

RE: 654049\_\_120mph - H&H/Wilmington/

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Project Customer: h and h Project Name: 654049 120 mph  
 Lot/Block: a Subdivision: all  
 Model:  
 Address:  
 City: Fayetteville State: nc

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.2  
 Wind Code: ASCE 7-10 Wind Speed: 120 mph Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-10  
 Roof Load: 40.0 psf Floor Load: N/A psf  
 Mean Roof Height (feet): 25 Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I37221785	A01	5/28/19	35	I37221819	C05	5/28/19
2	I37221786	A02	5/28/19	36	I37221820	C06	5/28/19
3	I37221787	A03	5/28/19	37	I37221821	C07	5/28/19
4	I37221788	A04	5/28/19	38	I37221822	CP01	5/28/19
5	I37221789	A04A	5/28/19	39	I37221823	CP02	5/28/19
6	I37221790	A05	5/28/19	40	I37221824	D01	5/28/19
7	I37221791	A05A	5/28/19	41	I37221825	D02	5/28/19
8	I37221792	A06	5/28/19	42	I37221826	D03	5/28/19
9	I37221793	A07	5/28/19	43	I37221827	G01	5/28/19
10	I37221794	A08	5/28/19	44	I37221828	G02	5/28/19
11	I37221795	A09	5/28/19	45	I37221829	G03	5/28/19
12	I37221796	A10	5/28/19	46	I37221830	J01	5/28/19
13	I37221797	A11	5/28/19	47	I37221831	J02	5/28/19
14	I37221798	A24	5/28/19	48	I37221832	J03	5/28/19
15	I37221799	A24A	5/28/19	49	I37221833	J04	5/28/19
16	I37221800	A25	5/28/19	50	I37221834	J05	5/28/19
17	I37221801	A25A	5/28/19	51	I37221835	J06	5/28/19
18	I37221802	A26	5/28/19	52	I37221836	J07	5/28/19
19	I37221803	A34	5/28/19	53	I37221837	J08	5/28/19
20	I37221804	A34A	5/28/19	54	I37221838	J09	5/28/19
21	I37221805	A35	5/28/19	55	I37221839	J10	5/28/19
22	I37221806	A35A	5/28/19	56	I37221840	J11	5/28/19
23	I37221807	A36	5/28/19	57	I37221841	J12	5/28/19
24	I37221808	B01	5/28/19	58	I37221842	J13	5/28/19
25	I37221809	B02	5/28/19	59	I37221843	J14	5/28/19
26	I37221810	B03	5/28/19	60	I37221844	J15	5/28/19
27	I37221811	B04	5/28/19	61	I37221845	J21	5/28/19
28	I37221812	B05	5/28/19	62	I37221846	J22	5/28/19
29	I37221813	B23	5/28/19	63	I37221847	J23	5/28/19
30	I37221814	B24	5/28/19	64	I37221848	J24	5/28/19
31	I37221815	C01	5/28/19	65	I37221849	PB01	5/28/19
32	I37221816	C02	5/28/19	66	I37221850	PB02	5/28/19
33	I37221817	C03	5/28/19	67	I37221851	PB03	5/28/19
34	I37221818	C04	5/28/19	68	I37221852	PB04	5/28/19

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter,SC.

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of North Carolina is December 31, 2019.

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



May 28, 2019

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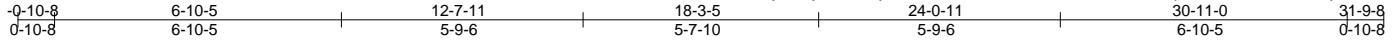
No.	Seal#	Job ID#	Truss Name	Date
69	I37221853	654049__120P05	TRUSS	5/28/19
70	I37221854	654049__120P06	TRUSS	5/28/19
71	I37221855	654049__120P07	TRUSS	5/28/19

Job 654049__120mph	Truss A01	Truss Type HIP GIRDER	Qty 5	Ply 2	H&H/Wilmington/ 137221785
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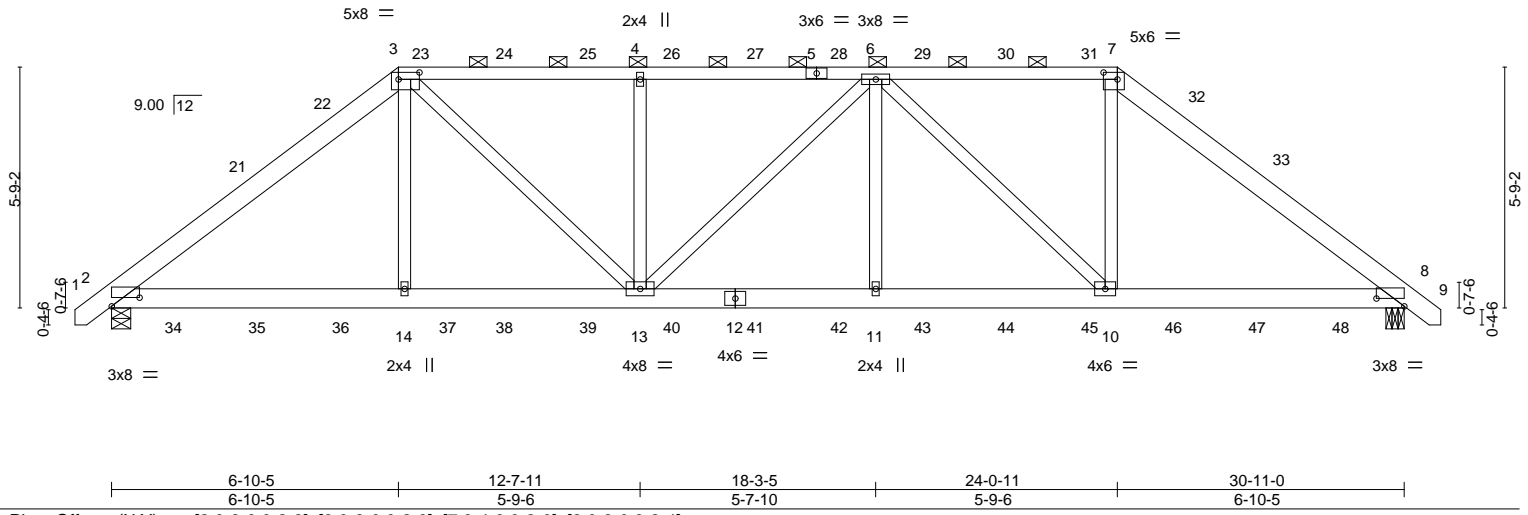
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:16 2019 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	0.11 11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.12 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 413 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 3-5,5-7: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) 2=2201/0-5-8, 8=2198/0-5-4  
Max Horz 2=-166(LC 6)  
Max Uplift 2=-1149(LC 8), 8=-1146(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2857/1634, 3-4=-3001/1906, 4-6=-3001/1906, 6-7=-2225/1385, 7-8=-2850/1625  
BOT CHORD 2-14=-1362/2198, 13-14=-1366/2211, 11-13=-1897/3004, 10-11=-1897/3004,  
8-10=-1263/2193  
WEBS 3-14=-148/525, 3-13=-849/1145, 4-13=-558/582, 6-11=0/341, 6-10=-1142/853,  
7-10=-669/1209

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1149, 8=1146.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221785
654049__120mph	A01	HIP GIRDER	5	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:16 2019 Page 2  
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**NOTES-**

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 72 lb up at 3-6-0, 20 lb down and 38 lb up at 5-6-0, 143 lb down and 169 lb up at 7-5-0, 148 lb down and 169 lb up at 9-5-0, 148 lb down and 169 lb up at 11-5-0, 148 lb down and 169 lb up at 13-5-0, 148 lb down and 169 lb up at 15-5-0, 148 lb down and 169 lb up at 17-5-0, 148 lb down and 169 lb up at 19-5-0, 148 lb down and 169 lb up at 21-5-0, 144 lb down and 169 lb up at 23-5-0, and 20 lb down and 38 lb up at 25-5-0, and 55 lb down and 72 lb up at 27-5-0 on top chord, and 167 lb down and 81 lb up at 1-6-0, 95 lb down and 51 lb up at 3-6-0, 148 lb down and 132 lb up at 5-6-0, 52 lb down and 28 lb up at 7-5-0, 52 lb down and 28 lb up at 9-5-0, 52 lb down and 28 lb up at 11-5-0, 52 lb down and 28 lb up at 13-5-0, 52 lb down and 28 lb up at 15-5-0, 52 lb down and 28 lb up at 17-5-0, 52 lb down and 28 lb up at 19-5-0, 52 lb down and 28 lb up at 21-5-0, 52 lb down and 28 lb up at 23-5-0, 148 lb down and 132 lb up at 25-5-0, and 95 lb down and 51 lb up at 27-5-0, and 167 lb down and 81 lb up at 29-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-7=-60, 7-9=-60, 15-18=-20

Concentrated Loads (lb)

Vert: 21=-15(F) 23=-68(F) 24=-68(F) 25=-68(F) 26=-68(F) 27=-68(F) 28=-68(F) 29=-68(F) 30=-68(F) 31=-68(F) 33=-15(F) 34=-167(F) 35=-95(F) 36=-148(F) 37=-42(F) 38=-42(F) 39=-42(F) 40=-42(F) 41=-42(F) 42=-42(F) 43=-42(F) 44=-42(F) 45=-42(F) 46=-148(F) 47=-95(F) 48=-167(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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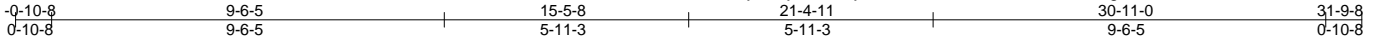
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221786
654049__120mph	A02	HIP	5	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:17 2019 Page 1

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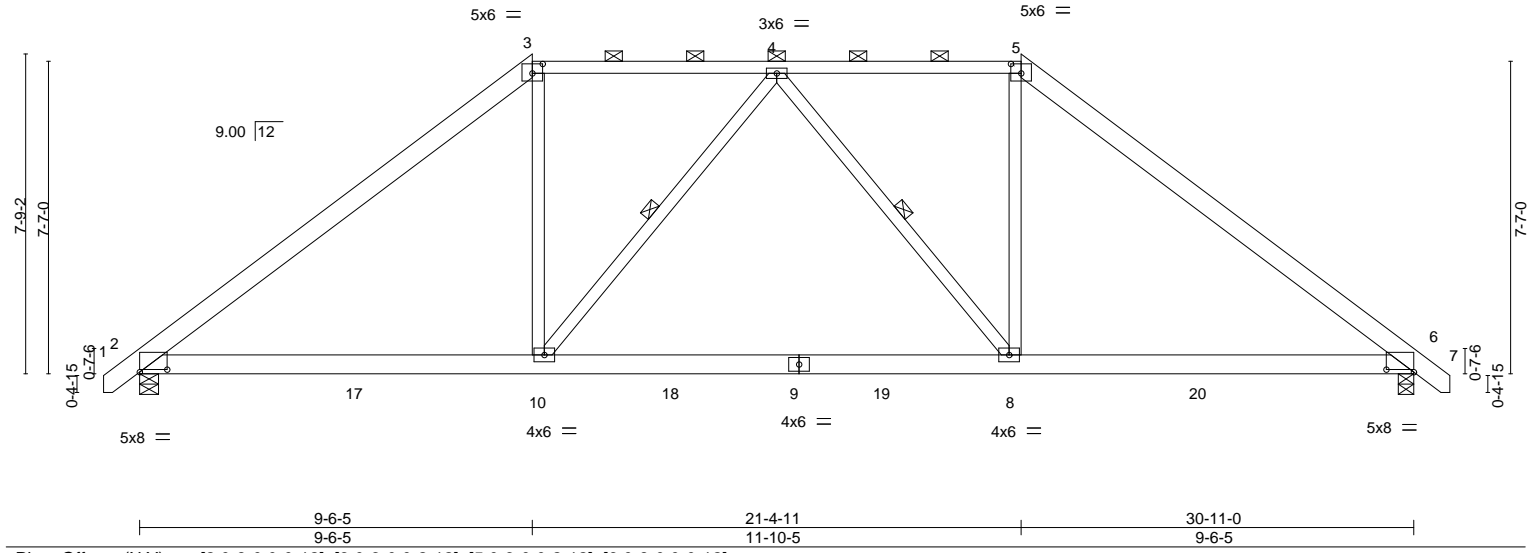


Plate Offsets (X, Y)--	[2:0-8-0,0-0-12], [3:0-3-0,0-2-12], [5:0-3-0,0-2-12], [6:0-8-0,0-0-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.14	8-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.23	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.26	Horz(CT)	0.04	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.12	10-13	>999		
								Weight: 198 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-5: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-9-10 max.): 3-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-10, 4-8

**REACTIONS.** (lb/size) 2=1283/0-5-8, 6=1283/0-4-8  
 Max Horz 2=219(LC 11)  
 Max Uplift 2=178(LC 12), 6=178(LC 13)  
 Max Grav 2=1331(LC 2), 6=1331(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1758/411, 3-4=-1317/441, 4-5=-1317/441, 5-6=-1758/411  
 BOT CHORD 2-10=-189/1305, 8-10=-210/1429, 6-8=-123/1305  
 WEBS 3-10=-26/619, 4-10=-319/239, 4-8=-319/239, 5-8=-26/619

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 6=178.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

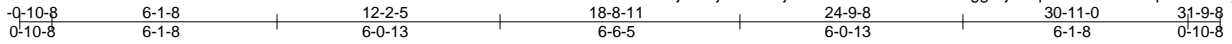


Job 654049__120mph	Truss A03	Truss Type Hip	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221787
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:18 2019 Page 1

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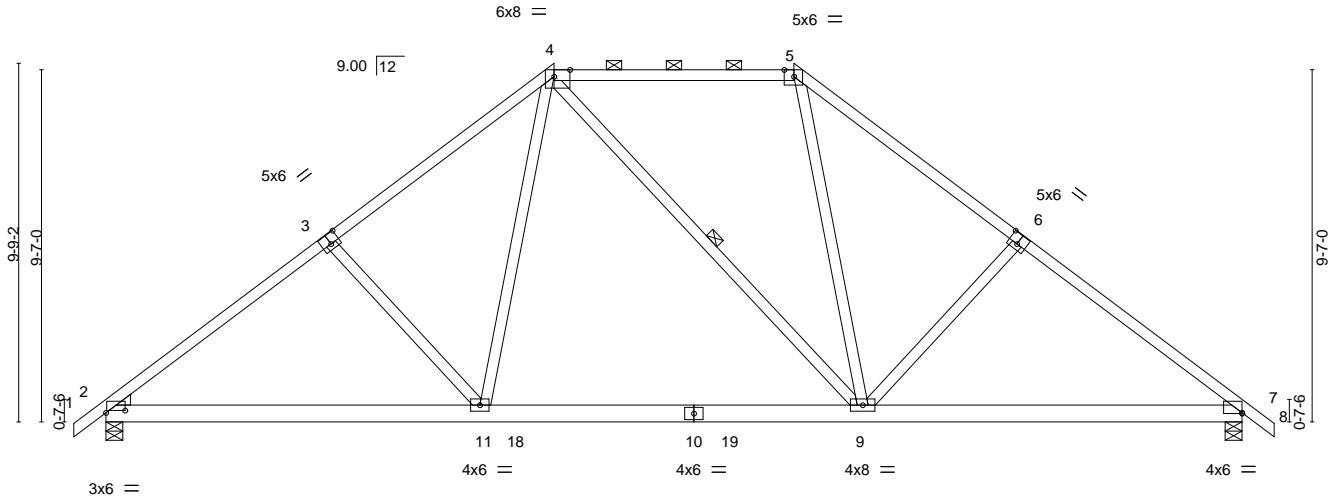


Plate Offsets (X, Y)--	[2:0-6-4,0-0-12], [3:0-3-0,0-3-4], [4:0-5-3,Edge], [5:0-3-3,Edge], [6:0-3-0,0-3-4], [7:0-0-0,0-0-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.16	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.23	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.03	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.05	11-14	>999	Weight: 195 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (4-8-11 max.): 4-5.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
4-9: 2x4 SP No.2	WEBS 1 Row at midpt 4-9

WEDGE  
Left: 2x4 SP No.3

**REACTIONS.** (lb/size) 2=1289/0-5-8, 7=1289/0-5-8  
Max Horz 2=276(LC 11)  
Max Uplift 2=-203(LC 12), 7=-203(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1699/455, 3-4=-1465/474, 4-5=-1009/439, 5-6=-1465/474, 6-7=-1699/455  
BOT CHORD 2-11=-265/1381, 9-11=-102/1028, 7-9=-228/1281  
WEBS 3-11=-382/297, 4-11=-104/612, 5-9=-75/520, 6-9=-381/298

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=203, 7=203.
  - 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.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



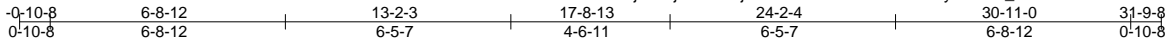
May 28, 2019

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221788
654049__120mph	A04	PIGGYBACK BASE	67	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:19 2019 Page 1

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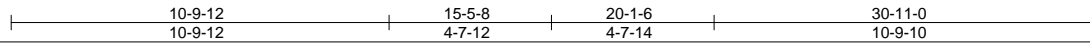
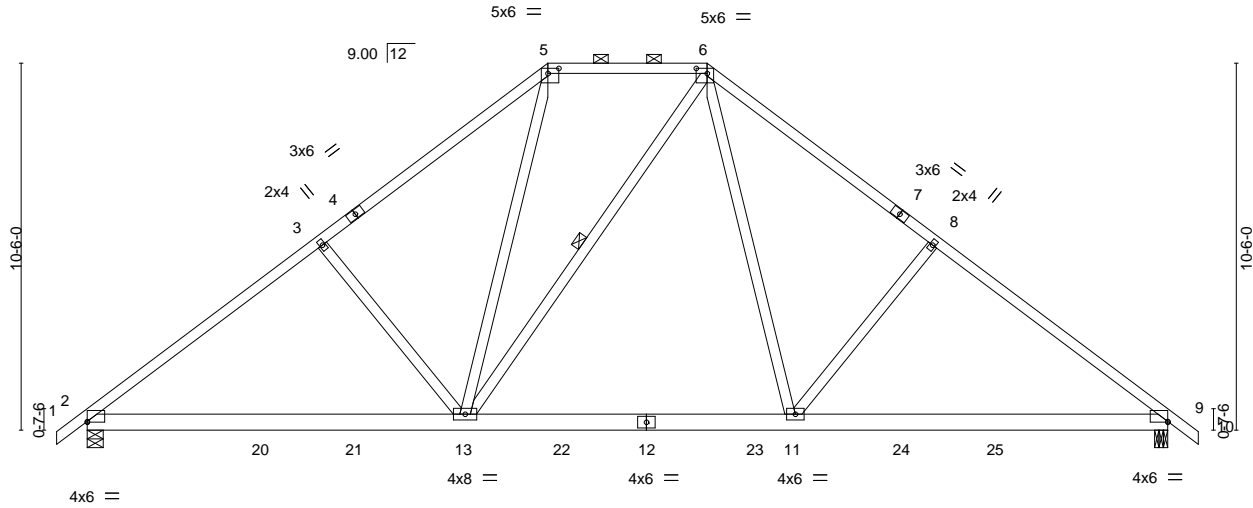


Plate Offsets (X,Y)--	[2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12], [9:0-0-0,0-0-4]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.10 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.20 11-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.03 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06 11-19	>999	240	Weight: 198 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-8-15 max.): 5-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
	WEBS 1 Row at midpt 6-13

<b>REACTIONS.</b> (lb/size)	2=1289/0-5-8, 9=1289/0-4-8
	Max Horz 2=-301(LC 10)
	Max Uplift 2=-209(LC 12), 9=-209(LC 13)
	Max Grav 2=1300(LC 19), 9=1309(LC 20)

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1686/450, 3-5=-1487/489, 5-6=-991/438, 6-8=-1504/489, 8-9=-1703/450
BOT CHORD 2-13=-276/1449, 11-13=0/995, 9-11=-214/1295
WEBS 3-13=-438/328, 5-13=-122/627, 6-11=-149/709, 8-11=-439/328

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=209, 9=209.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for a particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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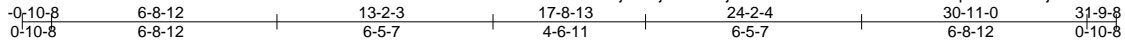
Job 654049__120mph	Truss A04A	Truss Type PIGGYBACK BASE	Qty 16	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221789
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Builders FirstSource,

Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:21 2019 Page 1

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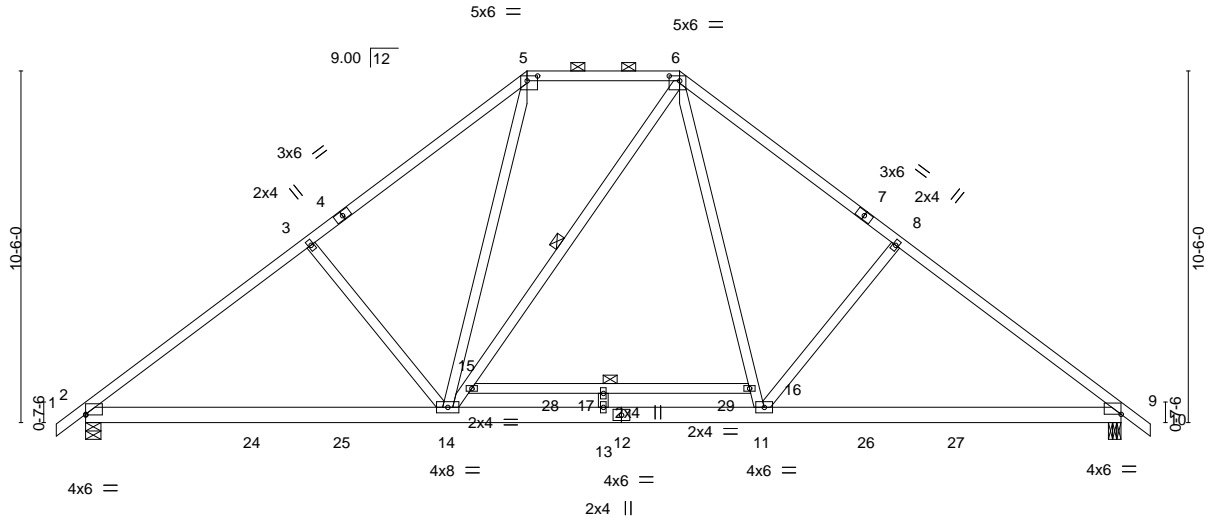


Plate Offsets (X,Y)--	[2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-12	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.66	Vert(LL) -0.12 13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.37	Vert(CT) -0.21 11-23 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 11-23 >999 240	Weight: 211 lb	FT = 20%

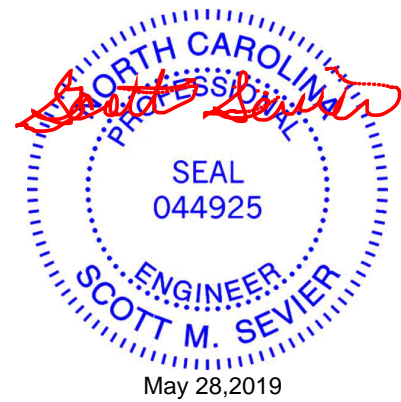
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 4-5,6-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins, except 2-0-0 oc purlins (5-8-10 max.); 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 15-16: 2x4 SP No.2	WEBS 1 Row at midpt 15-16, 6-14

**REACTIONS.** (lb/size) 2=1329/0-5-8, 9=1329/0-4-8  
 Max Horz 2=-310(LC 10)  
 Max Uplift 2=-216(LC 12), 9=-216(LC 13)  
 Max Grav 2=1334(LC 19), 9=1344(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1734/464, 3-5=-1521/504, 5-6=-1020/450, 6-8=-1537/505, 8-9=-1742/464  
 BOT CHORD 2-14=-284/1482, 13-14=0/1009, 11-13=0/1009, 9-11=-221/1324  
 WEBS 3-14=-451/339, 5-14=-127/657, 6-16=-156/725, 11-16=-156/687, 8-11=-452/339

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 9=216.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-62, 5-6=-62, 6-10=-62, 18-21=-21



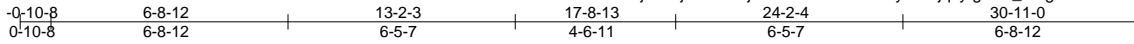


Job 654049__120mph	Truss A05	Truss Type PIGGYBACK BASE	Qty 33	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221790
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:22 2019 Page 1

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Scale = 1:65.4

Plate Offsets (X,Y)--	[2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12], [9:0-6-0,0-0-8]
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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 0.43	Vert(LL)	-0.10 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(CT)	-0.20 10-18	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.03 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06 10-18	>999	240	Weight: 196 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-8-14 max.): 5-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.
	WEBS 1 Row at midpt 6-12

**REACTIONS.** (lb/size) 2=1290/0-5-8, 9=1236/Mechanical  
 Max Horz 2=294(LC 11)  
 Max Uplift 2=-210(LC 12), 9=-186(LC 13)  
 Max Grav 2=1300(LC 19), 9=1259(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1687/451, 3-5=-1488/490, 5-6=-991/438, 6-8=-1507/491, 8-9=-1705/452  
 BOT CHORD 2-12=-289/1440, 10-12=-23/987, 9-10=-239/1297  
 WEBS 3-12=-438/328, 5-12=-122/627, 6-10=-151/713, 8-10=-439/328

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=210, 9=186.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

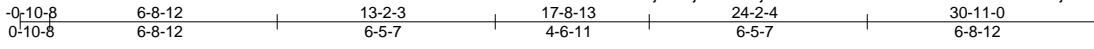
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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Edenton, NC 27932

Job 654049__120mph	Truss A05A	Truss Type PIGGYBACK BASE	Qty 35	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221791
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Builders FirstSource, Sumter, SC - 29153, 8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:23 2019 Page 1  
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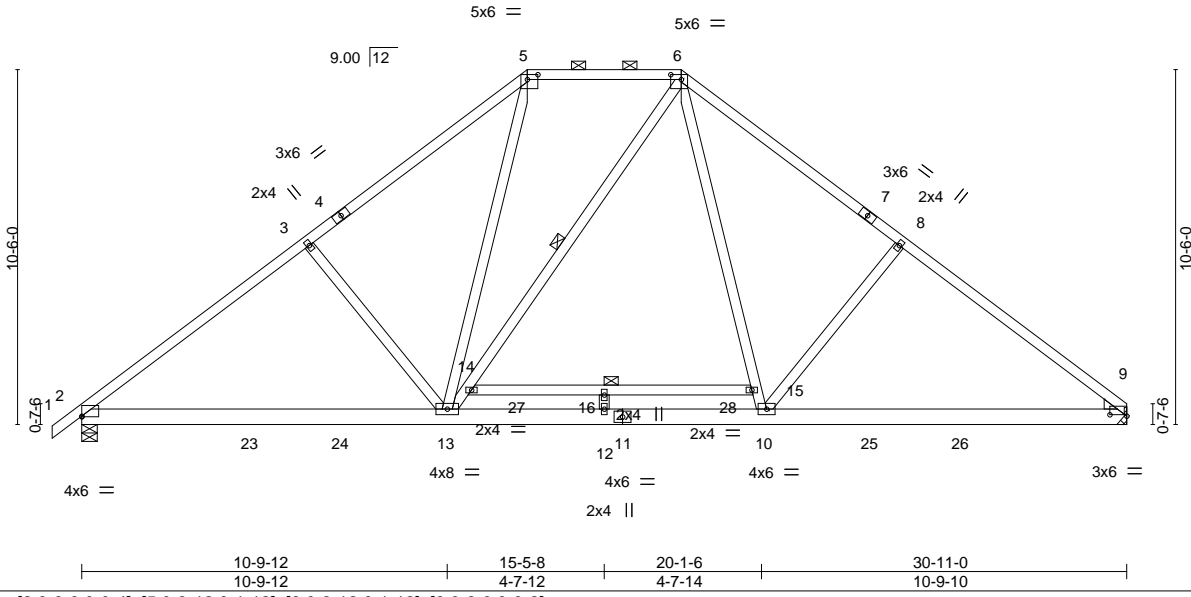


Plate Offsets (X,Y)--	[2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12], [9:0-6-0,0-0-8]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.14	12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.20	10-22	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.36	Horz(CT)	0.03	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06	10-22	>999		
								Weight: 210 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-8-14 max.): 5-6.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
14-15: 2x4 SP No.2	WEBS 1 Row at midpt 14-15, 6-13
<b>WEDGE</b>	
Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=1290/0-5-8, 9=1236/Mechanical  
 Max Horz 2=294(LC 11)  
 Max Uplift 2=-210(LC 12), 9=-186(LC 13)  
 Max Grav 2=1313(LC 19), 9=1268(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1707/451, 3-5=-1508/490, 5-6=-991/438, 6-8=-1520/492, 8-9=-1718/452  
 BOT CHORD 2-13=-289/1456, 12-13=-22/995, 10-12=-22/995, 9-10=-240/1308  
 WEBS 3-13=-438/328, 5-13=-122/663, 6-15=-152/715, 10-15=-152/677, 8-10=-439/328

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=210, 9=186.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



May 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221791
654049__120mph	A05A	PIGGYBACK BASE	35	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:23 2019 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-5=-60, 5-6=-60, 6-9=-60, 17-20=-20

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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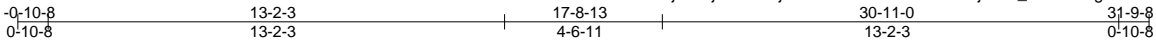
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss A06	Truss Type Piggyback Base Supported Gable	Qty 10	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221792
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:25 2019 Page 1

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Scale = 1:66.5

Plate Offsets (X,Y)--	[6:0-1-13,Edge], [9:0-0-0,0-1-12], [9:0-4-8,0-2-4], [10:0-1-12,0-0-0], [12:0-1-12,0-0-0], [13:0-4-8,0-2-4], [13:0-0-0,0-1-12], [16:0-1-13,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.13	Vert(LL) 0.00 21 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) 0.00 21 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) 0.01 20 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 257 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 9-13.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 11-29, 10-30, 8-31, 12-27, 14-26

**REACTIONS.** All bearings 30-11-0.  
 (lb) - Max Horz 2=-301(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23 except 35=-171(LC 12), 22=-169(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 29, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23 except 35=307(LC 19), 22=305(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-296/225, 8-9=-227/255, 13-14=-227/255  
 BOT CHORD 2-35=-168/259, 34-35=-168/259, 33-34=-168/259, 32-33=-168/259, 31-32=-168/259, 30-31=-168/259, 29-30=-168/259, 27-29=-168/259, 26-27=-168/259, 25-26=-168/259, 24-25=-168/259, 23-24=-168/259, 22-23=-168/259, 20-22=-168/259

