 12), 40=-64 (LC 12), 41=-53 (LC 12), 42=-52 (LC 12), 43=-52 (LC 12), 44=-52 (LC 12), 45=-51 (LC 12), 46=-54 (LC 12), 47=-42 (LC 12), 48=-297 (LC 9), 49=-305 (LC 8)
Max Grav 27=142 (LC 13), 28=198 (LC 20), 29=117 (LC 1), 30=129 (LC 20), 31=125 (LC 20), 32=126 (LC 20), 33=126 (LC 20), 34=126 (LC 20), 35=130 (LC 20), 36=121 (LC 1), 37=258 (LC 13), 38=133 (LC 19), 40=126 (LC 19), 41=126 (LC 19), 42=126 (LC 19), 43=126 (LC 19), 44=126 (LC 19), 45=126 (LC 19), 46=127 (LC 19), 47=126 (LC 1), 48=289 (LC 10), 49=407 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-49=-275/199, 1-2=0/41, 2-3=-320/271, 3-4=-235/213, 4-5=-208/195, 5-6=-195/186, 6-7=-182/182, 7-8=-169/180, 8-9=-155/207, 9-11=-142/233, 11-12=-157/260, 12-13=-188/304, 13-14=-195/320, 14-15=-195/320, 15-16=-188/304, 16-18=-157/252, 18-19=-132/207, 19-20=-106/164, 20-21=-81/120, 21-22=-59/80, 22-23=-69/53, 23-24=-73/54, 24-25=-166/104, 25-26=-25/33, 26-27=-113/156
BOT CHORD 48-49=-92/119, 47-48=-92/119, 46-47=-92/119, 45-46=-92/119, 44-45=-92/119, 43-44=-92/119, 42-43=-92/119, 41-42=-92/119, 40-41=-92/119, 38-40=-92/119, 37-38=-92/119, 36-37=-92/119, 35-36=-92/119, 34-35=-92/119, 33-34=-92/119, 32-33=-92/119, 31-32=-92/119, 30-31=-92/119, 29-30=-92/119, 28-29=-92/119, 27-28=-92/119
WEBS 14-37=-262/124, 13-38=-106/33, 12-40=-99/80, 11-41=-99/69, 9-42=-99/68, 8-43=-99/68, 7-44=-99/68, 6-45=-99/68, 5-46=-99/67, 4-47=-103/71, 3-48=-131/147, 15-36=-95/21, 16-35=-104/83, 18-34=-99/69, 19-33=-99/67, 20-32=-99/68, 21-31=-99/68, 22-30=-101/71, 23-29=-92/53, 24-28=-149/158, 25-27=-254/162

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 Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 27-7-4 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Continued on page 2

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 305 lb uplift at joint 49, 64 lb uplift at joint 27, 26 lb uplift at joint 37, 17 lb uplift at joint 38, 64 lb uplift at joint 40, 53 lb uplift at joint 41, 52 lb uplift at joint 42, 52 lb uplift at joint 43, 52 lb uplift at joint 44, 51 lb uplift at joint 45, 54 lb uplift at joint 46, 42 lb uplift at joint 47, 297 lb uplift at joint 48, 5 lb uplift at joint 36, 67 lb uplift at joint 35, 53 lb uplift at joint 34, 51 lb uplift at joint 33, 52 lb uplift at joint 32, 51 lb uplift at joint 31, 57 lb uplift at joint 30, 23 lb uplift at joint 29 and 174 lb uplift at joint 28.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
P240270	C1	Roof Special	1	1	I65245308 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:18 Page: 1
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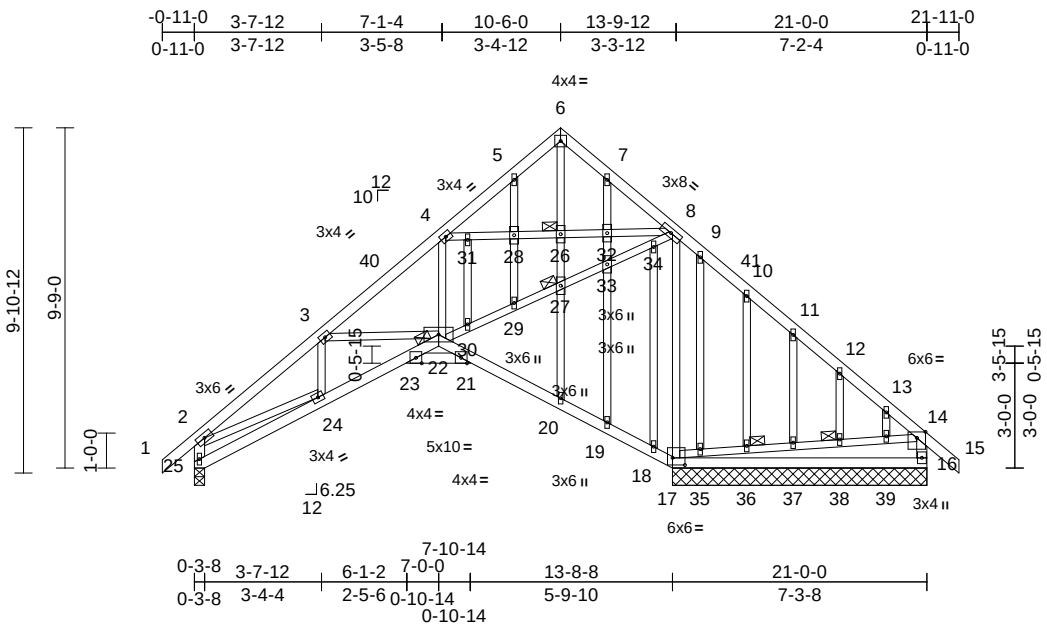

Scale = 1:66

Plate Offsets (X, Y): [17:0-4-4,0-2-8]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.08	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.16	16-17	>542	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.05	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 149 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 25-2,16-14:2x4 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 6-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 22, 26, 27, 36, 38

