

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: Master\_RT  
Lexington; 1; Master.RT

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I49286327 thru I49286367

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



December 17,2021

Sevier, Scott

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

Job MASTER_RT	Truss A02	Truss Type COMMON	Qty 99	Ply 1	Lexington; 1; Master.RT	149286327
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:06 2021 Page 1  
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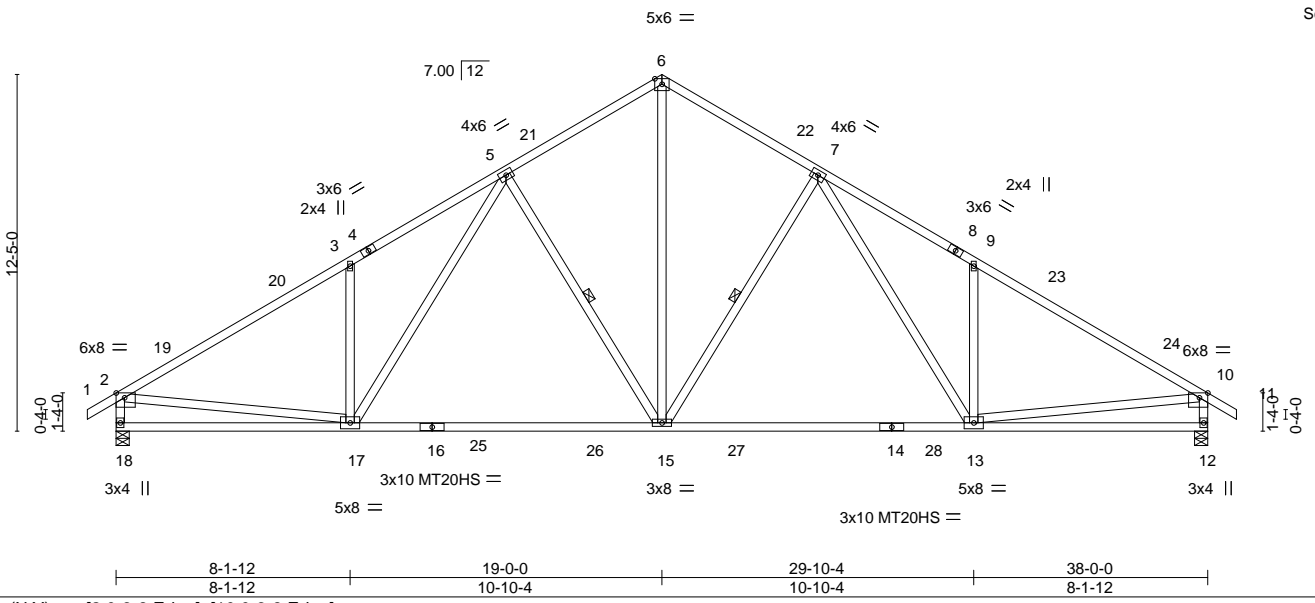
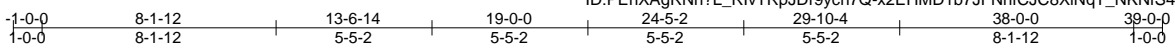


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [10:0-3-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.89	Vert(LL) -0.37 13-15 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.63	Vert(CT) -0.61 13-15 >740 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 12 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 15-17 >999 240	Weight: 246 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-4,8-11: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 16-18: 2x4 SP No.1, 14-16: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-18,10-12: 2x4 SP No.2	WEBS 1 Row at midpt 7-15, 5-15

**REACTIONS.** (size) 18=0-5-8, 12=0-5-8  
 Max Horz 18=262(LC 10)  
 Max Grav 18=1619(LC 19), 12=1619(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-18=-1563/101, 2-3=-2200/62, 3-5=-2202/165, 5-6=-1573/159, 6-7=-1573/159,  
 7-9=-2200/166, 9-10=-2198/63, 10-12=-1562/102  
 BOT CHORD 17-18=-250/489, 15-17=0/1663, 13-15=0/1569, 12-13=-89/318  
 WEBS 6-15=-65/1238, 7-15=-557/123, 7-13=-74/573, 9-13=-414/148, 10-13=0/1564,  
 5-15=-558/123, 5-17=-74/576, 3-17=-414/148, 2-17=0/1559

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 19-0-0, Exterior(2) 19-0-0 to 23-2-15, Interior(1) 23-2-15 to 38-11-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.

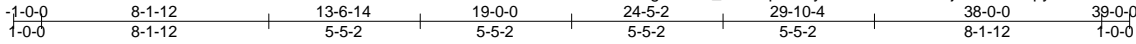


December 17, 2021

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286328
MASTER_RT	A02H	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8:430 s Oct 22 2021 MITek Industries, Inc. Thu Dec 16 14:41:34 2021 Page 1  
 ID:PEhXAgRnh?L\_RivTRpJD99ycn7Q-lxvMkTEZhjA43Rh0eJpyAPTQhb1ewf3qn0DVg7y8MQ?



5x6 =

Scale = 1:82.6

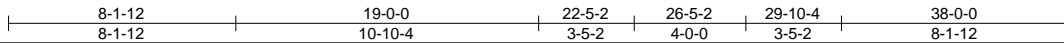
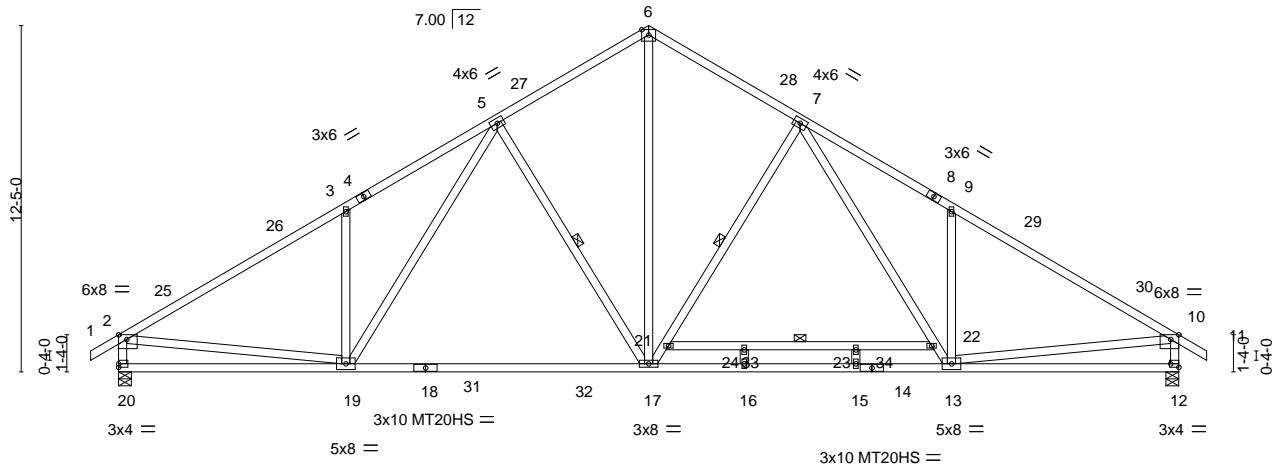


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [10:0-3-8,Edge], [12:Edge,0-1-8]

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 0.71	Vert(LL)	-0.47	15-16	>966	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.66	15-16	>686	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.72	Horz(CT)	0.05	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05	17-19	>999		
								Weight: 261 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-4,8-11: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 *Except* 14-18: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-20,10-12,21-22: 2x4 SP No.2	WEBS 1 Row at midpt 7-17, 5-17, 21-22

**REACTIONS.** (size) 20=0-5-8, 12=0-5-8  
 Max Horz 20=-262(LC 10)  
 Max Grav 20=1617(LC 19), 12=1616(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-20=-1563/101, 2-25=-2199/18, 25-26=-2094/38, 3-26=-2052/62, 3-4=-2201/135,  
 4-5=-2185/165, 5-27=-1566/131, 6-27=-1497/160, 6-28=-1497/160, 7-28=-1566/131,  
 7-8=-2168/168, 8-9=-2184/138, 9-29=-2035/65, 29-30=-2077/41, 10-30=-2182/21,  
 10-12=-1550/103  
 BOT CHORD 19-20=-251/486, 19-31=0/1659, 18-31=0/1659, 18-32=0/1659, 17-32=0/1659,  
 16-17=0/1573, 15-16=0/1573, 14-15=0/1573, 13-14=0/1573, 12-13=-88/326  
 WEBS 6-17=-66/1231, 17-21=-575/119, 7-21=-553/123, 7-22=-76/564, 13-22=-82/517,  
 9-13=-414/148, 10-13=0/1534, 5-17=-562/122, 5-19=-72/583, 3-19=-414/148,  
 2-19=0/1561

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 19-0-0, Exterior(2) 19-0-0 to 23-2-15, Interior(1) 23-2-15 to 38-11-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) All plates are 2x4 MT20 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 BC DL = 10.0psf.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) N/A

9) 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)**



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Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286328
MASTER_RT	A02H	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:41:34 2021 Page 2  
ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-ixvMkTEZjA43Rh0eJpyAPTQhb1ewf3qn0DVg7y8MQ?

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-6=-60, 6-10=-60, 10-11=-60, 12-20=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-6=-50, 6-10=-50, 10-11=-50, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-6=-20, 6-10=-20, 10-11=-20, 12-20=-40, 33-34=-40(F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=32, 2-25=17, 6-25=12, 6-28=17, 10-28=12, 10-11=8, 12-20=-12  
Horz: 2-20=13, 1-2=-44, 2-25=-29, 6-25=-24, 6-28=29, 10-28=24, 10-11=20, 10-12=24
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=8, 2-27=12, 6-27=17, 6-30=12, 10-30=17, 10-11=32, 12-20=-12  
Horz: 2-20=-24, 1-2=-20, 2-27=-24, 6-27=-29, 6-30=24, 10-30=29, 10-11=44, 10-12=-13
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-0, 2-6=-44, 6-10=-44, 10-11=-40, 12-20=-20  
Horz: 2-20=-15, 1-2=-20, 2-6=24, 6-10=-24, 10-11=-20, 10-12=-22
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-6=-44, 6-10=-44, 10-11=-0, 12-20=-20  
Horz: 2-20=22, 1-2=20, 2-6=24, 6-10=-24, 10-11=20, 10-12=15
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-4, 2-6=-14, 6-10=5, 10-11=1, 12-20=-12  
Horz: 2-20=13, 1-2=-8, 2-6=2, 6-10=17, 10-11=13, 10-12=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=1, 2-6=5, 6-10=-14, 10-11=-4, 12-20=-12  
Horz: 2-20=-16, 1-2=-13, 2-6=-17, 6-10=-2, 10-11=8, 10-12=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-27, 2-6=-31, 6-10=-11, 10-11=-7, 12-20=-20  
Horz: 2-20=21, 1-2=7, 2-6=11, 6-10=9, 10-11=13, 10-12=7
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-7, 2-6=-11, 6-10=-31, 10-11=-27, 12-20=-20  
Horz: 2-20=7, 1-2=-13, 2-6=-9, 6-10=-11, 10-11=-7, 10-12=-21
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-26=19, 6-26=9, 6-10=2, 10-11=-3, 12-20=-12  
Horz: 2-20=11, 1-2=-26, 2-26=-31, 6-26=-21, 6-10=14, 10-11=9, 10-12=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-3, 2-6=2, 6-29=9, 10-29=19, 10-11=14, 12-20=-12  
Horz: 2-20=-12, 1-2=-9, 2-6=-14, 6-29=21, 10-29=31, 10-11=26, 10-12=-11
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=5, 2-6=9, 6-10=2, 10-11=-3, 12-20=-12  
Horz: 2-20=5, 1-2=-17, 2-6=-21, 6-10=14, 10-11=9, 10-12=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-3, 2-6=2, 6-10=9, 10-11=5, 12-20=-12  
Horz: 2-20=-12, 1-2=-9, 2-6=-14, 6-10=21, 10-11=17, 10-12=-5
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-26=2, 6-26=-7, 6-10=-15, 10-11=-11, 12-20=-20  
Horz: 2-20=19, 1-2=-26, 2-26=-22, 6-26=-13, 6-10=5, 10-11=9, 10-12=3
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-11, 2-6=-15, 6-29=-7, 10-29=2, 10-11=6, 12-20=-20  
Horz: 2-20=-3, 1-2=-9, 2-6=-5, 6-29=13, 10-29=22, 10-11=26, 10-12=-19
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-6=-20, 6-10=-20, 10-11=-20, 20-31=-20, 31-32=-60, 12-32=-20, 33-34=-40(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-6=-58, 6-10=-44, 10-11=-40, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)  
Horz: 2-20=16, 1-2=5, 2-6=8, 6-10=6, 10-11=10, 10-12=6
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	I49286328
MASTER_RT	A02H	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:41:34 2021 Page 3  
 ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-lxvMkTEZhjA43Rh0eJpyAPTQhb1ewf3qn0DVg7y8MQ?

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 1-2=-40, 2-6=-44, 6-10=-58, 10-11=-55, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)
  - Horz: 2-20=-6, 1-2=-10, 2-6=-6, 6-10=-8, 10-11=-5, 10-12=-16
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-30, 2-26=-34, 6-26=-41, 6-10=-46, 10-11=-43, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)
    - Horz: 2-20=15, 1-2=-20, 2-26=-16, 6-26=-9, 6-10=4, 10-11=7, 10-12=2
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-43, 2-6=-46, 6-29=-41, 10-29=-34, 10-11=-30, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)
    - Horz: 2-20=-2, 1-2=-7, 2-6=-4, 6-29=9, 10-29=16, 10-11=20, 10-12=-15
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-60, 2-6=-60, 6-10=-20, 10-11=-20, 12-20=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-60, 10-11=-60, 12-20=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-50, 2-6=-50, 6-10=-20, 10-11=-20, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-50, 10-11=-50, 20-31=-20, 31-32=-50, 12-32=-20, 33-34=-30(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss A07AH	Truss Type COMMON	Qty 99	Ply 1	Lexington; 1; Master.RT	149286329
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Builders FirstSource, Apex, NC 27523

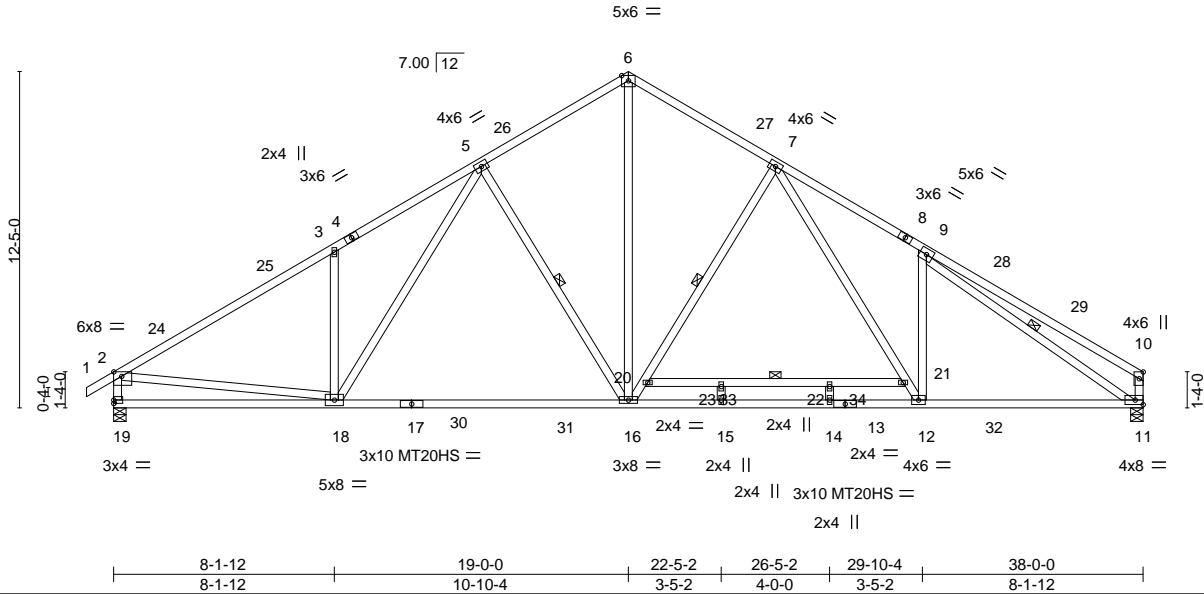
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8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:41:50 2021 Page 1

Job Reference (optional)



Scale = 1:85.0



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.48 14-15 >942 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.93	Vert(CT) -0.68 14-15 >666 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.07 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 16-18 >999 240		
				Weight: 262 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-4,8-10: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 *Except* 13-17: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-19,10-11,20-21: 2x4 SP No.2	WEBS 1 Row at midpt 7-16, 9-11, 5-16, 20-21

**REACTIONS.** (size) 19=0-5-8, 11=0-5-8  
Max Horz 19=257(LC 9)  
Max Grav 19=1631(LC 19), 11=1614(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-1578/100, 2-24=-2222/18, 24-25=-2117/38, 3-25=-2075/62, 3-4=-2224/135,  
4-5=-2208/165, 5-26=-1592/130, 6-26=-1523/160, 6-27=-1523/161, 7-27=-1592/131,  
7-8=-2263/175, 8-9=-2283/145, 9-28=-306/137, 28-29=-331/112, 10-29=-427/108,  
10-11=-388/124  
BOT CHORD 18-19=-256/481, 18-30=0/1673, 17-30=0/1673, 17-31=0/1673, 16-31=0/1673,  
15-16=0/1589, 14-15=0/1589, 13-14=0/1589, 12-13=0/1589, 12-32=0/1838, 11-32=0/1838  
WEBS 6-16=-67/1256, 16-20=-593/117, 7-20=-587/124, 7-21=-80/640, 12-21=-88/608,  
9-12=-261/185, 9-11=-2003/0, 5-16=-560/122, 5-18=-72/580, 3-18=-414/148,  
2-18=0/1581

