

**Trenco**

818 Soundside Rd  
Edenton, NC 27932

Re: PROV0716-1  
793 Atkins Rd

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

Pages or sheets covered by this seal: E12055701 thru E12055702

My license renewal date for the state of North Carolina is December 31, 2018.

North Carolina COA: C-0844



August 2, 2018

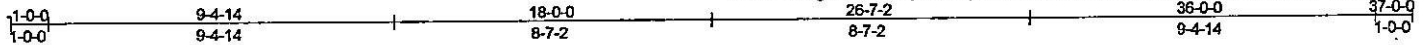
Strzyzewski, Marvin

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job PROV0716-1	Truss T1	Truss Type COMMON	Qty 19	Ply 1	793 Atkins Rd E12055701
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Peak Truss Builders, LLC, New Hill, NC - 27562,

8.220 s May 24 2018 MiTek Industries, Inc. Thu Aug 2 09:51:40 2018 Page 1  
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Scale = 1:60.9

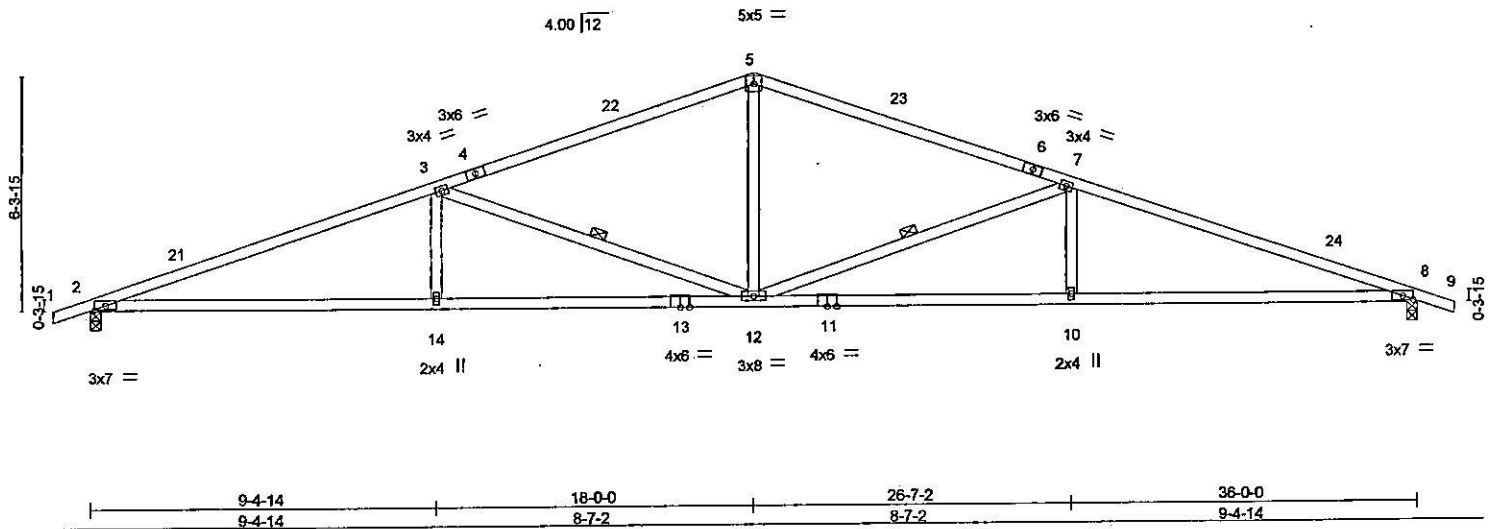


Plate Offsets (X,Y) = [2-0-3-8,0-1-6], [8-0-3-8,0-1-6]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.70	Vert(LL) -0.23 10-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.50	Vert(TL) -0.66 12-14 >653 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(TL) 0.19 8 n/a n/a		
	Code IBC2009/TP12007			Weight: 157 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP DSS \*Except\*  
1-4,8-9: 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 8-10-3 oc bracing.  
WEBS 1 Row at midpt 7-12, 3-12