REACTIONS (size) 16=7-3-8, 17=7-3-8, 25=0-3-8
Max Horiz 25=-290 (LC 10)
Max Uplift 16=-152 (LC 8), 17=-221 (LC 12), 25=-100 (LC 13)
Max Grav 16=241 (LC 26), 17=1338 (LC 1), 25=513 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-775/156, 3-4=-511/65, 4-5=-230/27, 5-6=-162/52, 6-7=-186/62, 7-8=-246/55, 8-9=-47/467, 9-10=-64/519, 10-11=-66/469, 11-12=-72/432, 12-13=-89/407, 13-14=-96/318, 14-15=0/46, 2-25=-516/167, 14-16=-172/193
BOT CHORD 24-25=-301/373, 23-24=-252/819, 22-23=-179/833, 21-23=-101/9, 21-22=-306/218, 20-21=-339/171, 19-20=-333/175, 18-19=-341/161, 17-18=-357/150, 16-17=-212/353
WEBS 8-17=-858/162, 2-24=-8/485, 17-35=-633/280, 35-36=-608/283, 36-37=-607/280, 37-38=-605/279, 38-39=-602/276, 14-39=-611/283, 4-22=-38/86, 3-24=-54/51, 3-22=-241/196, 22-30=-175/832, 29-30=-178/846, 27-29=-183/858, 27-33=-177/842, 33-34=-181/875, 8-34=-192/862, 4-31=-271/157, 28-31=-270/158, 26-28=-270/157, 26-32=-270/158, 8-32=-271/158, 6-26=-3/108, 26-27=0/114, 20-27=0/101, 5-28=-50/35, 28-29=-28/18, 30-31=-35/12, 7-32=-48/8, 32-33=-72/8, 19-33=-22/17, 18-34=-46/15, 9-35=-122/22, 10-36=-34/41, 11-37=-27/19, 12-38=-54/44, 13-39=-83/112

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-6-0, Exterior(2R) 10-6-0 to 15-6-0, Interior (1) 15-6-0 to 21-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 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) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 25, 221 lb uplift at joint 17 and 152 lb uplift at joint 16.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	C2	Roof Special	6	1	I65245309 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:18

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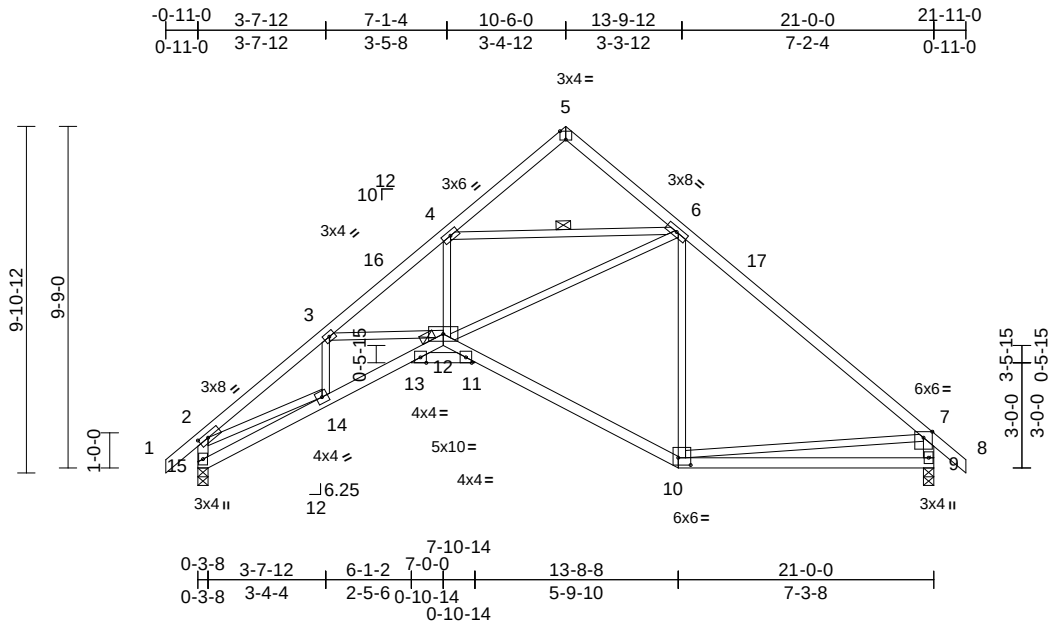


Scale = 1:65.8

Plate Offsets (X, Y): [2:0-3-5,0-1-8], [5:0-2-0,Edge], [10:0-4-4,0-2-8]

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	0.66	Vert(LL)	-0.09	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.19	9-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 15-2,9-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-6
JOINTS 1 Brace at Jt(s): 12

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=-300 (LC 10)
Max Uplift 9=-142 (LC 13), 15=-142 (LC 12)
Max Grav 9=1006 (LC 1), 15=1006 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1891/347, 3-4=-1961/286, 4-5=-209/45, 5-6=-237/73, 6-7=-1056/197, 7-8=0/48, 2-15=-1016/256, 7-9=-934/221
BOT CHORD 14-15=-309/416, 13-14=-365/1778, 12-13=-229/1799, 11-13=-250/0, 11-12=0/821, 10-11=-31/786, 9-10=-227/415
WEBS 6-10=-250/76, 2-14=-147/1309, 7-10=-65/377, 4-12=-38/857, 3-14=-276/60, 3-12=-29/172, 6-12=-178/994, 4-6=-1369/328

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-6-0, Exterior(2R) 10-6-0 to 15-6-0, Interior (1) 15-6-0 to 21-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 15 and 142 lb uplift at joint 9.
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

