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**MiTek USA, Inc.**

14515 North Outer Forty Drive  
Suite 300  
Chesterfield, MO 63017-5746  
314-434-1200

Re: 052184  
BARTON

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

Pages or sheets covered by this seal: I22146281 thru I22146286

My license renewal date for the state of Maine is December 31, 2015.

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



April 22, 2014

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Garcia, Juan

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI 1.

Job 052184	Truss T01	Truss Type ATTIC	Qty 5	Ply 1	BARTON	122146281
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:14 2014 Page 1  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-DKkYZT70L3yw0Hkh18DI\_M62vHJ0LSOf315NjMzOF77

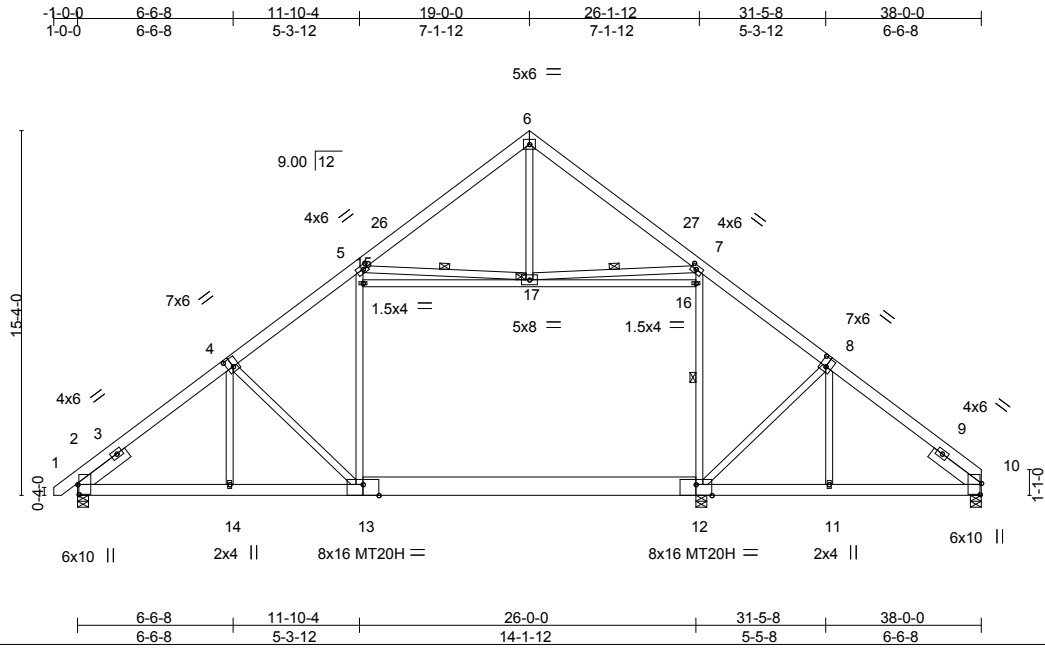


Plate Offsets (X,Y)-- [2:0-5-0,0-0-11], [4:0-3-0,0-4-8], [5:0-2-8,0-2-0], [7:0-2-8,0-2-0], [8:0-3-0,0-4-8], [10:0-5-10,0-0-11], [12:0-8-0,Edge], [13:0-8-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	Plates Increase 2-0-0 Lumber Increase 1.15	TC 0.78 BC 0.98 WB 0.59 (Matrix-M)	Vert(LL) -0.32 Vert(TL) -0.59 Horz(TL) 0.11 Attic -0.24	12-13 12-13 10 12-13	>965 >533 n/a 699	240 180 n/a 360	MT20 MT20H Weight: 282 lb	197/144 148/108 FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-10 oc purlins.
BOT CHORD 2x6 SPF 1650F 1.5E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 12-16, 5-17, 7-17
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0	JOINTS 1 Brace at Jt(s): 17