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 29, 30, 31, 32, 33, 34, 26, 25, 24, 23 except (jt=lb) 35=171, 22=169.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

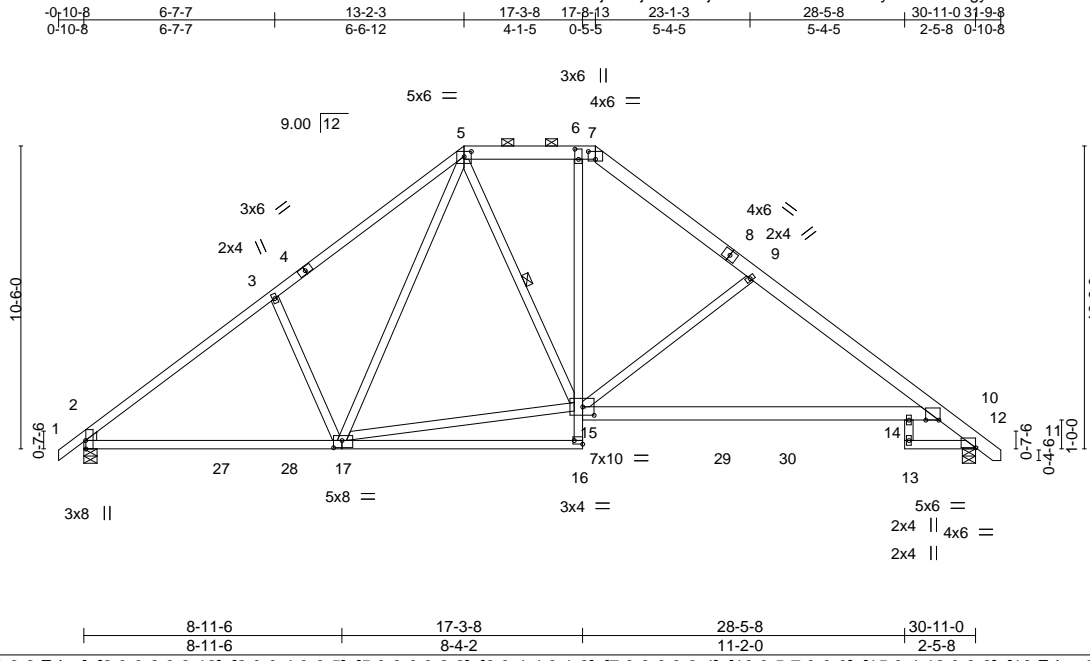
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 654049__120mph	Truss A07	Truss Type PIGGYBACK BASE	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221793
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:27 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-nvVJylnzlUHhECgyZYG8zRK9SB4eZUEmx68czC05o



Scale = 1:79.9

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [2:0-0-8,0-3-12], [2:0-0-4,0-0-5], [5:0-3-0,0-2-2], [6:0-4-4,0-1-8], [7:0-3-0,0-3-4], [10:0-5-7,0-0-0], [15:0-4-12,0-3-8], [16:Edge,0-1-8], [17:0-3-8,0-3-0]

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 0.93	Vert(LL)	-0.27 14-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.64 14-15	>582	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.22 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.22 14-15	>999	240	Weight: 214 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-7,7-8: 2x6 SP No.2, 8-12: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 10-15: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-15
WEDGE Left: 2x4 SP No.3	
REACTIONS. (lb/size) 11=1281/0-5-8, 2=1289/0-5-8 Max Horz 2=-300(LC 10) Max Uplift 11=-206(LC 13), 2=-209(LC 12)	

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1677/435, 3-5=-1526/547, 5-6=-1060/426, 6-7=-1066/423, 7-9=-1448/452,  
9-10=-1800/491, 10-11=-783/234  
BOT CHORD 2-17=-268/1343, 6-15=-136/672, 14-15=-228/1488, 10-14=-228/1488  
WEBS 3-17=-426/331, 5-17=-214/504, 15-17=-30/1179, 5-15=-110/263, 9-15=-632/319

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=206, 2=209.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



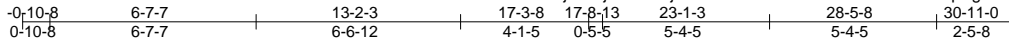
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss A08	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221794
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:29 2019 Page 1

ID: XOjtQcFjQu8X?XjGN5R0bmzVOFF-kld4NRoDH5XhTWpKgZlc2sP4VFtV6T1XDF6DDUzC05m



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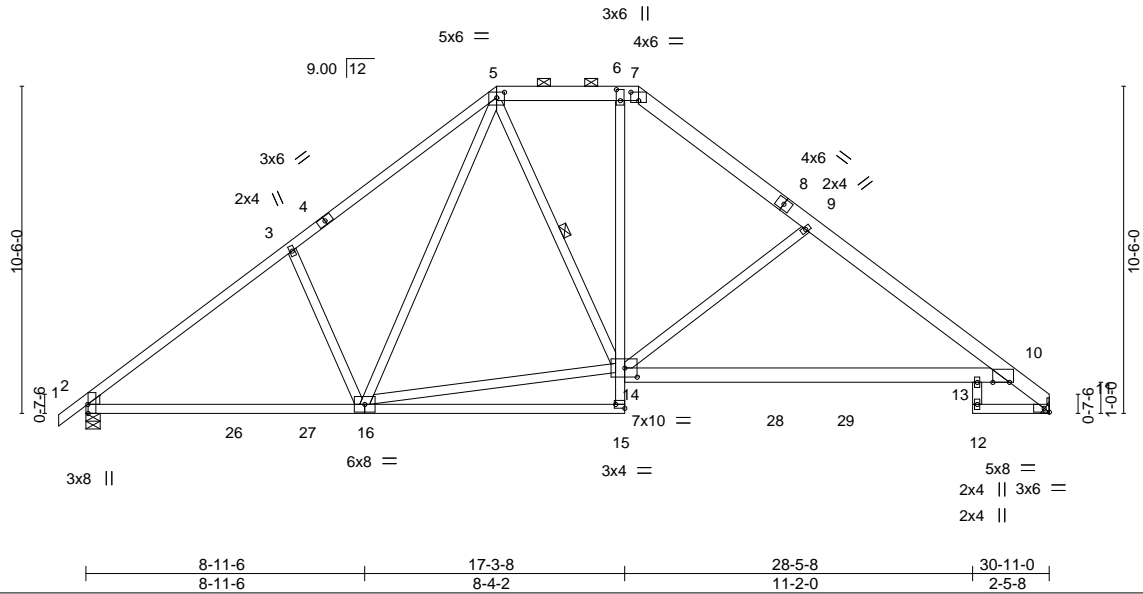


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [2:0-0-8,0-3-12], [2:0-0-4,0-0-5], [5:0-3-0,0-2-2], [6:0-4-4,0-1-8], [7:0-3-0,0-3-4], [10:0-6-7,0-0-0], [11:0-2-0,Edge], [14:0-4-12,0-3-8], [15:Edge,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.27 13-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.64 13-14	>579	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.22 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.22 13-14	>999	240		
								Weight: 211 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-7,7-8: 2x6 SP No.2, 8-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 10-14: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-14
WEDGE Left: 2x4 SP No.3	
REACTIONS. (lb/size) 11=1236/Mechanical, 2=1290/0-5-8 Max Horz 2=293(LC 11) Max Uplift 11=-186(LC 13), 2=-209(LC 12)	

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1678/436, 3-5=-1527/548, 5-6=-1059/429, 6-7=-1065/426, 7-9=-1450/457,  
9-10=-1802/497, 10-11=-784/209  
BOT CHORD 2-16=-279/1336, 6-14=-140/670, 13-14=-254/1491, 10-13=-254/1491  
WEBS 3-16=-426/331, 5-16=-213/502, 14-16=-41/1171, 5-14=-111/263, 9-14=-629/323

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Bearings are assumed to be: Joint 2 User Defined crushing capacity of 565 psi, Joint 11 User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=186, 2=209.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



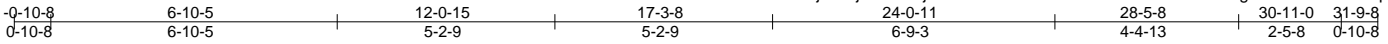
May 28, 2019

Job 654049__120mph	Truss A09	Truss Type HIP GIRDER	Qty 1	Ply 2	H&H/Wilmington/ Job Reference (optional)	137221795
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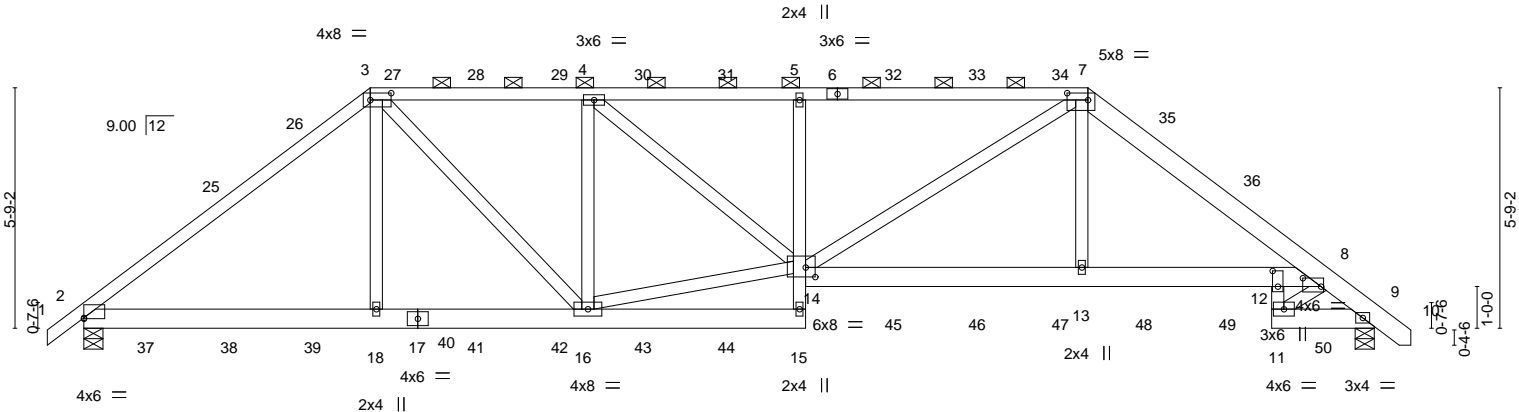
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:32 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-8tlC?Sr6a0vGkZyV6sJgV1i2TvVJwlvDLtpzC05j



Scale = 1:55.2



	6-10-5	12-0-15	17-3-8	24-0-11	28-5-8	30-11-0
	6-10-5	5-2-9	5-2-9	6-9-3	4-4-13	2-5-8
Plate Offsets (X,Y)--	[2:0-0,0-0-4], [3:0-6,0-0-2-0], [7:0-6-0,0-2-0], [8:0-5-4,0-2-7], [12:0-4-8,0-1-8], [14:0-2-12,0-2-12]					

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	0.18 13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.20 12-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.32	Horz(CT)	0.11 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 414 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 7-10: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD 2x6 SP No.2 *Except* 5-15: 2x4 SP No.2, 8-14: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 12-13
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) 2=2187/0-5-8, 9=2129/0-5-8  
 Max Horz 2=167(LC 26)  
 Max Uplift 2=-1166(LC 8), 9=-1145(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2838/1639, 3-4=-2880/1888, 4-5=-3603/2383, 5-7=-3632/2405, 7-8=-3415/2052, 8-9=-2785/1575  
 BOT CHORD 2-18=-1366/2170, 16-18=-1369/2181, 15-16=-217/369, 5-14=-446/432, 13-14=-1657/2713, 12-13=-1643/2682, 8-12=-1643/2682, 9-11=-1034/1876  
 WEBS 3-18=-147/498, 3-16=-873/1137, 4-16=-1139/973, 14-16=-1731/2642, 4-14=-647/950, 7-14=-898/1171, 7-13=-486/932, 11-12=-981/1823, 8-11=-2523/1391

- NOTES-** (12)
- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1166, 9=1145.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221795
654049__120mph	A09	HIP GIRDER	1	2	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:32 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-8tIC?Sr6a0vGKzYvL6sJgV1i2TvVJwlvzDLtppzC05j

**NOTES-** (12)

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 72 lb up at 3-6-0, 20 lb down and 38 lb up at 5-6-0, 143 lb down and 169 lb up at 7-5-0, 148 lb down and 169 lb up at 9-5-0, 148 lb down and 169 lb up at 11-5-0, 148 lb down and 169 lb up at 13-5-0, 148 lb down and 169 lb up at 15-5-0, 92 lb down and 88 lb up at 17-5-0, 92 lb down and 88 lb up at 19-5-0, 92 lb down and 88 lb up at 21-5-0, 89 lb down and 88 lb up at 23-5-0, and 84 lb down and 111 lb up at 25-5-0, and 88 lb down and 87 lb up at 27-5-0 on top chord, and 167 lb down and 81 lb up at 1-6-0, 95 lb down and 51 lb up at 3-6-0, 148 lb down and 132 lb up at 5-6-0, 52 lb down and 28 lb up at 7-5-0, 52 lb down and 28 lb up at 9-5-0, 52 lb down and 28 lb up at 11-5-0, 52 lb down and 28 lb up at 13-5-0, 52 lb down and 28 lb up at 15-5-0, 113 lb down and 113 lb up at 17-1-12, 113 lb down and 113 lb up at 19-5-0, 113 lb down and 113 lb up at 21-5-0, 113 lb down and 113 lb up at 23-5-0, 63 lb down and 63 lb up at 25-5-0, and 53 lb down and 35 lb up at 27-5-0, and 167 lb down and 81 lb up at 29-8-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-7=-60, 7-10=-60, 15-19=-20, 12-14=-20, 11-22=-20

Concentrated Loads (lb)

Vert: 15=-92(F) 5=-8(F) 8=-167(F) 25=-15(F) 27=-68(F) 28=-68(F) 29=-68(F) 30=-68(F) 31=-68(F) 32=-8(F) 33=-8(F) 34=-8(F) 35=-44(F) 36=-48(F) 37=-167(F) 38=-95(F) 39=-148(F) 40=-42(F) 41=-42(F) 42=-42(F) 43=-42(F) 44=-42(F) 45=-92(F) 46=-92(F) 47=-92(F) 48=-57(F) 49=-53(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



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 Edenton, NC 27932



Job 654049__120mph	Truss A10	Truss Type HIP	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221796
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:33 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-c3saDorkLK27y776vpNYCiaqYsGS2L\_68t4RMFzC05i

-0-10-8	9-6-5	17-3-8	21-4-11	28-5-8	30-11-0	31-9-8
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Scale = 1:61.0

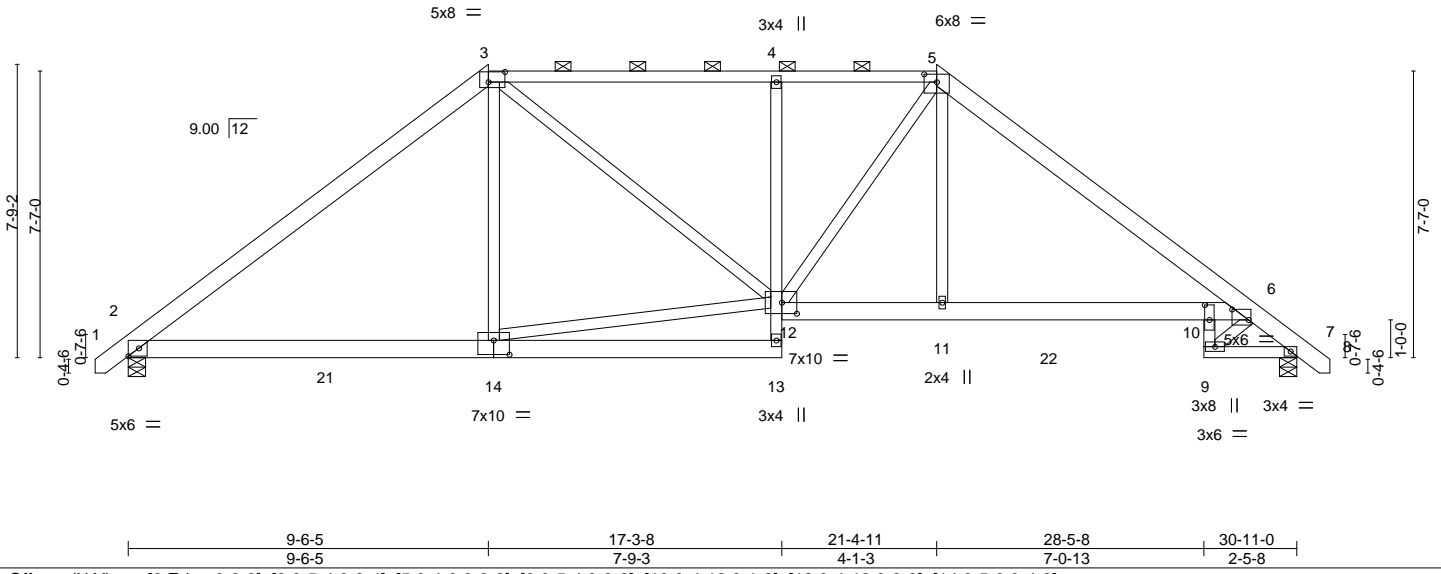


Plate Offsets (X, Y)--	[2:Edge,0-2-8], [3:0-5-4,0-3-4], [5:0-4-0,0-2-8], [6:0-5-4,0-3-6], [10:0-4-12,0-1-8], [12:0-4-12,0-3-8], [14:0-5-0,0-4-8]
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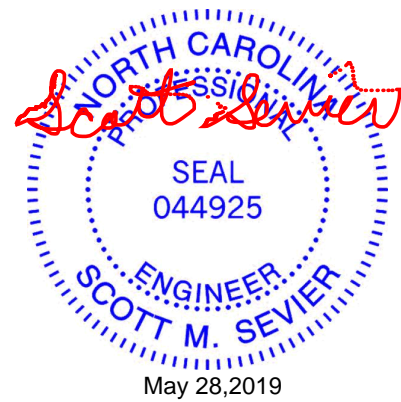
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.16	10-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.33	10-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.14	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.16	10-11	>999	Weight: 219 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-5: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-7-5 max.): 3-5.
BOT CHORD 2x6 SP No.2 *Except* 4-13,7-9: 2x4 SP No.2, 6-12: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 10-11
WEBS 2x4 SP No.3	

REACTIONS.	(lb/size)
	7=1281/0-5-8, 2=1281/0-5-8
	Max Horz 2=218(LC 11)
	Max Uplift 7=-177(LC 13), 2=-177(LC 12)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1639/427, 3-4=-1525/518, 4-5=-1510/508, 5-6=-1867/473, 6-7=-1578/461
BOT CHORD	2-14=-199/1192, 13-14=-7/262, 4-12=-366/229, 11-12=-162/1414, 10-11=-163/1425, 6-10=-163/1425, 7-9=-310/1073
WEBS	3-14=0/299, 12-14=-202/949, 3-12=-195/514, 5-12=-236/313, 9-10=-292/1076, 5-11=-26/551, 6-9=-1499/433

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=177, 2=177.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



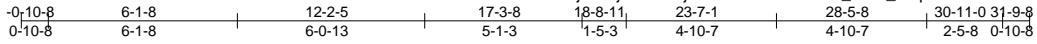
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b> <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 654049__120mph	Truss A11	Truss Type HIP	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221797
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:35 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-YS\_LdUt\_txlqBRHU1EP017f67gyCWBVPbBZXQ8zC05g



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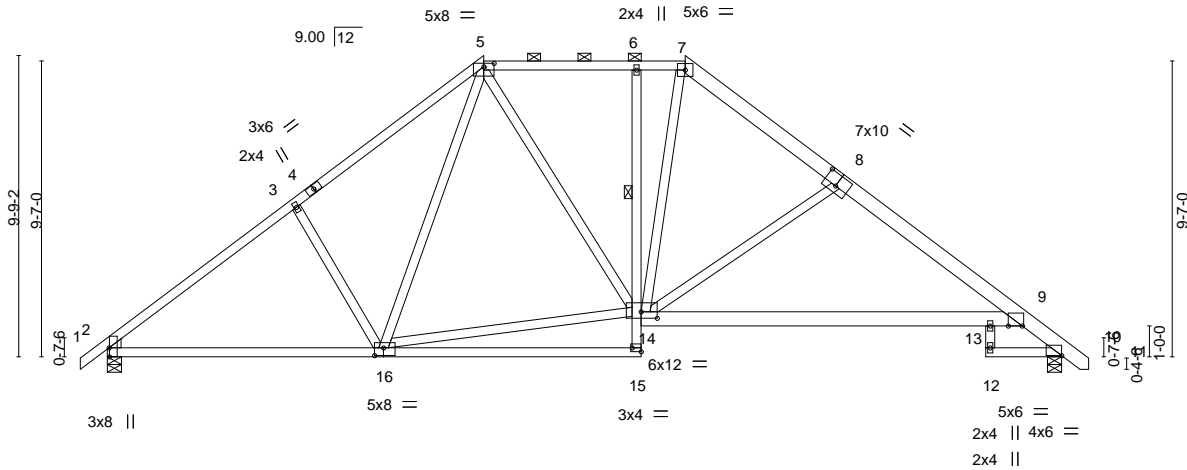


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [2:0-0-8,0-3-12], [2:0-0-4,0-0-5], [5:0-4-0,0-1-6], [8:0-5-0,0-4-8], [9:0-5-7,0-0-0], [14:0-6-4,0-2-8], [15:Edge,0-1-8], [16:0-3-8,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.25	13-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.61	13-14	>610		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.21	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.20	13-14	>999	Weight: 217 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 7-8: 2x6 SP No.2, 8-11: 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-1-9 max.): 5-7.
BOT CHORD 2x4 SP No.2 *Except* 9-14: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 6-14
WEBS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(lb/size)
10=1281/0-5-8, 2=1289/0-5-8	
Max Horz 2=-277(LC 10)	
Max Uplift 10=-200(LC 13), 2=-203(LC 12)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1685/444, 3-5=-1512/514, 5-6=-1181/443, 6-7=-1188/439, 7-8=-1454/445, 8-9=-1834/503, 9-10=-783/237
BOT CHORD	2-16=-258/1269, 6-14=-261/143, 13-14=-246/1534, 9-13=-246/1534
WEBS	3-16=-376/299, 5-16=-160/420, 14-16=-53/1145, 5-14=-104/377, 7-14=-164/726, 8-14=-640/294

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=200, 2=203.
  - 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.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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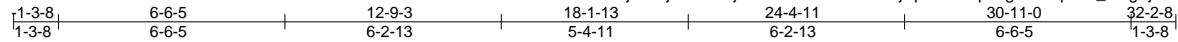
Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221798
654049__120mph	A24	Piggyback Base	12	1		

Builders FirstSource,

Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:36 2019 Page 1

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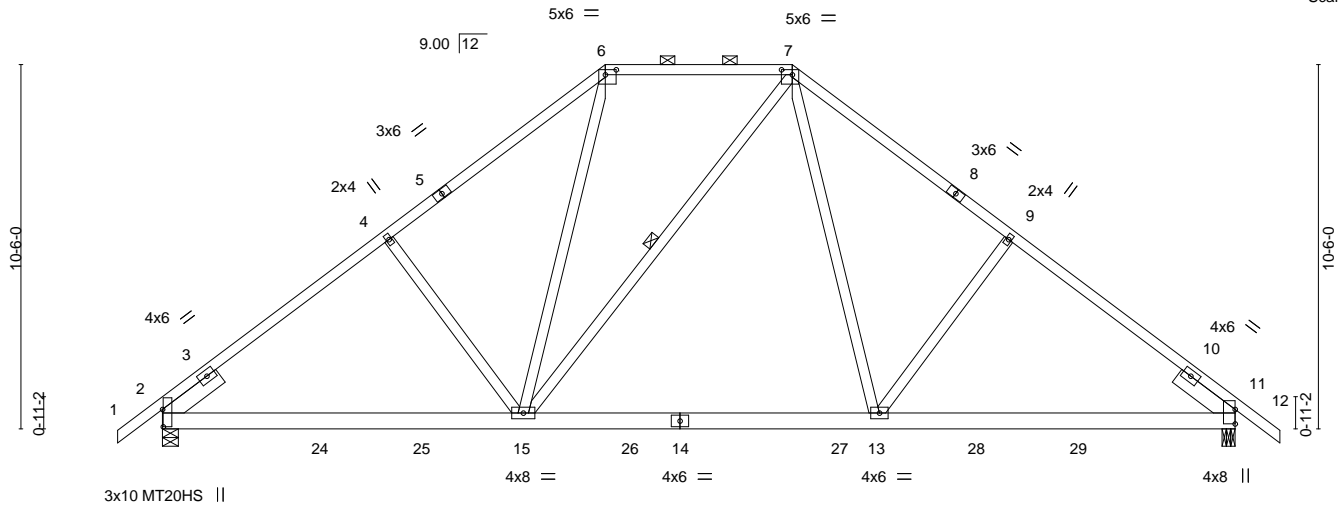


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [6:0-3-12,0-1-12], [7:0-3-12,0-1-12]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.14	13-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.22	13-15	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.04	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.04	13-15	>999	240		
									Weight: 209 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-9-9 max.): 6-7.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
7-15: 2x4 SP No.2	WEBS 1 Row at midpt 7-15
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 2=1314/0-5-8, 11=1314/0-4-8  
 Max Horz 2=301(LC 11)  
 Max Uplift 2=-216(LC 12), 11=-216(LC 13)  
 Max Grav 2=1327(LC 19), 11=1339(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1607/434, 4-6=-1457/484, 6-7=-969/437, 7-9=-1477/484, 9-11=-1628/434  
 BOT CHORD 2-15=-251/1383, 13-15=-8/980, 11-13=-187/1242  
 WEBS 4-15=-391/309, 6-15=-105/584, 7-13=-140/677, 9-13=-392/309

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 11=216.
- 9) 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

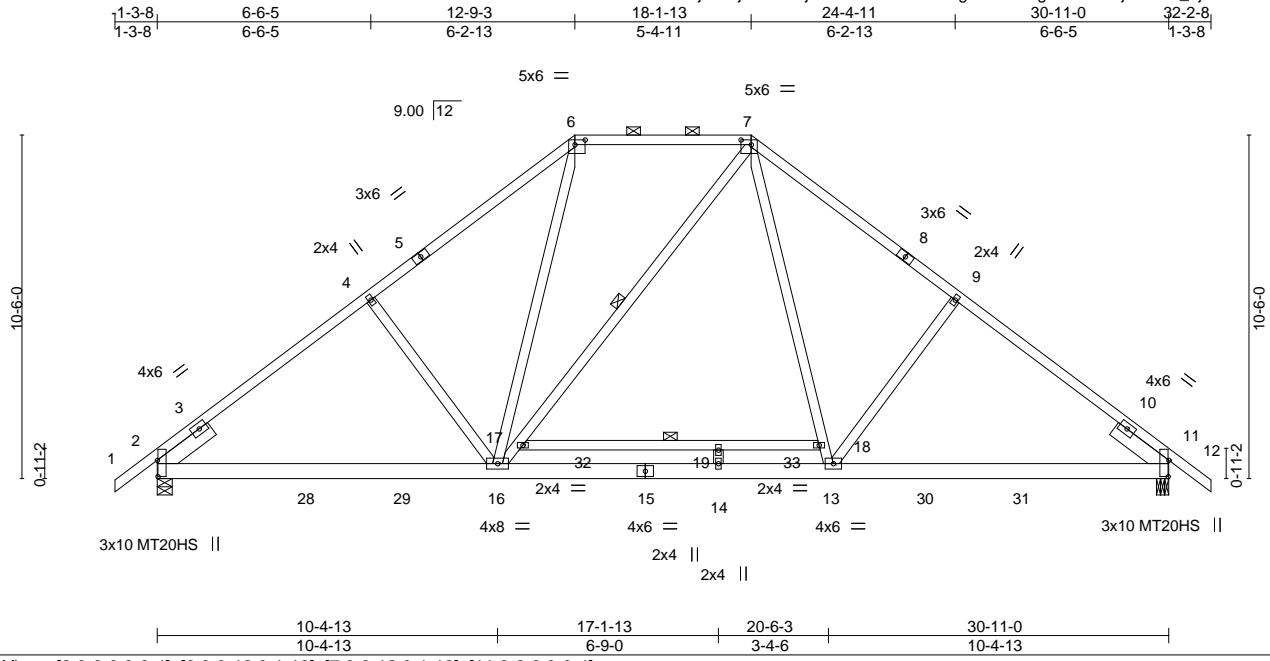
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss A24A	Truss Type PIGGYBACK BASE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221799
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:38 2019 Page 1

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LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-12	TC 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.20 14-16 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.28 14-16 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.04 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 14 >999 240	Weight: 223 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-6,7-8: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-1-3 oc purlins, except 2-0-0 oc purlins (5-5-9 max.): 6-7.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 7-16,17-18: 2x4 SP No.2	WEBS 1 Row at midpt 7-16, 17-18
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

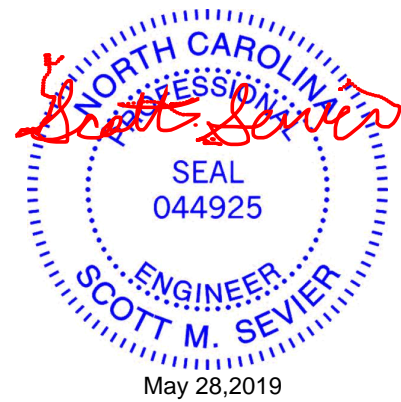
**REACTIONS.** (lb/size) 2=1355/0-5-8, 11=1355/0-4-8  
 Max Horz 2=-310(LC 10)  
 Max Uplift 2=-223(LC 12), 11=-223(LC 13)  
 Max Grav 2=1372(LC 19), 11=1381(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1659/448, 4-6=-1505/499, 6-7=-997/449, 7-9=-1523/499, 9-11=-1677/448  
 BOT CHORD 2-16=-258/1428, 14-16=-5/1013, 13-14=-5/1013, 11-13=-193/1282  
 WEBS 4-16=-405/318, 6-16=-110/646, 7-18=-146/696, 13-18=-149/680, 9-13=-406/318

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=223, 11=223.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-62, 6-7=-62, 7-12=-62, 20-24=-21



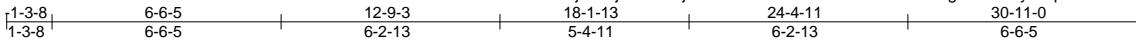
Job 654049__120mph	Truss A25	Truss Type PIGGYBACK BASE	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221800
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Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:39 2019 Page 1

