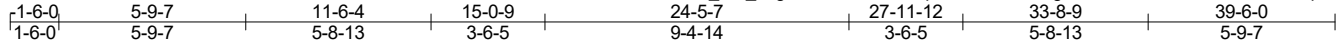


Job 28048	Truss AT1	Truss Type PIGGYBACK ATTIC	Qty 4	Ply 1	Michael Smith
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C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:02 2024 Page 1

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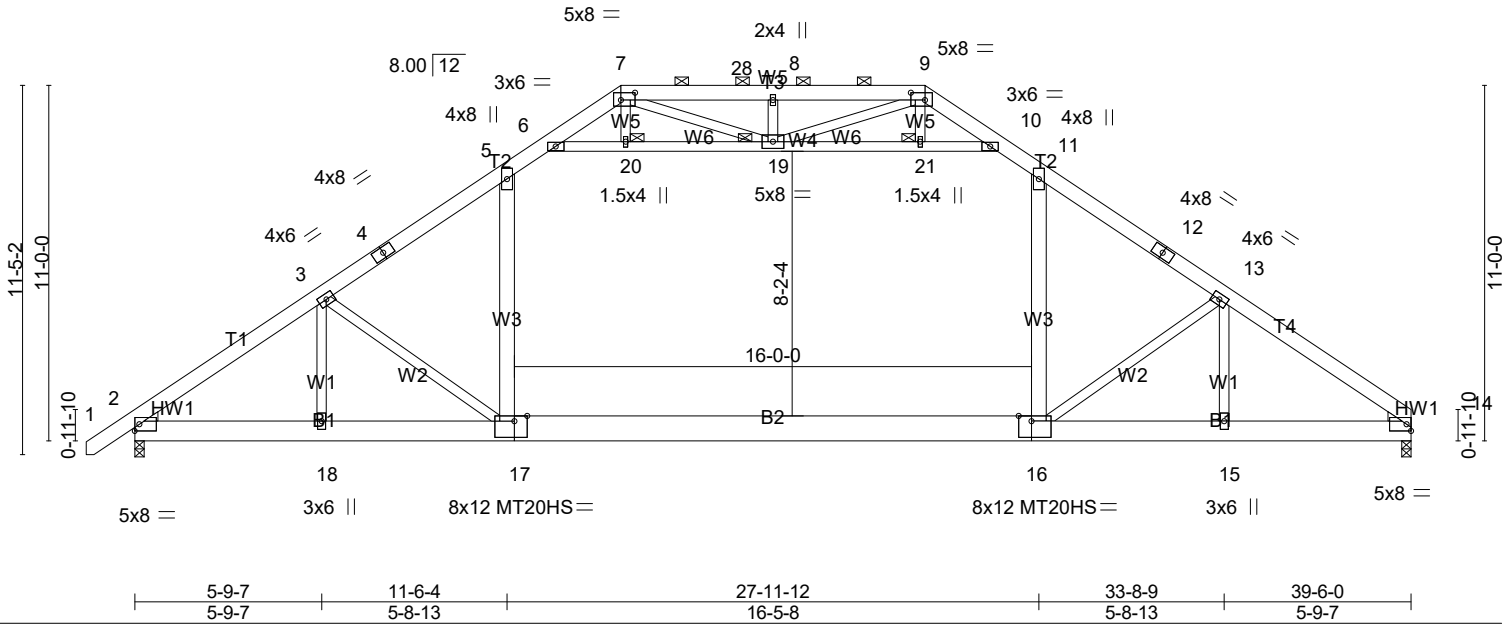


Plate Offsets (X,Y)-- [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [16:0-4-12,Edge], [17:0-4-12,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.38 16-17 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.42	Vert(CT) -0.53 16-17 >892 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.17 17-18 >999 240	Weight: 355 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
 B2: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins, except  
 2-0-0 oc purlins (6-0-0 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 19, 20, 21

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

**REACTIONS.** (lb/size) 2=1747/0-3-8 (min. 0-1-12), 14=1661/0-3-8 (min. 0-1-11)  
 Max Horz 2=254(LC 7)  
 Max Uplift 2=-121(LC 8), 14=-72(LC 8)  
 Max Grav 2=2099(LC 14), 14=2020(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2955/132, 3-4=-2927/104, 4-5=-2784/139, 5-6=-2218/193, 6-7=-677/117,  
 9-10=-677/117, 10-11=-2217/192, 11-12=-2783/139, 12-13=-2926/105,  
 13-14=-2969/141, 7-28=-856/187, 8-28=-856/187, 8-9=-856/187  
 BOT CHORD 2-18=-36/2557, 17-18=-36/2557, 16-17=0/2400, 15-16=-45/2392,  
 14-15=-45/2392  
 WEBS 5-17=0/1098, 11-16=0/1099, 6-20=-2255/117, 19-20=-2244/118,  
 19-21=-2241/117, 10-21=-2252/116, 3-18=-468/111, 13-15=-462/118,  
 3-17=-441/239, 13-16=-457/233, 7-19=-87/581, 8-19=-304/91, 9-19=-86/579

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 7) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-20, 19-20, 19-21, 10-21

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Michael Smith
28048	AT1	PIGGYBACK ATTIC	4	1	Job Reference (optional)

C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:02 2024 Page 2  
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**NOTES-**

- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-17
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 2=121.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.

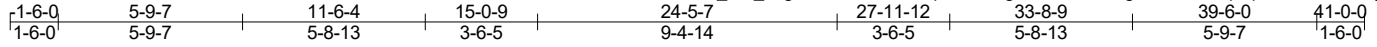
**LOAD CASE(S)** Standard

Job 28048	Truss AT2	Truss Type PIGGYBACK ATTIC	Qty 4	Ply 1	Michael Smith
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ID:zI\_JIG\_52gkwxPrTOJGSQTzpbB4-AAgH?HXwufELstgJZWKT5ahqvLpstVYAwGr?KyvFDv



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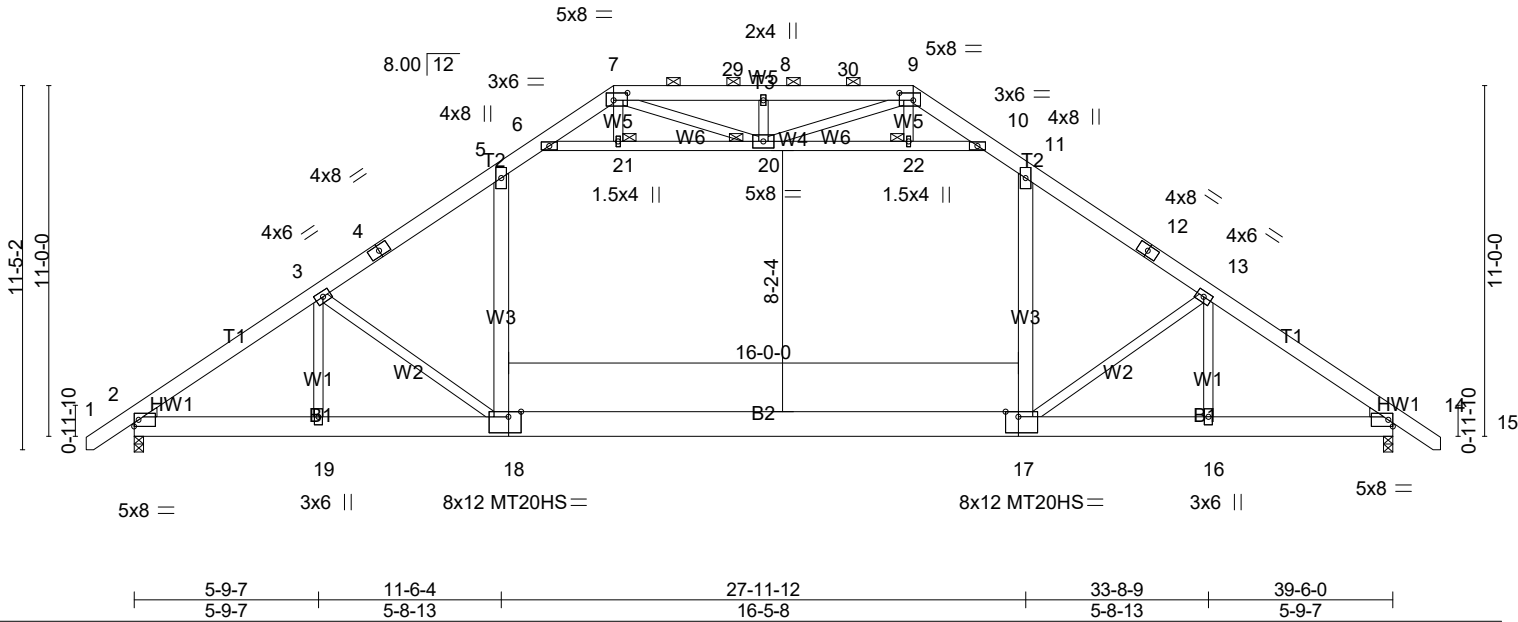


Plate Offsets (X,Y)-- [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [17:0-4-12,Edge], [18:0-4-12,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.38 17-18 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.53 17-18 >893 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.17 18-19 >999 240	Weight: 359 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
B2: 2x10 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins, except  
2-0-0 oc purlins (6-0-0 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 20, 21, 22

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

**REACTIONS.** (lb/size) 2=1745/0-3-8 (min. 0-1-12), 14=1745/0-3-8 (min. 0-1-12)  
Max Horz 2=-261(LC 6)  
Max Uplift 2=-120(LC 8), 14=-120(LC 8)  
Max Grav 2=2098(LC 14), 14=2098(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2953/131, 3-4=-2923/102, 4-5=-2780/137, 5-6=-2216/191, 6-7=-677/117,  
9-10=-677/117, 10-11=-2216/191, 11-12=-2780/137, 12-13=-2923/102,  
13-14=-2955/131, 7-29=-856/187, 8-29=-856/187, 8-30=-856/187,  
9-30=-856/187  
BOT CHORD 2-19=0/2567, 18-19=0/2567, 17-18=0/2409, 16-17=0/2373, 14-16=0/2373  
WEBS 5-18=0/1098, 11-17=0/1098, 6-21=-2251/114, 20-21=-2240/115,  
20-22=-2240/115, 10-22=-2251/114, 3-19=-466/111, 13-16=-468/113,  
3-18=-442/238, 13-17=-442/238, 7-20=-87/580, 8-20=-304/91, 9-20=-87/580

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 7) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-21, 20-21, 20-22, 10-22

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Michael Smith
28048	AT2	PIGGYBACK ATTIC	4	1	Job Reference (optional)

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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:04 2024 Page 2  
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**NOTES-**

- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 17-18
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=120, 14=120.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

Job 28048	Truss AT3	Truss Type ATTIC	Qty 4	Ply 1	Michael Smith
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Job Reference (optional)

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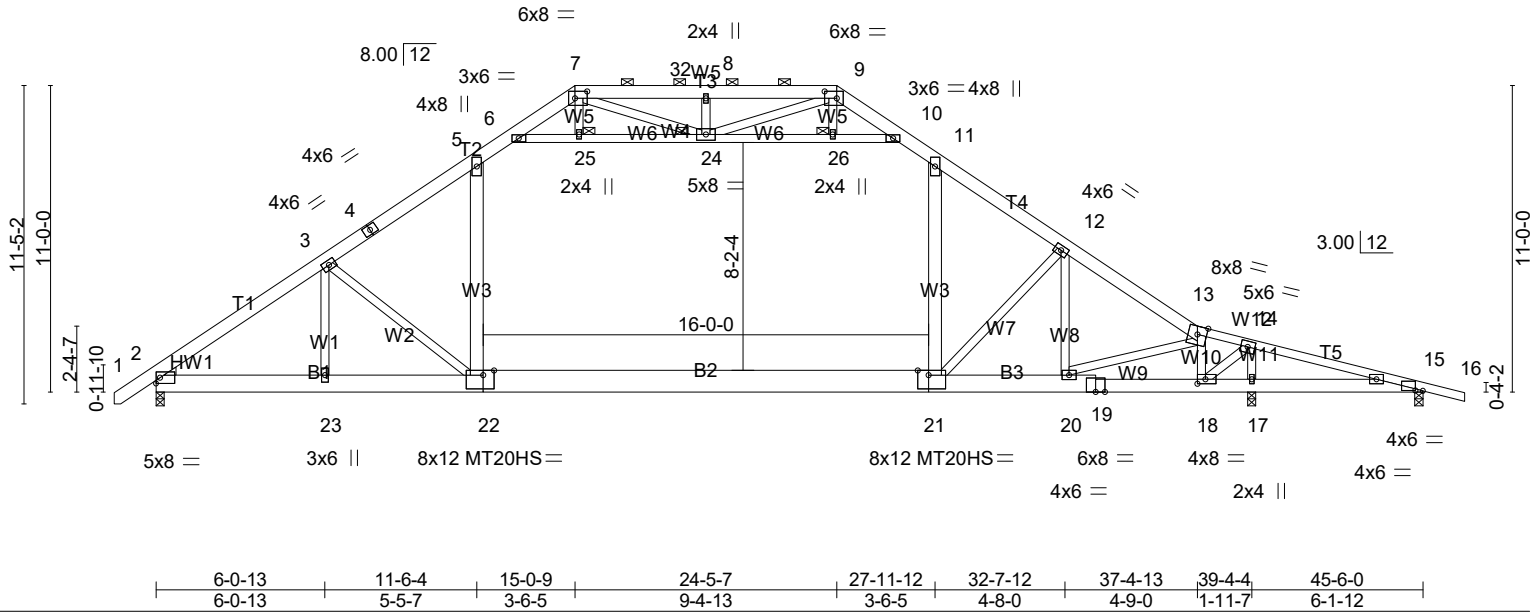
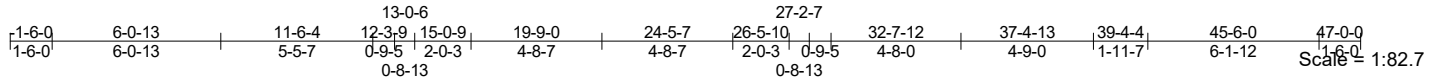