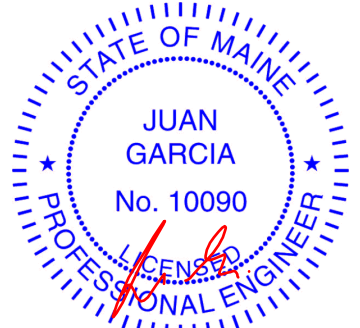
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=2825/0-5-8, 10=2645/0-5-8, 12=226/0-5-8  
Max Horz 2=568(LC 7)  
Max Uplift 2=392(LC 8), 10=365(LC 8), 12=612(LC 14)  
Max Grav 2=3003(LC 14), 10=2645(LC 1), 12=1021(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1883/73, 3-4=-3894/448, 4-5=-3581/421, 5-26=-1303/161, 6-26=-948/194,  
6-27=-912/224, 7-27=-1236/192, 7-8=-3492/560, 8-9=-3470/534, 9-10=-1817/132  
BOT CHORD 2-14=-493/2940, 13-14=-433/2939, 12-13=-254/2823, 11-12=-315/2633, 10-11=-315/2633  
WEBS 13-15=0/985, 5-15=0/1022, 12-16=-372/1333, 7-16=-254/1376, 8-11=-302/86,  
4-13=-386/315, 8-12=-310/349, 6-17=0/400, 5-17=-2177/455, 7-17=-1999/434

- NOTES-** (15)
- 1) Wind: ASCE 7-05; 100mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
  - 3) Roof design snow load has been reduced to account for slope.
  - 4) Unbalanced snow loads have been considered for this design.
  - 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
  - 6) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 7) All plates are MT20 plates unless otherwise indicated.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) Ceiling dead load (7.0 psf) on member(s). 15-17, 16-17; Wall dead load (5.0psf) on member(s).13-15, 12-16
  - 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (7.0 psf) applied only to room. 12-13
  - 11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - 12) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
  - 13) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
  - 14) Attic room checked for L/360 deflection.

5/11/14 8:00 AM ROOM @ 40#/SF LIVE LOAD. 2x10 BOTTOM CHORD AT ROOM ONLY.



April 22, 2014

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/29/2014 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.

14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T01	Truss Type ATTIC	Qty 5	Ply 1	BARTON  Job Reference (optional)	I22146281
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Mainely Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:14 2014 Page 2  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-DKkYZt70L3yw0Hkh18DI\_M62vHJ0LSOf3I5NjMzOF77

**⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 1/29/2014 BEFORE USE**

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**If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.**