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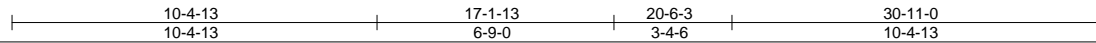
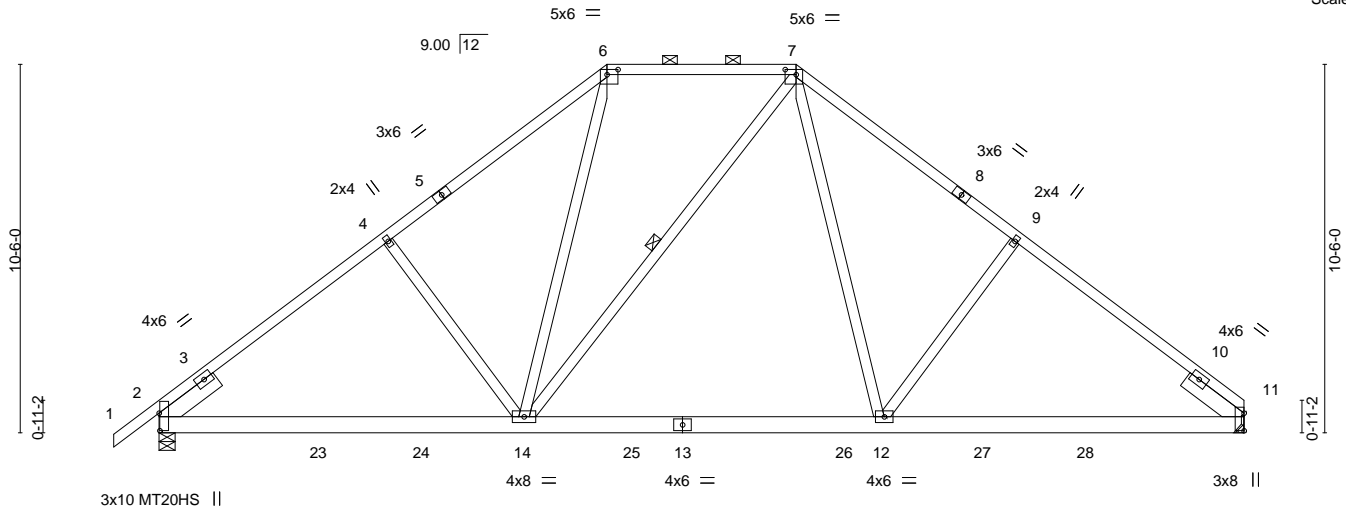


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [6:0-3-12,0-1-12], [7:0-3-12,0-1-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.13 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.22 12-14	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	0.03 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.04 12-21	>999	240		Weight: 207 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-9-8 max.): 6-7.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
7-14: 2x4 SP No.2	WEBS 1 Row at midpt 7-14
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 2=1316/0-5-8, 11=1235/Mechanical  
 Max Horz 2=291(LC 9)  
 Max Uplift 2=-216(LC 12), 11=-182(LC 13)  
 Max Grav 2=1328(LC 19), 11=1266(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1609/436, 4-6=-1459/485, 6-7=-970/438, 7-9=-1483/487, 9-11=-1633/438  
 BOT CHORD 2-14=-270/1370, 12-14=-36/971, 11-12=-225/1248  
 WEBS 4-14=-391/309, 6-14=-106/585, 7-12=-143/684, 9-12=-391/310

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 11=182.
  - 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.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

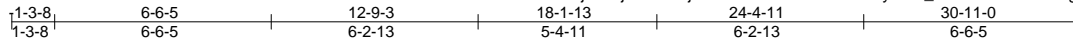
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss A25A	Truss Type PIGGYBACK BASE	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221801
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:41 2019 Page 1

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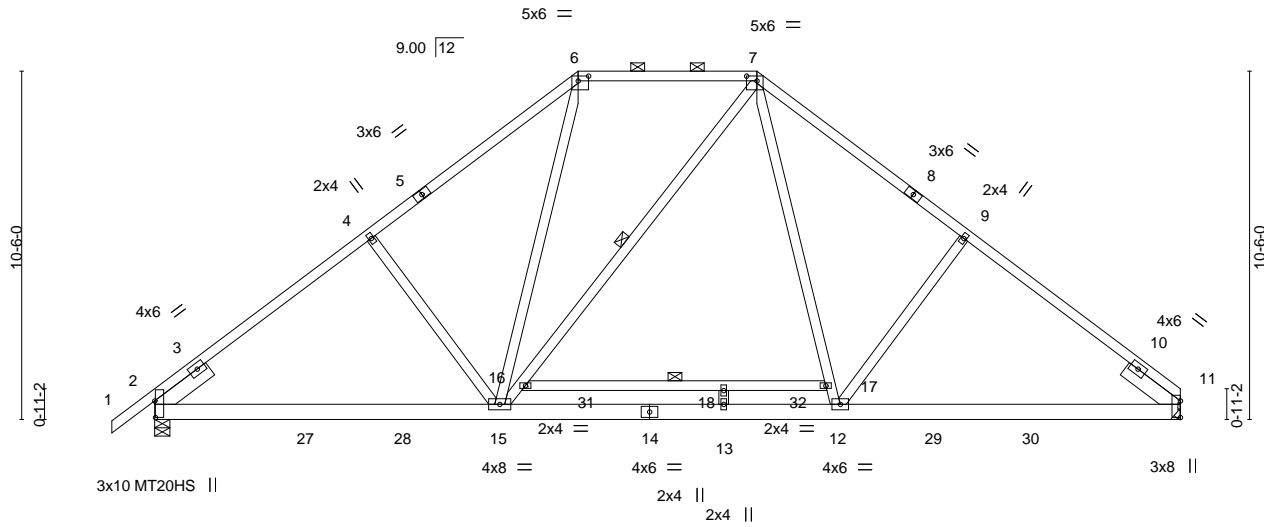


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [6:0-3-12,0-1-12], [7:0-3-12,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.19 13-15 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.27 13-15 >999 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.42	Horz(CT) 0.03 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.04 12-25 >999 240	Weight: 221 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-9-5 max.): 6-7.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
7-15,16-17: 2x4 SP No.2	WEBS 1 Row at midpt 7-15, 16-17
SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) 2=1316/0-5-8, 11=1235/Mechanical  
 Max Horz 2=291(LC 9)  
 Max Uplift 2=-216(LC 12), 11=-182(LC 13)  
 Max Grav 2=1335(LC 19), 11=1269(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1615/436, 4-6=-1465/486, 6-7=-970/438, 7-9=-1487/488, 9-11=-1637/438  
 BOT CHORD 2-15=-270/1376, 13-15=-35/981, 12-13=-35/981, 11-12=-226/1251  
 WEBS 4-15=-391/309, 6-15=-106/628, 7-17=-144/683, 12-17=-146/667, 9-12=-392/310

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 11=182.
- 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-60, 6-7=-60, 7-11=-60, 19-23=-20

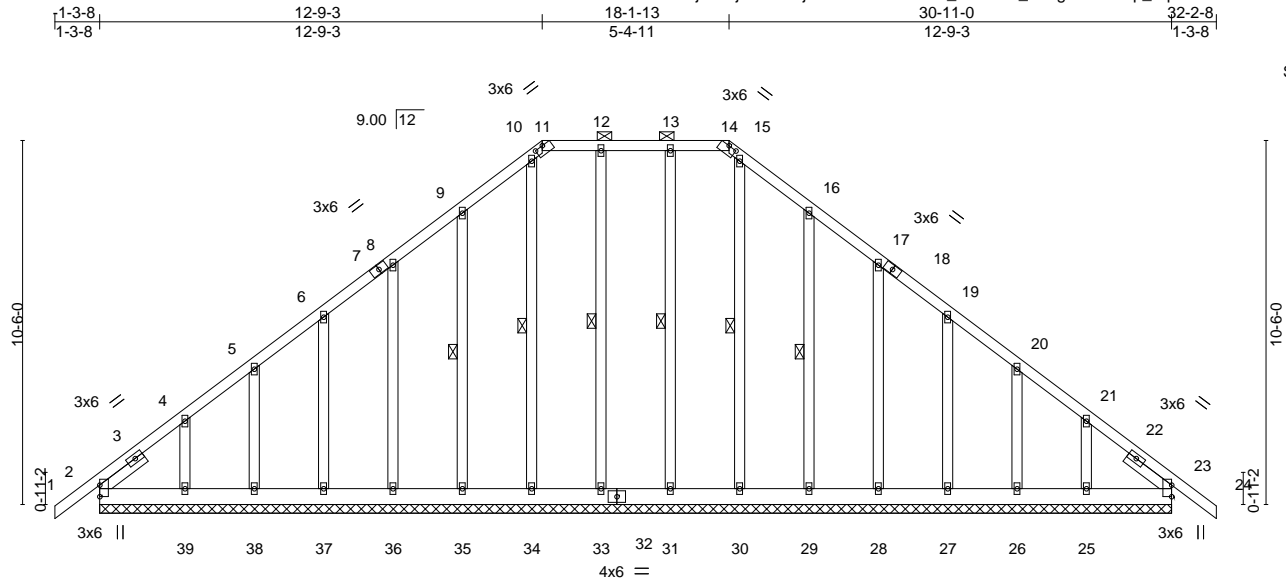


Job 654049__120mph	Truss A26	Truss Type GABLE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221802
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:43 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-J\_TMJDz0\_Pli9gu1VvYucp\_hquruOwQbRQVzigzC05Y



Scale = 1:66.5

Plate Offsets (X,Y)--	[11:0-3-0,0-0-1], [14:0-3-0,0-0-1], [15:0-0-0,0-0-0], [16:0-0-0,0-0-0], [17:0-0-0,0-0-0], [19:0-0-0,0-0-0]
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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 0.11	Vert(LL)	-0.00	24	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	24	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	23	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 270 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 11-14.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 12-33, 10-34, 9-35, 13-31, 15-30, 16-29
SLIDER Left 2x4 SP No.2 1-7-2, Right 2x4 SP No.2 1-7-2	

**REACTIONS.** All bearings 30-11-0.  
 (lb) - Max Horz 2=301(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 36, 37, 38, 31, 28, 27, 26, 23 except 35=105(LC 12), 39=185(LC 12), 29=107(LC 13), 25=173(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 23 except 2=253(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=301/227, 9-10=236/257, 15-16=236/257  
 BOT CHORD 2-39=158/255, 38-39=158/255, 37-38=158/255, 36-37=158/255, 35-36=158/255, 34-35=158/255, 33-34=158/255, 31-33=158/255, 30-31=158/255, 29-30=158/255, 28-29=158/255, 27-28=158/255, 26-27=158/255, 25-26=158/255, 23-25=158/255

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 34, 36, 37, 38, 31, 28, 27, 26, 23 except (jt=lb) 35=105, 39=185, 29=107, 25=173.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

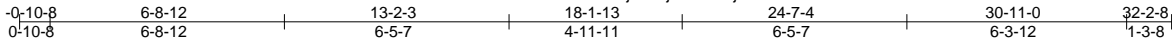
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job 654049__120mph	Truss A34	Truss Type PIGGYBACK BASE	Qty 12	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221803
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:45 2019 Page 1

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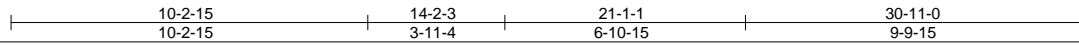
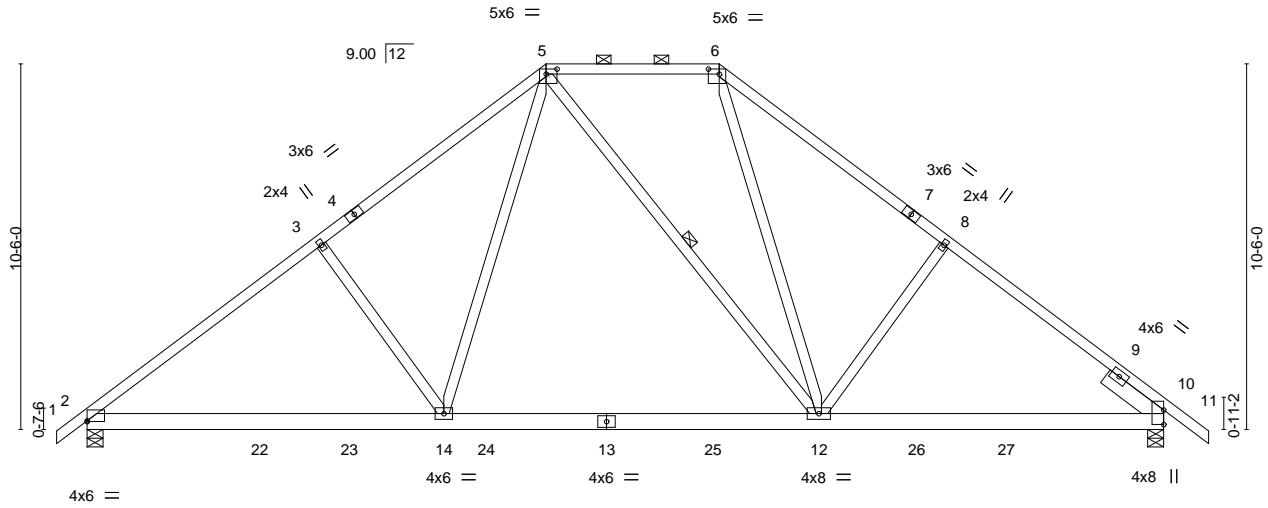


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.16 12-14 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.33	Vert(CT) -0.26 12-14 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 14-17 >999 240	Weight: 204 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 5-12: 2x4 SP No.2  
 SLIDER Right 2x6 SP No.2 1-11-12

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (5-9-8 max.): 5-6.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 5-12

**REACTIONS.** (lb/size) 2=1288/0-5-8, 10=1315/0-5-8  
 Max Horz 2=-303(LC 10)  
 Max Uplift 2=-209(LC 12), 10=-216(LC 13)  
 Max Grav 2=1317(LC 19), 10=1329(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1742/443, 3-5=-1561/502, 5-6=-967/438, 6-8=-1483/488, 8-10=-1623/433  
 BOT CHORD 2-14=-274/1489, 12-14=-74/1046, 10-12=-193/1240  
 WEBS 3-14=-436/329, 5-14=-158/772, 6-12=-111/608, 8-12=-389/311

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 10=216.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

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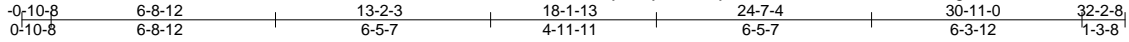


Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221804
654049__120mph	A34A	PIGGYBACK BASE	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:46 2019 Page 1

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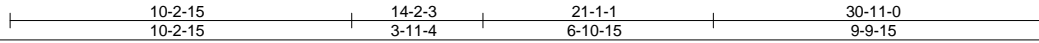
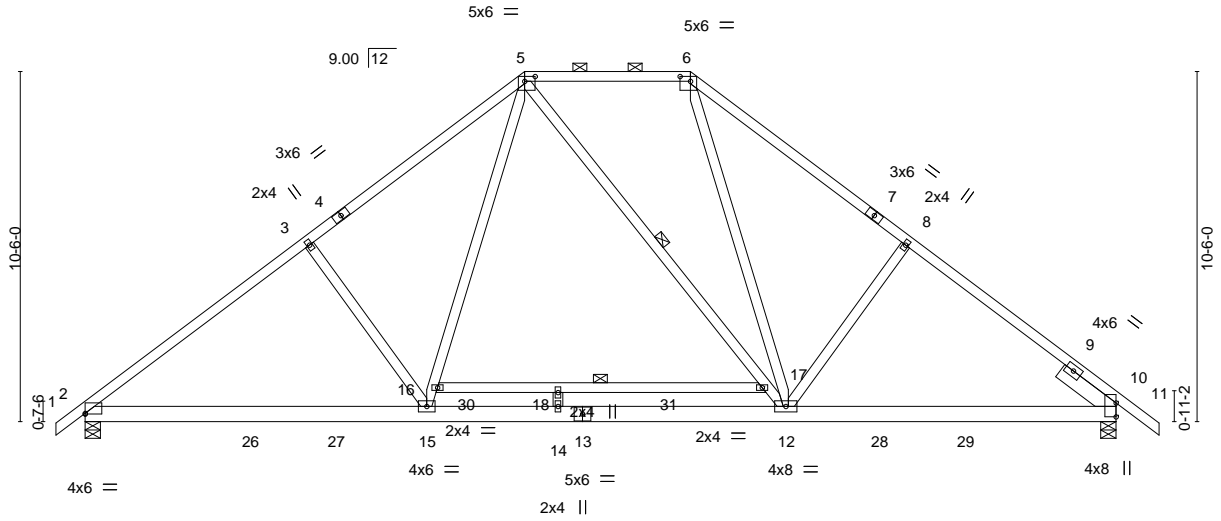


Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.22 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.31 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.44	Horz(CT)	0.04 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06 15-21	>999	240	Weight: 219 lb	FT = 20%

**LUMBER-**

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2
- WEBS 2x4 SP No.3 \*Except\*
- 5-12,16-17: 2x4 SP No.2
- SLIDER Right 2x6 SP No.2 1-11-12

**BRACING-**

- TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-9-8 max.): 5-6.
- BOT CHORD Rigid ceiling directly applied.
- WEBS 1 Row at midpt 5-12, 16-17

**REACTIONS.**

- (lb/size) 2=1288/0-5-8, 10=1315/0-5-8
- Max Horz 2=-303(LC 10)
- Max Uplift 2=-209(LC 12), 10=-216(LC 13)
- Max Grav 2=1311(LC 19), 10=1321(LC 20)

**FORCES.**

- (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD 2-3=-1729/444, 3-5=-1548/503, 5-6=-967/438, 6-8=-1464/489, 8-10=-1605/434
- BOT CHORD 2-15=-274/1478, 14-15=-64/1054, 12-14=-64/1054, 10-12=-193/1227
- WEBS 3-15=-436/329, 15-16=-162/734, 5-16=-158/767, 6-12=-111/637, 8-12=-390/311

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=209, 10=216.
- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-5=-60, 5-6=-60, 6-11=-60, 19-22=-20



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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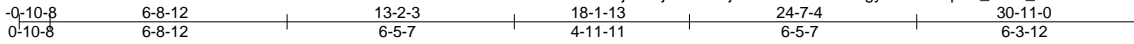
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss A35	Truss Type Piggyback Base	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221805
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:48 2019 Page 1

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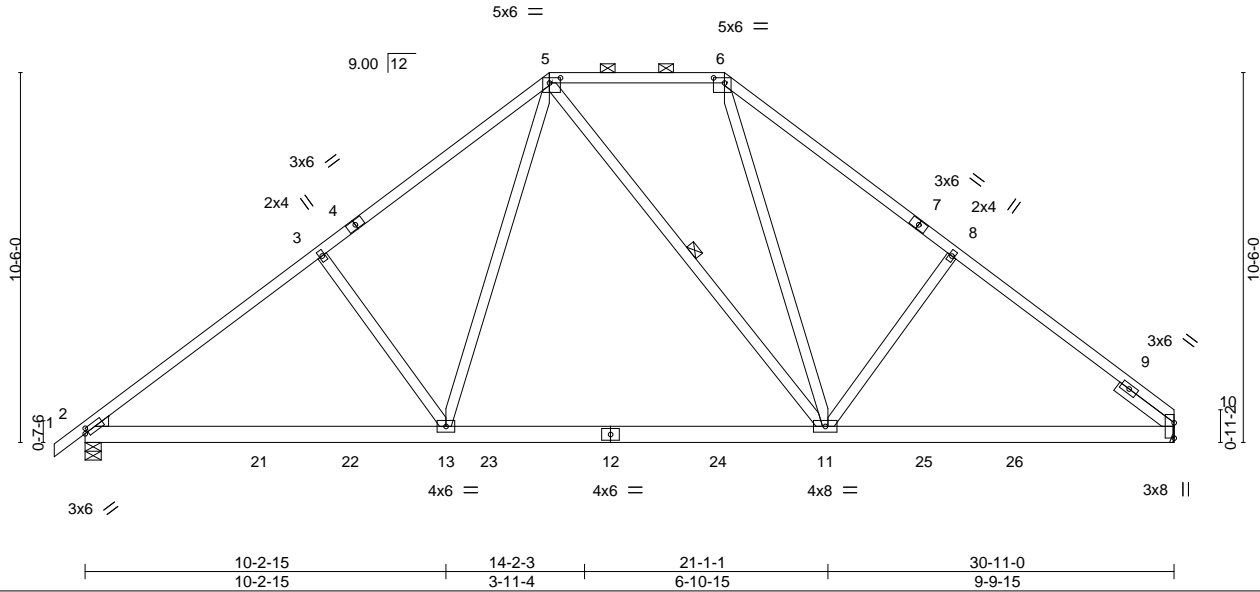


Plate Offsets (X, Y)--	[2:0-1-2,0-1-8], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.16	11-13	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.26	11-13	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.33	Horz(CT)	0.04	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.04	13-16	>999	Weight: 200 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-9-6 max.): 5-6.
WEBS 2x4 SP No.3 *Except* 5-11: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
	WEBS 1 Row at midpt 5-11

WEDGE Left: 2x4 SP No.3  
SLIDER Right 2x4 SP No.3 1-11-12

**REACTIONS.** (lb/size) 2=1290/0-5-8, 10=1236/Mechanical  
Max Horz 2=235(LC 9)  
Max Uplift 2=41(LC 12), 10=28(LC 13)  
Max Grav 2=1339(LC 19), 10=1277(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1748/445, 3-5=-1571/504, 5-6=-978/439, 6-8=-1493/491, 8-10=-1629/436  
BOT CHORD 2-13=-248/1472, 11-13=-39/1043, 10-11=-232/1247  
WEBS 3-13=-436/303, 5-13=-131/756, 6-11=-113/607, 8-11=-391/285

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**TRENCO**  
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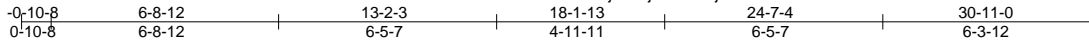
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221806
654049__120mph	A35A	Piggyback Base	5	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:50 2019 Page 1

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Scale = 1:68.2

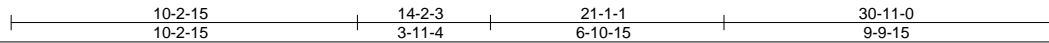
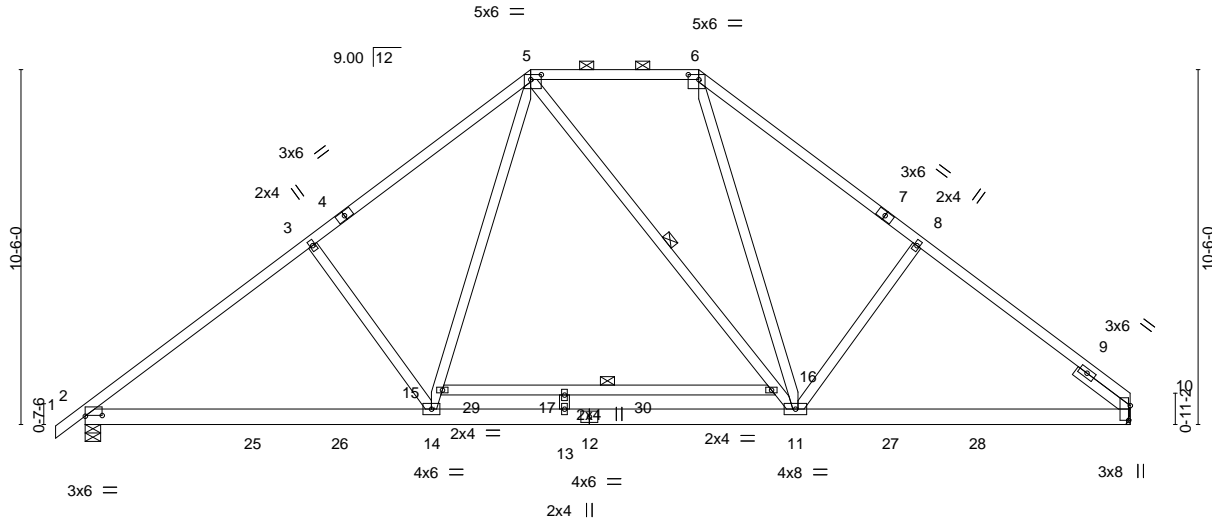


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [5:0-3-12,0-1-12], [6:0-3-12,0-1-12], [10:0-5-4,0-0-9]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.55	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.68	Vert(LL) -0.19 11-13 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.45	Vert(CT) -0.29 11-13 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) 0.04 10 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 14-20 >999 240	Weight: 215 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-9-8 max.): 5-6.
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied.
5-11,15-16: 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 15-16
SLIDER Right 2x4 SP No.3 1-11-12	

**REACTIONS.** (lb/size) 2=1290/0-5-8, 10=1236/Mechanical  
 Max Horz 2=235(LC 9)  
 Max Uplift 2=-41(LC 12), 10=-28(LC 13)  
 Max Grav 2=1320(LC 19), 10=1253(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1710/446, 3-5=-1533/505, 5-6=-966/439, 6-8=-1448/492, 8-10=-1593/437  
 BOT CHORD 2-14=-248/1442, 13-14=-42/1032, 11-13=-42/1032, 10-11=-232/1212  
 WEBS 3-14=-436/302, 14-15=-133/702, 5-15=-131/737, 6-11=-114/616, 8-11=-392/285

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-6=-60, 6-10=-60, 18-21=-20

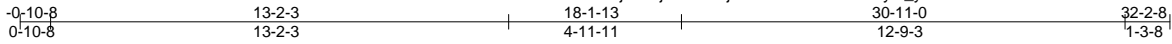


Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221807
654049__120mph	A36	GABLE	2	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:51 2019 Page 1

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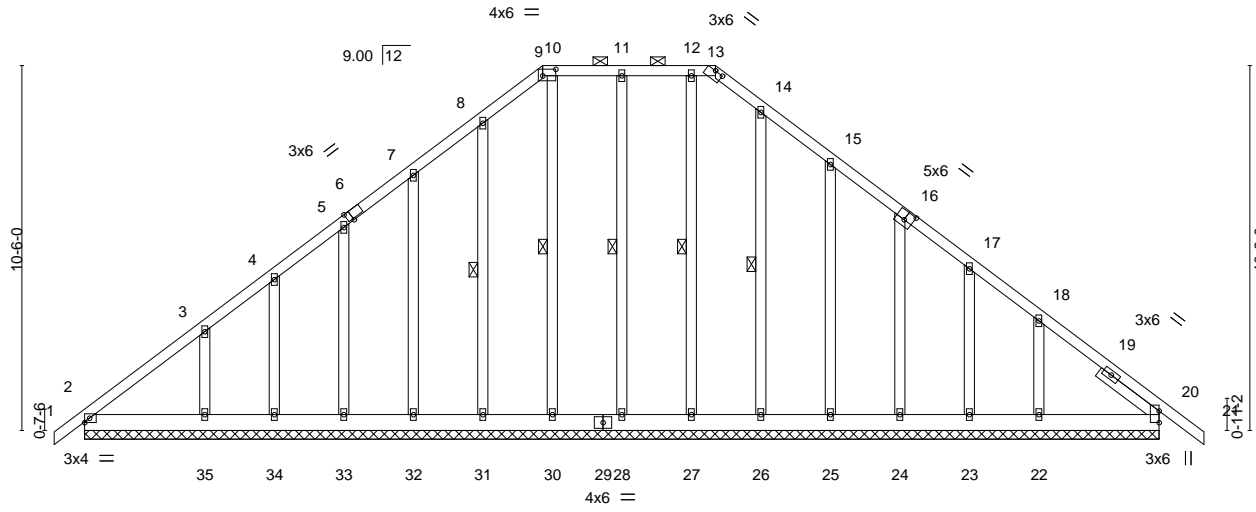


Plate Offsets (X,Y)--	[6:0-1-13,Edge], [9:0-0-0,0-1-12], [9:0-4-8,0-2-4], [10:0-1-12,0-0-0], [13:0-3-0,0-0-1], [16:0-3-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.00	21	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	21	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01	20	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 263 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 9-13.
OTHERS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Right 2x4 SP No.3 2-1-9	WEBS 1 Row at midpt 11-28, 10-30, 8-31, 12-27, 14-26

**REACTIONS.** All bearings 30-11-0.  
 (lb) - Max Horz 2=-301(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 28, 30, 31, 32, 33, 34, 27, 26, 24, 23 except  
 35=-171(LC 12), 25=-113(LC 13), 22=-203(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 20, 28, 30, 31, 32, 33, 34, 27, 26, 25, 24, 23 except  
 35=307(LC 19), 22=298(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-299/226, 8-9=-239/256  
 BOT CHORD 2-35=-158/252, 34-35=-158/252, 33-34=-158/252, 32-33=-158/252, 31-32=-158/252,  
 30-31=-158/252, 28-30=-158/252, 27-28=-158/252, 26-27=-158/252, 25-26=-158/252,  
 24-25=-158/252  
 WEBS 18-22=-253/204

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 28, 30, 31, 32, 33, 34, 27, 26, 24, 23 except (jt=lb) 35=171, 25=113, 22=203.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
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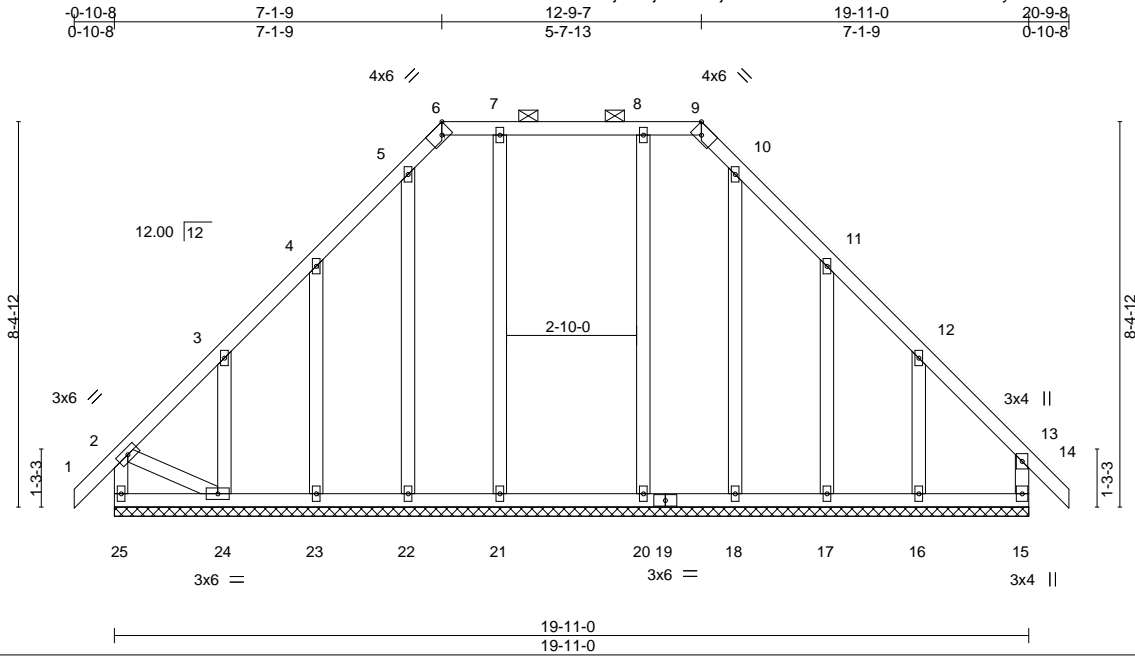
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss B01	Truss Type GABLE	Qty 3	Ply 1	H&H/Wilmington/ 137221808
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:53 2019 Page 1

