

RE: Wildflower Farmhouse 2 Car -

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

**Site Information:**

Project Customer: Clayton Properties    Project Name: Wildflower Farmhouse 2 Car  
Lot/Block: 2110    Subdivision: BAILEY FARMS  
Model: Wildflower Farmhouse 2 Car  
Address: 1153 SE CRONIN ST  
City: LEE'S SUMMIT    State: MO

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

Design Code: IRC2018/TPI2014    Design Program: MiTek 20/20 8.6  
Wind Code: ASCE 7-16    Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16  
Wind Speed: 115 mph    Floor Load: N/A psf  
Roof Load: 45.0 psf    Exposure Category: C  
Mean Roof Height (feet): 35

No.	Seal#	Truss Name	Date
1	I74275933	A1	6/18/25
2	I74275934	A2	6/18/25
3	I74275935	A3	6/18/25
4	I74275936	A4	6/18/25
5	I74275937	A5	6/18/25
6	I74275938	B1	6/18/25
7	I74275939	PB1	6/18/25

**RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
02/18/2026 11:36:32**

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.



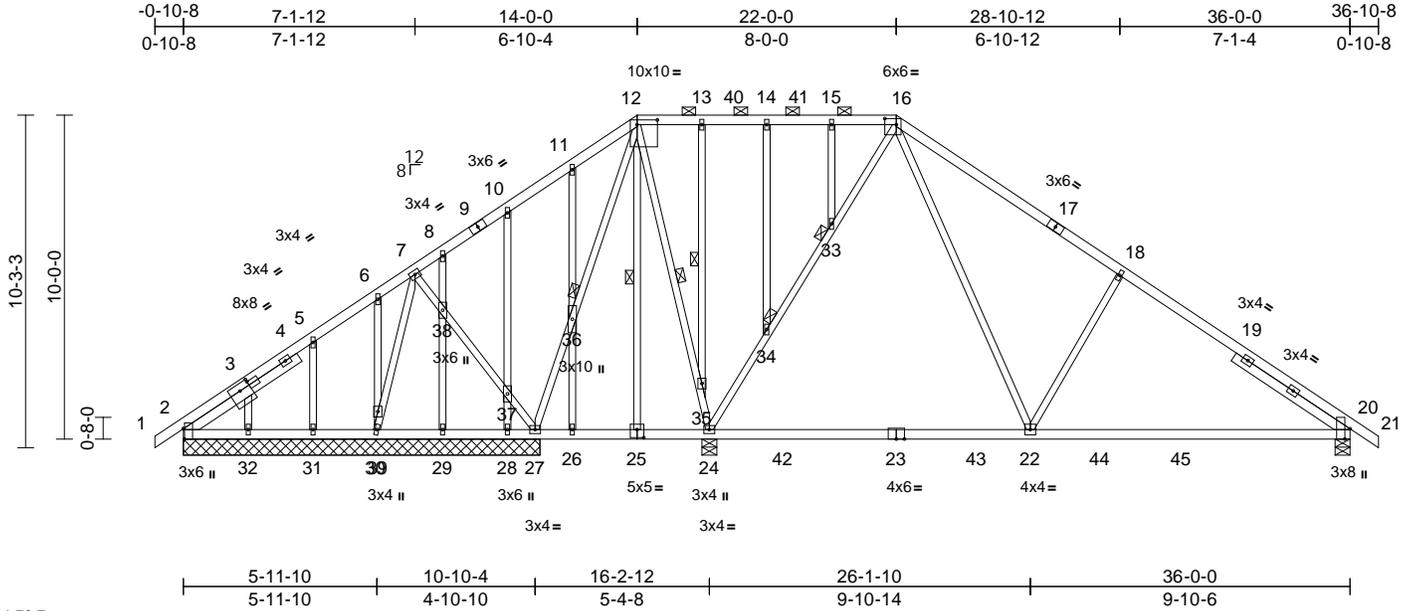
June 18,2025

Job	Truss	Truss Type	Qty	Ply	174275933
Wildflower Farmhouse	A1	Piggyback Base Structural 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. Tue Jun 17 13:39:54  
 ID:ZPE42GuJG2XQkNP0IKB?1ezkXCH-RfC?PsB70Hq3NSgPqnL8w3uTxBGKwRCDoi7J4zJC?7

Page: 1



Scale = 1:70.7

Plate Offsets (X, Y): [2:0-3-13,Edge], [2:2-5-3,0-1-8], [3:0-4-0,0-2-8], [12:0-7-8,0-1-12], [16:0-4-4,0-2-4], [20:0-3-13,Edge], [25:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.28	22-24	>834	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.42	22-24	>565	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 223 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 1650F 1.5E \*Except\* 25-23:2x4 SP No.2  
 WEBS 2x3 SPF No.2  
 OTHERS 2x3 SPF No.2  
 SLIDER Left 2x4 SP No.2 -- 4-2-10, Right 2x4 SP No.2 -- 4-2-12