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 19-0-0, Exterior(2) 19-0-0 to 23-2-15, Interior(1) 23-2-15 to 37-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - N/A
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



December 17, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286329
MASTER_RT	A07AH	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:41:50 2021 Page 2  
ID:PEhXAgRNh?L\_RlVtrpJDr9ycn7Q-H0tP5xQbweBp\_uv5ag5iqn79e2U\_grkBTv5MECy8MP1

### LOAD CASE(S)

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-60, 2-6=-60, 6-10=-60, 11-19=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-50, 2-6=-50, 6-10=-50, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-6=-20, 6-10=-20, 11-19=-40, 33-34=-40(F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=32, 2-24=17, 6-24=12, 6-27=17, 10-27=12, 11-19=-12  
Horz: 2-19=13, 1-2=-44, 2-24=-29, 6-24=-24, 6-27=29, 10-27=24, 10-11=24
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=8, 2-26=12, 6-26=17, 6-29=12, 10-29=17, 11-19=-12  
Horz: 2-19=-24, 1-2=-20, 2-26=-24, 6-26=-29, 6-29=24, 10-29=29, 10-11=-13
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-0, 2-6=-44, 6-10=-44, 11-19=-20  
Horz: 2-19=-15, 1-2=-20, 2-6=24, 6-10=-24, 10-11=-22
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-6=-44, 6-10=-44, 11-19=-20  
Horz: 2-19=22, 1-2=20, 2-6=24, 6-10=-24, 10-11=15
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-4, 2-6=-14, 6-10=5, 11-19=-12  
Horz: 2-19=13, 1-2=-8, 2-6=2, 6-10=17, 10-11=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=1, 2-6=5, 6-10=-14, 11-19=-12  
Horz: 2-19=-16, 1-2=-13, 2-6=-17, 6-10=-2, 10-11=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-27, 2-6=-31, 6-10=-11, 11-19=-20  
Horz: 2-19=21, 1-2=7, 2-6=11, 6-10=9, 10-11=7
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-7, 2-6=-11, 6-10=-31, 11-19=-20  
Horz: 2-19=7, 1-2=-13, 2-6=-9, 6-10=-11, 10-11=-21
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=14, 2-25=19, 6-25=9, 6-10=2, 11-19=-12  
Horz: 2-19=11, 1-2=-26, 2-25=-31, 6-25=-21, 6-10=14, 10-11=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-3, 2-6=2, 6-28=9, 10-28=19, 11-19=-12  
Horz: 2-19=-12, 1-2=-9, 2-6=-14, 6-28=21, 10-28=31, 10-11=-11
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=5, 2-6=9, 6-10=2, 11-19=-12  
Horz: 2-19=5, 1-2=-17, 2-6=-21, 6-10=14, 10-11=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-3, 2-6=2, 6-10=9, 11-19=-12  
Horz: 2-19=-12, 1-2=-9, 2-6=-14, 6-10=21, 10-11=-5
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=6, 2-25=2, 6-25=-7, 6-10=-15, 11-19=-20  
Horz: 2-19=19, 1-2=-26, 2-25=-22, 6-25=-13, 6-10=5, 10-11=3
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-11, 2-6=-15, 6-28=-7, 10-28=2, 11-19=-20  
Horz: 2-19=-3, 1-2=-9, 2-6=-5, 6-28=13, 10-28=22, 10-11=-19
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-2=-20, 2-6=-20, 6-10=-20, 19-30=-20, 30-31=-60, 12-31=-20, 12-32=-60, 11-32=-20, 33-34=-40(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-55, 2-6=-58, 6-10=-44, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)  
Horz: 2-19=16, 1-2=5, 2-6=8, 6-10=6, 10-11=6
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	I49286329
MASTER_RT	A07AH	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:41:50 2021 Page 3  
 ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-H0tP5xQbweBp\_uv5ag5iqn79e2U\_grkBTv5MECy8MPI

**LOAD CASE(S)**

Uniform Loads (plf)

Vert: 1-2=-40, 2-6=-44, 6-10=-58, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)  
 Horz: 2-19=-6, 1-2=-10, 2-6=-6, 6-10=-8, 10-11=-16

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-30, 2-25=-34, 6-25=-41, 6-10=-46, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)  
 Horz: 2-19=15, 1-2=-20, 2-25=-16, 6-25=-9, 6-10=4, 10-11=2

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 1-2=-43, 2-6=-46, 6-28=-41, 10-28=-34, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)  
 Horz: 2-19=-2, 1-2=-7, 2-6=-4, 6-28=9, 10-28=16, 10-11=-15

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-60, 2-6=-60, 6-10=-20, 11-19=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-20, 2-6=-20, 6-10=-60, 11-19=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-50, 2-6=-50, 6-10=-20, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)

26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-20, 2-6=-20, 6-10=-50, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932



Job MASTER_RT	Truss A08G	Truss Type GABLE	Qty 99	Ply 1	Lexington; 1; Master.RT	149286330
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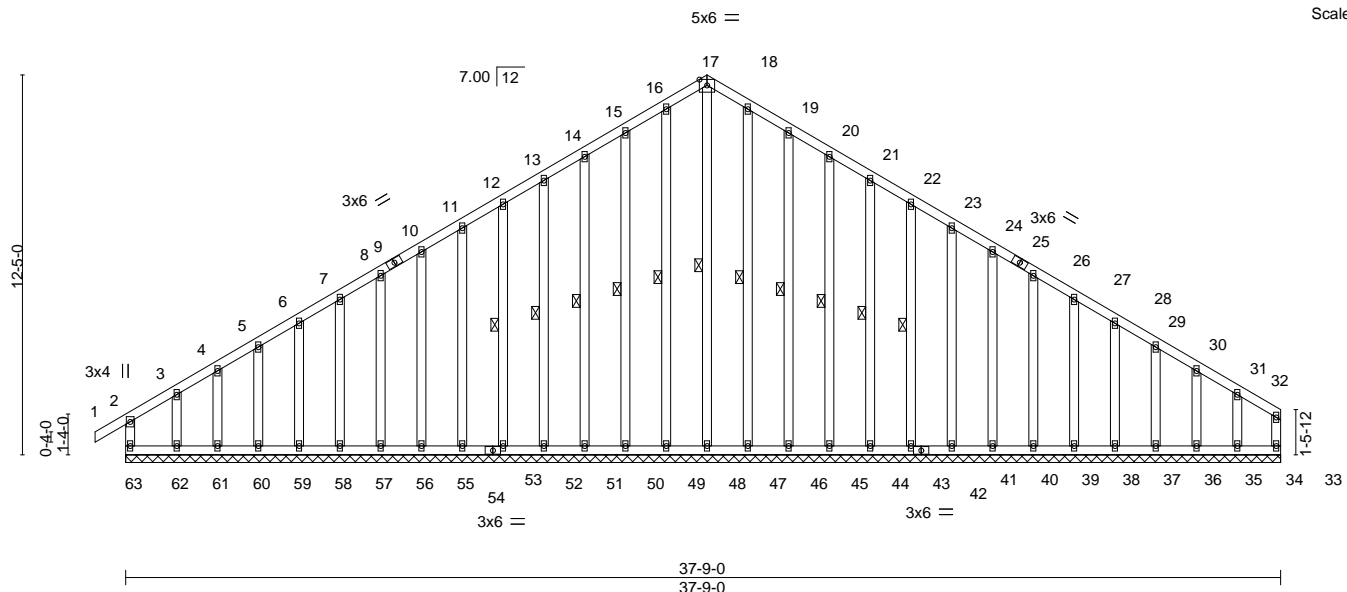
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:11 2021 Page 1

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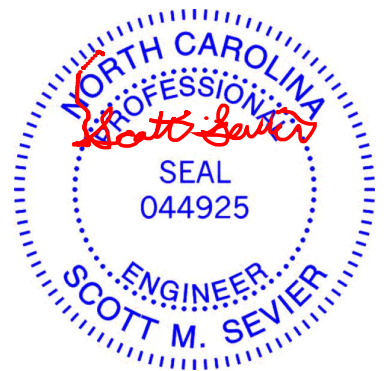
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18	Horz(CT)	0.01	33	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 392 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 end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 17-48, 16-49, 15-50, 14-51, 13-52, 12-53, 18-47, 19-46, 20-45, 21-44, 22-43
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 37-9-0.  
 (lb) - Max Horz 63=259(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 46, 45, 44, 43, 41, 40, 39, 38, 37, 36, 35 except 63=170(LC 8), 33=127(LC 11), 62=187(LC 9), 34=144(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 33, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 47, 46, 45, 44, 43, 41, 40, 39, 38, 37, 36, 35, 34 except 63=268(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 14-15=-230/276, 15-16=-257/308, 16-17=-260/313, 17-18=-260/313, 18-19=-257/308, 19-20=-230/276

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-11-15 to 2-0-1, Exterior(2) 2-0-1 to 19-0-0, Corner(3) 19-0-0 to 22-0-0, Exterior(2) 22-0-0 to 37-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 46, 45, 44, 43, 41, 40, 39, 38, 37, 36, 35 except (jt=lb) 63=170, 33=127, 62=187, 34=144.



December 17, 2021

Job MASTER_RT	Truss A09	Truss Type COMMON	Qty 99	Ply 1	Lexington; 1; Master.RT	149286331
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:12 2021 Page 1  
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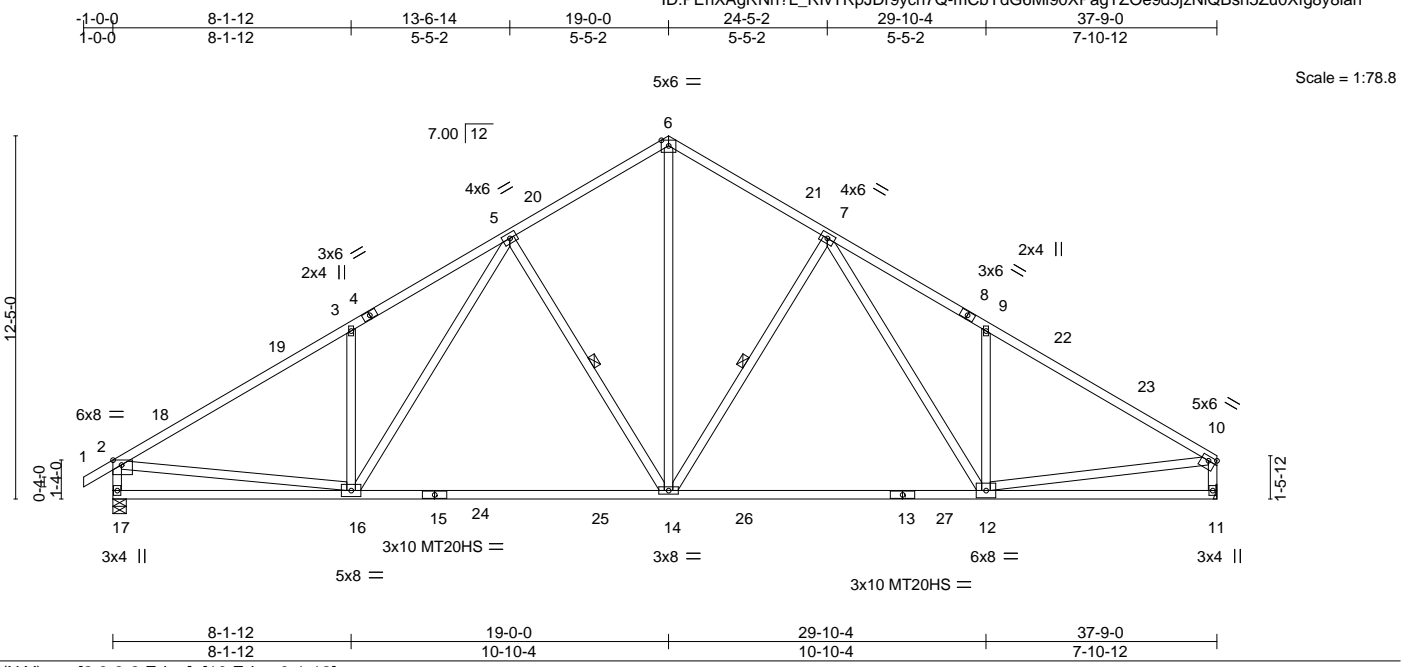


Plate Offsets (X, Y)-- [2:0-3-8,Edge], [10:Edge,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.89	Vert(LL) -0.37 12-14 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.61 12-14 >739 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 11 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.05 14-16 >999 240	Weight: 243 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 1-4,8-10: 2x4 SP No.1  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 15-17: 2x4 SP No.1, 13-15: 2x4 SP SS  
 WEBS 2x4 SP No.3 \*Except\*  
 2-17,10-11: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 7-14, 5-14

**REACTIONS.** (size) 17=0-5-8, 11=Mechanical  
 Max Horz 17=259(LC 9)  
 Max Grav 17=1610(LC 19), 11=1546(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-17=-1554/101, 2-3=-2185/62, 3-5=-2187/165, 5-6=-1556/159, 6-7=-1557/159,  
 7-9=-2152/172, 9-10=-2134/64, 10-11=-1493/68  
 BOT CHORD 16-17=-257/482, 14-16=0/1643, 12-14=0/1538  
 WEBS 6-14=-65/1220, 7-14=-535/123, 7-12=-81/540, 9-12=-435/158, 10-12=0/1621,  
 5-14=-559/123, 5-16=-74/578, 3-16=-414/148, 2-16=0/1546

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 19-0-0, Exterior(2) 19-0-0 to 23-2-15, Interior(1) 23-2-15 to 37-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Refer to girder(s) for truss to truss connections.

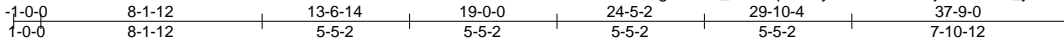


December 17, 2021

Job MASTER_RT	Truss A09H	Truss Type COMMON	Qty 99	Ply 1	Lexington; 1; Master.RT	149286332
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Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MITek Industries, Inc. Thu Dec 16 14:42:14 2021 Page 1  
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Scale = 1:84.8

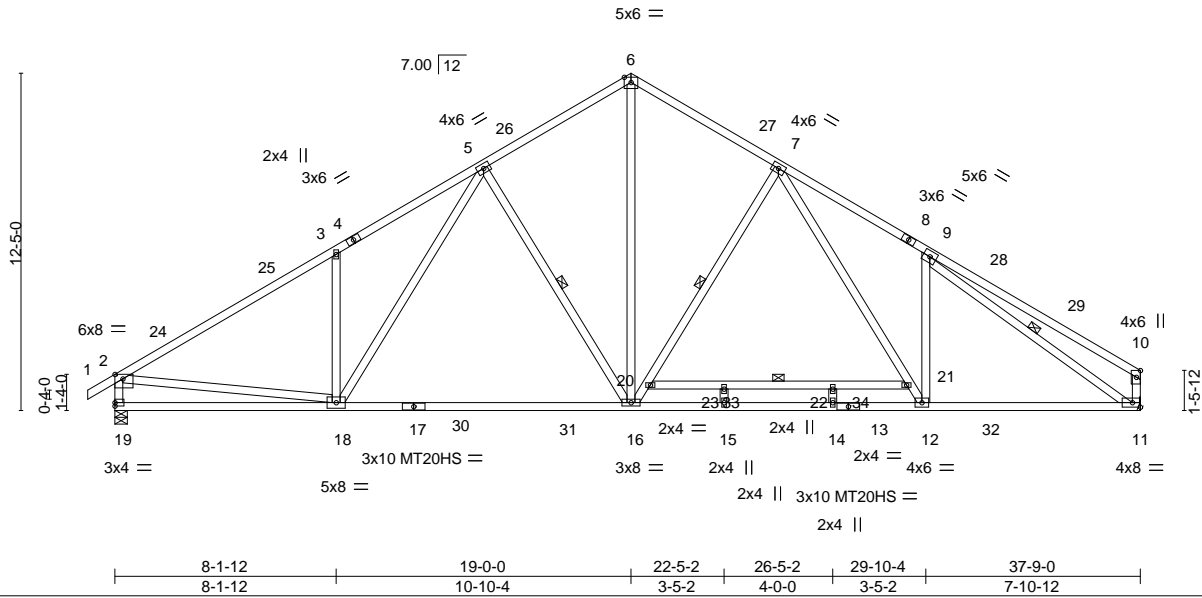


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [10:0-3-0,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.71	Vert(LL) -0.48	14-15	>940	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT) -0.68	14-15	>665	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.90	Horz(CT) 0.07	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.05	16-18	>999	240		
							Weight: 261 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-4,8-10: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-7-9 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 *Except* 13-17: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-19,10-11,20-21: 2x4 SP No.2	WEBS 1 Row at midpt 7-16, 9-11, 5-16, 20-21

**REACTIONS.** (size) 19=0-5-8, 11=Mechanical  
Max Horz 19=259(LC 9)  
Max Grav 19=1620(LC 19), 11=1598(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-19=-1566/100, 2-24=-2204/18, 24-25=-2099/38, 3-25=-2057/62, 3-4=-2206/135,  
4-5=-2190/165, 5-26=-1571/130, 6-26=-1502/160, 6-27=-1503/161, 7-27=-1572/131,  
7-8=-2188/172, 8-9=-2207/142, 28-29=-279/103, 10-29=-363/100, 10-11=-350/118  
BOT CHORD 18-19=-257/480, 18-30=0/1656, 17-30=0/1656, 17-31=0/1656, 16-31=0/1656,  
15-16=0/1560, 14-15=0/1560, 13-14=0/1560, 12-13=0/1560, 12-32=0/1776, 11-32=0/1776  
WEBS 6-16=-66/1236, 16-20=-569/118, 7-20=-561/124, 7-21=-81/578, 12-21=-90/544,  
9-11=-2003/0, 5-16=-561/122, 5-18=-72/582, 3-18=-414/148, 2-18=0/1565

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 19-0-0, Exterior(2) 19-0-0 to 23-2-15, Interior(1) 23-2-15 to 37-7-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Refer to girder(s) for truss to truss connections.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - N/A

9) 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)**  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



