RE: P250250-01
Roof - BF Lot 180

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

Site Information:

Customer: Clayton Properties Project Name: P250250-01
Lot/Block: 180 Model: Riverside - Farmhouse 3 Car
Address: 1317 Ranchland St. Subdivision: Bailey Farms
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 30 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I66371999	B1	6/21/2024	21	I66372019	VE2	6/21/2024
2	I66372000	B2	6/21/2024	22	I66372020	VE3	6/21/2024
3	I66372001	C1	6/21/2024	23	I66372021	VE7	6/21/2024
4	I66372002	C2	6/21/2024	24	I66372022	VE8	6/21/2024
5	I66372003	D1	6/21/2024	25	I66372023	VE9	6/21/2024
6	I66372004	D2	6/21/2024	26	I66372024	VG10	6/21/2024
7	I66372005	E1	6/21/2024	27	I66372025	VG11	6/21/2024
8	I66372006	E2	6/21/2024	28	I66372026	VG12	6/21/2024
9	I66372007	E3	6/21/2024	29	I66372027	VG13	6/21/2024
10	I66372008	G1	6/21/2024	30	I66372028	VG14	6/21/2024
11	I66372009	G2	6/21/2024				
12	I66372010	G3	6/21/2024				
13	I66372011	H1	6/21/2024				
14	I66372012	H2	6/21/2024				
15	I66372013	H3	6/21/2024				
16	I66372014	H4	6/21/2024				
17	I66372015	H5	6/21/2024				
18	I66372016	H8	6/21/2024				
19	I66372017	R1	6/21/2024				
20	I66372018	VE1	6/21/2024				

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.

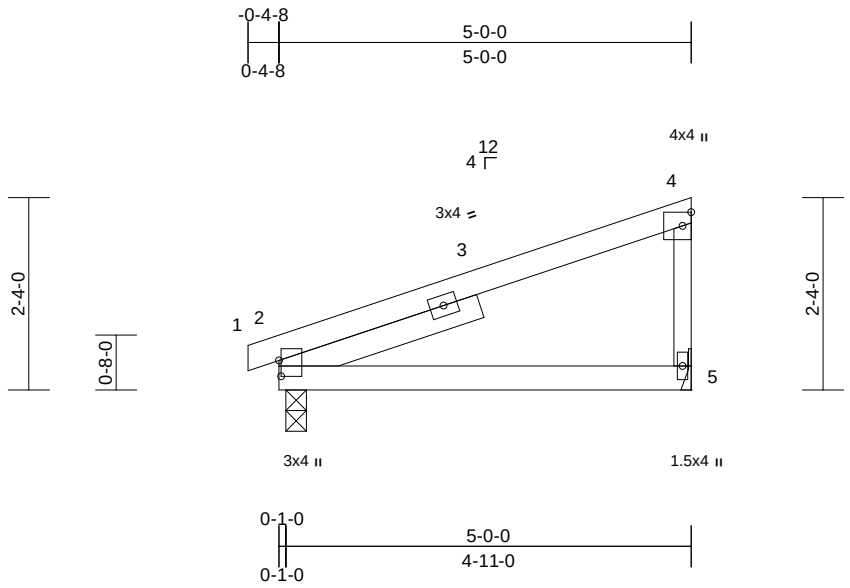
Missouri COA: 001193

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.

June 21, 2024
Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	B1	Monopitch	7	1	I66371999 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 E Apr 26 2024 Print: 8.630 E Apr 26 2024 MiTek Industries, Inc. Fri Jun 21 07:56:14 ID:0?KsEbVfIefMnNTOVEEoX7ytxid-E77z?VieK7xtMi_YXTm_WlMcFQHZ_EiSo1KwPMz47CG Page: 1



Scale = 1:27.9

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

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	0.54	Vert(LL)	-0.03	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	2-5	>853	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-6-9

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 (lb/size) 2=248/0-3-0, 5=219/ Mechanical
Max Horiz 2=50 (LC 9)
Max Uplift 2=-1 (LC 12)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-4-8 to 2-7-8, Interior (1) 2-7-8 to 4-10-12 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 2.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	B2	Monopitch	3	1	I66372000 Job Reference (optional)

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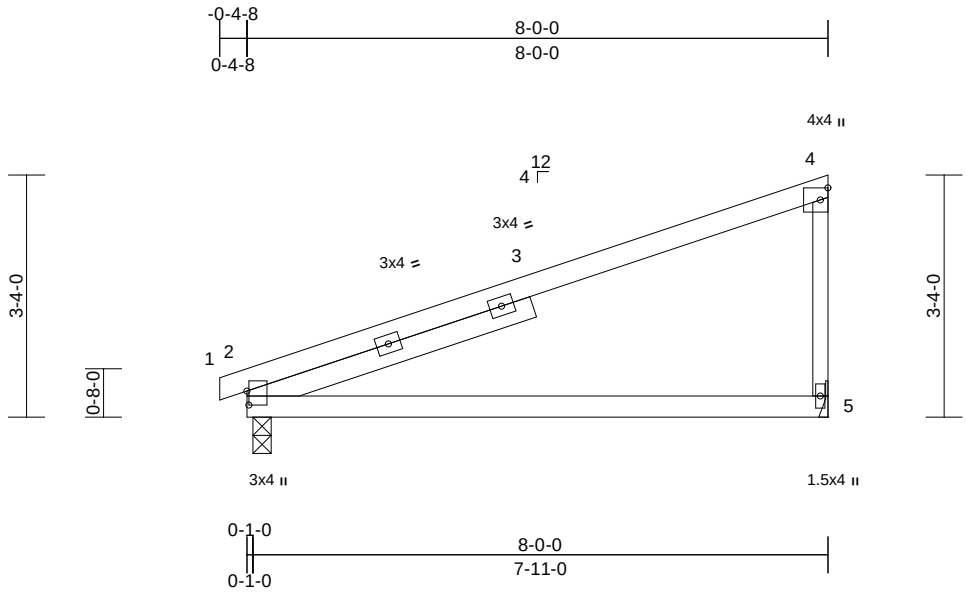

Scale = 1:31.7

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

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	0.70	Vert(LL)	-0.23	2-5	>406	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.47	2-5	>203	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 34 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-1-9

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-0-12 oc bracing.

REACTIONS (lb/size) 2=382/0-3-0, 5=355/ Mechanical
Max Horiz 2=77 (LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-276/176

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-4-8 to 2-7-8, Interior (1) 2-7-8 to 7-10-12 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	C1	Monopitch Supported Gable	1	1	I66372001 Job Reference (optional)

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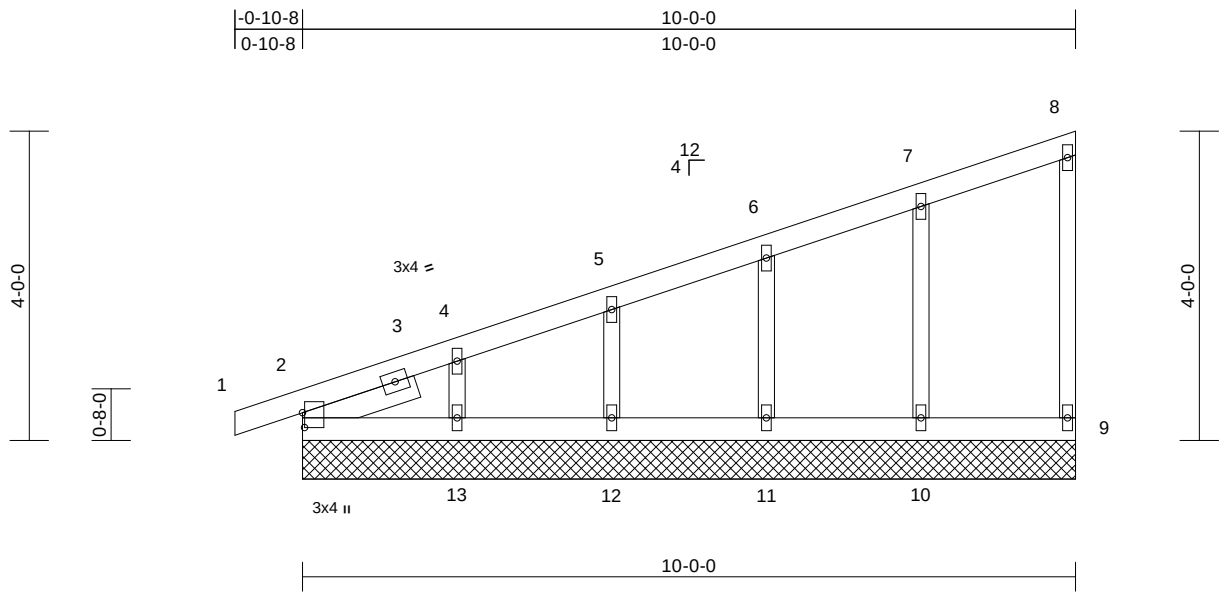

Scale = 1:29.8

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

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 43 lb	FT = 20%

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

REACTIONS (size) 2=10-0-0, 9=10-0-0, 10=10-0-0, 11=10-0-0, 12=10-0-0, 13=10-0-0
Max Horiz 2=96 (LC 9)
Max Uplift 2=-1 (LC 12), 9=-2 (LC 9), 10=-1 (LC 12), 11=-1 (LC 12), 12=-1 (LC 12), 13=-5 (LC 12)
Max Grav 2=151 (LC 1), 9=69 (LC 1), 10=193 (LC 1), 11=177 (LC 1), 12=182 (LC 1), 13=179 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-231/113, 4-5=-169/94, 5-6=-132/84, 6-7=-94/74, 7-8=-51/56, 8-9=-54/41
BOT CHORD 2-13=-48/64, 12-13=-48/64, 11-12=-48/64, 10-11=-48/64, 9-10=-48/64
WEBS 7-10=-150/112, 6-11=-138/100, 5-12=-143/95, 4-13=-136/140

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 9-10-12 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
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) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 9, 1 lb uplift at joint 2, 1 lb uplift at joint 10, 1 lb uplift at joint 11, 1 lb uplift at joint 12 and 5 lb uplift at joint 13.
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

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

June 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2025 11:24:34

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	C2	Monopitch	10	1	I66372002 Job Reference (optional)

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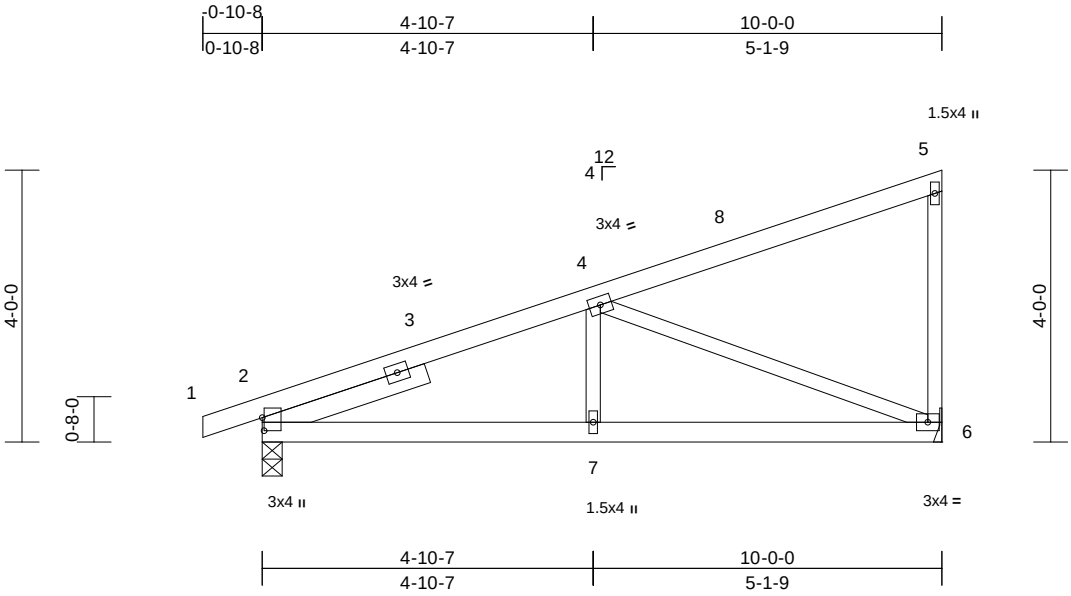

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Plate Offsets (X, Y): [2:0-2-5,0-0-5]

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	0.36	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 20%

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

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) 2=0-3-8, 6= Mechanical
Max Horiz 2=96 (LC 9)
Max Uplift 2=-6 (LC 12)
Max Grav 2=509 (LC 1), 6=443 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-734/109, 4-5=-94/52, 5-6=-150/76
BOT CHORD 2-7=-185/636, 6-7=-185/636
WEBS 4-6=-669/160, 4-7=0/225

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-10-12 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 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 6 lb uplift at joint 2.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	D1	Common Supported Gable	1	1	I66372003 Job Reference (optional)