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 12-16.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 22-24,20-22.  
 WEBS 1 Row at midpt 12-24, 13-35, 12-25  
 JOINTS 1 Brace at Jt(s): 33, 34, 36

**REACTIONS** (size) 2=11-0-0, 20=0-5-8, 24=0-5-8, 27=11-0-0, 28=11-0-0, 29=11-0-0, 31=11-0-0, 32=11-0-0  
 Max Horiz 2=-278 (LC 10)  
 Max Uplift 2=-65 (LC 8), 20=-202 (LC 13), 24=-76 (LC 8), 27=-125 (LC 12), 28=-56 (LC 12), 29=-46 (LC 12), 31=-99 (LC 12), 32=-90 (LC 12)  
 Max Grav 2=180 (LC 25), 20=995 (LC 20), 24=1544 (LC 2), 27=426 (LC 19), 28=93 (LC 19), 29=208 (LC 19), 31=264 (LC 19), 32=218 (LC 19)

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

**TOP CHORD** 1-2=0/16, 2-3=-219/199, 3-5=-152/177, 5-6=-112/135, 6-7=-88/133, 7-8=-68/256, 8-10=-44/273, 10-11=-28/258, 11-12=-45/304, 12-13=-22/265, 13-14=-22/265, 14-15=-22/265, 15-16=-23/265, 16-18=-927/341, 18-20=-1099/269, 20-21=0/16  
**BOT CHORD** 2-32=-144/197, 31-32=-144/200, 30-31=-144/200, 29-30=-152/202, 28-29=-152/202, 27-28=-152/202, 26-27=-228/235, 24-26=-228/235, 22-24=0/314, 20-22=-87/812  
**WEBS** 24-34=-909/162, 33-34=-868/150, 16-33=-896/160, 27-36=-40/62, 12-36=-37/66, 12-35=-190/36, 24-35=-471/192, 16-22=-179/957, 18-22=-480/333, 7-38=-171/82, 37-38=-154/75, 27-37=-168/81, 30-39=0/71, 7-39=-43/139, 15-33=-12/32, 14-34=-58/20, 13-35=-315/160, 12-25=-113/7, 11-36=-99/92, 26-36=-90/90, 10-37=-194/118, 28-37=-177/111, 8-38=-92/59, 29-38=-109/67, 6-39=-90/69, 5-31=-179/120, 3-32=-149/115

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-10-8 to 4-0-0, Interior (1) 4-0-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 32 SP 1650F 1.5E crushing capacity of 565 psi, Joint 24 SP No.2 crushing capacity of 565 psi, Joint 20 SP 1650F 1.5E crushing capacity of 565 psi.
- N/A



June 18, 2025

Continued on page 2

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

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

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 02/18/2026 11:36:32

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Wildflower Farmhouse	A1	Piggyback Base Structural Gable	1	1	I74275933

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

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- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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16023 Swingley Ridge Rd  
 Missouri, MO 63073  
 816-424-0200 / MiTek.US

**02/18/2026 11:36:32**

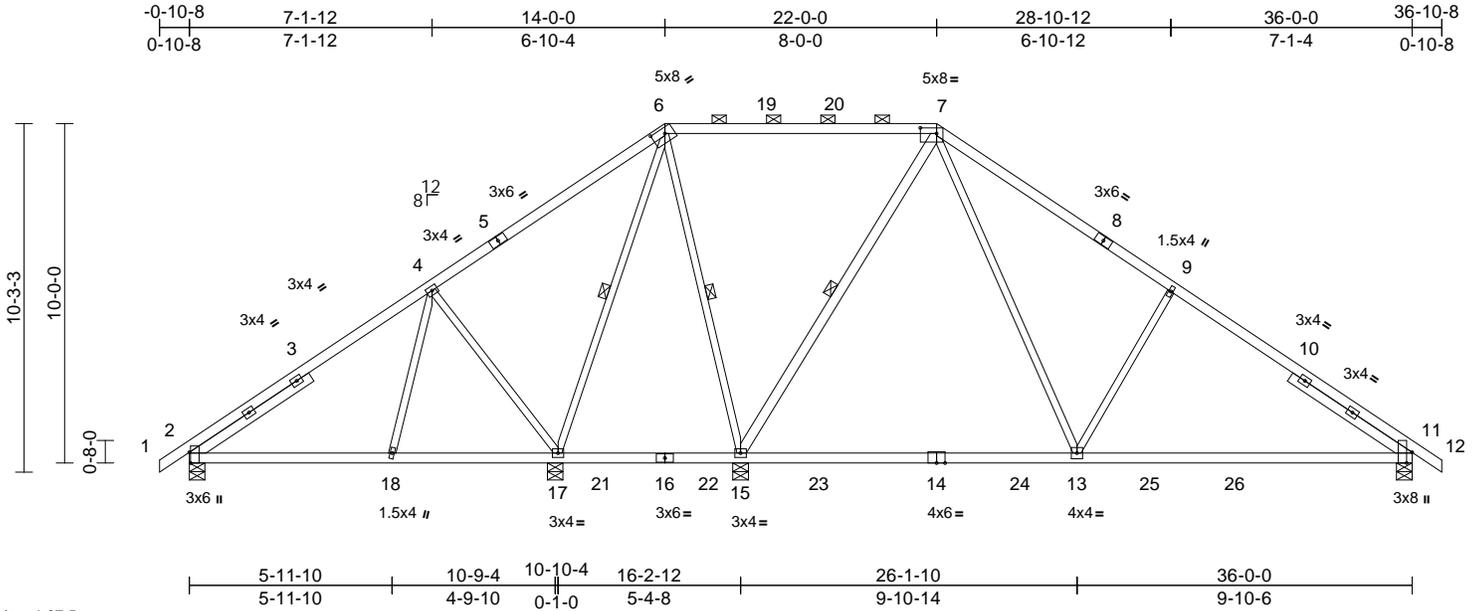
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)	174275934
Wildflower Farmhouse	A2	Piggyback Base	2	1		