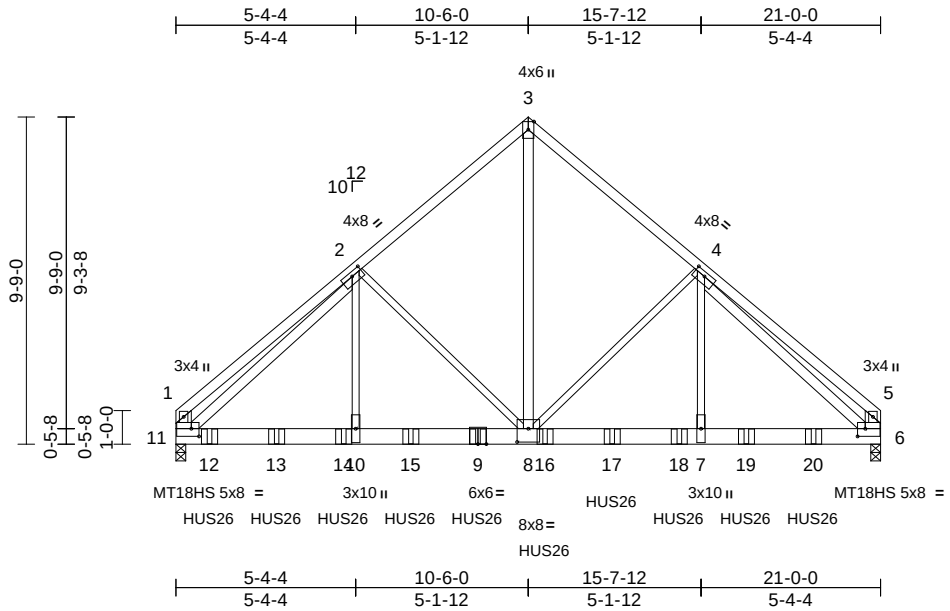
May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	C3	Common Girder	1	**2**	I65245310 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:18

ID:Nd9MxYC0Ezg3Q?FEkW9gKxzRAa7-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:68.7

Plate Offsets (X, Y): [2:0-3-14,0-1-8], [4:0-3-14,0-1-8], [6:0-2-12,0-2-12], [8:0-4-0,0-4-12], [11:0-2-12,0-2-12]

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	0.59	Vert(LL)	-0.10	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.18	7-8	>999	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 289 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x6 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 8-3,11-2,6-4:2x4 SP No.2, 11-1,6-5:2x6 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins, except end verticals.

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

REACTIONS (size) 6=0-3-8, 11=0-3-8

Max Horiz 11=271 (LC 11)

Max Uplift 6=-981 (LC 13), 11=-1069 (LC 12)

Max Grav 6=6672 (LC 1), 11=7262 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2639/500, 2-3=-5446/952, 3-4=-5446/952, 4-5=-2537/484, 1-11=-1804/378, 5-6=-1739/369

BOT CHORD 10-11=-902/5671, 8-10=-902/5671, 7-8=-823/5649, 6-7=-823/5649

WEBS 3-8=-1063/6460, 4-8=-2198/518, 4-7=-397/3061, 2-8=-2229/522, 2-10=-399/3092, 2-11=-5246/736, 4-6=-5325/746

NOTES

1) 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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) 0-2-12 to 5-4-4, Interior (1) 5-4-4 to 10-6-0, Exterior(2R) 10-6-0 to 15-7-12, Interior (1) 15-7-12 to 20-9-4 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
5) All plates are MT20 plates unless otherwise indicated.
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 2400F 2.0E crushing capacity of 805 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1069 lb uplift at joint 11 and 981 lb uplift at joint 6.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-0-0 from the left end to 19-0-0 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 6-11=-20
Concentrated Loads (lb)
Vert: 9=-1208 (B), 12=-1211 (B), 13=-1208 (B), 14=-1208 (B), 15=-1208 (B), 16=-1208 (B), 17=-1208 (B), 18=-1208 (B), 19=-1208 (B), 20=-1208 (B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	D1	Roof Special	1	1	I65245311 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:18 Page: 1

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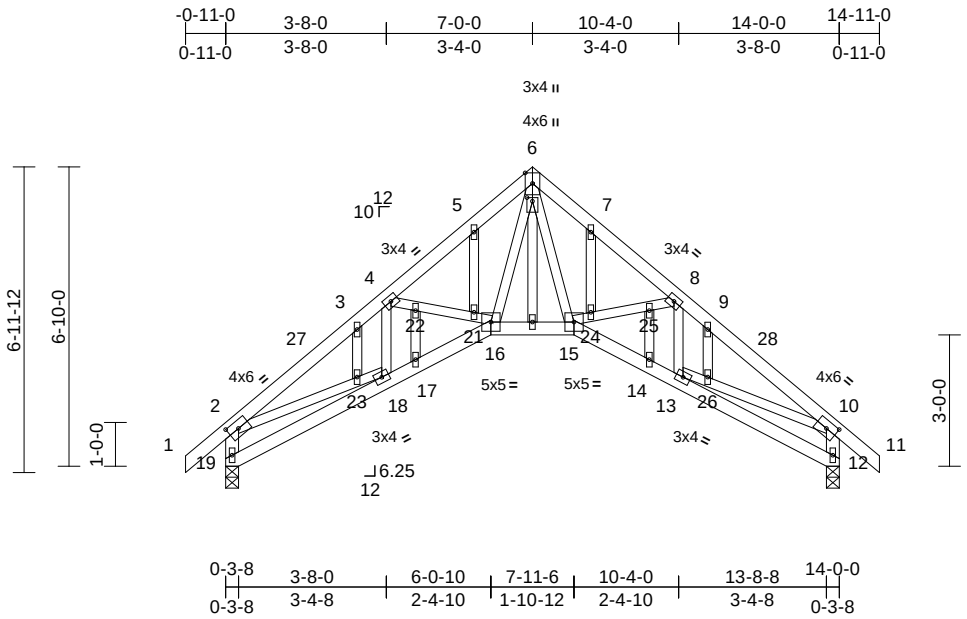


Scale = 1:52.6

Plate Offsets (X, Y): [2:0-2-14,0-2-0], [6:0-1-0,0-1-8], [10:0-2-14,0-2-0]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.04	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.08	15-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 19-2,12-10:2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 12=0-3-8, 19=0-3-8
Max Horiz 19=212 (LC 11)
Max Uplift 12=-98 (LC 13), 19=-98 (LC 12)
Max Grav 12=670 (LC 1), 19=670 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/46, 2-3=-1167/210, 3-4=-953/227, 4-5=-995/166, 5-6=-929/224, 6-7=-922/214, 7-8=-995/166, 8-9=-938/198, 9-10=-1167/185, 10-11=0/46, 2-19=-701/204, 10-12=-700/213
BOT CHORD 18-19=-215/345, 17-18=-145/1044, 16-17=-148/1052, 15-16=-22/648, 14-15=-60/920, 13-14=-58/913, 12-13=-40/178
WEBS 6-15=-88/521, 6-16=-143/598, 2-23=-13/697, 18-23=-13/662, 13-26=-24/662, 10-26=-25/697, 4-22=-150/155, 21-22=-152/151, 16-21=-166/178, 4-18=-246/20, 15-24=-188/190, 24-25=-168/161, 8-25=-167/165, 8-13=-251/32, 5-21=-43/73, 17-22=0/21, 3-23=0/164, 7-24=-52/79, 14-25=-1/23, 9-26=0/169

