

09/18/2025



RE: Basswood Farmhouse 2 Car -

MiTek, Inc.

Site Information:

16023 Swingley Ridge Rd. Project Name: Basswood Farmhouse 2 Cas Chesterfield, MO 63017

Project Customer: Clayton Properties

Lot/Block: 2090

Subdivision: BAILEY FARMS

Model: Basswood Farmhouse 2 Car

Address: 1152 SE CRONIN ST

City: LEE'S SUMMIT

State: MO

### **Drawings Show Special Loading Conditions):** Design Code: IRC2018/TPI2014

General Truss Engineering Criteria & Design Loads (Individual Truss Design

Wind Code: ASCE 7-16

Design Program: MiTek 20/20 8.6 Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Wind Speed: 115 mph Roof Load: 45.0 psf

Floor Load: N/A psf

Mean Roof Height (feet): 35

Exposure Category: C

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

Truss Design Engineer's Name: Lu, Jie

My license renewal date for the state of Missouri is December 31, 2026.

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



Qty Ply Job Truss Truss Type **B**1 1 Basswood Farmhouse Monopitch Supported Gable Job Reference (optiona

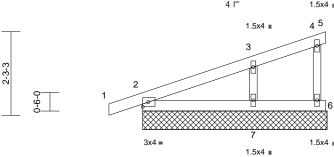
RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271789 LEE'S SUMMIT. MISSOURI

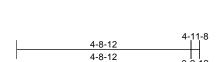
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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2-1-13







Scale = 1:31.3

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 19 lb	FT = 20%

### LUMBER

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

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

5-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

BOT CHORD bracing

REACTIONS (size) 2=5-0-0, 5=5-0-0, 6=5-0-0, 7=5-0-0

Max Horiz 2=84 (LC 12)

2=-50 (LC 12), 5=-9 (LC 16), 6=-13 Max Uplift

(LC 12), 7=-75 (LC 16)

Max Grav 2=256 (LC 23), 5=18 (LC 23), 6=57 (LC 23), 7=349 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum

Tension TOP CHORD 1-2=0/12, 2-3=-157/59, 3-4=-41/9, 4-5=-9/5,

4-6=-50/52

BOT CHORD 2-7=0/0. 6-7=0/0

**WEBS** 

### 3-7=-288/331 NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 4-11-8 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 9 lb uplift at joint 5, 13 lb uplift at joint 6, 50 lb uplift at joint 2 and 75 lb uplift at joint 7.
- 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 18,2025



Job Truss Truss Type Qty Ply B2 3 1 Basswood Farmhouse Monopitch Job Reference (optiona

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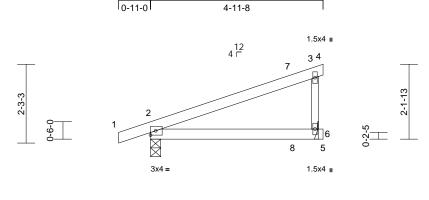
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271790 LEE'S SUMMIT, MISSOURI

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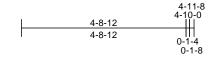
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RELEASE FOR CONSTRUCTION





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Scale = 1:33.1

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	0.62	Vert(LL)	0.10	2-6	>549	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	0.08	2-6	>651	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 18 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 WFBS

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8, 6= Mechanical

Max Horiz 2=87 (LC 12)

Max Uplift 2=-131 (LC 12), 6=-106 (LC 12)

Max Grav 2=404 (LC 23), 6=299 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum Tension

1-2=0/13, 2-3=-105/64, 3-4=-7/0, TOP CHORD

3-6=-248/242

BOT CHORD 2-6=0/0, 5-6=0/0

### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 4-11-8 zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to 8) bearing plate capable of withstanding 106 lb uplift at joint 6 and 131 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025



Job Truss Truss Type Qty **B**3 1 Basswood Farmhouse Monopitch Job Reference (optional

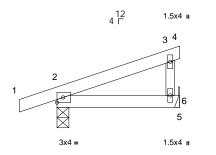
RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271791 LEE'S SUMMIT, MISSOURI

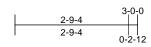
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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-0-11-0	3-0-0
0-11-0	3-0-0







Scale = 1:28.2

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	0.14	Vert(LL)	0.00	2-6	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	2-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 11 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 WFBS

### **BRACING**

Structural wood sheathing directly applied or TOP CHORD 3-0-0 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=58 (LC 13) Max Uplift 2=-78 (LC 12), 6=-30 (LC 16)

Max Grav 2=283 (LC 23), 6=164 (LC 23)

(lb) - Maximum Compression/Maximum

**FORCES** Tension

TOP CHORD 1-2=0/13, 2-3=-84/47, 3-4=-7/0, 3-6=-133/147

BOT CHORD 2-6=-23/25, 5-6=0/0

### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 6 and 78 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025



### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Ply Job Truss Truss Type Qtv C1 1 Basswood Farmhouse Common Structural Gable 1 Job Reference (optiona

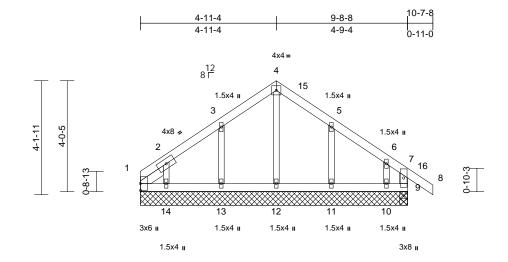
Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc.

AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271792 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

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

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Scale = 1:41.8

Plate Offsets	(X,	Y):	[1:0-3-0,0-0-1]
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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	13-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 44 lb	FT = 20%

9-8-8

### LUMBER

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

**SLIDER** Left 2x4 SP No.2 -- 1-0-10

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 6-0-0 oc

**BOT CHORD** bracing.

REACTIONS (size)

1=9-8-8, 9=9-8-8, 10=9-8-8,

11=9-8-8, 12=9-8-8, 13=9-8-8,

14=9-8-8

Max Horiz 1=116 (LC 15) Max Uplift 1=-66 (LC 14), 9=-23 (LC 13),

10=-84 (LC 17), 11=-81 (LC 17) 13=-81 (LC 16), 14=-100 (LC 16)

Max Grav

1=85 (LC 13), 9=207 (LC 22), 10=133 (LC 24), 11=295 (LC 24),

12=161 (LC 24), 13=288 (LC 23), 14=222 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=-118/114, 2-3=-87/78, 3-4=-89/170, 4-5=-88/169, 5-6=-65/67, 6-7=-51/29,