Plate Offsets (X,Y)-- [7:0-5-4,0-3-0], [9:0-5-4,0-3-0], [15:0-3-4,0-0-2], [18:0-3-8,0-2-0], [21:0-4-12,Edge], [22:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.55	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.37 21-22 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.94	Vert(CT) -0.51 21-22 >926 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 17 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.12 22-23 >999 240		
				Weight: 387 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1 \*Except\*  
T5: 2x4 SP 2400F 2.0E  
BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
B2: 2x10 SP 2400F 2.0E, B4: 2x6 SP No.1  
WEBS 2x4 SP No.3 \*Except\*  
W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied.  
JOINTS 1 Brace at Jt(s): 24, 25, 26

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

**REACTIONS.** (lb/size) 2=1716/0-3-8 (min. 0-1-12), 17=2070/0-3-8 (min. 0-3-1), 15=189/0-3-8 (min. 0-1-8)  
Max Horz 2=-258(LC 6)  
Max Uplift 2=-119(LC 8), 17=-90(LC 8), 15=-157(LC 5)  
Max Grav 2=2085(LC 14), 17=2605(LC 15), 15=224(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2944/132, 3-4=-2814/104, 4-5=-2678/137, 5-6=-2154/189, 6-7=-702/127,  
7-32=-909/194, 8-32=-909/194, 8-9=-909/194, 9-10=-719/129,  
10-11=-2180/188, 11-12=-2869/143, 12-13=-2597/131, 13-14=-1528/130,  
14-15=-406/1155  
BOT CHORD 2-23=0/2549, 22-23=0/2356, 20-21=0/2192, 19-20=-47/1558,  
18-19=-48/1562, 17-18=-1089/401, 15-17=-1089/401  
WEBS 3-23=-362/127, 3-22=-439/146, 5-22=0/1070, 6-25=-2009/99,  
24-25=-1999/101, 24-26=-2143/98, 10-26=-2154/96, 11-21=0/1078,  
12-21=-158/288, 12-20=-661/14, 13-20=-56/1200, 13-18=-1607/91,  
14-18=-54/2437, 14-17=-2302/112, 8-24=-289/87, 7-24=-81/532,  
9-24=-78/561

**NOTES-**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=46ft; eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60  
3) Provide adequate drainage to prevent water ponding.  
4) All plates are MT20 plates unless otherwise indicated.

Continued on page 2

Job 28048	Truss AT3	Truss Type ATTIC	Qty 4	Ply 1	Michael Smith  Job Reference (optional)
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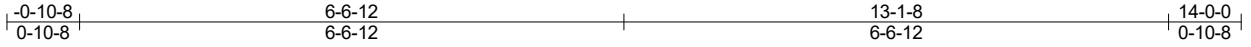
8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:05 2024 Page 2  
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**NOTES-**

- 5) The Fabrication Tolerance at joint 21 = 16%
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-25, 24-25, 24-26, 10-26
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 21-22
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17 except (jt=lb) 2=119, 15=157.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

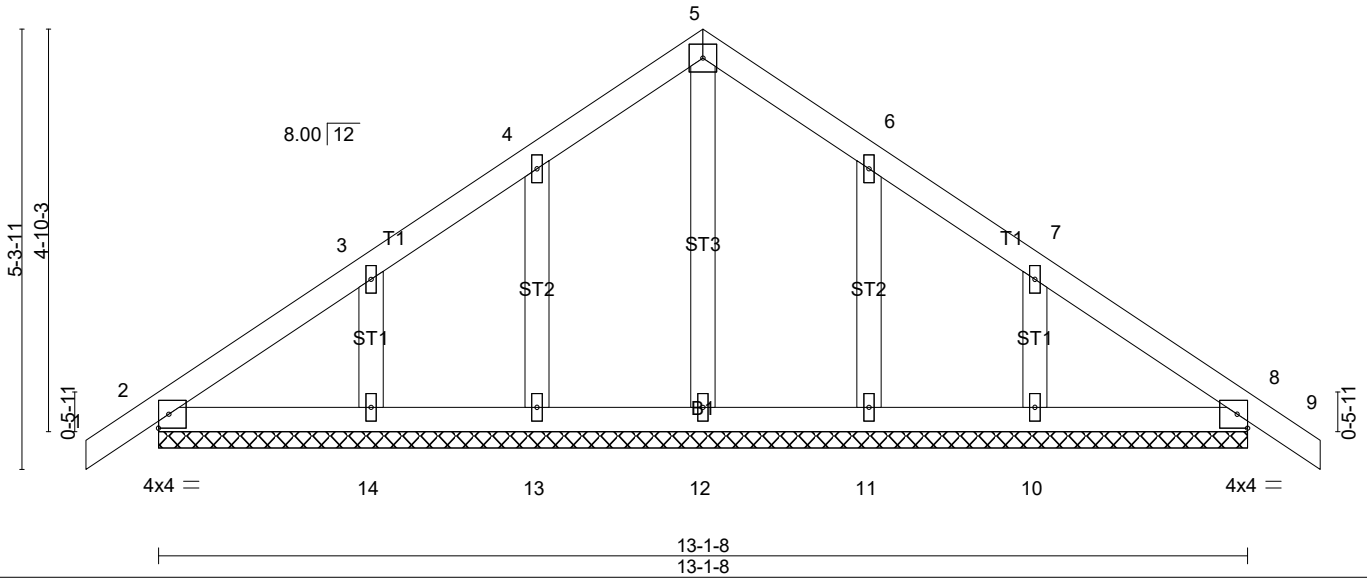
**LOAD CASE(S)** Standard

Job 28048	Truss G1	Truss Type Common Supported Gable	Qty 1	Ply 1	Michael Smith
C&R Building Supply, Autryville NC					Job Reference (optional)



4x4 =

Scale = 1:27.8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) 0.00 8 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 8 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 8 n/a n/a		
	Code IRC2018/TPI2014			Weight: 67 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 OTHERS 2x4 SP No.3

**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.

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

**REACTIONS.** All bearings 13-1-8.  
 (lb) - Max Horz 2=111(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 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.

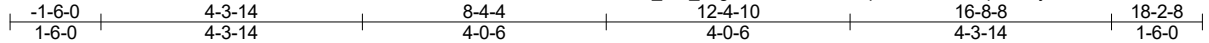
**LOAD CASE(S)** Standard

Job 28048	Truss G2	Truss Type GABLE	Qty 1	Ply 1	Michael Smith
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4x4 =

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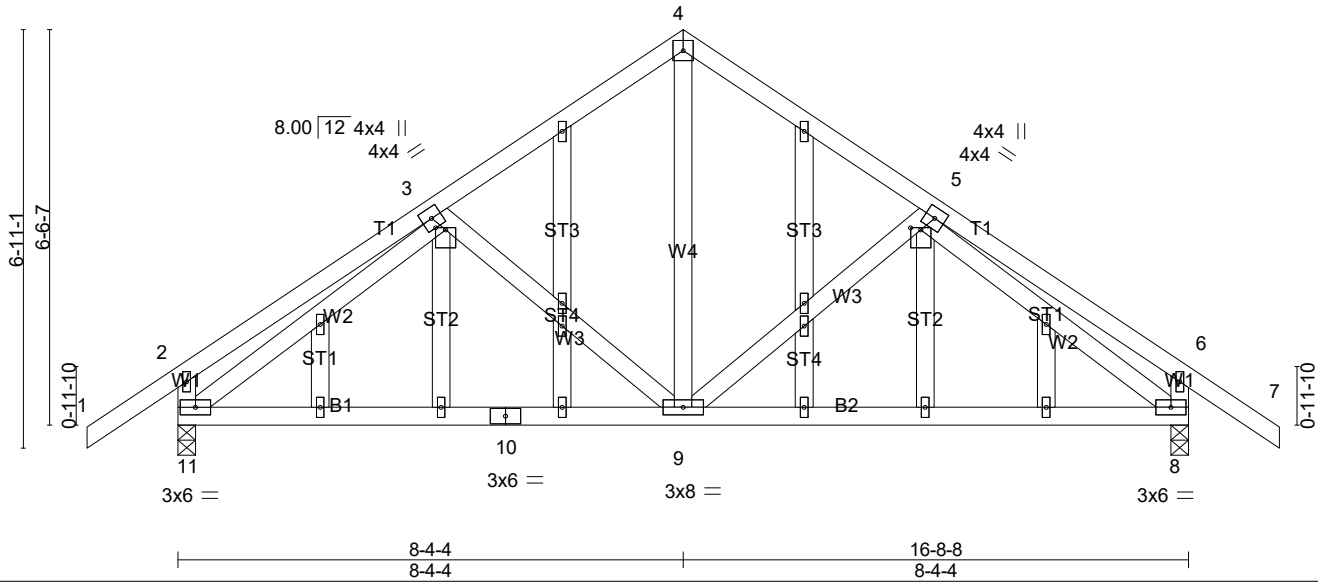


Plate Offsets (X,Y)-- [3:0-0-7,0-2-0], [5:0-0-7,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	Vert(LL)	-0.06	8-9	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(CT)	-0.12	9-11	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Wind(LL)	0.01	9	>999		
	Code IRC2018/TPI2014						Weight: 128 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 W1: 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 11=755/0-3-8 (min. 0-1-8), 8=755/0-3-8 (min. 0-1-8)  
 Max Horz 11=173(LC 7)  
 Max Uplift 11=-107(LC 8), 8=-107(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-281/31, 3-4=-612/102, 4-5=-612/102, 5-6=-281/31, 2-11=-330/103,  
 6-8=-330/103  
 BOT CHORD 10-11=0/595, 9-10=0/595, 8-9=0/559  
 WEBS 4-9=-25/402, 3-11=-538/74, 5-8=-538/74

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=107, 8=107.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Continued on page 2



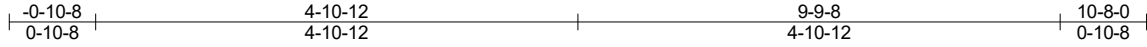
Job	Truss	Truss Type	Qty	Ply	Michael Smith
28048	G2	GABLE	1	1	Job Reference (optional)

C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:07 2024 Page 2  
ID:zI\_JIG\_52gkwxPrTOJGSQTzpbB4-alMQeJapAacwjLOtFeuAiCJNUYuG4uPcUuVWcfyvFDs

**LOAD CASE(S)** Standard

Job 28048	Truss G3	Truss Type Common Supported Gable	Qty 1	Ply 1	Michael Smith
C&R Building Supply, Autryville NC					Job Reference (optional)



Scale = 1:23.4

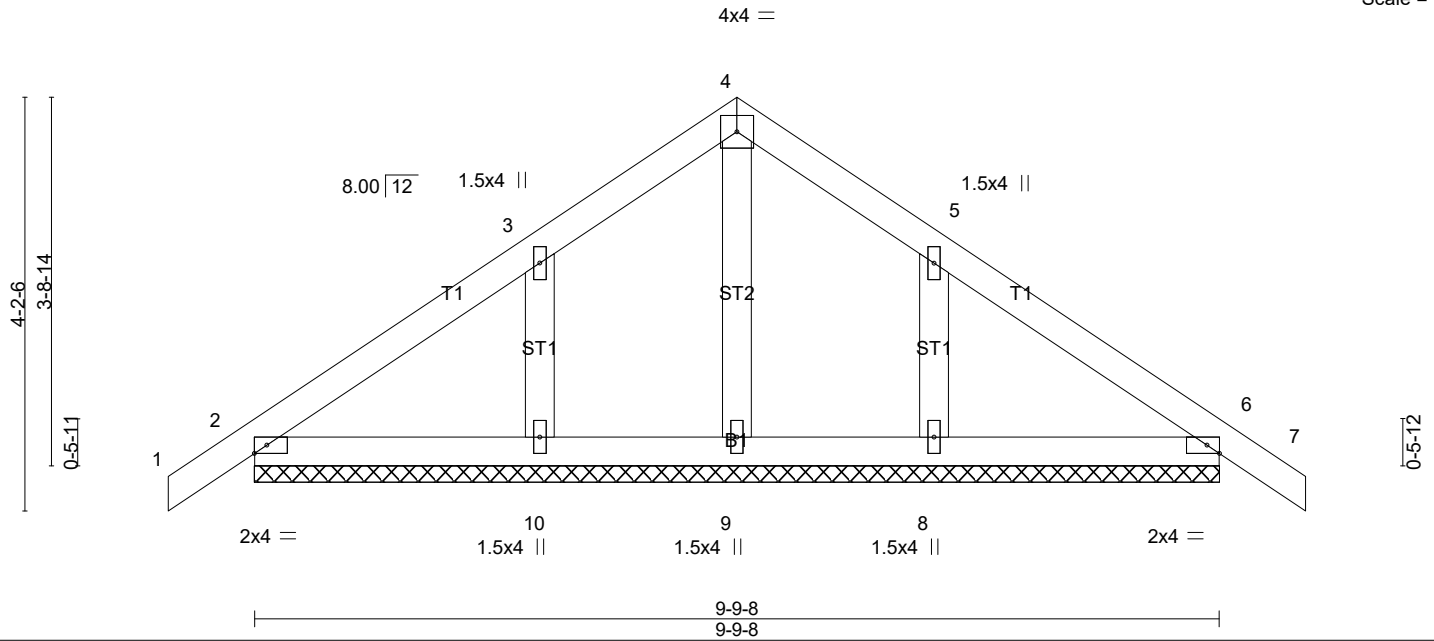


Plate Offsets (X,Y)-- [6:0-1-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 46 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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.

