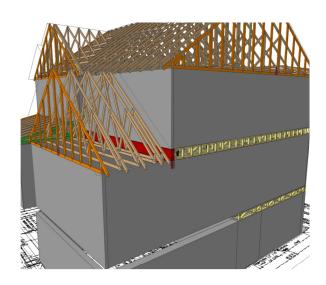


Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450

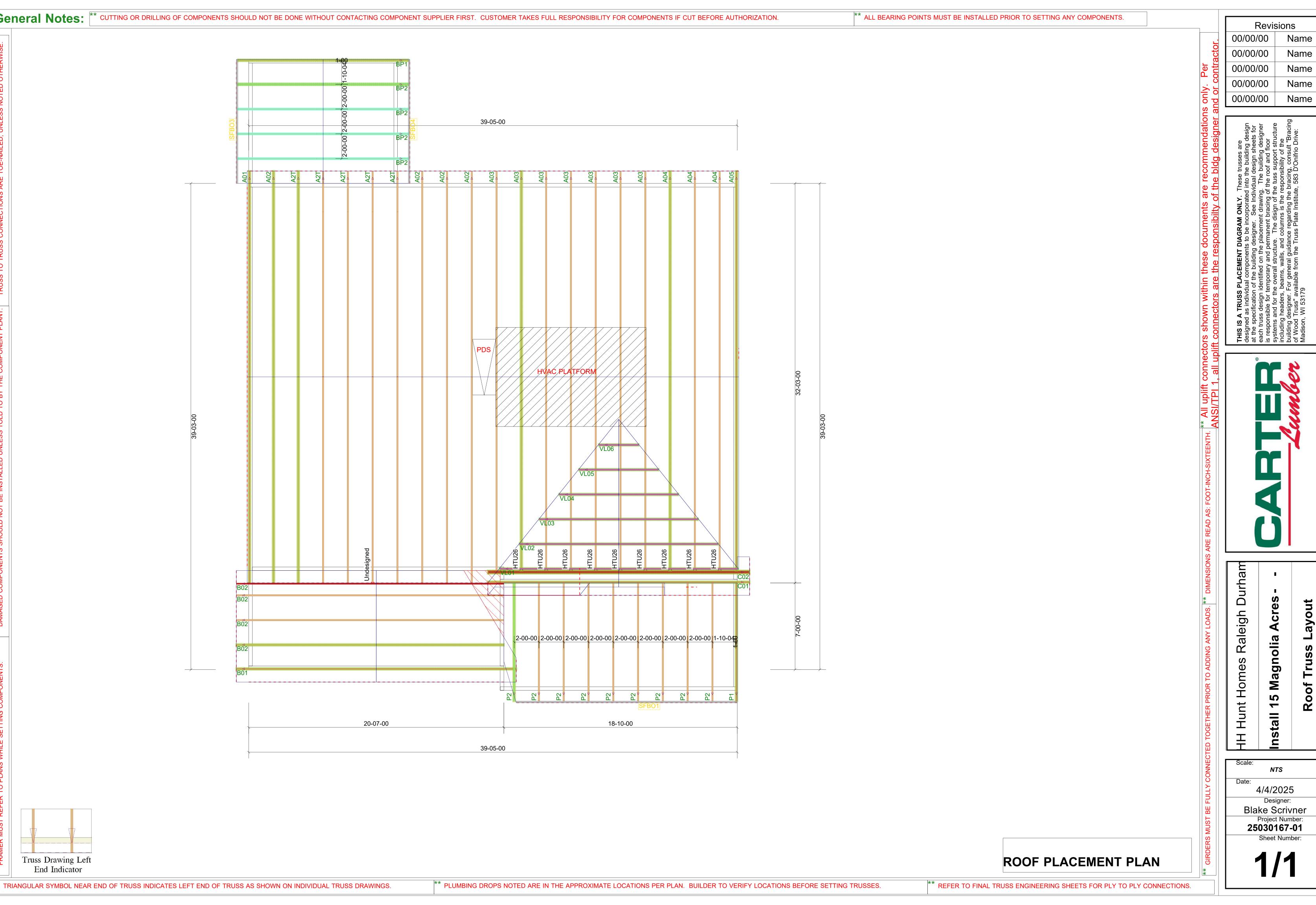
### Builder: Raleigh Durham Install 15 Magnolia Model: Acres - -



### THE PLACEMENT PLAN NOTES:

- 1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
- 2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
- 3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
- 4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
- 5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
- 6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
- 7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
- 8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
- 9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By:	Date:
--------------	-------



Name

Name

Layout

Roof



Trenco 818 Soundside Rd Edenton, NC 27932

Re: 25030167-01

Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB FE GLH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I72418170 thru I72418189

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

North Carolina COA: C-0844



April 2,2025

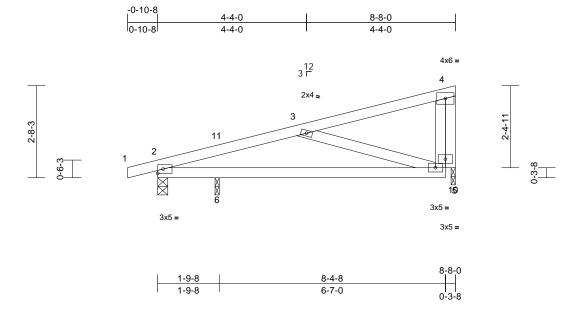
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	P2	Monopitch	9	1	I72418170 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:7Wa9mHIH83WcvcihdFmSvXzVHZI-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0			1							Weight: 39 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 8-8-0 oc

bracing

REACTIONS (size) 2=0-3-8, 6=0-1-8, 10=0-1-8

Max Horiz 2=62 (LC 11)

Max Uplift 2=-97 (LC 11), 10=-32 (LC 15) Max Grav 2=274 (LC 2), 6=159 (LC 20),

10=324 (LC 22)

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

Tension

TOP CHORD 1-2=0/16, 2-3=-608/358, 3-4=-74/0,

4-5=-86/204

BOT CHORD 2-6=-433/566, 5-6=-433/566 WEBS 3-5=-556/432, 4-10=-325/172

### NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-5 to 2-1-11, Interior (1) 2-1-11 to 8-4-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 13.9 psf on overhangs non-concurrent with 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.
- Bearing at joint(s) 10 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 at joint(s) 6, 10.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 2 and 32 lb uplift at joint 10.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). 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

Uniform Loads (lb/ft) Vert: 1-4=-48, 5-7=-20



April 2,2025

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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A03	Common	7	1	I72418171 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:Gt9v9wEKdzoV1wl?BuvFF?zREoS-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