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

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Scale = 1:67.5

Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-4-12,0-2-0], [7:0-5-12,0-2-0], [11:0-3-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.29	13-15	>804	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.44	13-15	>542	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 186 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 6-7:2x4 SP 1650F 1.5E  
BOT CHORD 2x4 SP 1650F 1.5E \*Except\* 16-14:2x4 SP No.2  
WEBS 2x3 SPF No.2 \*Except\* 15-7:2x4 SP No.2  
SLIDER Left 2x4 SP No.2 -- 4-2-12, Right 2x4 SP No.2 -- 4-2-12

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-1-6 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-17.  
WEBS 1 Row at midpt 7-15, 6-17, 6-15

**REACTIONS** (size) 2=0-5-8, 11=0-5-8, 15=0-5-8, 17=0-5-8  
Max Horiz 2=-277 (LC 10)  
Max Uplift 2=-126 (LC 12), 11=-214 (LC 13), 15=-19 (LC 13), 17=-175 (LC 12)  
Max Grav 2=562 (LC 25), 11=1002 (LC 20), 15=1500 (LC 2), 17=751 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-4=-554/154, 4-6=-137/319, 6-7=-63/240, 7-9=-939/362, 9-11=-1111/290, 11-12=0/16  
BOT CHORD 2-18=-184/424, 17-18=-199/368, 15-17=-210/206, 13-15=-59/355, 11-13=-104/821  
WEBS 7-15=-914/145, 6-17=-176/38, 6-15=-408/105, 4-17=-655/301, 4-18=0/258, 7-13=-178/959, 9-13=-478/334

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 17 SP 1650F 1.5E crushing capacity of 565 psi, Joint 15 SP No.2 crushing capacity of 565 psi, Joint 11 SP 1650F 1.5E crushing capacity of 565 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 15, 11, and 17. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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



June 18, 2025

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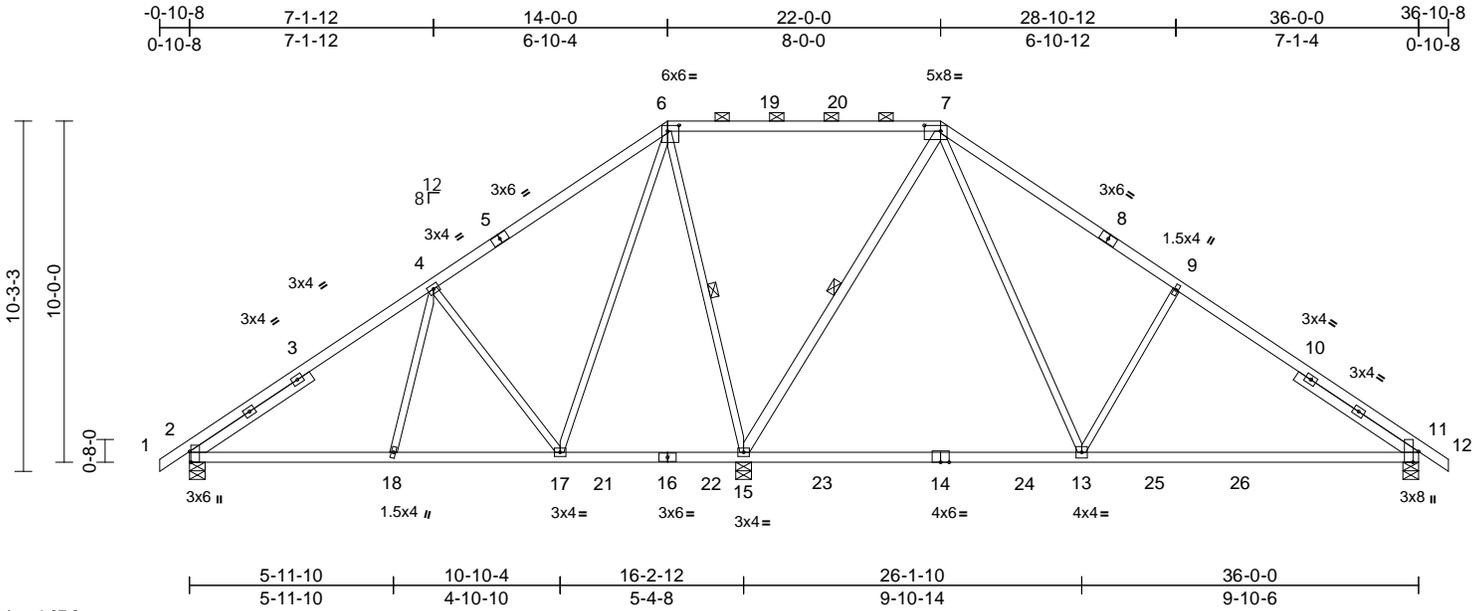
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**AS NOTED ON PLANS REVIEW**  
**DEVELOPMENT SERVICES**  
**LEE'S SUMMIT, MISSOURI**  
**02/18/2026 11:36:32**

