GENERAL NOTES:

- 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 WALL SHOWN 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 F	<u>OOTAGE</u>	<u>UNHEATED SQUARE I</u>	<u>FOOTAGE</u>
FIRST FLOOR=	1558	GARAGE=	544
SECOND FLOOR=	890	FRONT PORCH=	222
THIRD FLOOR=	N/A	SCREEN PORCH=	218
BASEMENT=	N/A	DECK=	N/A
		STORAGE=	642
TOTAL HEATED=	2479	TOTAL UNHEATED	= 1626

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)

N/A	SQ. FT. OF CF	RAWLSPACE/1500
N/A	SQ. FT. OF R	EQUIRED VENTILATION
PROVIDED BY:	N/A	VENTS AT 0.45 SQ. FT. NET FREE
VENTILATION I	EACH= N/A	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.

N/A SQ. FT. OF ATTIC/300= N/A

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.

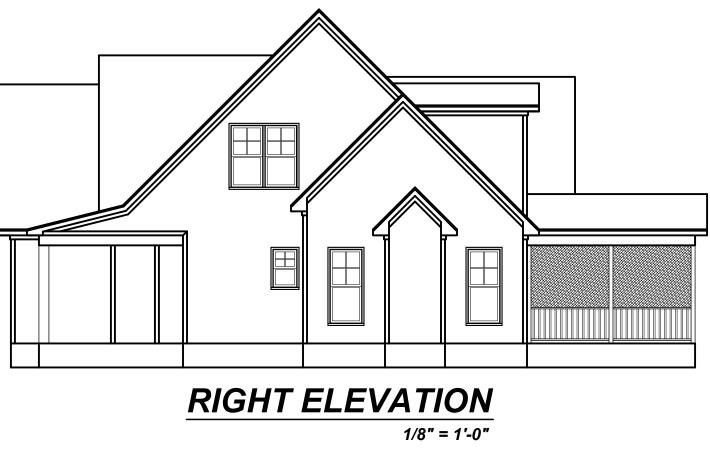
- ROOF VALUES BOTH POSITVE AND NEGATIVE SHALL BE AS FOLLOWS:

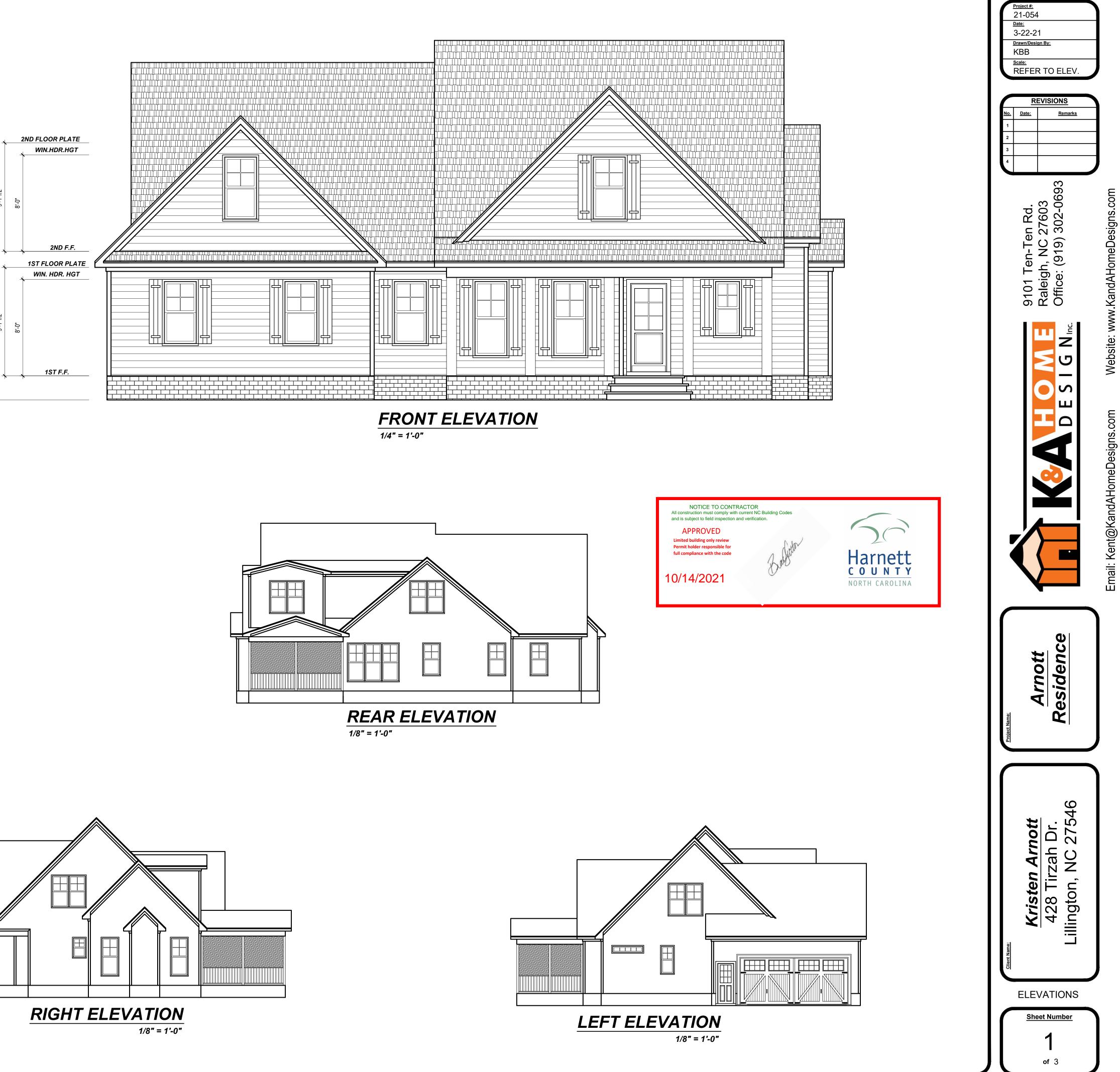
45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12