6-4-13

4-8-15

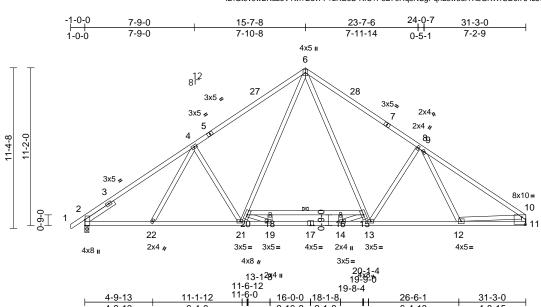


Plate Offsets (X, Y): [2:0-4-13,Edge], [10:Edge,0-6-2]

4-9-13

6-4-0

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.15	14-19	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.30	14-19	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.08	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 204 lb	FT = 20%

2-10-8

2-1-81

-6-12

0-0-12

0-4-4

0-0-12

### LUMBER

Scale = 1:81.6

TOP CHORD 2x4 SP No.1 \*Except\* 5-6:2x4 SP 2400F

2.0E

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

**SLIDER** Left 2x4 SP No.2 -- 2-6-0

BRACING

**FORCES** 

TOP CHORD Structural wood sheathing directly applied,

except end verticals.

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

bracing

REACTIONS 2=0-3-8. 11= Mechanical (size)

Max Horiz 2=214 (LC 12)

Max Grav 2=1749 (LC 29), 11=1697 (LC 30)

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-4=-2680/0, 4-6=-2423/4,

6-8=-2425/4, 8-9=-2423/0, 9-10=-2618/0,

10-11=-1799/0

BOT CHORD 2-22=-105/2135, 21-22=0/2071,

19-21=0/1495, 14-19=0/2390, 13-14=0/1494,

12-13=0/2085, 11-12=-84/428,

18-20=-1186/0, 16-18=-1186/0,

15-16=-1186/0

WEBS 20-21=-90/729, 6-20=0/1131, 6-15=0/1114, 13-15=-94/707, 18-19=-227/0, 19-20=0/1141,

14-16=-217/0, 14-15=0/1142, 4-21=-498/206, 4-22=0/151, 8-13=-509/201, 9-12=-46/77,

10-12=0/1665

### NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-2-0, Interior (1) 2-2-0 to 15-7-8, Exterior(2R) 15-7-8 to 18-9-0. Interior (1) 18-9-0 to 31-1-4 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 15-7-8 from left end, supported at two points, 5-0-0 apart.
- All plates are 3x5 MT20 unless otherwise indicated
- \* 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 No.2.
- Refer to girder(s) for truss to truss connections.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 2,2025

Page: 1

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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A2T	Roof Special	5	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:29 ID:rlUnXuCSK2Qw9T1QWIMYdMzREoV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

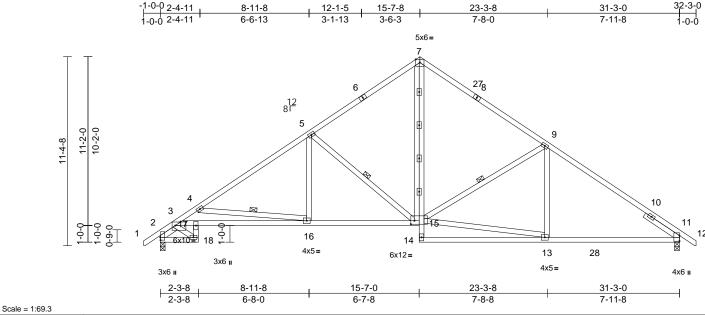


Plate Offsets (X, Y): [2:0-2-0,0-0-3], [3:0-7-12,0-2-10], [15:0-2-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.20	16-17	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.39	16-17	>954	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.19	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 208 lb	FT = 20%

### LUMBER

2x4 SP No.2 \*Except\* 1-6,8-12:2x4 SP 2400F TOP CHORD

2.0E

**BOT CHORD** 2x4 SP No.2 \*Except\* 3-15:2x4 SP 2400F

2.0E

WFBS 2x4 SP No.2

**SLIDER** Left 2x4 SP No.2 -- 1-1-5, Right 2x4 SP No.2

-- 2-6-0

BRACING

Structural wood sheathing directly applied or TOP CHORD

3-0-3 oc purlins.

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

bracing.

WFBS 1 Row at midpt 4-16, 9-15, 5-15 2=0-3-8 11=0-3-8

REACTIONS (size) Max Horiz 2=206 (LC 12)

Max Grav 2=1455 (LC 29), 11=1466 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-1366/20, 3-4=-3630/248,

4-5=-2455/172, 5-7=-1680/217,

7-9=-1676/214. 9-11=-2019/169. 11-12=0/40

**BOT CHORD** 2-18=-78/918, 17-18=-49/891

3-17=-147/3381, 16-17=-163/3432, 15-16=-1/1925, 14-15=0/155, 7-15=-89/1301,

13-14=0/197, 11-13=-117/1712

**WEBS** 4-16=-1521/163, 5-16=0/563,

13-15=-52/1528, 9-15=-610/145,

9-13=-3/251, 3-18=-1120/79, 5-15=-936/137

### NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-2-8, Interior (1) 2-2-8 to 15-7-0, Exterior(2R) 15-7-0 to 18-8-8. Interior (1) 18-8-8 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 3x5 MT20 unless otherwise indicated.
- \* 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.
- 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

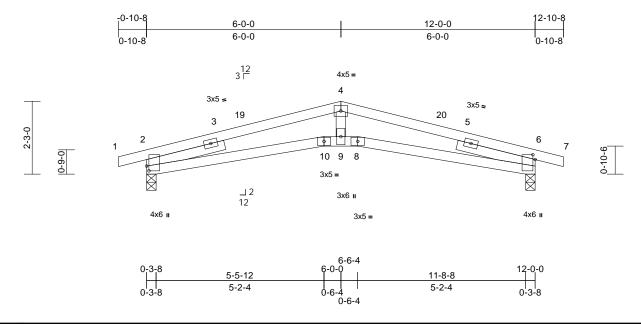


April 2,2025



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	BP2	Roof Special	4	1	I72418173 Job Reference (optional)

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Mon Mar 31 22:24:32 ID:UWNSQhzvOMxRVHKaPT9gkjzVHQh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:35.6

Plate Offsets (X, Y): [2:0-1-13,0-0-13], [6:0-1-13,0-0-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.07	10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.15	10	>992	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.06	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 48 lb	FT = 20%

### LUMBER

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

SLIDER Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-6-9 oc purlins.

**BOT CHORD** Rigid ceiling directly applied or 9-3-13 oc

bracing.