7-8=0/69, 7-9=-195/90

**BOT CHORD** 1-14=-38/95, 13-14=-38/95, 12-13=-38/95,

11-12=-38/95, 10-11=-38/95, 9-10=-38/95 **WEBS** 4-12=-123/4, 3-13=-248/197, 2-14=-186/198,

5-11=-254/199, 6-10=-118/116

### NOTES

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 4-11-4, Corner(3R) 4-11-4 to 9-11-4, Exterior(2N) 9-11-4 to 10-7-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown: Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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 66 lb uplift at joint 1, 23 lb uplift at joint 9, 81 lb uplift at joint 13, 100 lb uplift at joint 14, 81 lb uplift at joint 11 and 84 lb uplift at
- 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





Job Truss Truss Type Qty C2 2 1 Basswood Farmhouse Common Job Reference (optiona

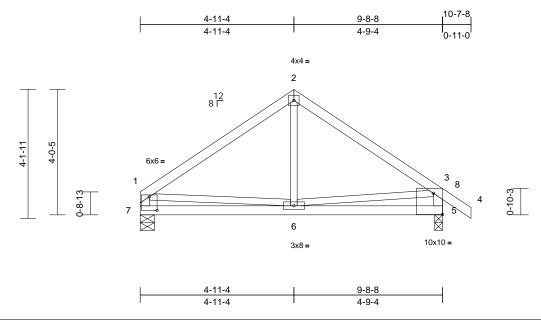
DEVELOPMENT SERVICES 174271793 LEE'S SUMMIT, MISSOURI

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RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW



Scale = 1:37

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

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	0.60	Vert(LL)	0.03	6-7	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 45 lb	FT = 20%

### LUMBER

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

**WEBS** 2x3 SPF No.2 \*Except\* 7-1,5-3:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-13 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

**REACTIONS** (size) 5=0-3-0, 7=0-5-8

Max Horiz 7=-114 (LC 12)

Max Uplift 5=-84 (LC 17), 7=-58 (LC 16)

Max Grav 5=638 (LC 24), 7=550 (LC 23)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-550/461, 2-3=-540/469, 3-4=0/71,

1-7=-507/346, 3-5=-597/422 **BOT CHORD** 6-7=-219/317, 5-6=-195/322

WEBS 2-6=-317/187, 1-6=-74/197, 3-6=-106/244

### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 4-11-4, Exterior(2R) 4-11-4 to 9-11-4, Interior (1) 9-11-4 to 10-7-8 zone; cantilever left and right exposed; end vertical right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 7 and 84 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 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)



Ply Job Truss Truss Type Qtv D1 1 Basswood Farmhouse Common Structural Gable Job Reference (optiona

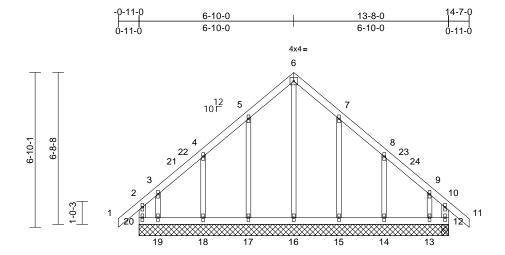
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271794 LEE'S SUMMIT. MISSOURI

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Scale = 1:50.9

Plate Offsets (X, Y): [10:0-0-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	0.00	18-19	>999	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 71 lb	FT = 20%

13-8-0

### LUMBER

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

### BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

REACTIONS (size)

12=13-8-0, 13=13-8-0, 14=13-8-0, 15=13-8-0, 16=13-8-0, 17=13-8-0. 18=13-8-0, 19=13-8-0, 20=13-8-0

Max Horiz 20=-213 (LC 14)

Max Uplift 12=-126 (LC 13), 13=-181 (LC 17),

14=-101 (LC 17), 15=-98 (LC 17), 17=-99 (LC 16), 18=-101 (LC 16),

19=-194 (LC 16), 20=-168 (LC 12) Max Grav 12=203 (LC 30), 13=195 (LC 15), 14=263 (LC 24), 15=306 (LC 24),

16=214 (LC 29), 17=306 (LC 23), 18=263 (LC 23), 19=224 (LC 14),

20=237 (LC 31)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/82, 2-3=-166/151, 3-4=-105/103, 4-5=-88/145, 5-6=-138/229, 6-7=-138/223,

7-8=-83/137, 8-9=-84/83, 9-10=-133/114,

10-11=0/82, 2-20=-184/116, 10-12=-184/87

**BOT CHORD** 19-20=-100/120, 18-19=-100/120,

17-18=-100/120, 16-17=-100/120, 15-16=-100/120, 14-15=-100/120,

13-14=-100/120, 12-13=-100/120

**WEBS** 6-16=-210/68, 5-17=-266/134, 4-18=-221/145, 3-19=-134/139,

7-15=-266/134, 8-14=-221/145,

9-13=-132/133

- 1) Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 6-10-0, Exterior(2R) 6-10-0 to 11-10-0, Interior (1) 11-10-0 to 14-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated. Truss to be fully sheathed from one face or securely
- braced against lateral movement (i.e. diagonal web). Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 20, 126 lb uplift at joint 12, 99 lb uplift at joint 17, 101 lb uplift at joint 18, 194 lb uplift at joint 19, 98 lb uplift at joint 15, 101 lb uplift at joint 14 and 181 lb uplift at joint 13.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 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)



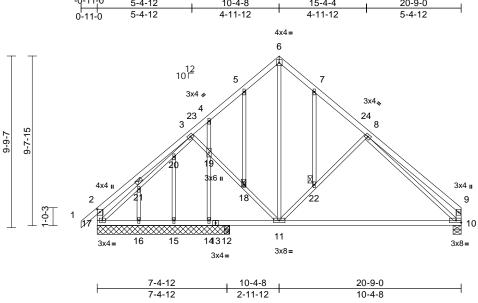
Ply Job Truss Truss Type Qtv D2 1 Basswood Farmhouse Common Structural Gable 1

DEVELOPMENT SERVICES 174271795 LEE'S SUMMIT, MISSOURI Job Reference (optiona Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 17 VrCDoi7

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

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

ID:DWJnveVQ7oN6jltbUjayQQylfPO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK -0-11-0 5-4-12 10-4-8 15-4-4 20-9-0



Scale = 1:65.7

Plate Offsets (X, Y): [2:0-2-0,0-1-12]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.25	10-11	>622	240	MT20	197/144
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.52	10-11	>308	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 123 lb	FT = 20%

### LUMBER

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

**WEBS** 2x3 SPF No.2 \*Except\* 17-2,10-9:2x4 SP

No.2

**OTHERS** 2x3 SPF No.2

BRACING

**BOT CHORD** 

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

bracing.