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Scale = 1:50.2

Plate Offsets (X,Y)--	[6:0-2-8,Edge], [9:0-2-8,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.15	Vert(LL) -0.00 14 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.13	Vert(CT) -0.00 14 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.00 15 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 147 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	
OTHERS 2-24: 2x4 SP No.3	
2x4 SP No.3	

**REACTIONS.** All bearings 19-11-0.  
 (lb) - Max Horz 25=-273(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 21, 22, 20 except 25=-190(LC 8), 23=-154(LC 12), 24=-223(LC 12), 17=-137(LC 13), 16=-226(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 15, 22, 23, 18, 17, 16 except 25=289(LC 20), 21=263(LC 22), 24=271(LC 19), 20=261(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-25=-267/200, 4-5=-223/269  
 BOT CHORD 24-25=-251/254

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 21, 22, 20 except (jt=lb) 25=190, 23=154, 24=223, 17=137, 16=226.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

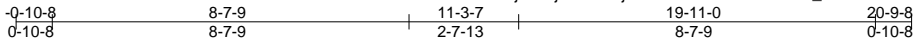
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221809
654049__120mph	B02	HIP	3	1		
Builders FirstSource, Sumter, SC - 29153,						8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:54 2019 Page 1
						ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-V6dWd_6vOnh8zME8ejFTZ7xU9KUcTukCzeg2bYzC05N
						Job Reference (optional)



6x8 = 6x8 =

Scale = 1:55.7

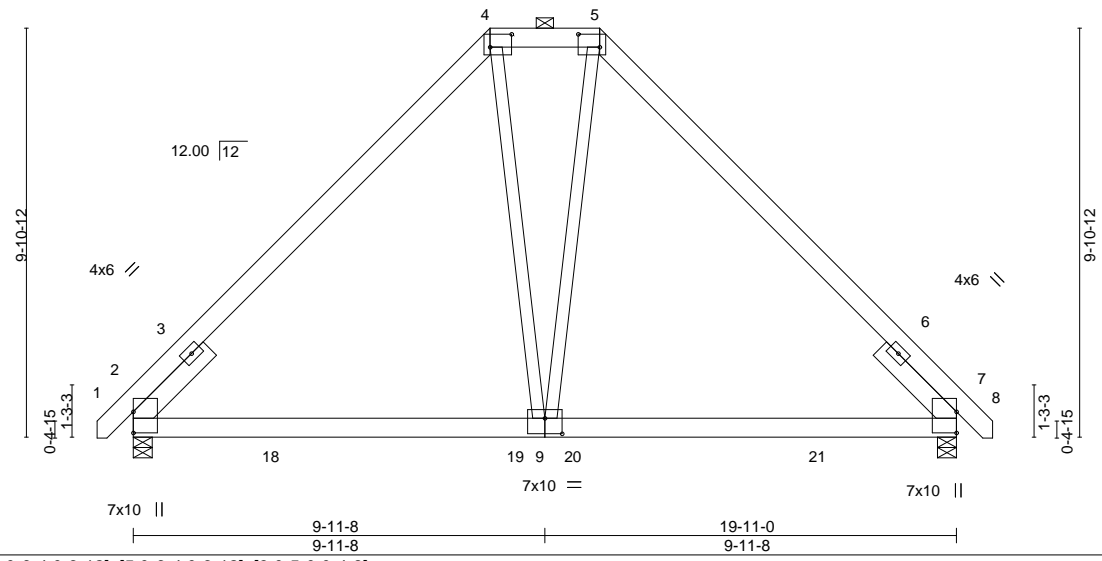


Plate Offsets (X,Y)--	[4:0-6-4,0-3-12], [5:0-6-4,0-3-12], [9:0-5-0,0-4-8]
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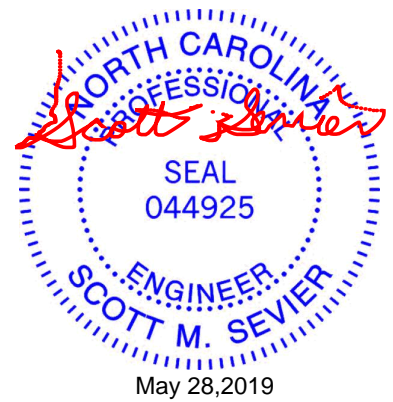
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.08	9-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.13	9-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.11	9-12	>999	240	Weight: 156 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x6 SP No.2 2-6-0, Right 2x6 SP No.2 2-6-0	

**REACTIONS.** (lb/size) 2=842/0-5-8, 7=842/0-5-8  
Max Horz 2=-270(LC 10)  
Max Uplift 2=-119(LC 12), 7=-119(LC 13)  
Max Grav 2=913(LC 2), 7=912(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-732/260, 4-5=-600/327, 5-7=-732/260  
BOT CHORD 2-9=-71/609, 7-9=-20/571  
WEBS 4-9=-130/400, 5-9=-130/400

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 7=119.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

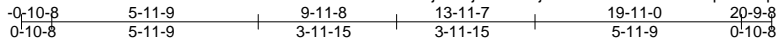


Job 654049__120mph	Truss B03	Truss Type COMMON	Qty 13	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221810
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:55 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-zlBvqK6X95p?bWpKCRmi5LUFvksxCDIMCIPb7\_zC05M



3x6 =

Scale = 1:66.5

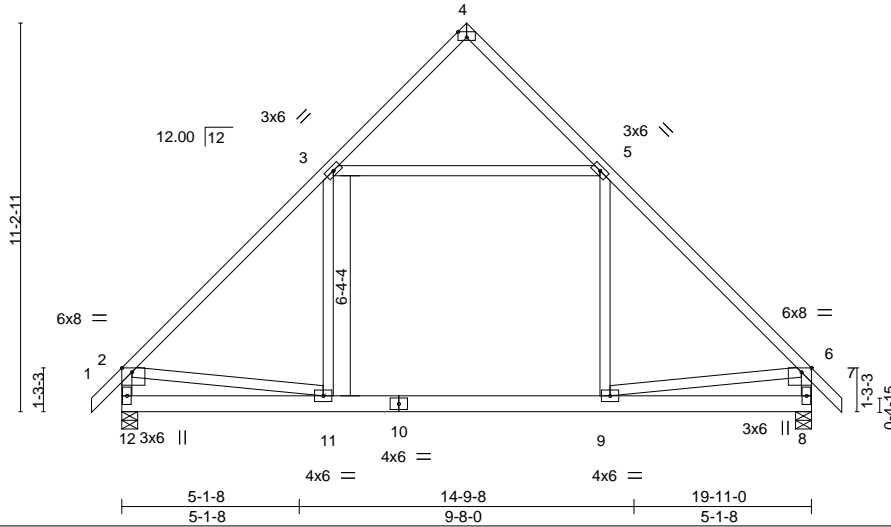


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [4:0-3-0,Edge], [6:0-3-8,Edge]
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	0.18 11-12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.18 11-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.75	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 142 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-1-14 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-12,6-8: 2x4 SP No.2	

<b>REACTIONS.</b>	(lb/size)	12=846/0-5-8, 8=846/0-5-8
	Max Horz	12=349(LC 11)
	Max Uplift	12=-124(LC 12), 8=-124(LC 13)
	Max Grav	12=868(LC 20), 8=868(LC 19)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1003/240, 5-6=-1003/240, 2-12=-896/256, 6-8=-897/256
BOT CHORD	11-12=-474/561, 9-11=-44/691, 8-9=-232/299
WEBS	5-9=-52/307, 3-11=-53/307, 3-5=-607/324, 2-11=-182/662, 6-9=-191/670

- NOTES-** (7)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 12=124, 8=124.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



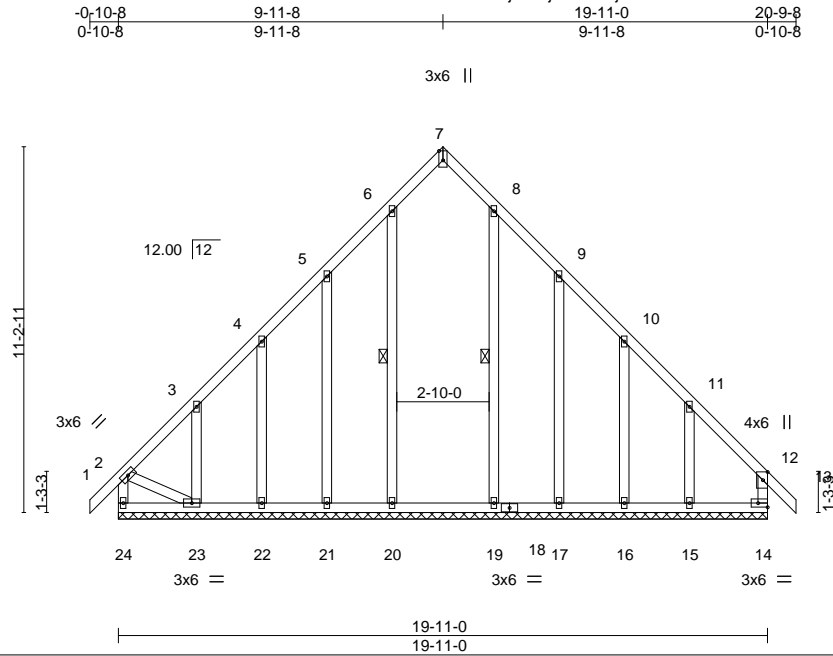
May 28, 2019

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 654049__120mph	Truss B04	Truss Type GABLE	Qty 6	Ply 1	H&H/Wilmington/ 137221811
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:57 2019 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-vhJfF?8ohi3jqpyJsoABmZ1kYZEgFAefcuiCszC05K



Scale = 1:70.7

Plate Offsets (X,Y)--	[7:0-3-7,Edge], [12:0-3-0,0-1-12], [14:Edge,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.00 13 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.00 13 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT) 0.01 14 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 154 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 6-20, 8-19
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 19-11-0.  
 (lb) - Max Horz 24=-352(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 20, 16 except 24=-164(LC 10), 21=-174(LC 12), 22=-118(LC 12), 23=-304(LC 12), 17=-210(LC 13), 15=-379(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 21, 22, 19, 17, 16 except 24=386(LC 12), 14=365(LC 13), 20=297(LC 19), 23=267(LC 19), 15=266(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-24=-371/192, 2-3=-396/243, 3-4=-259/188, 11-12=-406/297, 12-14=-266/182  
 BOT CHORD 23-24=-328/331, 22-23=-253/322, 21-22=-253/322, 20-21=-253/322, 19-20=-253/322,  
 17-19=-253/322, 16-17=-253/322, 15-16=-253/322, 14-15=-253/322  
 WEBS 11-15=-289/292, 2-23=-272/378

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 10) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 20, 16 except (jt=lb) 24=164, 21=174, 22=118, 23=304, 17=210, 15=379.
  - 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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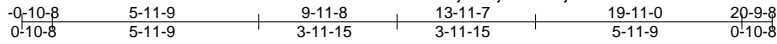


Job 654049__120mph	Truss B05	Truss Type COMMON	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221812
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:58 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-Ntt1SL9QS0BaSzXvtZKPjz6AnxsDPaZouGeFKJzCO5J



3x6 =

Scale = 1:66.5

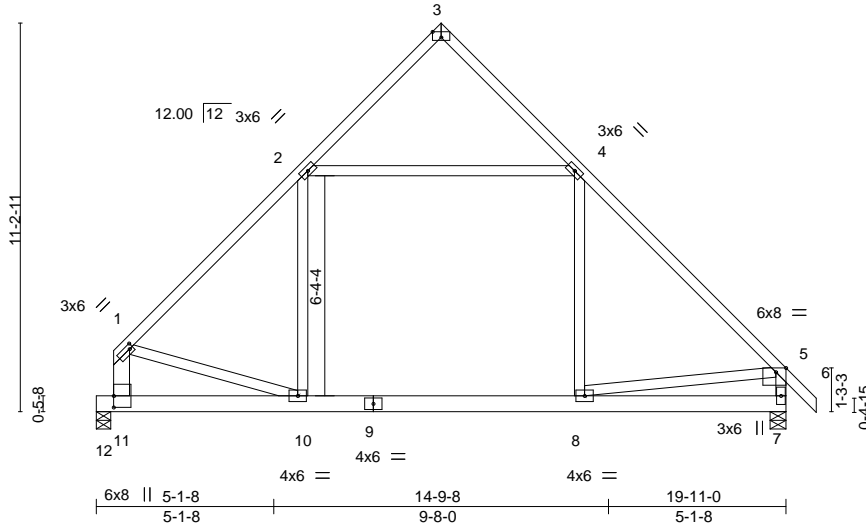


Plate Offsets (X,Y)-- [1:0-1-4,0-1-8], [3:0-3-0,Edge], [5:0-3-8,Edge], [11:0-4-0,0-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	0.17 10-11	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.18 10	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 141 lb	FT = 20%

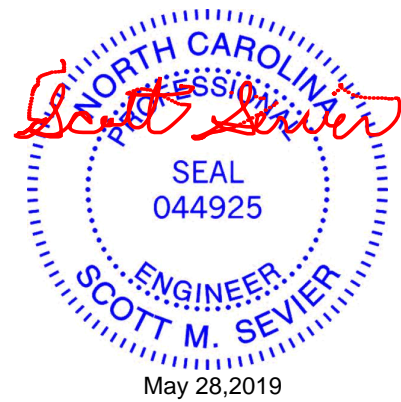
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-11: 2x6 SP No.2, 5-7: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 12=750/0-5-0, 7=845/0-5-8  
 Max Horz 12=-347(LC 8)  
 Max Uplift 12=-109(LC 13), 7=-124(LC 13)  
 Max Grav 12=808(LC 20), 7=866(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-985/242, 4-5=-1001/232, 1-11=-888/207, 5-7=-894/254  
 BOT CHORD 11-12=-328/347, 10-11=-365/545, 8-10=-39/690, 7-8=-231/300  
 WEBS 4-8=-51/304, 2-10=-52/312, 2-4=-602/321, 1-10=-182/558, 5-8=-186/667

- NOTES-** (7)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 12=109, 7=124.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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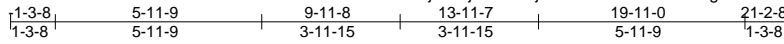
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221813
654049__120mph	B23	COMMON	2	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:28:59 2019 Page 1

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3x6 =

Scale = 1:66.5

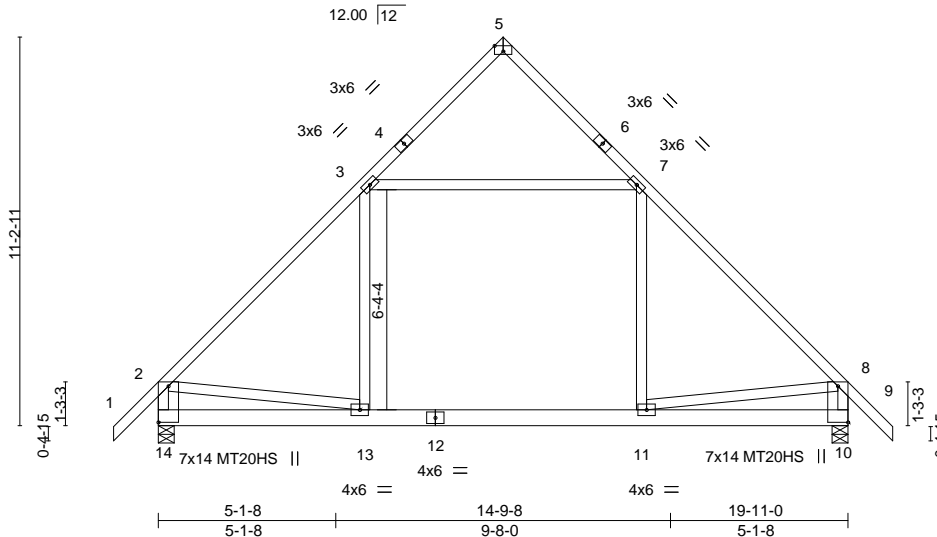


Plate Offsets (X,Y)--	[5:0-3-0,Edge], [10:Edge,0-3-8], [10:0-0-0,0-1-12], [14:0-0-0,0-1-12], [14:Edge,0-3-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	0.18 13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.18 13-14	>999	180	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 144 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-15 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-2-13 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-14,8-10: 2x4 SP No.2	

REACTIONS.	(lb/size)
14=871/0-5-8, 10=871/0-5-8	
Max Horz 14=-360(LC 10)	
Max Uplift 14=-136(LC 12), 10=-136(LC 13)	
Max Grav 14=892(LC 19), 10=892(LC 20)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-999/238, 7-8=-998/238, 2-14=-909/280, 8-10=-910/280
BOT CHORD	13-14=-465/554, 11-13=-35/694, 10-11=-203/317
WEBS	7-11=-52/304, 3-13=-52/304, 3-7=-605/319, 2-13=-181/673, 8-11=-191/681

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=136, 10=136.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

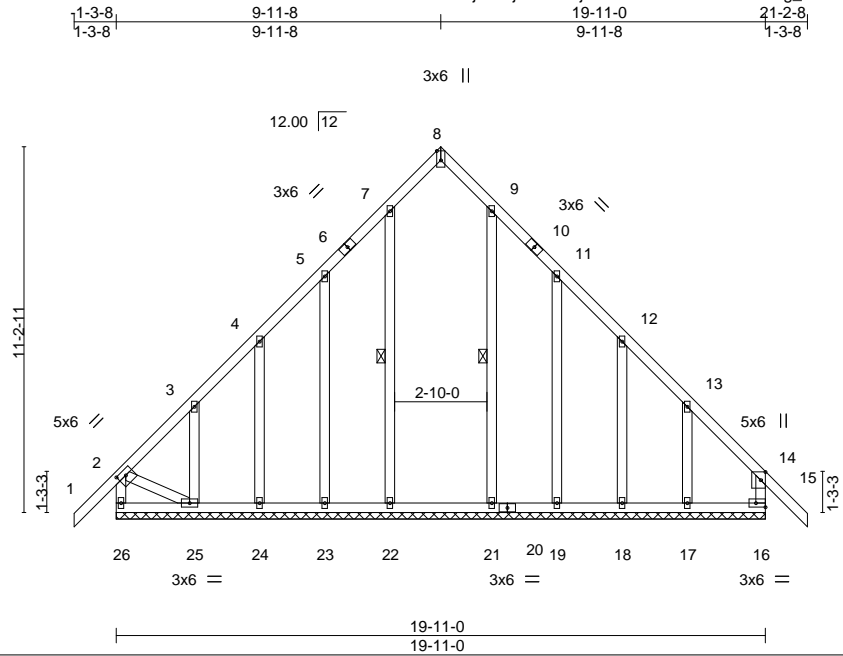


<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job 654049__120mph	Truss B24	Truss Type GABLE	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221814
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:00 2019 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-KG?ot1Ag\_dRHhHhI\_\_MtoOBWDlbtvby5LZ7MpBzC05H



Scale = 1:70.7

Plate Offsets (X,Y)--	[2:0-3-0,0-1-15], [8:0-3-7,Edge], [14:0-3-0,0-1-12], [16:Edge,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.01 15 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.02 15 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.24	Horz(CT) 0.01 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 156 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
2-25: 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 25-26.  
WEBS 1 Row at midpt 7-22, 9-21

**REACTIONS.** All bearings 19-11-0.  
(lb) - Max Horz 26=-364(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 22, 18 except 26=-144(LC 10), 23=-173(LC 12), 24=-121(LC 12), 25=-294(LC 12), 19=-209(LC 13), 17=-368(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 23, 24, 21, 19, 18 except 26=367(LC 12), 16=346(LC 13), 22=302(LC 19), 25=252(LC 19), 17=251(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-26=-351/203, 2-3=-390/239, 3-4=-260/190, 13-14=-401/300, 14-16=-268/190  
BOT CHORD 25-26=-334/330, 24-25=-268/337, 23-24=-268/337, 22-23=-268/337, 21-22=-268/337,  
19-21=-268/337, 18-19=-268/337, 17-18=-268/337, 16-17=-268/337  
WEBS 13-17=-294/281, 2-25=-258/373

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 22, 18 except (jt=lb) 26=144, 23=173, 24=121, 25=294, 19=209, 17=368.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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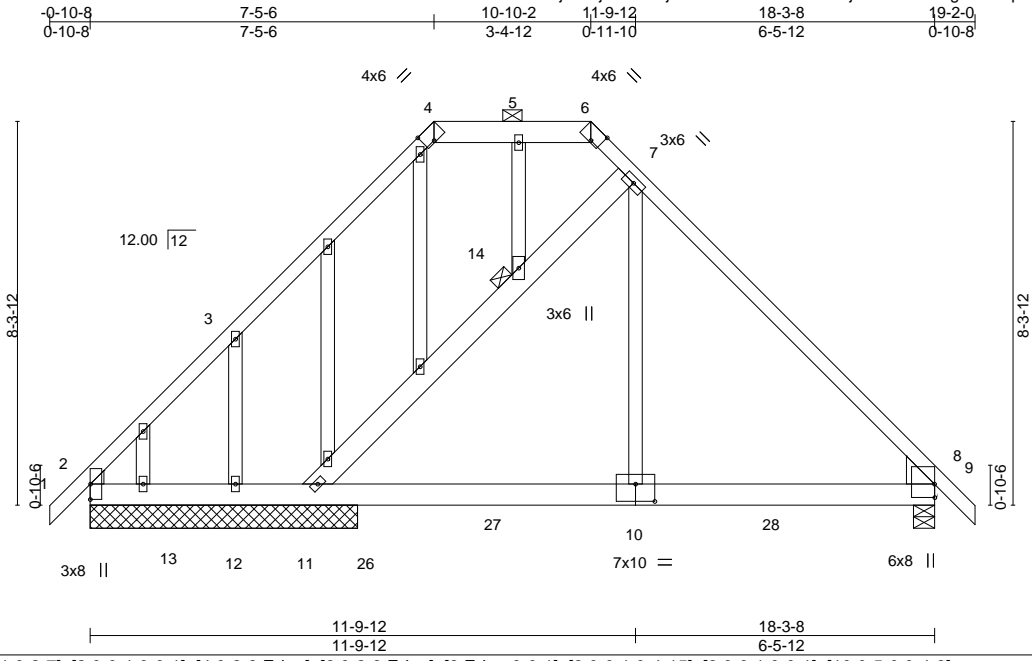
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss C01	Truss Type GABLE	Qty 3	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221815
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:02 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-Ge6YljCwWEh?warg6POLupHqcZGdKWxNptcTt4zC05F



Scale = 1:49.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(LL) 0.04 10-25 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.17	Vert(CT) -0.03 10-25 >999 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Horz(CT) 0.02 8 n/a n/a		
				Weight: 147 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* 4-6: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-11 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except* 7-10: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 14
OTHERS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.2, Right: 2x8 SP DSS	

**REACTIONS.** All bearings 5-9-8 except (jt=length) 8=0-5-8.  
 (lb) - Max Horz 2=-237(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 13, 8 except 12=-276(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 13 except 2=611(LC 23),  
 11=609(LC 20), 12=342(LC 19), 8=820(LC 1), 2=588(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-527/0, 3-4=-601/59, 4-5=-336/94, 5-6=-336/93, 6-7=-441/112, 7-8=-850/92  
 BOT CHORD 2-13=-79/457, 12-13=-79/457, 11-12=-79/457, 10-11=0/573, 8-10=0/577  
 WEBS 11-14=-512/229, 7-14=-514/238, 7-10=-12/345, 3-12=-458/273

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 8 except (jt=lb) 12=276.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Continued on page 2

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221815
654049__120mph	C01	GABLE	3	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:02 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-Ge6YljCwWEh?warg6POLupHqcZGdKWxNptcTt4zC05F

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-75(F=-15), 4-6=-75(F=-15), 6-9=-60, 20-26=-35(F=-15), 23-26=-20, 7-11=-45(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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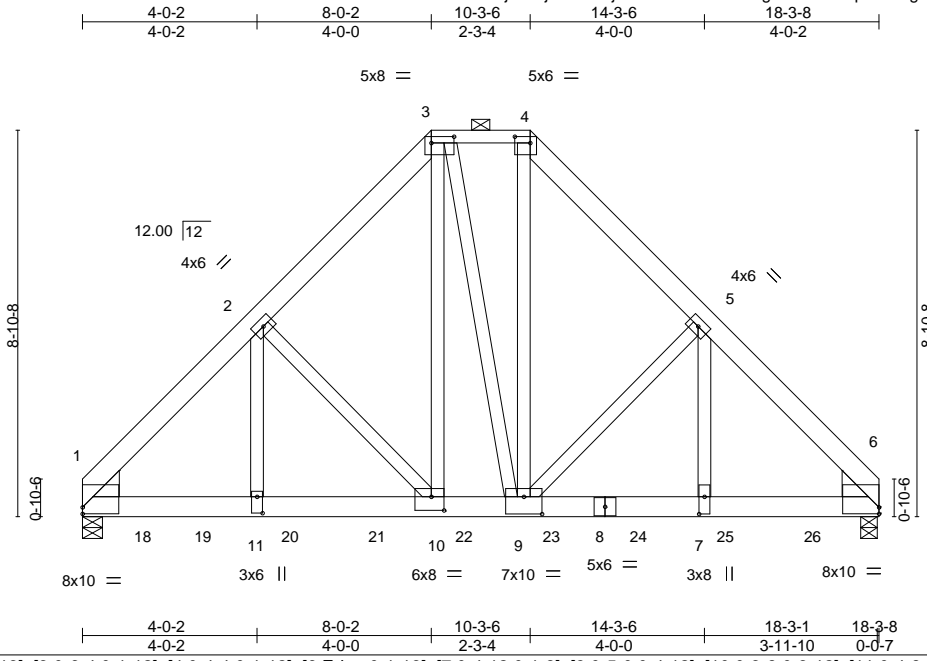
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss C02	Truss Type Hip Girder	Qty 3	Ply 2	H&H/Wilmington/ Job Reference (optional)	137221816
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:03 2019 Page 1

ID: XOjtQcFjQu8X?XjGN5R0bmzVOFF-krqWw3DYHYpsYkQtg6vaQ1p3Eys?3v7X1XL0PWzC05E



Scale = 1:52.9

Plate Offsets (X,Y)--	[1:0-0,0-1-13], [3:0-6-4,0-1-12], [4:0-4-4,0-1-12], [6:Edge,0-1-13], [7:0-4-12,0-1-8], [9:0-5-0,0-4-12], [10:0-3-8,0-3-12], [11:0-4-8,0-1-8]
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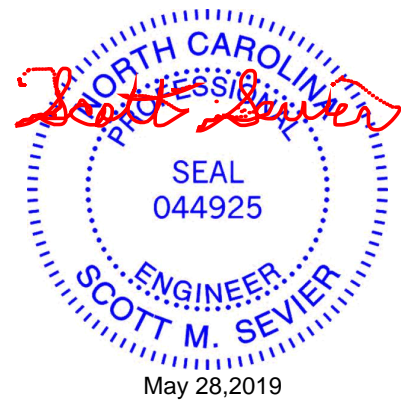
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.07 10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.13 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06 10-11	>999	240	Weight: 339 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 3-4.
WEBS 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE Left: 2x8 SP No.2, Right: 2x8 SP No.2	

**REACTIONS.** (lb/size) 1=6417/0-5-8, 6=5992/0-4-9  
 Max Horz 1=-233(LC 23)  
 Max Uplift 1=-1019(LC 8), 6=-951(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-6803/1108, 2-3=-4889/900, 3-4=-3464/699, 4-5=-4951/914, 5-6=-6757/1099  
 BOT CHORD 1-11=-830/4706, 10-11=-830/4706, 9-10=-550/3403, 7-9=-709/4667, 6-7=-709/4667  
 WEBS 2-11=-367/2557, 2-10=-1963/515, 3-10=-580/3072, 3-9=-138/338, 4-9=-604/3268, 5-9=-1824/493, 5-7=-345/2367

- NOTES-** (12)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1019, 6=951.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1232 lb down and 204 lb up at 0-9-8, 1230 lb down and 206 lb up at 2-9-8, 1230 lb down and 206 lb up at 4-9-8, 1230 lb down and 206 lb up at 6-9-8, 1216 lb down and 206 lb up at 8-9-8, 1216 lb down and 206 lb up at 10-9-8, 1216 lb down and 206 lb up at 12-9-8, and 1216 lb down and 206 lb up at 14-9-8, and 1216 lb down and 206 lb up at 16-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p><b>ENGINEERING BY</b>  <b>TRENCO</b>  <small>A MiTek Affiliate</small></p> <p>818 Soundside Road        Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221816
654049__120mph	C02	Hip Girder	3	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:03 2019 Page 2

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-krqwW3DYHYpsYkQtg6vaQ1p3Eys?3v7X1XL0PWzC05E

12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-4=-60, 4-6=-60, 12-15=-20

Concentrated Loads (lb)

Vert: 18=-1218(B) 19=-1216(B) 20=-1216(B) 21=-1216(B) 22=-1216(B) 23=-1216(B) 24=-1216(B) 25=-1216(B) 26=-1216(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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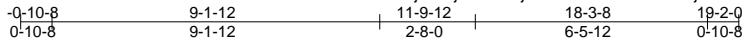
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss C03	Truss Type GABLE	Qty 5	Ply 1	H&H/Wilmington/ 137221817
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:04 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-C1EijPDB2sxjAu?3DqQpzEMAvMyboQHgGB5ayyzC05D



Scale: 3/16"=1'