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

**REACTIONS.** All bearings 9-9-8.  
 (lb) - Max Horz 2=86(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

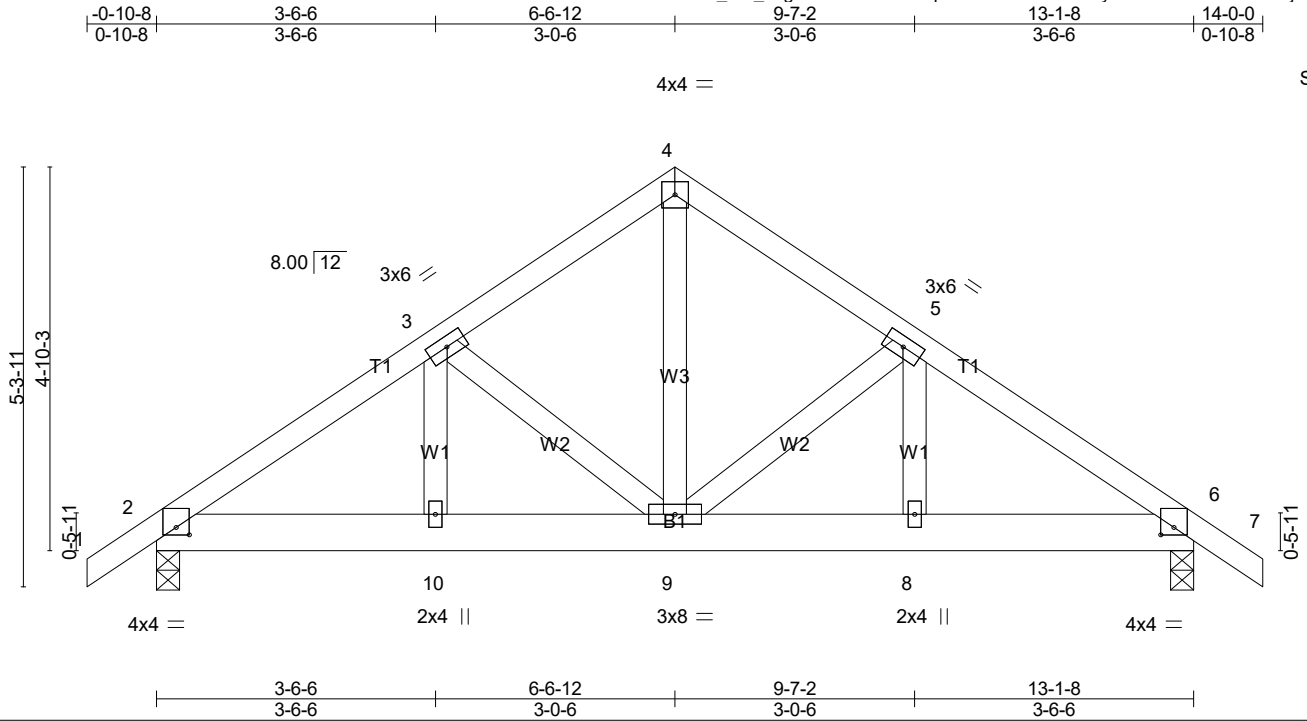
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard

Job 28048	Truss GR1	Truss Type Common Girder	Qty 1	Ply 2	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:09 2024 Page 1  
ID:z1\_JIG\_52gkwxPrTOJGSQTzpbB4-X7UA2?b3jBseyeYGM3weodOolMYSYjMvxB\_chXyvFDq



Scale = 1:29.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.16	Vert(LL)	-0.03	9	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT)	-0.06	9-10	>999		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.56	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL)	0.02	9	>999		
							Weight: 161 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.3

**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.**

(lb/size) 2=2902/0-3-8 (min. 0-1-12), 6=2902/0-3-8 (min. 0-1-12)  
Max Horz 2=-111(LC 6)  
Max Uplift 2=-250(LC 8), 6=-250(LC 8)  
Max Grav 2=2967(LC 13), 6=2967(LC 14)

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

TOP CHORD 2-3=-3827/302, 3-4=-2701/253, 4-5=-2701/253, 5-6=-3828/302  
BOT CHORD 2-10=-177/3232, 9-10=-177/3232, 8-9=-177/3169, 6-8=-177/3169  
WEBS 4-9=-219/2782, 5-9=-1249/135, 5-8=-55/1230, 3-9=-1248/135, 3-10=-55/1228

**NOTES-**

- 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 oc.  
Bottom chords connected as follows: 2x6 - 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=250, 6=250.
- 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.
- Girder carries tie-in span(s): 20-0-0 from 0-0-0 to 13-1-8

LOAD CASE(S) per standard

Job 28048	Truss GR1	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:09 2024 Page 2  
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**LOAD CASE(S)** Standard

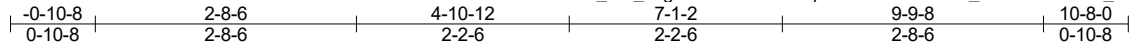
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-60, 4-7=-60, 11-14=-374(F=-354)

Job 28048	Truss GR2	Truss Type Common Girder	Qty 1	Ply 2	Michael Smith
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Scale: 1/2"=1'

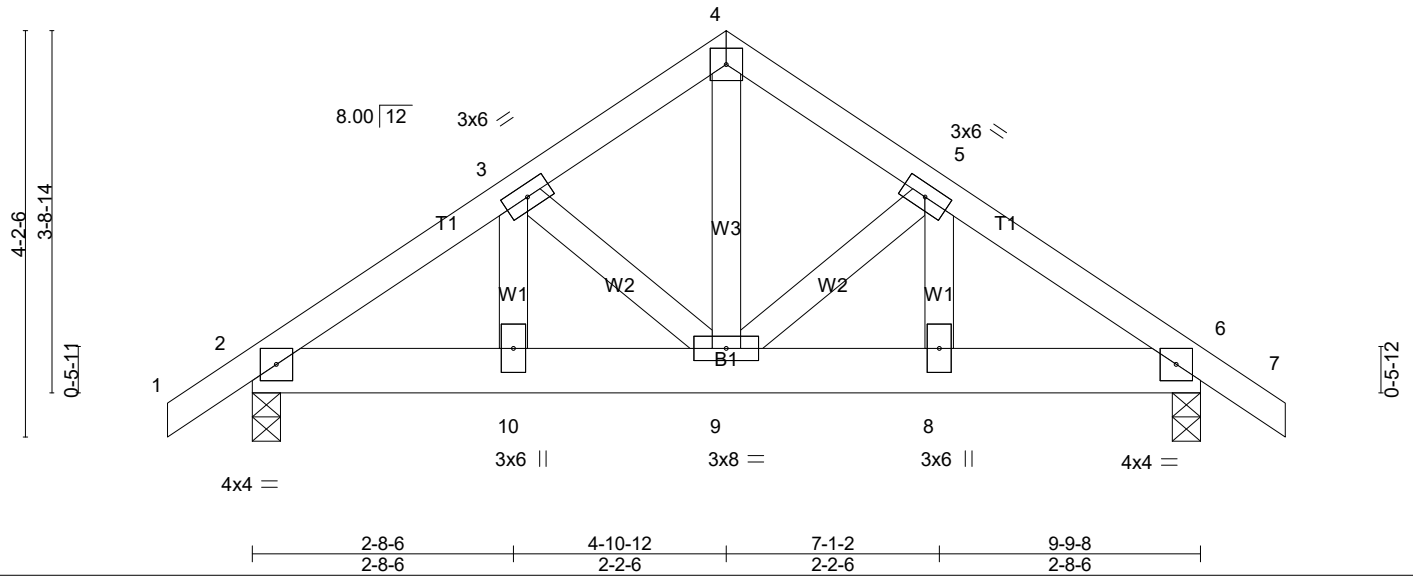


Plate Offsets (X,Y)-- [6:0-0-0,0-0-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.02	9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.03	9	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.41	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS	Wind(LL)	0.01	9	>999	240	Weight: 121 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3

**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.** (lb/size) 2=2178/0-3-8 (min. 0-1-8), 6=2178/0-3-8 (min. 0-1-8)

Max Horz 2=-86(LC 6)  
 Max Uplift 2=-194(LC 8), 6=-194(LC 8)  
 Max Grav 2=2225(LC 13), 6=2225(LC 14)

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

TOP CHORD 2-3=-2728/212, 3-4=-1993/185, 4-5=-1993/185, 5-6=-2727/212  
 BOT CHORD 2-10=-112/2304, 9-10=-112/2304, 8-9=-112/2259, 6-8=-112/2259  
 WEBS 4-9=-159/2037, 5-9=-823/90, 5-8=-38/827, 3-9=-824/90, 3-10=-37/828

**NOTES-**

- 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 oc.  
 Bottom chords connected as follows: 2x6 - 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=194, 6=194.
- 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.
- Girder carries tie-in span(s): 20-0-0 from 0-0-0 to 9-9-8

LOAD CASE(S) per standard

Job 28048	Truss GR2	Truss Type Common Girder	Qty 1	Ply <b>2</b>	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:10 2024 Page 2  
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**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

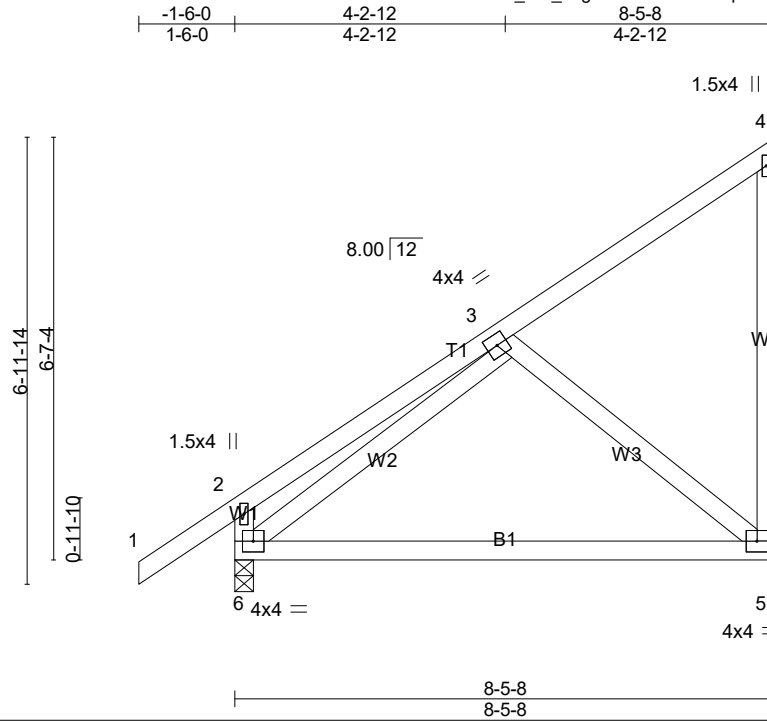
Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 11-14=-374(F=-354)

Job 28048	Truss M1	Truss Type Monopitch	Qty 7	Ply 1	Michael Smith
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:11 2024 Page 1  
ID:zl\_JIG\_52gkwxPrTOJGSQTzpbB4-TWcwThdJEo6MBYifUJz6t2T3u9Dv0jFCPVTjQyvFD0



Scale = 1:36.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL)	-0.19	5-6	>525	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT)	-0.37	5-6	>262	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL)	0.00	6	****	240		
								Weight: 55 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 5=317/Mechanical, 6=435/0-3-8 (min. 0-1-8)

Max Horz 6=251(LC 5)  
Max Uplift 5=-81(LC 5), 6=-73(LC 8)  
Max Grav 5=348(LC 13), 6=435(LC 1)

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

WEBS 3-6=-285/0

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

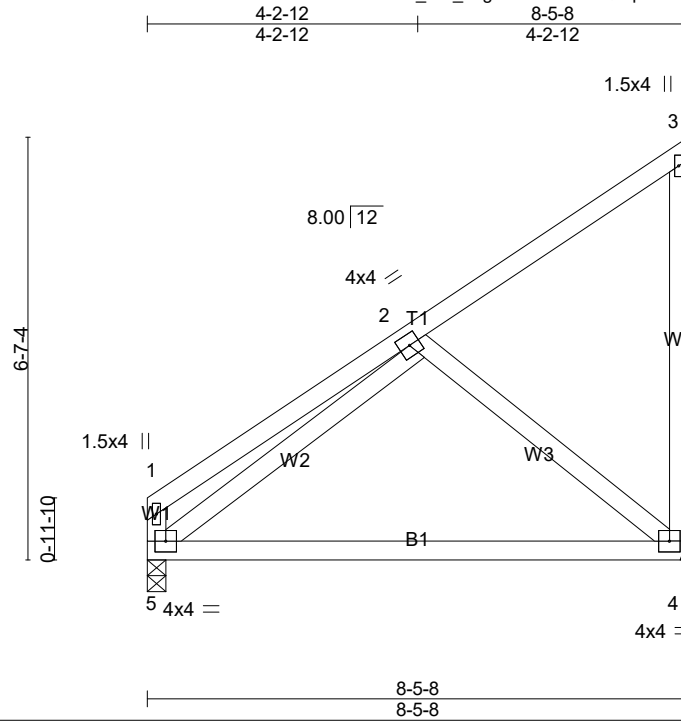
**LOAD CASE(S)** Standard

Job 28048	Truss M2	Truss Type Monopitch	Qty 5	Ply 1	Michael Smith
C&R Building Supply, Autryville NC					Job Reference (optional)

C&R Building Supply, Autryville NC

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Scale = 1:36.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL)	-0.19	4-5	>525	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT)	-0.37	4-5	>262	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Wind(LL)	0.00	5	****	240		
								Weight: 53 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 4=327/Mechanical, 5=327/0-3-8 (min. 0-1-8)

Max Horz 5=233(LC 5)  
 Max Uplift 4=-81(LC 5), 5=-13(LC 8)  
 Max Grav 4=357(LC 13), 5=327(LC 1)

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

WEBS 2-4=-258/139, 2-5=-282/23

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6'-0-0 between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