December 17, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286332
MASTER_RT	A09H	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:42:14 2021 Page 2  
 ID:PEhXAgRNh?L\_RIVTRpJDr9ycn7Q-aeKT8JfG0CPsali\_jXKq7FcjHqIIBj\_Evd4py8MPN

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 1-2=-60, 2-6=-60, 6-10=-60, 11-19=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-50, 2-6=-50, 6-10=-50, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-20, 11-19=-40, 33-34=-40(F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=32, 2-24=17, 6-24=12, 6-27=17, 10-27=12, 11-19=-12
    - Horz: 2-19=13, 1-2=-44, 2-24=-29, 6-24=-24, 6-27=29, 10-27=24, 10-11=24
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=8, 2-26=12, 6-26=17, 6-29=12, 10-29=17, 11-19=-12
    - Horz: 2-19=-24, 1-2=-20, 2-26=-24, 6-26=-29, 6-29=24, 10-29=29, 10-11=-13
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-0, 2-6=-44, 6-10=-44, 11-19=-20
    - Horz: 2-19=-15, 1-2=-20, 2-6=24, 6-10=-24, 10-11=-22
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-40, 2-6=-44, 6-10=-44, 11-19=-20
    - Horz: 2-19=22, 1-2=20, 2-6=24, 6-10=-24, 10-11=15
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-4, 2-6=-14, 6-10=5, 11-19=-12
    - Horz: 2-19=13, 1-2=-8, 2-6=2, 6-10=17, 10-11=16
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=1, 2-6=5, 6-10=-14, 11-19=-12
    - Horz: 2-19=-16, 1-2=-13, 2-6=-17, 6-10=-2, 10-11=-13
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-27, 2-6=-31, 6-10=-11, 11-19=-20
    - Horz: 2-19=21, 1-2=7, 2-6=11, 6-10=9, 10-11=7
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-7, 2-6=-11, 6-10=-31, 11-19=-20
    - Horz: 2-19=-7, 1-2=-13, 2-6=-9, 6-10=-11, 10-11=-21
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=14, 2-25=19, 6-25=9, 6-10=2, 11-19=-12
    - Horz: 2-19=11, 1-2=-26, 2-25=-31, 6-25=-21, 6-10=14, 10-11=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-3, 2-6=2, 6-28=9, 10-28=19, 11-19=-12
    - Horz: 2-19=-12, 1-2=-9, 2-6=-14, 6-28=21, 10-28=31, 10-11=-11
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=5, 2-6=9, 6-10=2, 11-19=-12
    - Horz: 2-19=5, 1-2=-17, 2-6=-21, 6-10=14, 10-11=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-3, 2-6=2, 6-10=9, 11-19=-12
    - Horz: 2-19=-12, 1-2=-9, 2-6=-14, 6-10=21, 10-11=-5
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=6, 2-25=2, 6-25=-7, 6-10=-15, 11-19=-20
    - Horz: 2-19=19, 1-2=-26, 2-25=-22, 6-25=-13, 6-10=5, 10-11=3
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-11, 2-6=-15, 6-28=-7, 10-28=2, 11-19=-20
    - Horz: 2-19=-3, 1-2=-9, 2-6=-5, 6-28=13, 10-28=22, 10-11=-19
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-20, 19-30=-20, 30-31=-60, 12-31=-20, 12-32=-60, 11-32=-20, 33-34=-40(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-55, 2-6=-58, 6-10=-44, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
    - Horz: 2-19=16, 1-2=5, 2-6=8, 6-10=6, 10-11=6
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	I49286332
MASTER_RT	A09H	COMMON	99	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.430 s Oct 22 2021 MiTek Industries, Inc. Thu Dec 16 14:42:14 2021 Page 3  
 ID:PEhXAgRNh?L\_RIVTRpJDr9ycn7Q-aeKT88jfG0CPsali\_jXKq7FcjhqIIBj\_Evd4py8MPN

**LOAD CASE(S)**

- Uniform Loads (plf)
  - Vert: 1-2=-40, 2-6=-44, 6-10=-58, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
  - Horz: 2-19=-6, 1-2=-10, 2-6=-6, 6-10=-8, 10-11=-16
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-30, 2-25=-34, 6-25=-41, 6-10=-46, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
    - Horz: 2-19=15, 1-2=-20, 2-25=-16, 6-25=-9, 6-10=4, 10-11=2
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
  - Uniform Loads (plf)
    - Vert: 1-2=-43, 2-6=-46, 6-28=-41, 10-28=-34, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
    - Horz: 2-19=-2, 1-2=-7, 2-6=-4, 6-28=9, 10-28=16, 10-11=-15
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-60, 2-6=-60, 6-10=-20, 11-19=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-60, 11-19=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-50, 2-6=-50, 6-10=-20, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-20, 2-6=-20, 6-10=-50, 19-30=-20, 30-31=-50, 12-31=-20, 12-32=-50, 11-32=-20, 33-34=-30(F)

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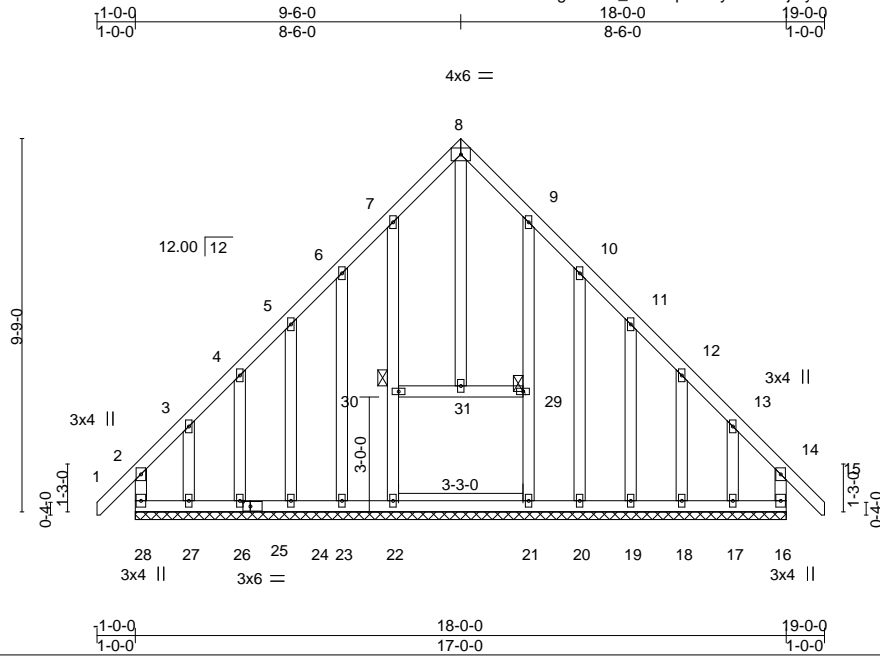
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286333
MASTER_RT	B04G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:14 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-ibjI2y7cEmGFupsgpgdiWoUiZHpkNMsMK0ml1y8ial



Scale = 1:60.2

Plate Offsets (X,Y)--	[25:0-2-5,0-1-8]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.00	15	n/r 120
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.01	15	n/r 120
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.22	Horz(CT)	0.00	16	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							<b>PLATES</b>
							MT20
							<b>GRIP</b>
							244/190
							Weight: 153 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*	JOINTS 1 Brace at Jt(s): 29, 30
OTHERS 29-30: 2x4 SP No.3	
2x4 SP No.3	


**REACTIONS.** All bearings 17-0-0.  
 (lb) - Max Horz 28=-217(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 23, 24, 26, 20, 19, 18 except 28=-104(LC 10), 27=-243(LC 12), 17=-239(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 22, 23, 24, 26, 27, 21, 20, 19, 18, 17 except 28=288(LC 21), 16=283(LC 22)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-11-8 to 2-0-8, Exterior(2) 2-0-8 to 8-6-0, Corner(3) 8-6-0 to 11-7-4, Exterior(2) 11-7-4 to 17-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 23, 24, 26, 20, 19, 18 except (jt=lb) 28=104, 27=243, 17=239.
  - 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

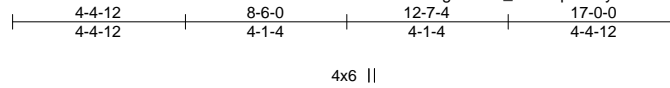


December 17, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>818 Soundside Road Edenton, NC 27932</p>
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Job MASTER_RT	Truss B04GR	Truss Type COMMON	Qty 1	Ply 3	Lexington; 1; Master.RT 149286334
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:15 2021 Page 1  
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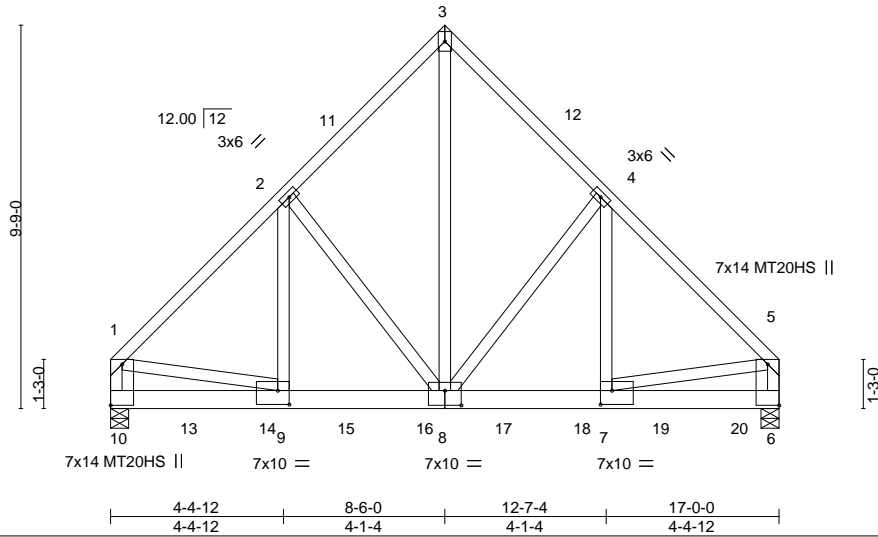


Plate Offsets (X, Y)-- [5:Edge,0-3-8], [7:0-3-8,0-4-4], [8:0-5-0,0-4-8], [9:0-3-8,0-4-4], [10:Edge,0-3-8]

<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 0.48	Vert(LL)	-0.05	8-9	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.10	8-9	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.52	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.04	8-9	>999		
								Weight: 410 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 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 10=0-5-8, 6=0-5-8  
 Max Horz 10=-192(LC 4)  
 Max Uplift 10=-478(LC 8), 6=-534(LC 9)  
 Max Grav 10=6947(LC 15), 6=7666(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-10=-5912/421, 1-2=-6913/519, 2-3=-5052/451, 3-4=-5070/451, 4-5=-6994/522, 5-6=-5948/423  
 BOT CHORD 9-10=-176/754, 8-9=-387/4939, 7-8=-317/4899, 6-7=-86/692  
 WEBS 3-8=-583/6837, 4-8=-2098/290, 4-7=-192/2836, 5-7=-275/4313, 2-8=-2158/286, 2-9=-185/2778, 1-9=-277/4290

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=478, 6=534.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1679 lb down and 133 lb up at 1-11-4, 1679 lb down and 133 lb up at 3-11-4, 1679 lb down and 133 lb up at 5-11-4, 1679 lb down and 133 lb up at 7-11-4, 1679 lb down and 133 lb up at 9-11-4, 1679 lb down and 133 lb up at 11-11-4, and 1679 lb down and 133 lb up at 13-11-4, and 1679 lb down and 133 lb up at 15-11-4 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. 5/19/2020 BEFORE USE.**  
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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss B04GR	Truss Type COMMON	Qty 1	Ply <b>3</b>	Lexington; 1; Master.RT Job Reference (optional)	I49286334
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:16 2021 Page 2  
ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-fzr3Te9tmNWyuCzEoEi5nxulPMr7ocA9peVtpwy8iaj

**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, 6-10=-20

Concentrated Loads (lb)

Vert: 13=-1560(F) 14=-1560(F) 15=-1560(F) 16=-1560(F) 17=-1560(F) 18=-1560(F) 19=-1560(F) 20=-1560(F)

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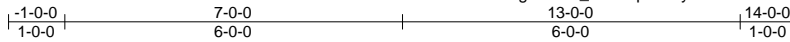


Job MASTER_RT	Truss C02G	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT Job Reference (optional)	149286335
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:16 2021 Page 1  
ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-fzr3Te9mNWyuCzEoEi5nxurzMzsoj9peVtpwy8iaj



3x6 =

Scale = 1:40.9

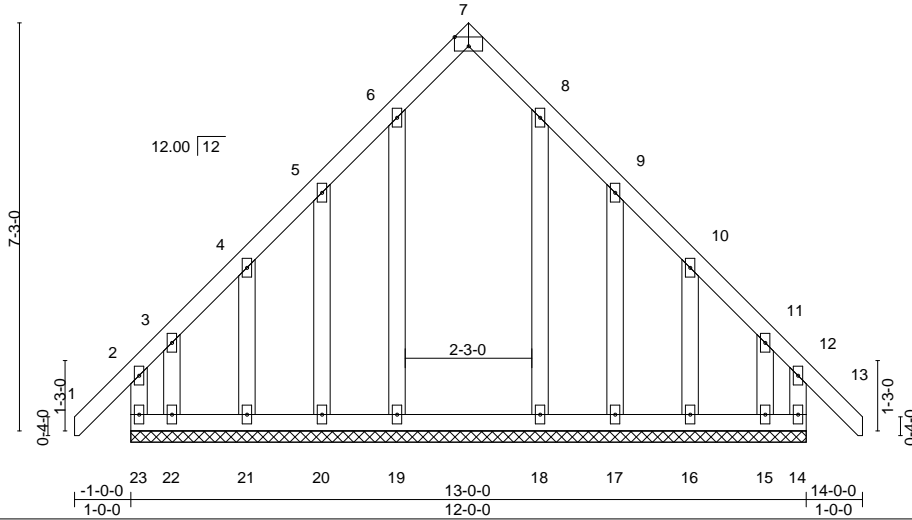


Plate Offsets (X,Y)-- [7:0-3-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.01	13	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.07	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 91 lb	FT = 20%

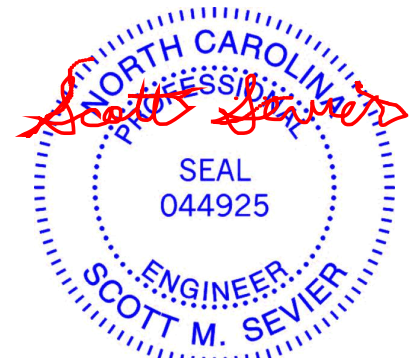
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**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.** All bearings 12-0-0.  
 (lb) - Max Horz 23=167(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 21, 17, 16 except 23=134(LC 10), 14=119(LC 11), 22=261(LC 12), 15=257(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 19, 20, 21, 22, 18, 17, 16, 15 except 23=294(LC 21), 14=290(LC 22)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-11-8 to 2-0-12, Exterior(2) 2-0-12 to 6-0-0, Corner(3) 6-0-0 to 9-0-0, Exterior(2) 9-0-0 to 12-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 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 1-4-0 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 21, 17, 16 except (jt=lb) 23=134, 14=119, 22=261, 15=257.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

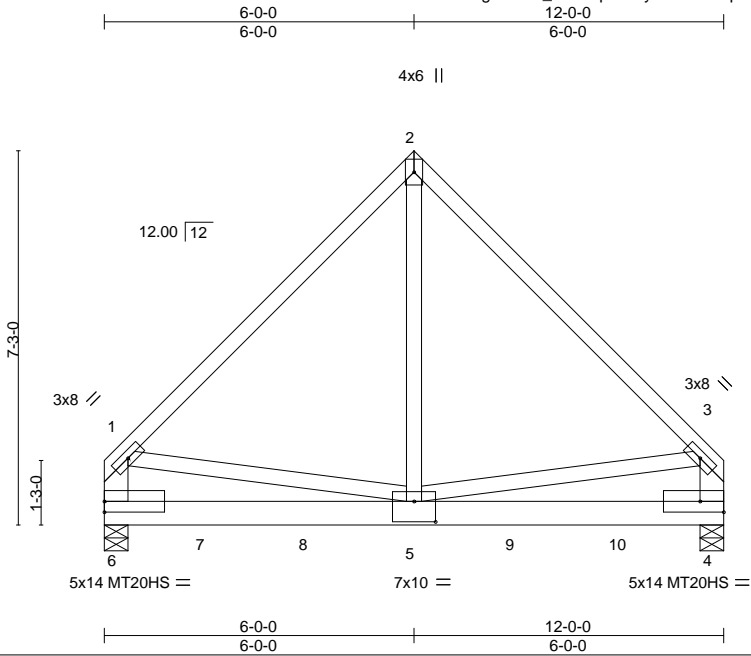
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss C02GR	Truss Type COMMON	Qty 1	Ply 2	Lexington; 1; Master.RT	149286336
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:18 2021 Page 1  
 ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-bMzpuKB7I?mg8V7dvflZsMz4\_AYwGW?SHy\_uoy8iah



Scale = 1:44.6

Plate Offsets (X,Y)--	[5:0-5-0,0-4-12]				
<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 0.54	Vert(LL) -0.06 4-5 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.54	Vert(CT) -0.12 4-5 >999 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.57	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.04 4-5 >999 240		
				Weight: 168 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-6 oc purlins, except end verticals.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 1-6,3-4: 2x6 SP No.2	

**REACTIONS.** (size) 6=0-5-8, 4=0-5-8  
 Max Horz 6=-144(LC 4)  
 Max Uplift 6=-332(LC 9), 4=-326(LC 8)  
 Max Grav 6=4633(LC 15), 4=4578(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-6=-3050/241, 1-2=-3793/338, 2-3=-3845/338, 3-4=-3067/241  
 BOT CHORD 5-6=-228/1193, 4-5=-153/1032  
 WEBS 2-5=-342/4964, 3-5=-104/1668, 1-5=-101/1645