**REACTIONS.**

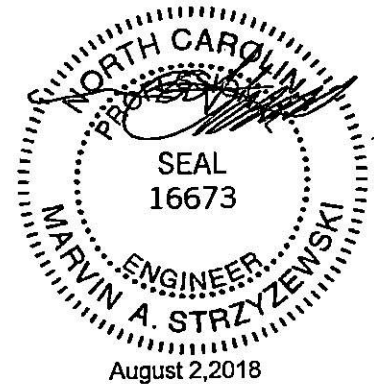
(lb/size) 2=1500/0-3-8, 8=1500/0-3-8  
Max Horz 2=90(LC 8)  
Max Uplift 2=227(LC 10), 8=227(LC 10)

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

TOP CHORD 2-3=3349/614, 3-5=2301/495, 5-7=2301/495, 7-8=3349/614  
BOT CHORD 2-14=-485/3102, 12-14=-485/3102, 10-12=-497/3102, 8-10=-497/3102  
WEBS 5-12=-66/922, 7-12=-1102/254, 7-10=0/338, 3-12=-1102/255, 3-14=0/338

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 110mph; TCDL=6.0psf, BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Exterior(2) -1-0-0 to 2-7-3, Interior(1) 2-7-3 to 18-0-0, Exterior(2) 18-0-0 to 21-7-3, Interior(1) 21-7-3 to 37-0-0 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
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) 2=227, 8=227.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-7473 rev. 10/3/2018 BEFORE USE.**  
Design valid for use only with MITTEK 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 ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

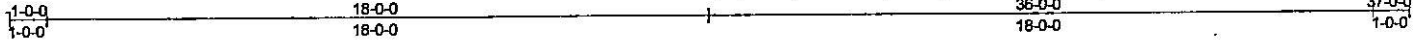
ENGINEERING BY  
**TRENCO**  
A MITTEK AFFILIATE  
816 Soundside Road  
Edenton, NC 27932

Job PROV0716-1	Truss T1GE	Truss Type COMMON SUPPORTED GAB	Qty 2	Ply 1	793 Atkins Rd E12055702
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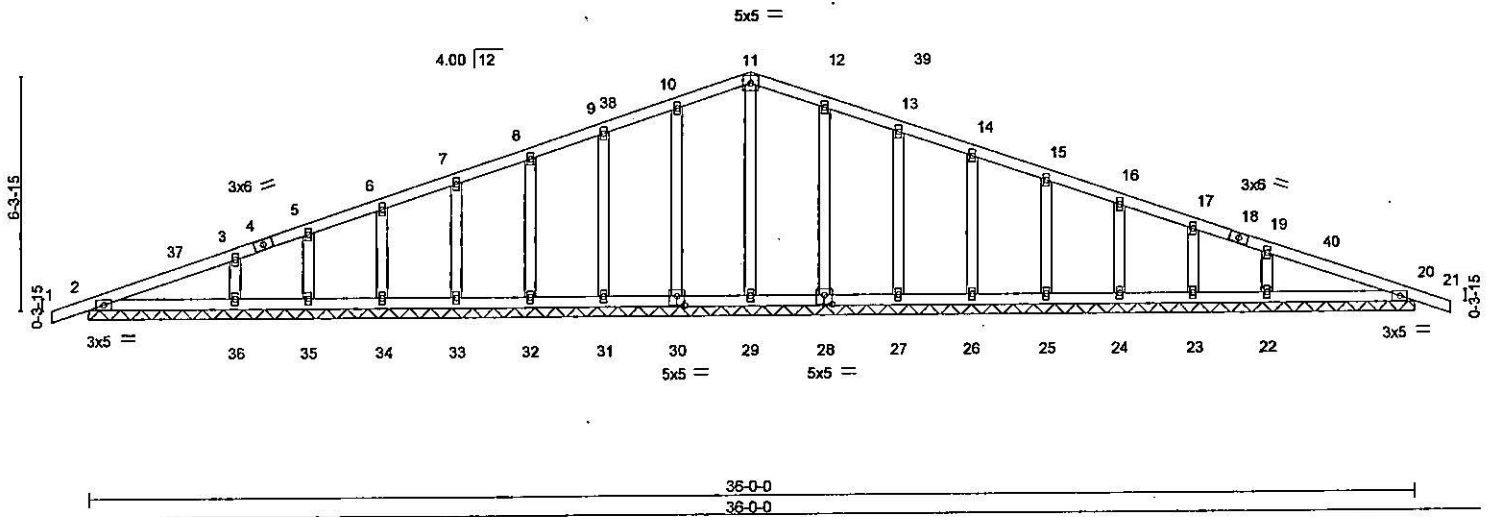
Peak Truss Builders, LLC, New Hill, NC - 27562.