Job 28048	Truss M3	Truss Type Monopitch	Qty 1	Ply 1	Michael Smith
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:13 2024 Page 1  
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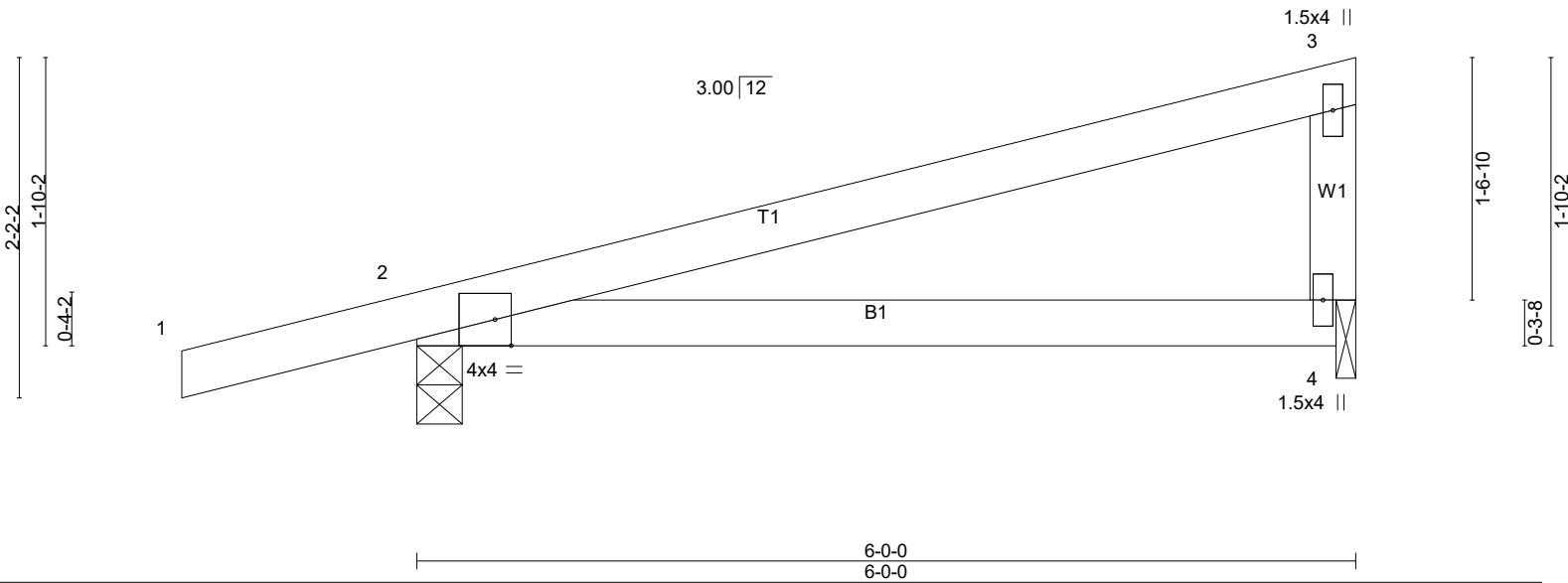


Plate Offsets (X,Y)-- [2:0-1-4,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.04	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.09	4-7	>824	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.03	4-7	>999	240	Weight: 22 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=336/0-3-8 (min. 0-1-8), 4=223/0-1-8 (min. 0-1-8)  
 Max Horz 2=62(LC 7)  
 Max Uplift 2=-80(LC 4), 4=-17(LC 4)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

Job 28048	Truss M4	Truss Type Monopitch	Qty 6	Ply 1	Michael Smith
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C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:14 2024 Page 1

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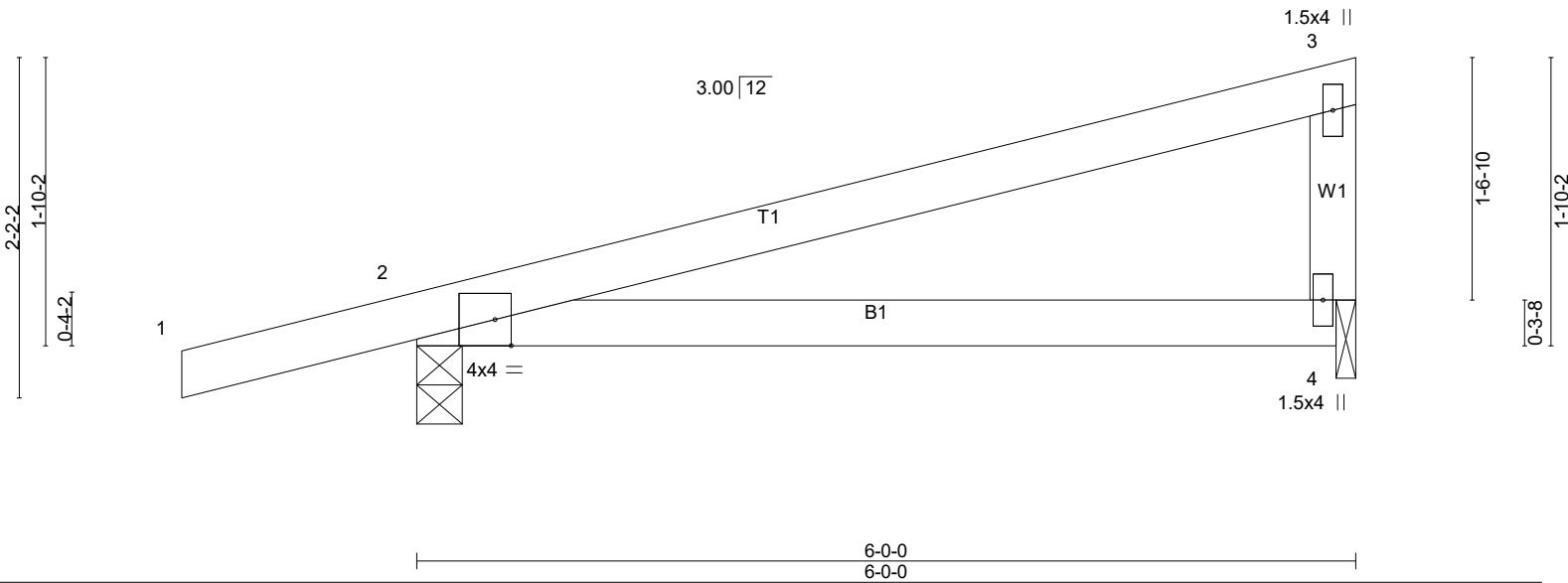


Plate Offsets (X,Y)-- [2:0-1-4,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.04	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.09	4-7	>824	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL)	0.03	4-7	>999	240	Weight: 22 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=336/0-3-8 (min. 0-1-8), 4=223/0-1-8 (min. 0-1-8)  
Max Horz 2=62(LC 7)  
Max Uplift 2=-80(LC 4), 4=-17(LC 4)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

Job 28048	Truss M5	Truss Type Monopitch	Qty 1	Ply 1	Michael Smith
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C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:15 2024 Page 1  
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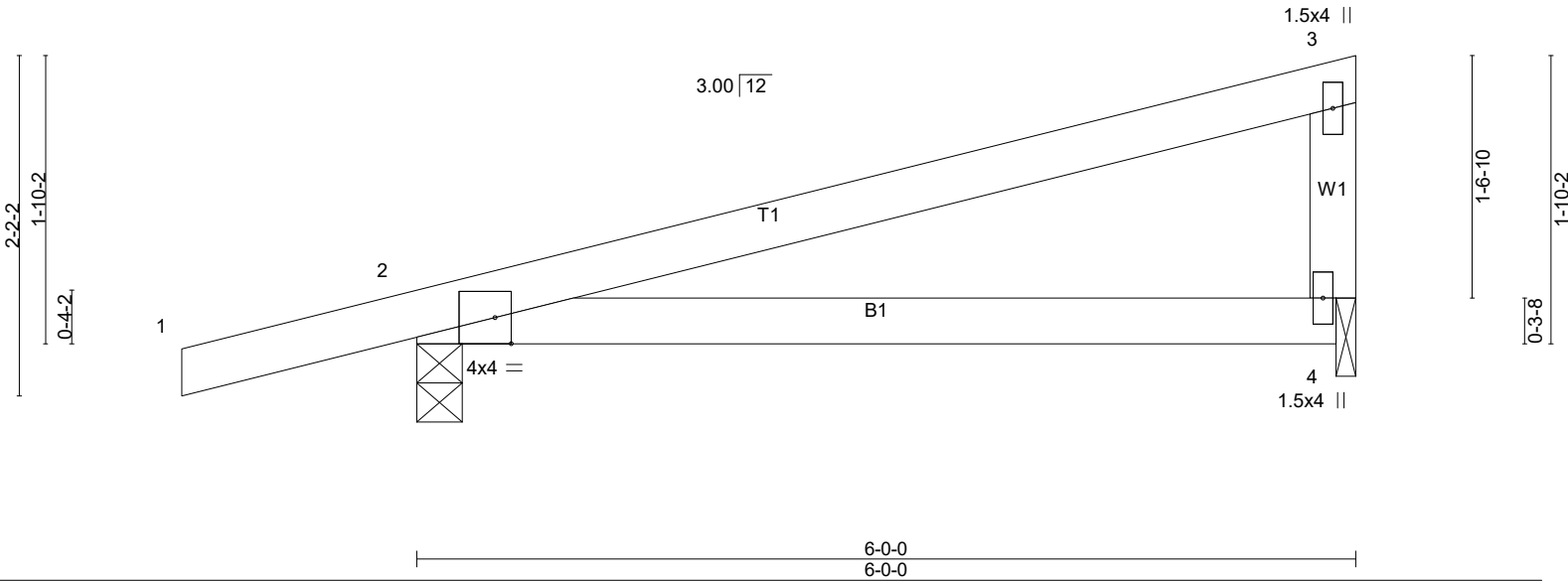


Plate Offsets (X,Y)-- [2:0-1-4,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0		TC 0.40	Vert(LL) -0.04	4-7	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.19	Vert(CT) -0.09	4-7	>824	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) 0.00	2	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS	Wind(LL) 0.03	4-7	>999	240		Weight: 22 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP 2400F 2.0E  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=336/0-3-8 (min. 0-1-8), 4=223/0-1-8 (min. 0-1-8)  
Max Horz 2=62(LC 7)  
Max Uplift 2=-80(LC 4), 4=-17(LC 4)

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

**NOTES-**

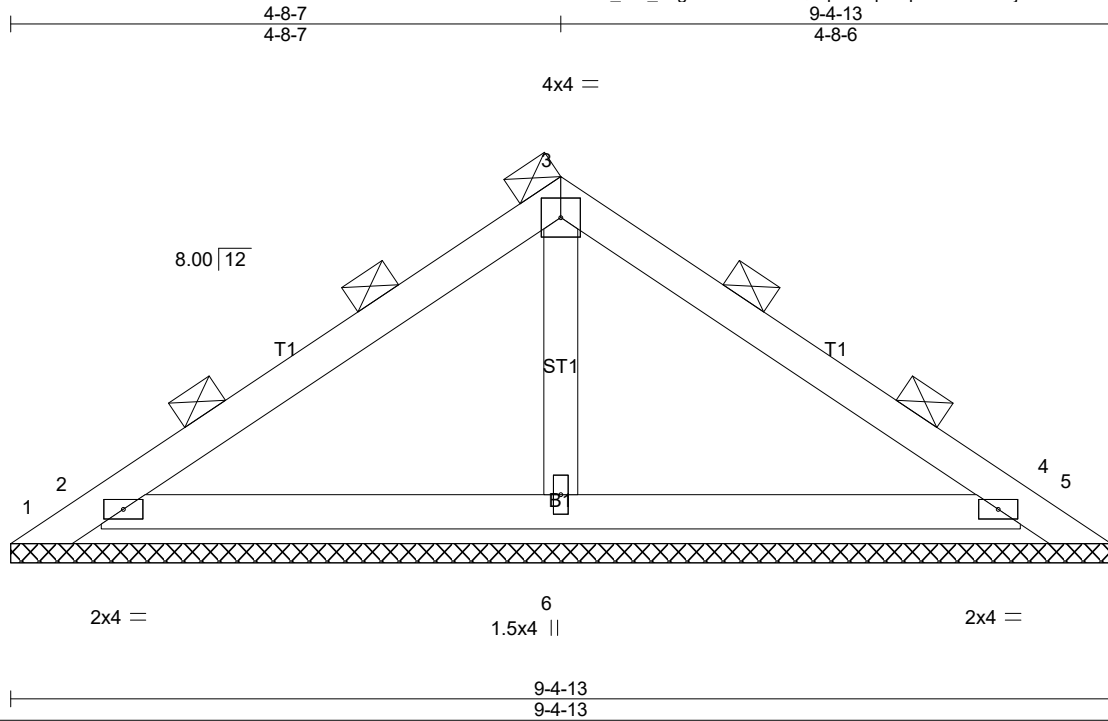
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

Job 28048	Truss PB1	Truss Type GABLE	Qty 2	Ply 3	Michael Smith
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:16 2024 Page 1  
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	8-0-0	TC 0.15	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 96 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 9-4-13.  
(lb) - Max Horz 1=-265(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-866(LC 13), 5=-761(LC 14), 2=-615(LC 8), 4=-615(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) except 1=419(LC 8), 5=419(LC 8), 2=1731(LC 13), 4=1672(LC 14), 6=981(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-280/650, 2-3=-464/177, 3-4=-453/177, 4-5=-193/425  
WEBS 3-6=-587/56

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 866 lb uplift at joint 1, 761 lb uplift at joint 5, 615 lb uplift at joint 2 and 615 lb uplift at joint 4.