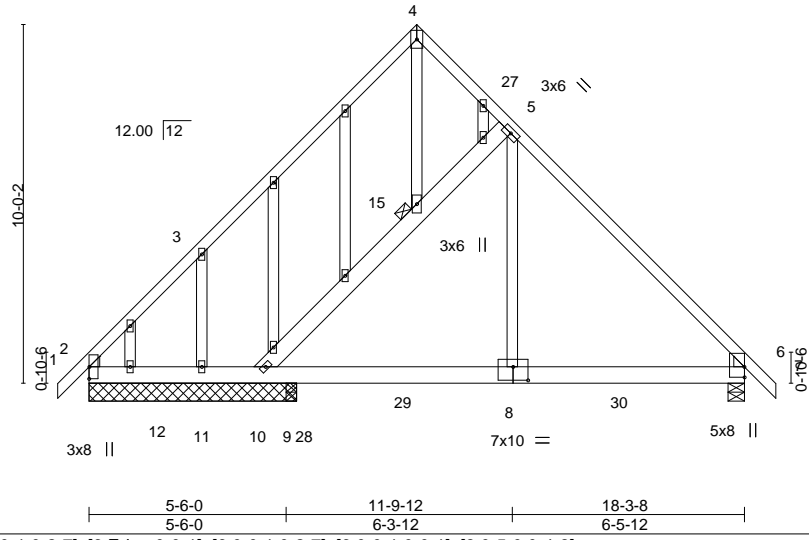


Plate Offsets (X, Y)--	[2:0-0-1,0-0-1], [2:0-0-1,0-2-7], [6:Edge,0-0-1], [6:0-0-1,0-2-7], [6:0-0-1,0-0-1], [8:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.47	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) 0.04 8-26 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.03 8-26 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-AS	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 149 lb	FT = 20%

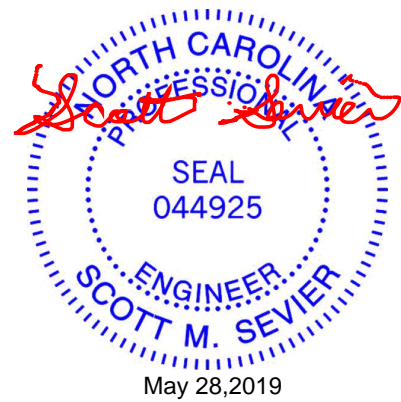
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x6 SP No.2 \*Except\*  
5-8: 2x4 SP No.3  
OTHERS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.2, Right: 2x4 SP SS

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
JOINTS 1 Brace at Jt(s): 15

**REACTIONS.** All bearings 5-9-8 except (jt=length) 6=0-5-8, 9=0-3-8.  
(lb) - Max Horz 2=-285(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 6 except 11=-323(LC 12), 12=-163(LC 20)  
Max Grav All reactions 250 lb or less at joint(s) 12 except 2=563(LC 21),  
11=701(LC 19), 6=807(LC 20), 9=418(LC 20), 2=503(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-491/55, 3-4=-511/14, 4-5=-423/106, 5-6=-858/40  
BOT CHORD 2-12=-43/421, 11-12=-43/421, 10-11=-43/421, 9-10=0/563, 8-9=0/563, 6-8=0/567  
WEBS 10-15=-547/275, 5-15=-559/277, 5-8=-1/320, 3-11=-597/354

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 11=323, 12=163.
  - 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.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Continued on page 2

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221817
654049__120mph	C03	GABLE	5	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:05 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-gDohwkEpp94ao2ZFnxY2VSvLfmIqXtXqVrq7UPzC05C

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-75(F=-15), 4-27=-75(F=-15), 7-27=-60, 21-28=-35(F=-15), 24-28=-20, 5-10=-45(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



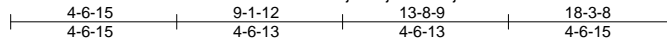
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss C04	Truss Type Common Girder	Qty 5	Ply 2	H&H/Wilmington/ Job Reference (optional)	137221818
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:06 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-8QM384FRZTCRPC8RLFTH2fRamAV?GBmjVagOrzC05B



5x6 ||

Scale: 3/16"=1'

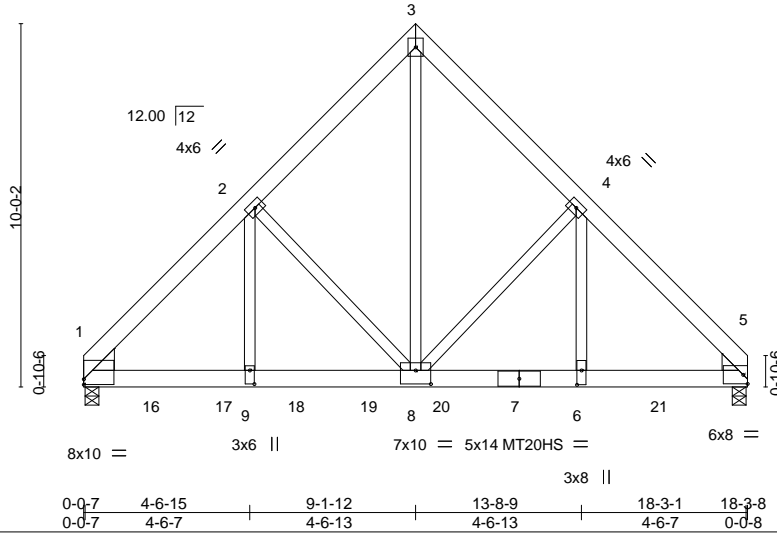


Plate Offsets (X,Y)--	[1:0-0-0,0-1-13], [6:0-4-12,0-1-8], [8:0-5-0,0-4-8], [9:0-4-8,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.07	6-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.14	6-8	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.04	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06	6-8	>999		Weight: 306 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2 *Except* 1-7: 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
WEDGE	
Left: 2x8 SP No.2, Right: 2x6 SP No.2	

**REACTIONS.** (lb/size) 1=5766/0-4-9, 5=6646/0-4-9  
 Max Horz 1=-260(LC 23)  
 Max Uplift 1=-923(LC 9), 5=-1062(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-6542/1098, 2-3=-4507/881, 3-4=-4505/881, 4-5=-6551/1098  
 BOT CHORD 1-9=-808/4523, 8-9=-808/4523, 6-8=-700/4525, 5-6=-700/4525  
 WEBS 3-8=-1081/5918, 4-8=-2002/538, 4-6=-395/2706, 2-8=-1998/537, 2-9=-392/2730

- NOTES-** (11)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=923, 5=1062.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1230 lb down and 206 lb up at 1-10-4, 1230 lb down and 206 lb up at 3-10-4, 1230 lb down and 206 lb up at 5-10-4, 1230 lb down and 206 lb up at 7-10-4, 1216 lb down and 206 lb up at 9-10-4, 1216 lb down and 206 lb up at 11-10-4, 1216 lb down and 206 lb up at 13-10-4, and 1216 lb down and 206 lb up at 15-10-4, and 1222 lb down and 201 lb up at 17-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Continued on page 2

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221818
654049__120mph	C04	Common Girder	5	<b>2</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:06 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-8QM384FRZTCRPC8RLFTH2fRamAV?GBmzjVag0rzC05B

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 10-13=-20

Concentrated Loads (lb)

Vert: 7=-1216(B) 6=-1216(B) 15=-1222(B) 16=-1216(B) 17=-1216(B) 18=-1216(B) 19=-1216(B) 20=-1216(B) 21=-1216(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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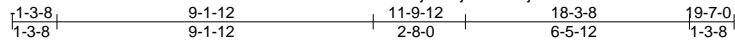


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221819
654049__120mph	C05	GABLE	2	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:07 2019 Page 1

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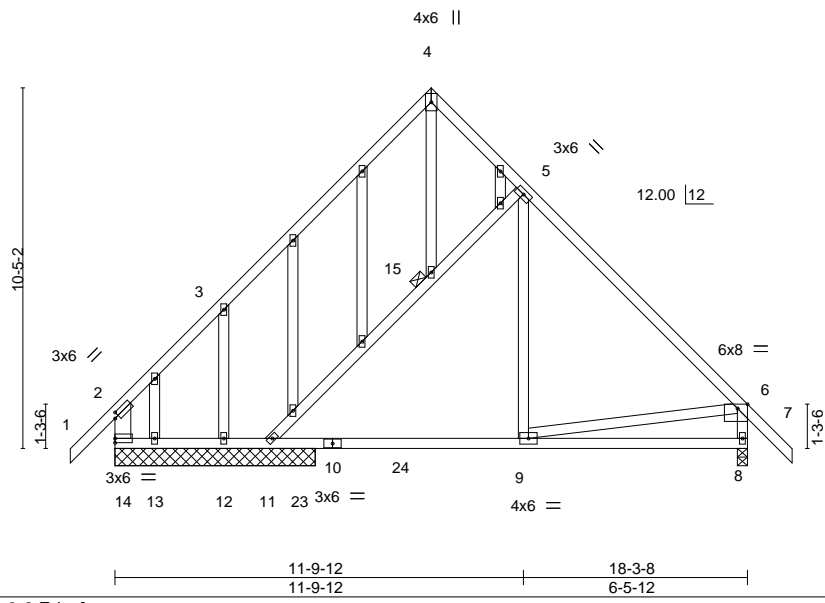


Plate Offsets (X,Y)--	[2:0-1-8,0-1-8], [6:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.07	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.12	9-11	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.39	Horz(CT)	-0.01	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.01	9	>999		
								Weight: 144 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2 *Except*	JOINTS 1 Brace at Jt(s): 15
5-9,6-9: 2x4 SP No.3, 2-14: 2x6 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 5-9-8 except (jt=length) 8=0-3-8.  
 (lb) - Max Horz 8=-344(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 11 except 12=-347(LC 12), 13=-364(LC 21)  
 Max Grav All reactions 250 lb or less at joint(s) except 14=876(LC 21), 11=665(LC 20), 8=860(LC 1), 12=414(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 4-5=-473/97, 5-6=-833/5, 2-3=-565/29, 3-4=-533/13, 6-8=-802/102, 2-14=-461/0  
 BOT CHORD 13-14=-75/390, 12-13=-75/390, 11-12=-75/390, 9-11=-17/638, 8-9=-348/468  
 WEBS 11-15=-495/252, 5-15=-509/243, 5-9=0/251, 6-9=-1/488, 3-12=-597/378

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 12=347, 13=364.
  - 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.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



May 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221819
654049__120mph	C05	GABLE	2	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:07 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-ccwRLQG3KnK11Mjeyv\_Wbt\_gAaul?jL7y9JEYHzC05A

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 4-5=-76(F=-16), 5-6=-60, 6-7=-60, 1-2=-60, 2-4=-76(F=-16), 14-23=-36(F=-16), 8-23=-20, 5-11=-46(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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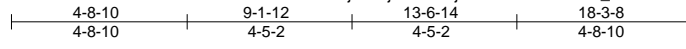
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss C06	Truss Type Common Girder	Qty 1	Ply 2	H&H/Wilmington/ Job Reference (optional)	137221820
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:09 2019 Page 1

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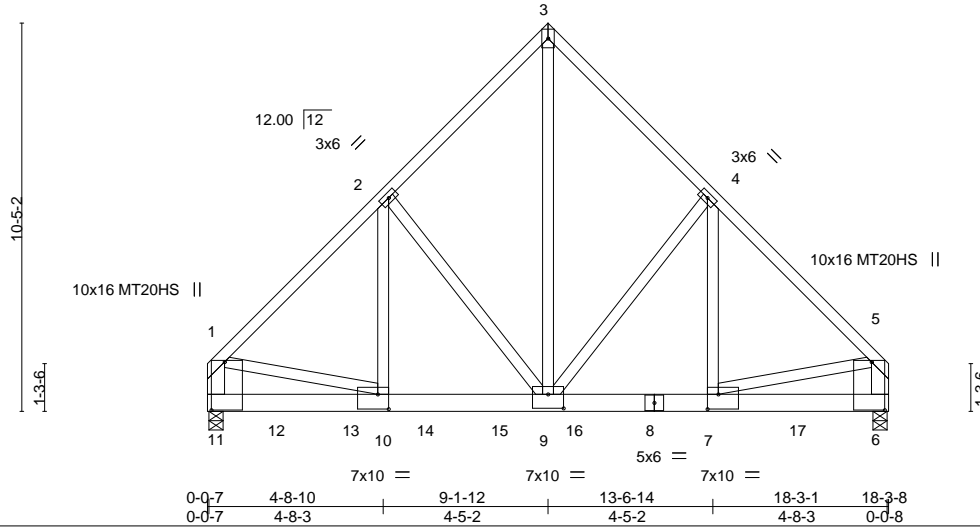


Plate Offsets (X, Y)--	[1:1-3-8,0-4-4], [5:1-3-8,0-4-4], [6:0-0-0,0-2-12], [7:0-3-8,0-4-12], [9:0-5-0,0-4-8], [10:0-3-8,0-4-12], [11:0-0-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.07 7-9 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.13 7-9 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.06 7-9 >999 240	Weight: 297 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-11,5-6: 2x6 SP No.2	

REACTIONS.	(lb/size)
11=5742/0-4-9, 6=6628/0-4-9	
Max Horz 11=-298(LC 23)	
Max Uplift 11=-907(LC 9), 6=-1042(LC 8)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-5572/933, 2-3=-4100/815, 3-4=-4100/815, 4-5=-5545/928, 1-11=-4782/784, 5-6=-4790/786
BOT CHORD	10-11=-381/804, 9-10=-677/3871, 7-9=-566/3851, 6-7=-126/512
WEBS	3-9=-1005/5394, 4-9=-1650/475, 4-7=-316/2070, 2-9=-1699/480, 2-10=-323/2188, 1-10=-476/3315, 5-7=-498/3433

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=907, 6=1042.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1246 lb down and 202 lb up at 1-10-4, 1246 lb down and 202 lb up at 3-10-4, 1246 lb down and 202 lb up at 5-10-4, 1246 lb down and 202 lb up at 7-10-4, 1215 lb down and 202 lb up at 9-10-4, 1215 lb down and 202 lb up at 11-10-4, 1215 lb down and 202 lb up at 13-10-4, and 1215 lb down and 202 lb up at 15-10-4, and 1223 lb down and 194 lb up at 18-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**LOAD CASE(S)** Standard  
Continued on page 2

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**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss C06	Truss Type Common Girder	Qty 1	Ply <b>2</b>	H&H/Wilmington/ Job Reference (optional)	137221820
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:09 2019 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: 1-3=-60, 3-5=-60, 6-11=-20

Concentrated Loads (lb)

Vert: 8=-1215(B) 7=-1215(B) 6=-1223(B) 12=-1215(B) 13=-1215(B) 14=-1215(B) 15=-1215(B) 16=-1215(B) 17=-1215(B)

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818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss C07	Truss Type Common Girder	Qty 1	Ply 2	H&H/Wilmington/ Job Reference (optional)	137221821
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:10 2019 Page 1

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4x6 ||

Scale = 1:61.9

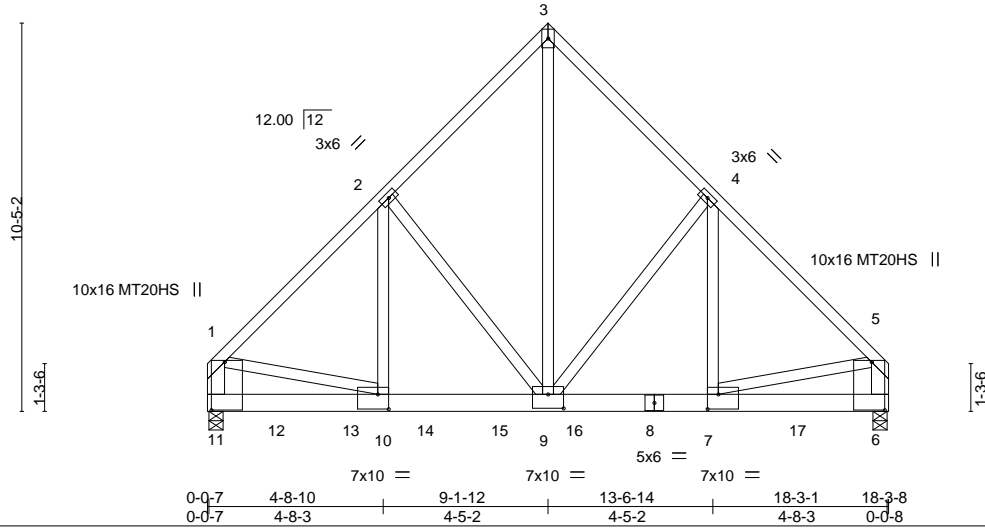


Plate Offsets (X,Y)--	[1:1-3-8,0-4-4], [5:1-3-8,0-4-4], [6:0-0-0,0-2-12], [7:0-3-8,0-4-12], [9:0-5-0,0-4-8], [10:0-3-8,0-4-12], [11:0-0-0,0-2-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.07 7-9 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.13 7-9 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 7-9 >999 240		
				Weight: 297 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-11,5-6: 2x6 SP No.2	

REACTIONS.	(lb/size)
11=5745/0-4-9, 6=6632/0-4-9	
Max Horz 11=298(LC 5)	
Max Uplift 11=270(LC 9), 6=294(LC 8)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-5576/319, 2-3=-4102/367, 3-4=-4102/367, 4-5=-5548/318, 1-11=-4785/262, 5-6=-4793/263
BOT CHORD	10-11=-309/807, 9-10=-244/3873, 7-9=-136/3854, 6-7=-72/512
WEBS	3-9=-374/5398, 4-9=-1651/294, 4-7=-56/2072, 2-9=-1689/295, 2-10=-58/2172, 1-10=-104/3317, 5-7=-112/3436

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=270, 6=294.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1233 lb down and 48 lb up at 1-10-4, 1233 lb down and 48 lb up at 3-10-4, 1233 lb down and 48 lb up at 5-10-4, 1233 lb down and 48 lb up at 7-10-4, 1216 lb down and 48 lb up at 9-10-4, 1216 lb down and 48 lb up at 11-10-4, 1216 lb down and 48 lb up at 13-10-4, and 1216 lb down and 48 lb up at 15-10-4, and 1224 lb down and 40 lb up at 18-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
Continued on page 2



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932



Job 654049__120mph	Truss C07	Truss Type Common Girder	Qty 1	Ply <b>2</b>	H&H/Wilmington/ Job Reference (optional)	137221821
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:10 2019 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: 1-3=-60, 3-5=-60, 6-11=-20

Concentrated Loads (lb)

Vert: 8=-1216(B) 7=-1216(B) 6=-1224(B) 12=-1216(B) 13=-1216(B) 14=-1216(B) 15=-1216(B) 16=-1216(B) 17=-1216(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



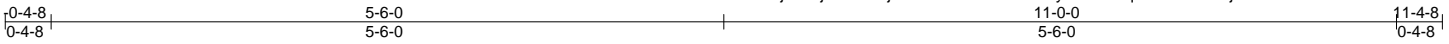
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss CP01	Truss Type GABLE	Qty 9	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221822
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:11 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-VN9yBoJaO?qkWz1P8o2Sij8QLBNvxdRitnHRi2zC056



Scale = 1:18.8

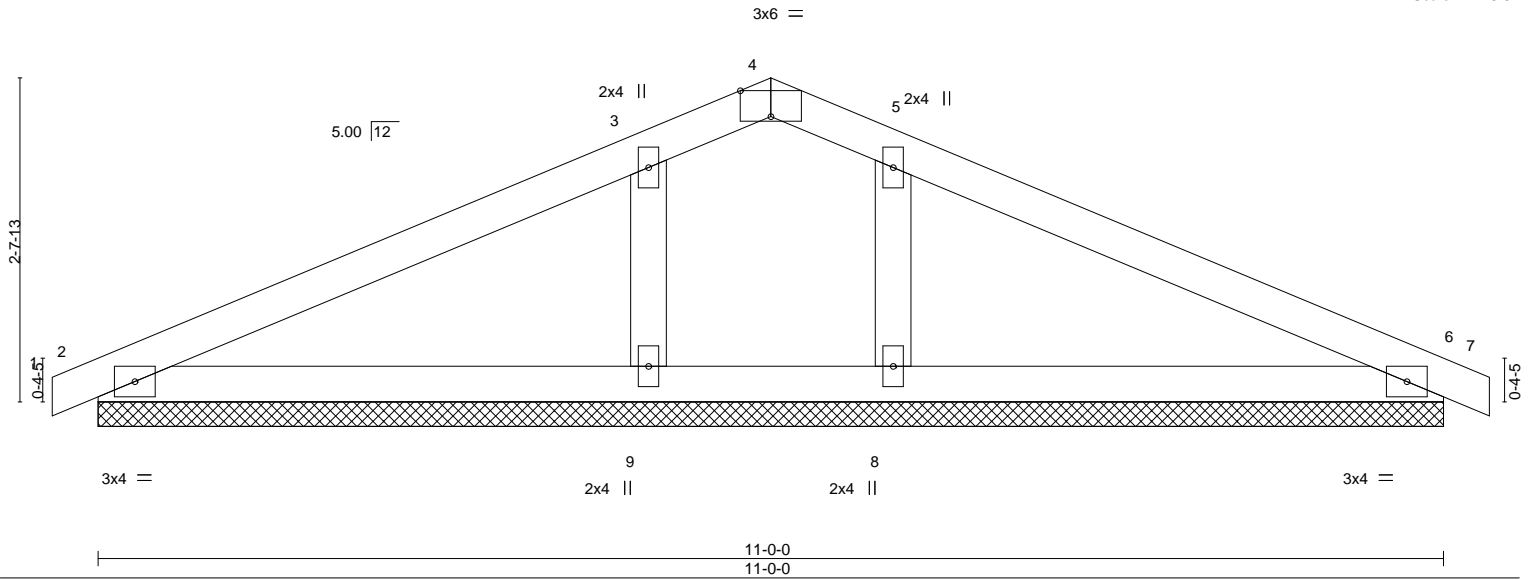


Plate Offsets (X,Y)-- [4:0-3-0,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) 0.00 7 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(CT) 0.01 7 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 41 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 10-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 11-0-0.  
(lb) - Max Horz 2=47(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 9=-129(LC 12), 8=-124(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 6 except 9=354(LC 23), 8=354(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-9=-268/197, 5-8=-268/197

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 9=129, 8=124.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss CP02	Truss Type Common	Qty 37	Ply 1	H&H/Wilmington/ 137221823
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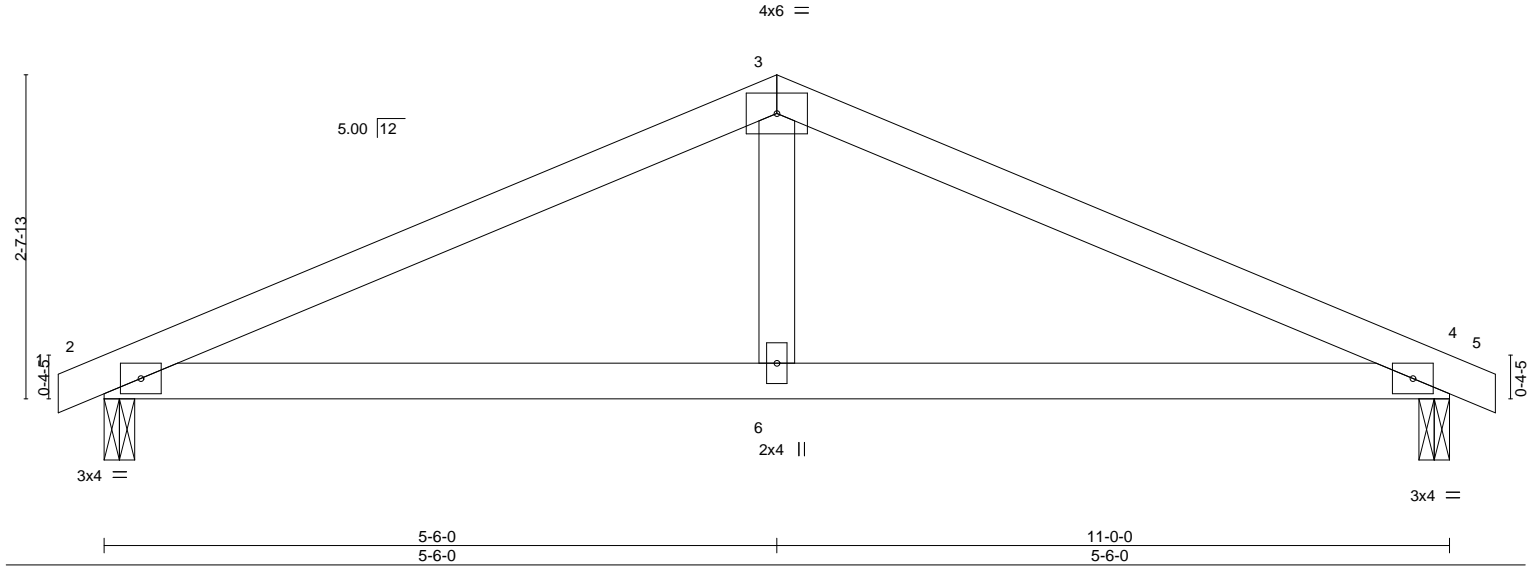
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:12 2019 Page 1

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Scale = 1:18.8



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 0.31	Vert(LL)	-0.03	6-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.06	6-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.06	6-12	>999	240		
									Weight: 39 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=463/0-3-0, 4=463/0-3-0  
 Max Horz 2=-47(LC 13)  
 Max Uplift 2=-169(LC 8), 4=-169(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-696/774, 3-4=-696/774  
 BOT CHORD 2-6=-637/609, 4-6=-637/609  
 WEBS 3-6=-316/247

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=169, 4=169.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



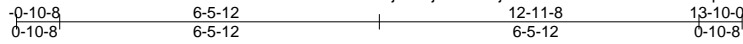
May 28, 2019

Job 654049__120mph	Truss D01	Truss Type Common Supported Gable	Qty 8	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221824
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:13 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-RmHicTKqwd4RIHBoFD5wq8Eob\_4UPU1?K5mYmxzC054



4x6 =

Scale = 1:46.7

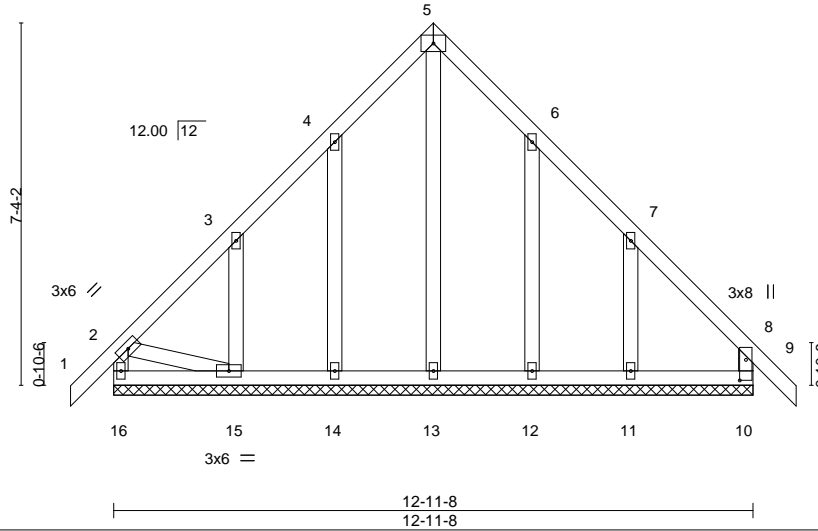


Plate Offsets (X,Y)-- [8:0-5-0,0-1-8]

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 0.16	Vert(LL)	-0.00	9	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.00	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 88 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

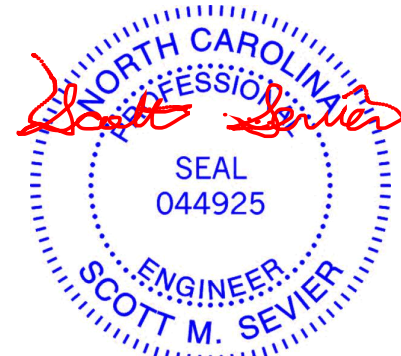
All bearings 12-11-8.  
 (lb) - Max Horz 16=236(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 13 except 16=-120(LC 8), 14=-127(LC 12), 15=-193(LC 12), 12=-108(LC 13), 11=-201(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 14, 15, 12, 11 except 13=278(LC 13)

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

WEBS 5-13=-265/183

**NOTES-** (12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 13 except (jt=lb) 16=120, 14=127, 15=193, 12=108, 11=201.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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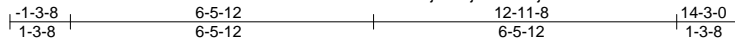
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss D02	Truss Type GABLE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221825
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:15 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-N8PT19M4SEK9\_aKANE7OvZJ5xokftPJloPFfrqzC052



3x6 =

Scale = 1:49.2

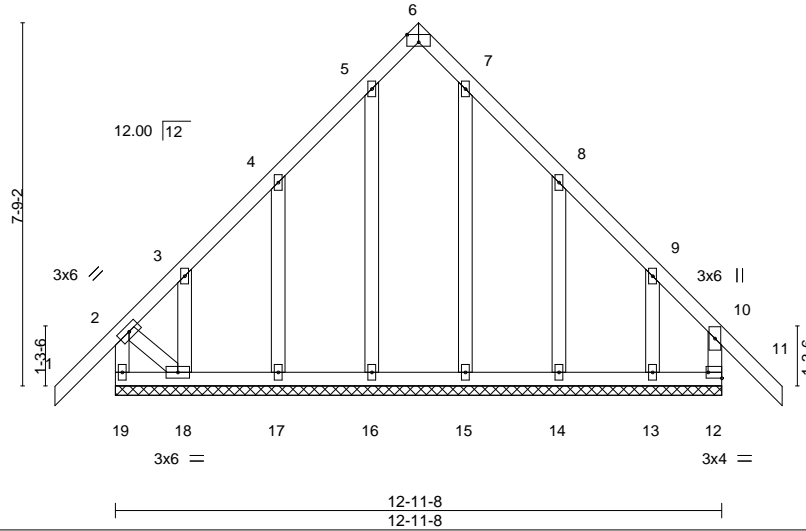


Plate Offsets (X,Y)--	[6:0-3-0,Edge], [12:Edge,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.36	Vert(LL) -0.01 11 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.02 11 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT) 0.00 12 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 95 lb	FT = 20%

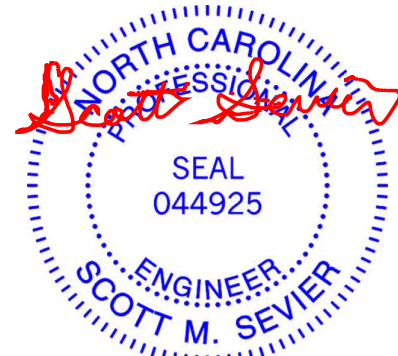
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
2-19: 2x4 SP No.2  
OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 12-11-8.  
(lb) - Max Horz 19=266(LC 11)  
Max Uplift All uplift 100 lb or less at joint(s) 12, 16 except 19=170(LC 8), 17=168(LC 12), 18=235(LC 12), 14=154(LC 13), 13=245(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 12, 16, 17, 18, 15, 14, 13 except 19=287(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=274/172