**JOINTS** 1 Brace at Jt(s): 18,

21, 22

REACTIONS (size)

10=0-5-8, 12=0-3-8, 14=7-6-8, 15=7-6-8. 16=7-6-8, 17=7-6-8

17=278 (LC 13) Max Horiz

Max Uplift 10=-101 (LC 17), 12=-149 (LC 7),

14=-48 (LC 16), 17=-117 (LC 16)

Max Grav 10=859 (LC 24), 12=-19 (LC 24),

14=470 (LC 23), 15=176 (LC 24),

16=80 (LC 7), 17=634 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension TOP CHORD 1-2=0/79, 2-3=-331/249, 3-4=-534/158,

4-5=-590/190, 5-6=-540/216, 6-7=-547/197,

7-8=-731/170, 8-9=-415/126, 2-17=-399/251,

9-10=-367/136 **BOT CHORD** 

16-17=-120/476, 15-16=-120/476, 14-15=-120/476, 12-14=-120/476,

11-12=-120/476, 10-11=-68/661

**WEBS** 17-21=-386/36, 20-21=-376/38,

3-20=-476/39, 8-10=-621/96, 3-19=-101/230,

18-19=-63/205, 11-18=-86/227, 6-11=-143/426, 11-22=-357/274,

8-22=-322/259, 5-18=-58/31, 4-19=-334/90,

14-19=-415/119, 15-20=-138/2, 16-21=-3/18,

7-22=-49/20

### NOTES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 10-4-8, Exterior(2R) 10-4-8 to 15-5-8, Interior (1) 15-5-8 to 20-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated. Truss to be fully sheathed from one face or securely
- braced against lateral movement (i.e. diagonal web). Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 17, 101 lb uplift at joint 10, 48 lb uplift at joint 14 and 149 lb uplift at joint 12.

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

LOAD CASE(S) Standard





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

besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, 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/TP11 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)



Job Truss Truss Type Qty Ply D3 Common 7 1 Basswood Farmhouse

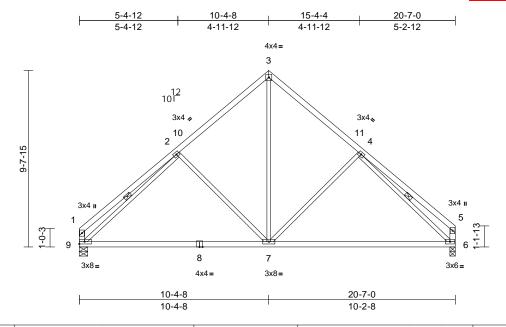
DEVELOPMENT SERVICES 174271796 LEE'S SUMMIT, MISSOURI Job Reference (optiona

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:GxRwKJt\_VBVld7M5l9q1YhznBFw-RfC?PsB70Hq3NSgPqnL8w3ulTXbGl

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RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW



Scale = 1:63.1

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.22	7-9	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.44	7-9	>556	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 103 lb	FT = 20%

### LUMBER

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

2x3 SPF No.2 \*Except\* 9-1,6-5:2x4 SP No.2 WFBS

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 5-3-6 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc

bracing WFBS

2-9, 4-6 1 Row at midpt 6=0-3-8, 9=0-5-8 REACTIONS (size)

Max Horiz 9=273 (LC 13)

Max Uplift 6=-111 (LC 17), 9=-113 (LC 16) Max Grav 6=968 (LC 23), 9=969 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-414/134, 2-3=-896/236, 3-4=-893/235,

4-5=-353/123, 1-9=-369/142, 5-6=-326/131

**BOT CHORD** 7-9=-174/775, 6-7=-104/757 WEBS 2-9=-793/122, 4-6=-845/130, 2-7=-340/277,

3-7=-153/560, 4-7=-318/272

### NOTES

- 1) Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-3-8, Interior (1) 5-3-8 to 10-4-8, Exterior(2R) 10-4-8 to 15-5-8, Interior (1) 15-5-8 to 20-5-4 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
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 9 and 111 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard





Ply Job Truss Truss Type Qtv E1 1 Basswood Farmhouse Roof Special Supported Gable 1 Job Reference (optiona

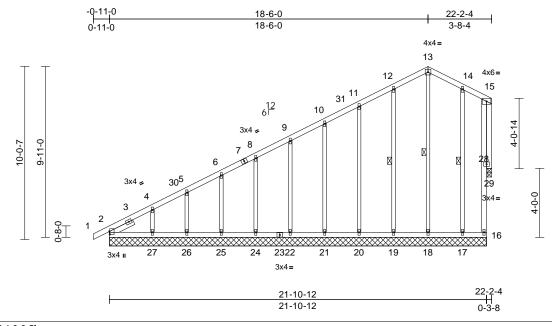
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271797 LEE'S SUMMIT, MISSOURI

RELEASE FOR CONSTRUCTION

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:gsITprHaUglgDiJ2ZYuBGkylfYi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWi

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Scale = 1:66.9

Plate Offsets (X,	Y):	[2:0-2-1,0-0-5]	ı
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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	0.13	Vert(LL)	0.00	2-27	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-27	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	-0.01	29	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 137 lb	FT = 20%

_	U	M	В	E	F	₹	

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

**OTHERS** 2x3 SPF No.2 \*Except\* 28-15:2x4 SP 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. Rigid ceiling directly applied or 10-0-0 oc

**BOT CHORD** 

bracing.

**WEBS** 1 Row at midpt 13-18, 12-19, 14-17 REACTIONS (size) 2=21-10-12 16=21-10-12

> 17=21-10-12, 18=21-10-12, 19=21-10-12, 20=21-10-12, 21=21-10-12, 22=21-10-12, 24=21-10-12, 25=21-10-12,

26=21-10-12, 27=21-10-12, 29=0-3-2

Max Horiz 2=383 (LC 16)

Max Uplift 16=-9 (LC 17), 17=-48 (LC 17),

19=-64 (LC 16), 20=-62 (LC 16), 21=-61 (LC 16), 22=-61 (LC 16), 24=-60 (LC 16), 25=-65 (LC 16),

26=-42 (LC 16), 27=-147 (LC 16), 29=-16 (LC 16)

Max Grav 2=218 (LC 28), 16=43 (LC 24),

17=233 (LC 24), 18=181 (LC 24), 19=261 (LC 23), 20=232 (LC 23), 21=182 (LC 23), 22=180 (LC 36),

24=180 (LC 23), 25=182 (LC 36), 26=171 (LC 1), 27=215 (LC 36),

29=23 (LC 24)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/12, 2-4=-413/153, 4-5=-318/115,