Job 28048	Truss PB1	Truss Type GABLE	Qty 2	Ply <b>3</b>	Michael Smith Job Reference (optional)
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**NOTES-**

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

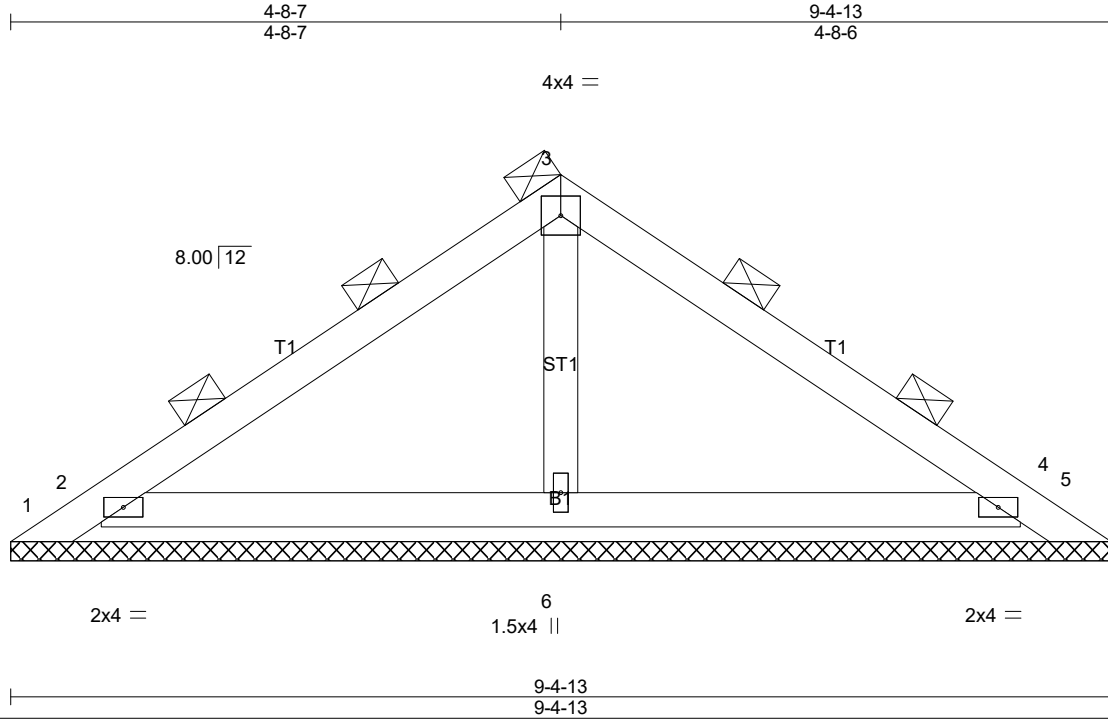
**LOAD CASE(S)** Standard

Job 28048	Truss PB2	Truss Type GABLE	Qty 2	Ply 4	Michael Smith
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	8-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 128 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 9-4-13.  
(lb) - Max Horz 1=-265(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-866(LC 13), 5=-761(LC 14), 2=-615(LC 8), 4=-615(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) except 1=419(LC 8), 5=419(LC 8), 2=1731(LC 13), 4=1672(LC 14), 6=981(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-280/650, 2-3=-464/177, 3-4=-453/177, 4-5=-193/425  
WEBS 3-6=-587/56

- NOTES-**
- 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 866 lb uplift at joint 1, 761 lb uplift at joint 5, 615 lb uplift at joint 2 and 615 lb uplift at joint 4.

Continued on page 2

Job 28048	Truss PB2	Truss Type GABLE	Qty 2	Ply <b>4</b>	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:17 2024 Page 2  
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**NOTES-**

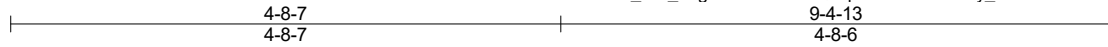
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

Job 28048	Truss PB3	Truss Type GABLE	Qty 12	Ply 1	Michael Smith
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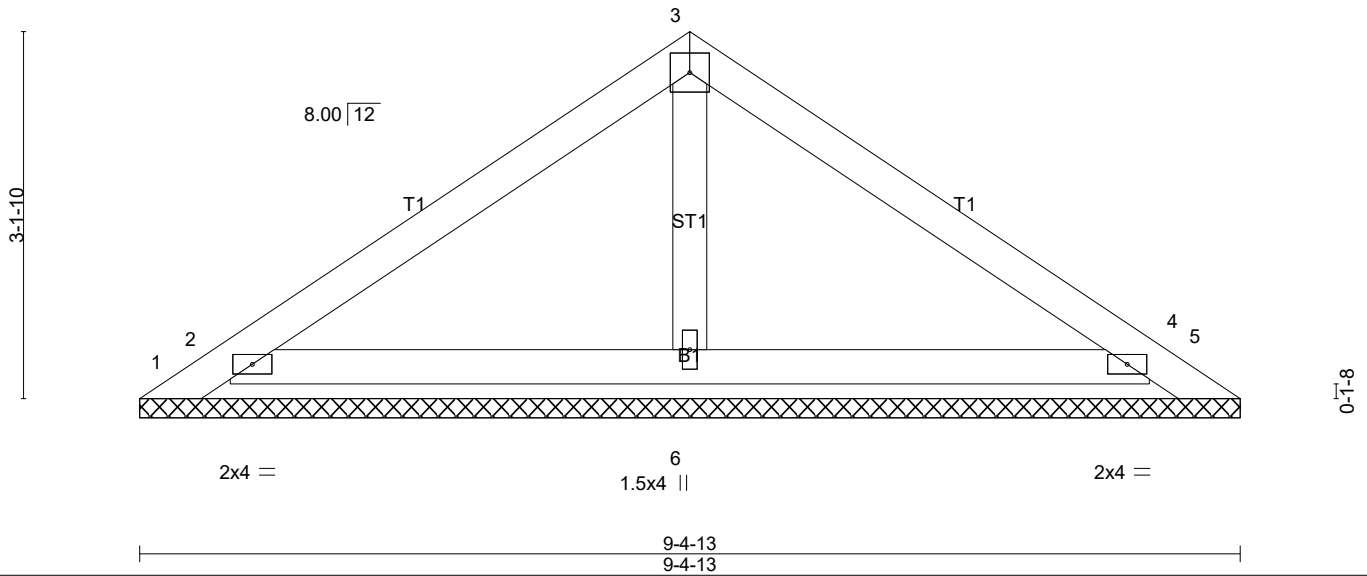
C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:18 2024 Page 1  
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4x4 =

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 32 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

**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.

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

**REACTIONS.** All bearings 9-4-13.  
(lb) - Max Horz 1=-66(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=-217(LC 13),  
5=-190(LC 14), 2=-154(LC 8), 4=-154(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except  
2=433(LC 13), 4=418(LC 14)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 1, 190 lb uplift at joint 5, 154 lb uplift at joint 2 and 154 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

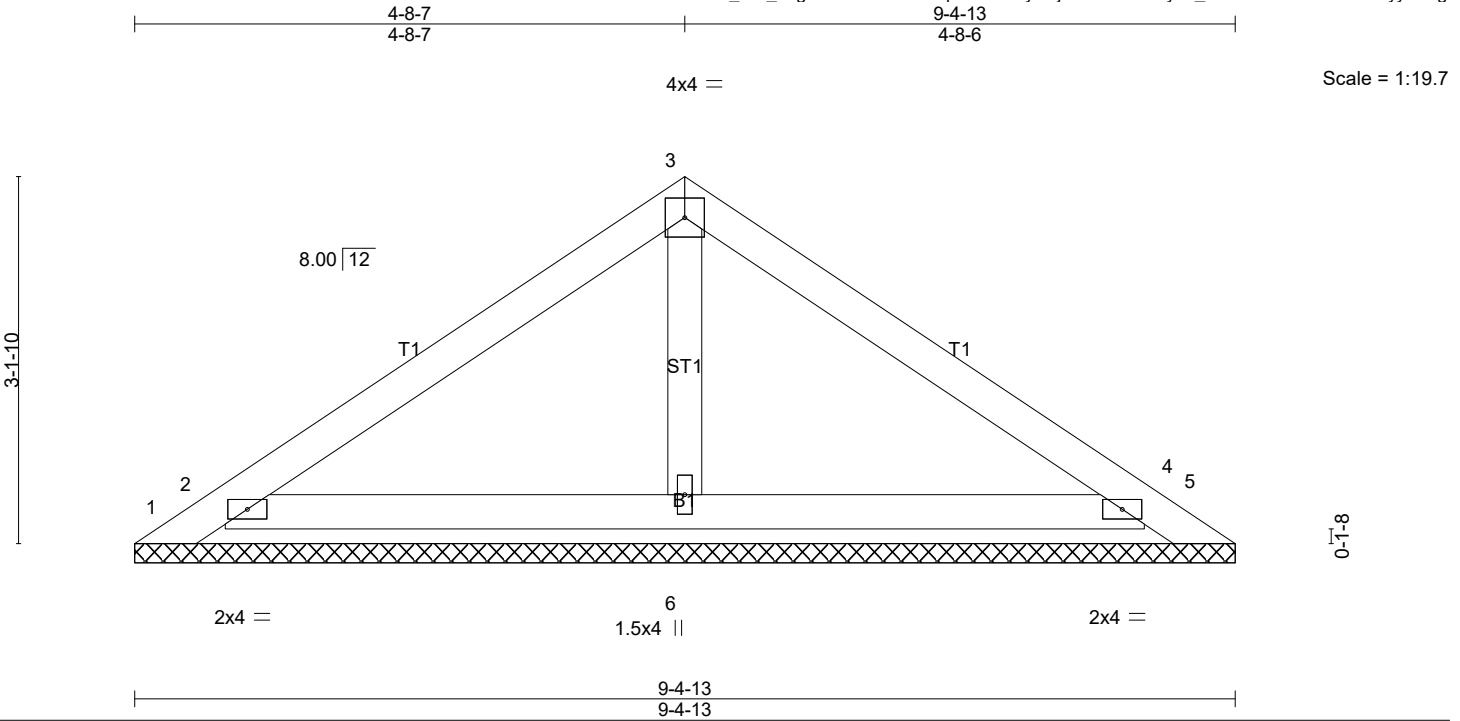
**LOAD CASE(S)** Standard



Job 28048	Truss PB4	Truss Type GABLE	Qty 2	Ply 1	Michael Smith
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 9-4-13  
 4-8-6



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 5 n/a n/a		
	Code IRC2018/TPI2014			Weight: 32 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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.

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

**REACTIONS.** All bearings 9-4-13.  
 (lb) - Max Horz 1=-66(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) except 1=-217(LC 13),  
 5=-190(LC 14), 2=-154(LC 8), 4=-154(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except  
 2=433(LC 13), 4=418(LC 14)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 4-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 1, 190 lb uplift at joint 5, 154 lb uplift at joint 2 and 154 lb uplift at joint 4.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

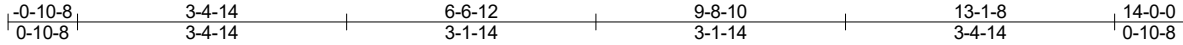
**LOAD CASE(S)** Standard

Job 28048	Truss T1	Truss Type Common	Qty 5	Ply 1	Michael Smith
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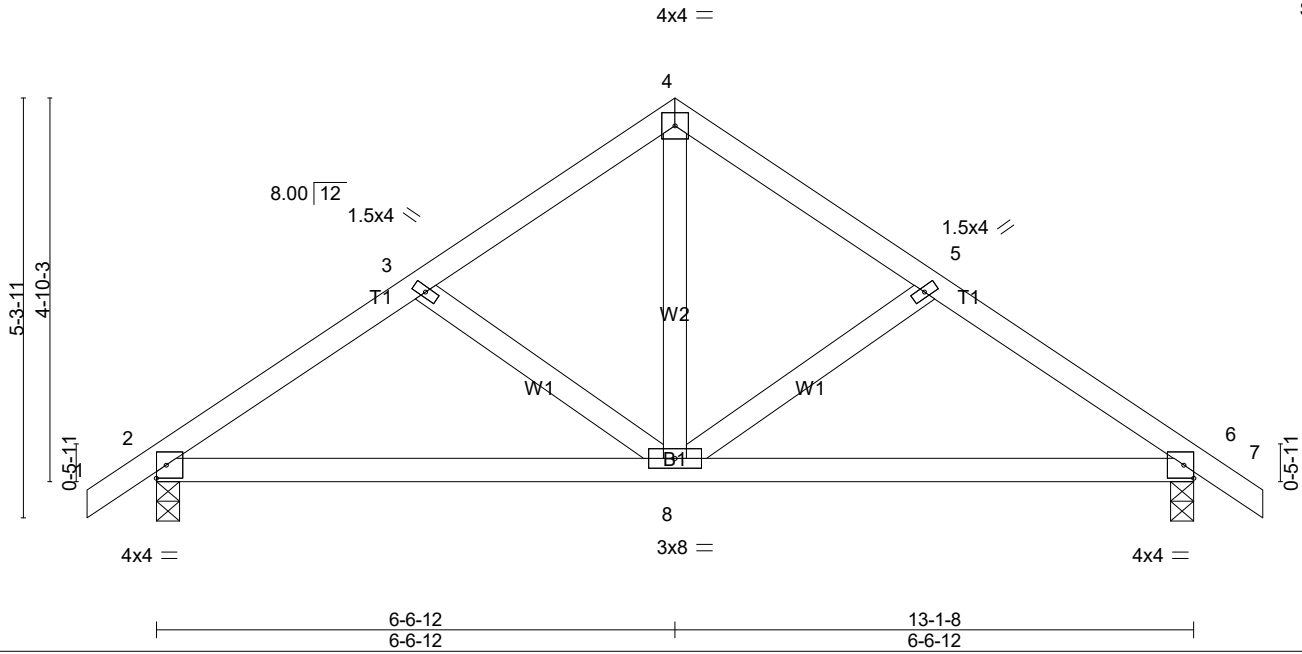
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Scale = 1:29.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) -0.02 8-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.05 8-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 6 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 8 >999 240	Weight: 64 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=578/0-3-8 (min. 0-1-8), 6=578/0-3-8 (min. 0-1-8)  
 Max Horz 2=-111(LC 6)  
 Max Uplift 2=-70(LC 8), 6=-70(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-701/85, 3-4=-537/77, 4-5=-537/77, 5-6=-701/85  
 BOT CHORD 2-8=0/556, 6-8=0/545  
 WEBS 4-8=-13/373

**NOTES-**

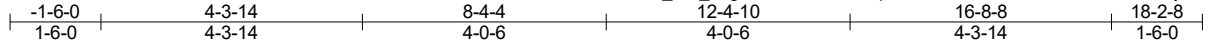
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 2 and 70 lb uplift at joint 6.
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