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 7-0-0, Exterior(2R) 7-0-0 to 12-0-0, Interior (1) 12-0-0 to 14-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 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) Bearing at joint(s) 19, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 19 and 98 lb uplift at joint 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

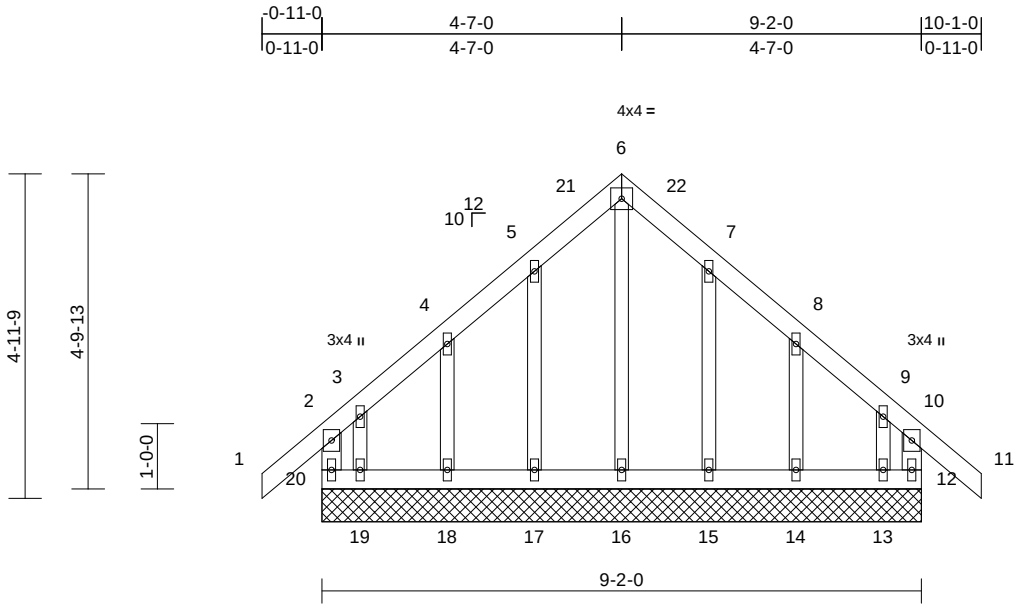
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	E1	Common Supported Gable	1	1	I65245312 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19
ID:EMXLG4Fj1pNGYLXF?d3RshzRAyb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	0.10	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 51 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 6-0-0 oc bracing.

REACTIONS (size) 12=9-2-0, 13=9-2-0, 14=9-2-0, 15=9-2-0, 16=9-2-0, 17=9-2-0, 18=9-2-0, 19=9-2-0, 20=9-2-0
Max Horiz 20=155 (LC 11)
Max Uplift 12=-115 (LC 9), 13=-130 (LC 8), 14=-69 (LC 13), 15=-54 (LC 13), 17=-55 (LC 12), 18=-69 (LC 12), 19=-153 (LC 9), 20=-148 (LC 8)
Max Grav 12=191 (LC 19), 13=148 (LC 11), 14=127 (LC 20), 15=131 (LC 20), 16=144 (LC 22), 17=132 (LC 19), 18=126 (LC 19), 19=174 (LC 10), 20=219 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-20=-154/102, 1-2=0/46, 2-3=-106/102, 3-4=-68/72, 4-5=-64/167, 5-6=-103/242, 6-7=-103/240, 7-8=-64/166, 8-9=-51/67, 9-10=-84/80, 10-11=0/46, 10-12=-138/104
BOT CHORD 19-20=-75/112, 18-19=-75/112, 17-18=-75/112, 16-17=-75/112, 15-16=-75/112, 14-15=-75/112, 13-14=-75/112, 12-13=-75/112
WEBS 6-16=-214/50, 5-17=-106/128, 4-18=-104/171, 3-19=-105/75, 7-15=-105/128, 8-14=-104/171, 9-13=-103/72

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 Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 4-7-0, Corner(3R) 4-7-0 to 9-7-0, Exterior(2N) 9-7-0 to 10-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 20, 115 lb uplift at joint 12, 55 lb uplift at joint 17, 69 lb uplift at joint 18, 153 lb uplift at joint 19, 54 lb uplift at joint 15, 69 lb uplift at joint 14 and 130 lb uplift at joint 13.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	E2	Common Girder	1	**2**	I65245313 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19

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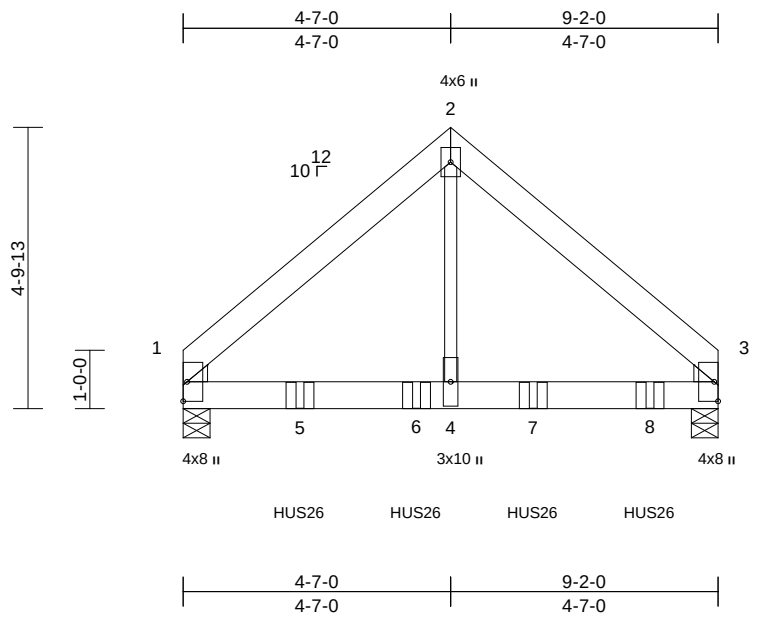