REACTIONS (size) 2=0-3-8. 6=0-3-8

Max Horiz 2=-17 (LC 12)

Max Uplift 2=-19 (LC 11), 6=-19 (LC 12) Max Grav 2=531 (LC 2), 6=531 (LC 2)

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

Tension TOP CHORD 1-2=0/16, 2-4=-1517/463, 4-6=-1517/468,

6-7=0/16

**BOT CHORD** 2-10=-398/1453, 9-10=-387/1432,

8-9=-387/1432, 6-8=-397/1453

**WEBS** 4-9=-68/524

### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-5 to 2-1-11, Interior (1) 2-1-11 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 12-10-5 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 13.9 psf on overhangs non-concurrent with 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.
- Bearing at joint(s) 2, 6 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 19 lb uplift at joint 2 and 19 lb uplift at joint 6.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 2,2025

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

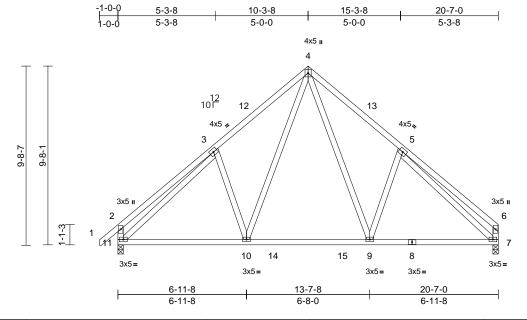
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Jo	ob	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25	5030167-01	B02	Common	4	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:gSr2oyHDvuB4uOUas0TztdzREoP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:62.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.07	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.11	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 139 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins, except end verticals.

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

bracing.

REACTIONS 7=0-3-8, 11=0-3-8 (size) Max Horiz 11=194 (LC 10)

Max Grav 7=910 (LC 30), 11=973 (LC 29)

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

Tension

TOP CHORD 1-2=0/53, 2-3=-404/148, 3-4=-1129/213,

4-5=-1134/215, 5-6=-353/114, 2-11=-418/144,

6-7=-324/93

**BOT CHORD** 10-11=-52/805 9-10=0/558 7-9=-42/809 WEBS 4-9=-92/551, 5-9=-257/182, 4-10=-91/543, 3-10=-248/181, 3-11=-827/0, 5-7=-882/30

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-6 to 2-0-10, Interior (1) 2-0-10 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior (1) 13-3-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- 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

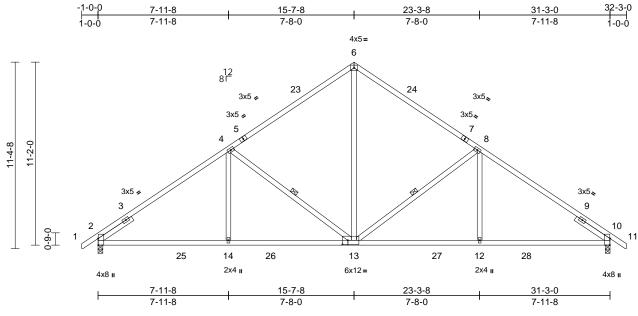


April 2,2025



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A02	Common	4	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:rlUnXuCSK2Qw9T1QWIMYdMzREoV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:70.3

Plate Offsets (X, Y): [2:0-4-13,Edge], [10:0-4-13,Edge], [13:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.13	13-14	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.24	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 173 lb	FT = 20%

### LUMBER

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

SLIDER Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2

BRACING TOP CHORD

Structural wood sheathing directly applied. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

WEBS 1 Row at midpt 8-13, 4-13 2=0-3-8, 10=0-3-8

REACTIONS (size) Max Horiz 2=208 (LC 12)

Max Grav 2=1515 (LC 29), 10=1515 (LC 30)

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

Tension

TOP CHORD 1-2=0/40, 2-4=-2102/169, 4-6=-1632/217.

6-8=-1632/217, 8-10=-2102/169, 10-11=0/40

**BOT CHORD** 2-14=-165/1778, 12-14=-23/1779,

10-12=-131/1779

**WEBS** 6-13=-80/1222, 8-13=-786/153, 8-12=0/393,

4-13=-786/153, 4-14=0/393

### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-2-0, Interior (1) 2-2-0 to 15-7-8, Exterior(2R) 15-7-8 to 18-9-0, Interior (1) 18-9-0 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- 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



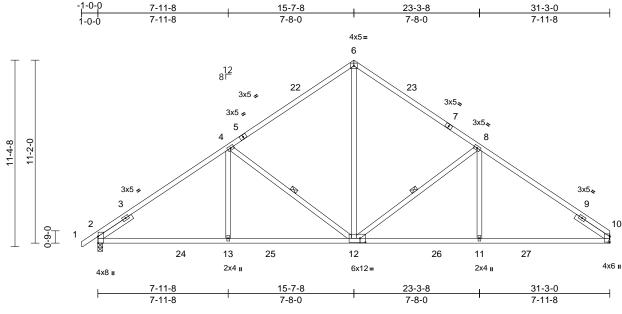
April 2,2025



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A04	Common	3	1	I72418176 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:Gt9v9wEKdzoV1wl?BuvFF?zREoS-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:70.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.13	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.24	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 171 lb	FT = 20%

### LUMBER

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

SLIDER Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2

BRACING

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

bracing.

WEBS 1 Row at midpt 8-12, 4-12 REACTIONS 2=0-3-8, 10= Mechanical

(size) Max Horiz 2=204 (LC 12)

Max Grav 2=1516 (LC 29), 10=1462 (LC 30)

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

Tension

TOP CHORD 1-2=0/40, 2-4=-2104/169, 4-6=-1633/217,

6-8=-1634/217, 8-10=-2106/171

**BOT CHORD** 2-13=-170/1774, 11-13=-51/1776,

10-11=-151/1776

**WEBS** 6-12=-81/1224, 8-12=-789/153, 8-11=0/394,

4-12=-786/153, 4-13=0/394

### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-11-8 to 2-2-0, Interior (1) 2-2-0 to 15-7-8, Exterior(2R) 15-7-8 to 18-9-0, Interior (1) 18-9-0 to 31-3-0 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=1.33

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 No.2
- Refer to girder(s) for truss to truss connections.
- 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



April 2,2025

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

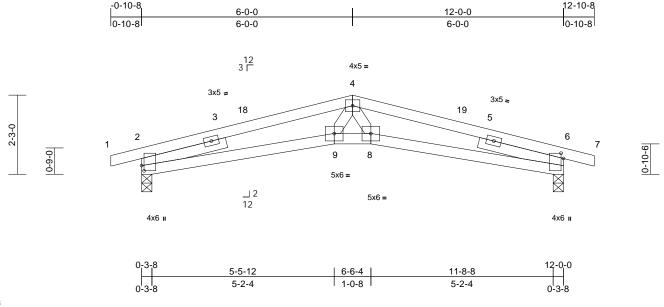
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	BP1	Roof Special	1	1	I72418177 Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Mon Mar 31 22:24:31 ID:gAbTs4W7nBc2PCGEXQTD3DzVHQ\_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.8

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.07	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.14	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.06	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 50 lb	FT = 20%

### LUMBER

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

SLIDER Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2

-- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-7-1 oc purlins.