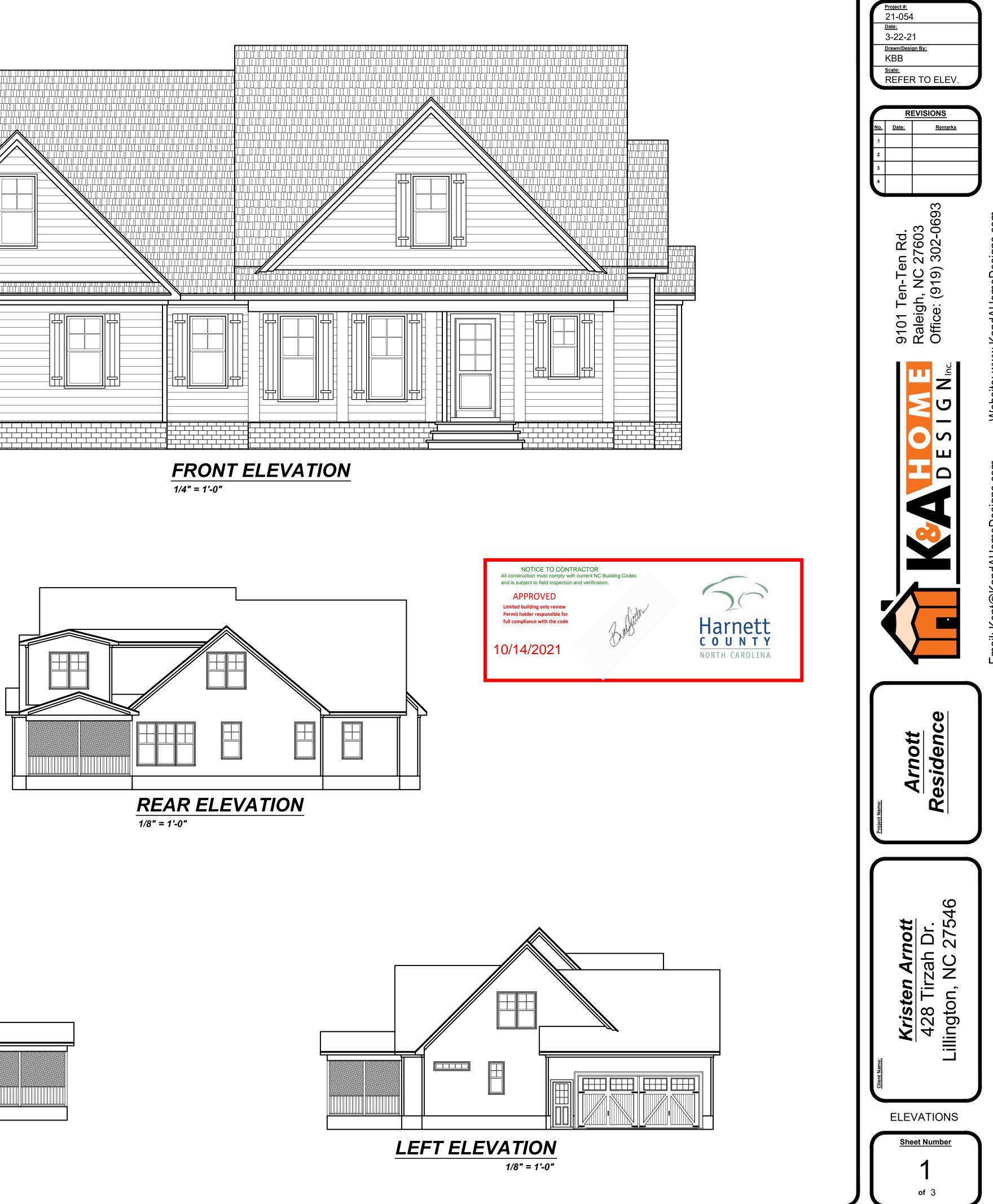
34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

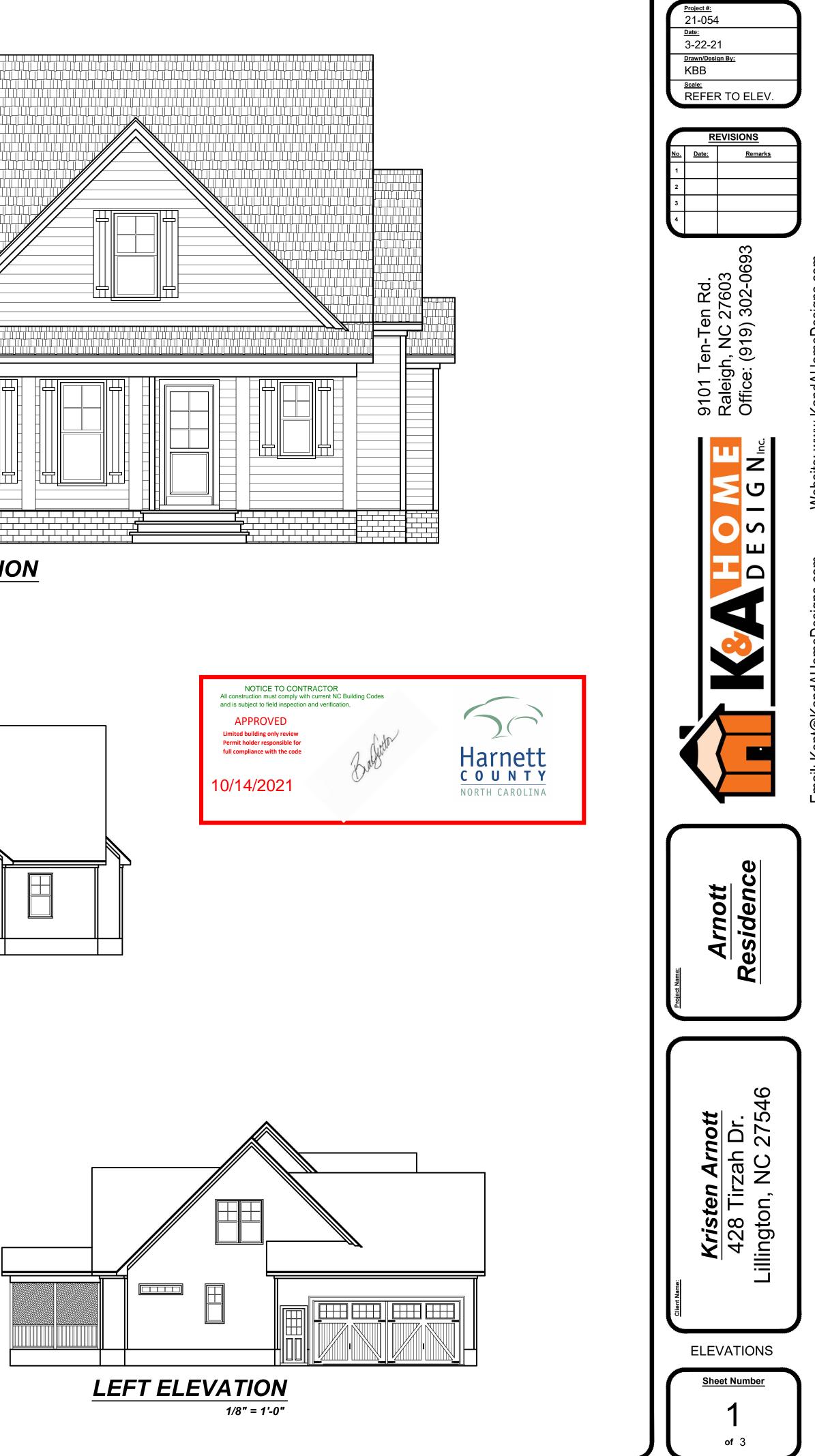
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