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)	174275935
Wildflower Farmhouse	A3	Piggyback Base	8	1		

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

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Page: 1



Scale = 1:67.2

Plate Offsets (X, Y): [2:0-3-13,Edge], [6:0-4-0,0-2-0], [7:0-5-12,0-2-0], [11:0-3-13,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.29	13-15	>810	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.43	13-15	>550	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 186 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2x4 SP No.2 \*Except\* 6-7:2x4 SP 1650F 1.5E  
 BOT CHORD 2x4 SP 1650F 1.5E \*Except\* 16-14:2x4 SP No.2  
 WEBS 2x3 SPF No.2 \*Except\* 15-7:2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 -- 4-2-12, Right 2x4 SP No.2 -- 4-2-12

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 5-2-13 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-17.  
 WEBS 1 Row at midpt 7-15, 6-15

**REACTIONS** (size) 2=0-5-8, 11=0-5-8, 15=0-5-8  
 Max Horiz 2=277 (LC 11)  
 Max Uplift 2=-170 (LC 12), 11=-214 (LC 13), 15=-99 (LC 12)  
 Max Grav 2=733 (LC 25), 11=966 (LC 20), 15=2046 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/16, 2-4=-814/194, 4-6=-428/271, 6-7=-11/318, 7-9=-878/361, 9-11=-1050/290, 11-12=0/16  
 BOT CHORD 2-18=-211/687, 17-18=-225/631, 15-17=-204/205, 13-15=-53/300, 11-13=-103/772  
 WEBS 7-15=-954/150, 7-13=-178/960, 9-13=-481/334, 6-15=-929/201, 6-17=-199/682, 4-17=-642/298, 4-18=0/258

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 15 SP No.2 crushing capacity of 565 psi, Joint 11 SP 1650F 1.5E crushing capacity of 565 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 15, and 11. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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



June 18, 2025

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**MiTek®**  
 RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
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 LEE'S SUMMIT, MISSOURI  
 02/18/2026 11:36:32

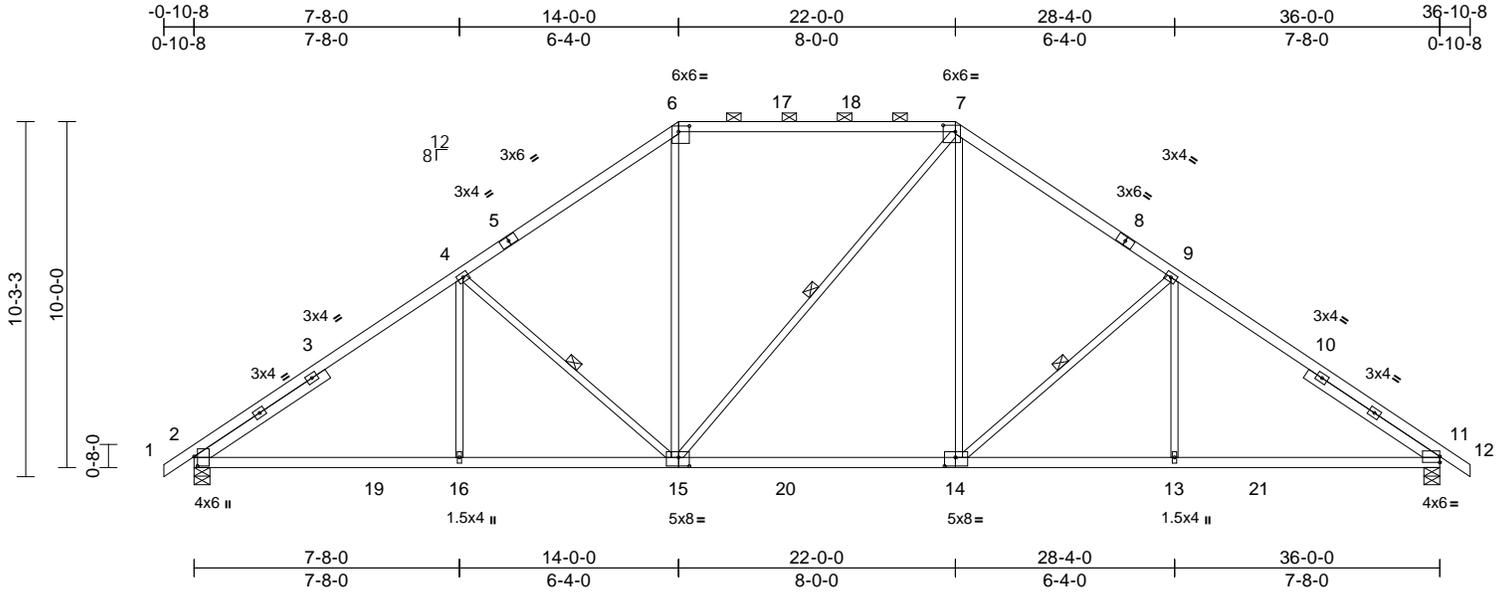
Job Wildflower Farmhouse	Truss A4	Truss Type Piggyback Base	Qty 18	Ply 1	Job Reference (optional) 174275936
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Jun 17 13:39:55