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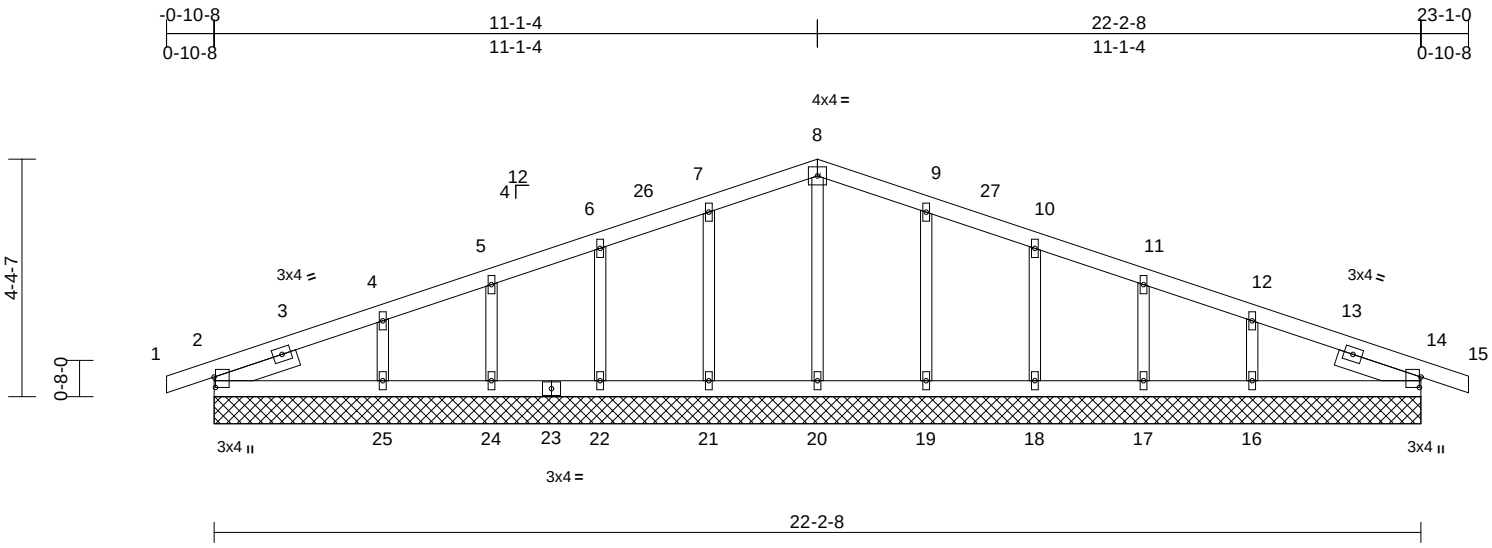

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Plate Offsets (X, Y): [2:0-2-5,0-0-5], [14:0-2-5,0-0-5]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	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	0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-4, Right 2x4 SP No.2 -- 1-7-4

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

REACTIONS (size) 2=22-2-8, 14=22-2-8, 16=22-2-8, 17=22-2-8, 18=22-2-8, 19=22-2-8, 20=22-2-8, 21=22-2-8, 22=22-2-8, 24=22-2-8, 25=22-2-8
Max Horiz 2=-32 (LC 10)
Max Uplift 2=-15 (LC 12), 14=-15 (LC 12), 17=-2 (LC 12), 18=-1 (LC 12), 19=-1 (LC 12), 21=-1 (LC 12), 22=-1 (LC 12), 24=-2 (LC 12)
Max Grav 2=210 (LC 1), 14=210 (LC 1), 16=259 (LC 24), 17=155 (LC 1), 18=185 (LC 1), 19=189 (LC 24), 20=139 (LC 1), 21=189 (LC 23), 22=185 (LC 1), 24=155 (LC 1), 25=259 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-101/17, 4-5=-73/44, 5-6=-68/64, 6-7=-69/88, 7-8=-71/110, 8-9=-71/106, 9-10=-69/82, 10-11=-68/59, 11-12=-73/38, 12-14=-101/10, 14-15=-5/0
BOT CHORD 2-25=0/45, 24-25=0/45, 22-24=0/45, 21-22=0/45, 20-21=0/45, 19-20=0/45, 18-19=0/45, 17-18=0/45, 16-17=0/45, 14-16=0/45
WEBS 8-20=-99/0, 7-21=-149/74, 6-22=-142/51, 5-24=-125/42, 4-25=-194/70, 9-19=-149/74, 10-18=-142/51, 11-17=-125/42, 12-16=-194/69

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-1-4, Corner (3R) 11-1-4 to 14-1-4, Exterior(2N) 14-1-4 to 23-1-0 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 2, 15 lb uplift at joint 14, 1 lb uplift at joint 21, 1 lb uplift at joint 22, 2 lb uplift at joint 24, 1 lb uplift at joint 19, 1 lb uplift at joint 18 and 2 lb uplift at joint 17.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	D2	Common	5	1	I66372004 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. Thu Jun 20 09:15:24 Page: 1
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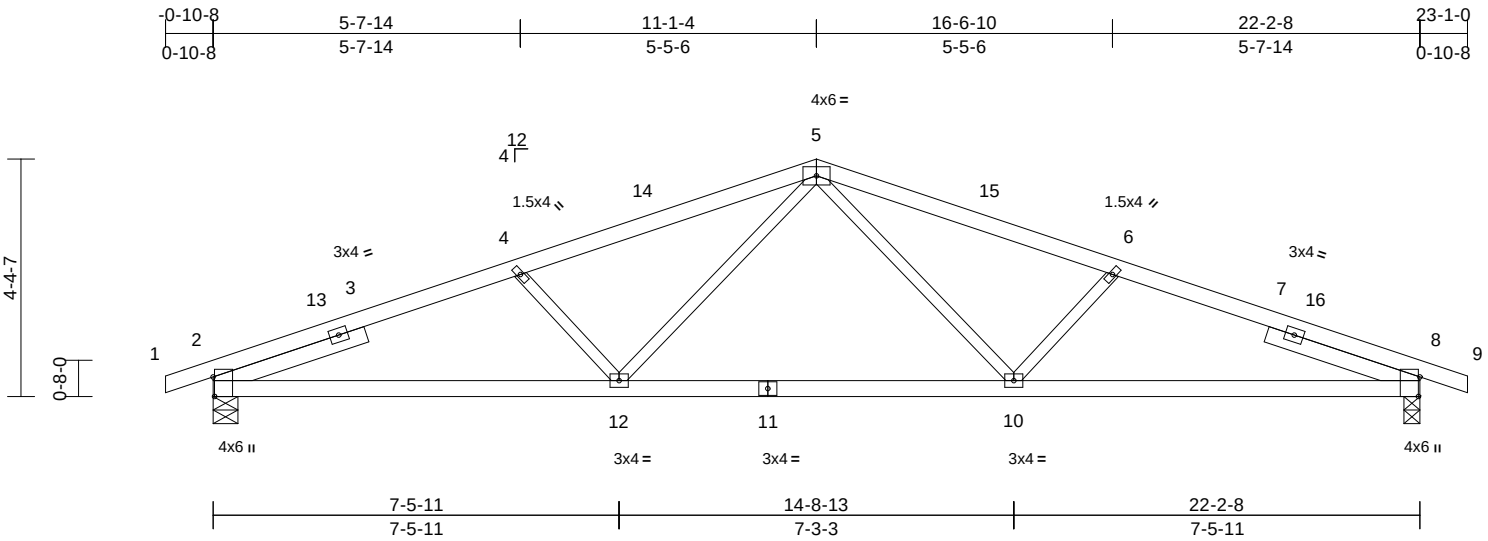


Scale = 1:42.4

Plate Offsets (X, Y): [2:0-4-5,Edge], [8:0-4-5,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	0.61	Vert(LL)	-0.11	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.22	10-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-11-5, Right 2x4 SP No.2 -- 2-11-5

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-3-8
Max Horiz 2=-32 (LC 10)
Max Grav 2=1061 (LC 1), 8=1061 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-2089/130, 4-5=-1854/110, 5-6=-1854/110, 6-8=-2089/130, 8-9=-5/0
BOT CHORD 2-12=-86/1890, 10-12=-26/1376, 8-10=-80/1890
WEBS 5-10=0/534, 6-10=-328/107, 5-12=0/534, 4-12=-328/107

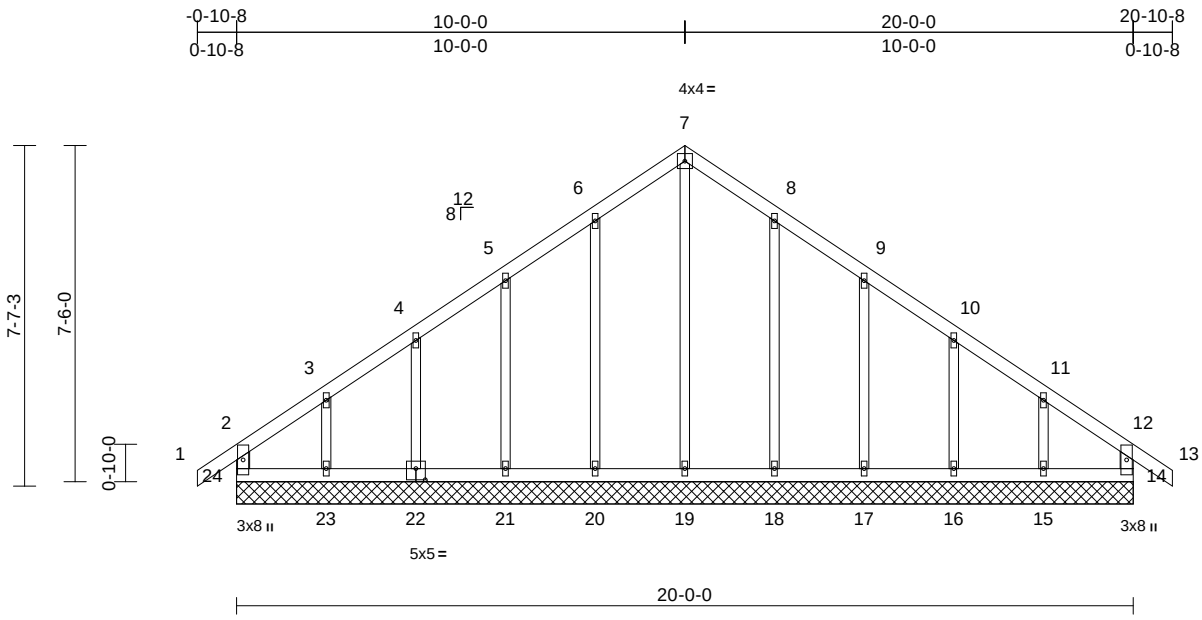
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-1-4, Exterior(2R) 11-1-4 to 14-1-4, Interior (1) 14-1-4 to 23-1-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	E1	Common Supported Gable	1	1	I66372005 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. Thu Jun 20 09:15:24 ID:G0PUqfXpdb1C9Caj86dS0Nyg_nZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:51.4

Plate Offsets (X, Y): [22:0-2-8,0-3-0]

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	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	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

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=-125 (LC 10)
Max Uplift 14=-4 (LC 9), 15=-28 (LC 12), 16=-12 (LC 12), 17=-19 (LC 12), 18=-10 (LC 12), 20=-10 (LC 12), 21=-19 (LC 12), 22=-12 (LC 12), 23=-28 (LC 12), 24=-13 (LC 8)
Max Grav 14=167 (LC 1), 15=175 (LC 18), 16=184 (LC 1), 17=178 (LC 24), 18=190 (LC 24), 19=160 (LC 1), 20=190 (LC 23), 21=178 (LC 23), 22=184 (LC 1), 23=182 (LC 17), 24=173 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-24=-148/41, 1-2=0/40, 2-3=-96/78, 3-4=-78/65, 4-5=-72/81, 5-6=-77/130, 6-7=-101/173, 7-8=-101/173, 8-9=-77/130, 9-10=-55/81, 10-11=-61/48, 11-12=-76/55, 12-13=0/40, 12-14=-148/40
BOT CHORD 23-24=-50/71, 21-23=-50/71, 20-21=-50/71, 19-20=-50/71, 18-19=-50/71, 17-18=-50/71, 16-17=-50/71, 15-16=-50/71, 14-15=-50/71
WEBS 7-19=-145/46, 6-20=-150/54, 5-21=-138/65, 4-22=-144/59, 3-23=-132/73, 8-18=-150/54, 9-17=-138/65, 10-16=-144/58, 11-15=-128/72

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner (3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 24, 4 lb uplift at joint 14, 10 lb uplift at joint 20, 19 lb uplift at joint 21, 12 lb uplift at joint 22, 28 lb uplift at joint 23, 10 lb uplift at joint 18, 19 lb uplift at joint 17, 12 lb uplift at joint 16 and 28 lb uplift at joint 15.
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 21,2024