Job 28048	Truss T4	Truss Type Common	Qty 3	Ply 1	Michael Smith
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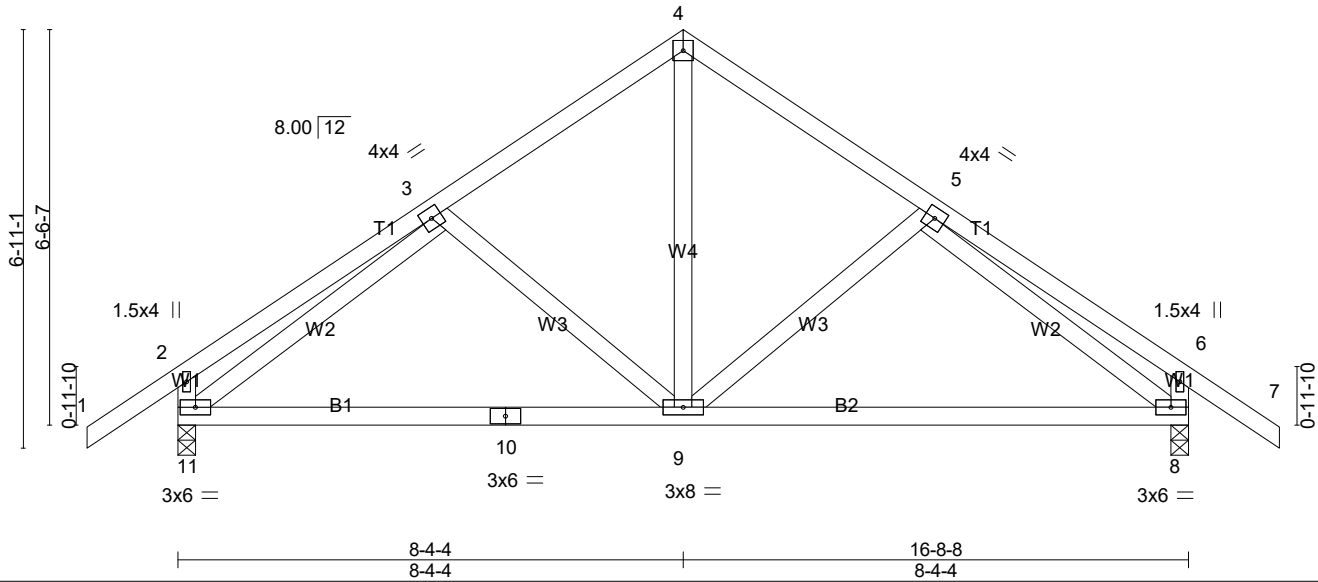
C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:21 2024 Page 1  
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4x4 =

Scale = 1:38.1



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) -0.06 8-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.12 9-11 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.01 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.01 9 >999 240	Weight: 101 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP 2400F 2.0E  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.2 \*Except\*  
 W1: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 11=755/0-3-8 (min. 0-1-8), 8=755/0-3-8 (min. 0-1-8)

Max Horz 11=173(LC 7)  
 Max Uplift 11=-107(LC 8), 8=-107(LC 8)

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

TOP CHORD 2-3=-281/31, 3-4=-612/102, 4-5=-612/102, 5-6=-281/31, 2-11=-330/103, 6-8=-330/103  
 BOT CHORD 10-11=0/595, 9-10=0/595, 8-9=0/559  
 WEBS 4-9=-25/402, 3-11=-538/74, 5-8=-538/74

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 11 and 107 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

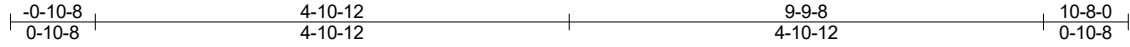
**LOAD CASE(S)** Standard

Job 28048	Truss T5	Truss Type Common	Qty 4	Ply 1	Michael Smith
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4x4 =

Scale: 1/2"=1'

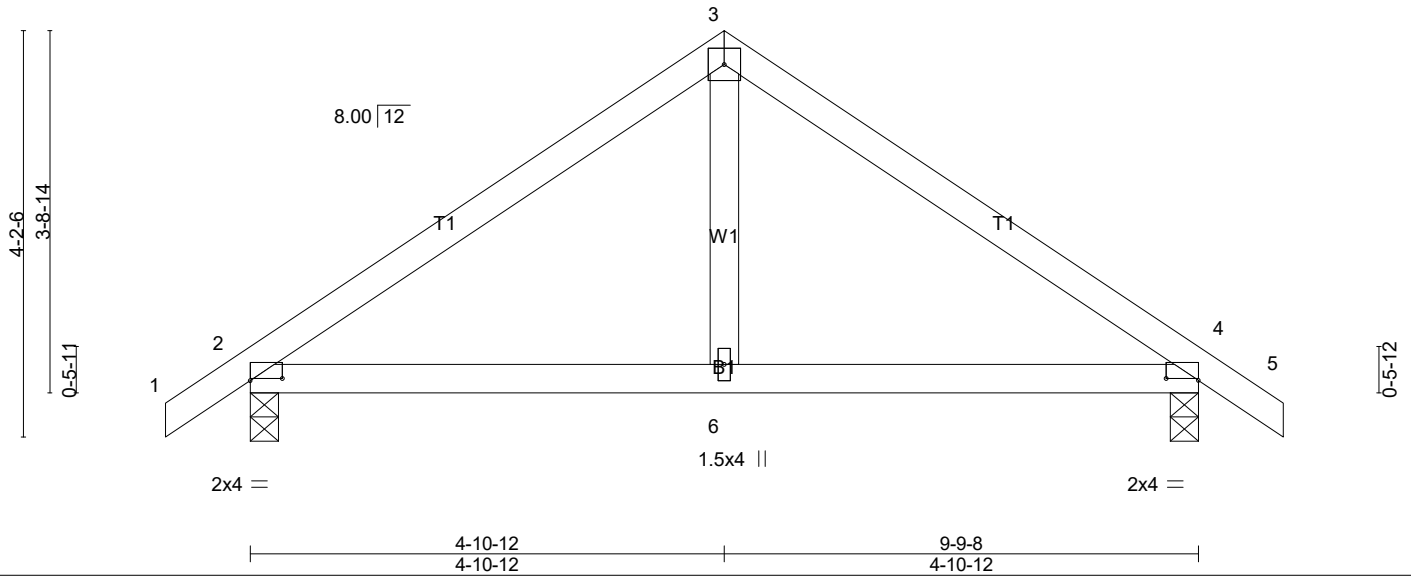


Plate Offsets (X,Y)-- [2:0-4-0,0-0-4], [4:0-4-0,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL)	-0.01	6-9	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	-0.02	6-9	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Wind(LL)	0.01	6-9	>999		
	Code IRC2018/TPI2014						Weight: 40 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

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

**REACTIONS.** (lb/size) 2=444/0-3-8 (min. 0-1-8), 4=444/0-3-8 (min. 0-1-8)

Max Horz 2=-86(LC 6)  
 Max Uplift 2=-60(LC 8), 4=-60(LC 8)

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

TOP CHORD 2-3=-461/55, 3-4=-461/55  
 BOT CHORD 2-6=0/321, 4-6=0/321

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2 and 60 lb uplift at joint 4.
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

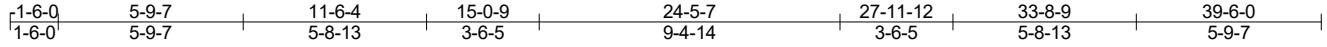
**LOAD CASE(S)** Standard

Job 28048	Truss TG1	Truss Type PIGGYBACK ATTIC	Qty 1	Ply 3	Michael Smith
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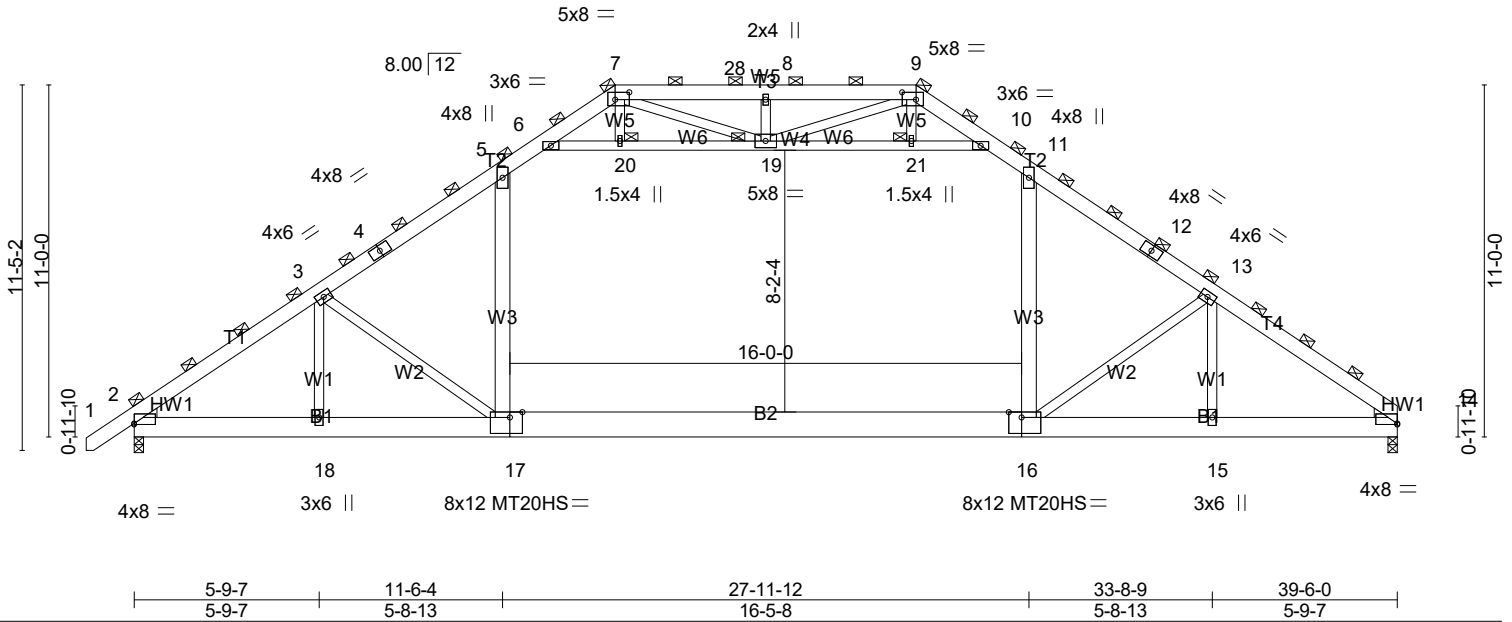


Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [14:0-0-0,0-0-6], [16:0-4-12,Edge], [17:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	5-6-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.35 16-17 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.22	Vert(CT) -0.49 16-17 >961 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.15 17-18 >999 240		
				Weight: 1064 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
B2: 2x10 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
(Switched from sheeted: Spacing > 2-0-0).  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 7, 9, 19, 20, 21

**REACTIONS.** (lb/size) 2=4804/0-3-8 (min. 0-1-9), 14=4567/0-3-8 (min. 0-1-9)  
Max Horz 2=698(LC 7)  
Max Uplift 2=-332(LC 8), 14=-197(LC 8)  
Max Grav 2=5772(LC 14), 14=5555(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-8131/362, 3-4=-8044/288, 4-5=-7650/382, 5-6=-6102/530,  
6-7=-1856/321, 9-10=-1859/324, 10-11=-6099/529, 11-12=-7650/384,  
12-13=-8044/290, 13-14=-8161/384, 7-28=-2350/514, 8-28=-2350/514,  
8-9=-2350/514  
BOT CHORD 2-18=-99/7017, 17-18=-99/7017, 16-17=0/6601, 15-16=-123/6562,  
14-15=-123/6562  
WEBS 5-17=0/3009, 11-16=0/3014, 6-20=-6213/321, 19-20=-6182/325,  
19-21=-6173/321, 10-21=-6204/317, 3-18=-1253/320, 13-15=-1252/326,  
3-17=-1198/676, 13-16=-1240/659, 7-19=-240/1598, 7-20=0/322,  
8-19=-835/251, 9-19=-236/1593, 9-21=0/322

- NOTES-**
- 3-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: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
  - Unbalanced roof live loads have been considered for this design.

Job 28048	Truss TG1	Truss Type PIGGYBACK ATTIC	Qty 1	Ply <b>3</b>	Michael Smith Job Reference (optional)
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**NOTES-**

- 4) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-20, 19-20, 19-21, 10-21
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-17
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 332 lb uplift at joint 2 and 197 lb uplift at joint 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Attic room checked for L/360 deflection.