Scale = 1:39.5

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	0.43	Vert(LL)	-0.03	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.05	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 97 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP 2400F 2.0E
Right: 2x4 SP 2400F 2.0E

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=0-5-8, 3=0-5-8
Max Horiz 1=120 (LC 11)
Max Uplift 1=-379 (LC 12), 3=-450 (LC 13)
Max Grav 1=2594 (LC 1), 3=3061 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2641/483, 2-3=-2635/500
BOT CHORD 1-4=-251/1850, 3-4=-251/1850
WEBS 2-4=-452/3212

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 379 lb uplift at joint 1 and 450 lb uplift at joint 3.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 8-0-0 to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 5=-1218 (B), 6=-1218 (B), 7=-1218 (B), 8=-1218 (B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	J1	Monopitch	1	1	I65245314 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19
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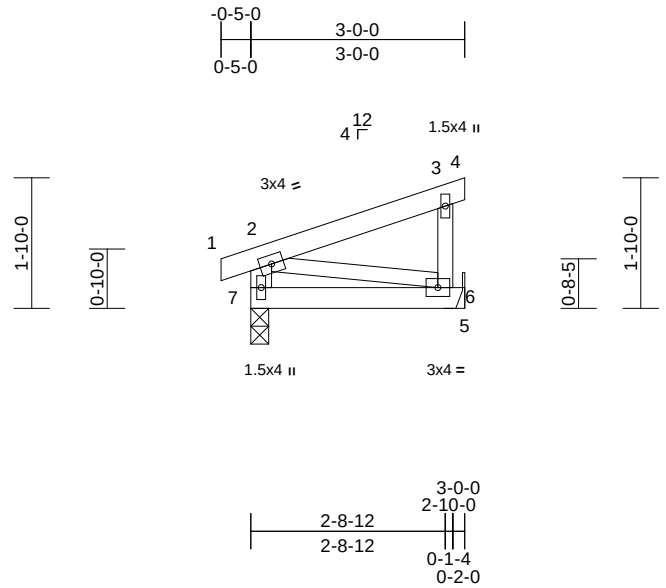
Page: 1



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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.01	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	0.01	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6= Mechanical, 7=0-3-0
Max Horiz 7=44 (LC 9)
Max Uplift 6=-69 (LC 8), 7=-61 (LC 8)
Max Grav 6=120 (LC 1), 7=154 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-54/21, 3-4=-2/0, 3-6=-89/139, 2-7=-130/131
BOT CHORD 6-7=-118/33, 5-6=0/0
WEBS 2-6=-34/121

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) zone; cantilever left and right exposed ; end vertical left exposed; porch 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss 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 7 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 69 lb uplift at joint 6 and 61 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2024 4:50:42

Job	Truss	Truss Type	Qty	Ply	
P240270	J2	Monopitch	3	1	I65245315 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19
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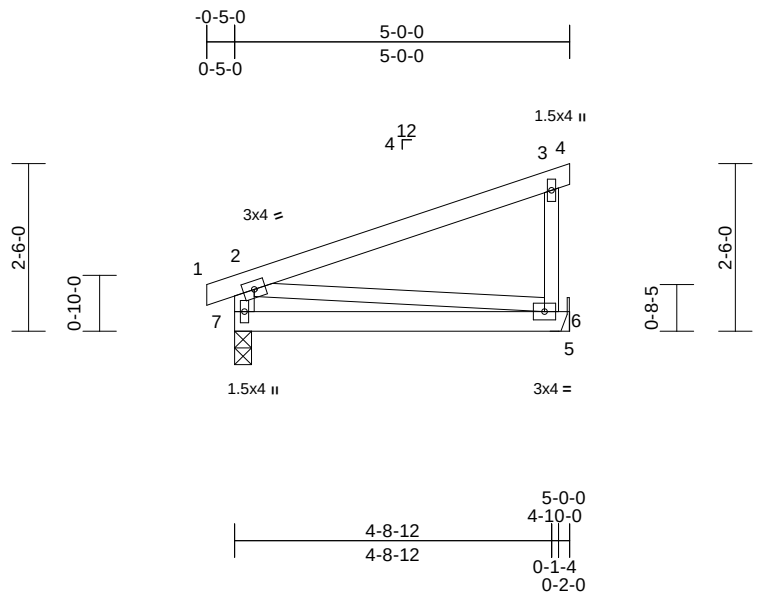

Scale = 1:34.4

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	0.46	Vert(LL)	0.10	6-7	>549	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	0.08	6-7	>651	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 SP No.2

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

REACTIONS (size) 6= Mechanical, 7=0-3-0
Max Horiz 7=71 (LC 8)
Max Uplift 6=-116 (LC 8), 7=-98 (LC 8)
Max Grav 6=215 (LC 1), 7=248 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-93/40, 3-4=-2/0, 3-6=-164/242, 2-7=-202/208
BOT CHORD 6-7=-183/54, 5-6=0/0
WEBS 2-6=-55/184

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) zone; cantilever left and right exposed ; end vertical left exposed; porch 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 7 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 116 lb uplift at joint 6 and 98 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VC1	Valley	1	1	I65245316 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19