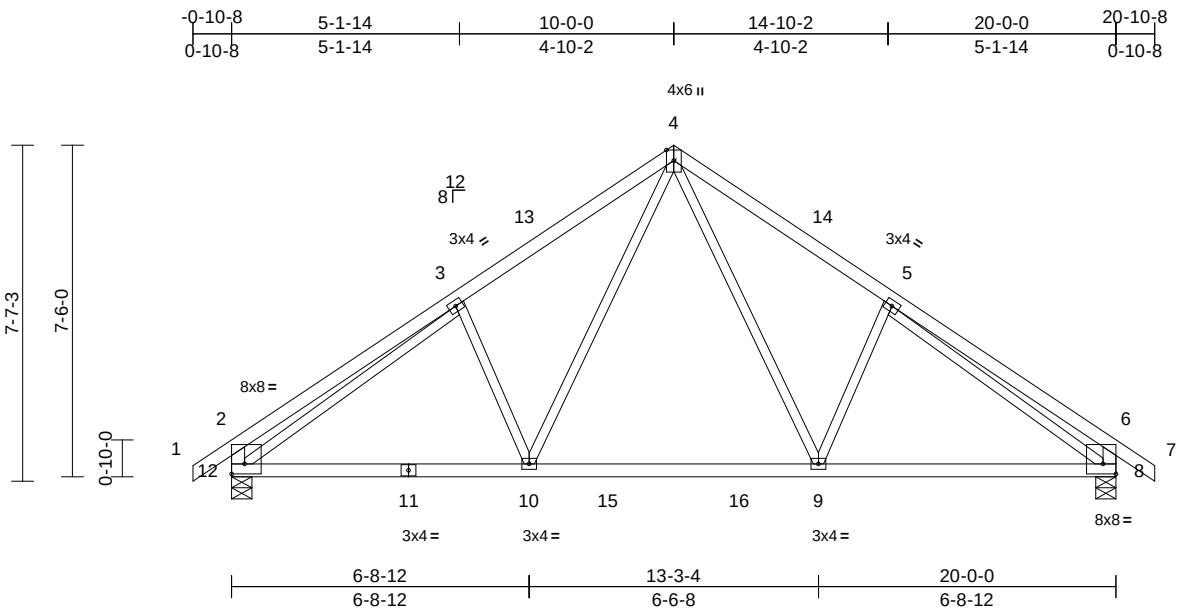
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2025 11:24:34

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	E2	Common	3	1	I66372006 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. Thu Jun 20 09:15:24 ID:g22mK39Nw47cxSilq5aBGryg_o2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:52.1

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	0.34	Vert(LL)	-0.08	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.12	9-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 99 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 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-5-8, 12=0-5-8
Max Horiz 12=-125 (LC 10)
Max Uplift 8=-1 (LC 12), 12=-1 (LC 12)
Max Grav 8=1010 (LC 18), 12=1010 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-491/68, 3-4=-1109/73, 4-5=-1109/73, 5-6=-491/68, 6-7=0/40, 2-12=-450/69, 6-8=-450/69
BOT CHORD 10-12=0/991, 9-10=0/693, 8-9=0/924
WEBS 3-12=-782/0, 5-8=-782/0, 3-10=-263/101, 4-10=-12/514, 4-9=-12/514, 5-9=-263/101

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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior (1) 13-0-0 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
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 12 and 1 lb uplift at joint 8.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	E3	Common Girder	1	3	I66372007 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. Thu Jun 20 09:15:24 Page: 1
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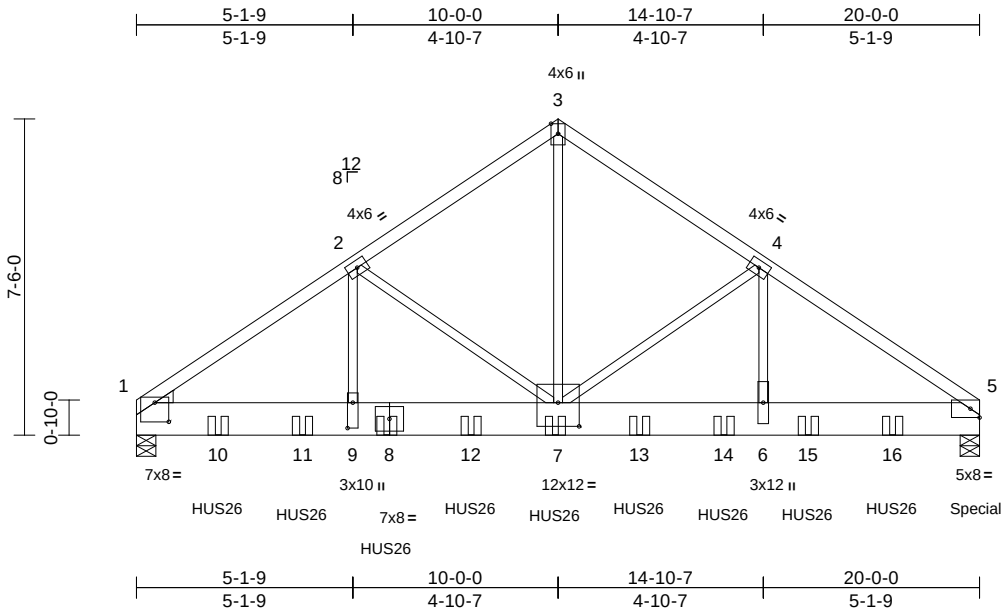

Scale = 1:54.7

Plate Offsets (X, Y): [1:0-4-0,0-5-7], [7:0-6-0,0-6-12], [9:0-7-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.08	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.15	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.80	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 355 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 HF No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.2

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

REACTIONS (size) 1=0-5-8, 5=0-5-8
Max Horiz 1=105 (LC 7)
Max Grav 1=6971 (LC 1), 5=8269 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9403/0, 2-3=-6685/0, 3-4=-6685/0, 4-5=-9413/0
BOT CHORD 1-9=0/7451, 7-9=0/7451, 6-7=0/7459, 5-6=0/7459
WEBS 2-9=0/3109, 2-7=-2494/0, 3-7=0/6967, 4-7=-2505/0, 4-6=0/3122

NOTES
1) 3-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: 2x10 - 2 rows staggered at 0-4-0 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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be HF No.2 crushing capacity of 405 psi.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 17-11-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1359 lb down at 19-9-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

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, 1-5=-20
Concentrated Loads (lb)
Vert: 5=-1359 (F), 8=-1347 (F), 7=-1347 (F), 10=-1347 (F), 11=-1347 (F), 12=-1347 (F), 13=-1347 (F), 14=-1347 (F), 15=-1347 (F), 16=-1347 (F)

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	G1	Common Supported Gable	1	1	I66372008 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. Thu Jun 20 09:15:25 Page: 1
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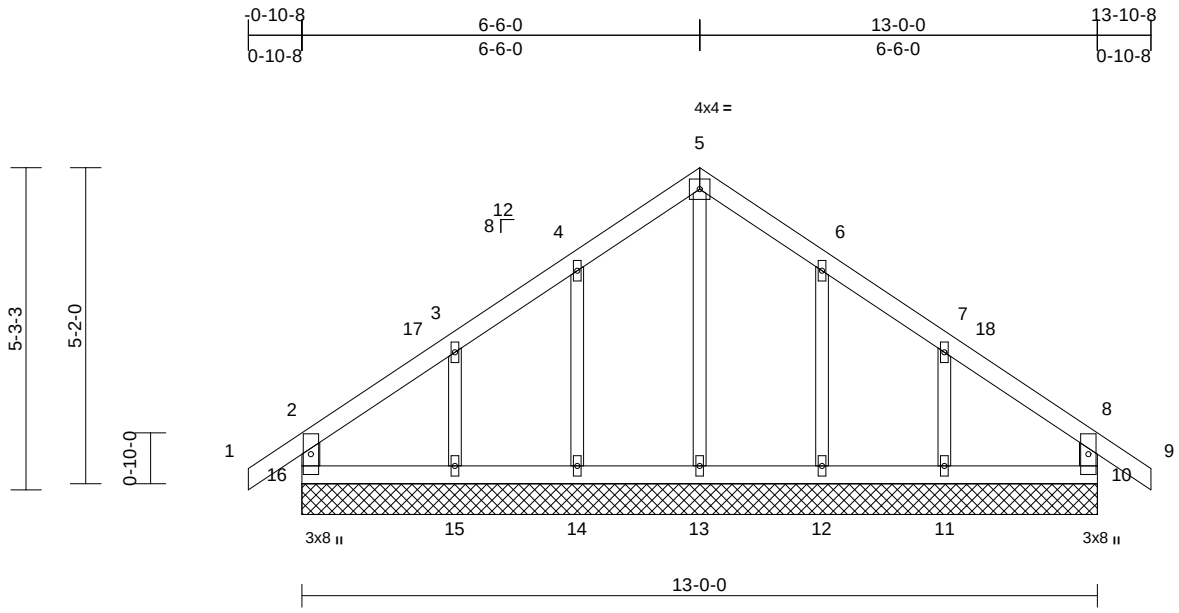

Scale = 1:37.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 60 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.

REACTIONS (size) 10=13-0-0, 11=13-0-0, 12=13-0-0, 13=13-0-0, 14=13-0-0, 15=13-0-0, 16=13-0-0
Max Horiz 16=-90 (LC 10)
Max Uplift 10=-25 (LC 12), 11=-21 (LC 12), 12=-12 (LC 12), 14=-12 (LC 12), 15=-21 (LC 12), 16=-25 (LC 12)
Max Grav 10=190 (LC 1), 11=199 (LC 18), 12=185 (LC 24), 13=152 (LC 1), 14=185 (LC 23), 15=202 (LC 17), 16=190 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-168/95, 1-2=0/40, 2-3=-86/51, 3-4=-66/101, 4-5=-93/155, 5-6=-93/155, 6-7=-67/101, 7-8=-77/42, 8-9=0/40, 8-10=-168/94
BOT CHORD 15-16=-33/47, 14-15=-33/47, 13-14=-33/47, 12-13=-33/47, 11-12=-33/47, 10-11=-33/47
WEBS 5-13=-115/25, 4-14=-148/73, 3-15=-148/100, 6-12=-148/73, 7-11=-148/101

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-6-0, Corner(3R) 6-6-0 to 9-6-0, Exterior(2N) 9-6-0 to 13-10-8 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 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 16, 25 lb uplift at joint 10, 12 lb uplift at joint 14, 21 lb uplift at joint 15, 12 lb uplift at joint 12 and 21 lb uplift at joint 11.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	G2	Common	1	1	I66372009
					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. Thu Jun 20 09:15:25 Page: 1

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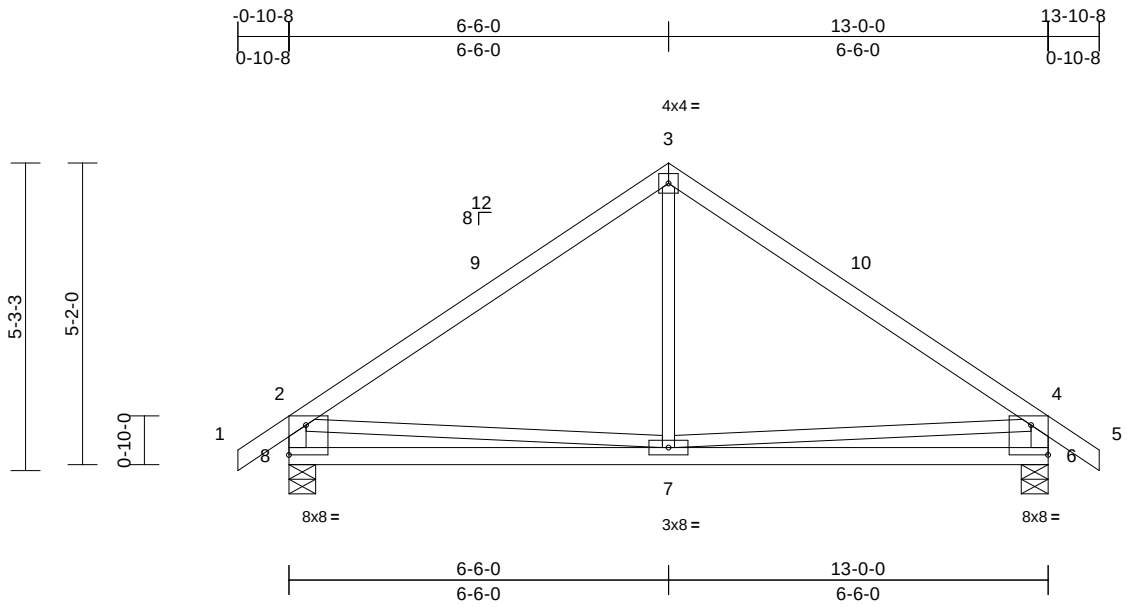

Scale = 1:39.5

Plate Offsets (X, Y): [6:Edge,0-6-2], [8:Edge,0-6-2]

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	0.58	Vert(LL)	-0.03	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.07	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-2,6-4:2x4 SP 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) 6=0-5-8, 8=0-5-8
Max Horiz 8=90 (LC 11)
Max Uplift 6=-8 (LC 12), 8=-8 (LC 12)
Max Grav 6=643 (LC 1), 8=643 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-628/57, 3-4=-628/57, 4-5=0/40, 2-8=-588/91, 4-6=-588/91
BOT CHORD 7-8=-113/441, 6-7=-93/415
WEBS 3-7=0/271, 2-7=-115/170, 4-7=-115/170