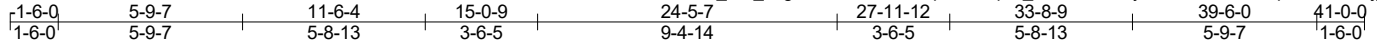
**LOAD CASE(S)** Standard

Job 28048	Truss TG2	Truss Type ATTIC GIRDER	Qty 1	Ply 3	Michael Smith
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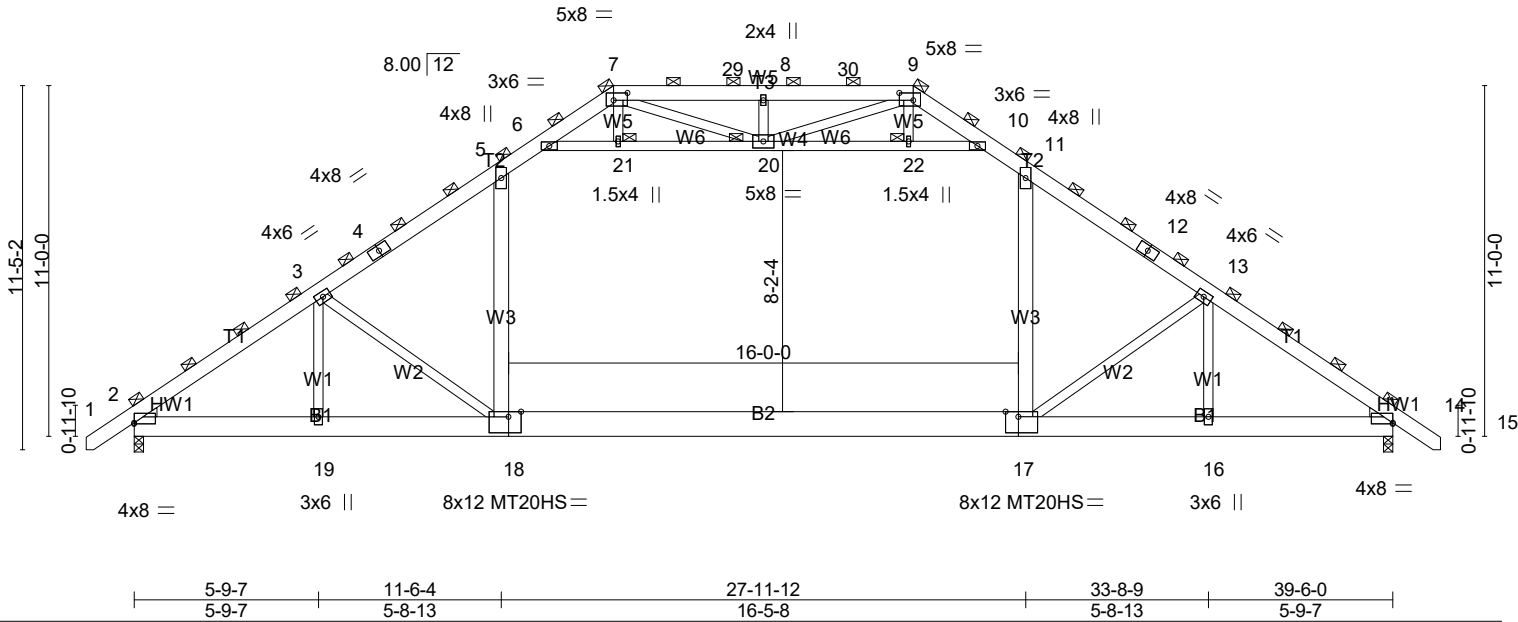


Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [14:0-0-0,0-0-6], [17:0-4-12,Edge], [18:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	5-6-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.35 17-18 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.22	Vert(CT) -0.49 17-18 >962 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.15 18-19 >999 240		
				Weight: 1076 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
 B2: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E

WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**REACTIONS.** (lb/size) 2=4800/0-3-8 (min. 0-1-9), 14=4800/0-3-8 (min. 0-1-9)  
 Max Horz 2=-717(LC 6)  
 Max Uplift 2=-330(LC 8), 14=-330(LC 8)  
 Max Grav 2=5770(LC 14), 14=5770(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-8128/360, 3-4=-8034/281, 4-5=-7641/376, 5-6=-6095/525,  
 6-7=-1856/322, 9-10=-1856/322, 10-11=-6095/525, 11-12=-7640/376,  
 12-13=-8034/281, 13-14=-8131/360, 7-29=-2350/515, 8-29=-2350/515,  
 8-30=-2350/515, 9-30=-2350/515  
 BOT CHORD 2-19=0/7045, 18-19=0/7045, 17-18=0/6627, 16-17=0/6511, 14-16=0/6511  
 WEBS 5-18=0/3008, 11-17=0/3008, 6-21=-6201/313, 20-21=-6171/317,  
 20-22=-6170/317, 10-22=-6201/313, 3-19=-1248/320, 13-16=-1251/324,  
 3-18=-1200/671, 13-17=-1200/671, 7-20=-238/1595, 7-21=0/322,  
 8-20=-835/251, 9-20=-238/1595, 9-22=0/322

**NOTES-**

- 3-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: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
- Unbalanced roof live loads have been considered for this design.

Job 28048	Truss TG2	Truss Type ATTIC GIRDER	Qty 1	Ply <b>3</b>	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:23 2024 Page 2  
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**NOTES-**

- 4) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-21, 20-21, 20-22, 10-22
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 17-18
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 330 lb uplift at joint 2 and 330 lb uplift at joint 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

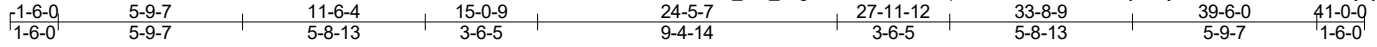


Job 28048	Truss TG3	Truss Type Attic Girder	Qty 1	Ply 4	Michael Smith
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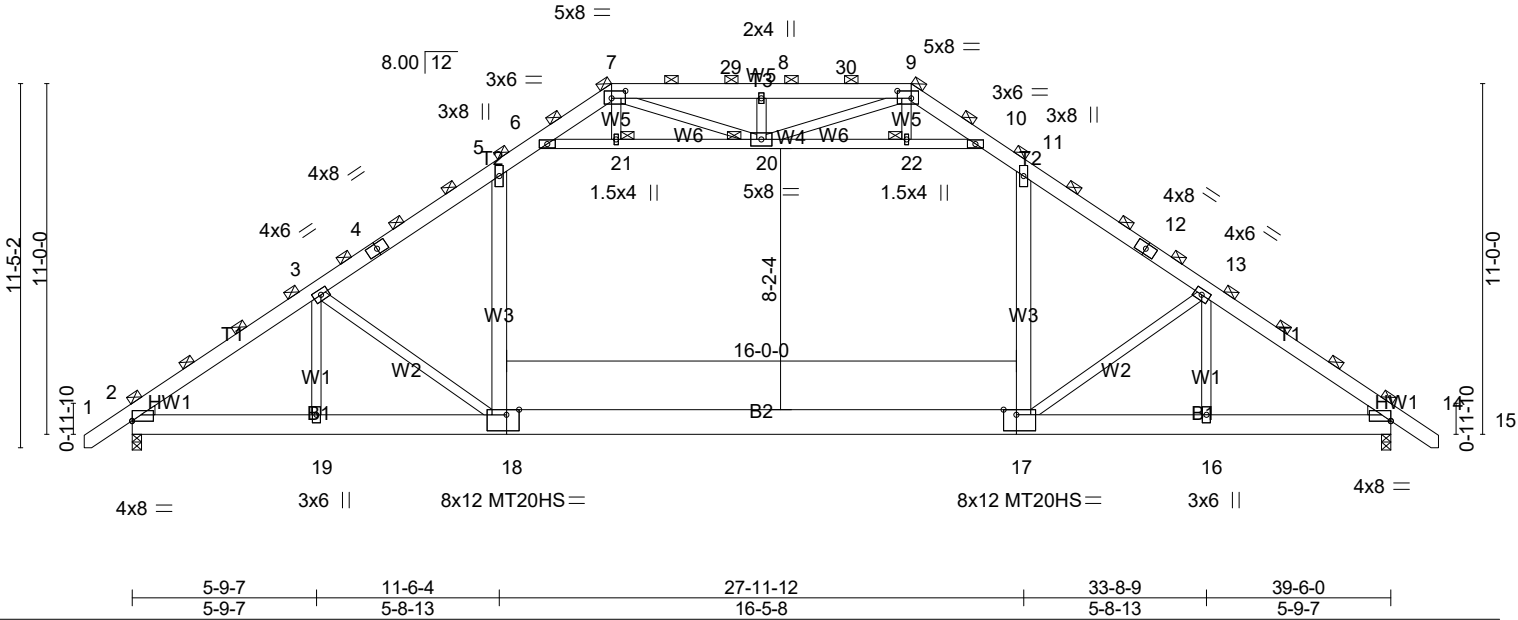


Plate Offsets (X,Y)-- [2:0-0-0,0-0-2], [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [14:0-0-0,0-0-2], [17:0-4-12,Edge], [18:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	7-7-0	TC 0.37	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.35 17-18 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.49 17-18 >971 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.05 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.15 18-19 >999 240		
				Weight: 1434 lb FT = 20%	

**LUMBER-**

TOP CHORD 2x6 SP 2400F 2.0E  
 BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
 B2: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E

WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 7, 9, 20, 21, 22

**REACTIONS.** (lb/size) 2=6618/0-3-8 (min. 0-1-10), 14=6618/0-3-8 (min. 0-1-10)  
 Max Horz 2=-988(LC 6)  
 Max Uplift 2=-455(LC 8), 14=-455(LC 8)  
 Max Grav 2=7955(LC 14), 14=7955(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-11233/495, 3-4=-11066/388, 4-5=-10540/519, 5-6=-8410/723,  
 6-7=-2612/448, 9-10=-2612/448, 10-11=-8409/723, 11-12=-10540/519,  
 12-13=-11065/388, 13-14=-11238/495, 7-29=-3224/707, 8-29=-3224/707,  
 8-30=-3224/707, 9-30=-3224/707  
 BOT CHORD 2-19=0/9711, 18-19=0/9711, 17-18=0/9137, 16-17=0/8974, 14-16=0/8974  
 WEBS 5-18=0/4142, 11-17=0/4142, 6-21=-8522/427, 20-21=-8479/433,  
 20-22=-8479/433, 10-22=-8521/427, 3-19=-1640/441, 13-16=-1645/447,  
 3-18=-1652/929, 13-17=-1652/929, 7-20=-321/2196, 7-21=0/440,  
 8-20=-1110/341, 9-20=-321/2196, 9-22=0/440

**NOTES-**

- 4-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: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.  
 Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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.
- Unbalanced roof live loads have been considered for this design.

Job 28048	Truss TG3	Truss Type Attic Girder	Qty 1	Ply <b>4</b>	Michael Smith Job Reference (optional)
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C&R Building Supply, Autryville NC

8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:24 2024 Page 2  
ID:zl\_JIG\_52gkwxPrTOJGSQTzpbB4-a0urC7nTAoIWFyC9kjh9uoWJcPd3Zaf6O16vjAyvFDb

**NOTES-**

- 4) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-21, 20-21, 20-22, 10-22
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 17-18
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 455 lb uplift at joint 2 and 455 lb uplift at joint 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Attic room checked for L/360 deflection.

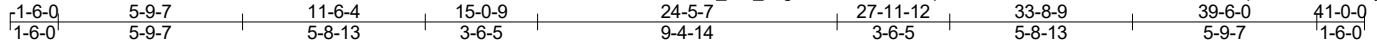
**LOAD CASE(S)** Standard

Job 28048	Truss TG4	Truss Type Attic Girder	Qty 1	Ply 4	Michael Smith
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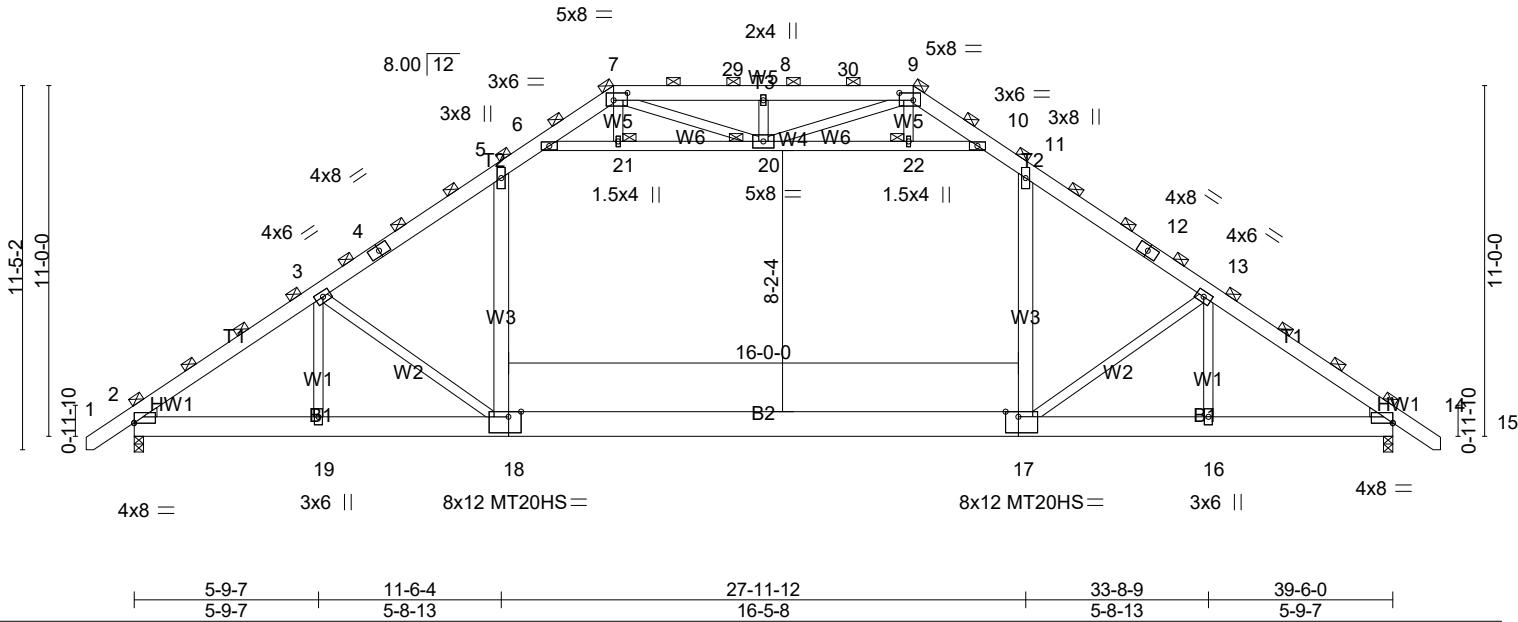


Plate Offsets (X,Y)-- [2:0-0-0,0-0-2], [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [14:0-0-0,0-0-2], [17:0-4-12,Edge], [18:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	7-7-0 Plate Grip DOL 1.15	TC 0.37	Vert(LL)	-0.35	17-18	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.54	Vert(CT)	-0.49	17-18	>971	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.27	Horz(CT)	0.05	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Wind(LL)	-0.15	18-19	>999		
							Weight: 1434 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP 2400F 2.0E  
 BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
 B2: 2x10 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\*  
 W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E

WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 7, 9, 20, 21, 22

**REACTIONS.** (lb/size) 2=6618/0-3-8 (min. 0-1-10), 14=6618/0-3-8 (min. 0-1-10)  
 Max Horz 2=988(LC 7)  
 Max Uplift 2=-455(LC 8), 14=-455(LC 8)  
 Max Grav 2=7955(LC 14), 14=7955(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-11233/495, 3-4=-11066/388, 4-5=-10540/519, 5-6=-8410/723,  
 6-7=-2612/448, 9-10=-2612/448, 10-11=-8409/723, 11-12=-10540/519,  
 12-13=-11065/388, 13-14=-11238/495, 7-29=-3224/707, 8-29=-3224/707,  
 8-30=-3224/707, 9-30=-3224/707  
 BOT CHORD 2-19=0/9711, 18-19=0/9711, 17-18=0/9137, 16-17=0/8974, 14-16=0/8974  
 WEBS 5-18=0/4142, 11-17=0/4142, 6-21=-8522/427, 20-21=-8479/433,  
 20-22=-8479/433, 10-22=-8521/427, 3-19=-1640/441, 13-16=-1645/447,  
 3-18=-1652/929, 13-17=-1652/929, 7-20=-321/2196, 7-21=0/440,  
 8-20=-1110/341, 9-20=-321/2196, 9-22=0/440

**NOTES-**

- 4-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: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.  
 Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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.
- Unbalanced roof live loads have been considered for this design.