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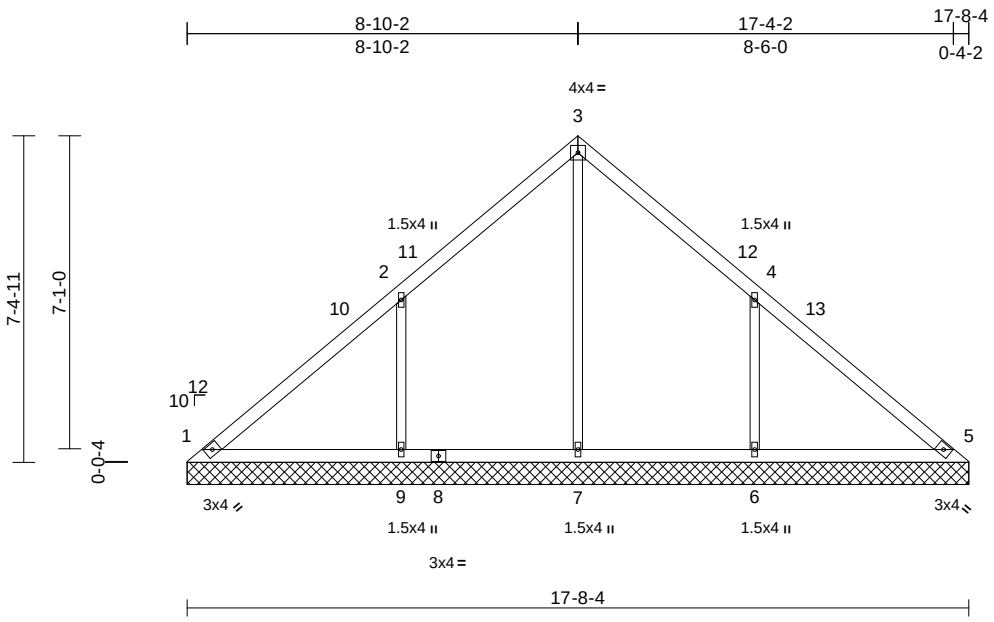

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 70 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=17-8-4, 5=17-8-4, 6=17-8-4, 7=17-8-4, 9=17-8-4
Max Horiz 1=197 (LC 9)
Max Uplift 1=-16 (LC 8), 6=-259 (LC 13), 9=-259 (LC 12)
Max Grav 1=213 (LC 20), 5=197 (LC 1), 6=498 (LC 20), 7=232 (LC 22), 9=498 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-195/146, 2-3=-178/161, 3-4=-166/139, 4-5=-165/103
BOT CHORD 1-9=-70/158, 7-9=-70/158, 6-7=-70/158, 5-6=-70/158
WEBS 3-7=-164/0, 2-9=-387/305, 4-6=-387/304

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) 0-4-13 to 5-4-13, Interior (1) 5-4-13 to 8-10-7, Exterior(2R) 8-10-7 to 13-10-7, Interior (1) 13-10-7 to 17-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) 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 16 lb uplift at joint 1, 259 lb uplift at joint 9 and 259 lb uplift at joint 6.
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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VC2	Valley	1	1	I65245317 Job Reference (optional)

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

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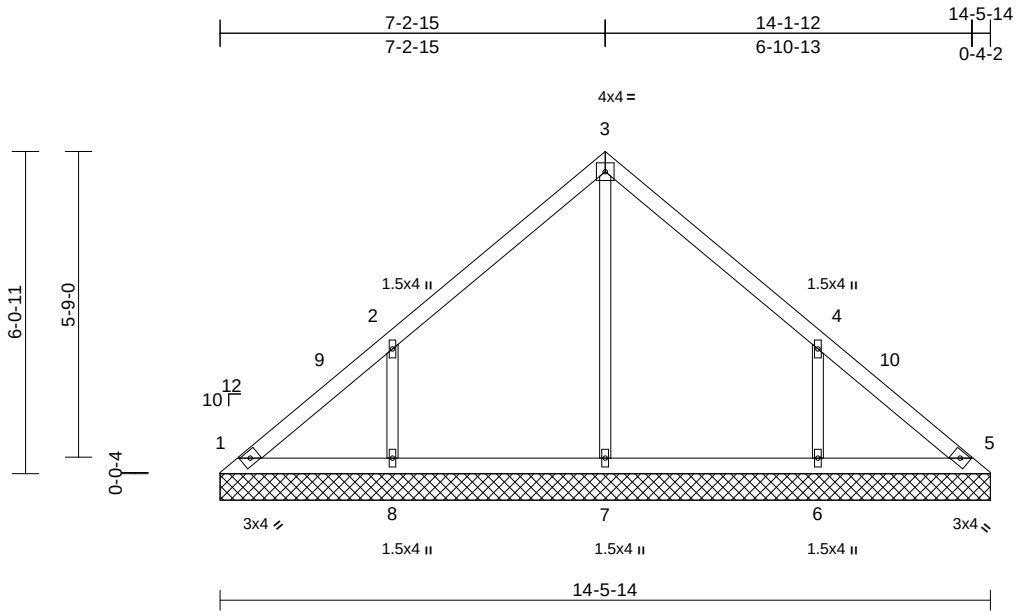

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 56 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=14-5-14, 5=14-5-14, 6=14-5-14, 7=14-5-14, 8=14-5-14
Max Horiz 1=-160 (LC 8)
Max Uplift 1=-28 (LC 8), 5=-1 (LC 9), 6=-210 (LC 13), 8=-210 (LC 12)
Max Grav 1=157 (LC 20), 5=136 (LC 19), 6=396 (LC 20), 7=251 (LC 1), 8=396 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-165/118, 2-3=-175/137, 3-4=-166/129, 4-5=-141/75
BOT CHORD 1-8=-51/118, 7-8=-51/118, 6-7=-51/118, 5-6=-51/118
WEBS 3-7=-170/0, 2-8=-317/259, 4-6=-317/259

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) 0-4-13 to 5-4-13, Interior (1) 5-4-13 to 7-3-4, Exterior(2R) 7-3-4 to 12-3-4, Interior (1) 12-3-4 to 14-1-10 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
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 28 lb uplift at joint 1, 1 lb uplift at joint 5, 210 lb uplift at joint 8 and 210 lb uplift at joint 6.
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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VC3	Valley	1	1	I65245318 Job Reference (optional)