- 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 0-6-0 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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=332, 4=326.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1679 lb down and 133 lb up at 1-11-4, 1679 lb down and 133 lb up at 3-11-4, 1679 lb down and 133 lb up at 5-11-4, and 1679 lb down and 133 lb up at 7-11-4, and 1679 lb down and 133 lb up at 9-11-4 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



December 17, 2021

Continued on page 2

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

818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss C02GR	Truss Type COMMON	Qty 1	Ply <b>2</b>	Lexington; 1; Master.RT Job Reference (optional)	I49286336
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:18 2021 Page 2  
ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-bMzpuKB7I?mg8V7dvfiZsMz4\_AYwGW?SHy\_\_uoy8iah

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 4-6=-20

Concentrated Loads (lb)

Vert: 5=-1560(F) 7=-1560(F) 8=-1560(F) 9=-1560(F) 10=-1560(F)

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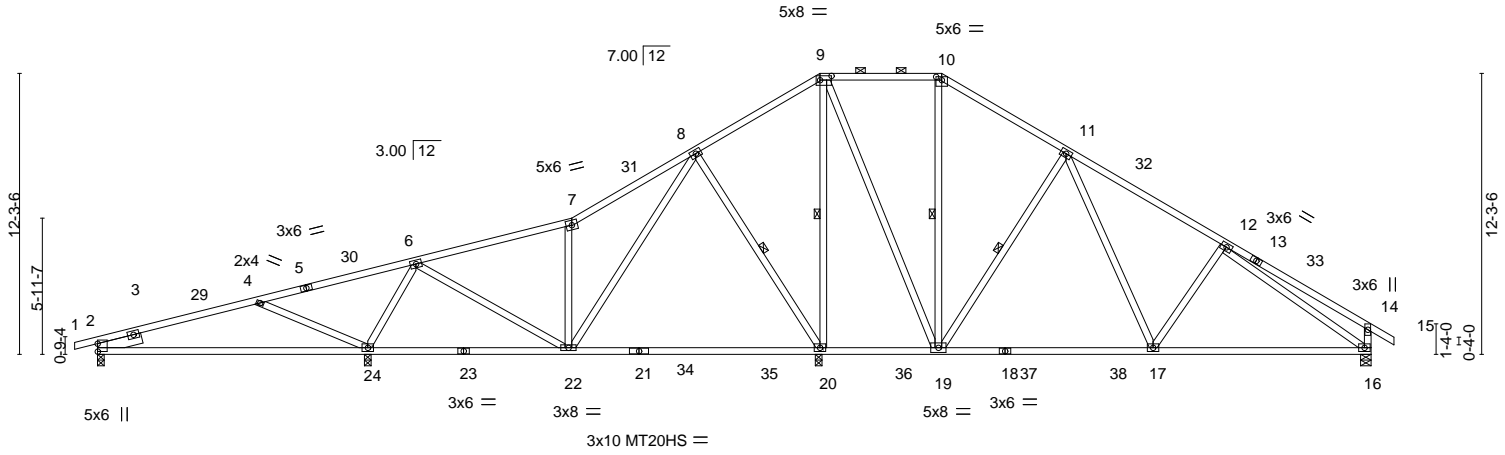
Job MASTER_RT	Truss G42	Truss Type ROOF TRUSS	Qty 1	Ply 1	Lexington; 1; Master.RT	149286337
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:19 2021 Page 1

ID:wEUzMWqApnaykfKx0iOjycPER-3YWB5fB3luXlfpTMGoPZWE9aoH?swbVcjXQEY8iag

-1-0-0	7-1-4	13-11-0	20-8-12	26-1-12	31-6-15	36-10-13	42-4-0	49-2-10	55-8-0	56-8-0
1-0-0	7-1-4	6-9-12	6-9-12	5-5-0	5-5-3	5-3-14	5-5-3	6-10-10	6-5-6	1-0-0

Scale = 1:100.7



	11-9-12	20-8-12	31-6-4	31-6-15 36-10-13	46-1-10	55-8-0
	11-9-12	8-11-0	10-9-8	0-0-11 5-3-14	9-2-14	9-6-6

Plate Offsets (X,Y)-- [2:0-4-2,0-0-1], [9:0-6-0,0-2-4], [10:0-3-0,0-1-12]

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 0.57	Vert(LL)	-0.54 20-22	>444	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.83 20-22	>286	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.04 2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05 24-27	>999	240		
								Weight: 348 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
BOT CHORD 2x4 SP No.1 *Except* 21-23: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-20, 9-20, 10-19, 11-19
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 16=0-5-8.  
 (lb) - Max Horz 2=264(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 2 except 24=-109(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) except 16=937(LC 24), 2=517(LC 1), 24=1166(LC 23), 20=2154(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1075/42, 4-6=-335/73, 6-7=-581/32, 7-8=-677/106, 8-9=0/377, 10-11=-320/170, 11-12=-919/124, 12-14=-297/102, 14-16=-349/125  
 BOT CHORD 2-24=-73/618, 22-24=-46/403, 19-20=-377/175, 17-19=0/522, 16-17=-8/843  
 WEBS 4-24=-696/191, 6-24=-765/170, 7-22=-501/104, 8-22=0/756, 8-20=-637/120, 9-20=-1308/67, 9-19=-59/993, 11-19=-694/132, 11-17=-19/567, 12-17=-259/176, 12-16=-832/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 4-6-13, Interior(1) 4-6-13 to 31-6-15, Exterior(2) 31-6-15 to 44-9-4, Interior(1) 44-9-4 to 56-7-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) All plates are 4x6 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 2 except (jt=lb) 24=109.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 17, 2021

Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286338
MASTER_RT	G42G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:24 2021 Page 1

ID:wEUzMWqApnaykfXoIOjycPER-QWK48NFutrWqsQanGwrz6dDBSbjVgLMkfuRl5Sy8iab

-1-0-0	20-8-12	31-6-15	36-10-13	55-8-0	56-8-0
1-0-0	20-8-12	10-10-3	5-3-14	18-9-3	1-0-0

Scale = 1:100.7

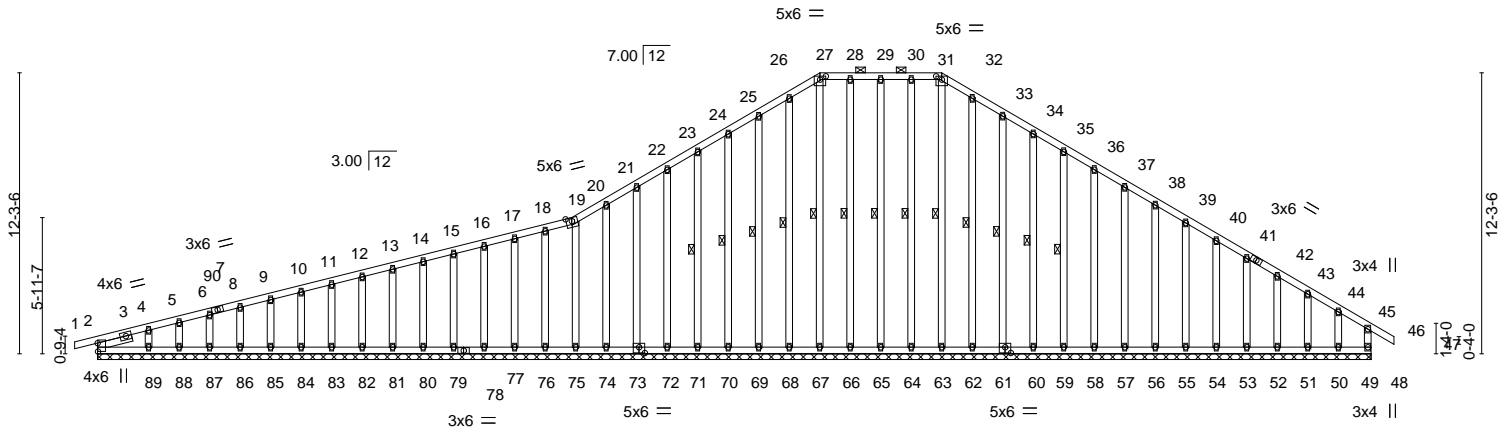


Plate Offsets (X, Y)--	[2:0-4-6,0-0-3], [27:0-3-0,0-1-12], [31:0-3-0,0-1-12], [60:0-3-0,0-3-0], [72:0-3-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.00	47	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	47	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.10	Horz(CT)	0.01	48	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 549 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 end verticals, and 2-0-0 oc purlins (6-0-0 max.): 27-31.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 31-62, 30-63, 29-64, 28-65, 27-66, 26-67, 25-68, 24-69, 23-70, 32-61, 33-60, 34-59, 35-58
OTHERS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-6-13	

**REACTIONS.** All bearings 55-8-0.  
 (lb) - Max Horz 2=262(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 48, 2, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50 except 49=118(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 48, 2, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 23-24=195/252, 24-25=217/268, 25-26=241/292, 26-27=255/310, 27-28=229/282, 28-29=229/281, 29-30=229/281, 30-31=229/282, 31-32=255/310, 32-33=241/292, 33-34=216/263

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 4-6-13, Exterior(2) 4-6-13 to 31-6-15, Corner(3) 31-6-15 to 42-2-13, Exterior(2) 42-2-13 to 56-7-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 1-4-0 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 48, 2, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50 except (jt=lb) 49=118.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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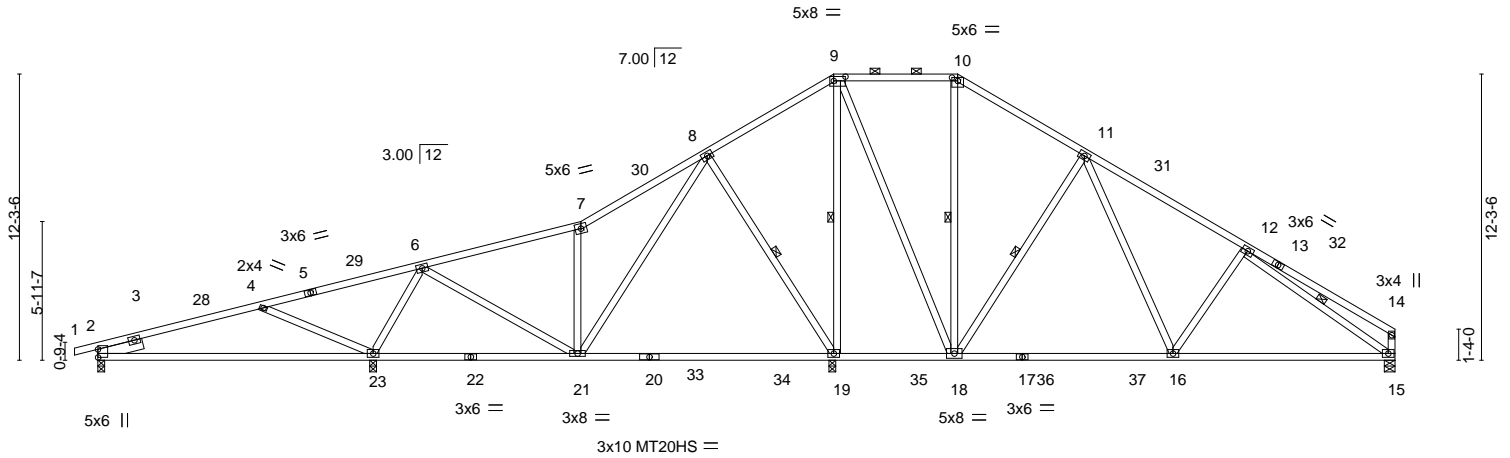
Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286339
MASTER_RT	G43	ROOF TRUSS	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:26 2021 Page 1

ID:wEUzMWqApnaykfXx0iOjYcPEr-MvSrZ3H8PsmY5kk9NKuRB2iROOBw81ed6BwPALy8iaZ

-1-0-0	7-1-4	13-11-0	20-8-12	26-1-12	31-6-15	36-10-13	42-4-0	49-2-10	55-8-0
1-0-0	7-1-4	6-9-12	6-9-12	5-5-0	5-5-3	5-3-14	5-5-3	6-10-10	6-5-6

Scale = 1:98.9



	11-9-12	20-8-12	31-6-4	31-6-15 36-10-13	46-1-10	55-8-0
	11-9-12	8-11-0	10-9-8	0-0-11 5-3-14	9-2-14	9-6-6
Plate Offsets (X,Y)--	[2:0-4-2,0-0-1], [9:0-6-0,0-2-4], [10:0-3-0,0-1-12]					

<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 0.57	Vert(LL)	-0.54 19-21	>444	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.83 19-21	>286	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.04 2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05 23-26	>999	240		Weight: 346 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-5-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 9-10.
BOT CHORD 2x4 SP No.1 *Except* 20-22: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-19, 9-19, 10-18, 11-18, 12-15
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 15=0-5-8.  
 (lb) - Max Horz 2=260(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 2 except 23=108(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) except 15=864(LC 24), 2=517(LC 1), 23=1165(LC 23), 19=2159(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1075/39, 4-6=-335/73, 6-7=-580/25, 7-8=-676/98, 8-9=0/378, 10-11=-317/165, 11-12=-923/119, 12-14=-260/69, 14-15=-251/73  
 BOT CHORD 2-23=-77/618, 21-23=-49/402, 18-19=-372/168, 16-18=0/521, 15-16=-21/850  
 WEBS 4-23=-696/192, 6-23=-764/169, 7-21=-501/101, 8-21=0/756, 8-19=-638/119, 9-19=-1314/76, 9-18=-62/997, 11-18=-695/131, 11-16=-21/575, 12-16=-269/178, 12-15=-874/20

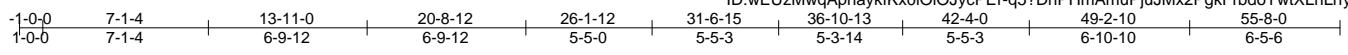
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 4-6-13, Interior(1) 4-6-13 to 31-6-15, Exterior(2) 31-6-15 to 44-9-4, Interior(1) 44-9-4 to 55-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) All plates are 4x6 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 2 except (jt=lb) 23=108.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



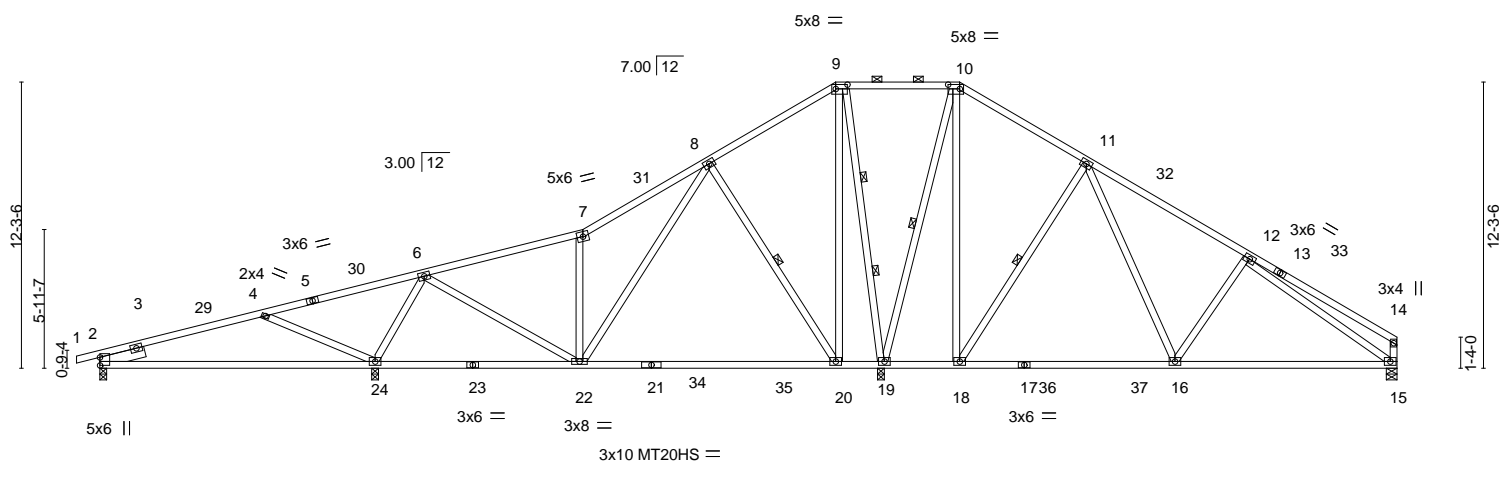
December 17, 2021

Job MASTER_RT	Truss G44	Truss Type SPECIAL	Qty 1	Ply 1	Lexington; 1; Master.RT 149286340
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Scale = 1:98.9



11-9-12	20-8-12	31-6-15	33-6-4 36-10-13	46-1-10	55-8-0
11-9-12	8-11-0	10-10-3	1-11-5 3-4-9	9-2-14	9-6-6

Plate Offsets (X,Y)--	[2:0-4-2,0-0-1], [9:0-6-0,0-2-4], [10:0-6-0,0-2-4]							
<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 0.60	Vert(LL) -0.49	20-22	>528	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.87	Vert(CT) -0.79	20-22	>328	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.82	Horz(CT) 0.04	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.05	24-27	>999	240		Weight: 363 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 9-10.
BOT CHORD 2x4 SP No.1 *Except* 21-23: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 10-19: 2x4 SP No.2	WEBS 1 Row at midpt 8-20, 10-19, 11-18 2 Rows at 1/3 pts 9-19
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 15=0-5-8.  
 (lb) - Max Horz 2=260(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 2, 24  
 Max Grav All reactions 250 lb or less at joint(s) except 15=715(LC 24), 2=491(LC 1), 24=1242(LC 23), 19=2180(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1062/64, 6-7=-605/8, 7-8=-702/80, 8-9=0/351, 9-10=0/420, 11-12=-676/116, 12-14=-253/67  
 BOT CHORD 2-24=-86/540, 22-24=-58/351, 19-20=-324/191, 16-18=0/297, 15-16=-19/654  
 WEBS 4-24=-707/191, 6-24=-843/131, 6-22=0/322, 7-22=-510/96, 8-22=0/701, 8-20=-616/122, 9-20=0/979, 9-19=-1348/0, 10-19=-1174/48, 10-18=-13/863, 11-18=-702/135, 11-16=-24/593, 12-16=-303/178, 12-15=-635/19