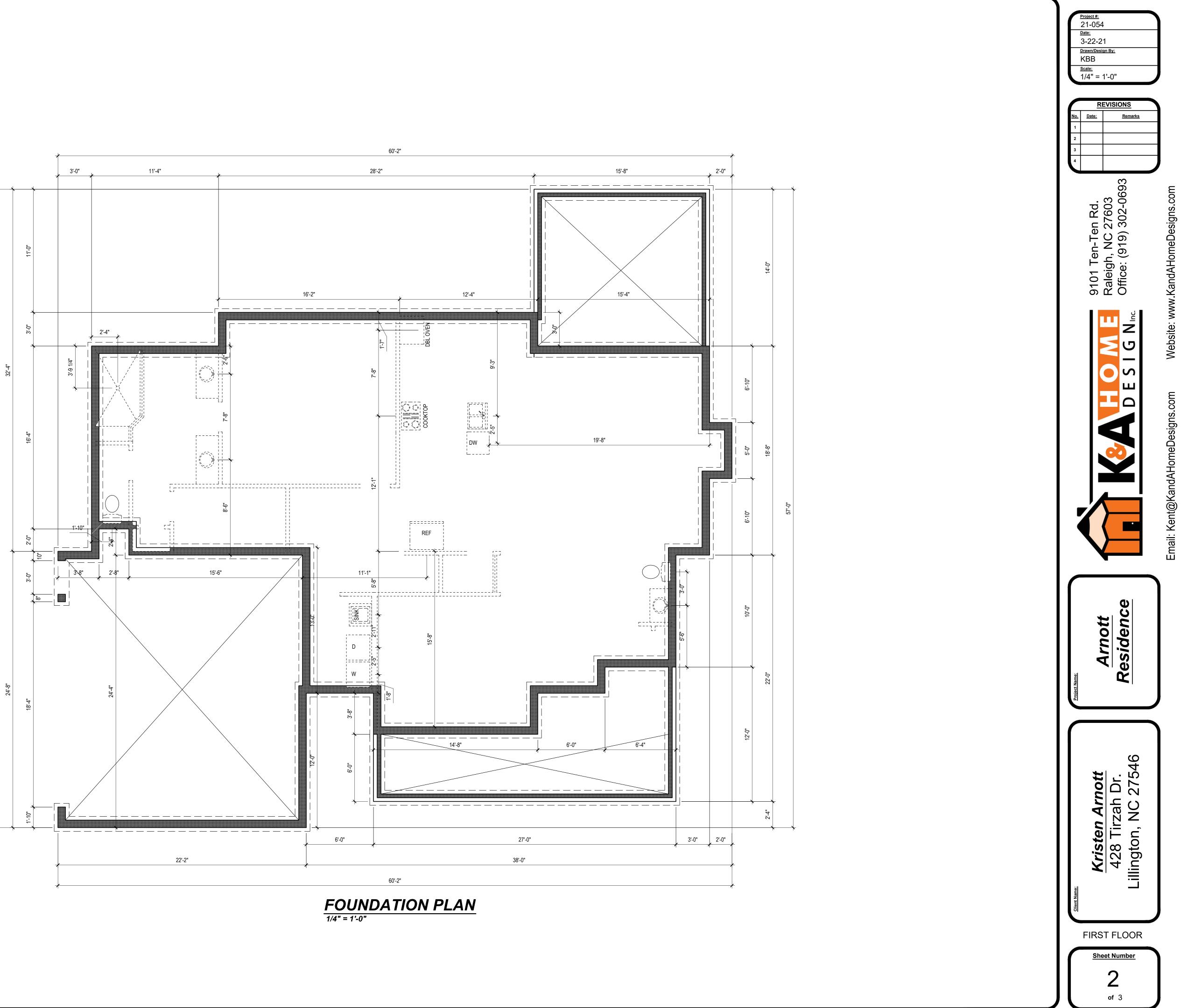
** MEAN ROOF HEIGHT 30' OR LESS

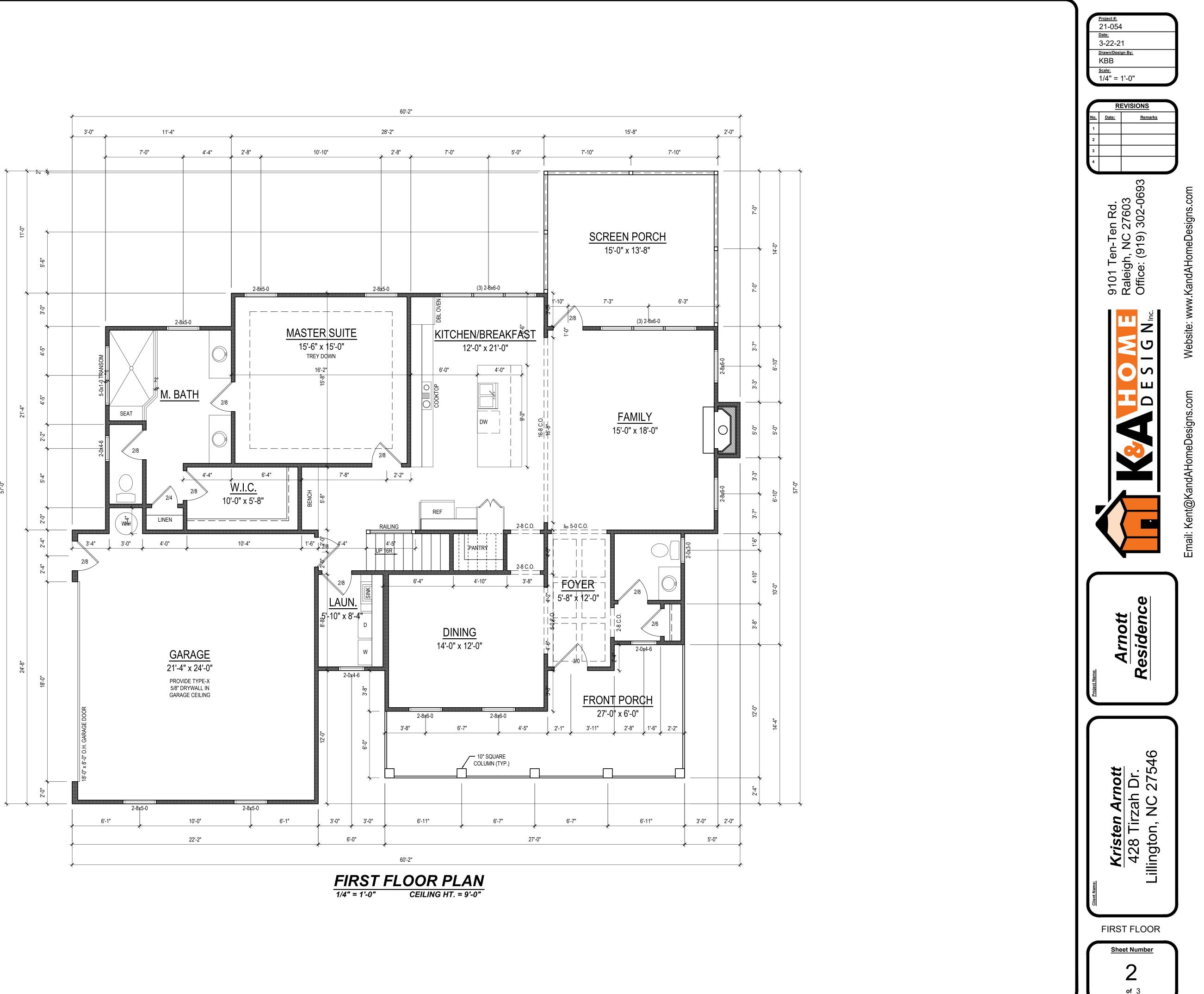