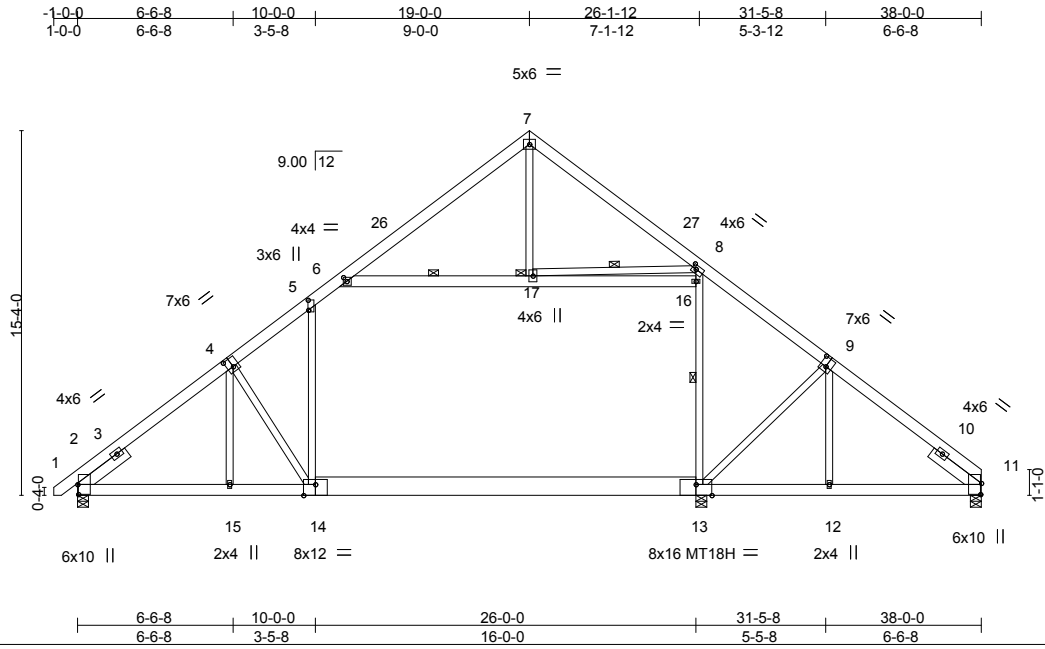


14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T01A	Truss Type Common	Qty 3	Ply 1	BARTON	I22146282
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:15 2014 Page 1  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-hWlwnD7e6N4meQJtbrk\_XafG?hg4riolyqxFOzOF76



Scale: 1/8"=1'

Plate Offsets (X,Y)-- [2:0-5-0,0-0-7], [4:0-3-0,0-4-8], [5:0-5-1,0-0-4], [6:0-1-12,0-2-0], [8:0-2-0,0-2-0], [9:0-3-0,0-4-8], [11:0-5-10,0-0-7], [13:0-8-0,Edge], [14:0-6-0,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	2-0-0 Plates Increase 1.15	TC 0.63	Vert(LL)	-0.43 13-14	>722	240	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.95	Vert(TL)	-0.78 13-14	>399	180	MT18H	197/144
BCLL 0.0	Code IRC2009/TPI2007	WB 0.78	Horz(TL)	0.10 11	n/a	n/a		
BCDL 10.0		(Matrix-M)	Attic	-0.36 13-14	533	360		Weight: 310 lb FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP 2400F 2.0E \*Except\*  
1-4,9-11: 2x6 SPF No.2  
BOT CHORD 2x6 SPF 1650F 1.5E \*Except\*  
13-14: 2x10 SP 2400F 2.0E, 11-13: 2x6 SP 2400F 2.0E  
WEBS 2x4 SPF No.2 \*Except\*  
6-16: 2x6 SPF No.2  
SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
2-2-0 oc bracing: 12-13.  
WEBS 1 Row at midpt 6-17, 13-16, 8-17  
JOINTS 1 Brace at Jt(s): 17

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.**

(lb/size) 2=2913/0-5-8, 11=2760/0-5-8, 13=72/0-5-8  
Max Horz 2=568(LC 7)  
Max Uplift 2=396(LC 8), 11=422(LC 8), 13=774(LC 14)  
Max Grav 2=3093(LC 14), 11=2767(LC 2), 13=949(LC 15)

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

TOP CHORD 2-3=-2065/58, 3-4=-4079/458, 4-5=-3984/447, 5-6=-3160/523, 6-26=-1165/153,  
7-26=-779/181, 7-27=-744/203, 8-27=-1124/170, 8-9=-3800/637, 9-10=-3659/623,  
10-11=-2031/155  
BOT CHORD 2-15=-493/3110, 14-15=-438/3110, 13-14=-285/3078, 12-13=-383/2788, 11-12=-383/2787  
WEBS 6-17=-2595/537, 13-16=-356/1615, 8-16=-256/1658, 4-15=-375/75, 9-12=-446/53,  
4-14=-360/304, 9-13=-265/366, 8-17=-2400/502, 5-14=0/1231

**NOTES-** (15-16)

- Wind: ASCE 7-05; 100mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Ceiling dead load (7.0 psf) on member(s), 5-6, 6-17, 16-17; Wall dead load (5.0psf) on member(s).13-16, 5-14
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (7.0 psf) applied only to room. 13-14
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
- Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
- "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



April 22, 2014

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If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.