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 1-0-0 to 4-6-13, Interior(1) 4-6-13 to 31-6-15, Exterior(2) 31-6-15 to 44-9-4, Interior(1) 44-9-4 to 55-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 4x6 MT20 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 2, 24.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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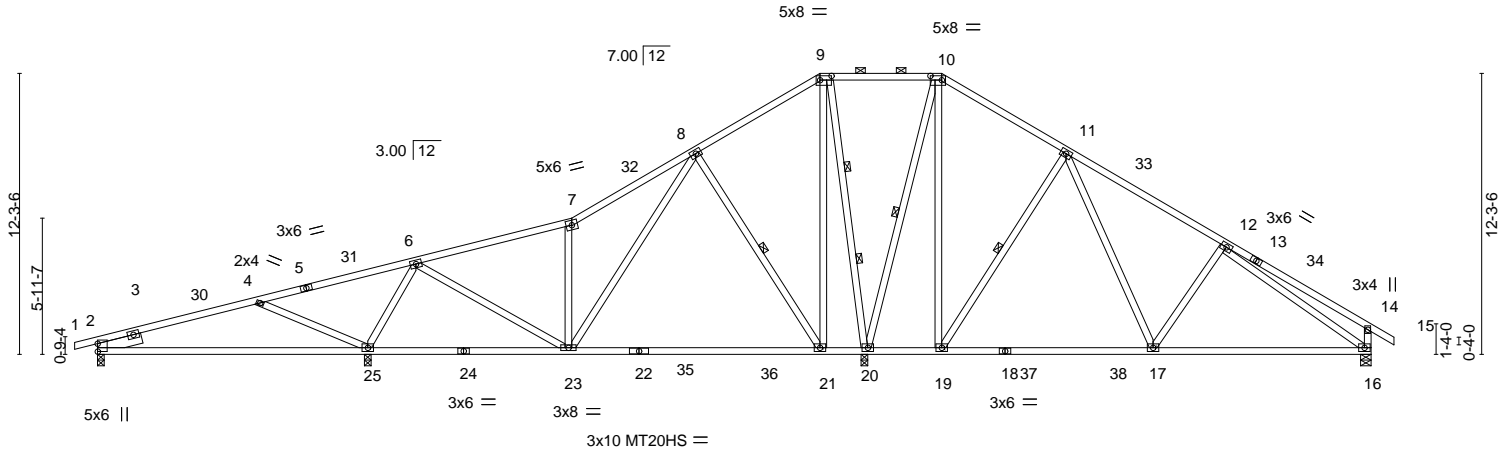
Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286341
MASTER_RT	G45	SPECIAL	1	1		

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1-0-0	7-1-4	13-11-0	20-8-12	26-1-12	31-6-15	36-10-13	42-4-0	49-2-10	55-8-0	56-8-0
1-0-0	7-1-4	6-9-12	6-9-12	5-5-0	5-5-3	5-3-14	5-5-3	6-10-10	6-5-6	1-0-0

Scale = 1:100.7



	11-9-12	20-8-12	31-6-15	33-6-4 36-10-13	46-1-10	55-8-0
	11-9-12	8-11-0	10-10-3	1-11-5 3-4-9	9-2-14	9-6-6
Plate Offsets (X,Y)--	[2:0-4-2,0-0-1], [9:0-6-0,0-2-4], [10:0-6-0,0-2-4]					

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 0.60	Vert(LL)	-0.49 21-23	>528	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.79 21-23	>328	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81	Horz(CT)	0.04 2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05 25-28	>999	240		
								Weight: 365 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 9-10.
BOT CHORD 2x4 SP No.1 *Except* 22-24: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 10-20: 2x4 SP No.2	WEBS 1 Row at midpt 8-21, 10-20, 11-19 2 Rows at 1/3 pts 9-20
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** All bearings 0-3-8 except (jt=length) 16=0-5-8.  
 (lb) - Max Horz 2=264(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 16, 2, 25  
 Max Grav All reactions 250 lb or less at joint(s) except 16=788(LC 24), 2=491(LC 1), 25=1243(LC 23), 20=2173(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-1062/67, 6-7=-606/15, 7-8=-704/88, 8-9=0/346, 9-10=0/415, 11-12=-674/124, 12-14=-288/101, 14-16=-343/124  
 BOT CHORD 2-25=-82/540, 23-25=-54/351, 20-21=-328/198, 19-20=-251/178, 17-19=0/300, 16-17=-8/648  
 WEBS 4-25=-707/190, 6-25=-844/135, 6-23=0/323, 7-23=-510/98, 8-23=0/701, 8-21=-616/124, 9-21=0/979, 9-20=-1347/0, 10-20=-1168/44, 10-19=-13/862, 11-19=-701/135, 11-17=-22/585, 12-17=-294/175, 12-16=-602/0

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 4-6-13, Interior(1) 4-6-13 to 31-6-15, Exterior(2) 31-6-15 to 44-9-4, Interior(1) 44-9-4 to 56-7-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) All plates are 4x6 MT20 unless otherwise indicated.
  - 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 2, 25.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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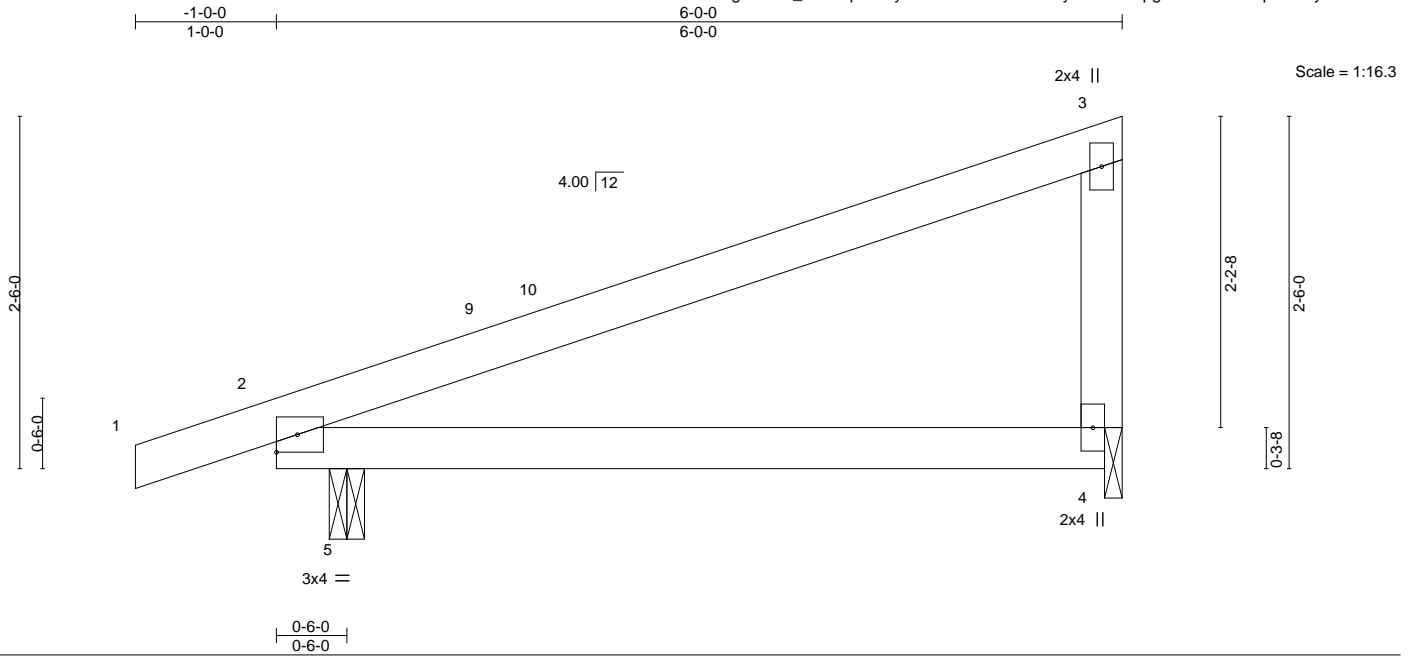


Job MASTER_RT	Truss P01	Truss Type MONO TRUSS	Qty 99	Ply 1	Lexington; 1; Master.RT	149286342
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8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:29 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-mT7zB4J1IN96yCTk2TR8pgwzXcNCLda3p983nfy8iaW



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 0.45	Vert(LL)	-0.04	4-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.08	4-5	>799	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.07	4-5	>859	240		
									Weight: 23 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 end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 5=0-3-0, 4=0-1-8  
 Max Horz 5=74(LC 8)  
 Max Uplift 5=90(LC 8), 4=65(LC 8)  
 Max Grav 5=327(LC 1), 4=201(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 5-10-4 zone; cantilever left and right 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.



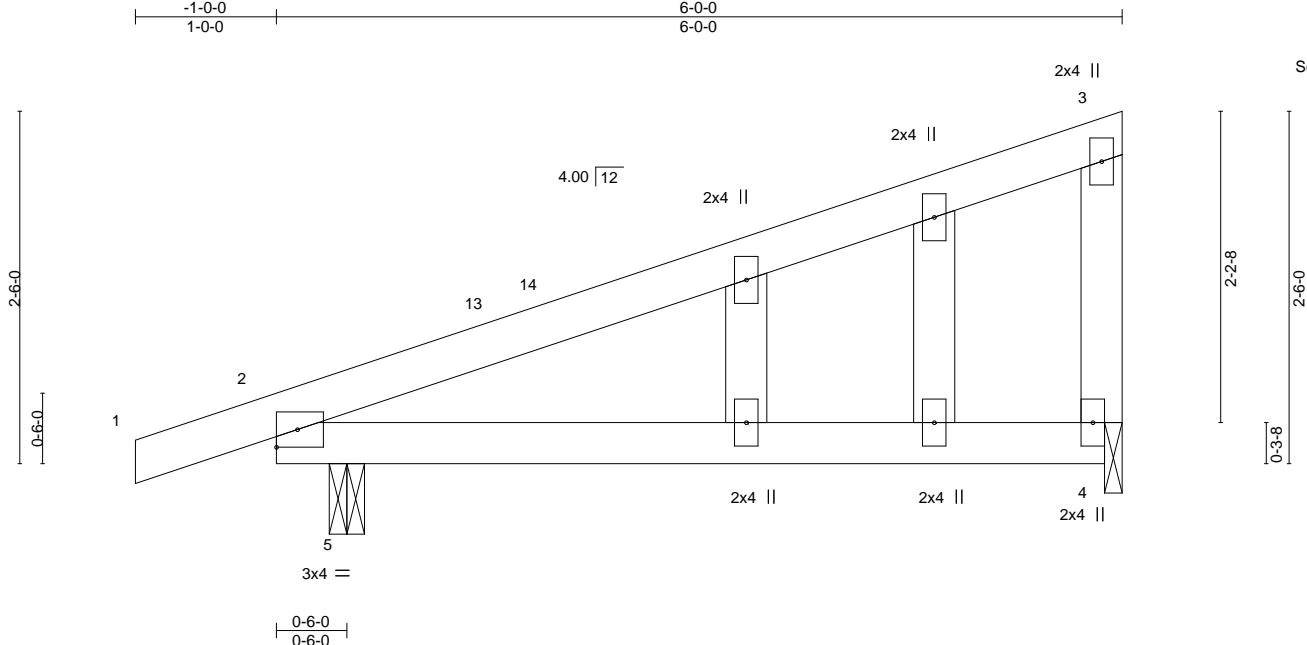
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Job	Truss	Truss Type	Qty	Ply	Lexington; 1; Master.RT	149286343
MASTER_RT	P01G	GABLE	99	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:29 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-mT7zB4J1IN96yCTk2TR8pgwzXcNCLda3p983nfy8iaW



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 0.45	Vert(LL)	-0.04	4-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.08	4-5	>799	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	n/a	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.07	4-5	>859	240		
									Weight: 26 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 end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 5=0-3-0, 4=0-1-8  
 Max Horz 5=74(LC 8)  
 Max Uplift 5=90(LC 8), 4=65(LC 8)  
 Max Grav 5=327(LC 1), 4=201(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 5-10-4 zone; cantilever left and right 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.



December 17, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job MASTER_RT	Truss P07	Truss Type JACK	Qty 1	Ply 1	Lexington; 1; Master.RT	149286344
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Builders FirstSource (Apex, NC),

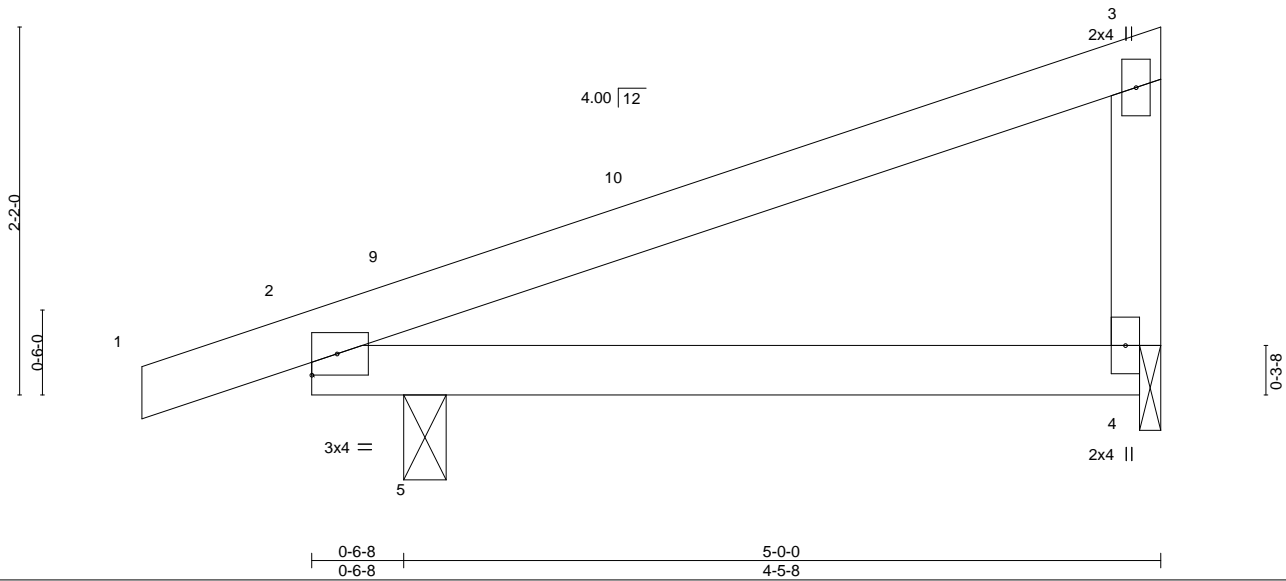
Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:30 2021 Page 1

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Scale = 1:13.6



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 0.27	Vert(LL)	-0.01 4-5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.03 4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.01 4-5	>999	240	Weight: 19 lb	FT = 20%

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

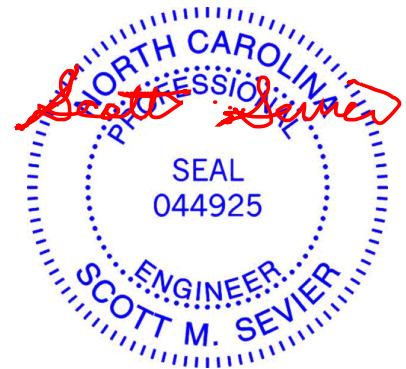
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-0, 4=0-1-8  
 Max Horz 5=64(LC 8)  
 Max Uplift 5=55(LC 8), 4=22(LC 12)  
 Max Grav 5=302(LC 1), 4=147(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.



December 17, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss P07G	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT	149286345
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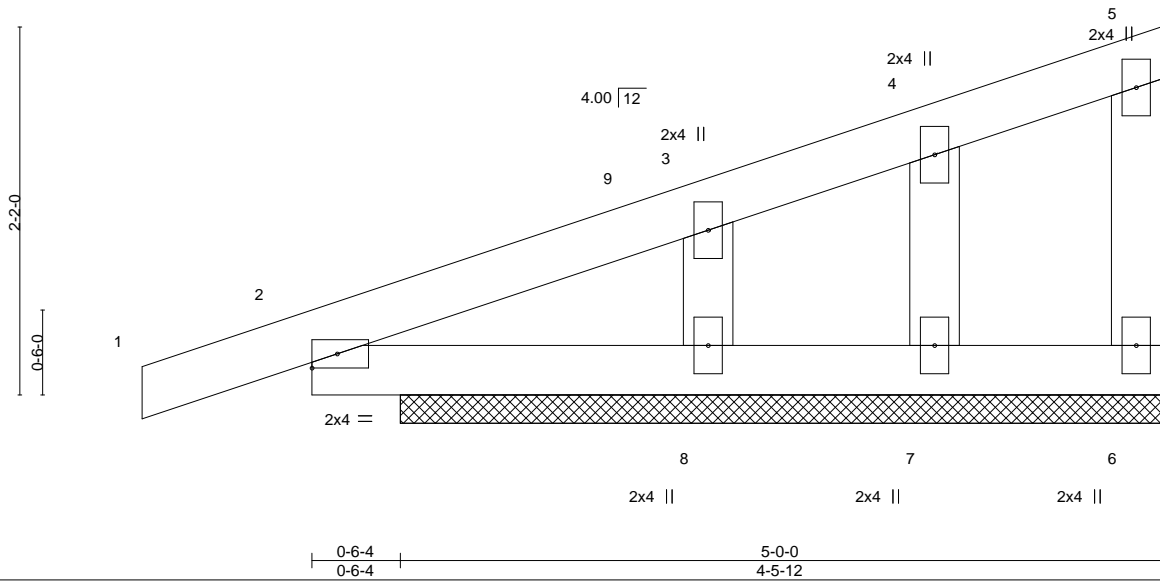
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:30 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL)	0.00	1-2	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(CT)	-0.02	1-2	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S						
	Code IRC2015/TPI2014						Weight: 22 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 5-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 6=4-5-12, 7=4-5-12, 8=4-5-12  
 Max Horz 8=63(LC 9)  
 Max Uplift 6=-8(LC 9), 7=-109(LC 1), 8=-97(LC 8)  
 Max Grav 6=12(LC 3), 7=28(LC 8), 8=553(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-8=-305/257

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 4-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 studs spaced at 1-4-0 oc.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8 except (jt=lb) 7=109.
  - 7) Non Standard bearing condition. Review required.