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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	0.67	Vert(LL)	-0.23	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.39	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 179 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2 \*Except\* 6-7:2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
WEBS 2x3 SPF No.2  
SLIDER Left 2x4 SP No.2 -- 4-6-11, Right 2x4 SP No.2 -- 4-6-11

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except 2-0-0 oc purlins (5-1-3 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 4-15, 7-15, 9-14

**REACTIONS** (size) 2=0-5-8, 11=0-5-8  
Max Horiz 2=277 (LC 11)  
Max Uplift 2=-225 (LC 12), 11=-225 (LC 13)  
Max Grav 2=1786 (LC 2), 11=1792 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-4=-2527/360, 4-6=-1998/398, 6-7=-1576/390, 7-9=-2010/399, 9-11=-2537/360, 11-12=0/16  
BOT CHORD 2-16=-275/2101, 13-16=-275/2101, 11-13=-175/1996  
WEBS 4-16=0/321, 4-15=-681/283, 6-15=-49/679, 7-15=-182/184, 7-14=-96/751, 9-14=-680/283, 9-13=0/319

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 27-0-0, Interior (1) 27-0-0 to 36-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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



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/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

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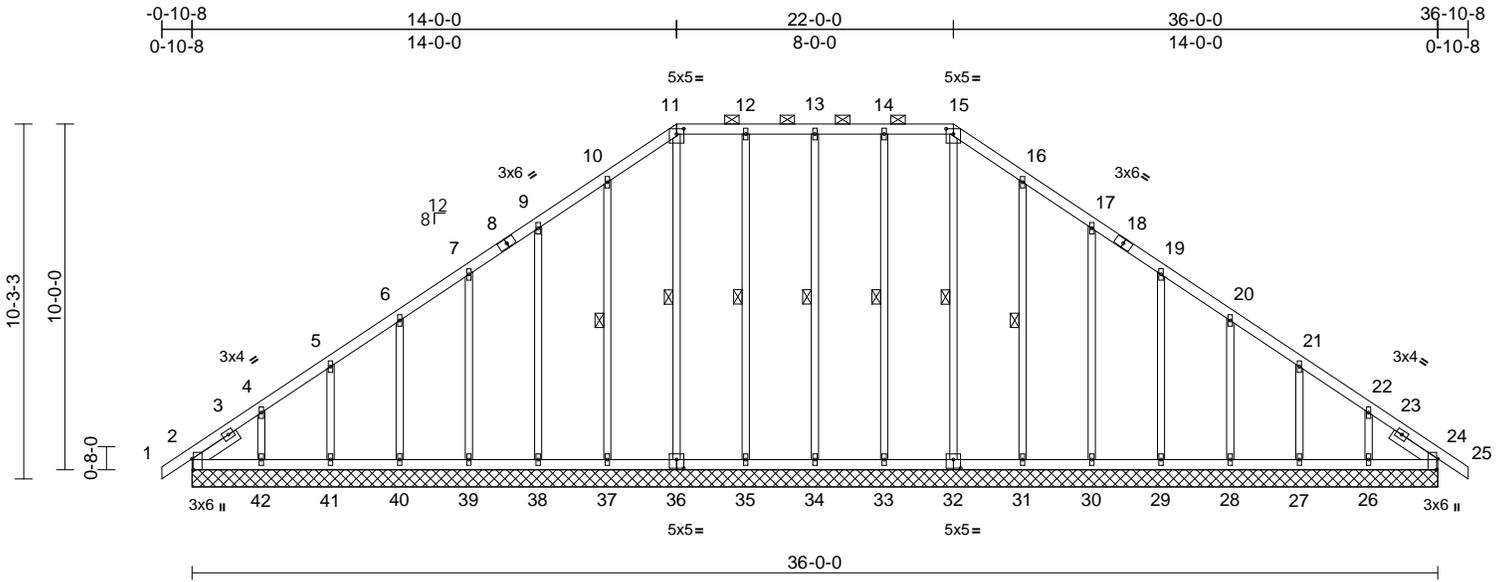
Job	Truss	Truss Type	Qty	Ply	174275937
Wildflower Farmhouse	A5	Piggyback Base Supported Gable	1	1	Job Reference (optional)