Job 052184	Truss T01A	Truss Type Common	Qty 3	Ply 1	BARTON  Job Reference (optional)	I22146282
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Mainely Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:15 2014 Page 2  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-hWlwnD7e6N4meQJtbrk\_XafG?hg4riolyqxFozOF76

- 15) 16'-0" x 8'-0" ROOM @ 40#/SF LIVE LOAD. 2x10 BOTTOM CHORD AT ROOM ONLY.  
16) LEFT KNEEWALL IS OFFSET 2'-0" FROM OTHER TRUSSES TO ALLOW FOR CLOSET.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 1/29/2014 BEFORE USE**

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**If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.**



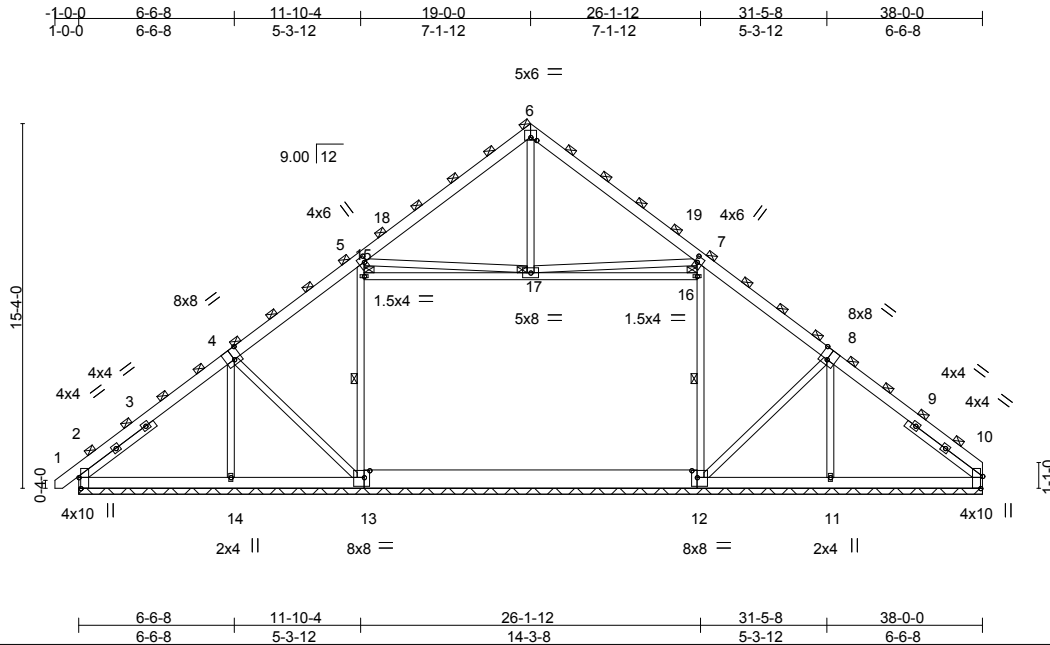
14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T01B	Truss Type ATTIC	Qty 1	Ply 1	BARTON	122146283
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:16 2014 Page 1

ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-9isJ\_Z8HtgCdGau48YGD3nCMH45ypGcyXcaUnEzOF75



Scale: 1/8"=1'

Plate Offsets (X,Y)-- [2:0-5-8,Edge], [4:0-3-12,Edge], [5:0-3-0,0-1-4], [6:0-3-0,0-1-8], [7:0-3-0,0-1-4], [8:0-3-12,Edge], [10:0-6-2,Edge], [12:0-2-12,0-3-8], [13:0-2-12,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	4-5-0 Plates Increase 1.15	TC 0.92	Vert(LL) 0.00	1	n/r	180	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.63	Vert(TL) 0.01	1	n/r	80		
BCLL 0.0	Rep Stress Incr NO	WB 0.93	Horz(TL) 0.04	10	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Wind(LL) -0.01	1	n/r	120	Weight: 299 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SPF No.2 \*Except\*  
4-6,6-8: 2x6 SP 2400F 2.0E  
BOT CHORD 2x6 SPF No.2 \*Except\*  
12-13: 2x10 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 3-11-4, Right 2x4 SPF No.2 3-11-4

**BRACING-**

TOP CHORD 2-0-0 oc purlins (4-1-0 max.)  
(Switched from sheeted: Spacing > 2-8-0).  
Rigid ceiling directly applied or 8-7-5 oc bracing.  
BOT CHORD  
WEBS 1 Row at midpt 13-15, 12-16  
JOINTS 1 Brace at Jt(s): 6, 15, 16, 17