December 17, 2021

Job MASTER_RT	Truss PB02	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT	149286346
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

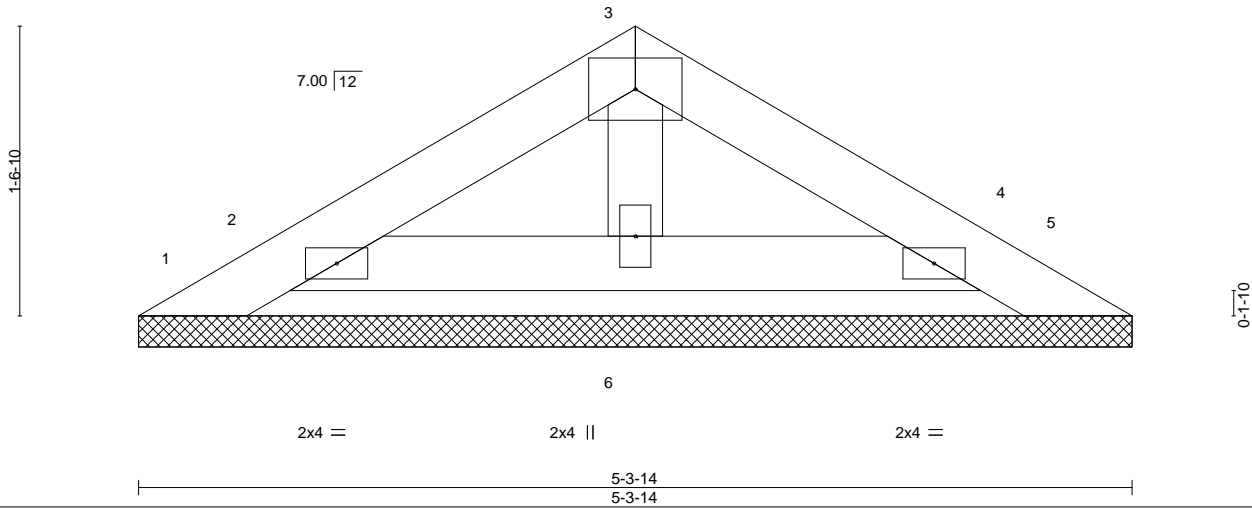
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:31 2021 Page 1

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4x6 =

Scale = 1:12.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P					Weight: 16 lb	FT = 20%
	Code IRC2015/TPI2014							

**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 5-3-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-3-14.  
 (lb) - Max Horz 1=-27(LC 8)  
 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, 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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

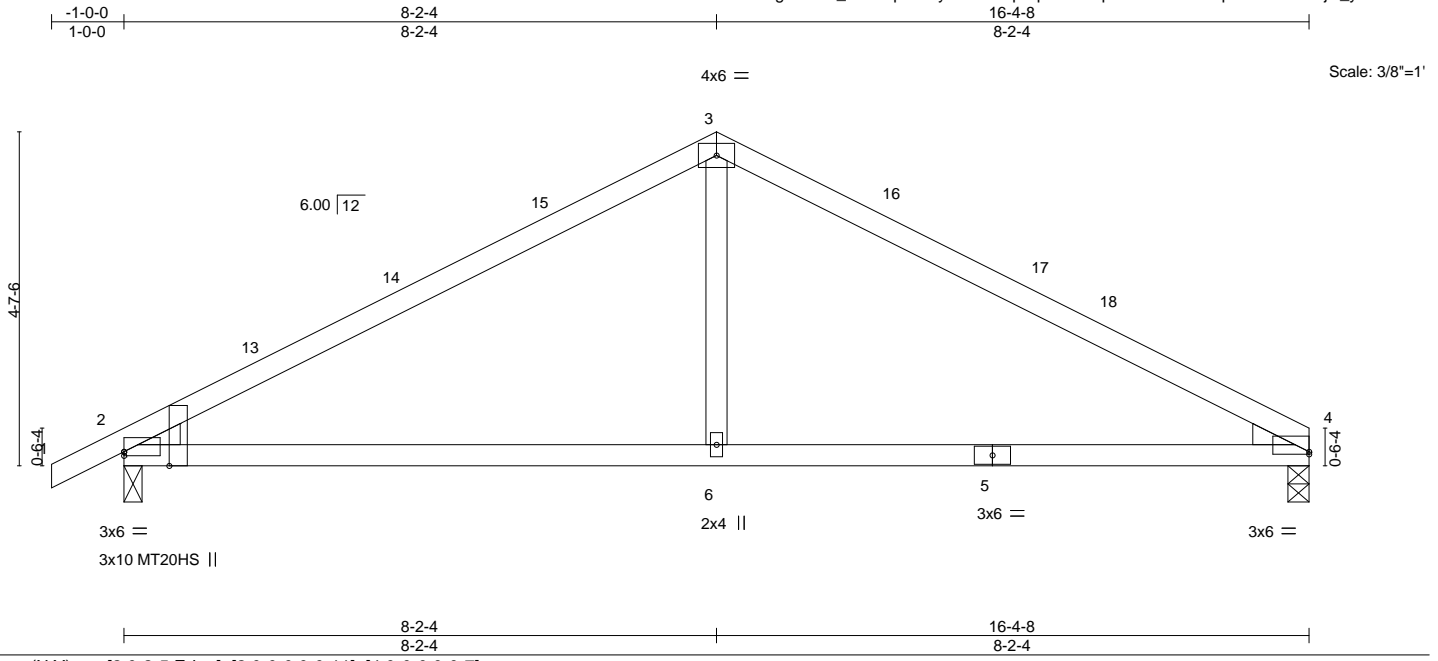


December 17, 2021

Job MASTER_RT	Truss SP02	Truss Type COMMON	Qty 1	Ply 1	Lexington; 1; Master.RT	149286347
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:32 2021 Page 1  
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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 0.89	Vert(LL)	-0.14	6-12	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.25	6-12	>792	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.11	6-12	>999		
								Weight: 61 lb	FT = 20%

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

**REACTIONS.** (size) 4=0-3-8, 2=0-3-0  
 Max Horz 2=74(LC 12)  
 Max Uplift 4=-1(LC 13), 2=-16(LC 12)  
 Max Grav 4=653(LC 1), 2=717(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-900/84, 3-4=-913/90  
 BOT CHORD 2-6=0/721, 4-6=0/721  
 WEBS 3-6=0/373

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 8-2-4, Exterior(2) 8-2-4 to 12-5-3, Interior(1) 12-5-3 to 16-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.

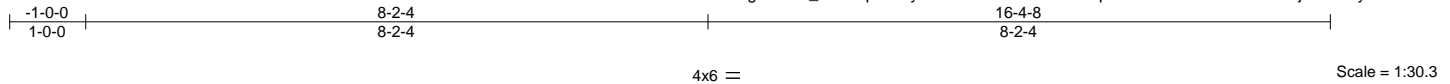


December 17, 2021

Job MASTER_RT	Truss SP02G	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT Job Reference (optional)	149286348
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:33 2021 Page 1

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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 0.08	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 92 lb	FT = 20%

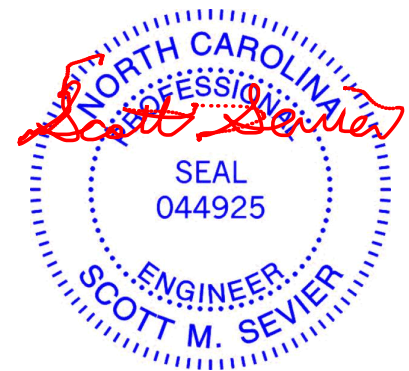
**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

**REACTIONS.** All bearings 16-4-8.  
(lb) - Max Horz 2=65(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 21, 22, 24, 25, 26, 19, 18, 17, 16, 15  
Max Grav All reactions 250 lb or less at joint(s) 2, 20, 21, 22, 24, 25, 26, 19, 18, 17, 16, 15, 14

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 8-2-4, Corner(3) 8-2-4 to 11-2-4, Exterior(2) 11-2-4 to 16-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 1-4-0 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21, 22, 24, 25, 26, 19, 18, 17, 16, 15.



December 17, 2021

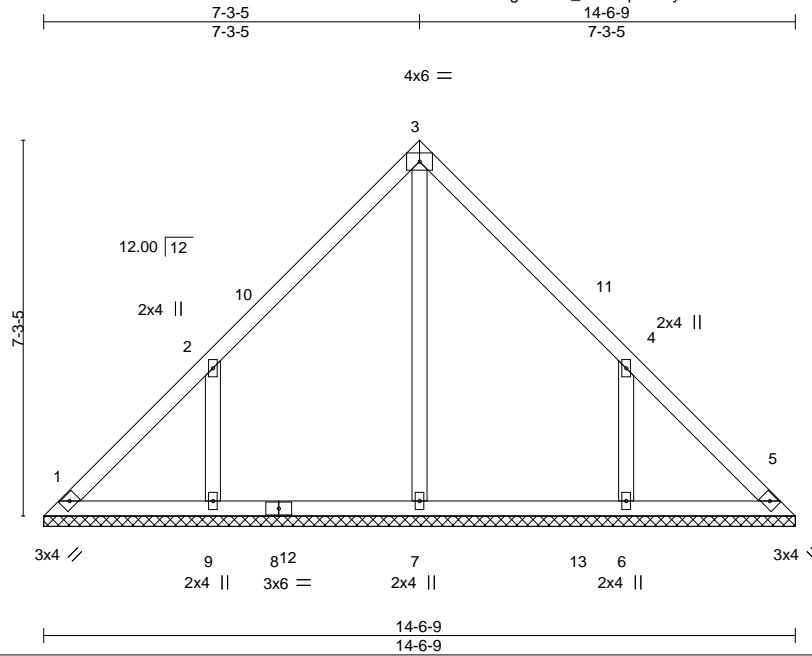
Job MASTER_RT	Truss V17	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT	149286349
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:34 2021 Page 1

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Scale = 1:44.6

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)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 69 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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 14-6-9.  
 (lb) - Max Horz 1=-136(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-161(LC 12), 6=-161(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=352(LC 22), 9=387(LC 19), 6=387(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-278/202, 4-6=-278/202

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-3-5, Interior(1) 3-3-5 to 7-3-5, Exterior(2) 7-3-5 to 10-3-5, Interior(1) 10-3-5 to 14-2-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=161, 6=161.



December 17, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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818 Soundside Road  
 Edenton, NC 27932

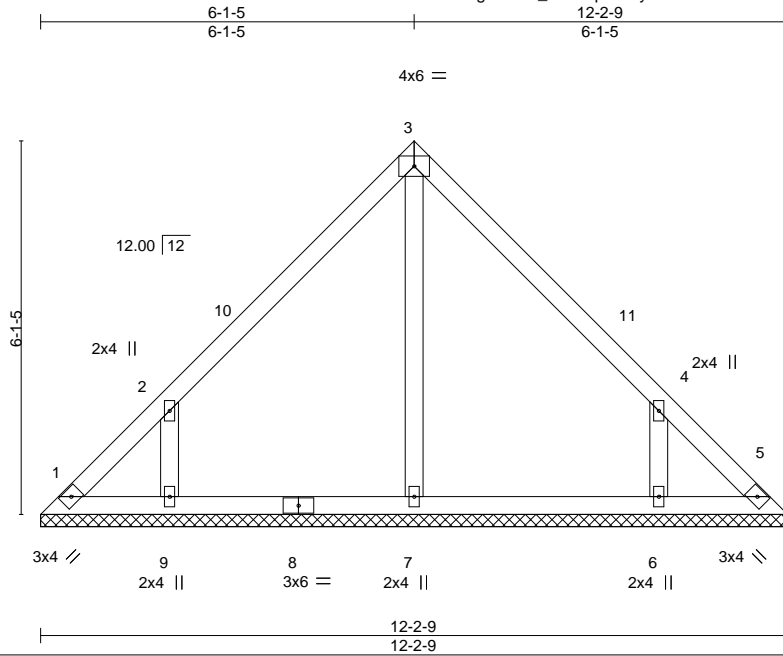


Job MASTER_RT	Truss V18	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286350
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:35 2021 Page 1  
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Scale = 1:37.7

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 0.30	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 55 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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 12-2-9.  
 (lb) - Max Horz 1=-113(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-148(LC 12), 6=-148(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=318(LC 19), 6=318(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-259/190, 4-6=-259/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 6-1-5, Exterior(2) 6-1-5 to 9-1-5, Interior(1) 9-1-5 to 11-10-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=148, 6=148.



December 17, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job MASTER_RT	Truss V19	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286351
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

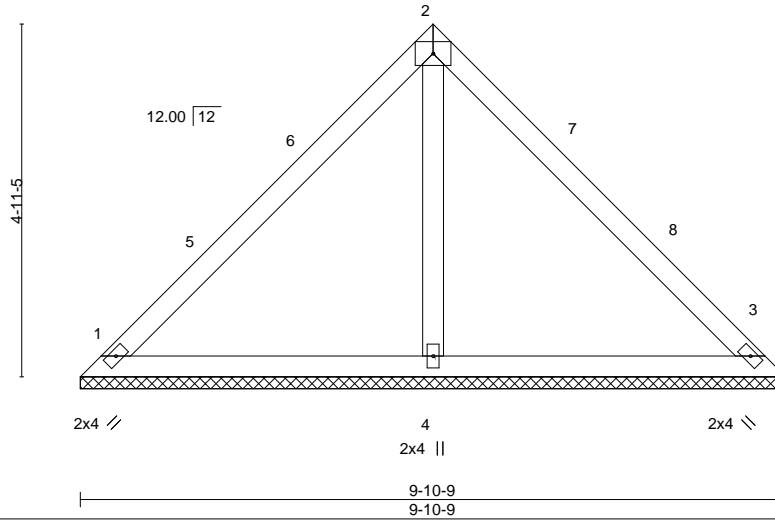
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:35 2021 Page 1

ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-bdUES8OnHDvGg7wuPjYY2xA\_31PllJpyB5bN\_Jy8iaQ



4x6 =

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 0.51	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 41 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 1=9-10-9, 3=9-10-9, 4=9-10-9  
 Max Horz 1=90(LC 11)  
 Max Uplift 1=20(LC 13), 3=20(LC 13)  
 Max Grav 1=204(LC 1), 3=204(LC 1), 4=327(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 4-11-5, Exterior(2) 4-11-5 to 7-11-5, Interior(1) 7-11-5 to 9-6-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

Job MASTER_RT	Truss V20	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286352
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

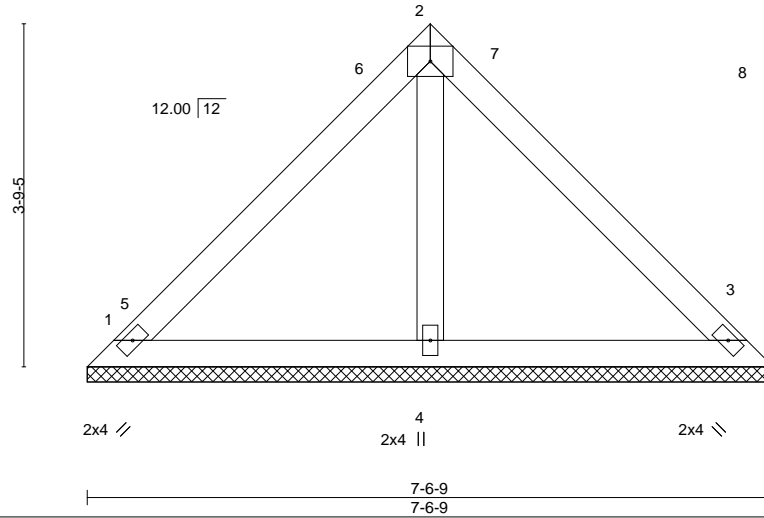
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:36 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-3q2cfUOQ2X17IGV4zR3nb9jCaQnUUni5QLxWly8iaP



4x6 =

Scale = 1:25.4



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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 30 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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.** (size) 1=7-6-9, 3=7-6-9, 4=7-6-9  
 Max Horz 1=-67(LC 8)  
 Max Uplift 1=-15(LC 13), 3=-15(LC 13)  
 Max Grav 1=152(LC 1), 3=152(LC 1), 4=244(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 3-9-5, Exterior(2) 3-9-5 to 6-9-5, Interior(1) 6-9-5 to 7-2-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss V21	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286353
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:36 2021 Page 1

ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-3q2cfUOQ2X17IGV4zR3nb9jENQkxUnJ5QLxWly8iaP



3x6 =

Scale = 1:18.4

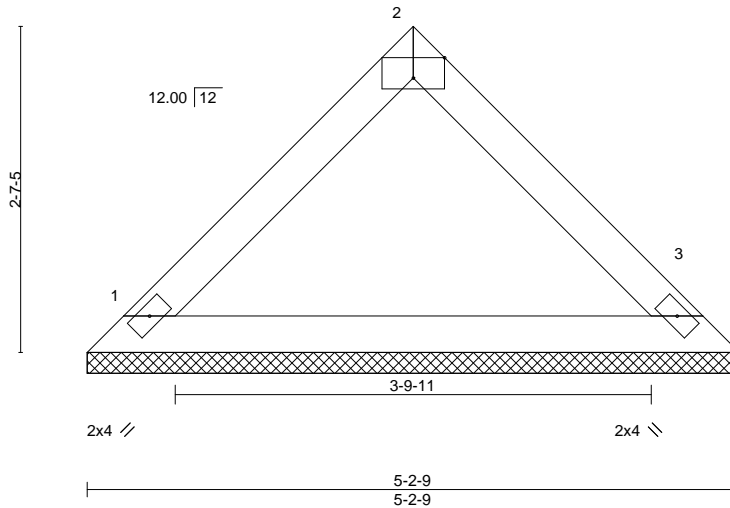


Plate Offsets (X,Y)--	[2:0-3-0,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					
								Weight: 17 lb FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-2-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-2-9, 3=5-2-9  
Max Horz 1=-44(LC 8)  
Max Grav 1=180(LC 1), 3=180(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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.