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 16 except (jt=lb) 19=170, 17=168, 18=235, 14=154, 13=245.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
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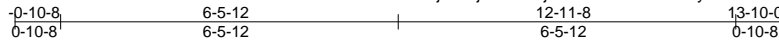
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss D03	Truss Type Common	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221826
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:16 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-sLyrEVNiDYS0ckVmwLedSmsGrC3vcsYR13?CNGzC051



4x6 ||

Scale = 1:44.2

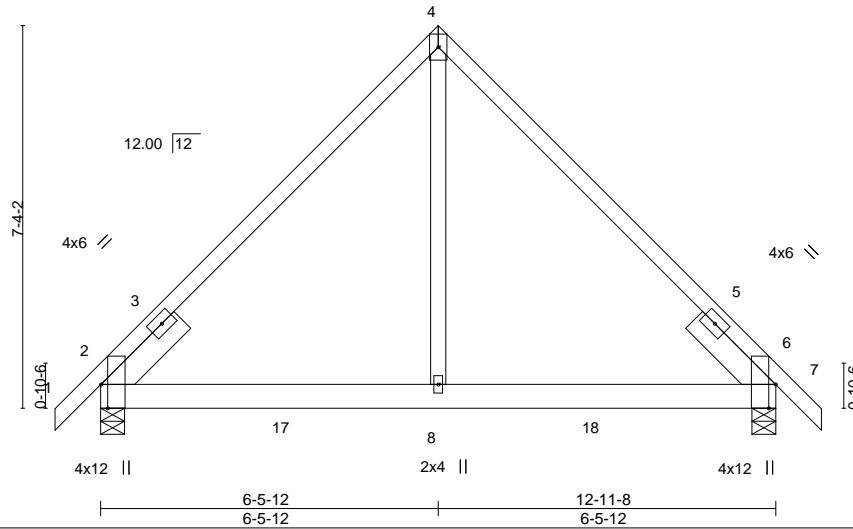


Plate Offsets (X,Y)-- [2:0-5-8,Edge], [6:0-5-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.03	8-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.04	8-11	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 81 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

**BRACING-**

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

**REACTIONS.**

(lb/size) 2=566/0-5-8, 6=566/0-5-8  
 Max Horz 2=-209(LC 10)  
 Max Uplift 2=-91(LC 12), 6=-91(LC 13)  
 Max Grav 2=592(LC 19), 6=592(LC 20)

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

TOP CHORD 2-4=-552/336, 4-6=-551/336  
 BOT CHORD 2-8=-10/378, 6-8=-10/378  
 WEBS 4-8=-56/334

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BC DL = 10.0psf.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 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.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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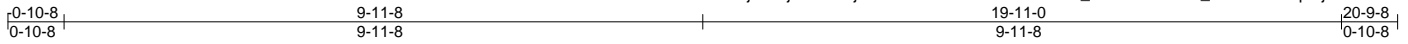
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss G01	Truss Type GABLE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221827
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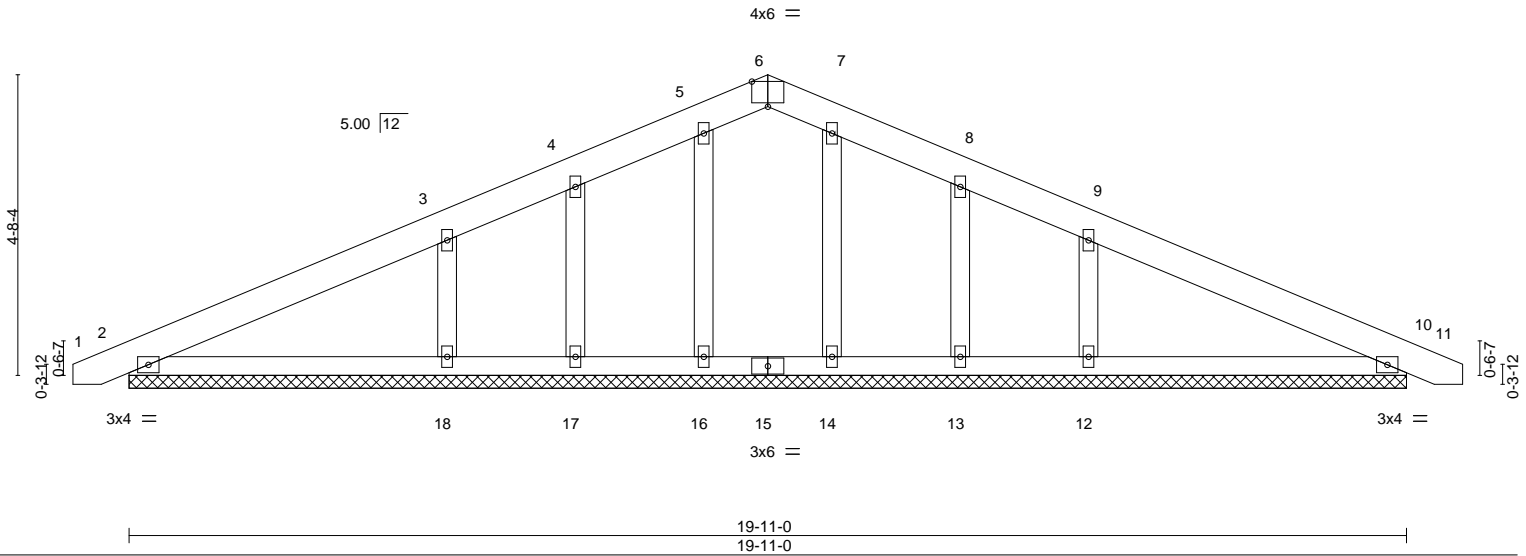
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:17 2019 Page 1

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Scale = 1:35.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.14	Vert(LL) 0.00 11 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) 0.01 11 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 109 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 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.

**REACTIONS.** All bearings 19-11-0.  
 (lb) - Max Horz 2=85(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 14, 13 except 18=142(LC 12), 12=141(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 6, 2, 10, 16, 17, 14, 13 except 18=401(LC 1), 12=401(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-18=299/217, 9-12=299/217

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 14, 13 except (jt=lb) 18=142, 12=141.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

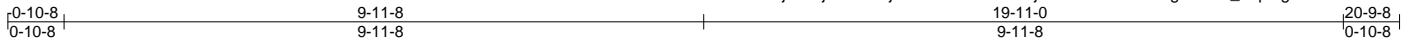
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221828
654049__120mph	G02	COMMON	14	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:18 2019 Page 1  
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Scale = 1:35.9

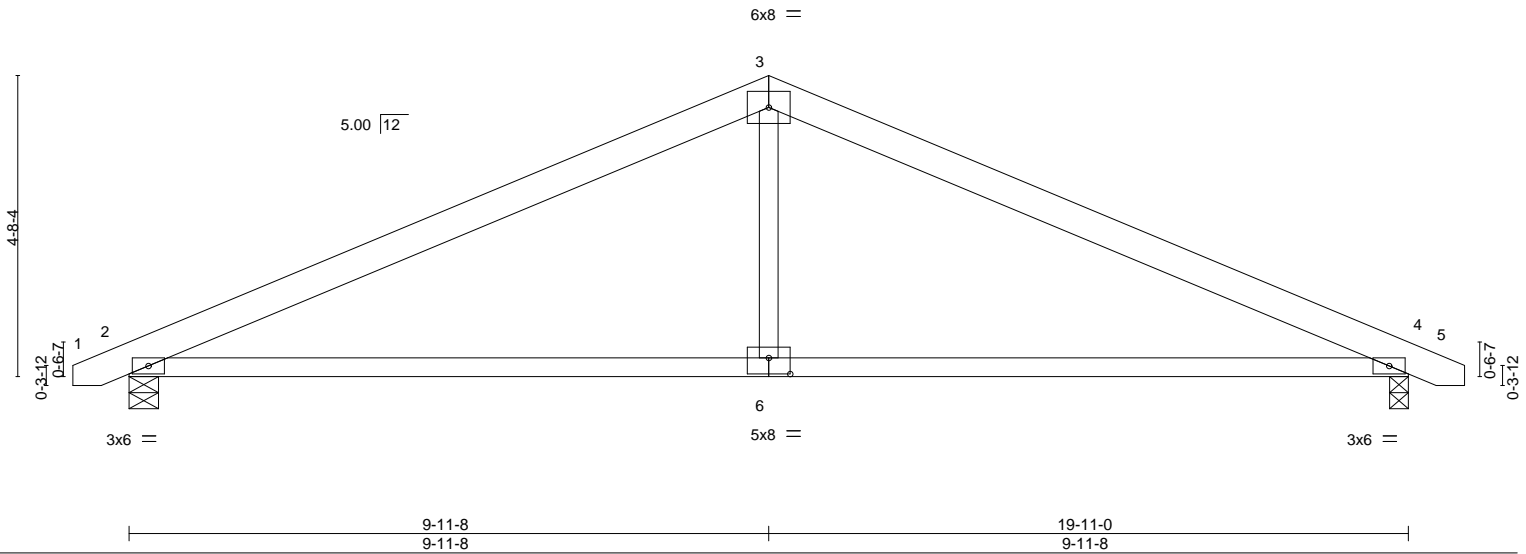


Plate Offsets (X,Y)--	[6:0-4-0,0-3-0]
-----------------------	-----------------

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.13 6-9 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.28 6-9 >844 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 4 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.11 6-9 >999 240	Weight: 91 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=836/0-5-8, 4=836/0-3-8  
 Max Horz 2=-85(LC 13)  
 Max Uplift 2=-164(LC 12), 4=-164(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1235/403, 3-4=-1235/403  
 BOT CHORD 2-6=-241/1080, 4-6=-241/1080  
 WEBS 3-6=0/404

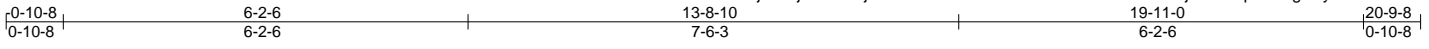
- NOTES-** (8)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=164, 4=164.
  - 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.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019



Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221829
654049__120mph	G03	Hip Girder	1	1		
Builders FirstSource, Sumter, SC - 29153,						8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:20 2019 Page 1
						ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-k6CL4tQDGmzS5LD89BjZcc0u5pMmYgC1yhZQV1zC04z



Scale = 1:35.3

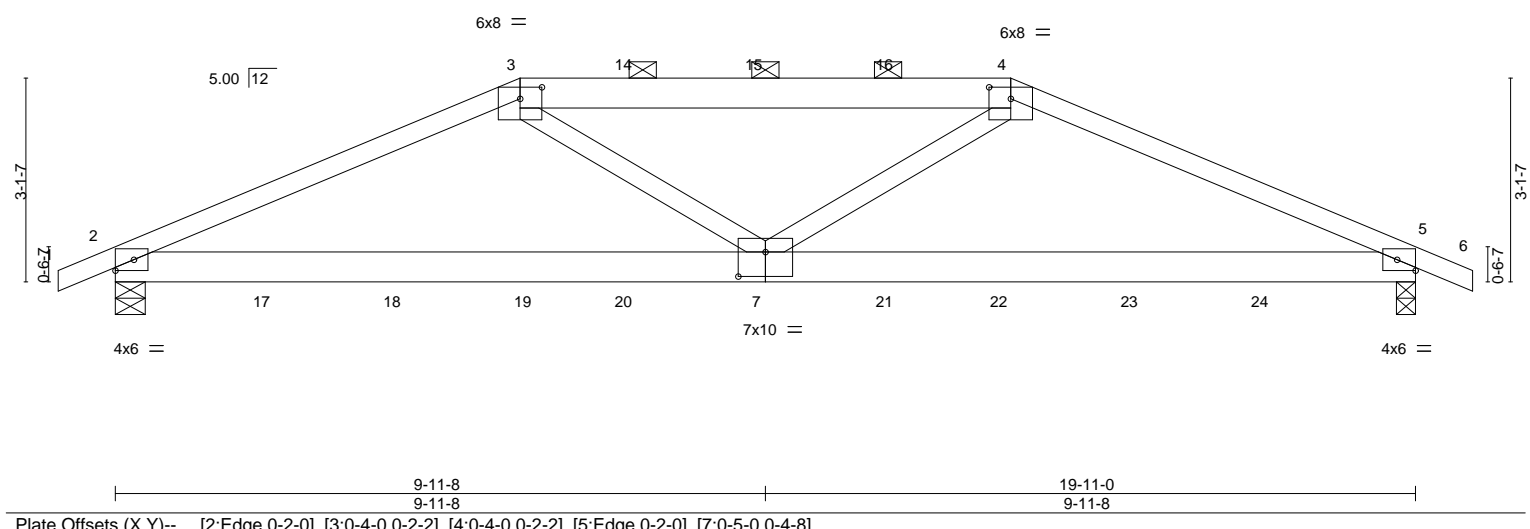


Plate Offsets (X, Y)-- [2:Edge,0-2-0], [3:0-4-0,0-2-2], [4:0-4-0,0-2-2], [5:Edge,0-2-0], [7:0-5-0,0-4-8]

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 0.52	Vert(LL)	0.15	7-10	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.15	7-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 100 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-4: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except 2-0-0 oc purlins (5-2-5 max.): 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 8-2-5 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) 2=921/0-5-8, 5=921/0-3-8  
 Max Horz 2=57(LC 31)  
 Max Uplift 2=-479(LC 8), 5=-477(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1491/876, 3-4=-1523/977, 4-5=-1491/874  
 BOT CHORD 2-7=-752/1342, 5-7=-744/1319  
 WEBS 3-7=-219/394, 4-7=-223/394

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=479, 5=477.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 48 lb up at 6-2-6, 81 lb down and 48 lb up at 7-10-4, 81 lb down and 48 lb up at 9-10-4, and 81 lb down and 48 lb up at 11-10-4, and 76 lb down and 48 lb up at 13-8-10 on top chord, and 42 lb down and 50 lb up at 2-3-12, 40 lb down and 82 lb up at 4-3-12, 33 lb down and 56 lb up at 6-3-12, 33 lb down and 56 lb up at 7-10-4, 33 lb down and 56 lb up at 9-10-4, 33 lb down and 56 lb up at 11-10-4, 33 lb down and 56 lb up at 13-7-4, and 40 lb down and 82 lb up at 15-7-4, and 42 lb down and 50 lb up at 17-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



May 28, 2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	I37221829
654049__120mph	G03	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:20 2019 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-k6CL4tQDGmzS5LD89BjZcc0u5pMmYgC1yhZQV1zC04z

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-60, 3-4=-60, 4-6=-60, 8-11=-20

Concentrated Loads (lb)

Vert: 17=-42(B) 18=-30(B) 23=-30(B) 24=-42(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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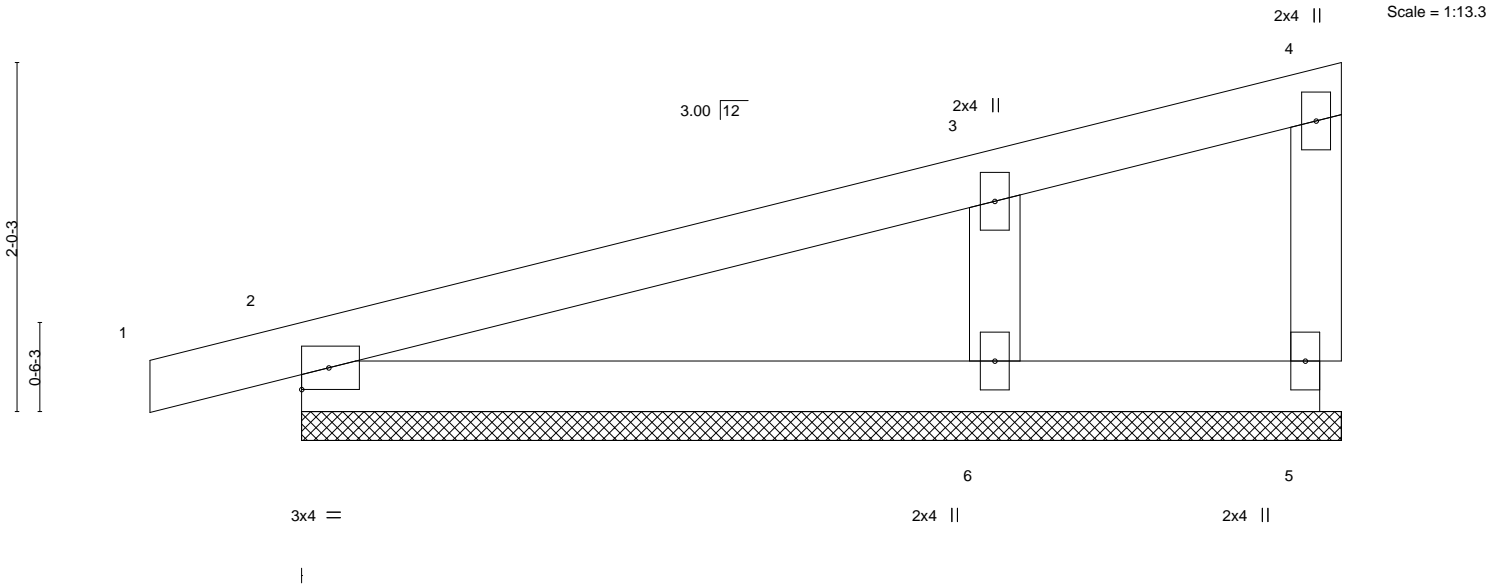
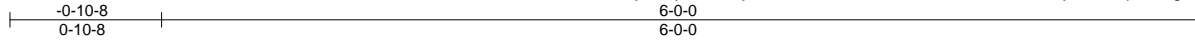


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221830
654049__120mph	J01	GABLE	8	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:20 2019 Page 1  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-k6CL4tQDGmzS5LD89BjZcc0\_OpTWYgU1yhZQV1zC04z



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 0.19	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 23 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=14/6-0-0, 2=190/6-0-0, 6=317/6-0-0  
 Max Horz 2=79(LC 9)  
 Max Uplift 5=-5(LC 9), 2=-71(LC 8), 6=-94(LC 12)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221831
654049__120mph	J02	Monopitch	40	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:21 2019 Page 1

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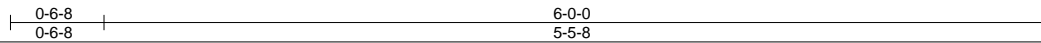
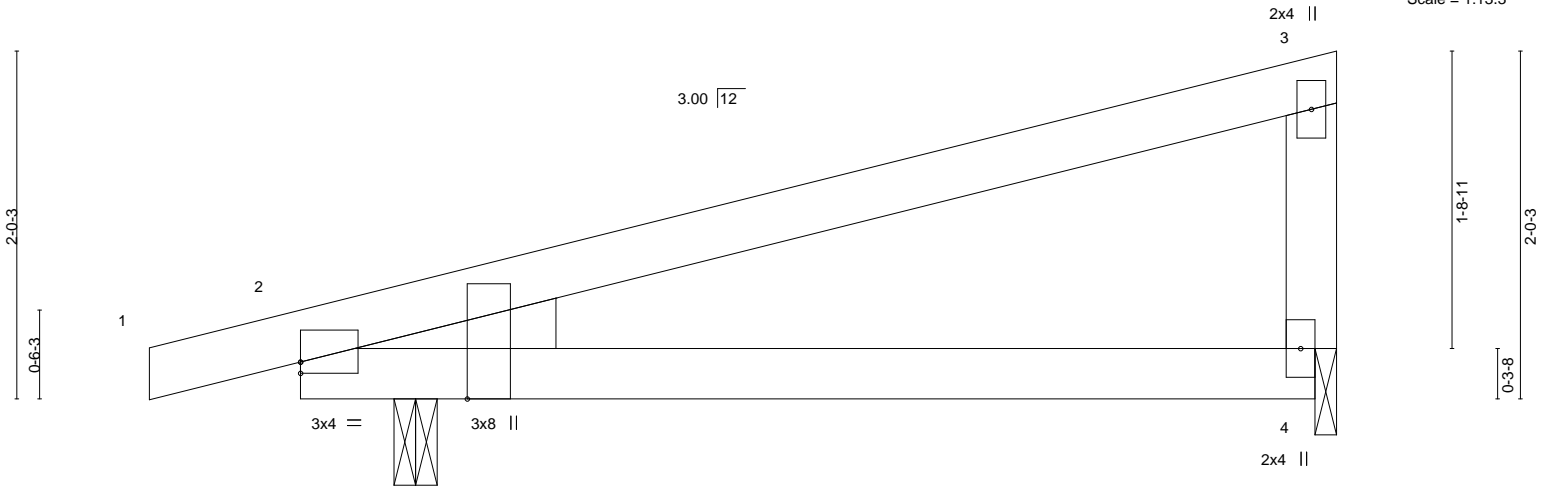


Plate Offsets (X,Y)--	[2:0-0-0,0-0-12], [2:0-2-9,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) 0.10 4-9 >733 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.07 4-9 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS		Weight: 23 lb	FT = 20%

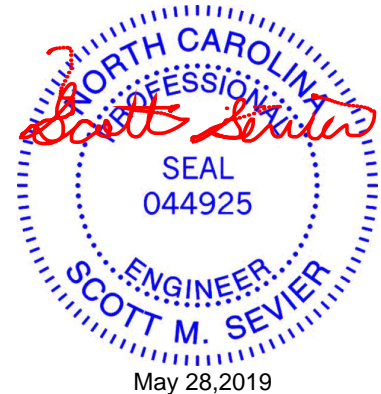
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=320/0-3-0, 4=201/0-1-8  
Max Horz 2=78(LC 8)  
Max Uplift 2=-171(LC 8), 4=-114(LC 8)

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

- NOTES-** (9)
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 4=114.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221832
654049__120mph	J03	Monopitch	24	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:22 2019 Page 1

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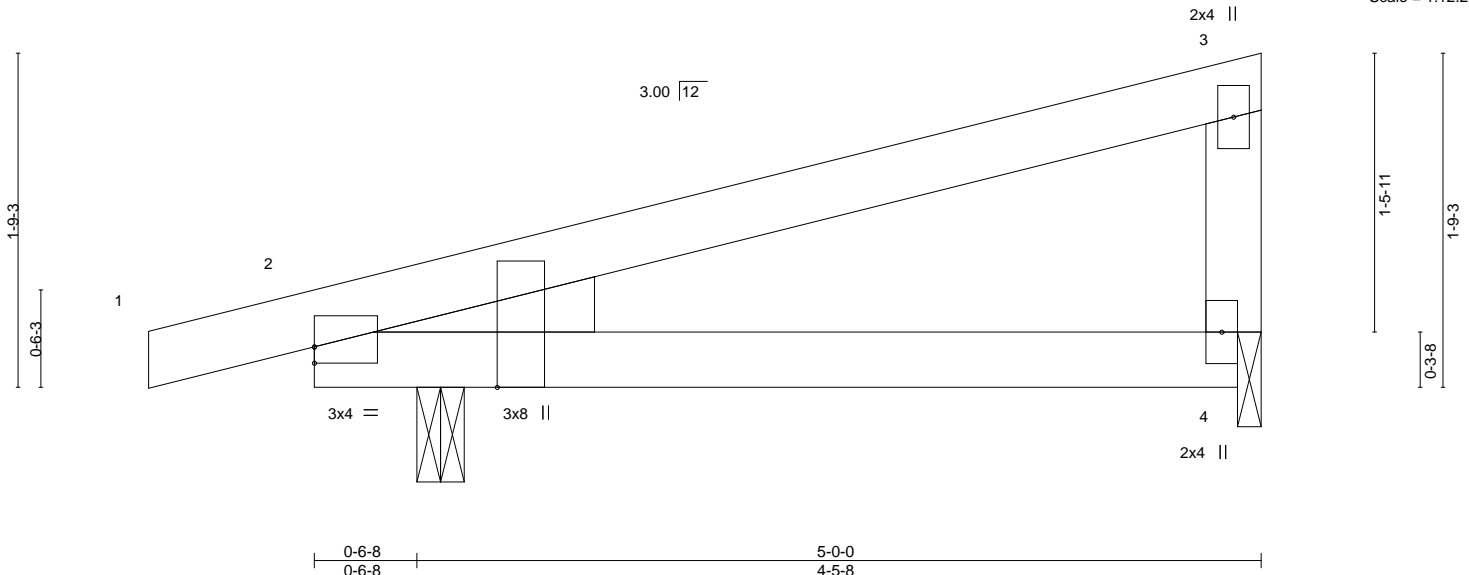


Plate Offsets (X,Y)--	[2:0-0-0,0-1-0], [2:0-2-9,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) 0.04 4-9 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.03 4-9 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS		Weight: 20 lb	FT = 20%

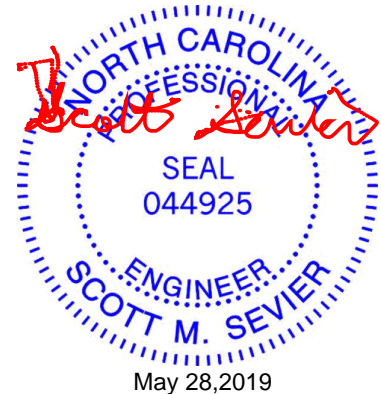
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=283/0-3-0, 4=158/0-1-8  
 Max Horz 2=67(LC 8)  
 Max Uplift 2=-154(LC 8), 4=-90(LC 8)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 5) 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=154.
  - 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.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
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Job 654049__120mph	Truss J04	Truss Type GABLE	Qty 7	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221833
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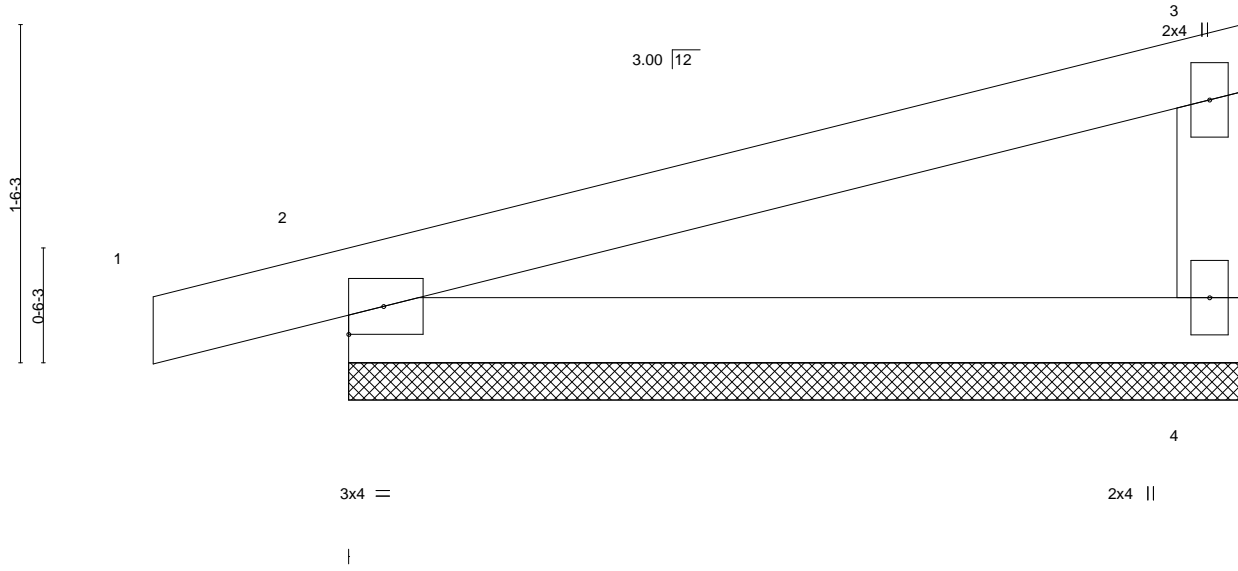
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:23 2019 Page 1

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Scale = 1:10.3



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 0.25	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

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

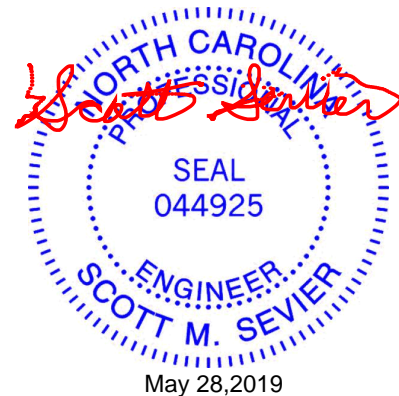
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=148/4-0-0, 2=213/4-0-0  
 Max Horz 2=55(LC 11)  
 Max Uplift 4=-41(LC 12), 2=-82(LC 8)

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

**NOTES-** (9)

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



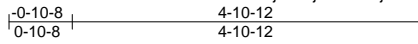
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss J05	Truss Type JACK-OPEN	Qty 50	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221834
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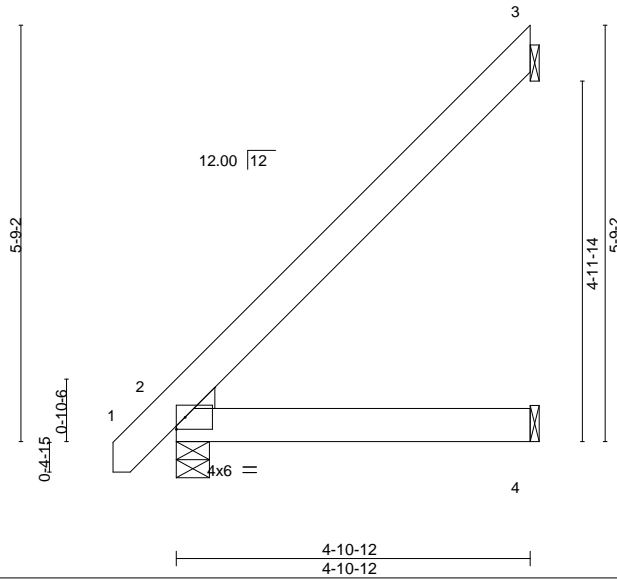
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:24 2019 Page 1

ID: XOjtQcFjQu8X?XjGN5R0bmzVOFF-dtRswETjK?TtZzWvO0nVnSBgTQpDUVZdsIxdeozC04v



Scale: 3/8"=1'



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 0.18	Vert(LL)	0.02 4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.01 4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01 3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS					Weight: 32 lb	FT = 20%

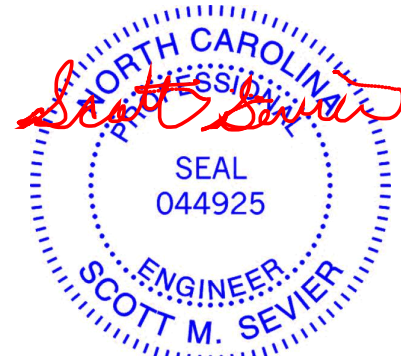
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 3=128/Mechanical, 2=242/0-5-8, 4=62/Mechanical  
 Max Horz 2=244(LC 12)  
 Max Uplift 3=161(LC 12), 4=8(LC 12)  
 Max Grav 3=159(LC 19), 2=242(LC 1), 4=92(LC 3)