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. Tue Jun 17 13:39:55

Page: 1

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Scale = 1:66.3

Plate Offsets (X, Y): [2:0-3-13,Edge], [11:0-2-8,0-1-13], [15:0-2-8,0-1-13], [24:0-3-13,Edge], [32:0-2-8,0-3-0], [36:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 209 lb	FT = 20%

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

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

**REACTIONS** (size)  
2=36-0-0, 24=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0, 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0, 37=36-0-0, 38=36-0-0, 39=36-0-0, 40=36-0-0, 41=36-0-0, 42=36-0-0  
Max Horiz 2=277 (LC 11)  
Max Uplift 2=100 (LC 8), 24=20 (LC 9), 26=118 (LC 13), 27=73 (LC 13), 28=79 (LC 13), 29=77 (LC 13), 30=82 (LC 13), 31=76 (LC 13), 33=43 (LC 9), 34=43 (LC 8), 35=41 (LC 9), 36=14 (LC 9), 37=79 (LC 12), 38=80 (LC 12), 39=77 (LC 12), 40=80 (LC 12), 41=71 (LC 12), 42=132 (LC 12)

Max Grav 2=225 (LC 20), 24=171 (LC 1), 26=204 (LC 20), 27=187 (LC 20), 28=189 (LC 20), 29=189 (LC 20), 30=189 (LC 20), 31=196 (LC 20), 32=168 (LC 22), 33=188 (LC 25), 34=179 (LC 25), 35=188 (LC 26), 36=187 (LC 22), 37=198 (LC 19), 38=188 (LC 19), 39=189 (LC 19), 40=190 (LC 19), 41=185 (LC 19), 42=220 (LC 19)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-4=-286/237, 4-5=-198/190, 5-6=-172/168, 6-7=-155/162, 7-9=-141/190, 9-10=-138/232, 10-11=-177/273, 11-12=-153/250, 12-13=-153/250, 13-14=-153/250, 14-15=-153/250, 15-16=-177/273, 16-17=-138/209, 17-19=-99/141, 19-20=-69/75, 20-21=-84/54, 21-22=-113/77, 22-24=-202/113, 24-25=0/16  
BOT CHORD 2-42=-95/196, 41-42=-95/196, 40-41=-95/196, 39-40=-95/196, 38-39=-95/196, 37-38=-95/196, 35-37=-95/196, 34-35=-95/196, 33-34=-95/196, 31-33=-95/196, 30-31=-95/196, 29-30=-95/196, 28-29=-95/196, 27-28=-95/196, 26-27=-95/196, 24-26=-95/196  
WEBS 15-32=-128/7, 14-33=-148/67, 13-34=-139/67, 12-35=-148/65, 11-36=-147/45, 10-37=-158/103, 9-38=-148/104, 7-39=-149/101, 6-40=-149/103, 5-41=-147/96, 4-42=-173/151, 16-31=-156/100, 17-30=-149/106, 19-29=-149/101, 20-28=-149/103, 21-27=-149/98, 22-26=-158/138

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-10-8 to 4-0-0, Exterior(2N) 4-0-0 to 14-0-0, Corner(3R) 14-0-0 to 19-0-0, Exterior(2N) 19-0-0 to 22-0-0, Corner(3R) 22-0-0 to 27-0-0, Exterior(2N) 27-0-0 to 36-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

**NOTES**



June 18, 2025

Continued on page 2

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

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

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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Wildflower Farmhouse	A5	Piggyback Base Supported Gable	1	1	I74275937

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

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Page: 2

- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 2, 43 lb uplift at joint 33, 43 lb uplift at joint 34, 41 lb uplift at joint 35, 14 lb uplift at joint 36, 79 lb uplift at joint 37, 80 lb uplift at joint 38, 77 lb uplift at joint 39, 80 lb uplift at joint 40, 71 lb uplift at joint 41, 132 lb uplift at joint 42, 76 lb uplift at joint 31, 82 lb uplift at joint 30, 77 lb uplift at joint 29, 79 lb uplift at joint 28, 73 lb uplift at joint 27, 118 lb uplift at joint 26 and 20 lb uplift at joint 24.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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

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816-424-0200 / MiTek US Corp