December 17, 2021

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**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

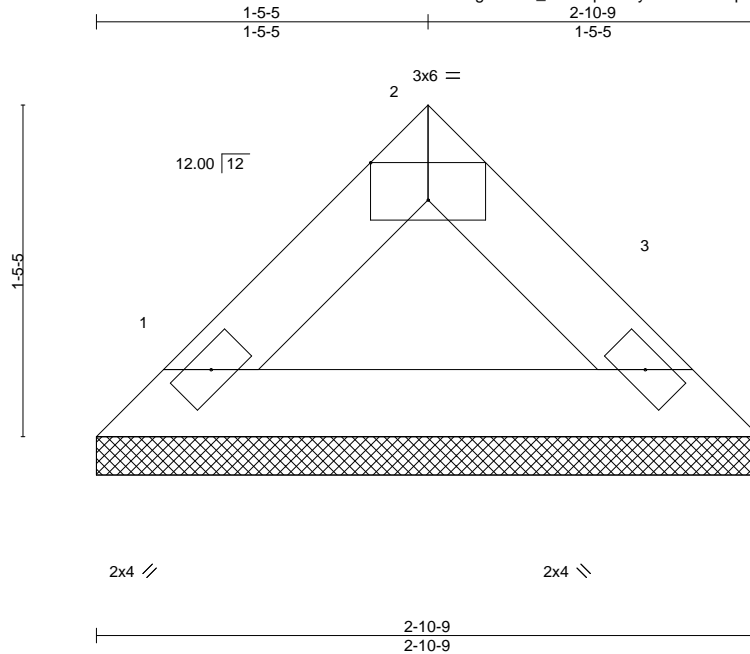
Job MASTER_RT	Truss V22	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT	149286354
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:37 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-X0c?tpP2pq9\_vQ4HW8a08MFR2q9TDEZFeP4U3Cy8ia0



Scale = 1:10.0

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

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-10-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-10-9, 3=2-10-9  
Max Horz 1=-21(LC 8)  
Max Grav 1=87(LC 1), 3=87(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job MASTER_RT	Truss V23	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286355
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

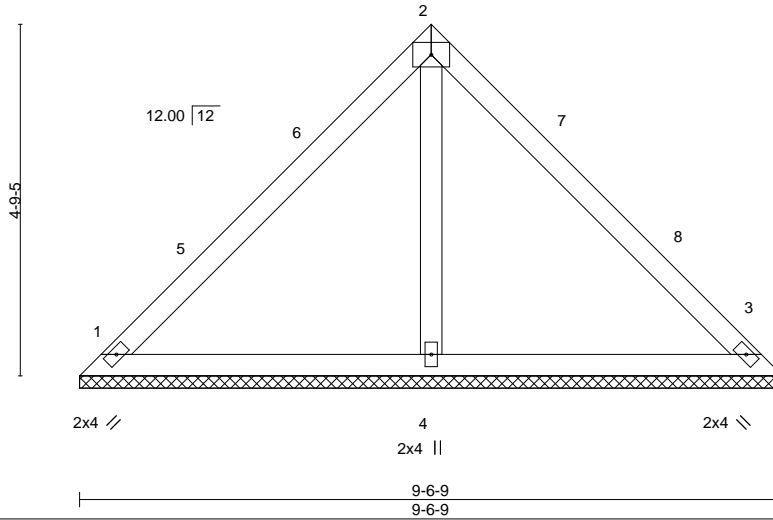
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:38 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-?CAN49Qga8HrXafT4s5FgaoVwEQryghOt3q1bey8iaN



4x6 =

Scale = 1:31.3



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 0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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.** (size) 1=9-6-9, 3=9-6-9, 4=9-6-9  
 Max Horz 1=87(LC 11)  
 Max Uplift 1=-20(LC 13), 3=-20(LC 13)  
 Max Grav 1=196(LC 1), 3=196(LC 1), 4=315(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 4-9-5, Exterior(2) 4-9-5 to 7-9-5, Interior(1) 7-9-5 to 9-2-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss V24	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286356
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

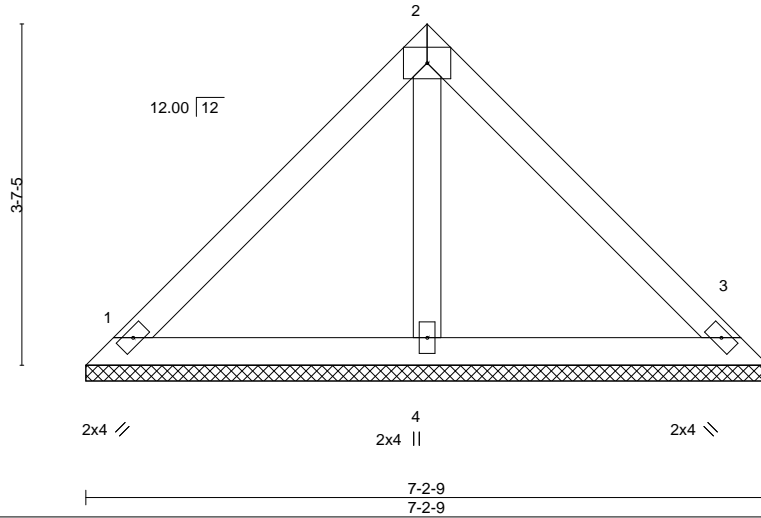
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ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-?CAN49Qga8HrXafT4s5FgaoZVETeyhG0t3q1bey8iaN



4x6 =

Scale = 1:24.4



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 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 29 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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.** (size) 1=7-2-9, 3=7-2-9, 4=7-2-9  
 Max Horz 1=-64(LC 8)  
 Max Uplift 1=-14(LC 13), 3=-14(LC 13)  
 Max Grav 1=145(LC 1), 3=145(LC 1), 4=232(LC 1)

**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=115mph Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss V25	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286357
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:39 2021 Page 1

ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-UPkIIVRILSPi9kEfeZdUDnLI?emeh82Y6jZb74y8iaM

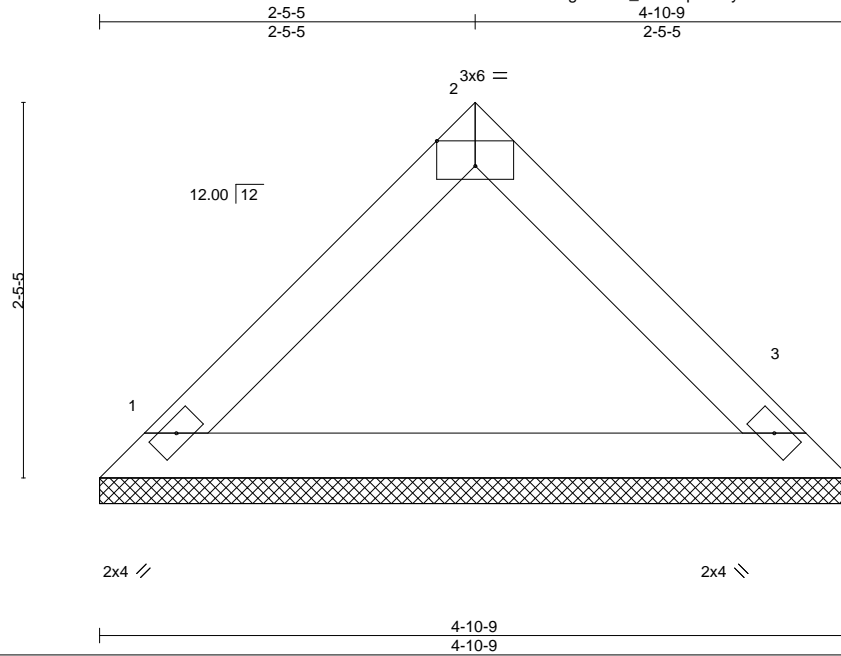


Plate Offsets (X,Y)-- [2:0-3-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 16 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.3	TOP CHORD	Structural wood sheathing directly applied or 4-10-9 oc purlins.
BOT CHORD	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=4-10-9, 3=4-10-9  
 Max Horz 1=41(LC 8)  
 Max Grav 1=167(LC 1), 3=167(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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.



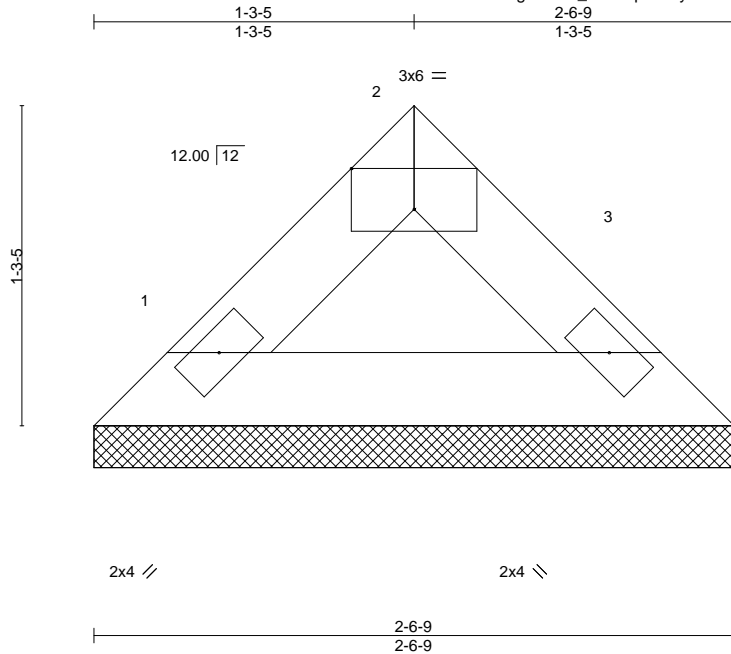
December 17, 2021



Job MASTER_RT	Truss V26	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT Job Reference (optional)	149286358
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:39 2021 Page 1  
ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-UPkllVRILSPI9kEfeZdUDnLnierLh82Y6jZb74y8iaM



Scale = 1:9.2

Plate Offsets (X,Y)-- [2:0-3-0,Edge]		CSI.		DEFL.		PLATES		GRIP	
LOADING (psf)	SPACING-	2-0-0	TC	0.02	in (loc)	l/defl	L/d	MT20	244/190
TCLL 20.0	Plate Grip DOL	1.15	BC	0.06	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	WB	0.00	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	Matrix-P		Horz(CT)	0.00	3	n/a	n/a
BCDL 10.0	Code	IRC2015/TPI2014							
								Weight: 8 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-6-9, 3=2-6-9  
Max Horz 1=-18(LC 8)  
Max Grav 1=74(LC 1), 3=74(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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.



December 17, 2021

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818 Soundside Road  
Edenton, NC 27932

Job MASTER_RT	Truss V27G	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286359
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:40 2021 Page 1  
ID:PEhXAgRNh?L\_RIVTRpJD9ycn7Q-ybl7rSw6IXZmuprCH8jl?tyy2BkQalhKNJ8fXy8iaL



3x6 =

Scale = 1:43.5

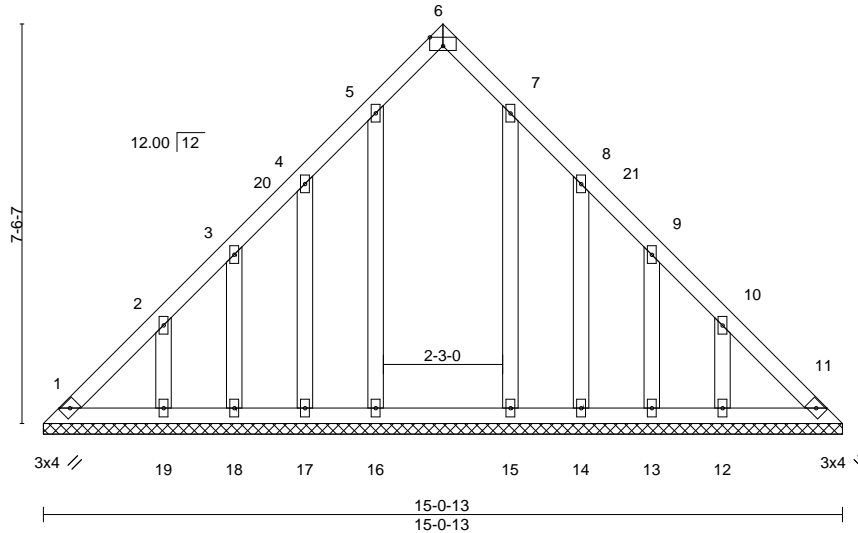


Plate Offsets (X, Y)-- [6:0-3-0,Edge], [7:0-0-1,0-0-0], [8:0-0-1,0-0-0], [9:0-0-1,0-0-0], [10:0-0-1,0-0-0]

<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 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 97 lb	FT = 20%

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

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

**REACTIONS.** All bearings 15-0-13.  
(lb) - Max Horz 1=142(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 16, 17, 18, 19, 15, 14, 13, 12  
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 18, 19, 15, 14, 13, 12

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-7-3, Interior(1) 3-7-3 to 7-6-7, Exterior(2) 7-6-7 to 10-6-7, Interior(1) 10-6-7 to 14-8-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 16, 17, 18, 19, 15, 14, 13, 12.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

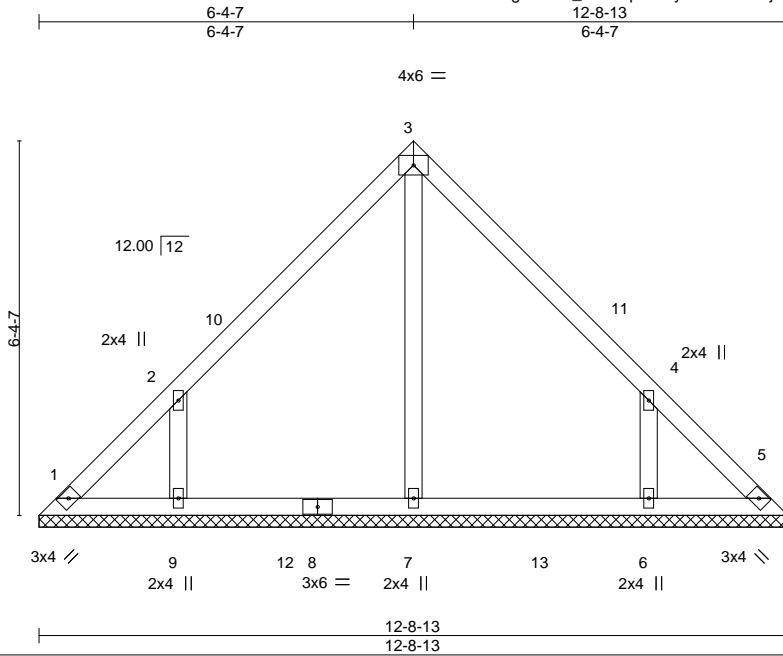
Job MASTER_RT	Truss V28	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT Job Reference (optional)	149286360
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:41 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-QnsVjBSYt3fPO2O2l\_fyICQ3pRUr91zqZ12iCzy8iaK



Scale = 1:39.2

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 0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 58 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 12-8-13.  
 (lb) - Max Horz 1=119(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=149(LC 12), 6=149(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=328(LC 19), 9=338(LC 19), 6=338(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-9=-260/190, 4-6=-260/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 6-4-7, Exterior(2) 6-4-7 to 9-4-7, Interior(1) 9-4-7 to 12-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=149, 6=149.



December 17, 2021

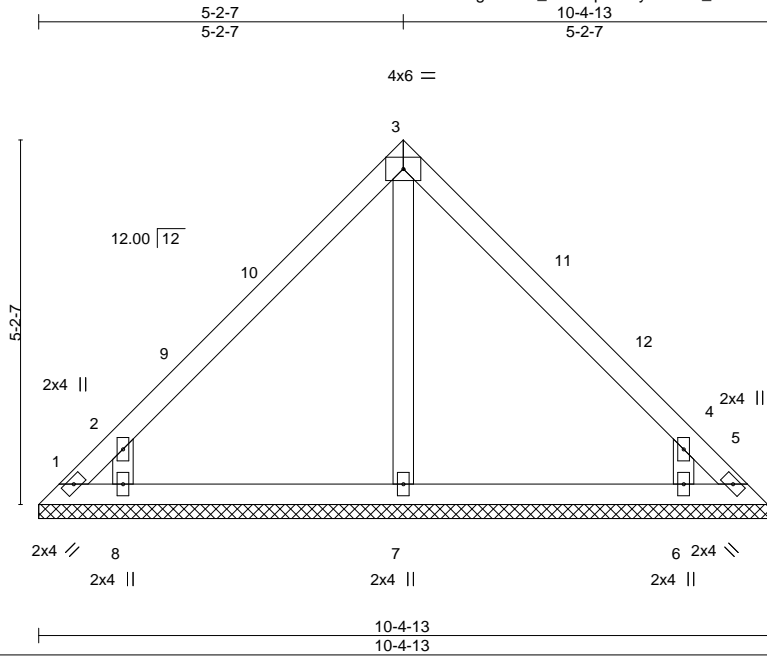
Job MASTER_RT	Truss V29	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286361
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:42 2021 Page 1

ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-u\_PuwXTAeNnG0ByEJhABrQzD9rqtuUI\_ohoFkPy8iaJ



Scale = 1:32.9

Plate Offsets (X,Y)--	[4:0-0-0,0-0-0]				
<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 0.33	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) n/a - n/a 999		
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-S		Weight: 45 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 10-4-13.  
 (lb) - Max Horz 1=96(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=116(LC 10), 8=170(LC 12), 6=170(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=357(LC 19), 6=357(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-303/225, 4-6=-303/225

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 5-2-7, Exterior(2) 5-2-7 to 8-2-7, Interior(1) 8-2-7 to 10-0-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=116, 8=170, 6=170.