BOT CHORD Rigid ceiling directly applied or 9-3-13 oc

bracing.

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

Max Horiz 2=-16 (LC 12)

Max Uplift 2=-19 (LC 11), 6=-19 (LC 12) Max Grav 2=515 (LC 2), 6=515 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/15, 2-4=-1480/454, 4-6=-1481/449,

6-7=0/15

BOT CHORD 2-9=-398/1418, 8-9=-361/1275,

6-8=-387/1419

WEBS 4-8=-59/319, 4-9=-61/319

### NOTES

- Unbalanced roof live loads have been considered for this design.
- 2) Wind: AŠCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-5 to 2-1-11, Interior (1) 2-1-11 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 12-10-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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 13.9 psf on overhangs non-concurrent with 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.
- 7) All bearings are assumed to be SP No.2.
- Bearing at joint(s) 2, 6 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 19 lb uplift at joint 2 and 19 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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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.sbcacomponents.com)

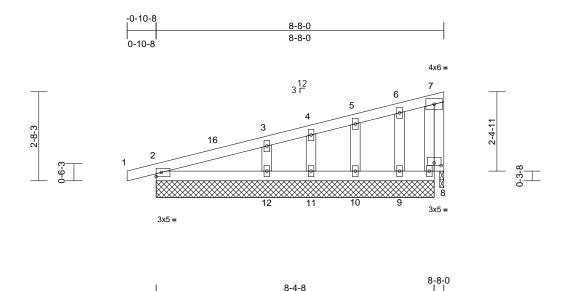


Job	)	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
250	030167-01	P1	Monopitch Supported Gable	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:CZCETv7?bSYBWplizT\_sXNzVHWx-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-3-8

Page: 1



Scale = 1:34.7

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

-		ı		1							l	-
Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	12-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	12-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 41 lb	FT = 20%

8-4-8

### LUMBER

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

### BRACING TOP CHORD **BOT 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) 2=8-4-8, 8=8-4-8, 9=8-4-8, 10=8-4-8, 11=8-4-8, 12=8-4-8

Max Horiz 2=67 (LC 14)

Max Uplift 2=-17 (LC 11), 8=-1 (LC 12), 9=-3

(LC 11), 10=-5 (LC 15), 11=-2 (LC

11), 12=-14 (LC 15)

Max Grav 2=163 (LC 2), 8=35 (LC 22), 9=106

(LC 22), 10=133 (LC 22), 11=43 (LC 22), 12=264 (LC 22)

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

Tension

TOP CHORD 1-2=0/15, 2-3=-161/87, 3-4=-103/60,

4-5=-90/62, 5-6=-62/53, 6-7=-41/47, 7-8=-34/34

**BOT CHORD** 2-12=-126/90, 11-12=-39/52, 10-11=-39/52,

9-10=-39/52, 8-9=-39/52

WEBS 6-9=-83/84, 5-10=-99/102, 4-11=-45/45,

3-12=-201/200

### NOTES

Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-10-5 to 2-1-11, Exterior(2N) 2-1-11 to 8-4-8 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=1.33

- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; 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 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated
- Gable studs spaced at 1-4-0 oc.
- \* 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 8, 17 lb uplift at joint 2, 3 lb uplift at joint 9, 5 lb uplift at joint 10, 2 lb uplift at joint 11, 14 lb uplift at joint 12 and 17 lb uplift at joint 2.
- 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



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

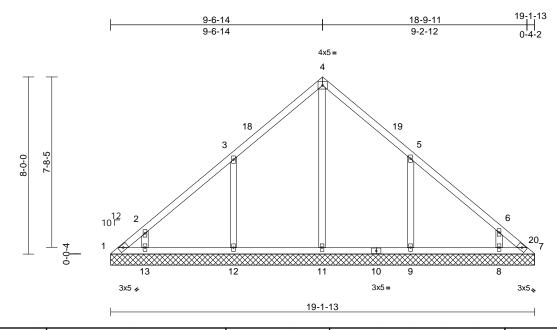
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL01	Valley	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:KU29IED45LYnndbd4TtnAazREoU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								

LUMBER

BCDL

Scale = 1:52

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

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or

10.0

6-0-0 oc purlins.

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

bracing.

REACTIONS (size) 1=19-1-13, 7=19-1-13, 8=19-1-13, 9=19-1-13, 11=19-1-13,

12=19-1-13, 13=19-1-13

Max Horiz 1=146 (LC 10)

Max Uplift 1=-58 (LC 11), 7=-30 (LC 12), 8=-37 (LC 14), 9=-90 (LC 14),

12=-91 (LC 13), 13=-41 (LC 13)

Max Grav 1=90 (LC 10), 7=63 (LC 14), 8=311

(LC 29), 9=459 (LC 29), 11=355

(LC 31), 12=461 (LC 28), 13=318

(LC 28)

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

Tension

TOP CHORD 1-2=-158/128, 2-3=-166/96, 3-4=-180/141, 4-5=-180/136, 5-6=-133/56, 6-7=-125/81

BOT CHORD 1-13=-63/92, 12-13=-46/92, 11-12=-46/92,

9-11=-46/92, 8-9=-46/92, 7-8=-46/92 4-11=-150/4, 3-12=-330/175, 2-13=-260/130, WFRS

5-9=-327/174, 6-8=-258/129

### NOTES

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 9-7-3, Exterior(2R) 9-7-3 to 12-7-3, Interior (1) 12-7-3 to 18-9-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable. or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1, 30 lb uplift at joint 7, 91 lb uplift at joint 12, 41 lb uplift at joint 13, 90 lb uplift at joint 9 and 37 lb uplift at joint 8.
- 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



Weight: 90 lb

FT = 20%

April 2,2025

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

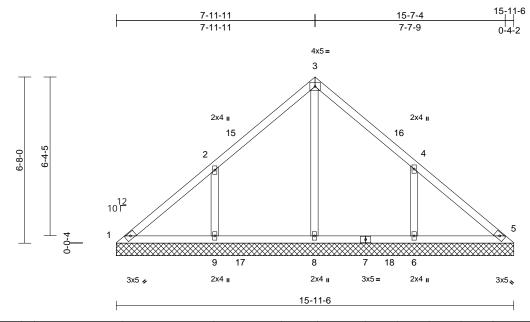
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL02	Valley	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:ohbXyaEisfgePnApdAO0jnzREoT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Sca	le	=	1	.46	2

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0	l									Weight: 70 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

10-0-0 oc purlins.

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

bracing.