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

- NOTES-** (8)
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=161.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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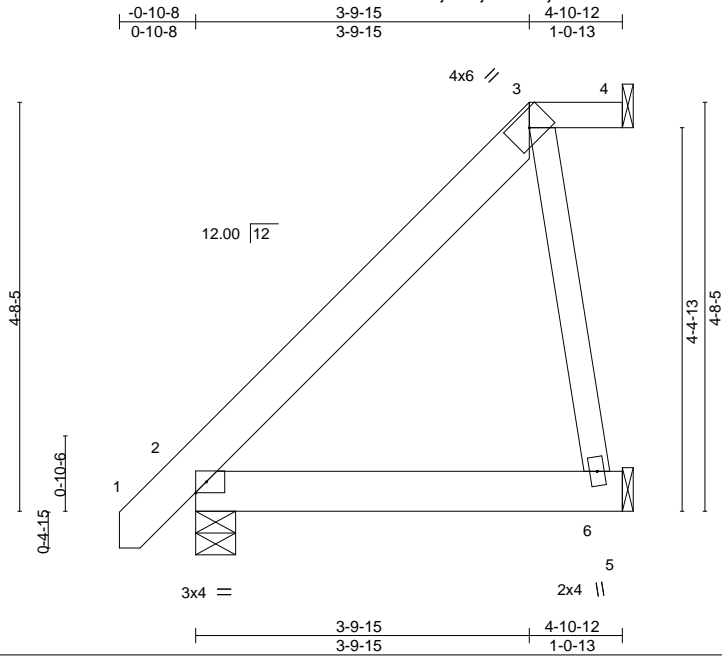
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss J06	Truss Type JACK-OPEN	Qty 11	Ply 1	H&H/Wilmington/ 137221835
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:24 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-dtRswETjk?TtZzWvO0nVnSBhPQq0UVvddsIxdeozC04v



Scale = 1:26.4

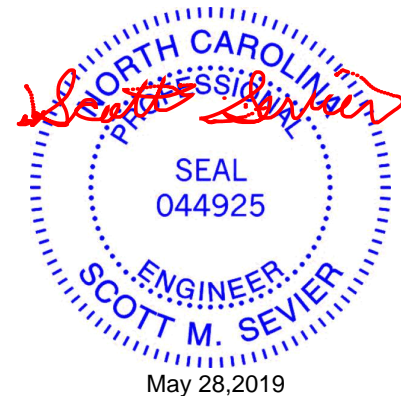
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.00	6-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	6-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS	Wind(LL)	0.01	6-9	>999	Weight: 35 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 3-4: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 4=30/Mechanical, 2=236/0-5-8, 6=168/Mechanical  
 Max Horz 2=207(LC 12)  
 Max Uplift 4=16(LC 8), 6=112(LC 12)  
 Max Grav 4=30(LC 1), 2=236(LC 1), 6=181(LC 19)

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

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 6=112.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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ENGINEERING BY  
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 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

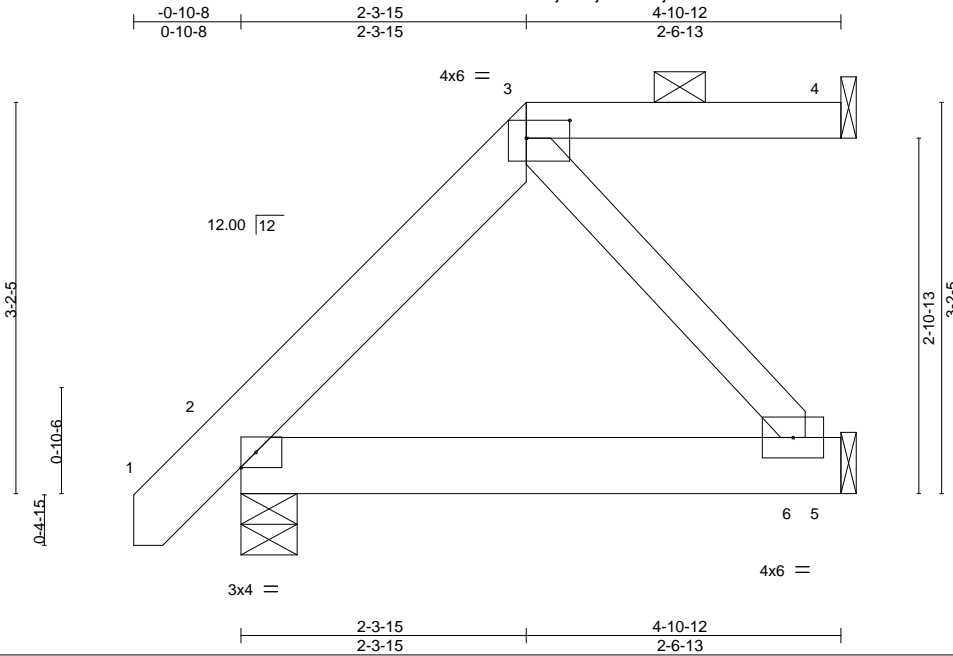


Job 654049__120mph	Truss J07	Truss Type JACK-OPEN	Qty 11	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221836
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:25 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-53?E7aUM5JbkB755ykJkGksEqAEDYIm5ygBAFzC04u



Scale = 1:18.8

Plate Offsets (X,Y)--	[3:0-4-4,0-1-12]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.01 6-9 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.01 6-9 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.00 6-9 >999 240	Weight: 31 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2 \*Except\*  
3-4: 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 4=75/Mechanical, 2=242/0-5-8, 5=115/Mechanical  
Max Horz 2=140(LC 12)  
Max Uplift 4=-41(LC 8), 2=-23(LC 12), 5=-31(LC 12)  
Max Grav 4=75(LC 1), 2=242(LC 1), 5=119(LC 3)

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

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221837
654049__120mph	J08	HALF HIP GIRDER	12	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:26 2019 Page 1  
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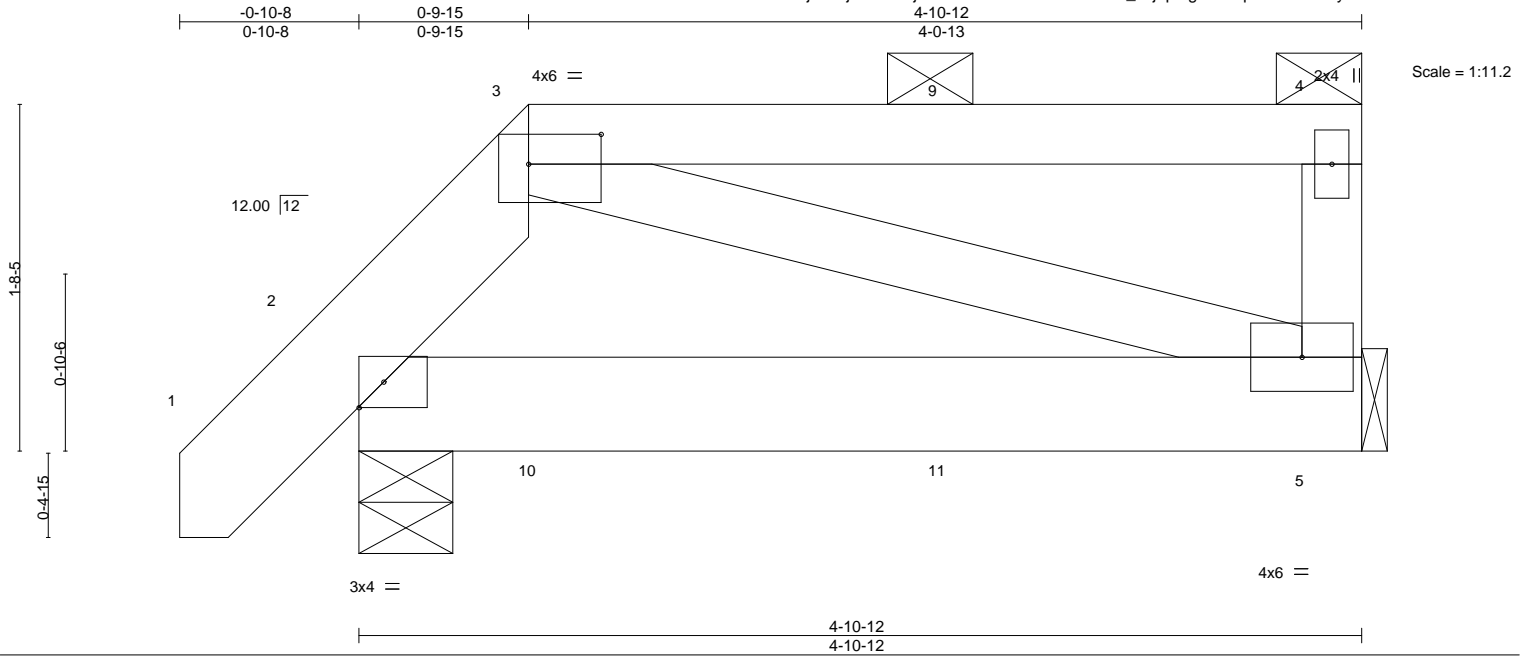


Plate Offsets (X,Y)-- [3:0-4-4,0-1-12]

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 0.33	Vert(LL)	-0.00	5-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	5-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00	5-8	>999	Weight: 31 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 3-4: 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2

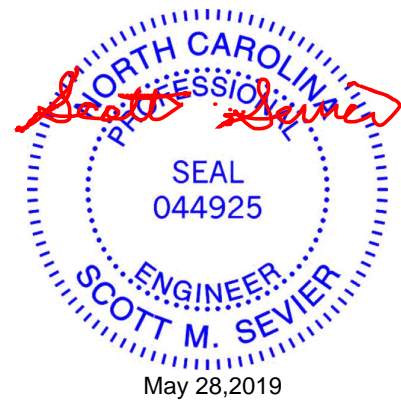
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=240/0-5-8, 5=187/Mechanical  
 Max Horz 2=73(LC 8)  
 Max Uplift 2=-52(LC 8), 5=-61(LC 5)

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

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearings are assumed to be: Joint 2 User Defined crushing capacity of 565 psi, Joint 5 User Defined crushing capacity of 425 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 52 lb down and 26 lb up at 0-9-15, and 61 lb down and 24 lb up at 2-11-8 on top chord, and 8 lb down and 11 lb up at 0-11-8, and 8 lb down and 11 lb up at 2-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 3-4=-60, 5-6=-20  
 Concentrated Loads (lb)  
 Vert: 10=-1(B) 11=-1(B)



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
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Job 654049__120mph	Truss J09	Truss Type Jack-Open	Qty 24	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221838
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:27 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-1S7?YGVcdwrSQQFU49LC05pDdetchsJ3ZG9IF7zC04s



Scale = 1:11.4

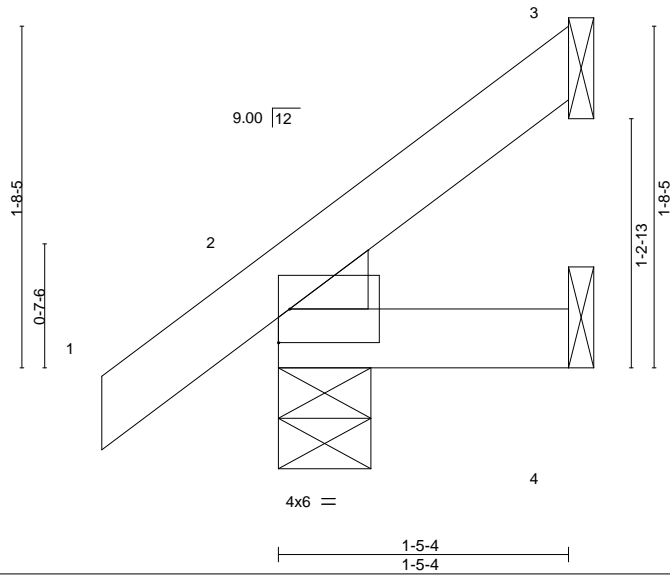


Plate Offsets (X,Y)--	[2:0-0-5,0-0-4], [2:0-3-12,0-0-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(LL) 0.00 7 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.00 7 >999 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP	Horz(CT) 0.00 3 n/a n/a		
				Weight: 7 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 1-5-4 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 3=28/Mechanical, 2=126/0-5-8, 4=13/Mechanical  
 Max Horz 2=72(LC 12)  
 Max Uplift 3=30(LC 12), 2=-18(LC 12), 4=-4(LC 12)  
 Max Grav 3=34(LC 19), 2=126(LC 1), 4=23(LC 3)

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

- NOTES-** (7)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
  - 7) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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Job 654049__120mph	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221839
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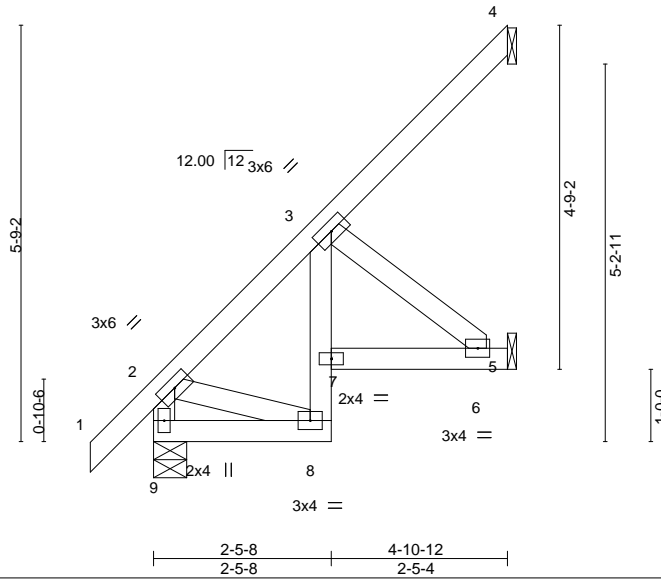
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:28 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-VehNlcWEOdzJ2agqdsRxIMNW18?QIYCnwrmZzC04r



Scale: 3/8"=1'



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	0.01	8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.01	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 31 lb	FT = 20%

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

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

**REACTIONS.** (lb/size) 9=255/0-5-8, 4=68/Mechanical, 5=112/Mechanical  
Max Horz 9=237(LC 12)  
Max Uplift 4=-86(LC 12), 5=-93(LC 12)  
Max Grav 9=255(LC 1), 4=84(LC 19), 5=139(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 8-9=-293/226  
WEBS 3-6=-296/220

- NOTES-** (8)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
  - 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.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss J11	Truss Type Jack-Open	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221840
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:29 2019 Page 1

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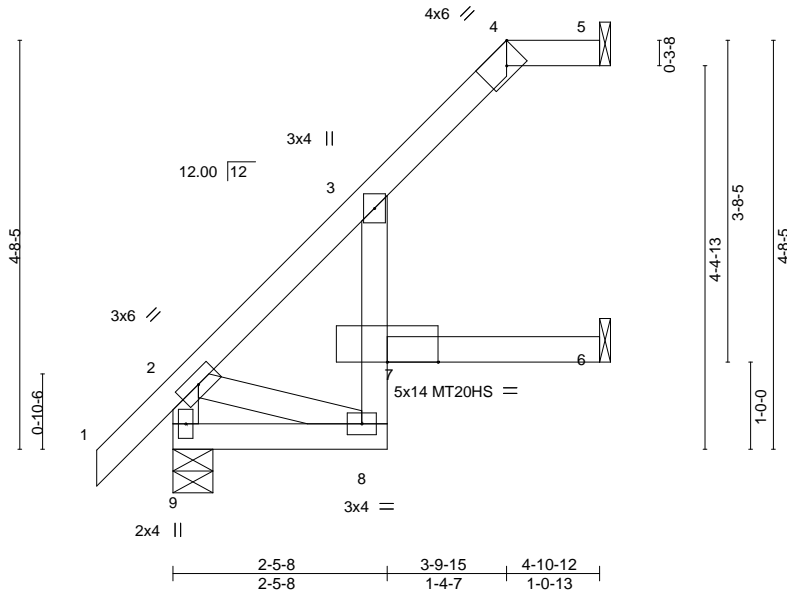


Plate Offsets (X,Y)--	[4:0-2-8,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.06	6-7	>883	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.05	6-7	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.07	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS							
									Weight: 27 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SP No.2	BOT CHORD	2-0-0 oc purlins: 4-5.
WEBS	2x4 SP No.3		Rigid ceiling directly applied.

**REACTIONS.** (lb/size) 9=255/0-5-8, 5=104/Mechanical, 6=77/Mechanical  
 Max Horz 9=195(LC 12)  
 Max Uplift 5=-75(LC 12), 6=-43(LC 12)  
 Max Grav 9=255(LC 1), 5=104(LC 1), 6=88(LC 19)

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

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
  - 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.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

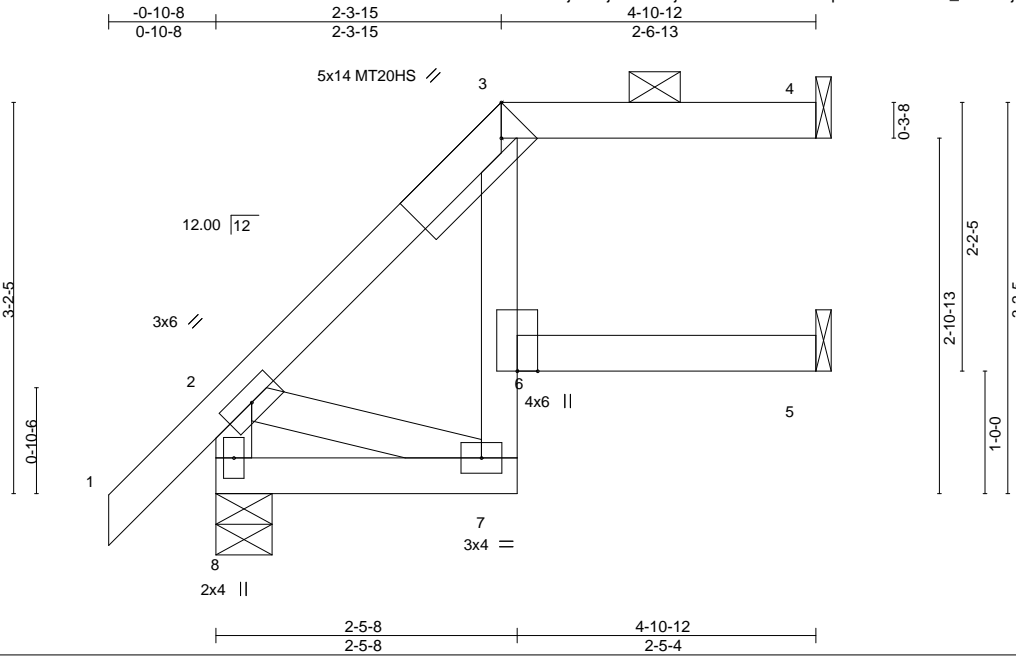


Job 654049__120mph	Truss J12	Truss Type Jack-Open	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221841
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:30 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-R1p7AIYUwrD1Hu\_3IHuvOjRh4rqJuDhVFE0yrSzC04p



Scale = 1:18.8

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0 1.15	TC 0.24	Vert(LL) -0.02 5-6 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.29	Vert(CT) -0.04 5-6 >999 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.05 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Wind(LL) 0.03 5-6 >999 240		
				Weight: 26 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 8=255/0-5-8, 4=108/Mechanical, 5=73/Mechanical  
 Max Horz 8=128(LC 12)  
 Max Uplift 8=-27(LC 12), 4=-51(LC 9), 5=-15(LC 12)  
 Max Grav 8=255(LC 1), 4=108(LC 1), 5=82(LC 3)

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

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4, 5.
  - 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.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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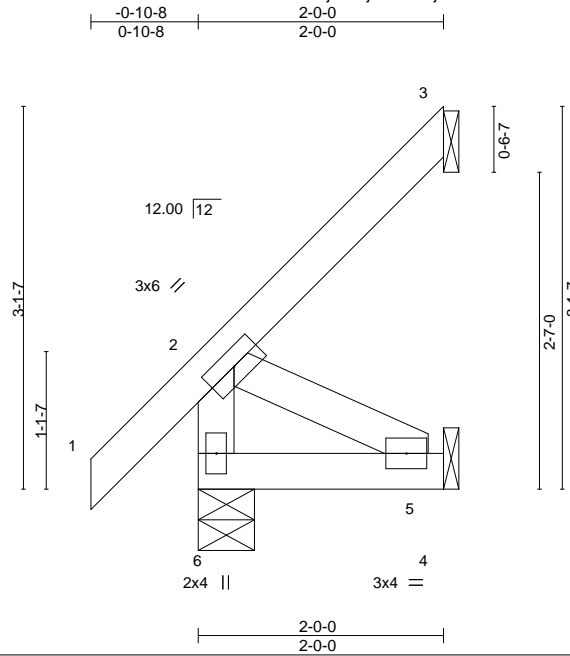
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss J13	Truss Type Jack-Open	Qty 5	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221842
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:31 2019 Page 1

ID: XOjtQcFjQu8X?XjGN5R0bmzVOFF-vDNW0dY6h8Luv2ZFJ?P8ZxutFESdgUFTu7V0uzC04o



Scale = 1:18.8

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 0.10	Vert(LL)	-0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	5-6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.00	6	>999		
								Weight: 13 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2 \*Except\*  
 2-5: 2x4 SP No.3

**BRACING-**

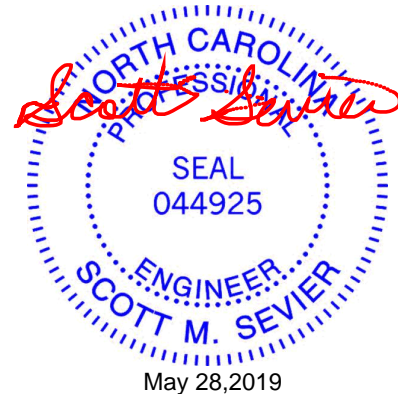
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 6=152/0-5-8, 3=38/Mechanical, 4=18/Mechanical  
 Max Horz 6=107(LC 12)  
 Max Uplift 3=-53(LC 12), 4=-45(LC 12)  
 Max Grav 6=152(LC 1), 3=50(LC 19), 4=45(LC 10)

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

**NOTES-** (6)

- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 3, 4.
- 6) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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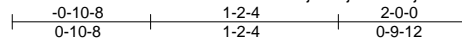
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss J14	Truss Type Half Hip	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221843
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:32 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-OQwubzZISSTIXB8RsixN58W2Lfz1M7YoiYt2wLzC04n



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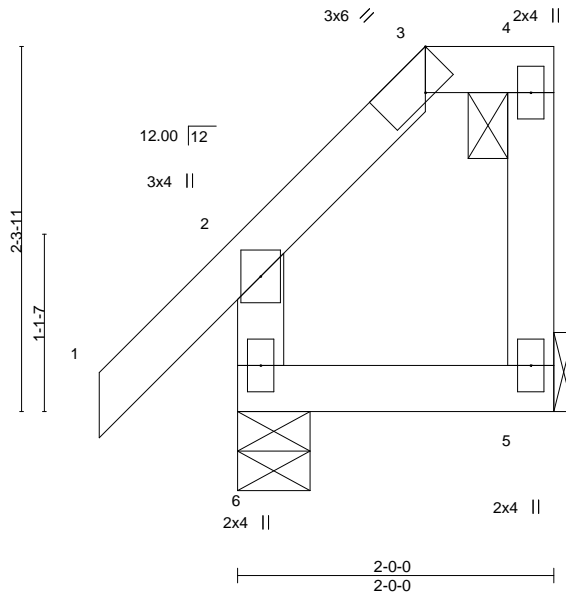


Plate Offsets (X,Y)--	[3:0-2-8,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL) -0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT) -0.00	6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR	Wind(LL) 0.00	6	>999		
							Weight: 13 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
4-5: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=50/Mechanical, 6=148/0-5-8  
Max Horz 6=105(LC 11)  
Max Uplift 5=-65(LC 9), 6=-28(LC 12)  
Max Grav 5=62(LC 19), 6=148(LC 1)

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

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearings are assumed to be: Joint 6 User Defined crushing capacity of 565 psi.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

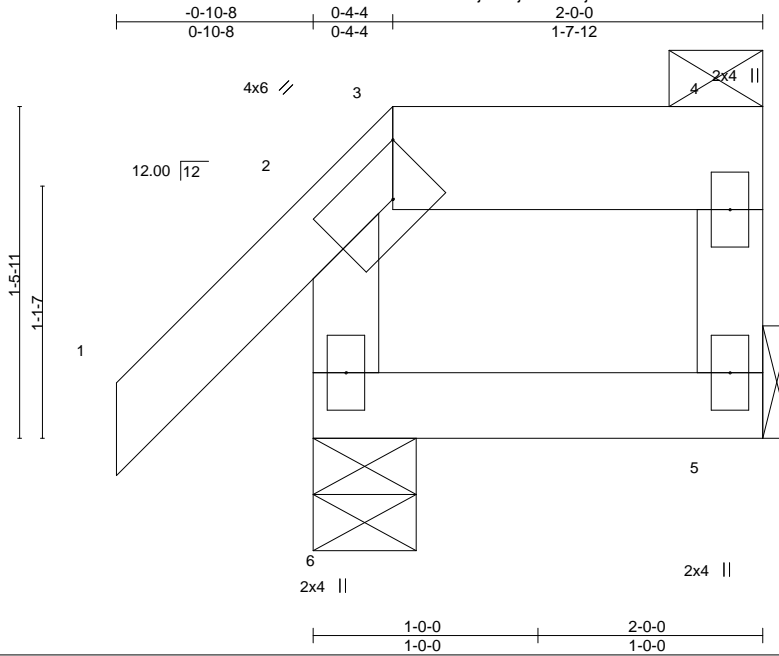


Job 654049__120mph	Truss J15	Truss Type Half Hip	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221844
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:33 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-scUGoJaNDmbc8LieQPScem3DN2w25aoyxCccSnzC04m



Scale = 1:10.2

Plate Offsets (X,Y)--	[2:0-2-8,0-0-0], [3:0-2-4,Edge], [3:0-1-12,0-1-12]
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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 0.10	Vert(LL)	-0.00	6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	6	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR	Wind(LL)	0.00	6	>999	Weight: 12 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 3-4: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 4-5: 2x4 SP No.3	

**REACTIONS.** (lb/size) 5=50/Mechanical, 6=140/0-5-8  
 Max Horz 6=66(LC 11)  
 Max Uplift 5=-33(LC 9), 6=-36(LC 12)  
 Max Grav 5=62(LC 24), 6=140(LC 1)

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

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 1-10-4 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearings are assumed to be: Joint 6 User Defined crushing capacity of 565 psi.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



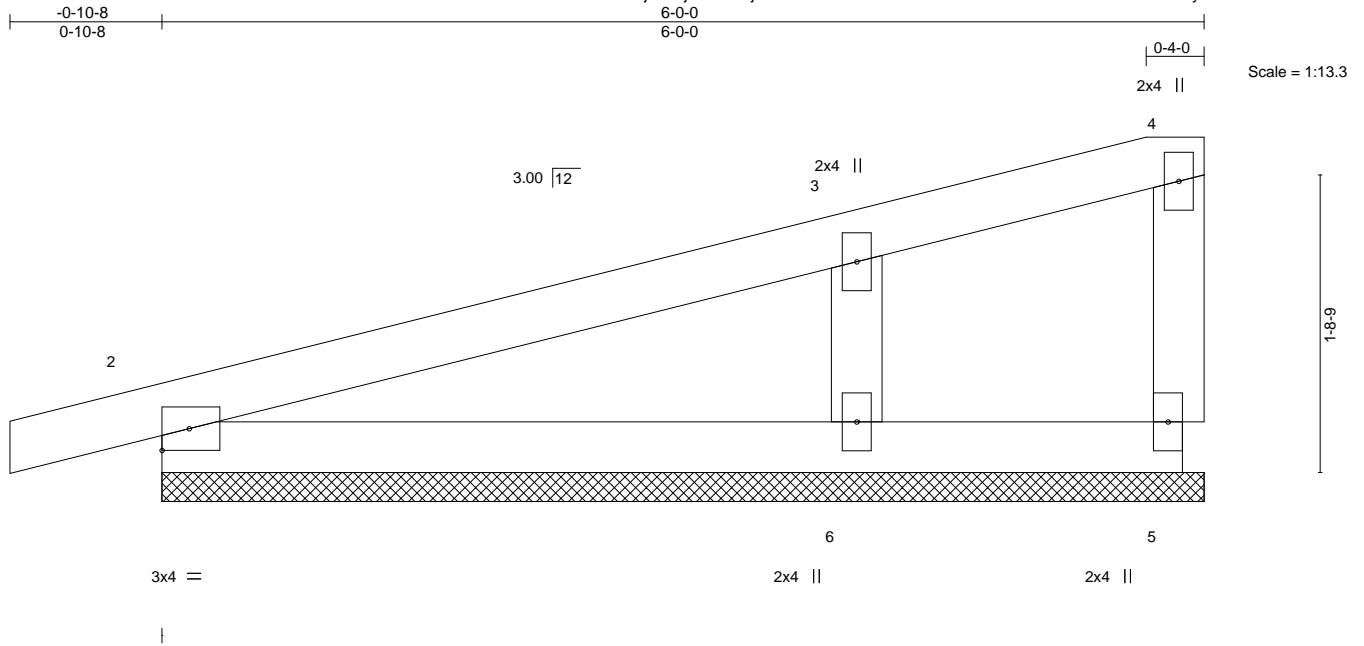
May 28, 2019

Job 654049__120mph	Truss J21	Truss Type GABLE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221845
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:33 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-scUGoJaNDmbc8LieQPScM3C62vZ5ZiyxCccSznC04m



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 0.19	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 23 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=14/6-0-0, 2=190/6-0-0, 6=317/6-0-0  
 Max Horz 2=79(LC 11)  
 Max Uplift 5=-5(LC 9), 2=-71(LC 8), 6=-94(LC 12)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221846
654049__120mph	J22	Monopitch	10	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:34 2019 Page 1