8.220 s May 24 2018 MiTek Industries, Inc. Thu Aug 2 09:51:41 2018 Page 1

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Scale = 1:60.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	MT20	244/190		
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	0.01				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(TL)	0.00			Weight: 187 lb	FT = 20%
BCDL	10.0	Code IBC2009/TPI2007		Matrix-S							

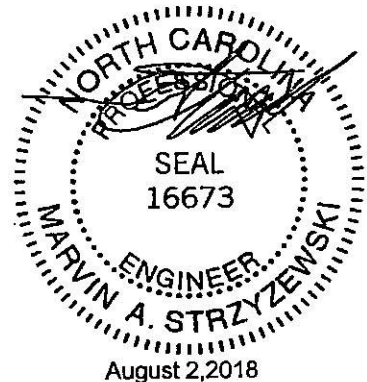
**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.3

**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 36-0-0.  
 (lb) - Max Horz 2=90(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 30, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 22, 20  
 Max Grav All reactions 250 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 28, 27, 26, 25, 24, 23, 20  
 except 36=311(LC 15), 22=311(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 10-11=27/251, 11-12=27/253

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=36ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (all heights) and C-C Corner(3) -1-0-0 to 2-7-3, Exterior(2) 2-7-3 to 18-0-0, Corner(3) 18-0-0 to 21-7-3, Exterior(2) 21-7-3 to 37-0-0 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
  - 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 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, 30, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 22, 20.

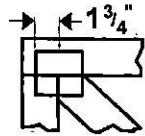


**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-69 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

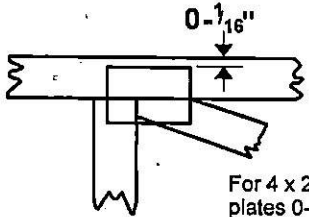
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenonton, NC 27932

# 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- $\frac{1}{16}$ " from outside edge of truss.



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

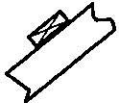
\* Plate location details available in MiTek 20/20 software or upon request.

## PLATE SIZE

4 x 4

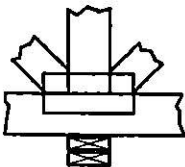
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



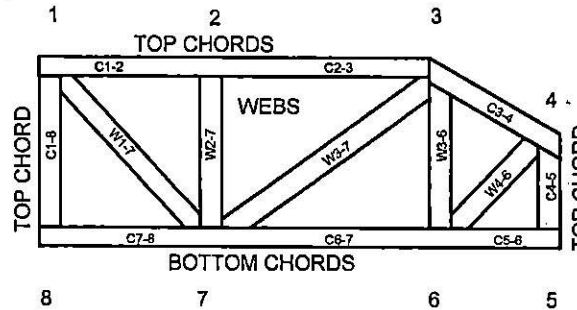
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

- ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
 DSB-89: Design Standard for Bracing.  
 BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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**MiTek**

ENGINEERING BY  
**TRENCO**  
 A MiTek Alliance

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

# General Safety Notes

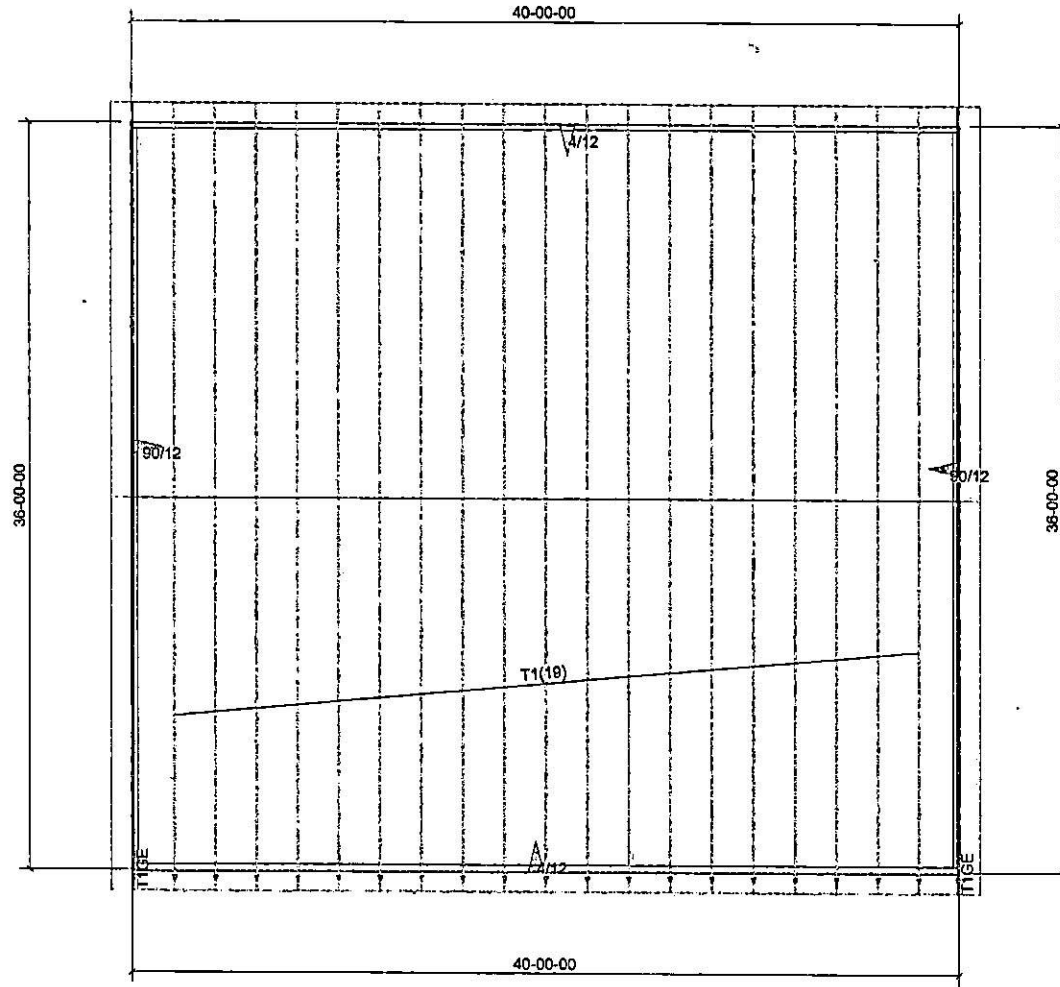
## Failure to Follow Could Cause Property Damage or Personal Injury

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

THIS LAYOUT IS TO BE USED AS A TRUSS PLACEMENT GUIDE ONLY.  
PLEASE REFER TO BUILDING PLANS FOR BUILDING CONSTRUCTION AND DETAILS,  
SUCH AS PLUMBING OR DUCT DROPS.