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior (1) 9-6-0 to 13-10-8 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 8 and 8 lb uplift at joint 6.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	G3	Common	4	1	I66372010 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. Thu Jun 20 09:15:25 Page: 1
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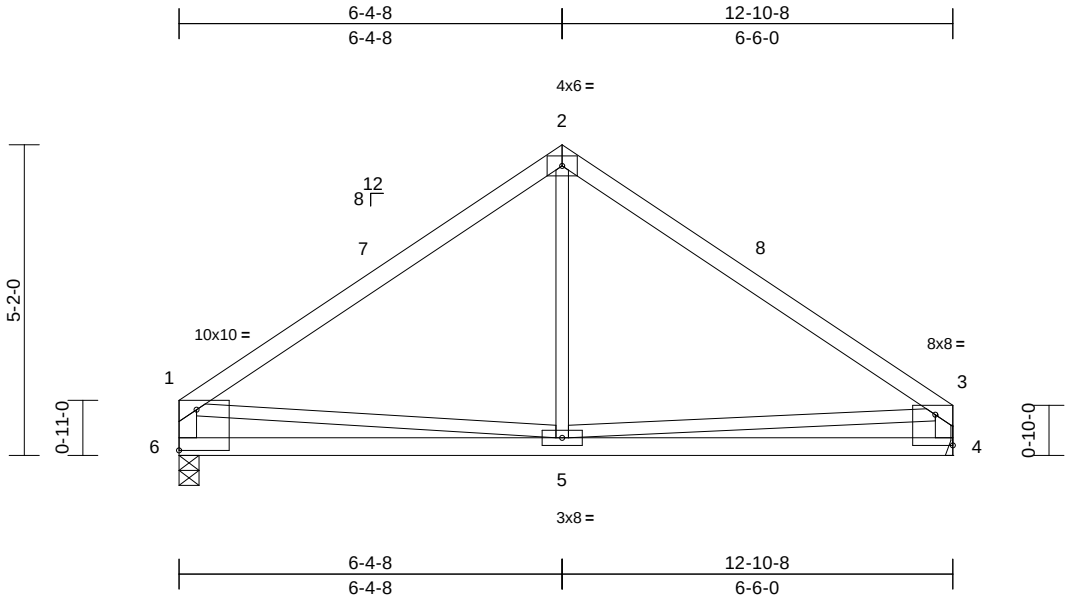


Scale = 1:38.3

Plate Offsets (X, Y): [1:Edge,0-8-2], [3:Edge,0-6-2]

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	0.67	Vert(LL)	-0.03	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.07	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 58 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 6-1,4-3:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6=0-4-0
Max Horiz 6=-80 (LC 10)
Max Grav 4=566 (LC 1), 6=566 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-619/57, 2-3=-622/57, 1-6=-511/60, 3-4=-510/61
BOT CHORD 5-6=-73/290, 4-5=-61/305
WEBS 2-5=0/257, 1-5=0/217, 3-5=-11/194

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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-4 to 3-3-4, Interior (1) 3-3-4 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior (1) 9-6-0 to 12-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 6 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
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.

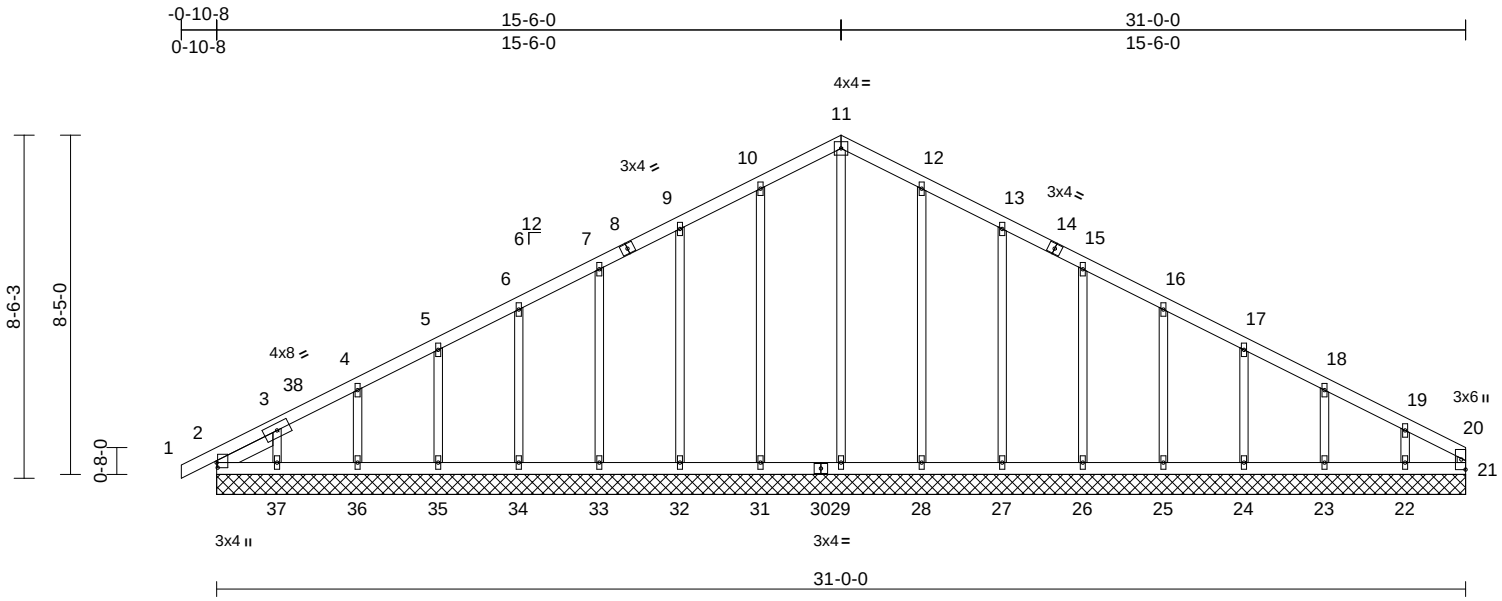
LOAD CASE(S) Standard

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H1	Common Supported Gable	1	1	I66372011 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. Thu Jun 20 09:15:25 Page: 1
ID:vnZN4yYALs9oG?m9k4JkhzytxiZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.2

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

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	21	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 152 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-0

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) 2=31-0-0, 21=31-0-0, 22=31-0-0, 23=31-0-0, 24=31-0-0, 25=31-0-0, 26=31-0-0, 27=31-0-0, 28=31-0-0, 29=31-0-0, 31=31-0-0, 32=31-0-0, 33=31-0-0, 34=31-0-0, 35=31-0-0, 36=31-0-0, 37=31-0-0
Max Horiz 2=116 (LC 11)
Max Uplift 2=-2 (LC 10), 22=-27 (LC 12), 23=-3 (LC 12), 24=-8 (LC 12), 25=-7 (LC 12), 26=-6 (LC 12), 27=-9 (LC 12), 28=-2 (LC 12), 31=-2 (LC 12), 32=-9 (LC 12), 33=-6 (LC 12), 34=-7 (LC 12), 35=-7 (LC 12), 36=-7 (LC 12), 37=-13 (LC 12)
Max Grav 2=150 (LC 18), 21=64 (LC 17), 22=165 (LC 24), 23=184 (LC 1), 24=179 (LC 24), 25=180 (LC 1), 26=180 (LC 1), 27=179 (LC 24), 28=189 (LC 24), 29=152 (LC 1), 31=189 (LC 23), 32=179 (LC 23), 33=180 (LC 1), 34=180 (LC 23), 35=179 (LC 1), 36=183 (LC 23), 37=156 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-117/97, 3-4=-101/81, 4-5=-95/74, 5-6=-89/67, 6-7=-83/81, 7-9=-77/115, 9-10=-80/151, 10-11=-97/183, 11-12=-97/183, 12-13=-80/151, 13-15=-61/115, 15-16=-50/81, 16-17=-50/47, 17-18=-51/19, 18-19=-56/25, 19-20=-90/42, 20-21=-49/7
BOT CHORD 2-37=-28/79, 36-37=-28/79, 35-36=-28/79, 34-35=-28/79, 33-34=-28/79, 32-33=-28/79, 31-32=-28/79, 29-31=-28/79, 28-29=-28/79, 27-28=-28/79, 26-27=-28/79, 25-26=-28/79, 24-25=-28/79, 23-24=-28/79, 22-23=-28/79, 21-22=-28/79
WEBS 11-29=-114/25, 10-31=-149/46, 9-32=-139/57, 7-33=-140/52, 6-34=-140/53, 5-35=-140/53, 4-36=-142/55, 3-37=-119/86, 12-28=-149/46, 13-27=-139/57, 15-26=-140/52, 16-25=-140/53, 17-24=-139/53, 18-23=-143/69, 19-22=-128/98

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=25ft; B=45ft; L=31ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-2-11, Exterior(2N) 2-2-11 to 15-6-0, Corner (3R) 15-6-0 to 18-7-3, Exterior(2N) 18-7-3 to 30-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 2 lb uplift at joint 31, 9 lb uplift at joint 32, 6 lb uplift at joint 33, 7 lb uplift at joint 34, 7 lb uplift at joint 35, 7 lb uplift at joint 36, 13 lb uplift at joint 37, 2 lb uplift at joint 28, 9 lb uplift at joint 27, 6 lb uplift at joint 26, 7 lb uplift at joint 25, 8 lb uplift at joint 24, 3 lb uplift at joint 23 and 27 lb uplift at joint 22.
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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H2	Common	6	1	I66372012 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. Thu Jun 20 09:15:25 Page: 1
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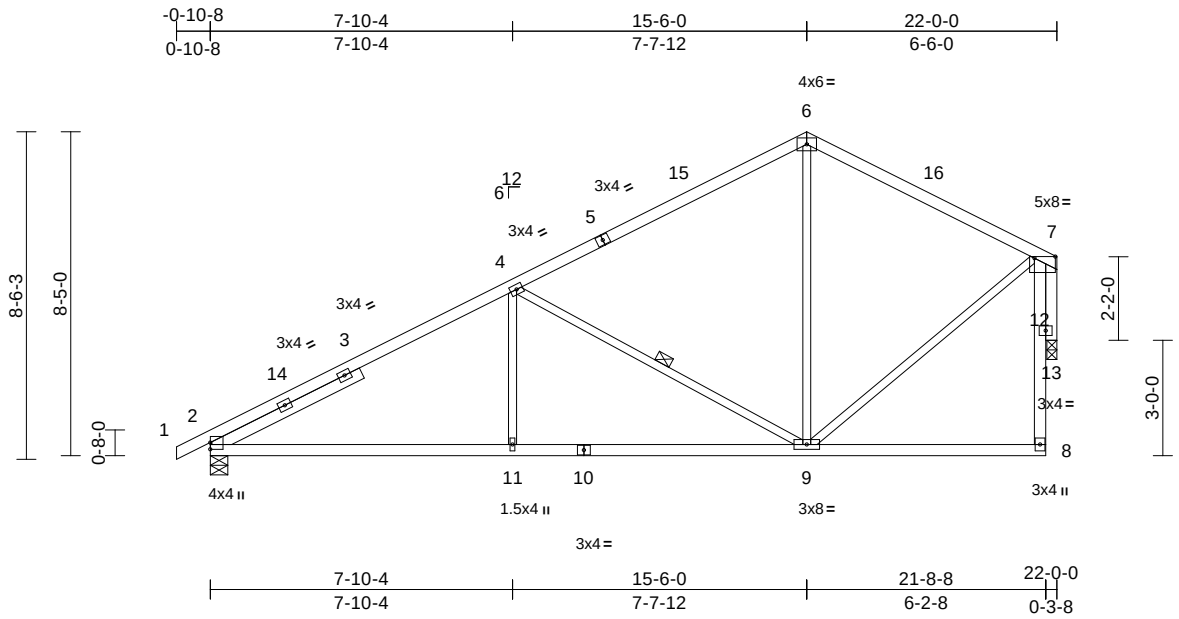

Scale = 1:59.9

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

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	0.85	Vert(LL)	-0.09	2-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.20	2-11	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.10	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-7:2x4 SP No.2
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-9

REACTIONS (size) 2=0-5-8, 13=0-3-2
Max Horiz 2=131 (LC 11)
Max Grav 2=1046 (LC 1), 13=955 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-1527/49, 4-6=-776/88, 6-7=-733/83, 8-12=0/103, 7-12=0/103
BOT CHORD 2-11=-139/1262, 9-11=-139/1262, 8-9=-45/91
WEBS 6-9=0/252, 4-9=-800/89, 4-11=0/333, 7-9=-21/643, 7-13=-968/48

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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-0, Interior (1) 18-6-0 to 21-6-12 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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

June 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2025 11:24:35

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H3	Common Girder	1	2	I66372013 Job Reference (optional)