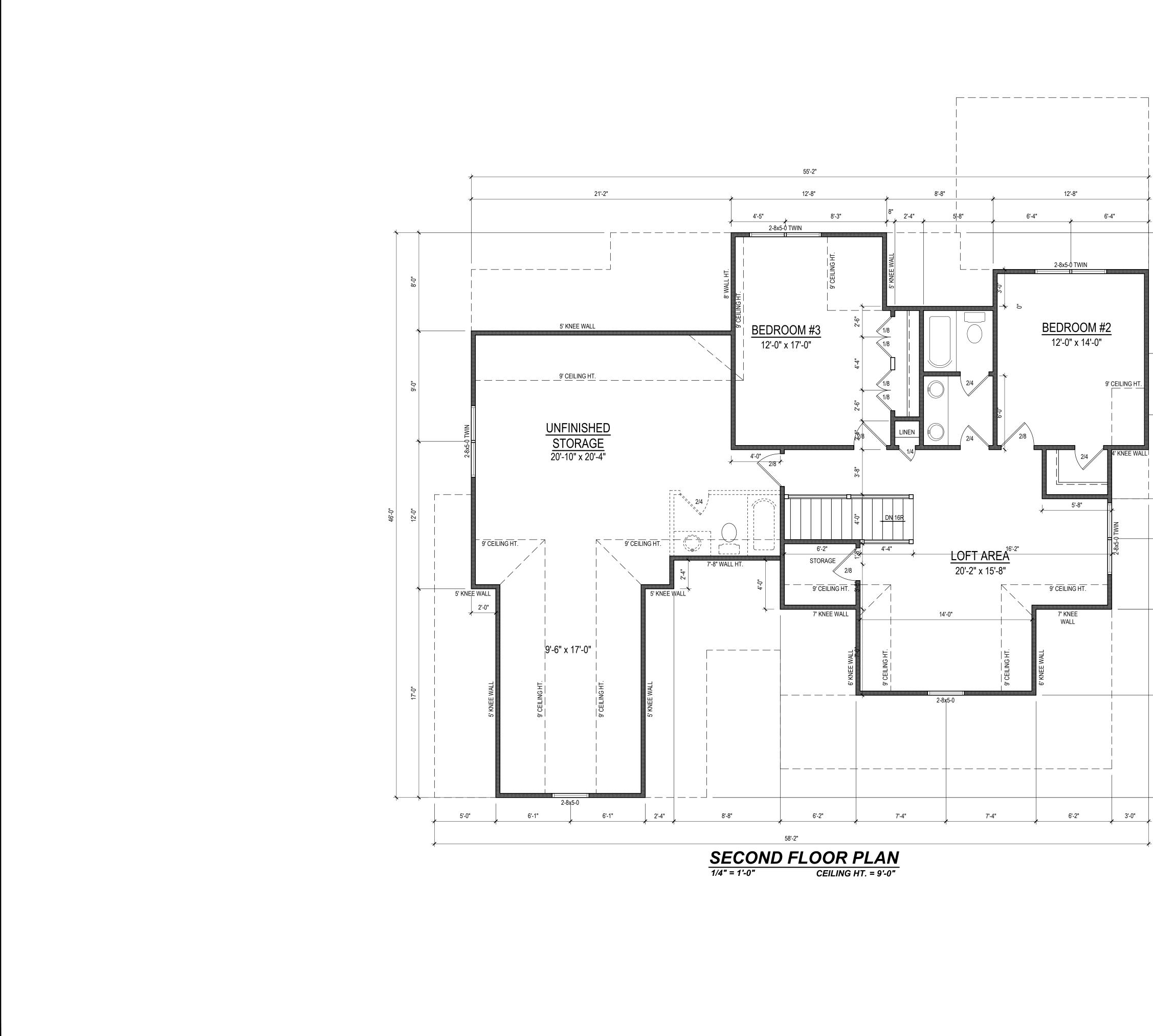














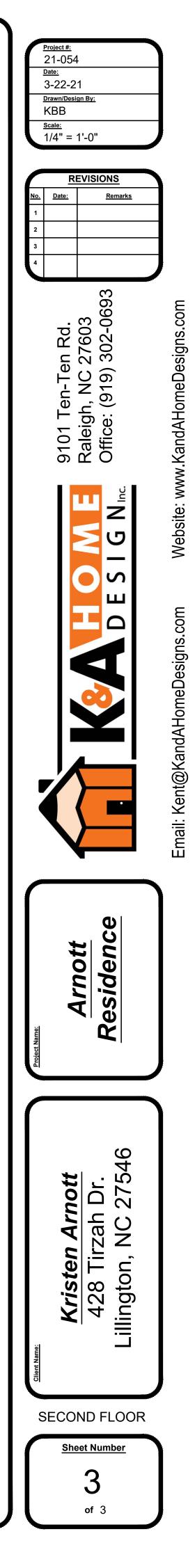
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