Continued on page 2

Job 28048	Truss TG4	Truss Type Attic Girder	Qty 1	Ply <b>4</b>	Michael Smith Job Reference (optional)
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8.430 s Jan 20 2021 MiTek Industries, Inc. Tue Jul 23 08:48:25 2024 Page 2  
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**NOTES-**

- 4) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-21, 20-21, 20-22, 10-22
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 17-18
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 455 lb uplift at joint 2 and 455 lb uplift at joint 14.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard

Job 28048	Truss TGE1	Truss Type GABLE	Qty 1	Ply 1	Michael Smith
C&R Building Supply, Autryville NC					Job Reference (optional)

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27-11-12

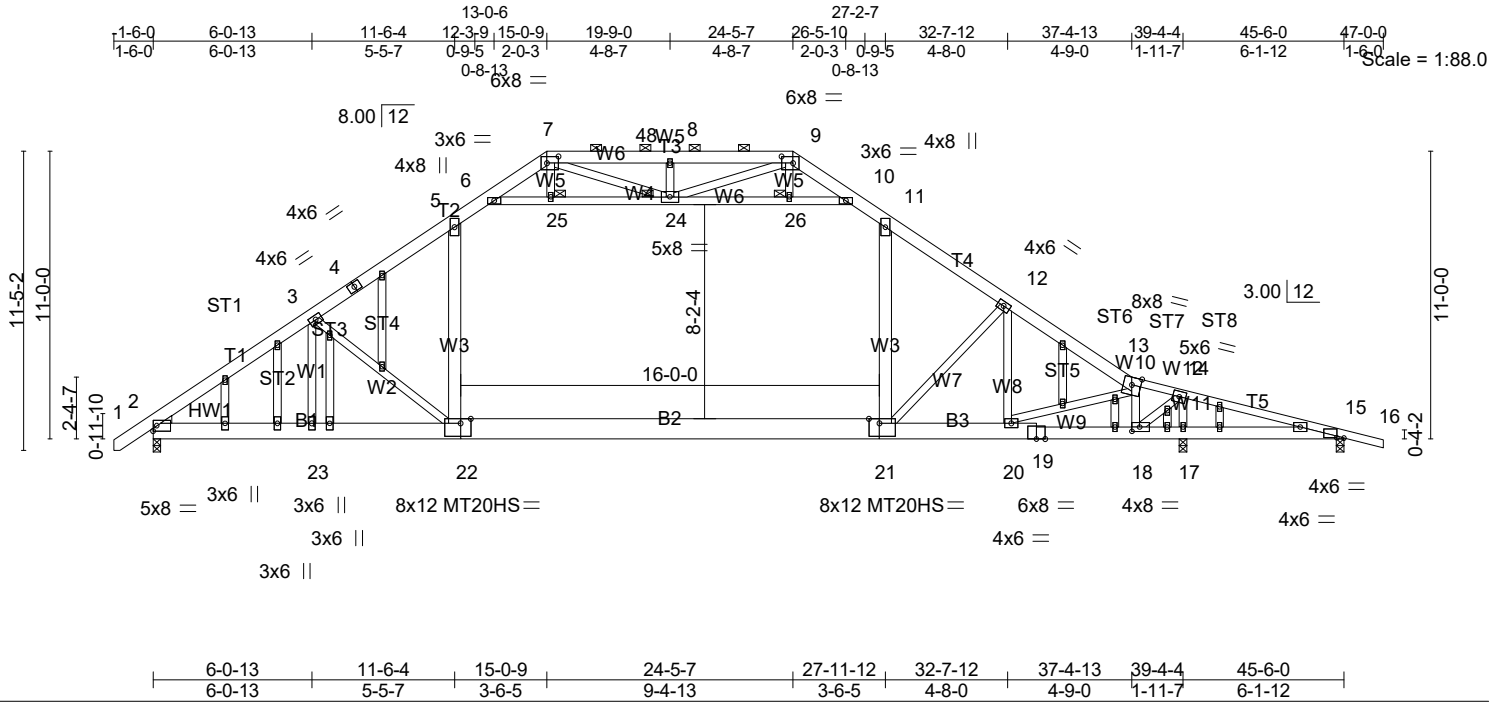


Plate Offsets (X,Y)-- [7:0-5-4,0-3-0], [9:0-5-4,0-3-0], [15:0-3-4,0-0-2], [18:0-3-8,0-2-0], [21:0-4-12,Edge], [22:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.55	Vert(LL)	-0.37 21-22	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.55	Vert(CT)	-0.51 21-22	>926	240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.94	Horz(CT)	0.04 17	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Wind(LL)	-0.12 22-23	>999	240		
	Code IRC2018/TPI2014						Weight: 412 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1 \*Except\*  
 T5: 2x4 SP 2400F 2.0E  
 BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
 B2: 2x10 SP 2400F 2.0E, B4: 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
 OTHERS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (6-0-0 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied.  
 JOINTS 1 Brace at Jt(s): 24, 25, 26

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

**REACTIONS.** (lb/size) 2=1716/0-3-8 (min. 0-1-12), 17=2070/0-3-8 (min. 0-3-1), 15=189/0-3-8 (min. 0-1-8)  
 Max Horz 2=-258(LC 6)  
 Max Uplift 2=-119(LC 8), 17=-90(LC 8), 15=-157(LC 5)  
 Max Grav 2=2085(LC 14), 17=2605(LC 15), 15=224(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2944/132, 3-4=-2814/104, 4-5=-2678/137, 5-6=-2154/189, 6-7=-702/127,  
 7-8=-909/194, 8-48=-909/194, 8-9=-909/194, 9-10=-719/129,  
 10-11=-2180/188, 11-12=-2869/143, 12-13=-2597/131, 13-14=-1528/130,  
 14-15=-406/1155  
 BOT CHORD 2-23=0/2549, 22-23=0/2549, 21-22=0/2356, 20-21=0/2192, 19-20=-47/1558,  
 18-19=-48/1562, 17-18=-1089/401, 15-17=-1089/401  
 WEBS 3-23=-362/127, 3-22=-439/146, 5-22=0/1070, 6-25=-2009/99,  
 24-25=-1999/101, 24-26=-2143/98, 10-26=-2154/96, 11-21=0/1078,  
 12-21=-158/288, 12-20=-661/14, 13-20=-56/1200, 13-18=1607/91,  
 14-18=-54/2437, 14-17=-2302/112, 8-24=-289/87, 7-24=-81/532,  
 9-24=-78/561

**NOTES-**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=46ft;  
 eave=6ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

Job	Truss	Truss Type	Qty	Ply	Michael Smith
28048	TGE1	GABLE	1	1	Job Reference (optional)

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**NOTES-**

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) The Fabrication Tolerance at joint 21 = 16%
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 11) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-25, 24-25, 24-26, 10-26
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 21-22
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 2, 90 lb uplift at joint 17 and 157 lb uplift at joint 15.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 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.

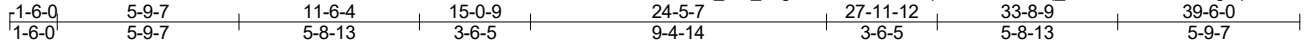
**LOAD CASE(S)** Standard

Job 28048	Truss TGE2	Truss Type GABLE	Qty 1	Ply 1	Michael Smith
C&R Building Supply, Autryville NC					Job Reference (optional)

C&R Building Supply, Autryville NC

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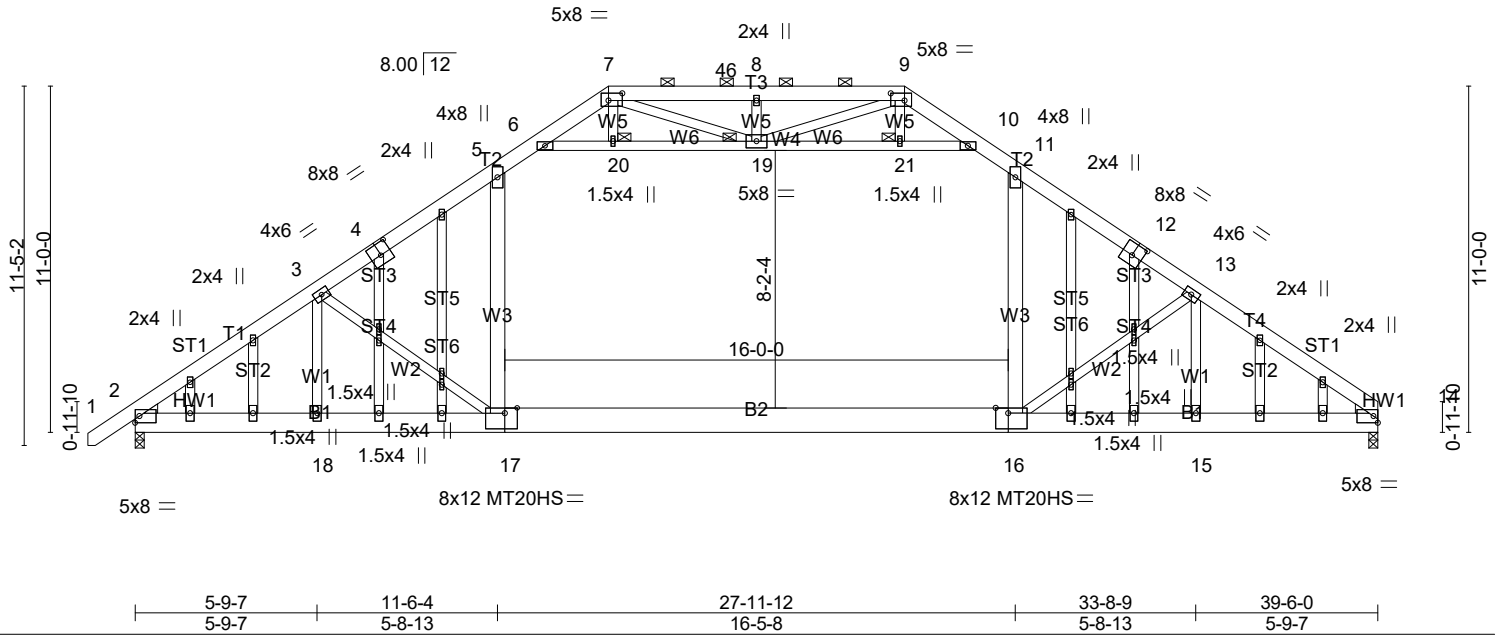


Plate Offsets (X,Y)-- [4:0-4-0,0-4-8], [7:0-5-4,0-2-12], [9:0-5-4,0-2-12], [12:0-4-0,0-4-8], [16:0-4-12,Edge], [17:0-4-12,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.38 16-17 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.42	Vert(CT) -0.53 16-17 >892 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 14 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) -0.17 17-18 >999 240	Weight: 398 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x8 SP 2400F 2.0E \*Except\*  
B2: 2x10 SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\*  
W3: 2x6 SP No.1, W4: 2x4 SP 2400F 2.0E  
OTHERS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins, except  
2-0-0 oc purlins (6-0-0 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
JOINTS 1 Brace at Jt(s): 19, 20, 21

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

**REACTIONS.** (lb/size) 2=1747/0-3-8 (min. 0-1-12), 14=1661/0-3-8 (min. 0-1-11)  
Max Horz 2=254(LC 7)  
Max Uplift 2=-121(LC 8), 14=-72(LC 8)  
Max Grav 2=2099(LC 14), 14=2020(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2955/132, 3-4=-2927/104, 4-5=-2784/139, 5-6=-2218/193, 6-7=-677/117,  
9-10=-677/117, 10-11=-2217/192, 11-12=-2783/139, 12-13=-2926/105,  
13-14=-2969/141, 7-46=-856/187, 8-46=-856/187, 8-9=-856/187  
BOT CHORD 2-18=-36/2557, 17-18=-36/2557, 16-17=0/2400, 15-16=-45/2392,  
14-15=-45/2392  
WEBS 5-17=0/1098, 11-16=0/1099, 6-20=-2255/117, 19-20=-2244/118,  
19-21=-2241/117, 10-21=-2252/116, 3-18=-468/111, 13-15=-462/118,  
3-17=-441/239, 13-16=-457/233, 7-19=-87/581, 8-19=-304/91, 9-19=-86/579

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) All plates are 3x6 MT20 unless otherwise indicated.
- Continued on page 2

Job 28048	Truss TGE2	Truss Type GABLE	Qty 1	Ply 1	Michael Smith  Job Reference (optional)
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**NOTES-**

- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 10) Ceiling dead load (5.0 psf) on member(s). 5-6, 10-11, 6-20, 19-20, 19-21, 10-21
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-17
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 72 lb uplift at joint 14.
- 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard