- 1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ALL DIMENSIONS, ROOF PITCHES, AND SQUARE FOOTAGE ARE CORRECT PRIOR TO CONSTRUCTION. K&A HOME DESIGNS, INC. IS NOT RESPONSIBLE FOR ANY DIMENSIONING, ROOF PITCH, OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- 2. ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
- 3. ALL ANGLED WALLSHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
- 4. STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
- 5. DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
- 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 EDITION.

# **SQUARE FOOTAGE**

HEATED SQUARE FOOTAGE		UNHEATED SQUARE FOOTAGE		
FIRST FLOOR=	2361	<i>GARAGE</i> =	608	
SECOND FLOOR=	N/A	FRONT PORCH=	256	
THIRD FLOOR=	N/A	SCREEN PORCH=	144	
BASEMENT=	N/A	REAR PORCH=	144	
		STORAGE=	83	
	•			

TOTAL HEATED= 2361

TOTAL UNHEATED= 1235

WIN. HDR. HGT

1ST F.F.

### **CRAWL SPACE VENTILATION CALCULATIONS**

-VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

-100% VAPOR BARRIER MUST BE PROVIDED WITH 12" MIN. LAP JOINTS.

-THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 AS LONG AS REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. (COMPLY WITH NC CODE MIN. WITH REGARD TO VENT PLACEMENT FROM CORNERS)

SQ. FT. OF CRAWL SPACE/1500

1.57

SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 4

VENTS AT 0.45 SQ. FT. NET FREE

VENTILATION EACH= 1.8 SQ. FT. OF VENTILATION

\*\*FOUNDATION DRAINAGE- WATERPROOFING PER SECTIONS 405 & 406.

### **ATTIC VENTILATION CALCULATIONS**

- CALCULATIONS SHOWN BELOW ARE BASED ON VENTILATORS USED AT LEAST 3 FT. ABOVE THE CORNICE VENTS WITH THE BALANCE OF VENTIALTION PROVIDED BE EAVE VENTS.
- CATHEDRAL CEILINGS SHALL HAVE A MIN. 1" CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

3596 SQ. FT. OF ATTIC/300=

11.99

EACH OF INLET AND OUTLET REQUIRED.

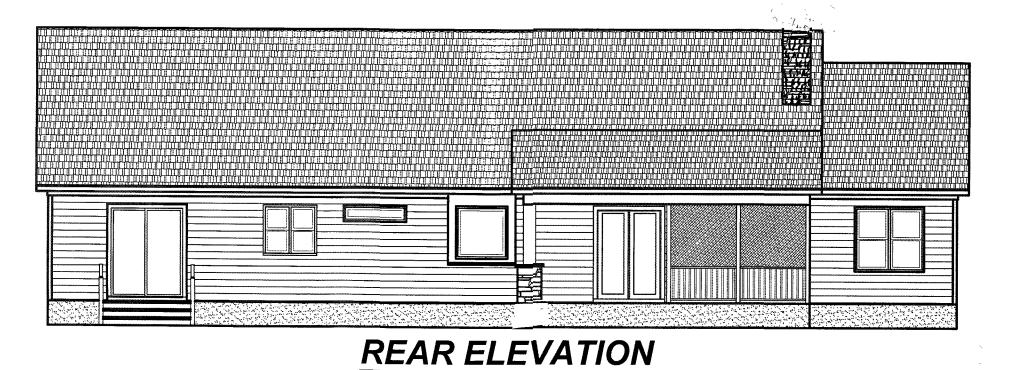
## \*WALL AND ROOF CLADDING DESIGN VALUES

- WALL CLADDING IS DESIGNED FOR A 24.1 SQ. FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE.
- ROOF VALUES BOTH POSITVE AND NEGATIVE SHALL BE AS FOLLOWS:
- 45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12
- 34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12
- 21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12
- \*\* MEAN ROOF HEIGHT 30' OR LESS



FRONT ELEVATION

1/4" = 1'-0"



1/8" = 1'-0"

LEFT ELEVATION 1/8" = 1'-0"



RIGHT ELEVATION 1/8" = 1'-0"

23-412 11-6-23 KBB REFER TO ELEV.

**ELEVATIONS** 

**Sheet Number** 

Project #: 23-412

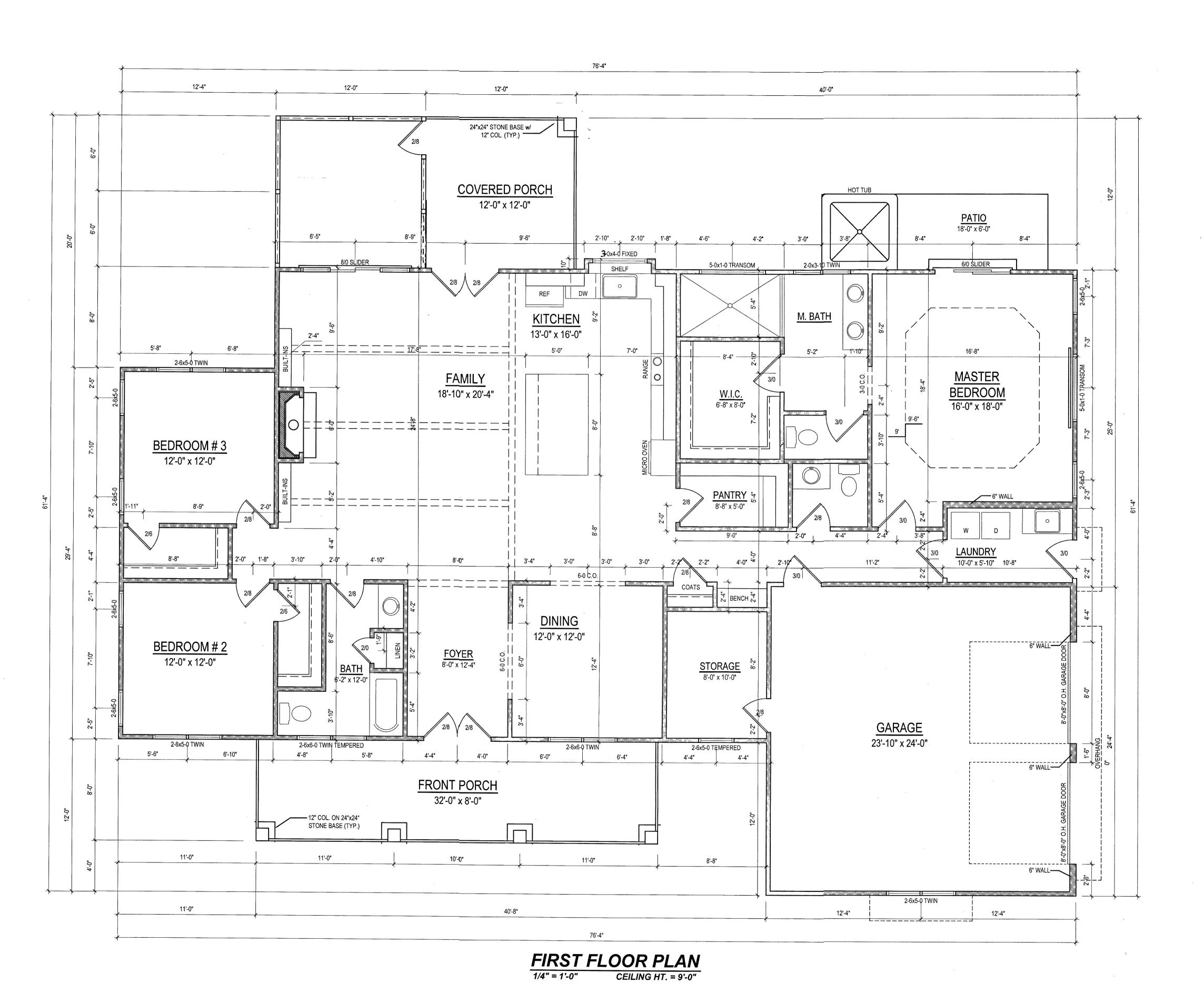
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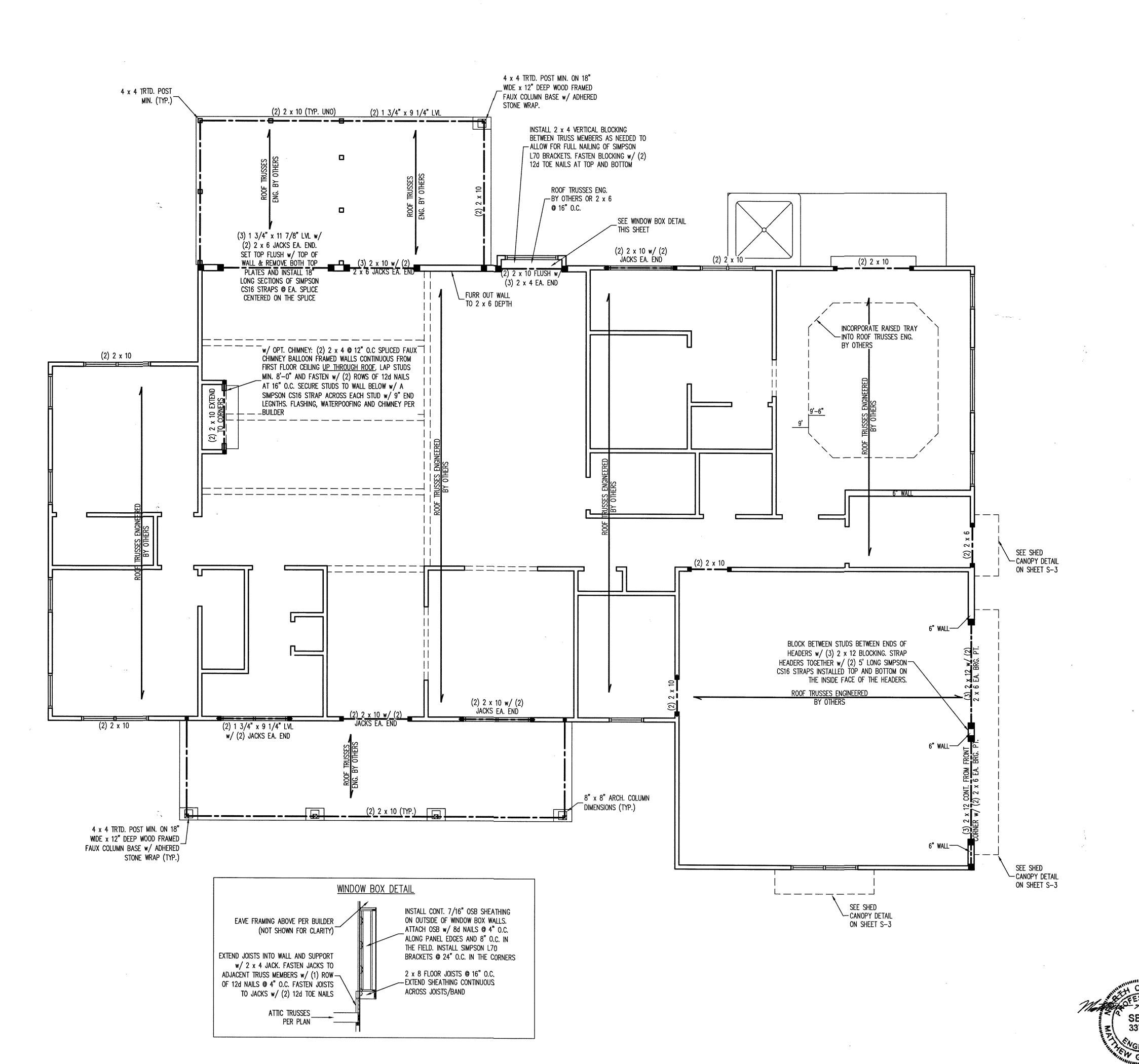
Drawn/Design By: KBB

Scale: 1/4"=1'-0"

FLOOR PLAN

Sheet Num





BRACED WALL DESIGN NOTES:

1. BRACED WALL DESIGN PER SECTION R602.10.5 "WALL BRACING BY ENGINEERED DESIGN" OF THE NCRC 2018 EDITION USING BRACING MATERIALS AND METHODS LISTED IN TABLE R602.10.1 ALONG WITH ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.

2. SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSP WALL BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2018 EDITION.

3. CS-WSP REFERS TO "CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANELS." CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

4. GB REFERS TO "GYPSIJM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.)

GYPSUM BOARD ON BOTH SIDES OF WALL WHERE NOTED ON THE PLANS
ATTACHED WITH 1 1/4" LONG #6 SCREWS OR 1 5/8" LONG 5d COOLER
NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD.
5. BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH

WIND ZONES, BRACED WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE
WITH CHAPTER 45 OF THE NCRC 2018 EDITION.
6 SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL REACED WALL

6. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

#### STRUCTURAL NOTES:

- 1. ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO.)

  2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 SP
- 2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 SPF #2
  OR SYP #2 (KILN DRIED) (UNO). HEADERS HAVE BEEN
  DESIGNED BASED ON CALCULATED LOADS. CODE
  TABLES HAVE NOT BEEN USED.
- 3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1)
  JACK STUD AND (1) KING STUD EA. END (UNO.). SEE
  TABLE R602.7.5 FOR ADDITIONAL KING STUD
  REQUIREMENTS.
- BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.)
- 5. ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS w/
  SIMPSON ABU44 POST BASES (OR EQUAL) AND 6 x 6
  POSTS w/ ABU66 POST BASES (OR EQUAL) (UNO).
  ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH
  700 LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.)
- 6. FOR FIBERGLASS, ALUMINUM, OR COLUMN ENG. BY
  OTHERS, SECURE TO SLAB w/ (2) METAL ANGLES USING
  2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS w/
  1/4" THROUGH BOLTS w/ NUTS AND WASHERS.
  LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN.
  THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING
- 7. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT KING STUDS
AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MINIMUM NUMBER OF FUL HEIGHT STUDS (KINGS)
UP TO 3'	1
> 3' TO 6'	2
> 6' TO 9'	3
> 9' TO 12'	4
> 12' TO 15'	5

	LEGEND	
CONT	CONTINUOUS	
ΧJ	EXTRA JOIST	
DJ	DOUBLE JOIST	
TJ	TRIPLE JOIST	
EA	EACH	
( )	NUMBER OF STUDS	
DSP	DOUBLE STUD POCKET	
TSP	TRIPLE STUD POCKET	
OC	ON CENTER	
SPF	SPRUCE PINE FIR	
SYP	SOUTHERN YELLOW PINE	
TRTD	PRESSURE TREATED	
TYP	TYPICAL	
UNO	UNLESS NOTED OTHERWISE	

DATE: SEPTEMBER 3, 2024

SCALE: 1/4" = 1'0"

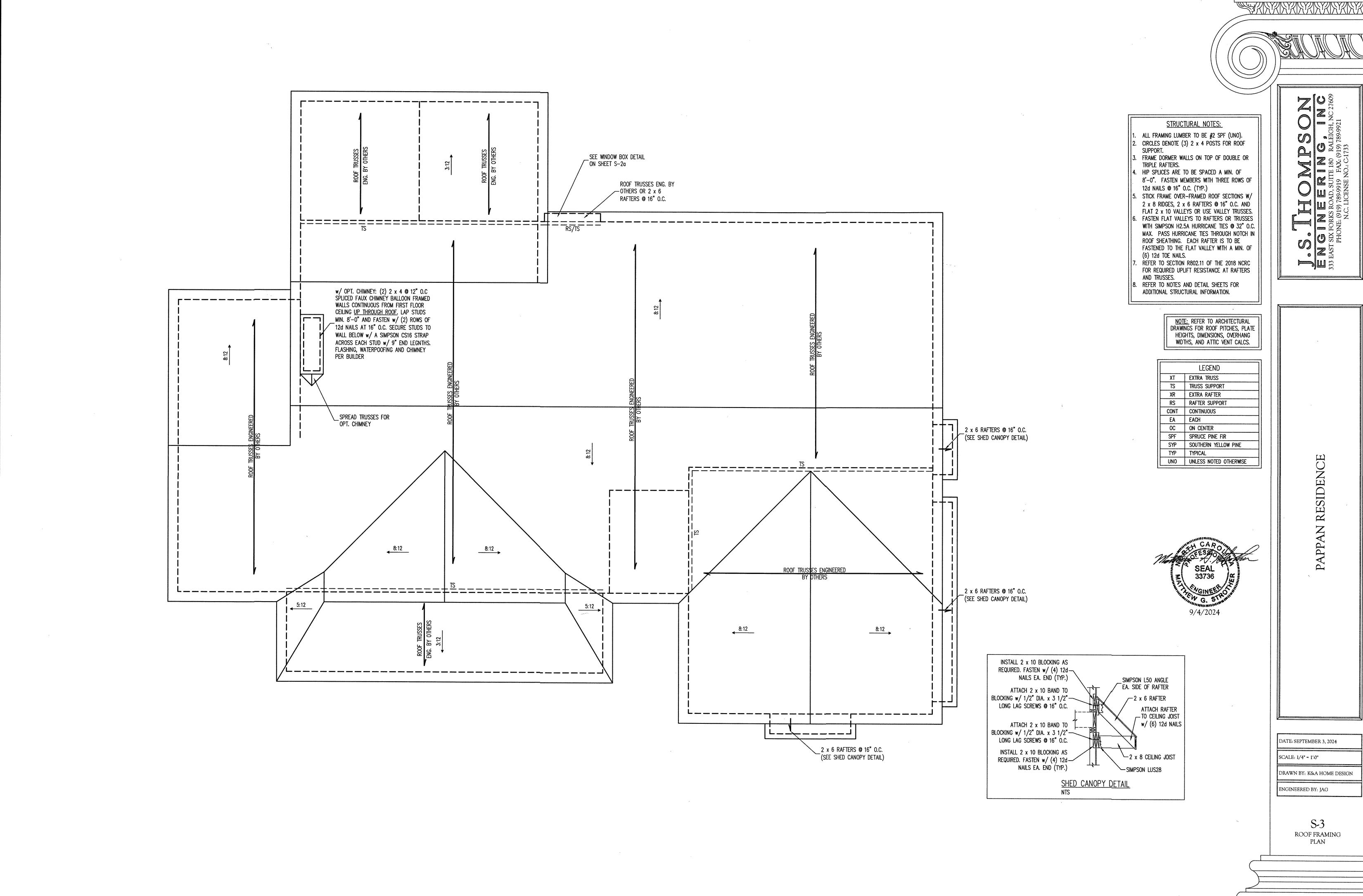
DRAWN BY: K&A HOME DESIGN
ENGINEERED BY: JAG

S-2

S-Z
ATTIC FRAMING PLAN

PAN RESIDENCE

XXXXXXXXXXXXXXXX



Z:\CAD Drawings\Miscellaneous CAD\Pappan Residence\Pappan Structural 9-24.dwg, Whitney