REACTIONS (size) 1=15-11-6, 5=15-11-6, 6=15-11-6, 8=15-11-6, 9=15-11-6

Max Horiz 1=122 (LC 10)

Max Uplift 1=-46 (LC 9), 6=-87 (LC 14), 9=-90

(LC 13)

1=72 (LC 34), 5=0 (LC 29), 6=465 Max Grav

(LC 29), 8=622 (LC 28), 9=461 (LC

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

Tension

TOP CHORD 1-2=-84/318, 2-3=-9/266, 3-4=-10/251,

4-5=-85/265

1-9=-173/53, 8-9=-173/48, 6-8=-171/48,

5-6=-171/48 WEBS

3-8=-430/0, 2-9=-331/180, 4-6=-331/179

### NOTES

**BOT CHORD** 

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior (1) 11-0-0 to 15-11-11 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=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 1, 90 lb uplift at joint 9 and 87 lb uplift at joint 6.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 2,2025

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

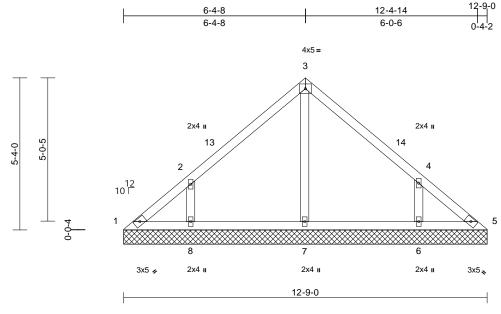
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL03	Valley	1	1	I72418181 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:ohbXyaEisfgePnApdAO0jnzREoT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 54 lb	FT = 20%

### LUMBER

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

### **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=12-9-0, 5=12-9-0, 6=12-9-0,

7=12-9-0, 8=12-9-0 Max Horiz 1=97 (LC 10)

1=-20 (LC 9), 6=-70 (LC 14), 8=-73

(LC 13) 1=93 (LC 29), 5=79 (LC 28), 6=321 Max Grav

(LC 29), 7=257 (LC 2), 8=325 (LC

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

Tension

Max Uplift

TOP CHORD 1-2=-115/90, 2-3=-147/118, 3-4=-148/113,

4-5=-97/57

**BOT CHORD** 1-8=-30/82, 7-8=-30/65, 6-7=-30/65,

5-6=-30/73 WEBS

3-7=-173/0. 2-8=-308/207. 4-6=-303/203

### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 6-4-13, Exterior(2R) 6-4-13 to 9-4-13, Interior (1) 9-4-13 to 12-9-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 73 lb uplift at joint 8 and 70 lb uplift at joint 6.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 2,2025

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

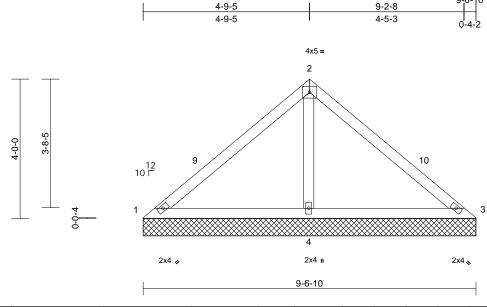
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL04	Valley	1	1	I72418182  Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:ohbXyaEisfgePnApdAO0jnzREoT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 36 lb	FT = 20%

### LUMBER

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

### **BRACING**

Structural wood sheathing directly applied or TOP CHORD

9-6-10 oc purlins.

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

bracing.

REACTIONS (size) 1=9-6-10, 3=9-6-10, 4=9-6-10

Max Horiz 1=-72 (LC 9)

Max Uplift 1=-28 (LC 35), 3=-26 (LC 34),

4=-18 (LC 13)

1=67 (LC 34), 3=70 (LC 35), 4=707 Max Grav

(LC 2)

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

Tension

TOP CHORD 1-2=-128/338, 2-3=-120/333

1-4=-247/182, 3-4=-243/180 BOT CHORD 2-4=-638/274

WFBS

### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-9-10, Exterior(2R) 4-9-10 to 7-9-10, Interior (1) 7-9-10 to 9-6-14 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=1.33
- 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=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 26 lb uplift at joint 3 and 18 lb uplift at joint 4.
- 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



April 2,2025

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.sbcacomponents.com)

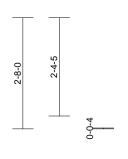


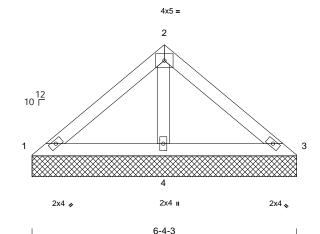
Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL05	Valley	1	1	I72418183 Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Mon Mar 31 22:24:33

ID:ohbXyaEisfgePnApdAO0jnzREoT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







Scale = 1:27.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 lb	FT = 20%

### LUMBER

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

### **BRACING**

Structural wood sheathing directly applied or TOP CHORD

6-4-3 oc purlins.

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

bracing.

REACTIONS (size) 1=6-4-3, 3=6-4-3, 4=6-4-3

Max Horiz 1=-47 (LC 9)

Max Uplift 4=-5 (LC 13)

1=64 (LC 34), 3=67 (LC 35), 4=417 Max Grav

(LC 2)

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

Tension

TOP CHORD 1-2=-79/171, 2-3=-70/167

**BOT CHORD** 1-4=-145/135, 3-4=-142/133

**WEBS** 2-4=-342/177

### NOTES

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
- 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=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 4-0-0 oc.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 4.
- 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



April 2,2025

Page: 1

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

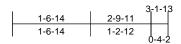
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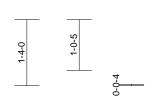


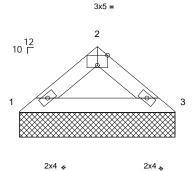
Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	VL06	Valley	1	1	I72418184 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:33 ID:ohbXyaEisfgePnApdAO0jnzREoT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1







3-1-13

Scale = 1:23.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

### LUMBER

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

### BRACING

TOP CHORD Structural wood sheathing directly applied or

3-1-13 oc purlins.

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

bracing.

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

Max Horiz 1=21 (LC 10)

Max Grav 1=126 (LC 2), 3=126 (LC 2) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-188/82, 2-3=-188/81

BOT CHORD 1-3=-55/135

### NOTES

- 1) Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
- 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=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.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



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

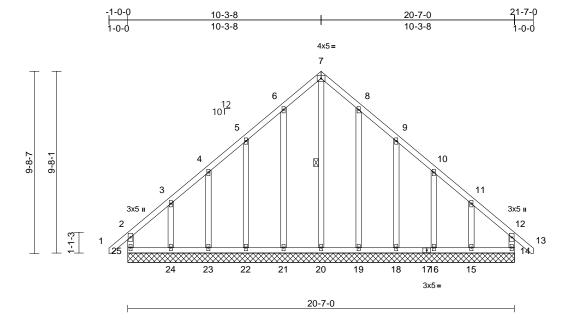
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	B01	Common Supported Gable	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:ZD4ZdJKjz6hWM?nL5sXv1TzREoL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 149 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

bracing.