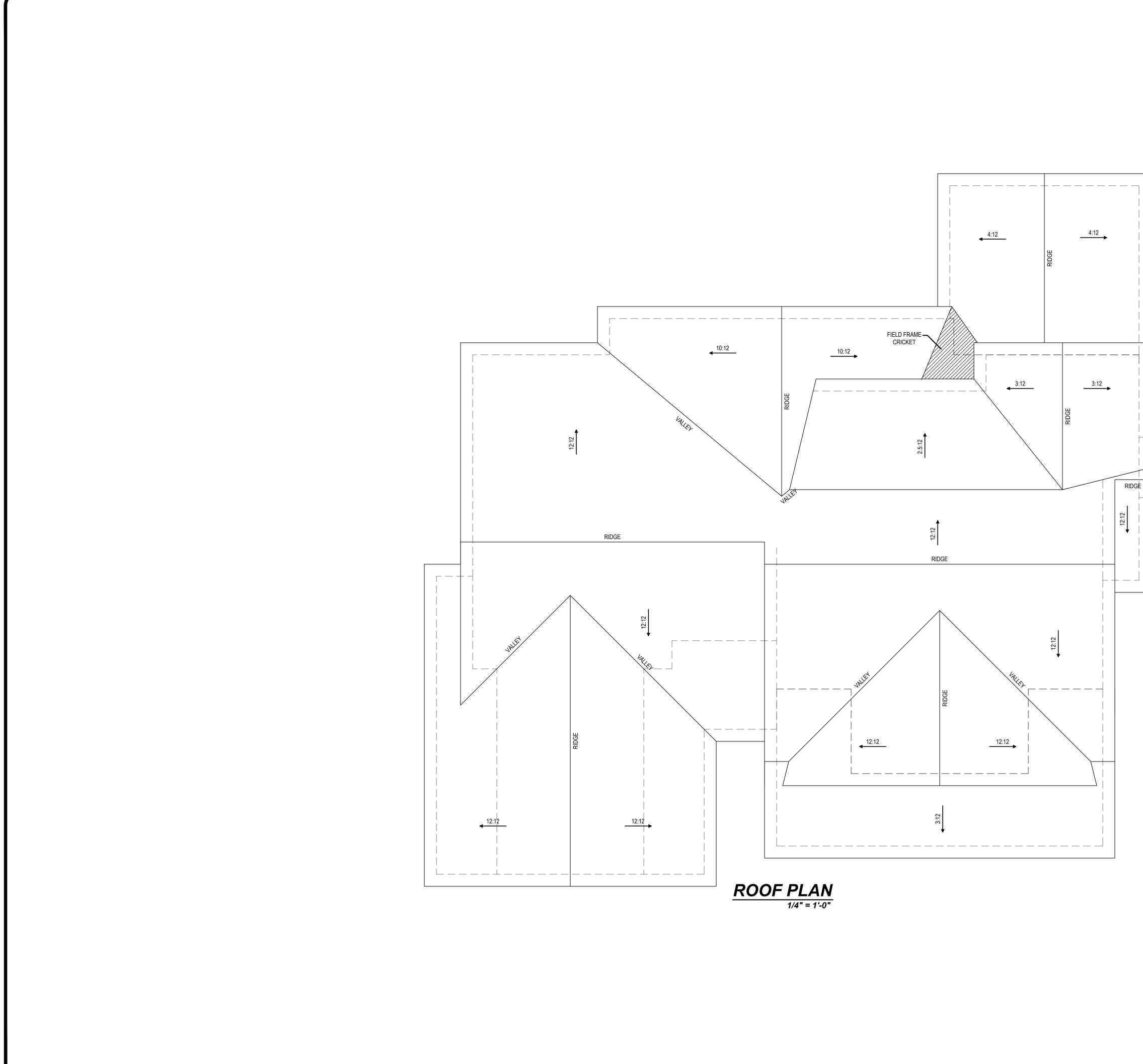
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14'-8"

5'-9"