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

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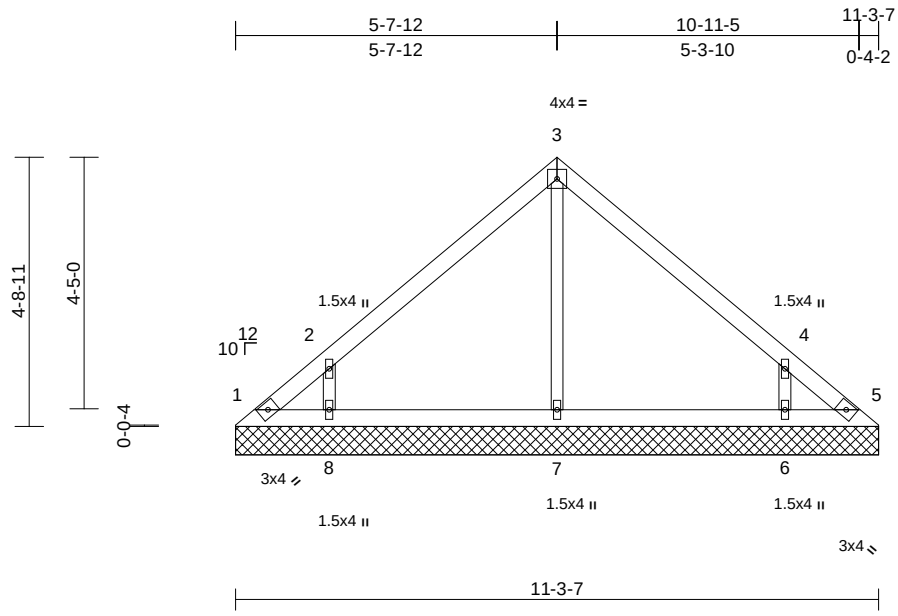

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	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=11-3-7, 5=11-3-7, 6=11-3-7, 7=11-3-7, 8=11-3-7
Max Horiz 1=-123 (LC 8)
Max Uplift 1=-75 (LC 10), 5=-54 (LC 11), 6=-199 (LC 13), 8=-199 (LC 12)
Max Grav 1=105 (LC 12), 5=91 (LC 13), 6=365 (LC 20), 7=256 (LC 1), 8=365 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-149/112, 2-3=-171/106, 3-4=-167/115, 4-5=-126/78
BOT CHORD 1-8=-35/88, 7-8=-35/88, 6-7=-35/88, 5-6=-35/88
WEBS 3-7=-170/23, 2-8=-307/309, 4-6=-307/262

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 75 lb uplift at joint 1, 54 lb uplift at joint 5, 199 lb uplift at joint 8 and 199 lb uplift at joint 6.
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

May 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
P240270	VC4	Valley	1	1	I65245319 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19

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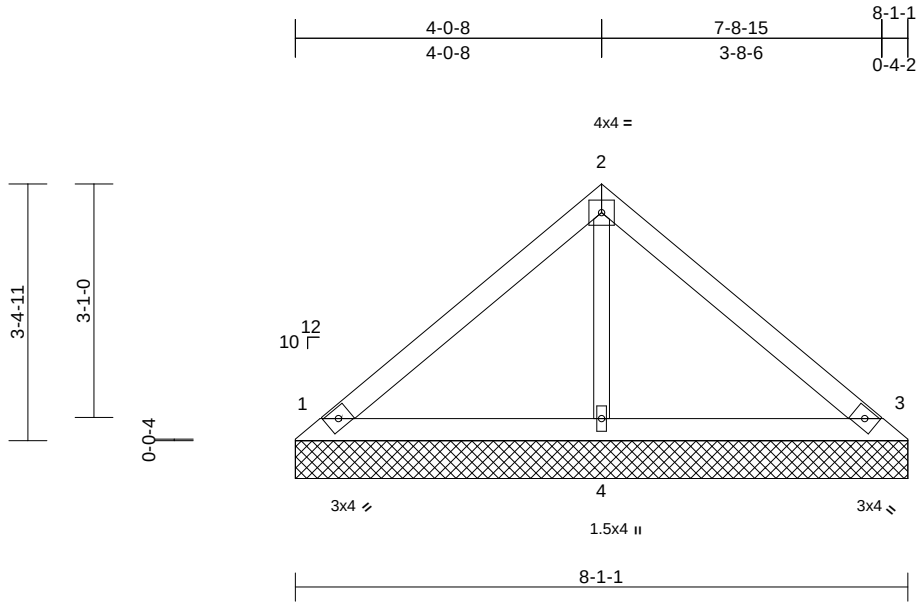

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	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
OTHERS 2x3 SPF No.2

BRACING

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

REACTIONS (size) 1=8-1-1, 3=8-1-1, 4=8-1-1
Max Horiz 1=85 (LC 11)
Max Uplift 1=-47 (LC 12), 3=-57 (LC 13)
Max Grav 1=199 (LC 1), 3=199 (LC 1), 4=262 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-141/78, 2-3=-133/87
BOT CHORD 1-4=-20/67, 3-4=-20/67
WEBS 2-4=-170/90

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 47 lb uplift at joint 1 and 57 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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VC5	Valley	1	1	I65245320 Job Reference (optional)

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

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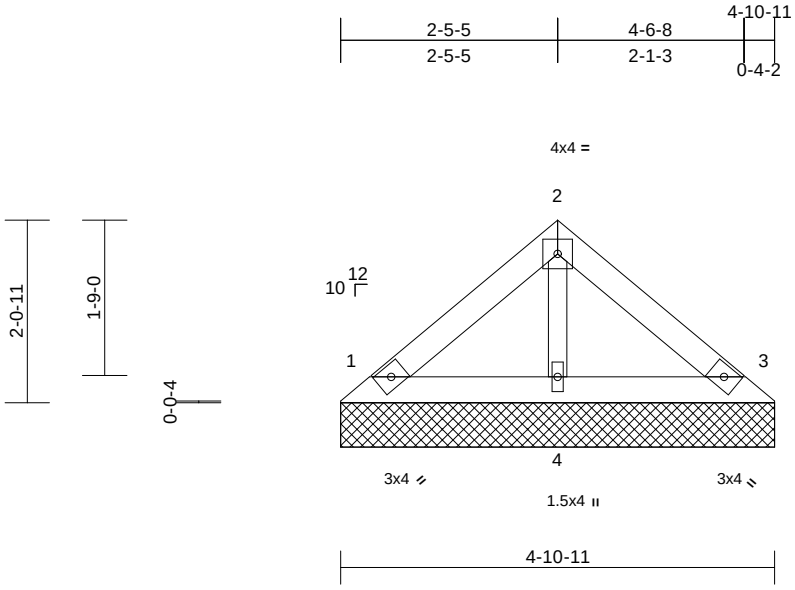

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=4-10-11, 3=4-10-11, 4=4-10-11
Max Horiz 1=-48 (LC 10)
Max Uplift 1=-27 (LC 12), 3=-32 (LC 13)
Max Grav 1=112 (LC 1), 3=112 (LC 1), 4=148 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-79/53, 2-3=-75/58
BOT CHORD 1-4=-11/38, 3-4=-11/38
WEBS 2-4=-96/63