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

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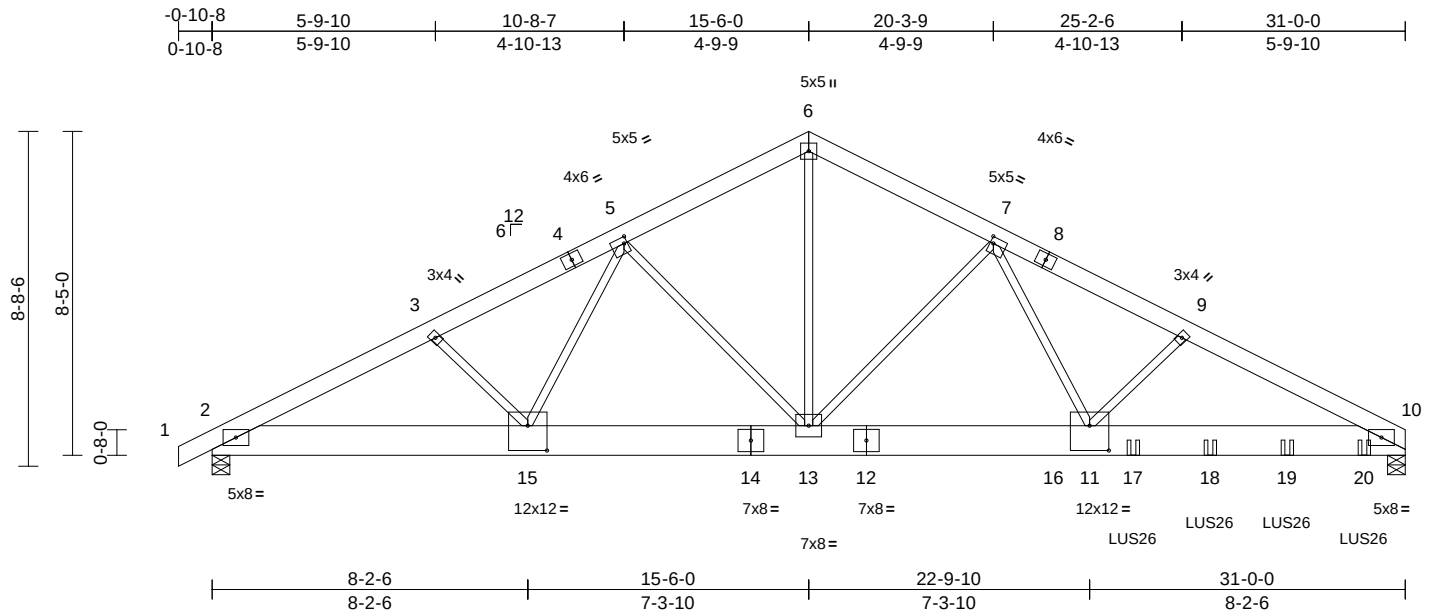

Scale = 1:59.9

Plate Offsets (X, Y): [5:0-1-0,0-2-0], [7:0-1-0,0-2-0], [11:0-6-0,0-7-12], [15:0-6-0,0-7-12]

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	0.38	Vert(LL)	-0.15	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.27	11-13	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 382 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=2737/0-5-8, 10=5740/0-5-8
Max Horiz 2=110 (LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5134/0, 3-4=-4897/0, 4-5=-4780/0, 5-6=-4511/0, 6-7=-4511/0, 7-8=-9413/0, 8-9=-9514/0, 9-10=-9721/0
BOT CHORD 2-15=0/4465, 14-15=0/4238, 13-14=0/4238, 12-13=0/6340, 12-16=0/6340, 11-16=0/6340, 11-17=0/8545, 17-18=0/8545, 18-19=0/8545, 19-20=0/8545, 10-20=0/8545
WEBS 6-13=0/3587, 5-13=-412/130, 7-13=-3568/0, 7-11=0/5038

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: 2x10 - 4 rows staggered at 0-5-0 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=25ft; B=45ft; L=31ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
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.
8) Use Simpson Strong-Tie HHUS210-2 (30-10d Girder, 10-10d Truss, Single Ply Girder) or equivalent at 21-10-7 from the left end to connect truss(es) to front face of bottom chord.
9) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 23-11-4 from the left end to 29-11-4 to connect truss(es) to front 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: 1-6=-70, 6-10=-70, 2-10=-20
Concentrated Loads (lb)
Vert: 16=-3464 (F), 17=-546 (F), 18=-546 (F), 19=-546 (F), 20=-548 (F)

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H4	Common	3	1	I66372014 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. Thu Jun 20 09:15:26 Page: 1
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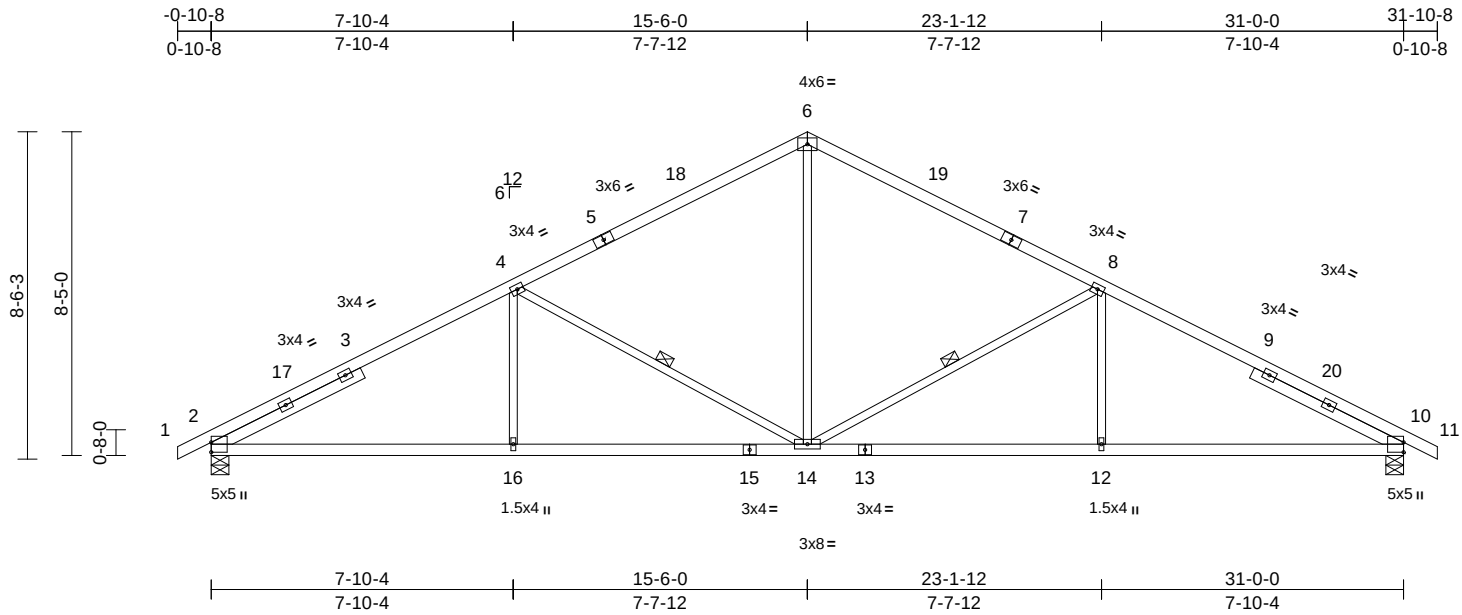


Scale = 1:59.9

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	0.83	Vert(LL)	-0.10	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.23	10-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 141 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-5,7-11:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4, Right 2x4 SP No.2 -- 4-4-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-14, 4-14

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-111 (LC 10)
Max Grav 2=1456 (LC 1), 10=1456 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-2365/11, 4-6=-1654/72, 6-8=-1654/72, 8-10=-2365/11, 10-11=0/6
BOT CHORD 2-16=0/1996, 14-16=0/1996, 12-14=0/1996, 10-12=0/1996
WEBS 6-14=0/857, 8-14=-760/50, 8-12=0/326, 4-14=-760/50, 4-16=0/326

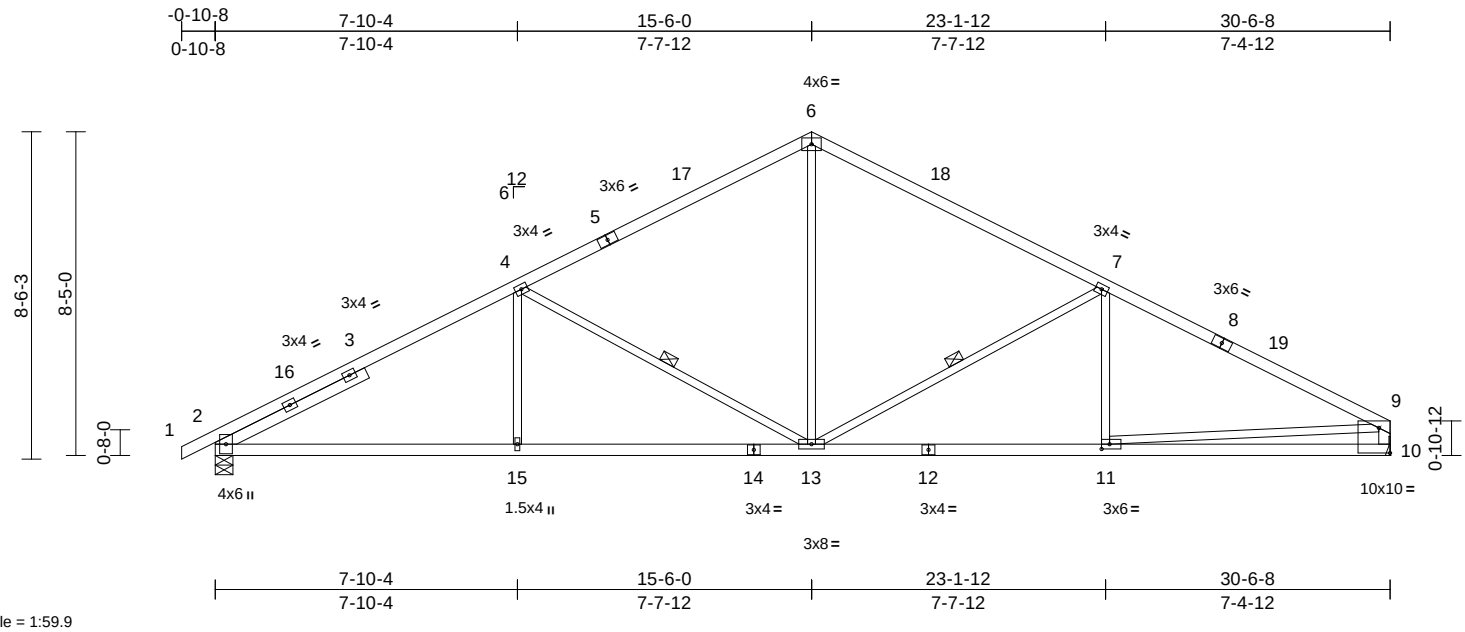
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=31ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-2-11, Interior (1) 2-2-11 to 15-6-0, Exterior (2R) 15-6-0 to 18-7-3, Interior (1) 18-7-3 to 31-10-8 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) All plates are 3x4 MT20 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H5	Common	10	1	I66372015 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. Thu Jun 20 09:15:26 Page: 1
ID:nYpuvKbhP5gElc4wzwNgspytxiV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:59.9

Plate Offsets (X, Y): [2:0-3-9,0-1-5], [10:Edge,0-7-13], [11:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.11	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.24	11-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 138 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-6:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 10-9:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-4-4

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-13, 4-13

REACTIONS (size) 2=0-5-8, 10= Mechanical
Max Horiz 2=119 (LC 11)
Max Grav 2=1430 (LC 1), 10=1367 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-2311/11, 4-6=-1598/73, 6-7=-1602/74, 7-9=-2187/17, 9-10=-1293/35
BOT CHORD 2-15=0/1949, 13-15=0/1949, 11-13=0/1866, 10-11=-21/383
WEBS 6-13=0/820, 7-13=-680/52, 7-11=0/220, 4-13=-764/50, 4-15=0/325, 9-11=0/1489

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=25ft; B=45ft; L=31ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-8 to 2-2-2, Interior (1) 2-2-2 to 15-6-0, Exterior(2R) 15-6-0 to 18-6-10, Interior (1) 18-6-10 to 30-4-12 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
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.