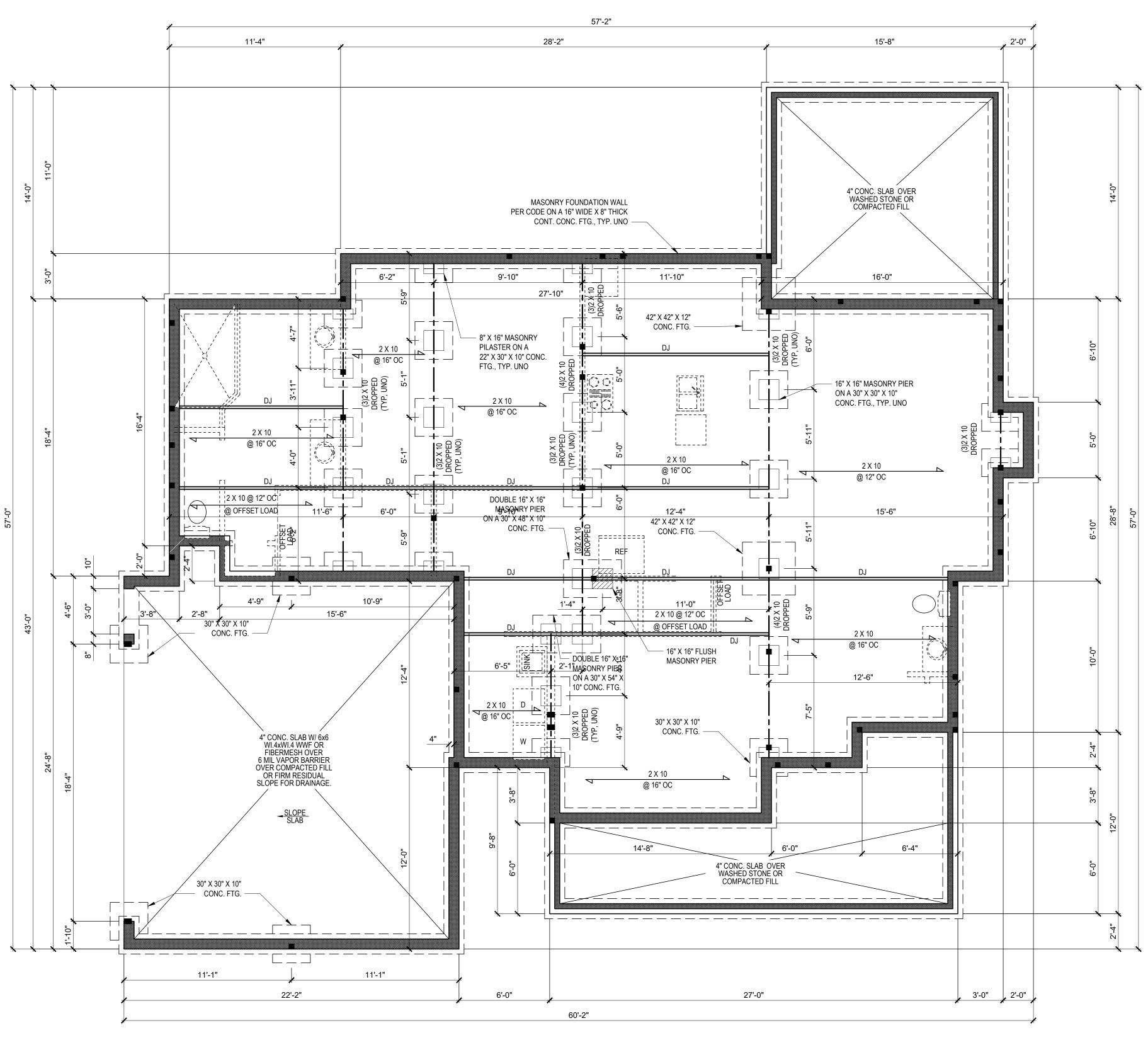
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$\frac{Project #:}{21-054}$ $\frac{Date:}{3-22-21}$ $\frac{Drawn/Design By:}{KBB}$ $\frac{Scale:}{1/4"} = 1'-0"$ $\frac{REVISIONS}{No. Date: Remarks}$	
01 Ten-Ten Rd. leigh, NC 27603 ice: (919) 302-0693	Designs.com
G Nnc. Off	Website: www.KandAHomeDesigns.com
	Email: Kent@KandAHomeDesigns.com
Project Name: Arnott Residence	
olintiani Kristen Arnott 428 Tirzah Dr. Lillington, NC 27546	
FIRST FLOOR <u>Sheet Number</u> 2 of 3)

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FOUNDATION PLAN 1/4" = 1'-0"

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution. *Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. PA- liability. *Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.		
TYNDALL ENGINEERING & DESIGN, P.A.	7 5 919 778-9200 = ≠ 919 778-9200 = ≠ 919 778-9688 250 Shipwash Drive = Garner = North Carolina = 27529 www.tyndallengineering.com	
Client: KRISTEN ARNOTT	Plan: ARNOTT RESIDENCE	
FOUNDATION PLAN 1ST FLOOR FRAMING		
Project #: 2101-010119 Date: 03/29/21 Drawn/Design By: KFR DWG. Checked By: PAT Scale: SEE PLAN Mo. Date: Rewarks 1 2 3 4		
S 1 1 of 7		

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTIC	CTION
	()	(* = * /	LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