5-6=-278/100, 6-8=-227/80, 8-9=-179/62, 9-10=-130/43, 10-11=-81/43, 11-12=-48/53 12-13=-52/105, 13-14=-54/93, 14-15=-26/36,

16-28=-32/19, 15-28=-32/19

BOT CHORD 2-27=-2/2, 26-27=-2/2, 25-26=-2/2

> 24-25=-2/2, 22-24=-2/2, 21-22=-2/2 20-21=-2/2, 19-20=-2/2, 18-19=-2/2,

17-18=-2/2, 16-17=-2/2

13-18=-139/20, 12-19=-221/96,

11-20=-192/98, 10-21=-142/96 9-22=-140/97, 8-24=-140/96, 6-25=-141/100,

5-26=-135/93, 4-27=-162/241

14-17=-201/124, 15-29=-23/23

### NOTES

WERS

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 18-6-0, Corner(3E) 18-6-0 to 21-9-0 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For study 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.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 16, 64 lb uplift at joint 19, 62 lb uplift at joint 20, 61 lb uplift at joint 21, 61 lb uplift at joint 22, 60 lb uplift at joint 24, 65 lb uplift at joint 25, 42 lb uplift at joint 26, 147 lb uplift at joint 27, 48 lb uplift at joint 17 and 16 lb uplift at ioint 29
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 18,2025

Continued on page 2

WARNING - Ve

- 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/TP11 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)



Ply Job Truss Truss Type Qty Basswood Farmhouse E1 Roof Special Supported Gable 1 1 Job Reference (optional

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271797 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 10:141 8/29:25 ID:gsITprHaUglgDiJ2ZYuBGkylfYi-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWr DDoi7J42 18/29:25

LOAD CASE(S) Standard



Ply Job Truss Truss Type Qty Roof Special E2 8 1 Basswood Farmhouse Job Reference (optiona

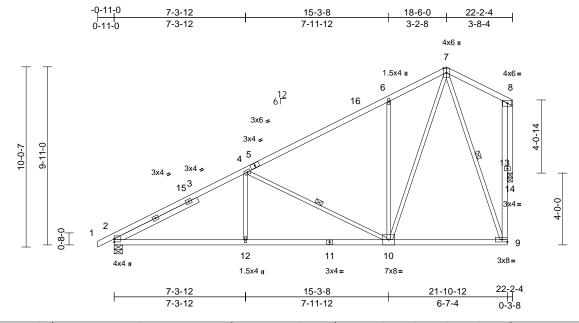
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271798 LEE'S SUMMIT, MISSOURI

RELEASE FOR CONSTRUCTION

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 1 ID:g2jB6PgaV0svctvF4KTDi\_ylfZV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKW

CDoi7J42



Scale = 1:64.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.08	10-12	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.18	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.14	14	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 129 lb	FT = 20%

### LUMBER

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

2x3 SPF No.2 \*Except\* 9-8:2x4 SP No.2 WFBS

OTHERS 2x4 SP No 2 SLIDER Left 2x4 SP No.2 -- 5-2-1

BRACING

TOP CHORD

Structural wood sheathing directly applied or

4-0-1 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 8-9-2 oc

bracing.

**WEBS** 1 Row at midpt 7-9, 4-10

REACTIONS 2=0-5-8, 14=0-3-2 (size)

Max Horiz 2=383 (LC 16) Max Uplift 2=-160 (LC 16), 14=-229 (LC 16)

Max Grav 2=1090 (LC 23), 14=974 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/12, 2-4=-1641/193, 4-6=-896/124, 6-7=-887/266, 7-8=-107/57, 9-13=-198/903,

8-13=-198/903

**BOT CHORD** 2-12=-446/1368, 10-12=-446/1368,

9-10=-87/328

**WEBS** 7-10=-334/1135, 7-9=-888/238,

6-10=-589/286, 4-10=-765/286, 4-12=0/327,

8-14=-977/263

### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 18-6-0, Exterior(2E) 18-6-0 to 21-9-0 zone; cantilever left and right exposed; end vertical left exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 2 and 229 lb uplift at joint 14.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025



### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



Qty Ply Job Truss Truss Type E3 2 1 Basswood Farmhouse Roof Special Job Reference (optiona

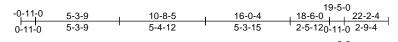
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271799 LEE'S SUMMIT, MISSOURI

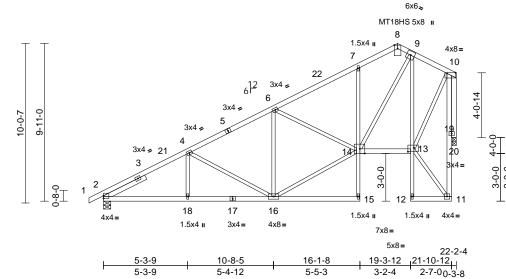
RELEASE FOR CONSTRUCTION

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:HXyS?ajf9Rc8qbAhrG?Jw7ylfVZ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKV

ue Jun 7 rCDoi7J





Scale = 1:72.5

Plate Offsets (X, Y): [2:Edge,0-2-1], [10:0-6-8,0-0-8], [13:0-4-8,0-3-0], [14:0-3-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.09	7-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.16	15-16	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.16	20	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 141 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No 2

2x4 SP No.2 \*Except\* 15-7,9-12:2x3 SPF **BOT CHORD** 

No.2

**WEBS** 2x3 SPF No.2 \*Except\* 11-10:2x4 SP No.2

**OTHERS** 2x4 SP No.2

Left 2x4 SP No.2 -- 2-11-2 SLIDER

BRACING TOP CHORD

Structural wood sheathing directly applied or 4-5-13 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc

bracing.