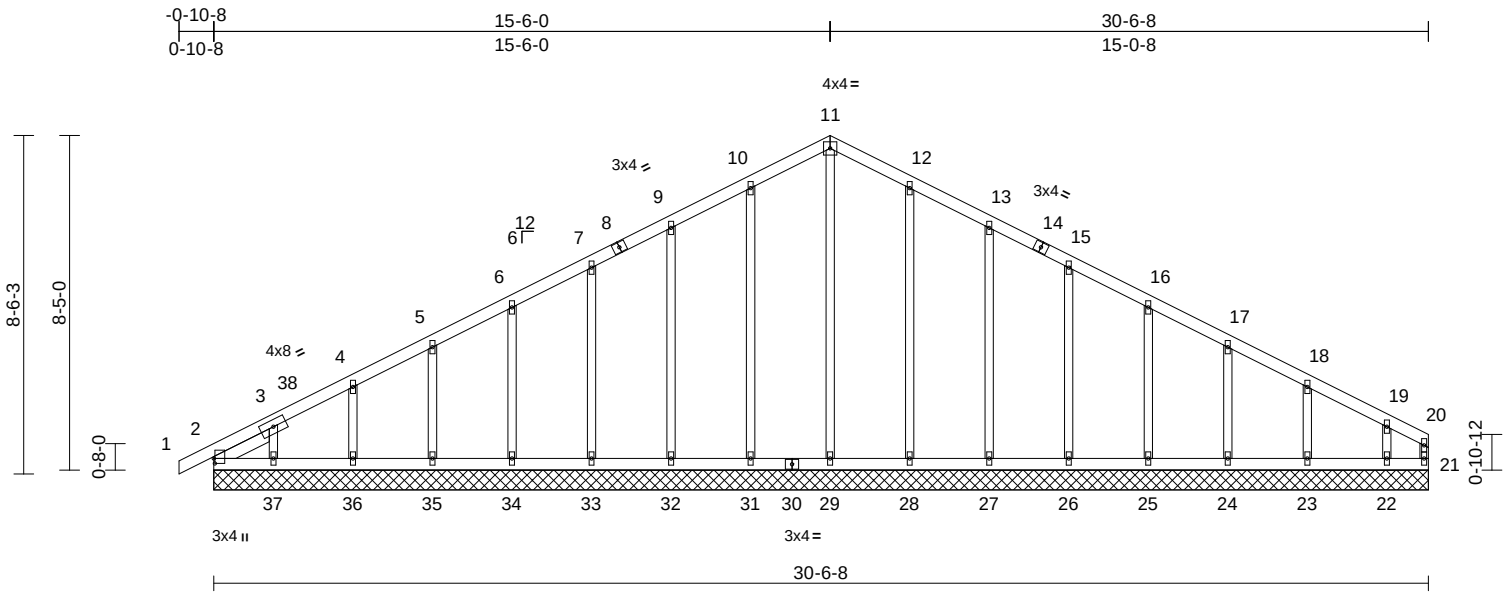
LOAD CASE(S) Standard

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	H8	Common Supported Gable	1	1	I66372016 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. Thu Jun 20 09:15:26 Page: 1
ID:vnZN4yYALs9oG?m9k4JkhzytxiZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57.9

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

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	21	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-0

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) 2=30-6-8, 21=30-6-8, 22=30-6-8, 23=30-6-8, 24=30-6-8, 25=30-6-8, 26=30-6-8, 27=30-6-8, 28=30-6-8, 29=30-6-8, 31=30-6-8, 32=30-6-8, 33=30-6-8, 34=30-6-8, 35=30-6-8, 36=30-6-8, 37=30-6-8
Max Horiz 2=119 (LC 11)
Max Uplift 2=-6 (LC 8), 21=-11 (LC 11), 22=-40 (LC 12), 23=-4 (LC 12), 24=-8 (LC 12), 25=-7 (LC 12), 26=-6 (LC 12), 27=-10 (LC 12), 28=-1 (LC 12), 31=-1 (LC 12), 32=-10 (LC 12), 33=-6 (LC 12), 34=-7 (LC 12), 35=-7 (LC 12), 36=-7 (LC 12), 37=-12 (LC 12)
Max Grav 2=150 (LC 18), 21=49 (LC 17), 22=146 (LC 18), 23=187 (LC 1), 24=178 (LC 24), 25=180 (LC 1), 26=180 (LC 1), 27=179 (LC 24), 28=189 (LC 24), 29=157 (LC 17), 31=189 (LC 23), 32=179 (LC 23), 33=180 (LC 1), 34=180 (LC 23), 35=179 (LC 1), 36=183 (LC 23), 37=157 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-119/104, 3-4=-102/87, 4-5=-96/80, 5-6=-90/73, 6-7=-84/91, 7-9=-78/126, 9-10=-81/162, 10-11=-99/193, 11-12=-99/193, 12-13=-81/162, 13-15=-63/126, 15-16=-48/91, 16-17=-45/57, 17-18=-46/23, 18-19=-48/24, 19-20=-82/40, 20-21=-49/18
BOT CHORD 2-37=-25/68, 36-37=-25/68, 35-36=-25/68, 34-35=-25/68, 33-34=-25/68, 32-33=-25/68, 31-32=-25/68, 29-31=-25/68, 28-29=-25/68, 27-28=-25/68, 26-27=-25/68, 25-26=-25/68, 24-25=-25/68, 23-24=-25/68, 22-23=-25/68, 21-22=-25/68
WEBS 11-29=-123/26, 10-31=-149/46, 9-32=-139/57, 7-33=-140/52, 6-34=-140/53, 5-35=-140/53, 4-36=-142/55, 3-37=-120/83, 12-28=-149/46, 13-27=-139/57, 15-26=-140/52, 16-25=-140/54, 17-24=-139/53, 18-23=-145/70, 19-22=-114/100

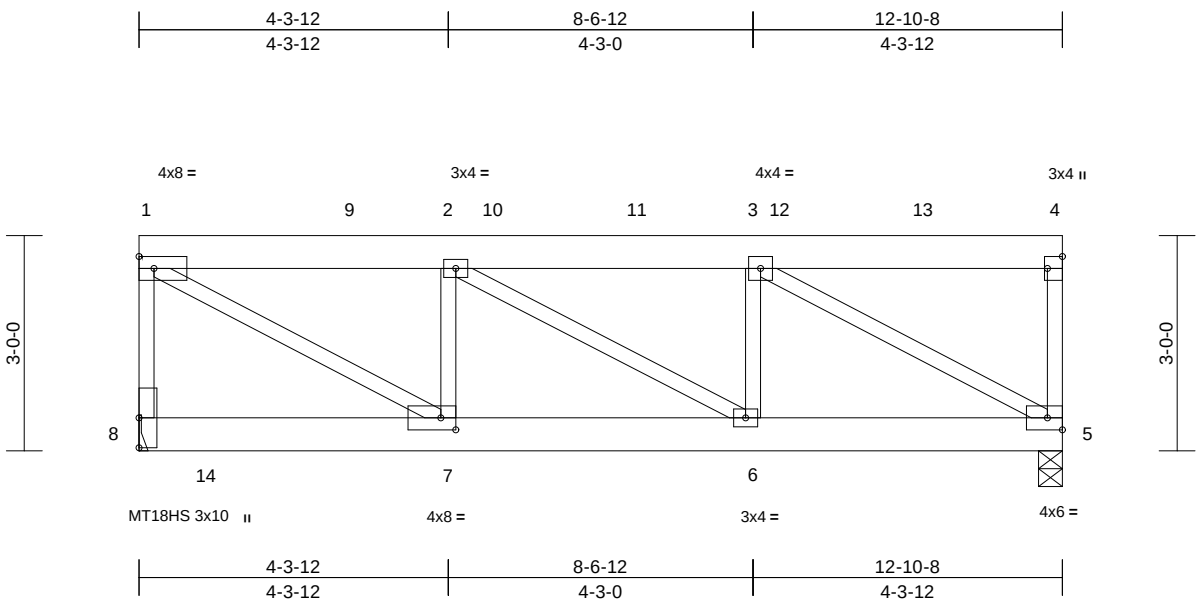
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=31ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -0-10-8 to 2-2-2, Exterior(2N) 2-2-2 to 15-6-0, Corner (3R) 15-6-0 to 18-6-10, Exterior(2N) 18-6-10 to 30-5-4 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 21, 6 lb uplift at joint 2, 1 lb uplift at joint 31, 10 lb uplift at joint 32, 6 lb uplift at joint 33, 7 lb uplift at joint 34, 7 lb uplift at joint 35, 7 lb uplift at joint 36, 12 lb uplift at joint 37, 1 lb uplift at joint 28, 10 lb uplift at joint 27, 6 lb uplift at joint 26, 7 lb uplift at joint 25, 8 lb uplift at joint 24, 4 lb uplift at joint 23 and 40 lb uplift at joint 22.
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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	R1	Flat Girder	1	2	I66372017 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. Thu Jun 20 09:15:26 Page: 1
ID:4ukXNjh4mFYE5h6Guu?JeHytxiO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32.1

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

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	0.44	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.09	6-7	>999	180	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 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) 5=0-4-0, 8= Mechanical
Max Horiz 8=63 (LC 5)
Max Grav 5=3020 (LC 1), 8=3484 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-2677/0, 1-2=-3973/0, 2-3=-3937/0, 3-4=-66/9, 4-5=-570/0
BOT CHORD 7-8=-31/86, 6-7=0/3973, 5-6=0/3937
WEBS 3-5=-4535/0, 2-7=-2045/0, 1-7=0/4564, 2-6=-45/3, 3-6=-15/108

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x3 - 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 0-9-0 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) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Bearings are assumed to be: , Joint 5 SPF No.2 crushing capacity of 425 psi.
9) Refer to girder(s) for truss to truss connections.
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.

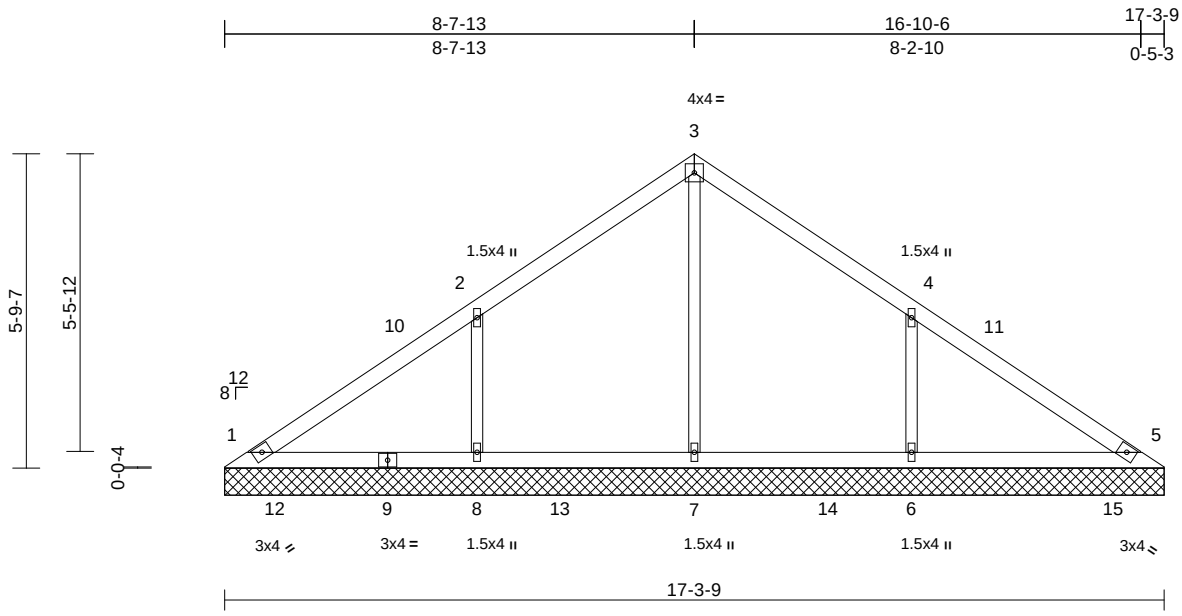
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-885, 10=-885, 11=-885, 12=-885, 13=-885, 14=-937

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE1	Valley	1	1	I66372018 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. Thu Jun 20 09:15:26 Page: 1
ID:nYpuvKbhP5gElc4wzwNgspytxiV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:42.4

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	0.29	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	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 63 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=17-3-9, 5=17-3-9, 6=17-3-9, 7=17-3-9, 8=17-3-9
Max Horiz 1=-83 (LC 10)
Max Uplift 6=-40 (LC 12), 8=-40 (LC 12)
Max Grav 1=181 (LC 18), 5=175 (LC 1), 6=499 (LC 18), 7=342 (LC 17), 8=499 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-122/79, 2-3=-140/105, 3-4=-140/106, 4-5=-101/64
BOT CHORD 1-8=-21/70, 7-8=-21/70, 6-7=-21/70, 5-6=-21/70
WEBS 3-7=-180/0, 2-8=-340/167, 4-6=-340/167