**REACTIONS.**

All bearings 38-0-0.  
(lb) - Max Horz 2=1270(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 14, 11 except 2=-552(LC 9),  
13=-505(LC 8), 10=-451(LC 9), 12=-459(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) except 2=2111(LC 1), 13=3323(LC 14), 10=1904(LC 1), 12=3366(LC 15), 14=1338(LC 1), 11=1320(LC 1)

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

TOP CHORD 2-3=-2175/685, 3-4=-1614/731, 4-5=-1768/815, 5-18=-2427/390, 6-18=-1628/462,  
6-19=-1643/450, 7-19=-2459/378, 7-8=-1771/668, 8-9=-1642/542, 9-10=-2087/496  
BOT CHORD 2-14=-689/1292, 13-14=-689/1296, 12-13=-297/1082, 11-12=-177/1317, 10-11=-176/1313  
WEBS 13-15=-2629/544, 5-15=-2376/594, 12-16=-2656/454, 7-16=-2403/503, 4-14=-1080/170,  
8-11=-1062/203, 4-13=-289/645, 8-12=-312/712, 6-17=-2/268, 5-17=0/654, 7-17=0/664

**NOTES-** (15)

- Wind: ASCE 7-05; 100mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Ceiling dead load (7.0 psf) on member(s): 15-17, 16-17; Wall dead load (5.0psf) on member(s): 13-15, 12-16
- Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13, 10, 12, 14, and 11. This connection is for uplift only and does not consider lateral forces.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.



April 22, 2014

Continued on page 2

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14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T01B	Truss Type ATTIC	Qty 1	Ply 1	BARTON  Job Reference (optional)	I22146283
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Mainely Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:17 2014 Page 2  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-dvQhBv9ve\_KUtkTGtGnSc?kX1UQBYjs5IGJ1KhzOF74

15) 14'-0" x 8'-0" ROOM @ 40#/SF LIVE LOAD. 2x10 BOTTOM CHORD AT ROOM ONLY.

**⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 1/29/2014 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
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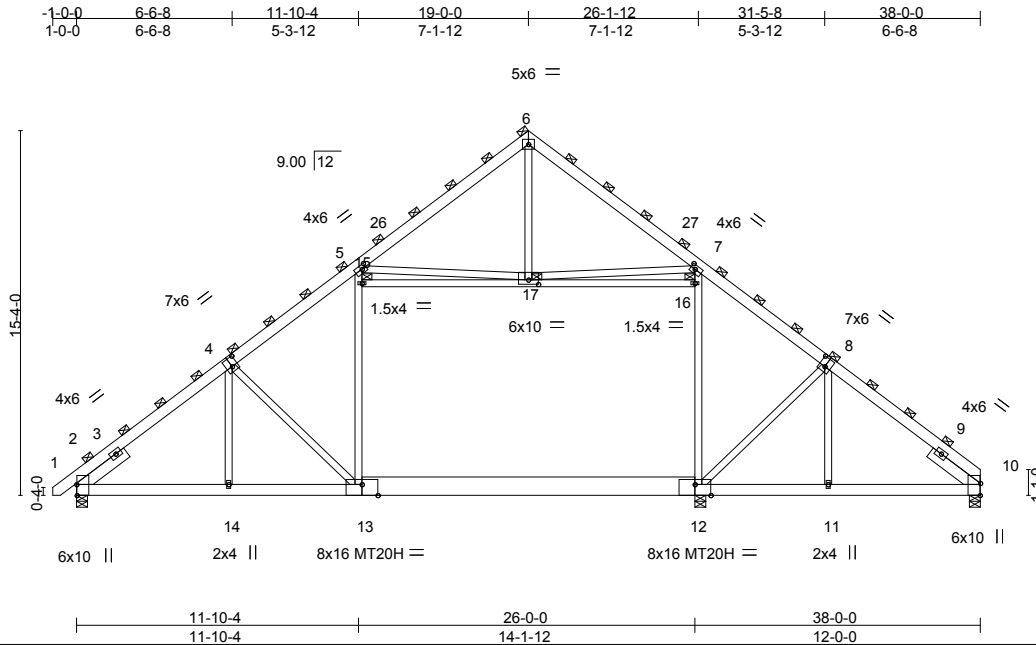