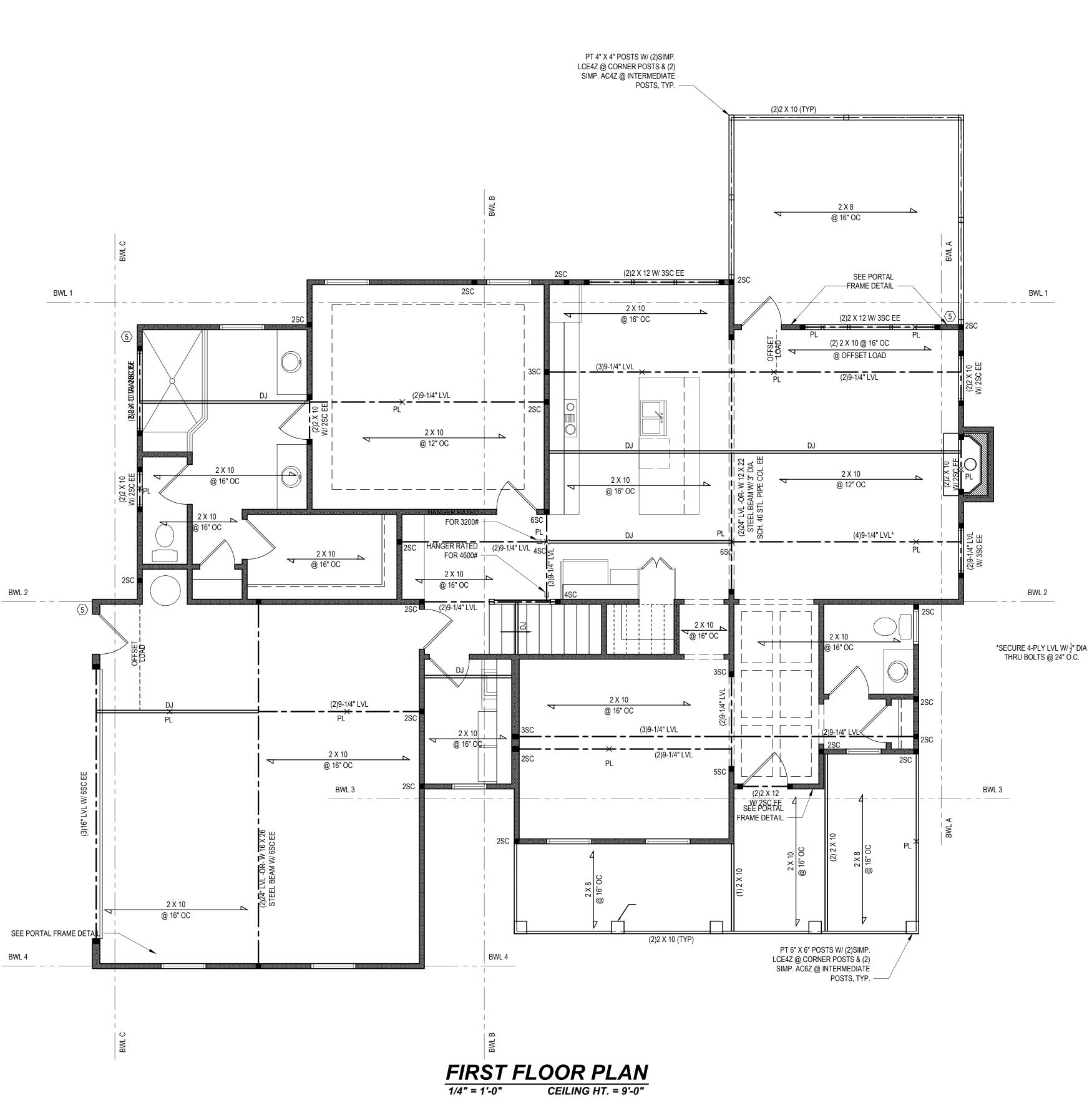
STRUCTURAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN
- ADDITION TO ALL LOCAL CODES AND REGULATIONS.
 2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- 3) ALL LUMBER SHALL BE SYP #2 (UNO) ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (I.E. iLEVEL MICROLAM)
- ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
- 4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS WITH MAXIMUM SPAN OF 5'-6" SHOULD BE A (2) 2x10 w/ (1) 2x4 KING STUD AND (1) 2x4 JACK STUD NAILED TOGETHER w/ (2) 10d @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6", OTHERWISE REFER TO TABLE R502.5(1).
- 5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLE R502.5(1) FOR JACK STUD REQUIREMENTS FOR HEADER
- SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
 REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
- 7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
- Fy = 50 KSI MIN. (UNO) 8) ALL EXTERIOR LUMBER TO BE #2 SYP P
- 8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
 9) ALL CONCRETE, fc = 3000 PSI MIN.
- 10) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
- 11) 1/2" Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
- 12) PSL COUNTS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
- 13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF
- THE 2018 IRC.15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY
- ANCHORED TO THE FOUNDATION. 17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

STRUCTURAL SHEATHING NOTES

- 1) DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR
- LESS. 2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF
- THE 2018 NCRC.
 BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3.
 REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- $\langle 1 \rangle$ REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- 4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
- 2 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS
- 3 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
- 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- 6) ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 - 30" ADJACENT TO OPENINGS GREATER THAN
 - 67% AND LESS THAN 85% OF WALL HEIGHT. - 48" FOR OPENINGS GREATER THAN 85% OF
 - WALL HEIGHT
- $\langle 4 \rangle$ SHEATH INTERIOR & EXTERIOR
- 8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.