PROPOSED DESIGN-  
NOT FOR  
CONSTRUCTION

793 ATKINS RD  
ROOF TRUSSES  
2' OC, 1' OH



Roof Truss Loading per  
2012 NC Residential Code  
Top Chord Live Load 20# PSF  
Top Chord Dead Load 10# PSF  
Bottom Chord Live Load 0# PSF  
Bottom Chord Dead Load 10# PSF

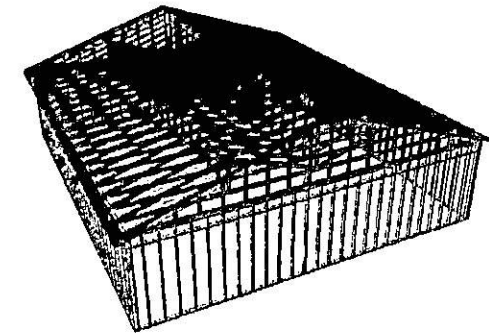
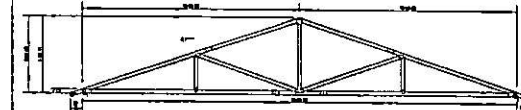
Trusses are designed for additional  
storage load wherever a 42"x24"  
box will fit between the webs.

- △ - This symbol denotes left end of  
truss as shown on truss drawings
- - Approximate location of inlet  
drop. Builder please confirm.

Truss connections by others:

- ⊕ - Nailed
- ⊙ - Ledger

- Notes:
1. Exterior dimensions shown are  
assumed to be:  
    - ⊕ Out-to-out of stud
    - ⊙ Out-to-out of sheathing
  2. Adjust truss locations as  
needed for plumbing and  
mechanical clearance. Unless  
otherwise noted, trusses may be  
shifted as long as O.C. spacing  
shown is not exceeded.
  3. Do not cut, drill, or otherwise  
damage any part of any truss  
without prior approval from Peak  
Truss.
  4. Do not approve drawings if any  
information herein is unclear.  
Once ordered trusses will be  
fabricated as approved.
  5. Please contact Peak Truss  
Builders with any questions. We  
are available to help any way  
we can. We can be reached at  
819-543-5555 or  
sales@peaktruss.com



Job #

PROV0716-1

793 Atkins Rd  
793 Atkins Rd  
Fuquay-Varina NC  
27526

Date Quoted:

07/16/18

Designer:

SB

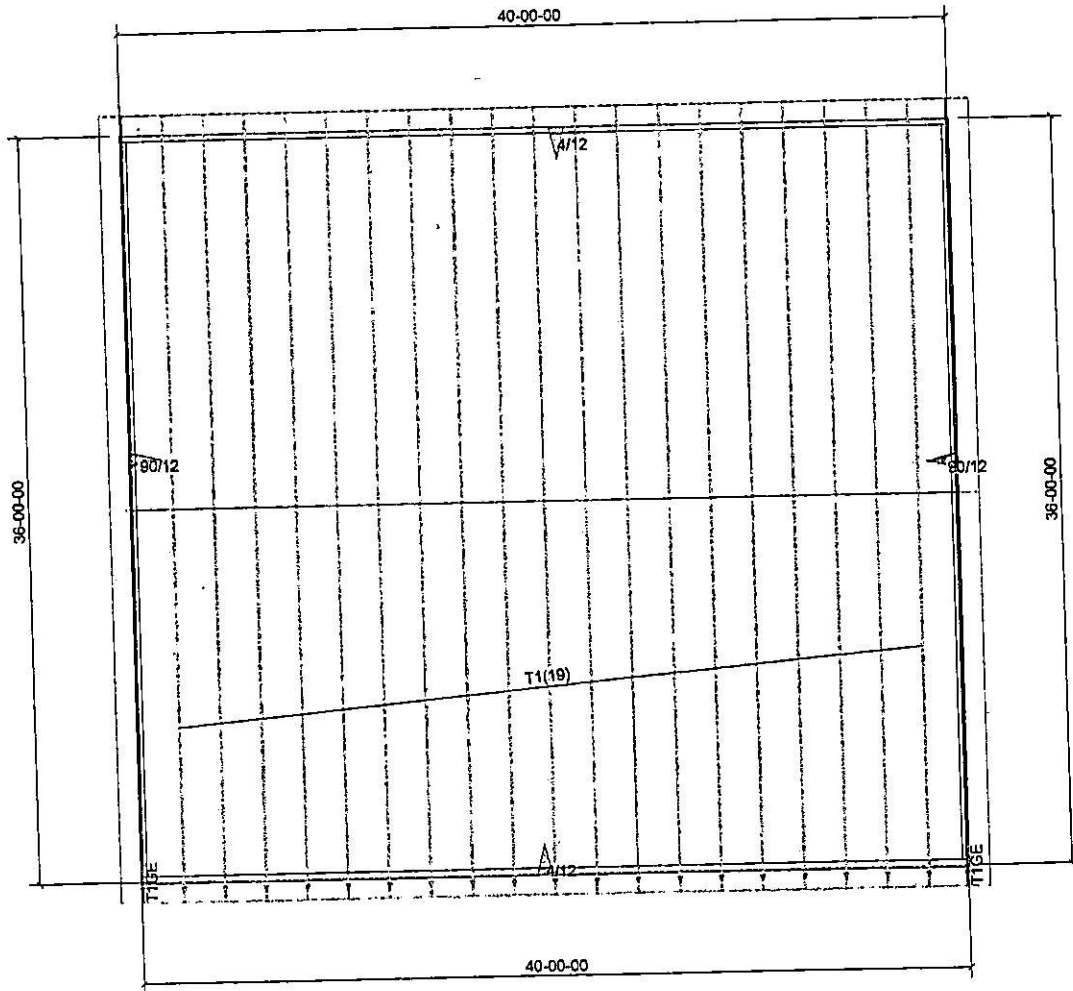
Professional Builders Supply  
10405 Chapel Hill Rd  
Morrisville, NC  
27560-8710

Peak Truss  
Builders, LLC  
PO Box 340, New Hill, NC 27562

THIS LAYOUT IS TO BE USED AS A TRUSS PLACEMENT GUIDE ONLY.  
PLEASE REFER TO BUILDING PLANS FOR BUILDING CONSTRUCTION AND DETAILS,  
SUCH AS PLUMBING OR DUCT DROPS.

PROPOSED DESIGN-  
NOT FOR  
CONSTRUCTION

793 ATKINS RD  
ROOF TRUSSES  
2' OC, 1' OH



Roof Truss Loading per  
2012 NC Residential Code  
Top Chord Live Load 20# PSF  
Top Chord Dead Load 10# PSF  
Bottom Chord Live Load 0# PSF  
Bottom Chord Dead Load 10# PSF

Trusses are designed for additional  
storage load wherever a 4'x24"  
box will fit between the webs.

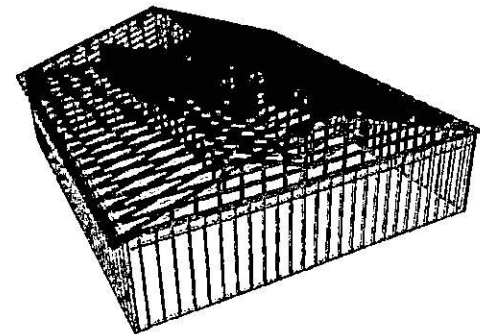
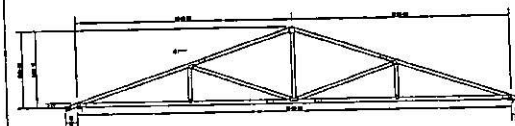
- △ - This symbol denotes left end of truss as shown on truss drawings
- - Approximate location of toilet drop. Builder please confirm.