14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T01GI	Truss Type ATTIC	Qty 1	Ply 2	BARTON	122146284
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:18 2014 Page 1  
ID:bWHBeP3IMgDXeYx7jwRbmAzWUCC-55\_3PFAXPISLVu2SGzlh8CHhbug3HA0E\_w3bs7zOF73



Scale: 1/8"=1'

Plate Offsets (X,Y)-- [2:0-5-8,Edge], [4:0-3-0,0-4-8], [5:0-2-4,0-2-0], [7:0-2-4,0-2-0], [8:0-3-0,0-4-8], [10:0-6-2,Edge], [12:0-8-0,Edge], [13:0-8-0,Edge], [17:0-5-0,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	4-4-0 Plates Increase 1.15	TC 1.00	Vert(LL)	-0.34 12-13	>911	240	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.97	Vert(TL)	-0.62 12-13	>502	180	MT20H	148/108
BCLL 0.0	Rep Stress Incr NO	WB 0.94	Horz(TL)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Attic	-0.25 12-13	678	360		
							Weight: 563 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SPF No.2  
 BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
 12-13: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x6 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

**BRACING-**

TOP CHORD 2-0-0 oc purlins (3-9-12 max.)  
 (Switched from sheeted: Spacing > 2-8-0).  
 Rigid ceiling directly applied or 10-0-0 oc bracing.  
 BOT CHORD  
 JOINTS 1 Brace at Jt(s): 6, 15, 16, 17

**REACTIONS.**

(lb/size) 2=6104/0-5-8, 10=5696/0-5-8, 12=539/0-5-8  
 Max Horz 2=1230(LC 7)  
 Max Uplift 2=-847(LC 8), 10=-787(LC 8), 12=-1272(LC 14)  
 Max Grav 2=6489(LC 14), 10=5696(LC 1), 12=2247(LC 15)

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

TOP CHORD 2-3=-4615/253, 3-4=-8393/969, 4-5=-7735/903, 5-26=-2821/349, 6-26=-2053/420,  
 6-27=-1975/484, 7-27=-2676/414, 7-8=-7542/1206, 8-9=-7442/1149, 9-10=-4294/401  
 BOT CHORD 2-14=-1054/6345, 13-14=-938/6344, 12-13=-547/6094, 11-12=-677/5647,  
 10-11=-677/5646  
 WEBS 16-17=-346/56, 13-15=0/2133, 5-15=0/2213, 12-16=-818/2877, 7-16=-561/2970,  
 4-14=-293/348, 8-11=-748/155, 4-13=-843/691, 8-12=-644/762, 6-17=0/863,  
 5-17=-4696/981, 7-17=-4310/934

**NOTES-** (18)

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-05; 100mph; TCCL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFERS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Ceiling dead load (7.0 psf) on member(s). 15-17, 16-17; Wall dead load (5.0psf) on member(s).13-15, 12-16
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (7.0 psf) applied only to room. 12-13



April 22, 2014

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/29/2014 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
 If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.





Job 052184	Truss T01GI	Truss Type ATTIC	Qty 1	Ply <b>2</b>	BARTON  Job Reference (optional)	I22146284
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:18 2014 Page 2  
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**NOTES-** (18)

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=1272.
- 14) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
- 15) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Attic room checked for L/360 deflection.
- 18) 14'-0" X 8'-0" ROOM @ 40#/SF LIVE LOAD. 2x10 BOTTOM CHORD AT ROOM ONLY.

**⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 1/29/2014 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
**If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC**



14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss T02GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	BARTON	122146285
Mainly Trusses, Inc., Fairfield, ME					Job Reference (optional)	

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:19 2014 Page 1  
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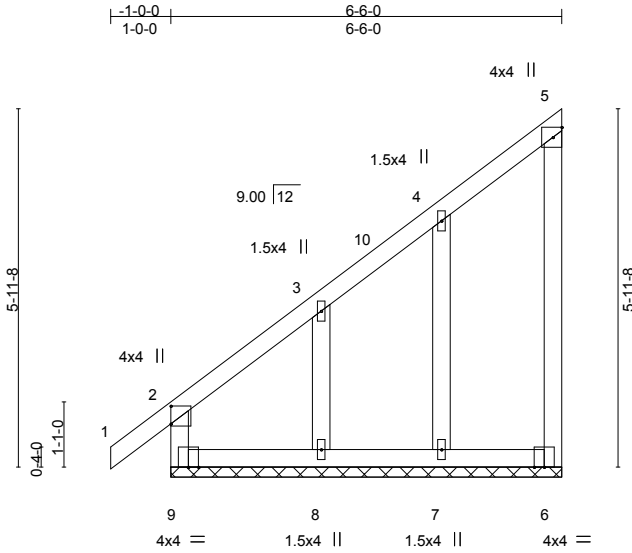


Plate Offsets (X,Y)-- [2:0-3-9,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	Plates Increase 1.15	TC 0.15	Vert(LL) -0.01	1	n/r	180	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.16	Vert(TL) -0.02	1	n/r	80		
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(TL) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Wind(LL) -0.00	2	n/r	120	Weight: 32 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

**BRACING-**

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.**

All bearings 6-6-0.  
(lb) - Max Horz 9=294(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 6, 7 except 9=120(LC 5), 8=251(LC 7)  
Max Grav All reactions 250 lb or less at joint(s) 6 except 9=299(LC 2), 7=331(LC 2), 8=284(LC 2)

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

TOP CHORD 2-9=-274/100  
WEBS 4-7=-294/84

**NOTES-**

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- 4) Roof design snow load has been reduced to account for slope.
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other live loads.
- 7) Gable requires continuous bottom chord bearing.
- 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9, 6, 7, and 8. This connection is for uplift only and does not consider lateral forces.
- 13) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



April 22, 2014

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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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.

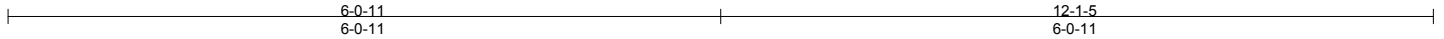


14515 N. Outer Forty, Suite #300  
Chesterfield, MO 63017

Job 052184	Truss V12	Truss Type Valley	Qty 1	Ply 1	BARTON	122146286
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Mainly Trusses, Inc., Fairfield, ME

7.520 s Apr 1 2014 MiTek Industries, Inc. Tue Apr 22 05:34:19 2014 Page 1  
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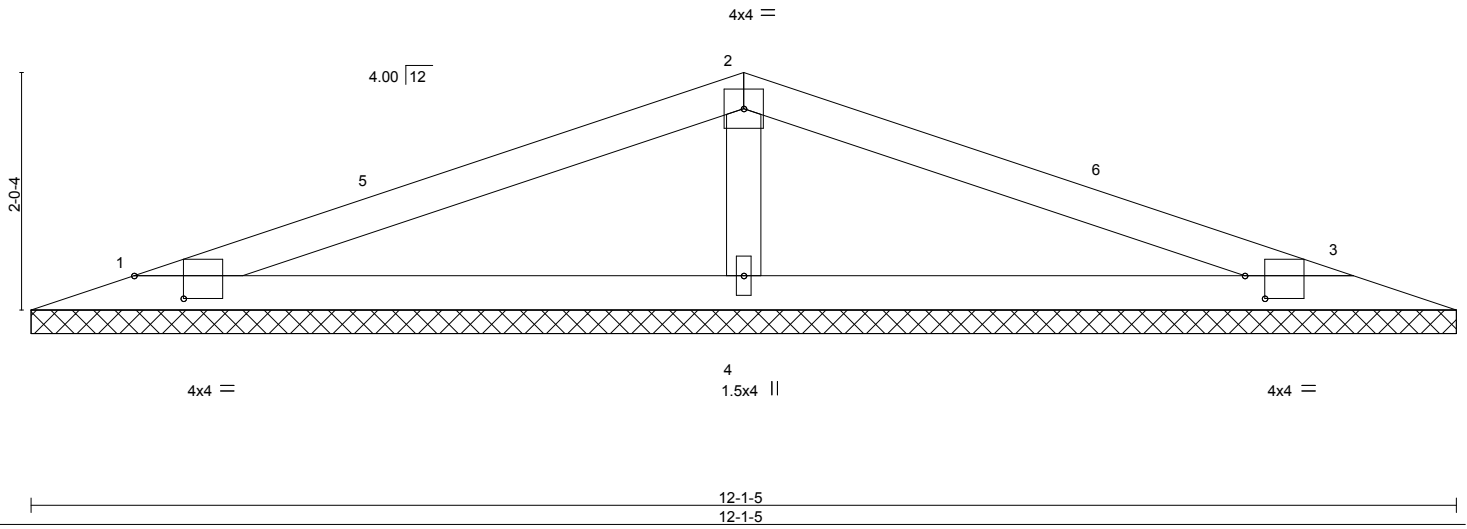