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 8-8-3, Corner (3R) 8-8-3 to 11-8-3, Exterior(2N) 11-8-3 to 16-10-9 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
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 40 lb uplift at joint 8 and 40 lb uplift at joint 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE2	Valley	1	1	I66372019 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. Thu Jun 20 09:15:26 Page: 1
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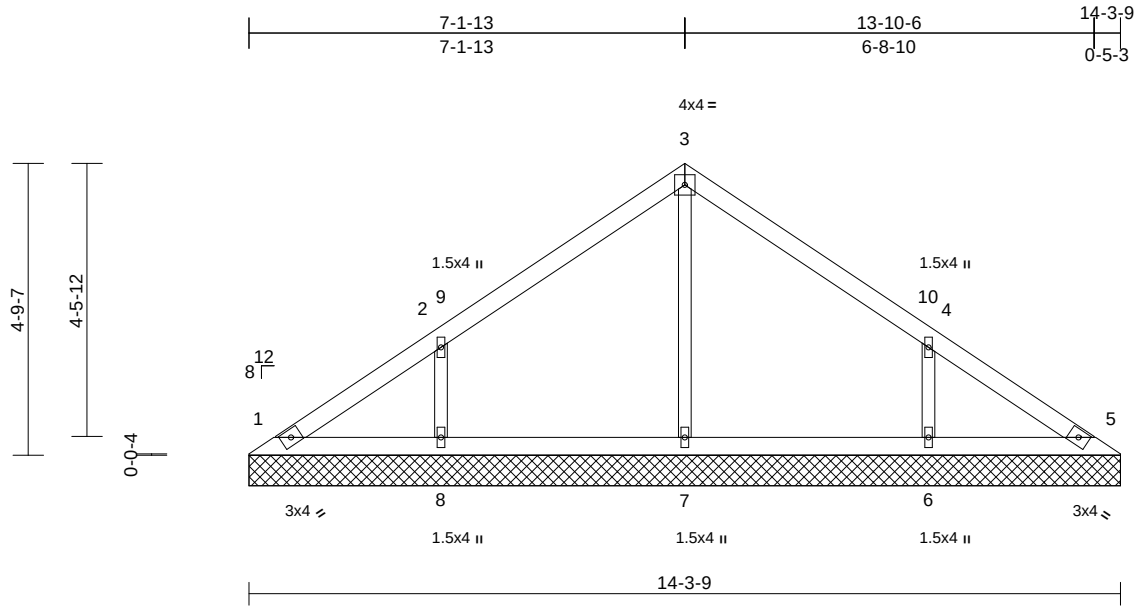

Scale = 1:37.8

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	0.21	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	0.10	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
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=14-3-9, 5=14-3-9, 6=14-3-9, 7=14-3-9, 8=14-3-9
Max Horiz 1=68 (LC 11)
Max Uplift 6=-34 (LC 12), 8=-34 (LC 12)
Max Grav 1=110 (LC 1), 5=110 (LC 1), 6=361 (LC 24), 7=280 (LC 1), 8=361 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-101/52, 2-3=-140/93, 3-4=-140/93, 4-5=-84/35
BOT CHORD 1-8=-11/57, 7-8=-11/57, 6-7=-11/57, 5-6=-11/57
WEBS 3-7=-198/0, 2-8=-285/163, 4-6=-285/163

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 7-2-3, Corner (3R) 7-2-3 to 10-2-3, Exterior(2N) 10-2-3 to 13-10-9 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 8 and 34 lb uplift at joint 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE3	Valley	1	1	I66372020 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. Thu Jun 20 09:15:26 Page: 1
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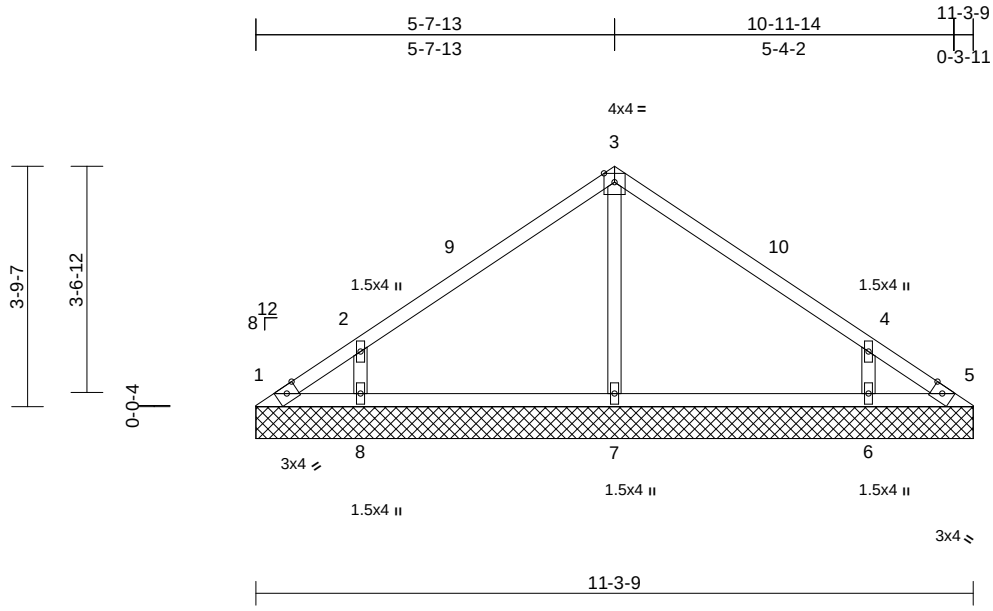

Scale = 1:36.3

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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	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-S							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x3 SPF No.2
BOT CHORD 2x3 SPF 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=11-3-9, 5=11-3-9, 6=11-3-9, 7=11-3-9, 8=11-3-9
Max Horiz 1=-54 (LC 10)
Max Uplift 1=-29 (LC 10), 5=-18 (LC 11), 6=-34 (LC 12), 8=-34 (LC 12)
Max Grav 1=29 (LC 11), 5=20 (LC 12), 6=339 (LC 24), 7=298 (LC 1), 8=339 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-68/52, 2-3=-128/81, 3-4=-128/80, 4-5=-63/41
BOT CHORD 1-8=-8/45, 7-8=-8/45, 6-7=-8/45, 5-6=-8/45
WEBS 3-7=-212/29, 2-8=-281/194, 4-6=-281/194

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-4-3 to 3-4-3, Exterior(2N) 3-4-3 to 5-8-3, Corner(3R) 5-8-3 to 8-8-3, Exterior(2N) 8-8-3 to 11-0-2 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1, 18 lb uplift at joint 5, 34 lb uplift at joint 8 and 34 lb uplift at joint 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE7	Valley	1	1	I66372021 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. Thu Jun 20 09:15:27

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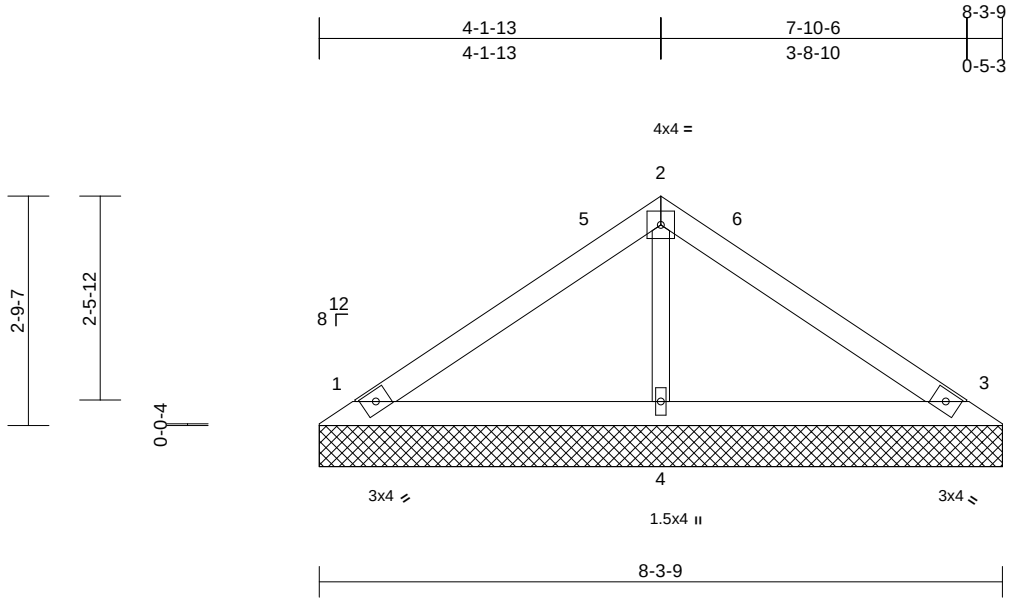

Scale = 1:28

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	0.30	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	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=8-3-9, 3=8-3-9, 4=8-3-9
Max Horiz 1=-37 (LC 10)
Max Uplift 1=-11 (LC 12), 3=-11 (LC 12)
Max Grav 1=187 (LC 1), 3=187 (LC 1), 4=291 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-112/63, 2-3=-112/57
BOT CHORD 1-4=-1/47, 3-4=-1/47
WEBS 2-4=-199/77

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=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-5-12 to 3-5-12, Exterior(2N) 3-5-12 to 4-2-3, Corner (3R) 4-2-3 to 7-2-3, Exterior(2N) 7-2-3 to 7-10-9 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
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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 11 lb uplift at joint 3.
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

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

June 21,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2025 11:24:35

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE8	Valley	1	1	I66372022 Job Reference (optional)

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

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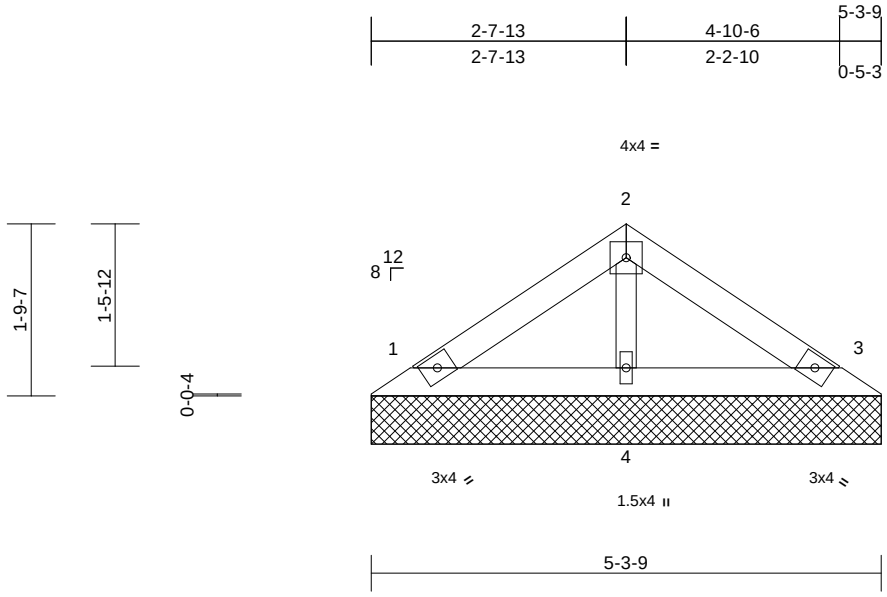

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	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 5-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-3-9, 3=5-3-9, 4=5-3-9
Max Horiz 1=22 (LC 11)
Max Uplift 1=-7 (LC 12), 3=-7 (LC 12)
Max Grav 1=111 (LC 1), 3=111 (LC 1), 4=173 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-66/31, 2-3=-66/31
BOT CHORD 1-4=0/28, 3-4=0/28
WEBS 2-4=-118/41

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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 7 lb uplift at joint 3.
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

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VE9	Valley	1	1	I66372023 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. Thu Jun 20 09:15:27 ID:FkNG7gcJAPo5Mmf6XdvvO0ytxiU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

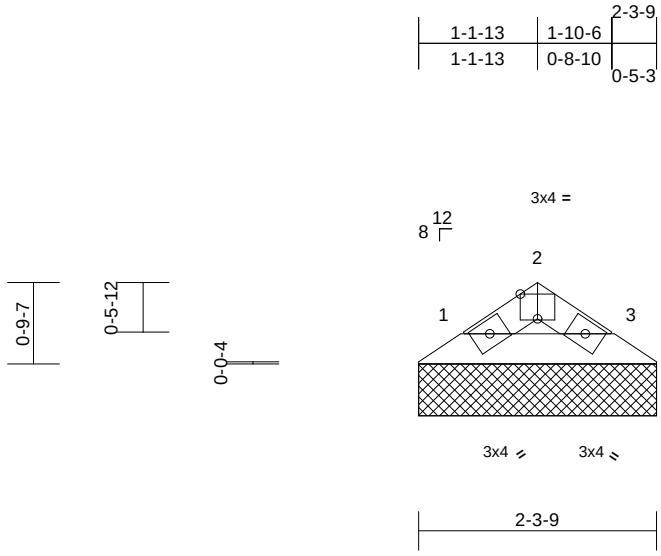

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	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: 6 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 2-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-3-9, 3=2-3-9
Max Horiz 1=-7 (LC 10)
Max Grav 1=63 (LC 1), 3=63 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/22, 2-3=-55/22
BOT CHORD 1-3=-7/37

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=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VG10	Valley	1	1	I66372024 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. Thu Jun 20 09:15:27 Page: 1
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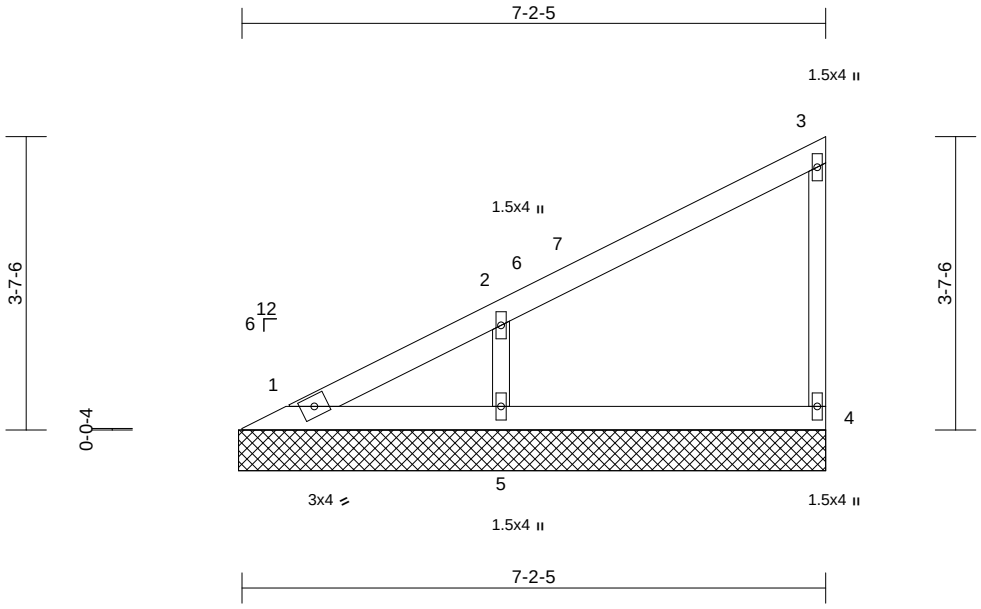

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 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=7-2-13, 4=7-2-13, 5=7-2-13
Max Horiz 1=86 (LC 11)
Max Uplift 4=-2 (LC 9), 5=-14 (LC 12)
Max Grav 1=73 (LC 18), 4=141 (LC 1), 5=377 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-224/123, 2-3=-100/75, 3-4=-110/116
BOT CHORD 1-5=-43/57, 4-5=-43/57
WEBS 2-5=-293/250

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 7-1-9 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
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 2 lb uplift at joint 4 and 14 lb uplift at joint 5.
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 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VG11	Valley	1	1	I66372025 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. Thu Jun 20 09:15:27 Page: 1
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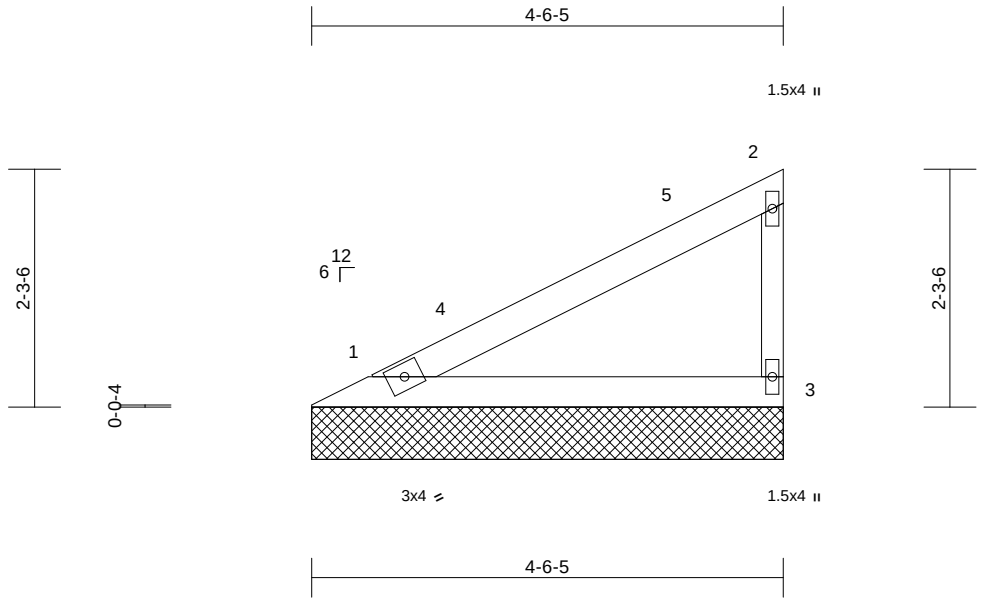


Scale = 1:22.1

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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	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: 15 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-6-5, 3=4-6-5
Max Horiz 1=51 (LC 9)
Max Grav 1=172 (LC 1), 3=172 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/64, 2-3=-134/156
BOT CHORD 1-3=-25/34

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 4-5-9 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

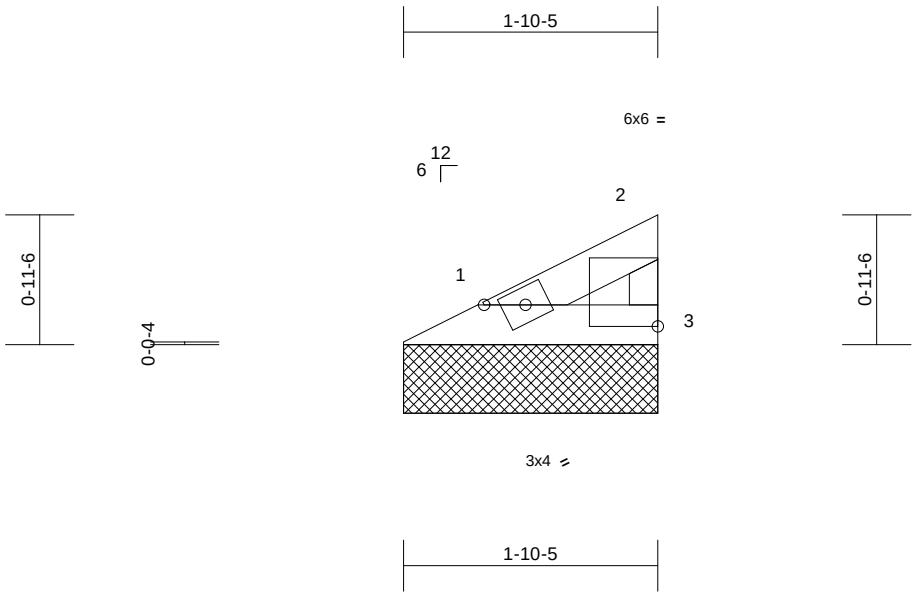
June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VG12	Valley	1	1	I66372026
					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. Thu Jun 20 09:15:27

ID:kwweK0dxxiwx_wEJ5LQ8xEytxiT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:16.8

Plate Offsets (X, Y): [2:Edge,0-1-14]

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	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: 5 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-10-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-10-5, 3=1-10-5
Max Horiz 1=16 (LC 9)
Max Grav 1=52 (LC 1), 3=52 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/17, 2-3=-41/31
BOT CHORD 1-3=-8/8

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) 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
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 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

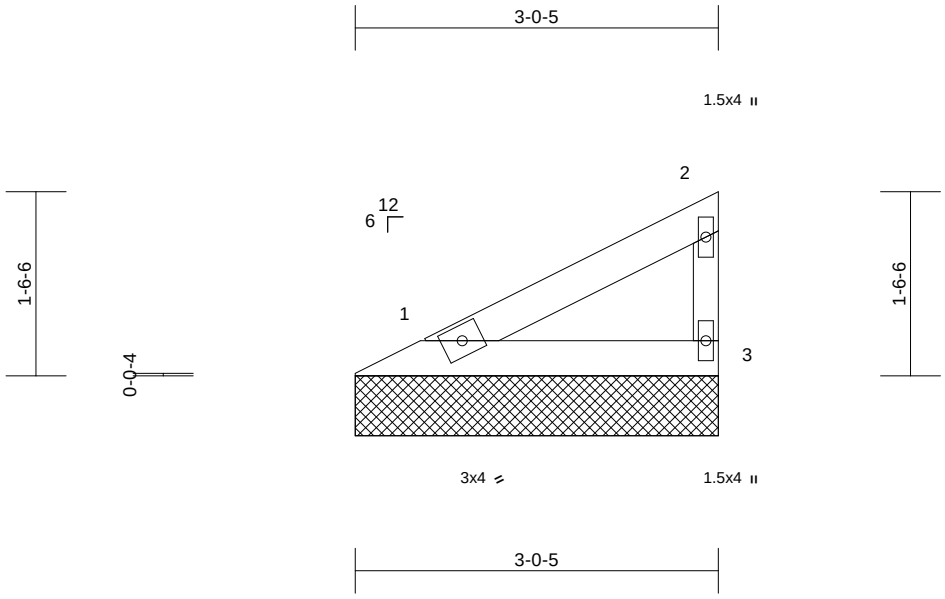
LOAD CASE(S) Standard

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VG13	Valley	1	1	I66372027
					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. Thu Jun 20 09:15:27 ID:kwweK0dxxiwx_wEJ5LQ8xEytxiT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:19.2

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	0.11	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
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-0-5, 3=3-0-5
Max Horiz 1=31 (LC 11)
Max Grav 1=105 (LC 1), 3=105 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-49/35, 2-3=-82/62
BOT CHORD 1-3=-15/17

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) 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
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 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

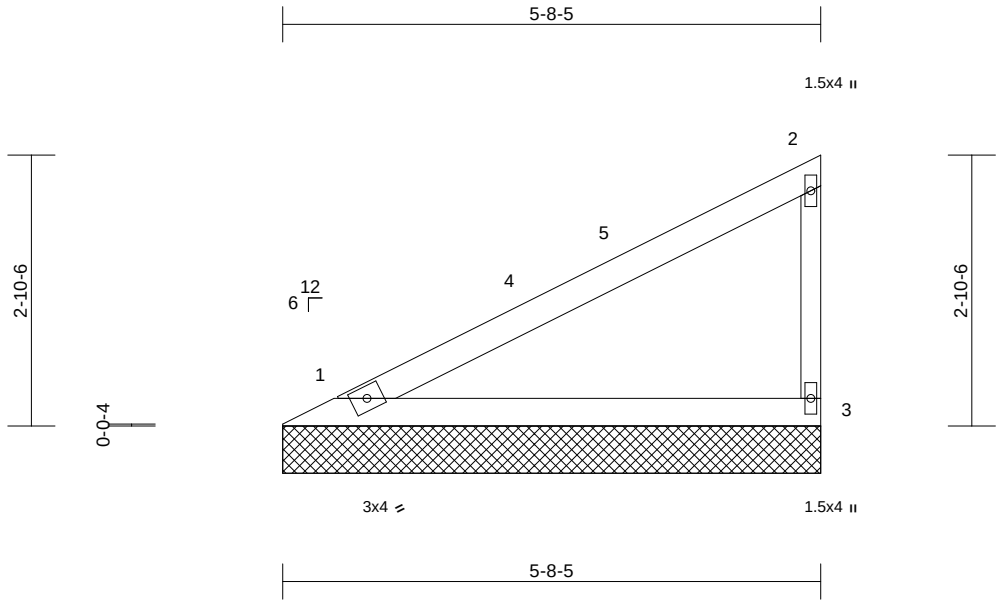
LOAD CASE(S) Standard

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

June 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - BF Lot 180
P250250-01	VG14	Valley	1	1	I66372028 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. Thu Jun 20 09:15:27 Page: 1
ID:kwweK0dxxiwx_wEJ5LQ8xEytxiT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	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: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-8-5, 3=5-8-5
Max Horiz 1=67 (LC 9)
Max Grav 1=225 (LC 1), 3=225 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-129/83, 2-3=-175/189
BOT CHORD 1-3=-33/44

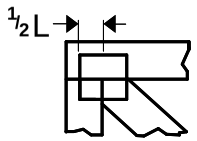
NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Ke=0.97; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) 0-7-9 to 3-7-9, Exterior(2N) 3-7-9 to 5-7-9 zone; cantilever left and right exposed ; end vertical left 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

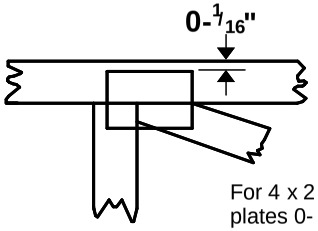
June 21,2024

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.

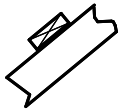
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

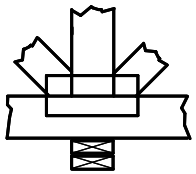
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

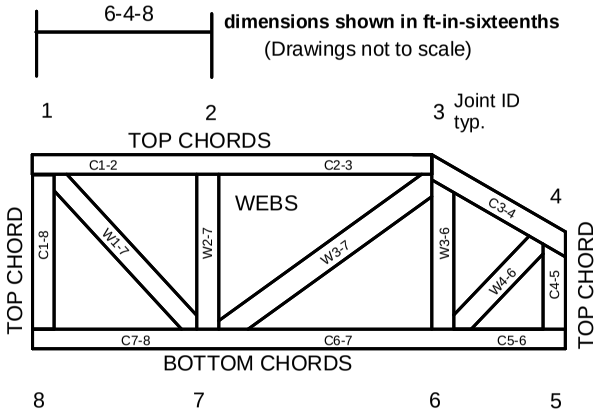


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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®

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.