December 17, 2021

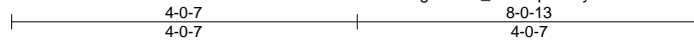
Job MASTER_RT	Truss V30	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286362
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

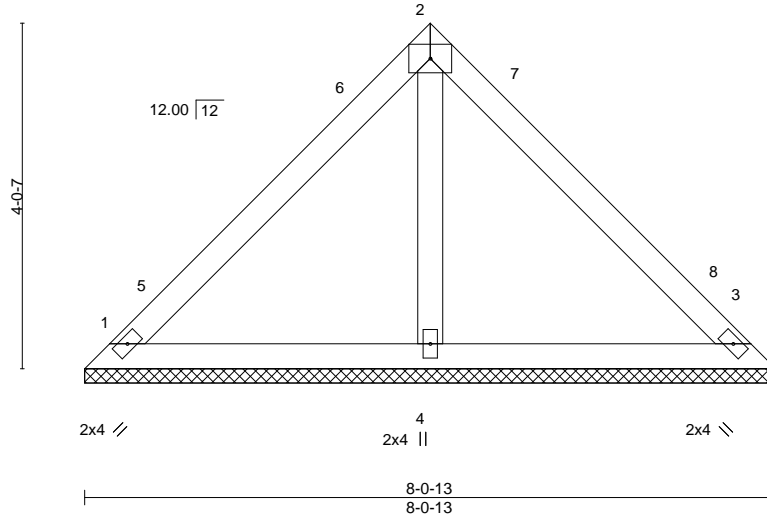
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:43 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-MAzG7tUpPgw7dLXQtPhQNdVP4FAcdyK71LXoGry8ial



4x6 =

Scale = 1:26.9



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 0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 33 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 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.** (size) 1=8-0-13, 3=8-0-13, 4=8-0-13  
 Max Horz 1=73(LC 9)  
 Max Uplift 1=-16(LC 13), 3=-16(LC 13)  
 Max Grav 1=163(LC 1), 3=163(LC 1), 4=262(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 3-4-4, Interior(1) 3-4-4 to 4-0-7, Exterior(2) 4-0-7 to 7-0-7, Interior(1) 7-0-7 to 7-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss V31	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT	149286363
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

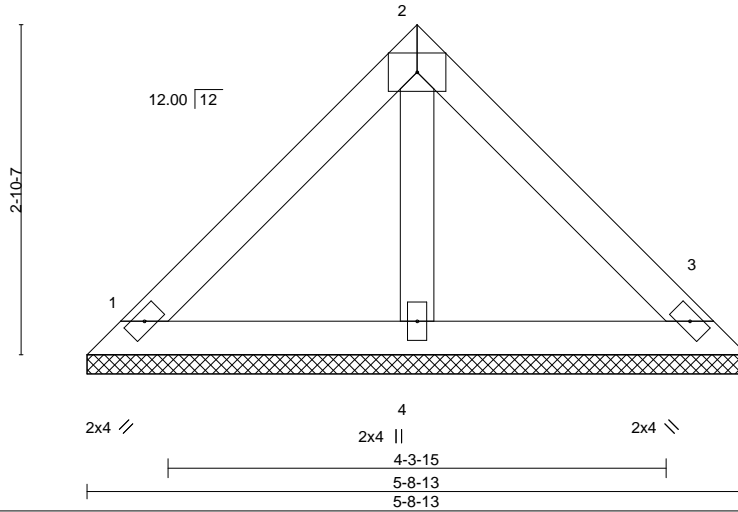
8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:44 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-qMXeLDVRA\_2\_FV6dR6Cfwr2bjfXoMPyHF?HMoly8iaH



4x6 =

Scale = 1:20.0



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 0.20	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 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 23 lb	FT = 20%

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

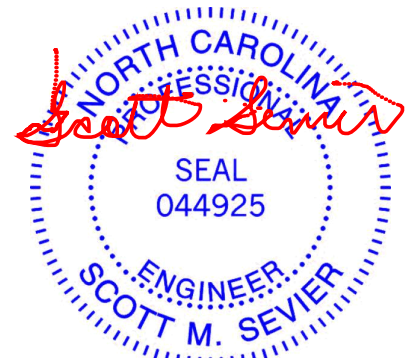
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-8-13, 3=5-8-13, 4=5-8-13  
 Max Horz 1=50(LC 11)  
 Max Uplift 1=-17(LC 13), 3=-17(LC 13)  
 Max Grav 1=120(LC 1), 3=120(LC 1), 4=162(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



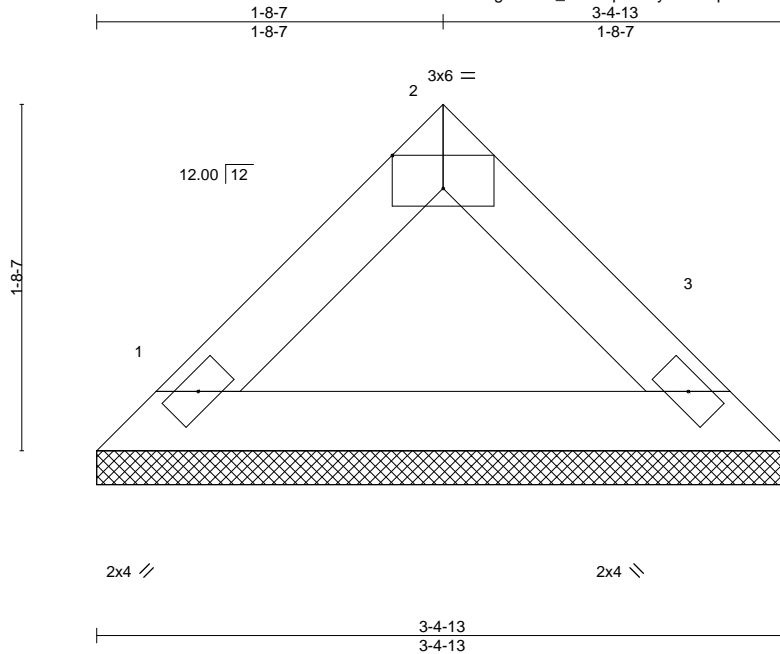
818 Soundside Road  
 Edenton, NC 27932

Job MASTER_RT	Truss V32	Truss Type VALLEY	Qty 1	Ply 1	Lexington; 1; Master.RT 149286364
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:44 2021 Page 1  
ID:PEhXAgRNh?L\_RivTRpJDr9ycn7Q-qMxeLDVRA\_2\_FV6dR6Cfwr2e\_fWGMPIHF?HMoly8iaH



Scale = 1:11.3

Plate Offsets (X,Y)--	[2:0-3-0,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>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 11 lb FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-4-13, 3=3-4-13  
Max Horz 1=27(LC 8)  
Max Grav 1=108(LC 1), 3=108(LC 1)

**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=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 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.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job MASTER_RT	Truss V33	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT 149286365
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:45 2021 Page 1  
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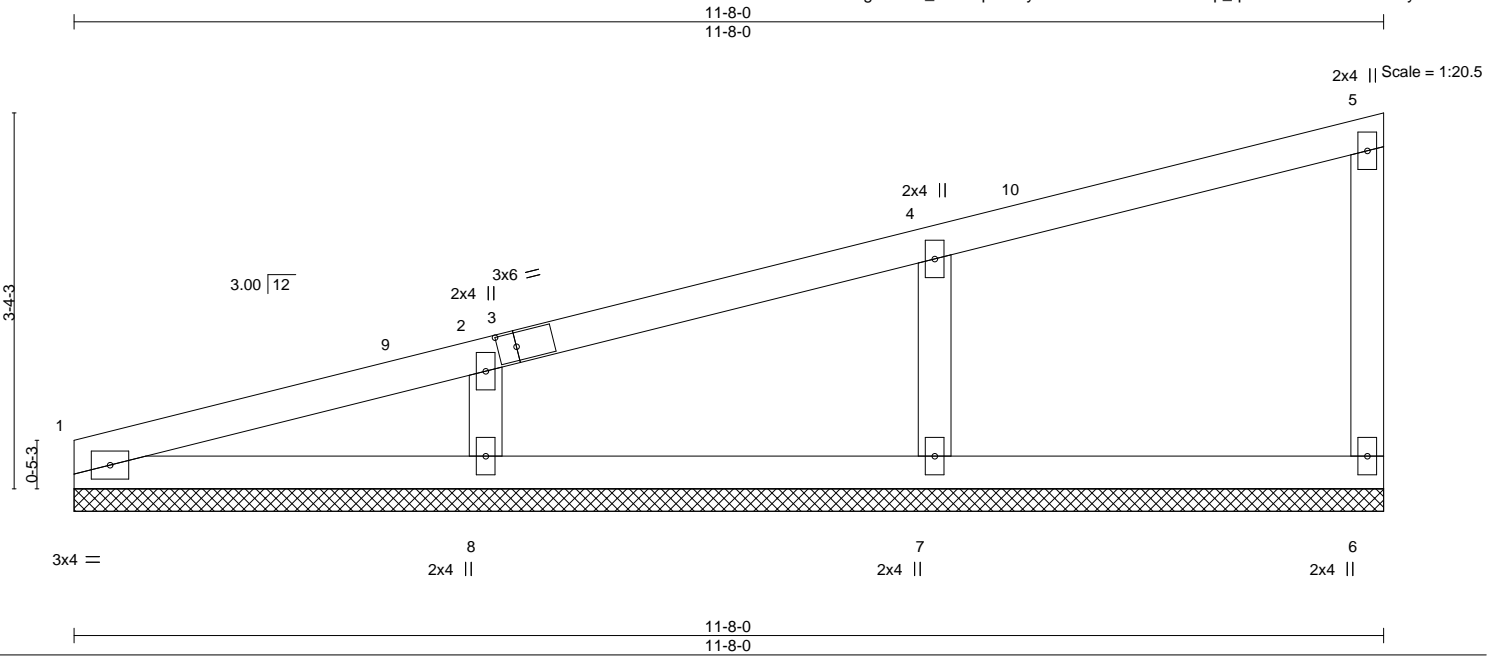


Plate Offsets (X,Y)--	[3:0-2-0,0-1-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) -0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 43 lb	FT = 20%

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

**REACTIONS.** All bearings 11-8-0.  
 (lb) - Max Horz 1=98(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=335(LC 1), 8=339(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 4-7=-253/86

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 8.



December 17, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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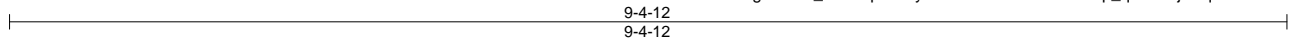
Job MASTER_RT	Truss V34	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT	149286366
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Builders FirstSource (Apex, NC),

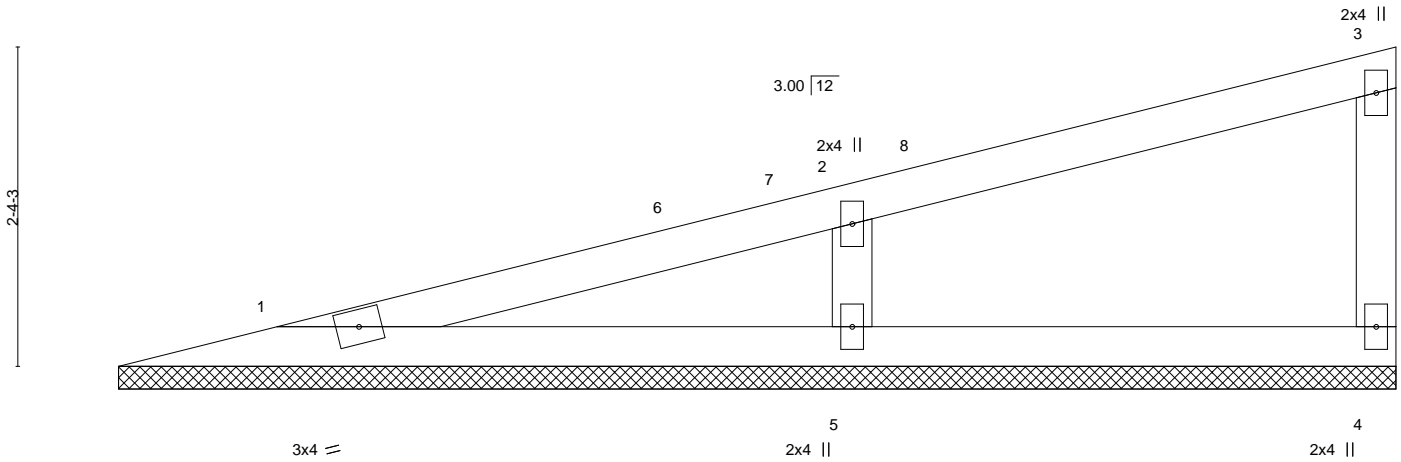
Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:45 2021 Page 1

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Scale = 1:16.9



<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 0.40	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 30 lb	FT = 20%

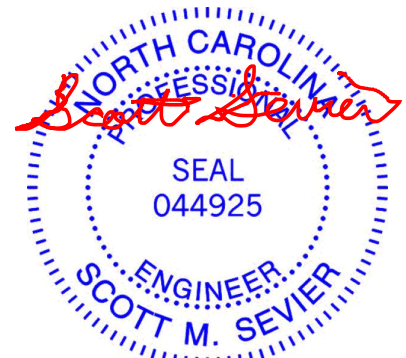
**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**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.** (size) 1=9-4-12, 4=9-4-12, 5=9-4-12  
Max Horz 1=65(LC 11)  
Max Uplift 1=5(LC 12), 4=9(LC 8), 5=43(LC 8)  
Max Grav 1=135(LC 1), 4=118(LC 1), 5=393(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-5=-289/112

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 1-2-3 to 4-2-3, Interior(1) 4-2-3 to 9-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.



December 17, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job MASTER_RT	Truss V35	Truss Type GABLE	Qty 1	Ply 1	Lexington; 1; Master.RT Job Reference (optional)	149286367
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Builders FirstSource (Apex, NC),

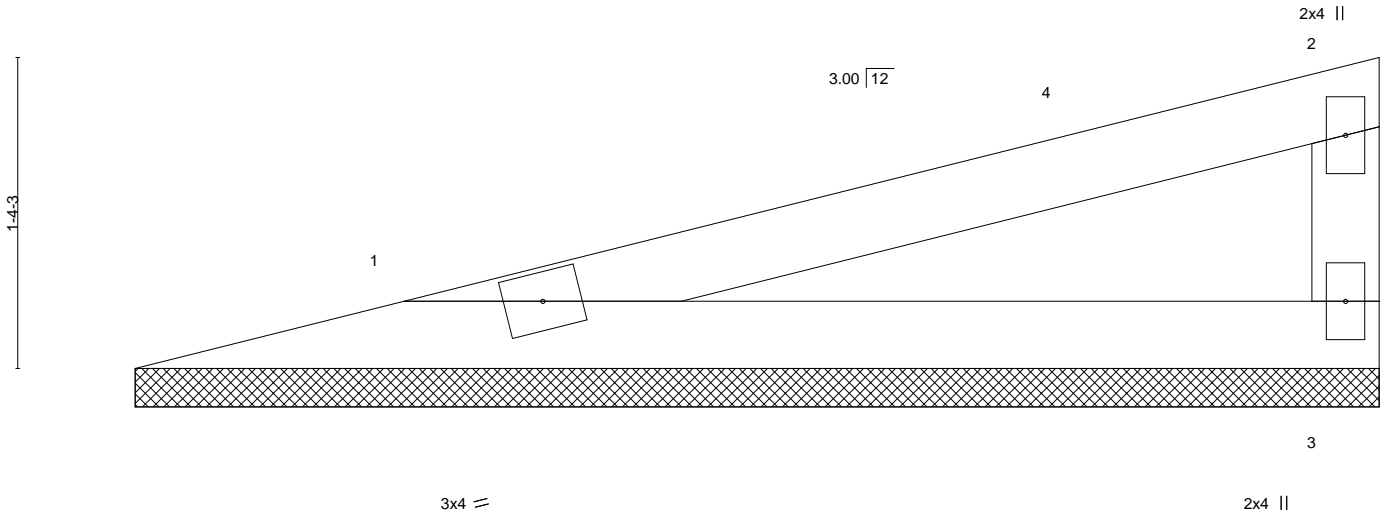
Apex, NC - 27523,

8.430 s Aug 16 2021 MiTek Industries, Inc. Wed Dec 15 13:28:46 2021 Page 1

ID:PEhXAgRNh?L\_RlvTRpJDr9ycn7Q-mlfOmuWhibliVpG?YXF7?G7s2S9jqJnajJmStAy8iaF

5-4-12  
5-4-12

Scale = 1:10.0



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 0.53	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 16 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=5-4-12, 3=5-4-12  
Max Horz 1=33(LC 9)  
Max Uplift 1=-12(LC 8), 3=-16(LC 12)  
Max Grav 1=163(LC 1), 3=163(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 1-2-3 to 4-2-3, Interior(1) 4-2-3 to 5-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 17, 2021

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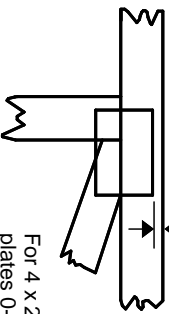
818 Soundside Road  
Edenton, NC 27932

# 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- 1/16" from outside edge of truss.



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

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

## PLATE SIZE

**4 X 4**

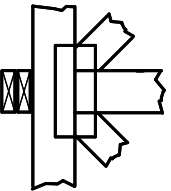
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



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

### Industry Standards:

ANSI/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate  
BCSI: 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/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



# General Safety Notes

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

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