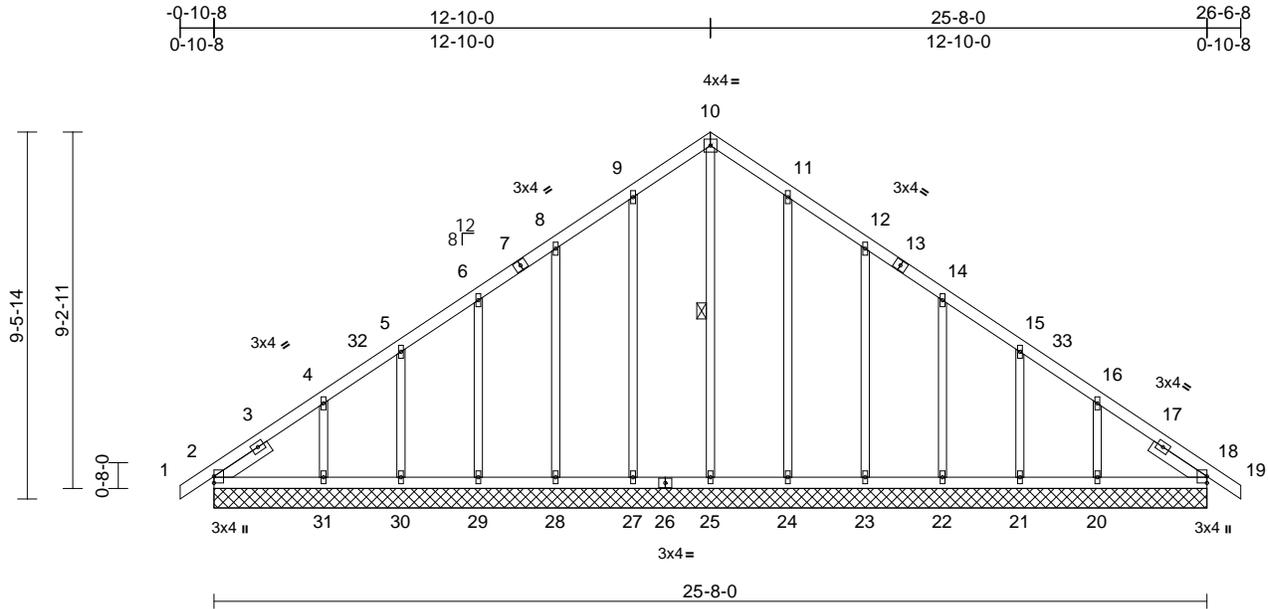
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Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)	174275938
Wildflower Farmhouse	B1	Common Supported Gable	1	1		

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

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 138 lb	FT = 20%

**LUMBER**

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 1-7-13, Right 2x4 SP No.2 -- 1-7-13

**BRACING**

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 10-25

**REACTIONS** (size)

2=25-8-0, 18=25-8-0, 20=25-8-0, 21=25-8-0, 22=25-8-0, 23=25-8-0, 24=25-8-0, 25=25-8-0, 27=25-8-0, 28=25-8-0, 29=25-8-0, 30=25-8-0, 31=25-8-0
Max Horiz 2=255 (LC 11)
Max Uplift 2=-60 (LC 8), 18=-4 (LC 9), 20=-137 (LC 13), 21=-62 (LC 13), 22=-81 (LC 13), 23=-83 (LC 13), 24=-69 (LC 13), 27=-72 (LC 12), 28=-82 (LC 12), 29=-81 (LC 12), 30=-59 (LC 12), 31=-146 (LC 12)
Max Grav 2=239 (LC 20), 18=211 (LC 1), 20=264 (LC 20), 21=167 (LC 20), 22=194 (LC 20), 23=189 (LC 20), 24=193 (LC 20), 25=215 (LC 13), 27=197 (LC 19), 28=187 (LC 19), 29=195 (LC 19), 30=164 (LC 19), 31=274 (LC 19)

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

TOP CHORD	1-2=0/16, 2-4=-231/188, 4-5=-178/133, 5-6=-163/131, 6-8=-148/159, 8-9=-134/201, 9-10=-169/250, 10-11=-169/250, 11-12=-134/191, 12-14=-94/121, 14-15=-100/63, 15-16=-117/51, 16-18=-184/99, 18-19=0/16
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**BOT CHORD**

2-31=-85/187, 30-31=-85/187, 29-30=-85/187, 28-29=-85/187, 27-28=-85/187, 25-27=-85/187, 24-25=-85/187, 23-24=-85/187, 22-23=-85/187, 21-22=-85/187, 20-21=-85/187, 18-20=-85/187, 10-25=-201/84, 9-27=-157/96, 8-28=-148/106, 6-29=-153/105, 5-30=-132/84, 4-31=-210/168, 11-24=-153/93, 12-23=-149/107, 14-22=-152/104, 15-21=-135/87, 16-20=-201/160
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**WEBS**

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCCL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 12-10-0, Corner(3R) 12-10-0 to 17-10-0, Exterior(2N) 17-10-0 to 26-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2, 4 lb uplift at joint 18, 72 lb uplift at joint 27, 82 lb uplift at joint 28, 81 lb uplift at joint 29, 59 lb uplift at joint 30, 146 lb uplift at joint 31, 69 lb uplift at joint 24, 83 lb uplift at joint 23, 81 lb uplift at joint 22, 62 lb uplift at joint 21 and 137 lb uplift at joint 20.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



June 18, 2025

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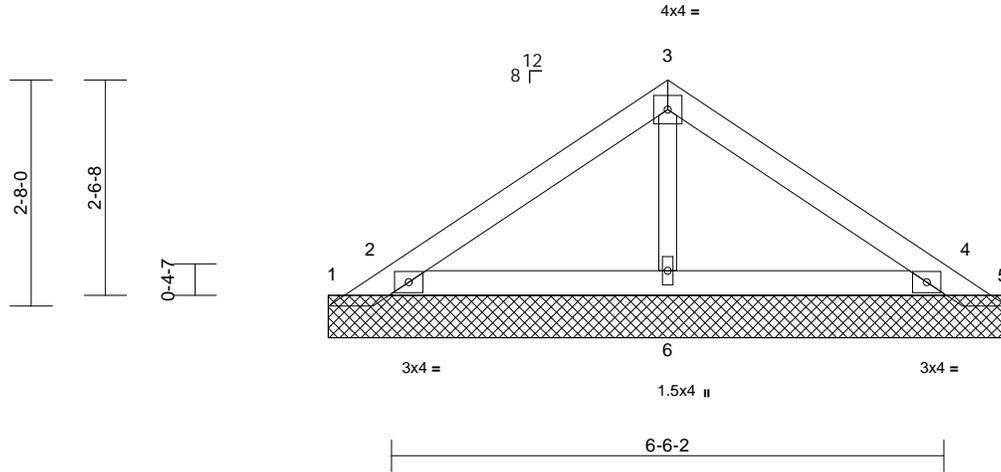
Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)	174275939
Wildflower Farmhouse	PB1	Piggyback	30	1		

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

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Page: 1

-0-8-9	3-3-1	6-6-2	7-2-11
0-8-9	3-3-1	3-3-1	0-8-9



Scale = 1:27

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 1=8-0-0, 2=8-0-0, 4=8-0-0, 5=8-0-0, 6=8-0-0  
Max Horiz 1=-69 (LC 8)  
Max Uplift 1=-195 (LC 19), 2=-213 (LC 12), 4=-196 (LC 13), 5=-166 (LC 20)  
Max Grav 1=149 (LC 12), 2=404 (LC 19), 4=385 (LC 20), 5=123 (LC 13), 6=223 (LC 1)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-113/159, 2-3=-111/70, 3-4=-110/70, 4-5=-92/99  
BOT CHORD 2-6=-19/51, 4-6=-19/51  
WEBS 3-6=-142/60

**NOTES**

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

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 1, 166 lb uplift at joint 5, 213 lb uplift at joint 2 and 196 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



June 18, 2025

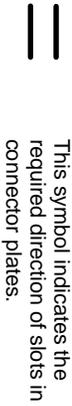
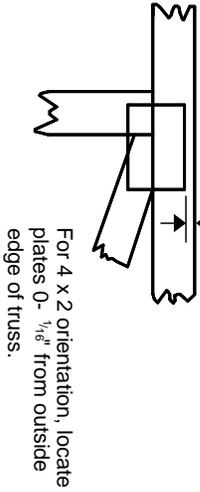
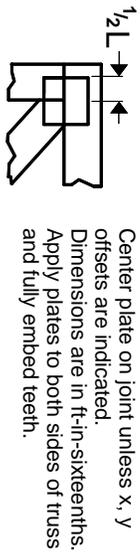
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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/TPI1 Quality Criteria, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

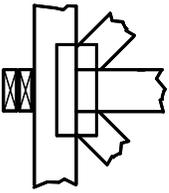
4 X 4

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

## LATERAL BRACING LOCATION



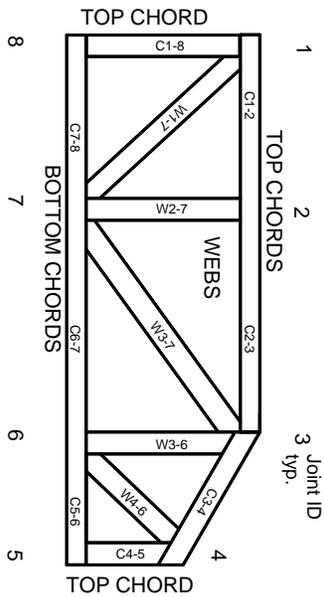
## BEARING



## Industry Standards:

ANSI/TFP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## Product Code Approvals

ICC-ES Reports:

ESR-1-1988, 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/TFP 1 section 6.3. These truss designs rely on Lumber values established by others.

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# General Safety Notes

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

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

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