Truss connections by others:

- ⊕ - Nailed
- ⊙ - Ledger

Notes:

1. Exterior dimensions shown are assumed to be:
  - Out-to-out of stud
  - Out-to-out of sheathing
2. Actual truss locations as needed for plumbing and mechanical clearance. Unless otherwise noted, trusses may be shifted as long as O.C. spacing shown is not exceeded.
3. Do not cut, drill, or otherwise damage any part of any truss without prior approval from Peak Truss.
4. Do not approve drawings if any information herein is unclear. Once ordered trusses will be fabricated as approved.
5. Please contact Peak Truss Builders with any questions. We are available to help any way we can. We can be reached at 919-545-5255 or sales@peaktruss.com



Job #

PROV0716-1

793 Atkins Rd  
793 Atkins Rd  
Fuquay-Varina NC  
27526

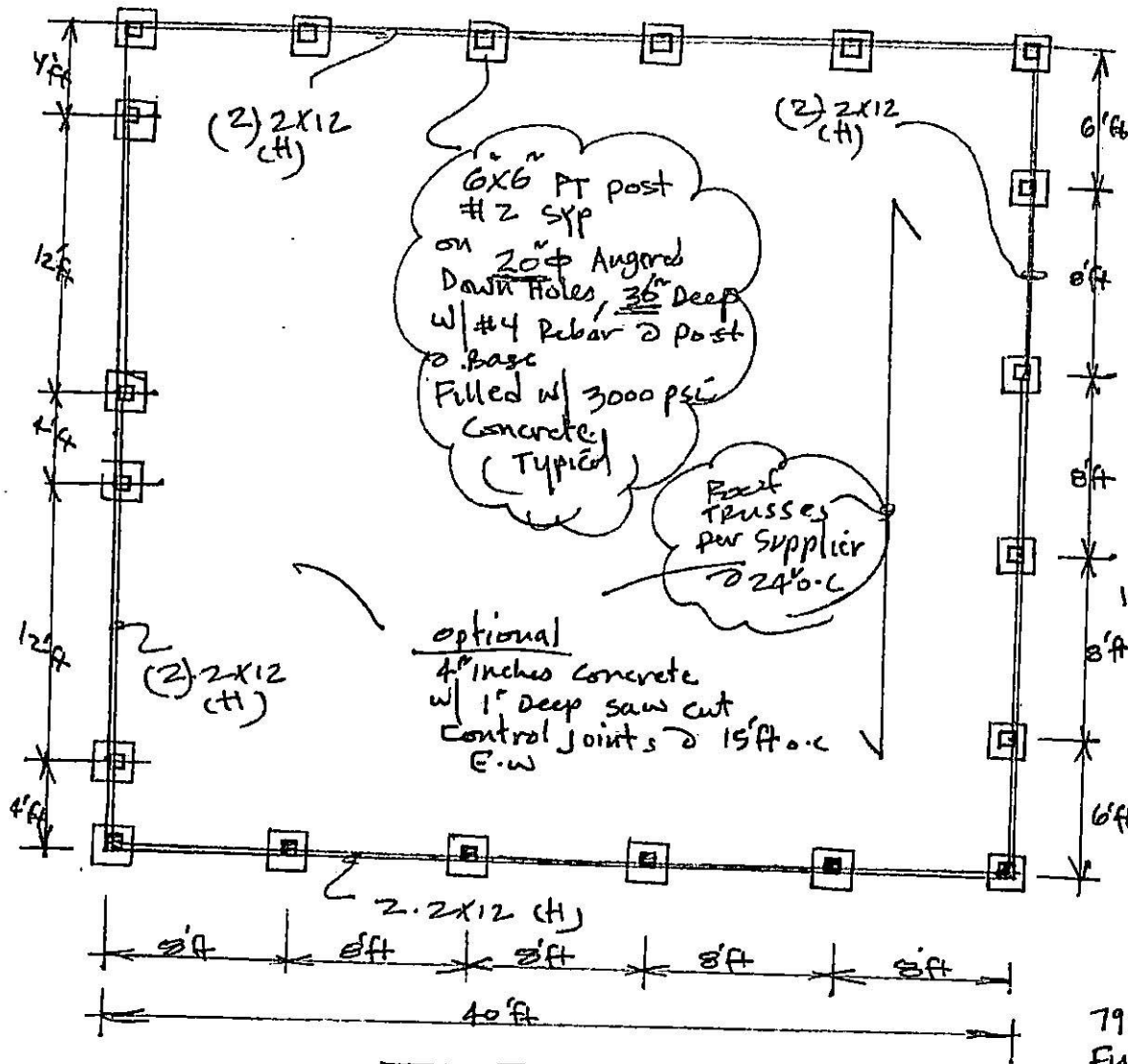
Date Quoted:  
07/16/18

Designer:  
SB

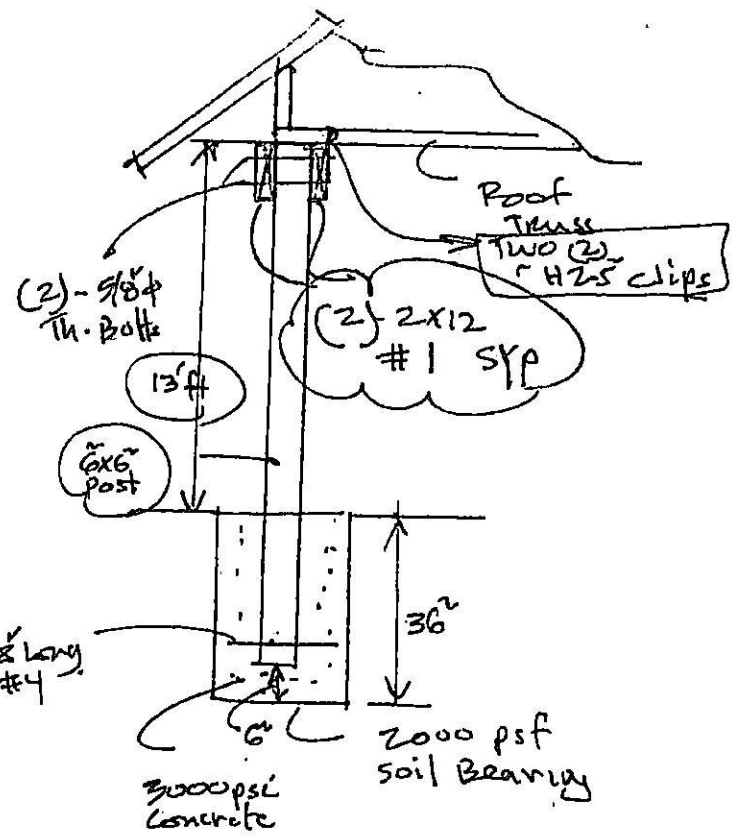
Professional Builders Supply  
10405 Chapel Hill Rd  
Morrisville, NC  
27560-8710

Peak Truss  
Builders, LLC  
PO Box 340, New Hill, NC 27562

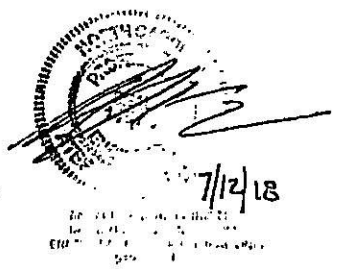




**BARN**  
 40'x36' (13'ft High) @ 110 mph wind zone



793 Atkins RD  
 Fuquay-Varina, NC



7/12/18