WERS 1 Row at midpt 7-20

**REACTIONS** (size)

14=20-7-0, 15=20-7-0, 16=20-7-0, 18=20-7-0, 19=20-7-0, 20=20-7-0, 21=20-7-0, 22=20-7-0, 23=20-7-0,

24=20-7-0, 25=20-7-0

Max Horiz 25=200 (LC 12)

Max Uplift 15=-194 (LC 44), 16=-11 (LC 14),

18=-54 (LC 44), 19=-28 (LC 14), 21=-30 (LC 13), 22=-45 (LC 13), 23=-31 (LC 43), 24=-74 (LC 13),

25=-141 (LC 41)

14=341 (LC 29), 15=146 (LC 30),

16=177 (LC 2), 18=166 (LC 30), 19=178 (LC 30), 20=300 (LC 44),

21=178 (LC 29), 22=172 (LC 29), 23=156 (LC 2), 24=245 (LC 29),

25=168 (LC 30)

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

Tension TOP CHORD

2-25=-138/137, 1-2=0/53, 2-3=-100/189, 3-4=-63/173, 4-5=-58/253, 5-6=-92/342,

6-7=-134/413, 7-8=-134/412, 8-9=-92/343, 9-10=-60/250, 10-11=-28/190,

11-12=-104/116, 12-13=0/143, 12-14=-294/0

BOT CHORD 24-25=-130/84, 23-24=-130/84,

22-23=-130/84, 21-22=-130/84,

20-21=-130/84, 19-20=-130/84,

18-19=-130/84, 16-18=-130/84,

15-16=-130/84, 14-15=-130/84

WEBS

7-20=-453/84, 6-21=-153/88, 5-22=-153/115, 4-23=-147/102. 3-24=-179/125. 8-19=-154/87, 9-18=-149/122, 10-16=-164/86, 11-15=-107/243

### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-6 to 2-3-8, Exterior(2N) 2-3-8 to 10-3-8, Corner(3R) 10-3-8 to 13-3-8, Exterior(2N) 13-3-8 to 21-6-6 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=1.33
- 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=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a 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.
- 11) All bearings are assumed to be SP No.2.

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 25, 30 lb uplift at joint 21, 45 lb uplift at joint 22, 31 lb uplift at joint 23, 74 lb uplift at joint 24, 28 lb uplift at joint 19, 54 lb uplift at joint 18, 11 lb uplift at joint 16 and 194 Ib uplift at joint 15.
- 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

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

Uniform Loads (lb/ft)

Vert: 1-2=-48, 2-7=-48, 7-12=-48, 12-13=-48, 14-25=-20

Concentrated Loads (lb)

Vert: 13=-111



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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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A05	Common Supported Gable	1	1	I72418186 Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:31 ID:CFHgacGa9a3DGEvOJJykKQzREoQ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

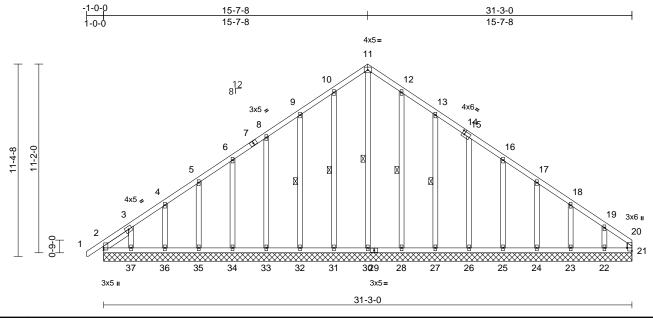


Plate Offsets (X, Y): [14:0-1-12,0-2-4], [20:Edge,0-3-8]

Scale = 1:68.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	21	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 234 lb	FT = 20%

LUMBER			FURCES	(ib) - Maximum Compression/Maximum
TOP CHORD	2x4 SP No.2			Tension
BOT CHORD	2x4 SP No.2		TOP CHORD	1-2=0/40, 2-3=-64/67, 3-4=-177/158,
WEBS	2x4 SP No.2			4-5=-153/139, 5-6=-141/134, 6-8=-130/132,
OTHERS	2x4 SP No.2			8-9=-118/164, 9-10=-146/223,
SLIDER	Left 2x4 SP No.2	- 1-10-1		10-11=-175/271, 11-12=-175/271,
BRACING				12-13=-146/223, 13-15=-113/164,
TOP CHORD	Structural wood sh	eathing directly applied or		15-16=-89/109, 16-17=-65/54, 17-18=-66/36
TOT OFFICIAL		except end verticals.		18-19=-84/52, 19-20=-148/89, 20-21=-83/29
BOT CHORD		ly applied or 10-0-0 oc	BOT CHORD	2-37=-74/135, 36-37=-74/135,
DOT OFFICIAL	bracing.	ly applica of 10 0 0 0c		35-36=-74/135, 34-35=-74/135,
WEBS	1 Row at midpt	11-30, 10-31, 9-32,		33-34=-74/135, 32-33=-74/135,
WEDO	i Now at mapt	12-28, 13-27		31-32=-74/135, 30-31=-74/135,
REACTIONS	(oizo) 2 21 2	0. 21=31-3-0. 22=31-3-0.		28-30=-74/135, 27-28=-74/135,
REACTIONS	` '	-,,,		26-27=-74/135, 25-26=-74/135,
		3-0, 24=31-3-0, 25=31-3-0,		24-25=-74/135, 23-24=-74/135,
		3-0, 27=31-3-0, 28=31-3-0,		22-23=-74/135, 21-22=-74/135
		3-0, 31=31-3-0, 32=31-3-0,	WEBS	11-30=-238/99, 10-31=-143/64,
		3-0, 34=31-3-0, 35=31-3-0,		9-32=-145/82, 8-33=-143/75, 6-34=-143/76,
	30=31-3	3-0, 37=31-3-0		5-35=-143/76 4-36=-147/77 3-37=-138/96

EUDUES

26=-25 (LC 14), 27=-30 (LC 14),

24=-28 (LC 14), 25=-25 (LC 14), 28=-18 (LC 14), 31=-20 (LC 13), 32=-29 (LC 13), 33=-25 (LC 13),

22=-75 (LC 14), 23=-17 (LC 14),

2=-87 (LC 9), 21=-31 (LC 12),

34=-26 (LC 13), 35=-26 (LC 13), 36=-23 (LC 13), 37=-66 (LC 13) Max Grav 2=198 (LC 30), 21=104 (LC 14),

37=174 (LC 29)

Max Horiz 2=214 (LC 12)

Max Uplift

22=177 (LC 30), 23=163 (LC 30), 24=165 (LC 30), 25=165 (LC 30), 26=165 (LC 30), 27=165 (LC 30) 28=168 (LC 30), 30=193 (LC 14), 31=173 (LC 29), 32=163 (LC 29), 33=165 (LC 29), 34=165 (LC 29), 35=164 (LC 29), 36=166 (LC 29),

(lb) Maximum Compression/Maximum

5-35=-143/76, 4-36=-147/77, 3-37=-138/96,

12-28=-143/64, 13-27=-145/82, 15-26=-143/75, 16-25=-143/76, 17-24=-143/77, 18-23=-144/73, 19-22=-145/100

### NOTES

Unbalanced roof live loads have been considered for this design.

Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-8 to 2-2-0, Exterior(2N) 2-2-0 to 15-7-8, Corner(3R) 15-7-8 to 18-9-0, Exterior(2N) 18-9-0 to 31-1-4 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=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 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 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.



Continued on page 2

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

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Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A05	Common Supported Gable	1	1	I72418186 Job Reference (optional)

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Mon Mar 31 22:24:31 ID:CFHgacGa9a3DGEvOJJykKQzREoQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

11) Provide mechanical connection (by others) of truss to Provide international contraction (by others) of itses to bearing plate capable of withstanding 87 lb uplift at joint 2, 31 lb uplift at joint 21, 20 lb uplift at joint 31, 29 lb uplift at joint 32, 25 lb uplift at joint 33, 26 lb uplift at joint 34, 26 lb uplift at joint 35, 23 lb uplift at joint 36, 66 lb uplift at joint 36, 66 lb uplift at joint 36, 67 lb uplift at joint 36, 68 lb uplift at joint 37, 68 lb uplift at joint 38, 6 joint 37, 18 lb uplift at joint 28, 30 lb uplift at joint 27, 25  $\,$ lb uplift at joint 26, 25 lb uplift at joint 25, 28 lb uplift at joint 24, 17 lb uplift at joint 23, 75 lb uplift at joint 22 and 87 lb uplift at joint 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

Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A01	Common Supported Gable	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:30 ID:rlUnXuCSK2Qw9T1QWIMYdMzREoV-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

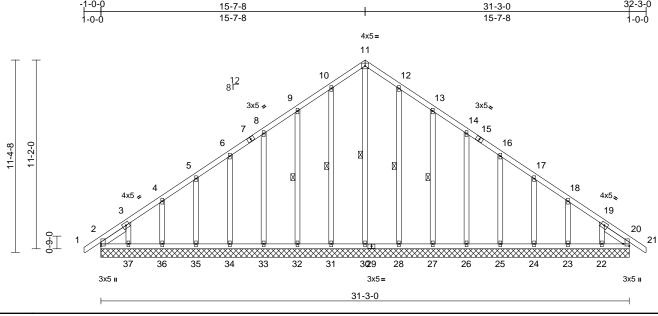


Plate Offsets	(X,	Y):	[20:Edge	,0-4-6]
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Scale = 1:68.1

**OTHERS** 

BRACING

		i		1						_		
Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	20	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0	1									Weight: 238 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2v4 SP No 2

SLIDER Left 2x4 SP No.2 -- 1-10-1, Right 2x4 SP

No.2 -- 1-10-1

2x4 SP No.2

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 11-30, 10-31, 9-32,

12-28, 13-27

**REACTIONS** (size) 2=31-3-0, 20=31-3-0, 22=31-3-0,

23=31-3-0, 24=31-3-0, 25=31-3-0, 26=31-3-0, 27=31-3-0, 28=31-3-0, 30=31-3-0, 31=31-3-0, 32=31-3-0, 33=31-3-0, 34=31-3-0, 35=31-3-0,

36=31-3-0, 37=31-3-0

Max Horiz 2=208 (LC 12)

2=-69 (LC 9), 20=-13 (LC 10), Max Uplift

22=-60 (LC 14), 23=-23 (LC 14), 24=-26 (LC 14), 25=-26 (LC 14), 26=-25 (LC 14), 27=-29 (LC 14), 28=-19 (LC 14), 31=-21 (LC 13), 32=-29 (LC 13), 33=-25 (LC 13),

34=-26 (LC 13), 35=-27 (LC 13),

36=-23 (LC 13), 37=-69 (LC 13) Max Grav 2=188 (LC 30), 20=143 (LC 29), 22=158 (LC 30), 23=168 (LC 30), 24=164 (LC 30), 25=165 (LC 30), 26=165 (LC 30), 27=165 (LC 30), 28=169 (LC 30), 30=174 (LC 14),

31=172 (LC 29), 32=164 (LC 29), 33=165 (LC 29), 34=165 (LC 29), 35=164 (LC 29), 36=167 (LC 29).

37=172 (LC 29)

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

Tension

TOP CHORD 1-2=0/40, 2-3=-60/64, 3-4=-165/147, 4-5=-137/128, 5-6=-123/112, 6-8=-113/110, 8-9=-104/137. 9-10=-126/196.

10-11=-155/245, 11-12=-155/245, 12-13=-126/196, 13-14=-99/137,

14-16=-75/83, 16-17=-65/41, 17-18=-74/53. 18-19=-103/72, 19-20=-53/45, 20-21=0/40

BOT CHORD 2-37=-83/170, 36-37=-83/170, 35-36=-83/170, 34-35=-83/170

33-34=-83/170, 32-33=-83/170, 31-32=-83/170, 30-31=-83/170, 28-30=-83/170, 27-28=-83/170,

26-27=-83/170, 25-26=-83/170, 24-25=-83/170, 23-24=-83/170, 22-23=-83/170, 20-22=-83/170

11-30=-210/78, 10-31=-144/65, 9-32=-145/82, 8-33=-143/75, 6-34=-143/76, 5-35=-143/76, 4-36=-146/77, 3-37=-139/99,

12-28=-144/65, 13-27=-145/82, 14-26=-143/75, 16-25=-143/76, 17-24=-143/76, 18-23=-146/77,

19-22=-140/100

NOTES

**WEBS** 

Unbalanced roof live loads have been considered for this design.

Wind: ASCE 7-16: Vult=130mph (3-second aust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-8 to 2-2-0, Exterior(2N) 2-2-0 to 15-7-8, Corner(3R) 15-7-8 to 18-9-0, Exterior(2N) 18-9-0 to 32-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown: Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.: Ce=0.9: Cs=1.00: Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 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 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.



Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	A01	Common Supported Gable	1	1	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:30 ID: rIUnXuCSK2Qw9T1QWIMYdMzREoV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 2, 13 lb uplift at joint 20, 21 lb uplift at joint 31, 29 lb uplift at joint 32, 25 lb uplift at joint 33, 26 lb uplift at joint 34, 27 lb uplift at joint 35, 23 lb uplift at joint 36, 69 lb uplift at joint 37, 19 lb uplift at joint 28, 29 lb uplift at joint 27, 25  $\,$ lb uplift at joint 26, 26 lb uplift at joint 25, 26 lb uplift at joint 24, 23 lb uplift at joint 23, 60 lb uplift at joint 22, 69 Ib uplift at joint 2 and 13 lb uplift at joint 20.

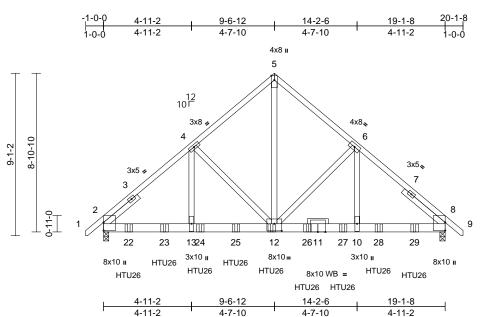
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB
25030167-01	C02	Common Girder	1	2	Job Reference (optional)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:gSr2oyHDvuB4uOUas0TztdzREoP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:64.5

Plate Offsets (X, Y): [12:0-5-0,0-4-12]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.11	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0			1							Weight: 278 lb	FT = 20%

### LUMBER

TOP CHORD 2x4 SP No.2 2x6 SP 2400F 2.0E **BOT CHORD** 2x4 SP No.2 WEBS **OTHERS** 2x4 SP No.2

**SLIDER** Left 2x4 SP No.2 -- 2-6-0, Right 2x4 SP No.2

BRACING TOP CHORD

Structural wood sheathing directly applied. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 2=0-3-8. 8=0-3-8

Max Horiz 2=159 (LC 8)

Max Grav 2=7793 (LC 21), 8=8042 (LC 22)

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

Tension TOP CHORD 1-2=0/44, 2-4=-8793/0, 4-5=-6521/0,

5-6=-6519/0, 6-8=-9171/0, 8-9=0/44

BOT CHORD 2-13=0/6746, 12-13=0/6746, 10-12=0/6956,

8-10=0/6956 **WEBS** 

5-12=0/7959, 6-12=-2817/0, 6-10=0/3601,

4-12=-2412/0, 4-13=0/3048

### NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0

Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.

Web connected as follows: 2x4 - 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 2400F 2.0E
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-5-0 from the left end to 17-5-0 to connect truss(es) to back face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.

### LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-5=-46, 5-9=-46, 14-18=-19

Concentrated Loads (lb)

Vert: 12=-1218 (B), 22=-1038 (B), 23=-1038 (B), 24=-1038 (B), 25=-1218 (B), 26=-1218 (B), 27=-1218 (B), 28=-1218 (B), 29=-1218 (B)

Page: 1



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

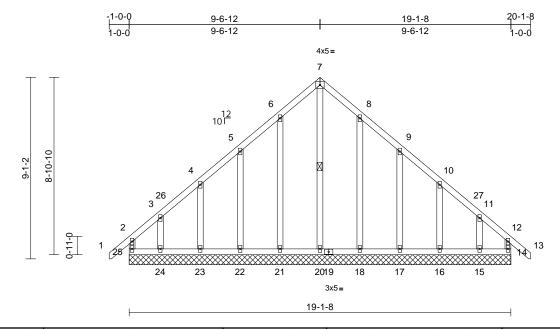
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	Install 15 Magnolia Acres-Roof-Franklin BA SP 3CG TMB			
25030167-01	C01	Common Supported Gable	1	1	Job Reference (optional)			

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Mon Mar 31 22:24:32 ID:KU29IED45LYnndbd4TtnAazREoU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale	= 1:57.7
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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 133 lb	FT = 20%

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or

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

bracing.

WERS 1 Row at midpt 7-20

**REACTIONS** (size) 14=19-1-8, 15=19-1-8, 16=19-1-8,

17=19-1-8, 18=19-1-8, 20=19-1-8, 21=19-1-8, 22=19-1-8, 23=19-1-8,

24=19-1-8, 25=19-1-8

Max Horiz 25=178 (LC 12)

Max Uplift 14=-55 (LC 10), 15=-80 (LC 14), 16=-30 (LC 14), 17=-42 (LC 14),

18=-33 (LC 14), 21=-33 (LC 13),

22=-42 (LC 13), 23=-29 (LC 13), 24=-85 (LC 13), 25=-84 (LC 9)

14=156 (LC 29), 15=162 (LC 30) 16=165 (LC 30), 17=163 (LC 30),

18=171 (LC 30), 20=184 (LC 14), 21=172 (LC 29), 22=163 (LC 29), 23=163 (LC 29), 24=174 (LC 29),

25=180 (LC 30)

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

Tension

TOP CHORD 2-25=-147/71, 1-2=0/51, 2-3=-138/127,

3-4=-93/94, 4-5=-83/113, 5-6=-103/199

6-7=-144/276, 7-8=-144/276, 8-9=-103/199, 9-10=-66/112, 10-11=-69/73, 11-12=-108/94,

12-13=0/51, 12-14=-128/48 BOT CHORD 24-25=-83/121, 23-24=-83/121

22-23=-83/121, 21-22=-83/121,

20-21=-83/121, 18-20=-83/121, 17-18=-83/121, 16-17=-83/121,

15-16=-83/121, 14-15=-83/121

WEBS

7-20=-284/91, 6-21=-149/96, 5-22=-146/112, 4-23=-151/107, 3-24=-133/118, 8-18=-149/96, 9-17=-146/112, 10-16=-151/107, 11-15=-132/117

### NOTES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -0-11-6 to 2-0-10, Exterior(2N) 2-0-10 to 9-6-12, Corner(3R) 9-6-12 to 12-6-12, Exterior(2N) 12-6-12 to 20-0-14 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=1.33
- 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=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- \* This truss has been designed for a 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.
- 11) All bearings are assumed to be SP No.2

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 25, 55 lb uplift at joint 14, 33 lb uplift at joint 21, 42 lb uplift at joint 22, 29 lb uplift at joint 23, 85 lb uplift at joint 24, 33 lb uplift at joint 18, 42 lb uplift at joint 17, 30 lb uplift at joint 16 and 80 lb uplift at joint 15.
- 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



April 2,2025

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.sbcacomponents.com)



### Symbols

## PLATE LOCATION AND ORIENTATION



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



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

₹

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

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

### PLATE SIZE

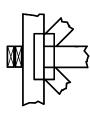
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



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

### **BEARING**



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

### ANSI/TPI1: Industry Standards:

National Design Specification for Metal Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

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

truss unless otherwise shown Trusses are designed for wind loads in the plane of the

established by others section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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### MiTek



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

# General Safety Notes

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

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- 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

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- œ 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.
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. 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
- 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 project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.