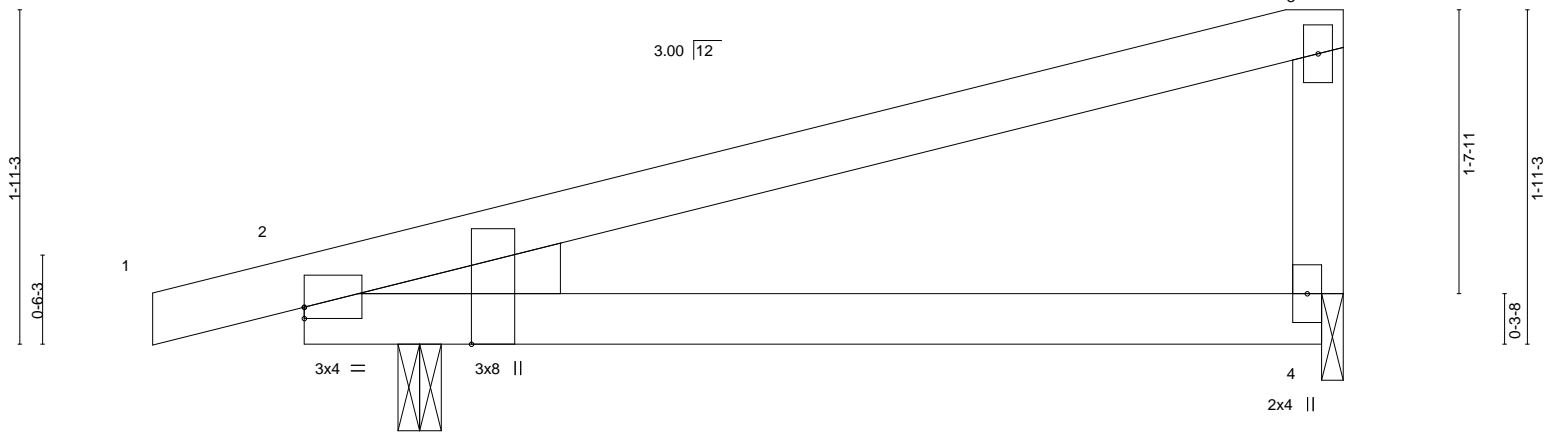
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-0-10-8  
0-10-8

6-0-0  
6-0-0

0-4-0  
2x4 ||

Scale = 1:13.3



0-6-8  
0-6-8

6-0-0  
5-5-8

Plate Offsets (X,Y)-- [2:0-0-0,0-0-12], [2:0-2-9,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(LL) 0.10 4-9 >733 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.07 4-9 >999 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Horz(CT) -0.01 2 n/a n/a		
				Weight: 23 lb	FT = 20%

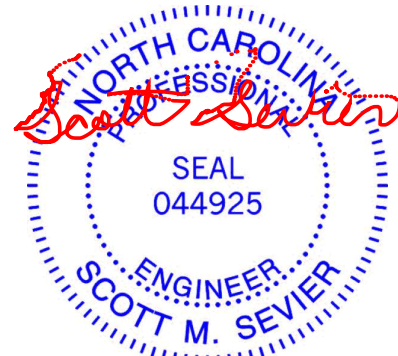
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

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

**REACTIONS.** (lb/size) 2=320/0-3-0, 4=201/0-1-8  
Max Horz 2=78(LC 8)  
Max Uplift 2=-171(LC 8), 4=-114(LC 8)

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

- NOTES-** (9)
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=171, 4=114.
  - 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.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221847
654049__120mph	J23	Monopitch	6	1		

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:35 2019 Page 1

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Job Reference (optional)



Scale = 1:12.1

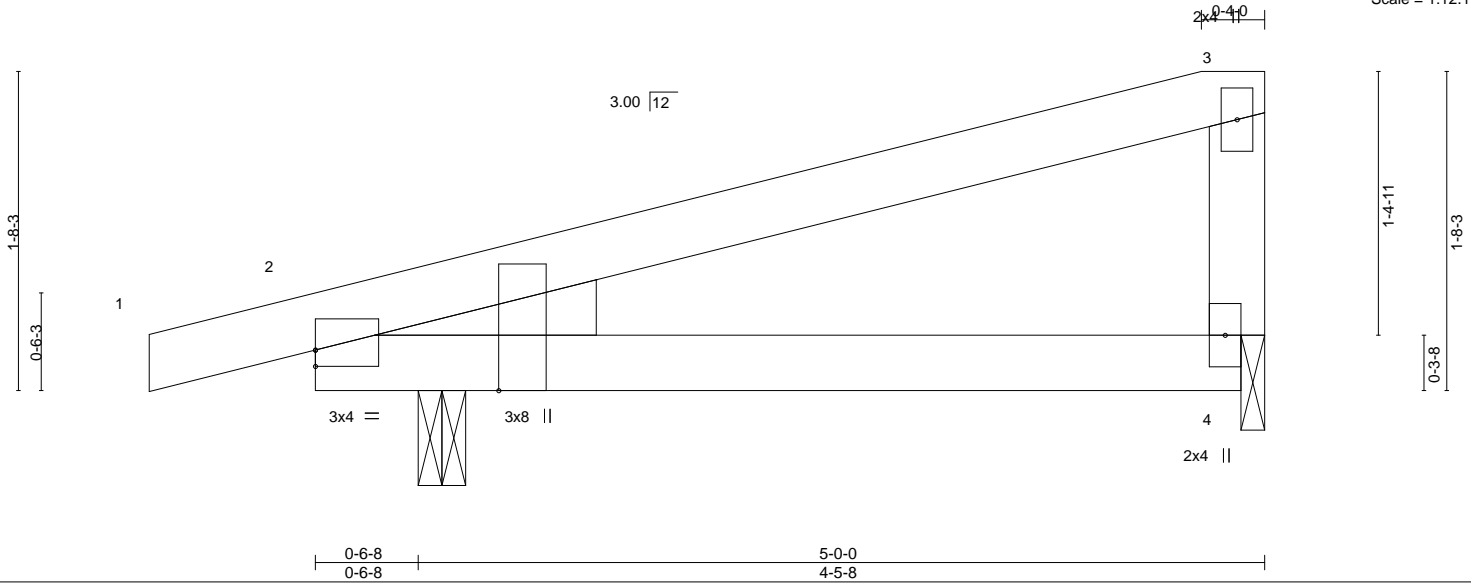


Plate Offsets (X,Y)--	[2:0-0-0,0-1-0], [2:0-2-9,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	0.04	4-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.03	4-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 20 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.2	
WEDGE	
Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=283/0-3-0, 4=158/0-1-8  
 Max Horz 2=67(LC 8)  
 Max Uplift 2=-154(LC 8), 4=-90(LC 8)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) All bearings are assumed to be User Defined crushing capacity of 425 psi.
  - 5) 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.
  - 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=154.
  - 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.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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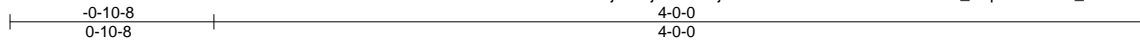
818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss J24	Truss Type GABLE	Qty 1	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221848
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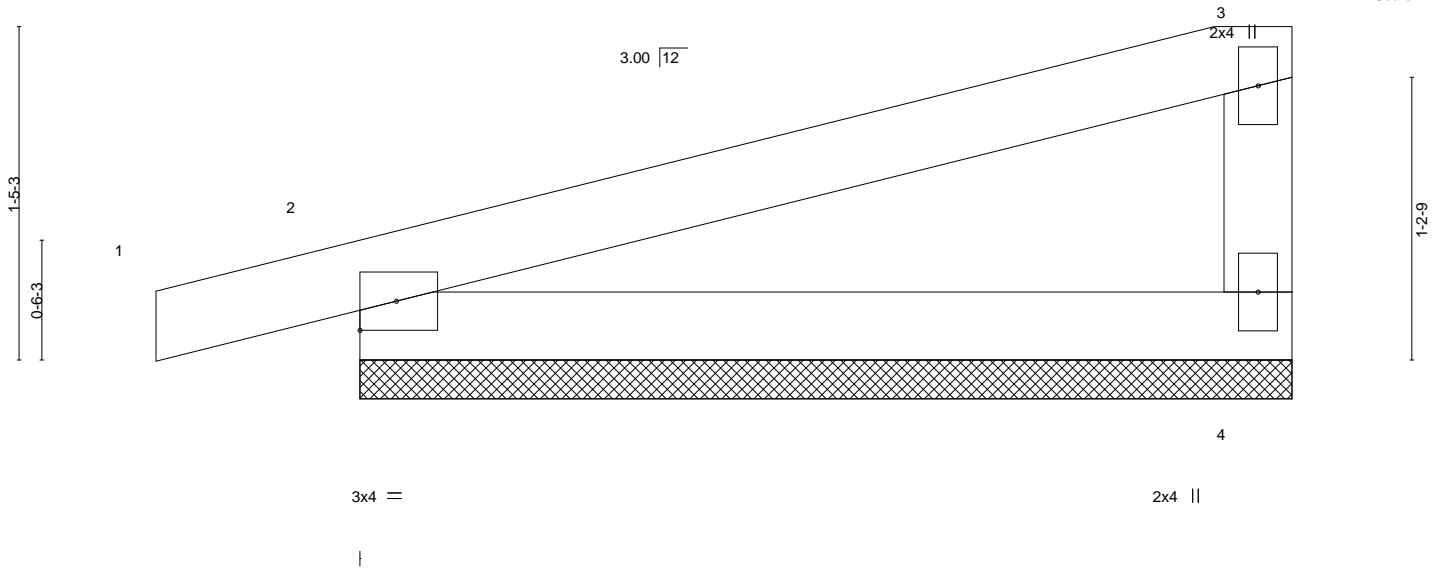
Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:36 2019 Page 1

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Scale = 1:9.9



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 0.25	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P							
									Weight: 15 lb	FT = 20%

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

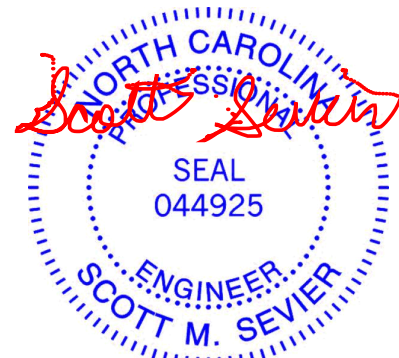
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 4=148/4-0-0, 2=213/4-0-0  
 Max Horz 2=55(LC 9)  
 Max Uplift 4=41(LC 12), 2=-82(LC 8)

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

**NOTES-** (9)

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

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Job 654049__120mph	Truss PB01	Truss Type GABLE	Qty 6	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221849
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:37 2019 Page 1

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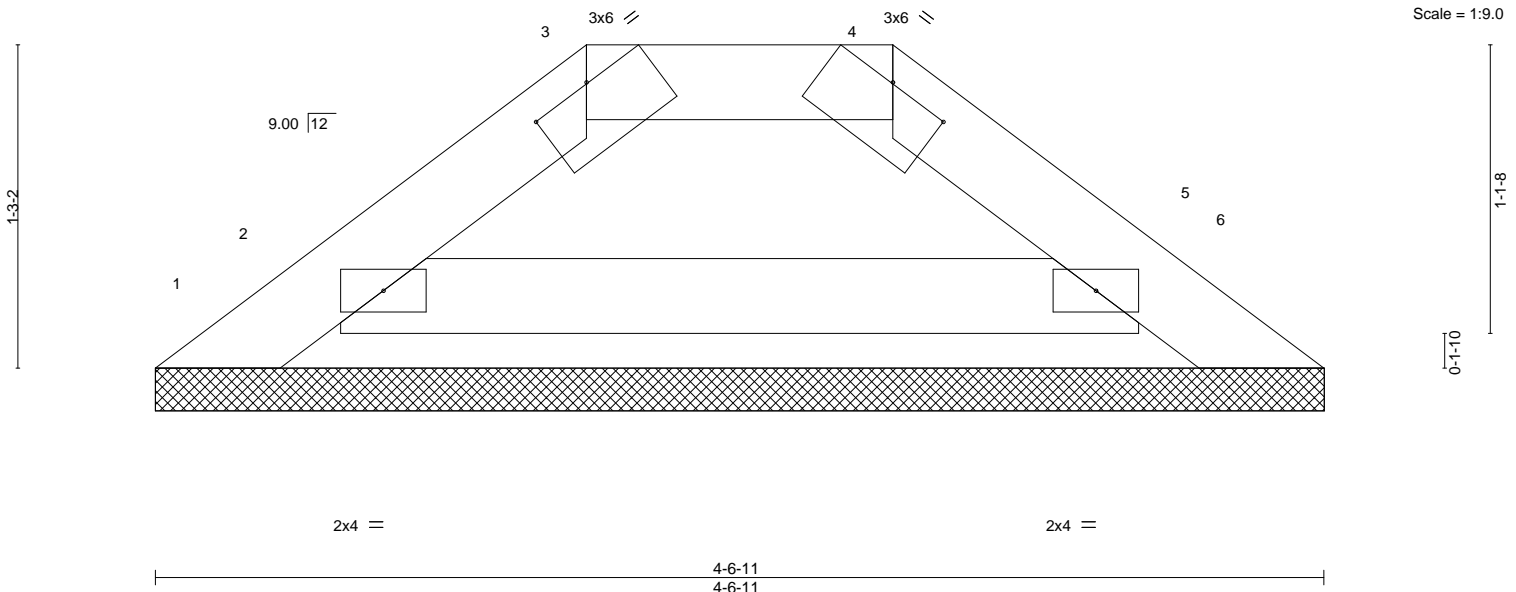
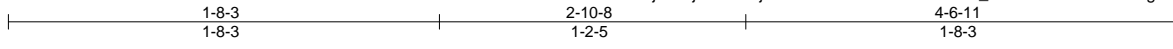


Plate Offsets (X,Y)--	[3:0-3-0,0-0-1], [4:0-3-0,0-0-1]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.04	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R	Horz(CT) 0.00 6 n/a n/a		
				Weight: 13 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2		TOP CHORD	Structural wood sheathing directly applied or 4-6-11 oc purlins, except
BOT CHORD 2x4 SP No.2		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=-11/4-6-11, 6=-11/4-6-11, 2=175/4-6-11, 5=175/4-6-11  
 Max Horz 1=-32(LC 10)  
 Max Uplift 1=-32(LC 10), 6=-25(LC 3), 2=-37(LC 12), 5=-23(LC 13)  
 Max Grav 1=20(LC 9), 2=175(LC 1), 5=175(LC 1)

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

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 2, 5.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

Job 654049__120mph	Truss PB02	Truss Type GABLE	Qty 159	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221850
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:38 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-CaI9s1eV1IEuF7bbDz1nLPm583cxmq1h4UKN8\_zC04h



Scale = 1:11.3

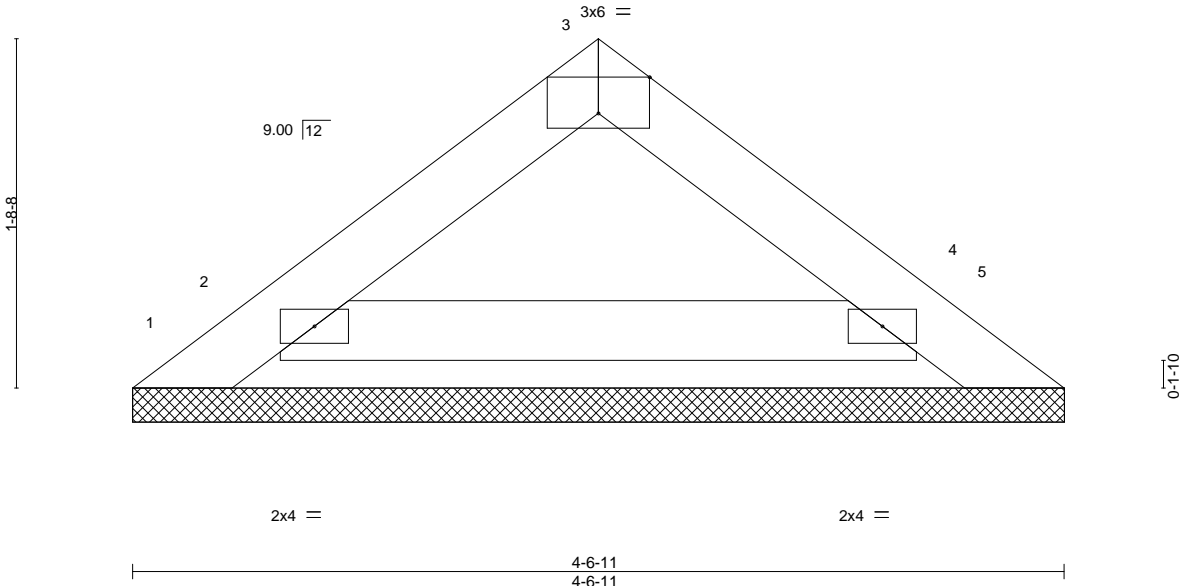


Plate Offsets (X,Y)--	[3:0-3-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 13 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-6-11.  
 (lb) - Max Horz 1=43(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4

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

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

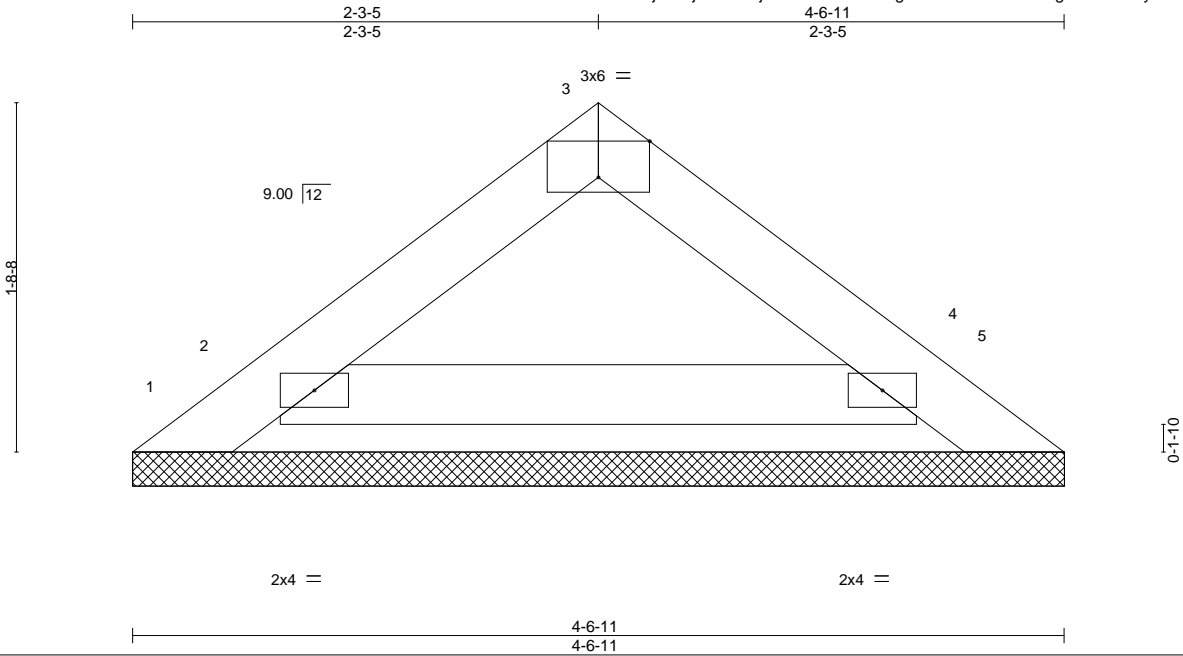


818 Soundside Road  
 Edenton, NC 27932

Job 654049__120mph	Truss PB03	Truss Type GABLE	Qty 10	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221851
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:39 2019 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-gmrX3Mf8ocMitGANngZ0udJGuTyAVHHqJ83wgRzC04g



Scale = 1:11.3

Plate Offsets (X,Y)--	[3:0-3:0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 13 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-6-11.  
(lb) - Max Horz 1=43(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4

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

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - All bearings are assumed to be User Defined crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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Edenton, NC 27932

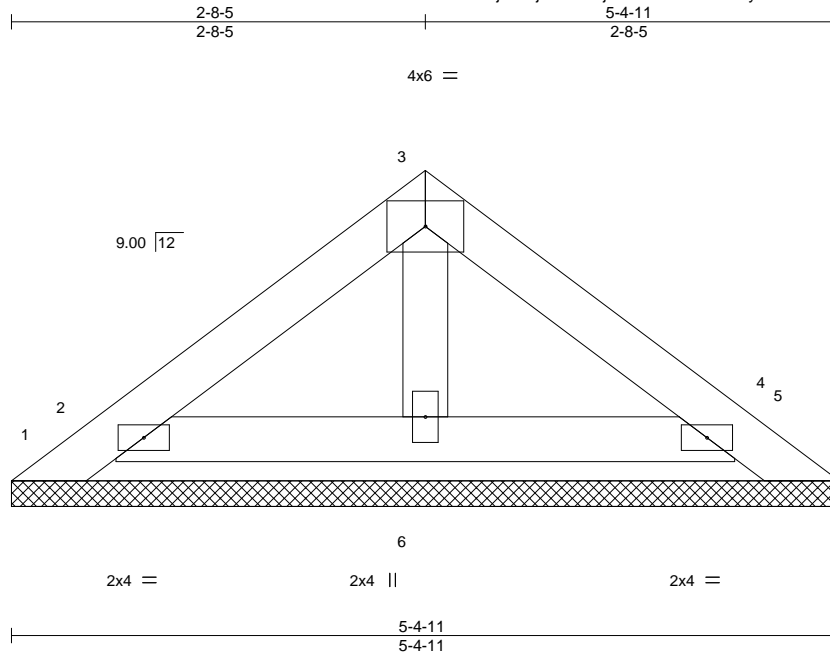


Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221852
654049__120mph	PB04	GABLE	24	1		
Job Reference (optional)						

Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:40 2019 Page 1

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Scale = 1:15.0

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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 18 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 5-4-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-4-11.  
 (lb) - Max Horz 1=52(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 4 except 2=115(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

**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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 4 except (jt=lb) 2=115.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

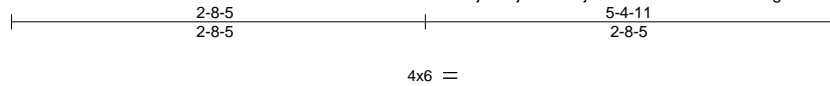
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



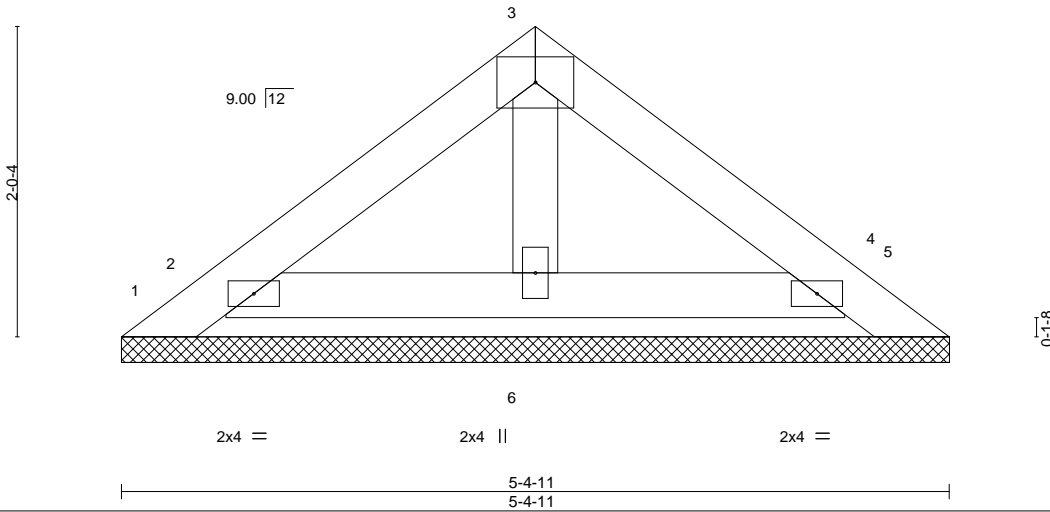
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H/Wilmington/	137221853
654049__120mph	PB05	GABLE	2	1		
Builders FirstSource, Sumter, SC - 29153,						Job Reference (optional)

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:41 2019 Page 1  
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Scale = 1:15.0



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 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 18 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 5-4-11 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-4-11.  
 (lb) - Max Horz 1=52(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 4 except 2=115(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4, 6

**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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 4 except (jt=lb) 2=115.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 28, 2019

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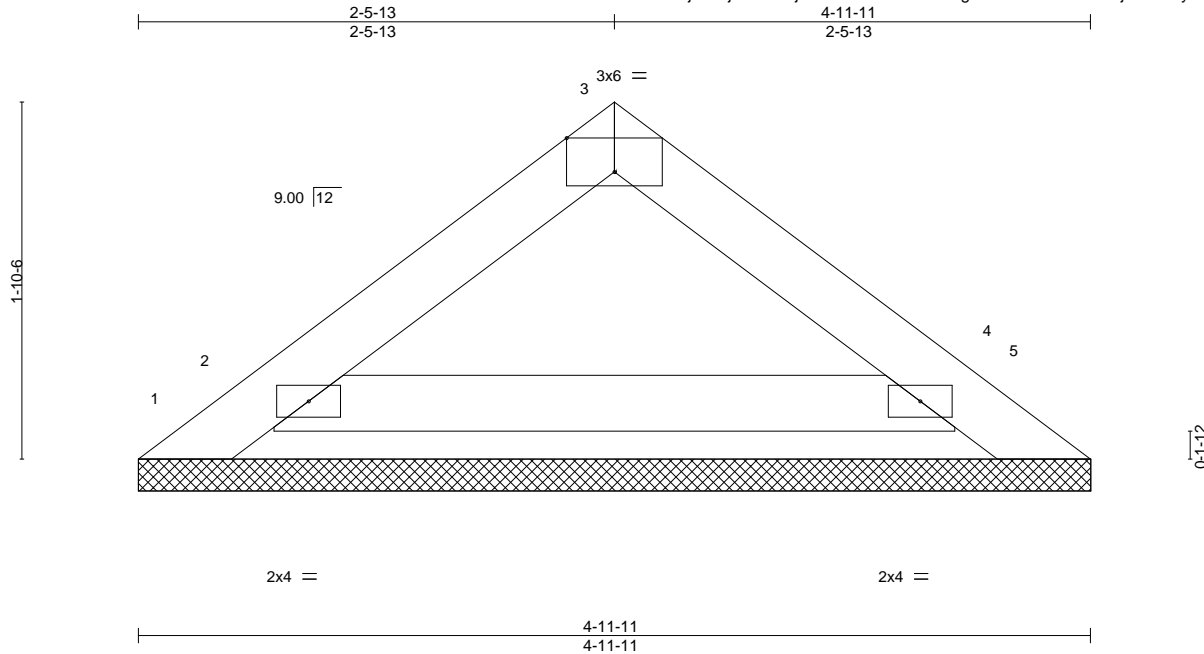


818 Soundside Road  
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Job 654049__120mph	Truss PB06	Truss Type GABLE	Qty 24	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221854
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:42 2019 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-5LXghOh05XkKkkuMS06jVFXnxhyHie0G?6laHlzC04d



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 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-11-11.  
(lb) - Max Horz 1=-48(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4

**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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be User Defined crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 28, 2019

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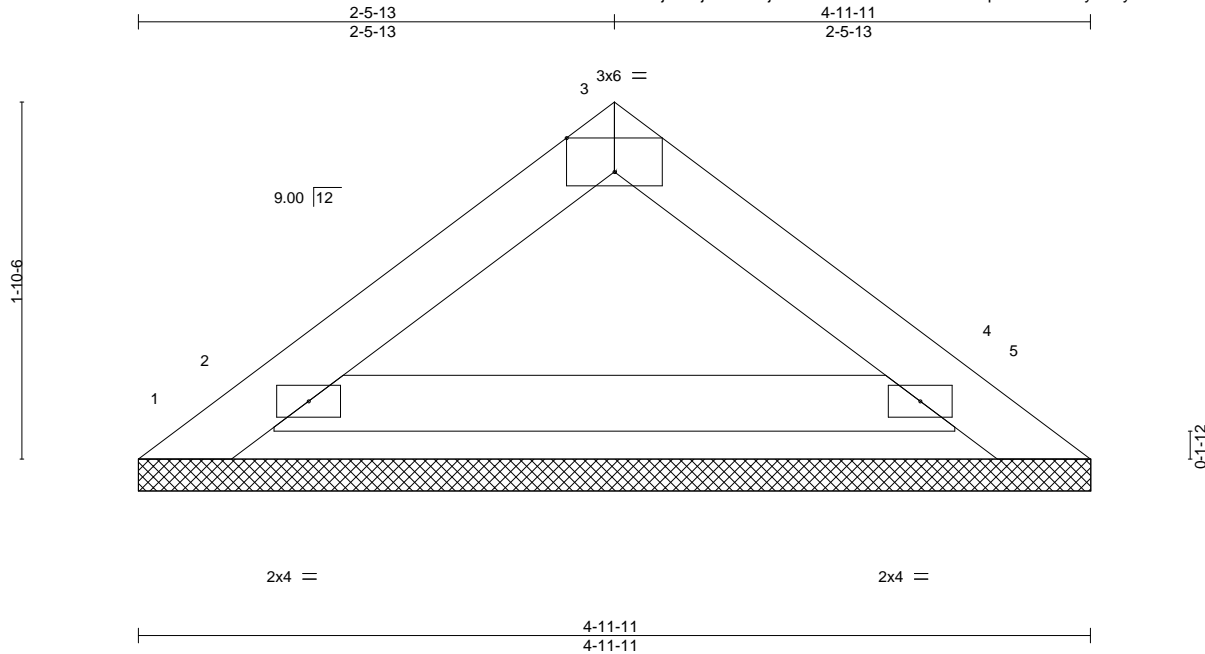
818 Soundside Road  
Edenton, NC 27932

Job 654049__120mph	Truss PB07	Truss Type GABLE	Qty 2	Ply 1	H&H/Wilmington/ Job Reference (optional)	137221855
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Builders FirstSource, Sumter, SC - 29153,

8.240 s May 13 2019 MiTek Industries, Inc. Tue May 28 09:29:43 2019 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-ZX52vkiesqsBLuTZ0Wdy2TTyh4IWR5GQEm18pCzC04c



Scale: 1"=1'

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 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 15 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 4-11-11.  
(lb) - Max Horz 1=-48(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4

**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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



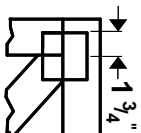
May 28, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

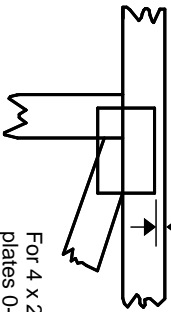
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/8" from outside edge of truss.



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

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

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING



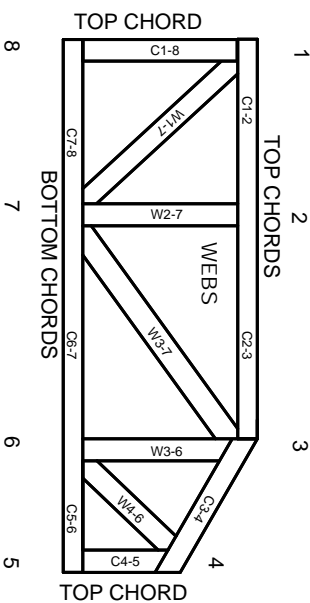
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# General Safety Notes

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

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