REACTIONS 2=0-5-8, 20=0-3-2 (size)

Max Horiz 2=306 (LC 13)

Max Uplift 2=-167 (LC 16), 20=-222 (LC 16) Max Grav 2=1090 (LC 23), 20=974 (LC 23)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/12, 2-4=-1695/227, 4-6=-1264/199

6-7=-1104/266, 7-8=-996/333, 8-9=-710/266, 9-10=-473/171, 11-19=-114/122,

10-19=-114/122

2-18=-514/1414, 16-18=-514/1414,

15-16=-2/13, 14-15=0/90, 7-14=-226/133,

13-14=-216/366, 12-13=-23/46,

9-13=-514/176, 11-12=-7/2

11-13=-160/214, 10-13=-284/721,

9-14=-328/1089, 6-14=-237/156, 4-18=0/213,

4-16=-410/176, 6-16=-281/217,

14-16=-441/1209. 10-20=-977/272

### **NOTES**

**WEBS** 

**BOT CHORD** 

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 18-6-0, Exterior(2E) 18-6-0 to 21-9-0 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 8 = 16%
- This truss has been designed for a 10.0 psf bottom 8) chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 167 lb uplift at joint 2 and 222 lb uplift at joint 20.
- 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 18,2025



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 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)



Job Truss Truss Type Qty Ply E4 7 1 Basswood Farmhouse Common Job Reference (optiona

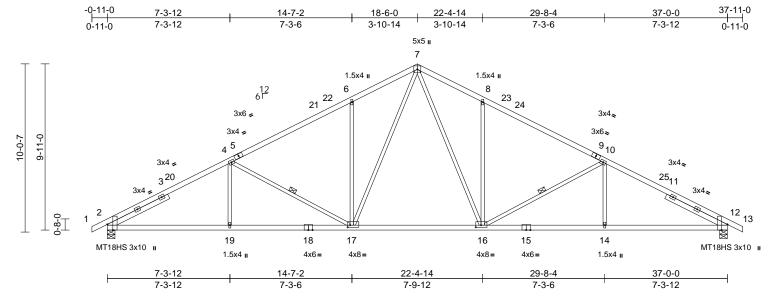
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271800 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:8Oa\_xmr2iWnAyeeW9D9b2FylfSp-RfC?PsB70Hq3NSgPqnL8w3ulTXbGi

ue Jun f WrCDoi



Scale = 1:68.7

Plate Offsets (X, Y): [2:0-4-1,Edge], [12:0-4-1,Edge], [16:0-3-12,0-1-8], [17:0-1-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.17	16-17	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.36	16-17	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.14	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 180 lb	FT = 20%

### LUMBER

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

SLIDER Left 2x4 SP No.2 -- 4-0-10, Right 2x4 SP

No.2 -- 4-0-10

BRACING TOP CHORD

Structural wood sheathing directly applied. **BOT CHORD** Rigid ceiling directly applied or 8-8-5 oc

bracing

WEBS 1 Row at midpt 4-17, 10-16

REACTIONS (size) 2=0-5-8, 12=0-5-8

Max Horiz 2=183 (LC 20)

Max Uplift 2=-276 (LC 16), 12=-276 (LC 17)

Max Grav 2=1729 (LC 1), 12=1729 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD 1-2=0/12, 2-4=-2935/447, 4-6=-2308/435,

6-7=-2285/551, 7-8=-2285/551,

8-10=-2308/435, 10-12=-2935/447,

12-13=0/12

**BOT CHORD** 2-19=-454/2497, 17-19=-454/2497,

16-17=-110/1596, 14-16=-286/2497, 12-14=-286/2497

4-19=0/296, 4-17=-641/256, 6-17=-625/264,

8-16=-625/264, 10-16=-641/257,

10-14=0/296, 7-17=-320/1161,

7-16=-319/1161

### NOTES

**WEBS** 

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 18-6-0. Exterior(2R) 18-6-0 to 23-6-0. Interior (1) 23-6-0 to 37-11-0 zone: cantilever left and right exposed; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 2 and 276 lb uplift at joint 12.
- 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





Ply Job Truss Truss Type Qtv E5 1 Basswood Farmhouse Common Supported Gable 1 Job Reference (optiona

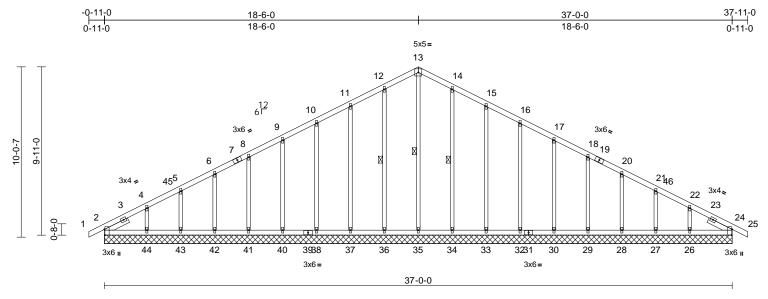
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271801 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:WUXtsnQTcg5xShQIN2gNrTylfdh-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

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Scale = 1:67.9

Plate Offsets (X, Y):	[2:0-4-1,Edge], [2	4:0-4-1,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	24	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 195 lb	FT = 20%

L	U	M	В	E	F	₹

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

SLIDER Left 2x4 SP No.2 -- 1-6-7, Right 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.

**WEBS** 13-35, 12-36, 14-34

1 Row at midpt

REACTIONS (size) 2=37-0-0, 24=37-0-0, 26=37-0-0,

27=37-0-0, 28=37-0-0, 29=37-0-0, 30=37-0-0. 32=37-0-0. 33=37-0-0. 34=37-0-0, 35=37-0-0, 36=37-0-0

37=37-0-0, 38=37-0-0, 40=37-0-0 41=37-0-0, 42=37-0-0, 43=37-0-0,

44=37-0-0

Max Horiz 2=-183 (LC 17) Max Uplift 2=-27 (LC 17), 26=-105 (LC 17),

27=-51 (LC 17), 28=-63 (LC 17), 29=-61 (LC 17), 30=-61 (LC 17), 32=-60 (LC 17), 33=-67 (LC 17),

34=-50 (LC 17), 36=-55 (LC 16), 37=-65 (LC 16), 38=-60 (LC 16),

40=-61 (LC 16), 41=-60 (LC 16), 42=-64 (LC 16), 43=-48 (LC 16),

44=-118 (LC 16)

Max Grav 2=188 (LC 1), 24=188 (LC 1), 26=211 (LC 37), 27=172 (LC 1), 28=182 (LC 37), 29=180 (LC 24),

30=180 (LC 37), 32=221 (LC 24), 33=265 (LC 24), 34=274 (LC 24), 35=208 (LC 29), 36=274 (LC 23),

37=265 (LC 23), 38=221 (LC 23). 40=180 (LC 36), 41=180 (LC 23),

42=182 (LC 36), 43=172 (LC 1),

44=211 (LC 36)

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-4=-243/84, 4-5=-162/90

5-6=-128/105, 6-8=-102/131, 8-9=-82/159, 9-10=-73/187, 10-11=-91/237,

11-12=-111/294, 12-13=-128/341, 13-14=-128/341, 14-15=-111/294, 15-16=-91/237, 16-17=-73/184,

17-18=-58/130, 18-20=-58/76, 20-21=-73/31,

21-22=-98/22, 22-24=-165/50, 24-25=0/12 2-44=-48/193, 43-44=-48/193,

42-43=-48/193, 41-42=-48/193

40-41=-48/193, 38-40=-48/193, 37-38=-48/193, 36-37=-48/193,

35-36=-48/193, 34-35=-48/193,

33-34=-48/193, 32-33=-48/193, 30-32=-48/193, 29-30=-48/193,

28-29=-48/193, 27-28=-48/193, 26-27=-48/193, 24-26=-48/193 **WEBS** 

13-35=-213/42, 12-36=-234/82, 11-37=-225/104, 10-38=-181/95

9-40=-140/97, 8-41=-140/96, 6-42=-141/98, 5-43=-136/100, 4-44=-159/205,

14-34=-234/82, 15-33=-225/104, 16-32=-181/95, 17-30=-140/97,

18-29=-140/96, 20-28=-141/98 21-27=-136/101, 22-26=-159/202

**NOTES** 

**FORCES** 

**BOT CHORD** 

- 1) Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 18-6-0, Corner(3R) 18-6-0 to 23-6-0, Exterior(2N) 23-6-0 to 37-11-0 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design



June 18,2025

Continued on page 2

WARNING - Ve

· 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

besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, 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/TP11 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)



AS NOTED FOR PLAN REVIEW Ply Job Truss Truss Type Qtv **Basswood Farmhouse** E5 Common Supported Gable 1 1 Job Reference (optional

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ue Jun 7 ID:WUXtsnQTcg5xShQIN2gNrTylfdh-RfC?PsB70Hq3NSgPqnL8w3uITXbGK VrCDoi7342JS9f

This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads

- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2, 55 lb uplift at joint 36, 65 lb uplift at joint 37, 60 lb uplift at joint 38, 61 lb uplift at joint 40, 60 lb uplift at joint 41, 64 lb uplift at joint 42, 48 lb uplift at joint 43, 118 lb uplift at joint 44, 50 lb uplift at joint 34, 67 lb uplift at joint 33, 60 lb uplift at joint 32, 61 lb uplift at joint 30, 61 lb uplift at joint 29, 63 lb uplift at joint 28, 51 lb uplift at joint 27 and 105 lb uplift at joint 26.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



RELEASE FOR CONSTRUCTION

DEVELOPMENT SERVICES 174271801

LEE'S SUMMIT, MISSOURI

Job Truss Truss Type Qtv Ply R1 Flat Girder 2 Basswood Farmhouse 1

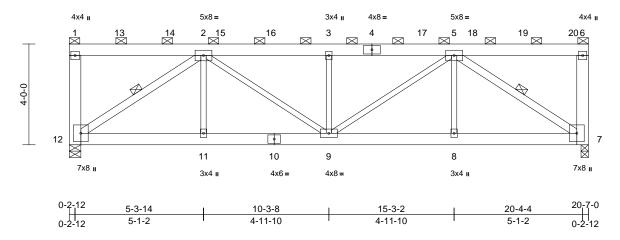
DEVELOPMENT SERVICES 174271802 LEE'S SUMMIT. MISSOURI Job Reference (optional Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 17

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

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

ID:p1ILYtHBqmZt0HL5osFBZ7ylfON-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK VrCDoi7J42J89





Scale = 1:45.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.11	9	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.20	9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.06	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 288 lb	FT = 20%

### LUMBER

TOP CHORD 2x6 SP No.2 **BOT CHORD** 2x6 SP No.2

WFBS 2x3 SPF No.2 \*Except\* 12-1,6-7:2x6 SP

No.2, 5-7,12-2:2x4 SP No.2

**BRACING** TOP CHORD

2-0-0 oc purlins (4-5-15 max.): 1-6, except

end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

WFRS 1 Row at midpt 5-7, 2-12 REACTIONS (size) 7=0-3-8, 12=0-5-8

Max Horiz 12=-108 (LC 14)

Max Uplift 7=-1263 (LC 13), 12=-1120 (LC 12)

Max Grav 7=5781 (LC 1), 12=5096 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-12=-854/274, 1-2=-186/123,

2-3=-7927/2003, 3-5=-7927/2003,

5-6=-183/45, 6-7=-1496/392

**BOT CHORD** 11-12=-1580/6122, 9-11=-1580/6122,

8-9=-1550/6185, 7-8=-1550/6185

5-7=-7310/1833, 2-11=0/170,

2-12=-7239/1815, 2-9=-558/2216 3-9=-2419/679, 5-9=-556/2139, 5-8=0/168

### NOTES

**WEBS** 

2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x6 - 2 rows

staggered at 0-9-0 oc.

Bottom chords connected as follows: 2x6 - 2 rows

staggered at 0-9-0 oc.

Web connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 -

1 row at 0-9-0 oc.

- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 12, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1120 lb uplift at joint 12 and 1263 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 25 lb up at 0-2-12, 954 lb down and 198 lb up at 2-0-0, 954 lb down and 198 lb up at 4-0-0, 954 lb down and 198 lb up at 6-0-0, 954 lb down and 198 lb up at 8-0-0, 954 lb down and 198 lb up at 10-0-0, 954 lb down and 198 lb up at 12-0-0, 954 lb down and 198 lb up at 14-0-0, 954 lb down and 198 lb up at 16-0-0, and 954 lb down and 191 lb up at 18-0-0, and 961 lb down and 201 lb up at 20-0-0 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-6=-70, 7-12=-20

Concentrated Loads (lb)

Vert: 4=-904, 3=-904, 13=-904, 14=-904, 15=-904, 16=-904, 17=-904, 18=-904, 19=-904, 20=-927



June 18,2025



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besign value to use only with recks colline tools. This design is based only upon parameters shown, and is not an individual busining denipolinit, 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/TP11 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)



AS NOTED FOR PLAN REVIEW Job Truss Truss Type Qty Ply V1 Valley 1 Basswood Farmhouse Job Reference (optional

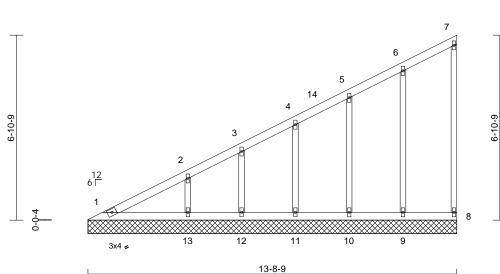
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:znOG5Q?SPPEgIYP3TGYi3bylffX-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

DEVELOPMENT SERVICES 174271803 LEE'S SUMMIT, MISSOURI ue Jun 17 WrCDoi7

RELEASE FOR CONSTRUCTION

13-8-9



Scale = 1:42.8

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 61 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals.

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

REACTIONS (size)

1=13-8-9, 8=13-8-9, 9=13-8-9, 10=13-8-9, 11=13-8-9, 12=13-8-9,

13=13-8-9

Max Horiz 1=276 (LC 16)

Max Uplift 8=-24 (LC 16), 9=-62 (LC 16),

10=-59 (LC 16), 11=-62 (LC 16), 12=-47 (LC 16), 13=-95 (LC 16)

Max Grav 1=134 (LC 27), 8=98 (LC 22), 9=270 (LC 22), 10=254 (LC 22),

11=224 (LC 22), 12=136 (LC 1),

13=280 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

1-2=-329/139, 2-3=-249/97, 3-4=-204/83,

4-5=-149/60, 5-6=-91/48, 6-7=-54/28,

7-8=-83/42

1-13=0/1, 12-13=0/1, 11-12=0/1, 10-11=0/1, BOT CHORD

9-10=0/1, 8-9=0/1

6-9=-228/116, 5-10=-216/107,

4-11=-181/100, 3-12=-110/83, 2-13=-209/165

NOTES

WFBS

TOP CHORD

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-9-1, Interior (1) 5-9-1 to 13-7-13 zone; cantilever left and right exposed :C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 8, 62 lb uplift at joint 9, 59 lb uplift at joint 10, 62 lb uplift at joint 11, 47 lb uplift at joint 12 and 95 lb uplift at joint 13
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



June 18,2025



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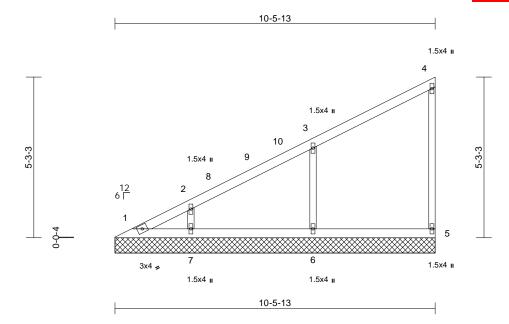
AS NOTED FOR PLAN REVIEW Job Truss Truss Type Qty Ply V2 Valley 1 Basswood Farmhouse 1 Job Reference (optiona

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:CFvEQhvRHyDpKJoX?bPqkvylfff-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

DEVELOPMENT SERVICES 174271804 LEE'S SUMMIT, MISSOURI ue Jun 17 /rCDoi7

RELEASE FOR CONSTRUCTION



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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 39 lb	FT = 20%

### LUMBER

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

### **BRACING**

BOT CHORD

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

bracing

REACTIONS (size)

1=10-5-13, 5=10-5-13, 6=10-5-13, 7=10-5-13

Max Horiz 1=214 (LC 16)

Max Uplift 5=-48 (LC 16), 6=-137 (LC 16),

7=-101 (LC 16)

Max Grav 1=93 (LC 16), 5=206 (LC 22),

6=569 (LC 22), 7=302 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-299/129, 2-3=-214/95, 3-4=-120/54,

4-5=-174/99

**BOT CHORD** 1-7=-2/5. 6-7=-2/5. 5-6=-2/5

3-6=-480/289, 2-7=-236/218 WFBS

### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 10-5-1 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this desian.
- Gable requires continuous bottom chord bearing.
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 5, 137 lb uplift at joint 6 and 101 lb uplift at joint 7.
- 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





Job Truss Truss Type Qty Ply V3 Valley 1 Basswood Farmhouse Job Reference (optiona

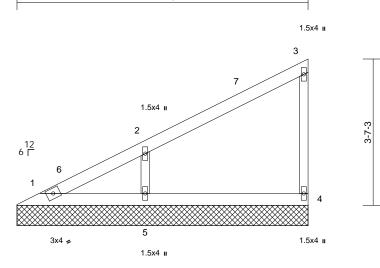
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:RiRCkypQAVDxN5B\_XvGyPDylffn-RfC?PsB70Hq3NSgPqnL8w3uITXbGrWrCDoi794236

DEVELOPMENT SERVICES 174271805 LEE'S SUMMIT, MISSOURI ue Jun 17

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW

7-1-13



Scale = 1:28.3

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 25 lb	FT = 20%

7-1-13

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No 2 WFBS 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=7-1-13, 4=7-1-13, 5=7-1-13 Max Horiz 1=141 (LC 16)

Max Uplift 4=-48 (LC 16), 5=-128 (LC 16) Max Grav 1=72 (LC 27), 4=206 (LC 22),

5=541 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=-227/105, 2-3=-115/59, 3-4=-175/119

**BOT CHORD** 1-5=0/0, 4-5=0/0 WEBS 2-5=-458/315

### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 7-1-1 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 4 and 128 lb uplift at joint 5.
- 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 18,2025



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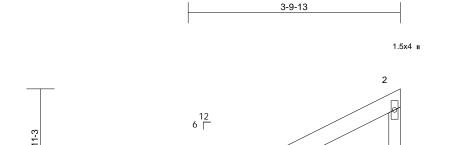
Job Truss Truss Type Qty Ply Basswood Farmhouse V4 Valley 1 Job Reference (optional

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271806 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:GbG2QBgWm6qVZPrtO5ZNTuylffy-RfC?PsB70Hq3NSgPqnL8w3uITXbG (WrCDoixe

ue Jun 7



3x4 = 1.5x4 II

3

3-9-13

Scale = 1:20.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 12 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 WFBS

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 1=3-9-13, 3=3-9-13

Max Horiz 1=68 (LC 16)

Max Uplift 1=-14 (LC 16), 3=-48 (LC 16)

Max Grav 1=191 (LC 22), 3=191 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-74/57, 2-3=-160/130

BOT CHORD 1-3=0/0

### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1 and 48 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



June 18,2025



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Job Truss Truss Type Qty Ply Basswood Farmhouse V5 Valley 1

Job Reference (optional

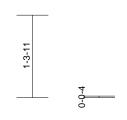
RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271807 LEE'S SUMMIT, MISSOURI

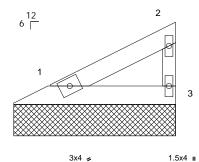
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 1 ID:zFLPyob7PzyVDKpXU7xkgQylfg3-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi75



1.5x4 II







2-6-14

Scale = 1:18.3

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 8 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 WFBS

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins, except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

1=2-6-14, 3=2-6-14 REACTIONS (size) Max Horiz 1=41 (LC 16)

Max Uplift 1=-8 (LC 16), 3=-29 (LC 16) Max Grav 1=108 (LC 22), 3=108 (LC 22)

(lb) - Maximum Compression/Maximum

Tension TOP CHORD 1-2=-44/32, 2-3=-89/78

BOT CHORD 1-3=0/0

### NOTES

**FORCES** 

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 29 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





Job Truss Truss Type Qty Ply Basswood Farmhouse V<sub>6</sub> Valley 1

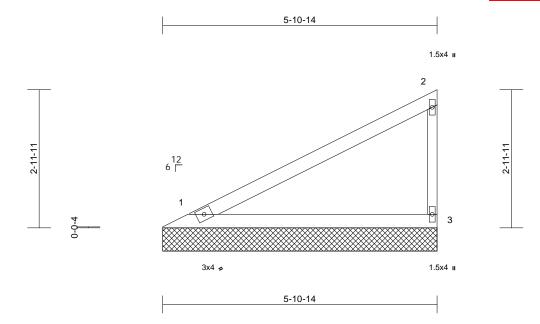
Job Reference (optional

RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 174271808 LEE'S SUMMIT, MISSOURI

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:gvQmUPVk3p3UtFmBZ9J5uxylfgA-RfC?PsB70Hq3NSgPqnL8w3uITXbGH

ue Jun 17 WrCDoi734z36



Scale = 1:24.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	n/a	-	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 20 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x3 SPF No.2 WFBS

### **BRACING**

Structural wood sheathing directly applied, TOP CHORD

except end verticals.

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

1=5-10-14, 3=5-10-14 REACTIONS (size)

Max Horiz 1=114 (LC 16)

Max Uplift 1=-23 (LC 16), 3=-80 (LC 16)

Max Grav 1=341 (LC 22), 3=341 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum Tension

1-2=-120/103, 2-3=-289/211 TOP CHORD

BOT CHORD 1-3=0/0

### NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1 and 80 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



June 18,2025



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not

besign value for see only with recks confined in the segment of 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/TP11 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)



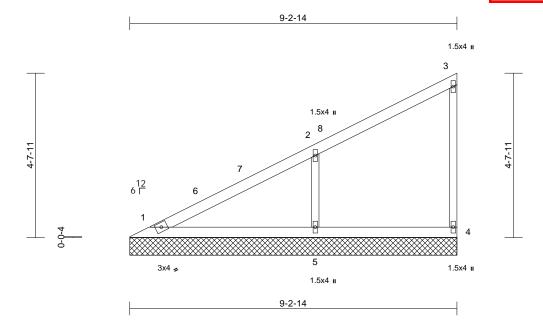
AS NOTED FOR PLAN REVIEW Job Truss Truss Type Qty Ply Basswood Farmhouse V7 Valley 1 Job Reference (optiona

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc.

DEVELOPMENT SERVICES 174271809 LEE'S SUMMIT, MISSOURI ue Jun 17 ID:rl3UEMR\_TzJL9KJ1DuChfgylfgG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKV /rCDoi7J4

RELEASE FOR CONSTRUCTION



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 33 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

BOT CHORD bracing

REACTIONS (size)

1=9-2-14, 4=9-2-14, 5=9-2-14

Max Horiz 1=187 (LC 16)

Max Uplift 4=-42 (LC 16), 5=-162 (LC 16) Max Grav 1=171 (LC 22), 4=190 (LC 22),

5=645 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-240/112, 2-3=-125/49, 3-4=-163/98 **BOT CHORD** 1-5=-2/5, 4-5=-2/5

WEBS 2-5=-529/341

### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 9-2-2 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 4 and 162 lb uplift at joint 5.
- 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





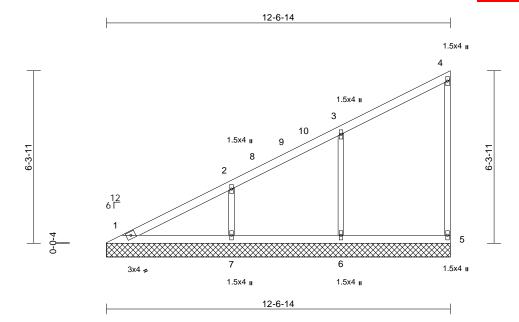
AS NOTED FOR PLAN REVIEW Ply Job Truss Truss Type Qty V8 Valley 1 Basswood Farmhouse Job Reference (optional

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

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. ID:UFCl20yWf\_Ot\_KqXRC?XaSylfgt-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

DEVELOPMENT SERVICES 174271810 LEE'S SUMMIT, MISSOURI ue Jun 🐬

RELEASE FOR CONSTRUCTION



Scale = 1:42.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 48 lb	FT = 20%

### LUMBER

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

### **BRACING**

BOT CHORD

TOP CHORD Structural wood sheathing directly applied or

> 6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size)

1=12-6-14, 5=12-6-14, 6=12-6-14, 7=12-6-14

Max Horiz 1=259 (LC 16)

Max Uplift 5=-49 (LC 16), 6=-129 (LC 16),

7=-136 (LC 16)

1=147 (LC 27), 5=210 (LC 22), Max Grav

6=547 (LC 22), 7=405 (LC 22)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-310/137, 2-3=-193/90, 3-4=-118/56,

4-5=-176/94

**BOT CHORD** 1-7=-2/4, 6-7=-2/4, 5-6=-2/4

3-6=-465/247, 2-7=-308/243 WFBS

### NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 12-6-2 zone; cantilever left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
- 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.

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this desian.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 5, 129 lb uplift at joint 6 and 136 lb uplift at joint 7.
- 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 18,2025



### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not



# RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMILE-MISSOURI O-1/16" Center plate on joint unless x, y offsets are indicated. Dimensions are in fr-in-sixteenths. Apply plates to both sides of truss and fully embed teeth. For 4 x 2 orientation, locate

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

connector plates.

This symbol indicates the required direction of slots in edge of truss.

plates 0- 1/16" from outside

### PLATE SIZE

4 × 4

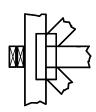
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

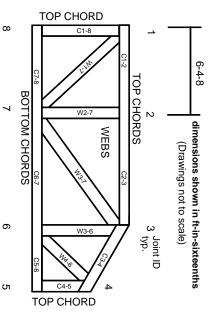
### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction Design Standard for Bracing.

Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-22:

## **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.

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## 

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

## **General Safety Notes**

### Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.