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 27 lb uplift at joint 1 and 32 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

May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VE1	Valley	1	1	I65245321 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:19
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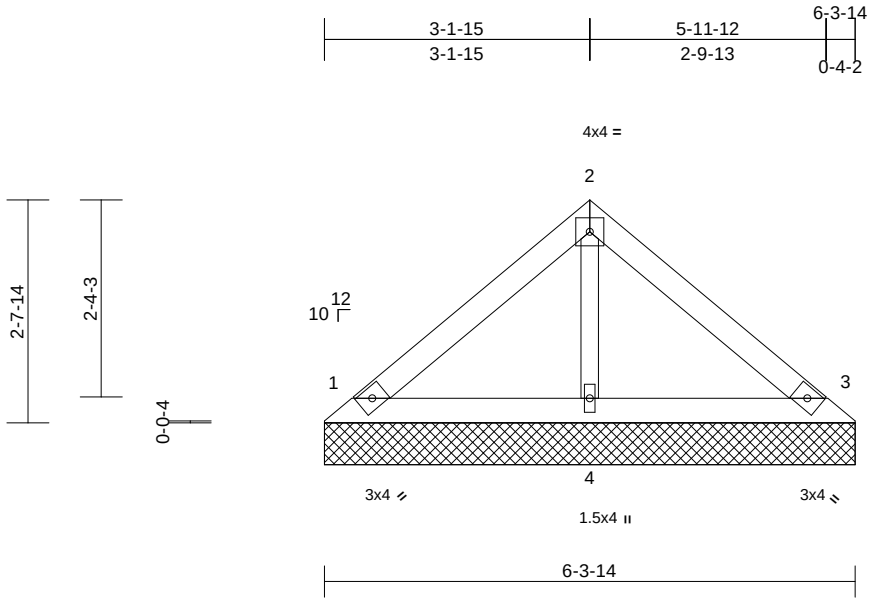


Scale = 1:27.4

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	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: 22 lb	FT = 20%

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

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

REACTIONS (size) 1=6-3-14, 3=6-3-14, 4=6-3-14
Max Horiz 1=-65 (LC 8)
Max Uplift 1=-36 (LC 12), 3=-43 (LC 13)
Max Grav 1=151 (LC 1), 3=151 (LC 1), 4=199 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-107/67, 2-3=-101/73
BOT CHORD 1-4=-15/51, 3-4=-15/51
WEBS 2-4=-129/79

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 36 lb uplift at joint 1 and 43 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

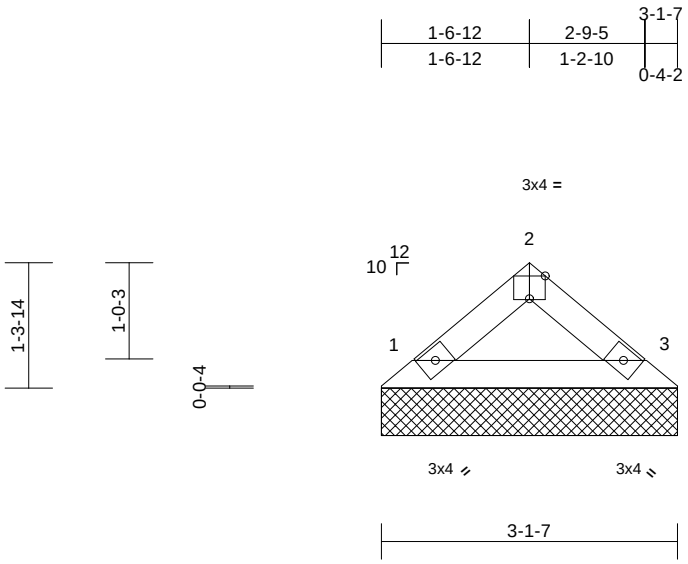
May 1,2024

Job	Truss	Truss Type	Qty	Ply	
P240270	VE2	Valley	1	1	I65245322 Job Reference (optional)

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

Run: 8.63 S Apr 26 2024 Print: 8.630 S Apr 26 2024 MiTek Industries, Inc. Mon Apr 29 19:31:20

ID:PrXxAy9eTrvA7M4mA0x5gVzRB_0-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:24.3

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	0.04	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 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 3-2-1 oc purlins.

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

REACTIONS (size) 1=3-1-7, 3=3-1-7

Max Horiz 1=-28 (LC 8)

Max Uplift 1=-14 (LC 12), 3=-14 (LC 13)

Max Grav 1=106 (LC 1), 3=106 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-86/62, 2-3=-86/67

BOT CHORD 1-3=-12/51

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 14 lb uplift at joint 1 and 14 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.

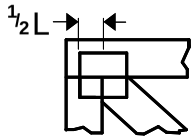
LOAD CASE(S) Standard

May 1,2024

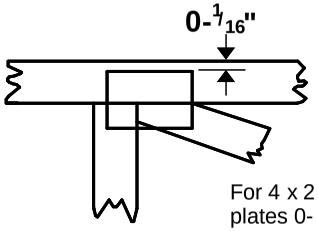
MiTek®
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



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



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.

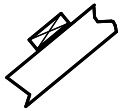
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

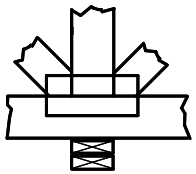
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

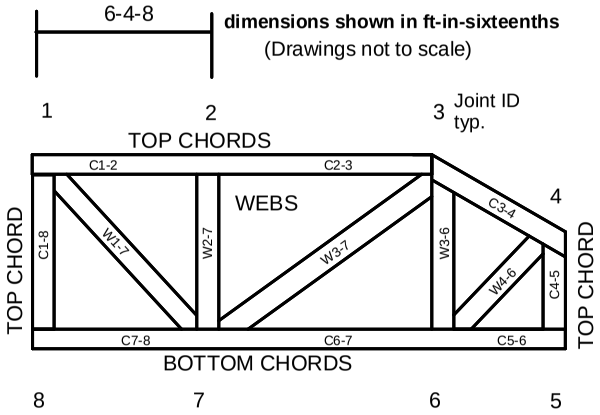


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.