Plate Offsets (X,Y)-- [1:0-5-1,0-2-5], [3:0-2-1,0-2-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2 (Ground Snow=60.0)	2-0-0 Plates Increase 1.15 Lumber Increase 1.15	TC 0.91 BC 0.22 WB 0.08 (Matrix)	Vert(LL) n/a Vert(TL) n/a Horz(TL) 0.00	-	n/a	999	MT20	197/144
TCDL 10.0	Rep Stress Incr YES							
BCLL 0.0	Code IRC2009/TPI2007							
BCDL 10.0							Weight: 28 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 2-2-0 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=338/12-1-5, 3=338/12-1-5, 4=689/12-1-5  
Max Horz 1=-28(LC 6)  
Max Uplift 1=-92(LC 7), 3=-96(LC 8), 4=-91(LC 7)  
Max Grav 1=350(LC 2), 3=350(LC 3), 4=689(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-4=-560/168

**NOTES-**

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-05; Pg=60.0 psf (ground snow); Ps=46.2 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 8) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



April 22, 2014

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/29/2014 BEFORE USE**

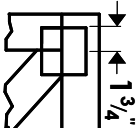
Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 781 N. Lee Street, Suite 312, Alexandria, VA 22314.  
**If Southern Pine (SP) lumber is specified, the design values are those effective 06/01/2013 by ALSC.**



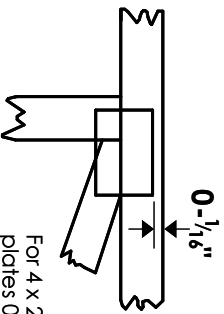
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Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{8}$ " from outside edge of truss.



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

**\* Plate location details available in MITek 20/20 software or upon request.**

## PLATE SIZE

4 X 4

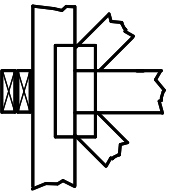
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



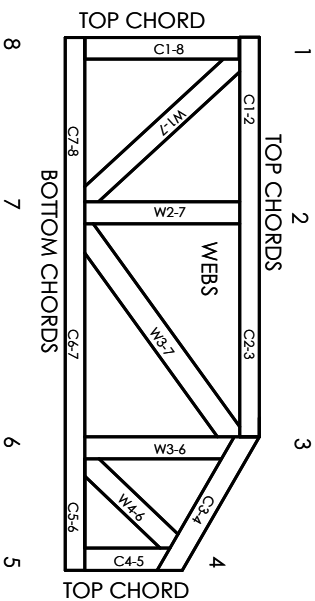
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/FP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

## Southern Pine Lumber designations are as follows:

SYP represents values as published by AWC in the 2005/2012 NDS  
SP represents ALSC approved/new values with effective date of June 1, 2013

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MITek Engineering Reference Sheet: Mill-7473 rev. 01/29/2013



# General Safety Notes

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

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