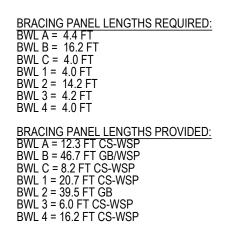
(5) MINIMUM 800# HOLD-DOWN DEVICE





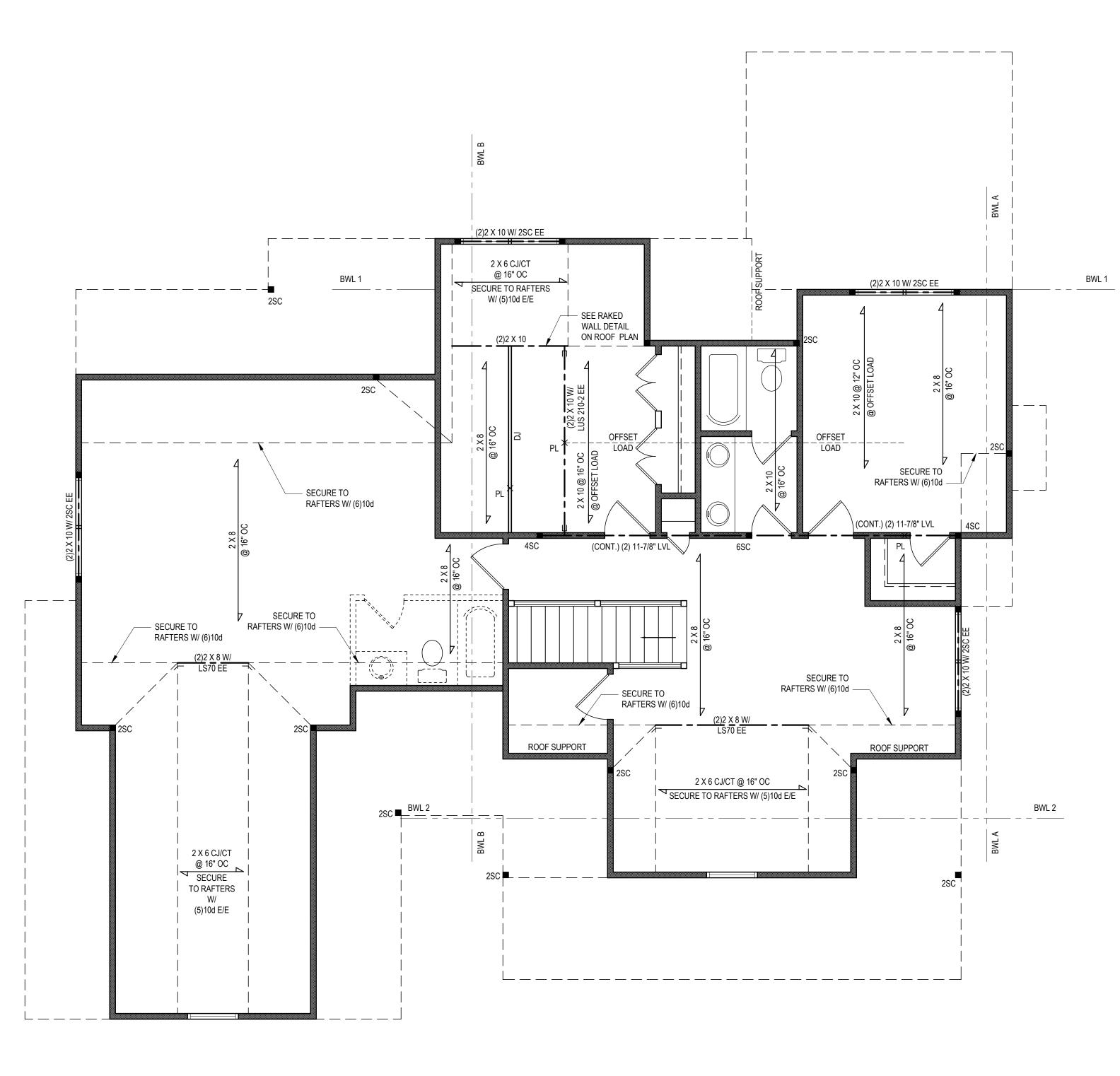
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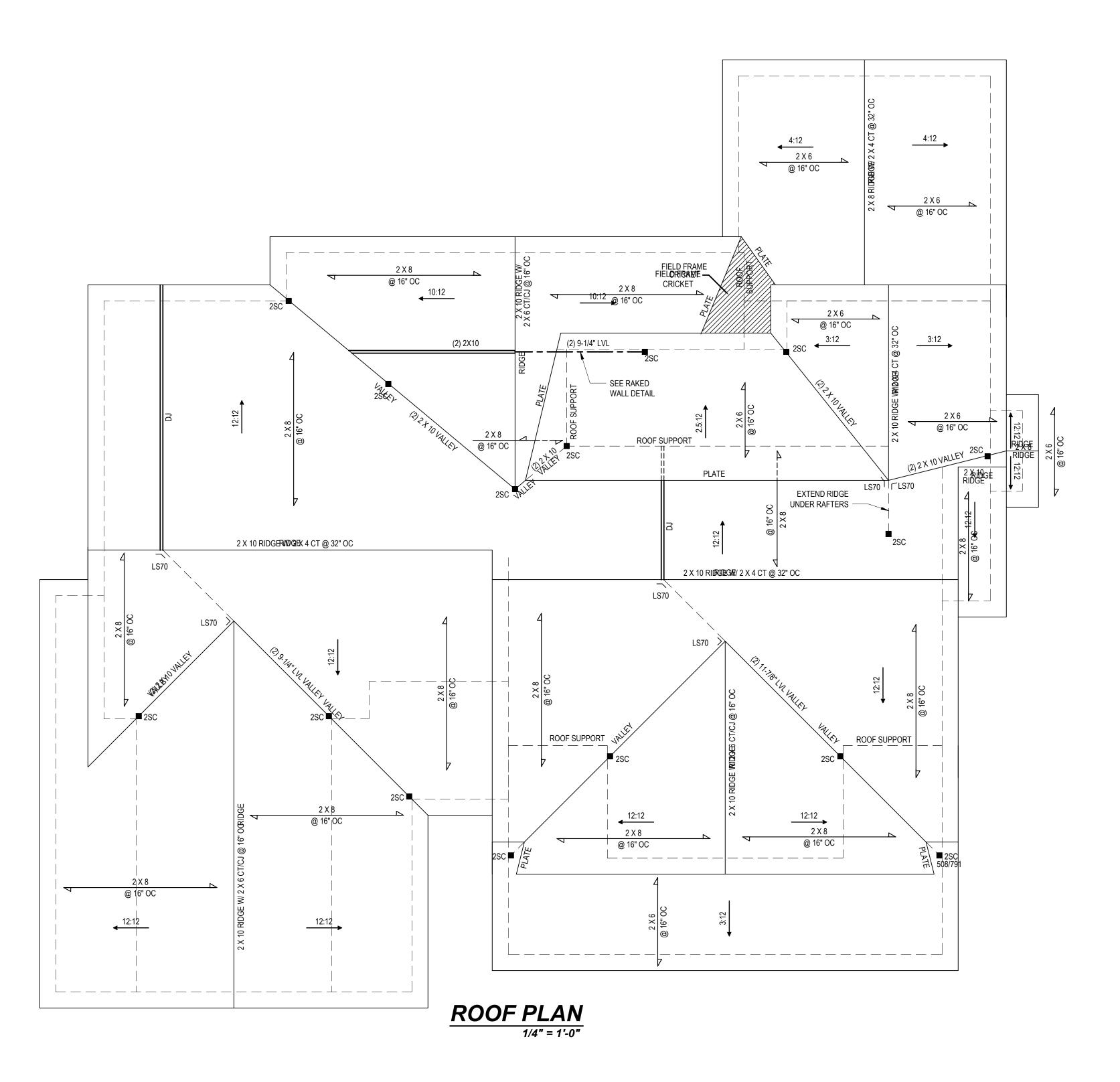
Contraction of the second seco	recommendations, etc. presented in these documents were deemed acceptable once construction begins.		
	L'YNDALL ENGINEERING & DESIGN, PA.	+ 919 778-1200 = + 919 778-9668 250 Shipwash Drive = Garner = North Carolina = 27#29 www.tyndailengineering.com	
<u>Client:</u>	KRISTEN ARNOTT	Plan:	ARNOTT RESIDENCE
1ST FLOOR HEADER 2ND FLOOR FRAMING			
Project #: 2101-010119 Date: 03/29/21 Drawn/Design By: KFR DWG. Checked By: PAT Scale: SEE PLAN REVISIONS No. Date: Remarks △1			

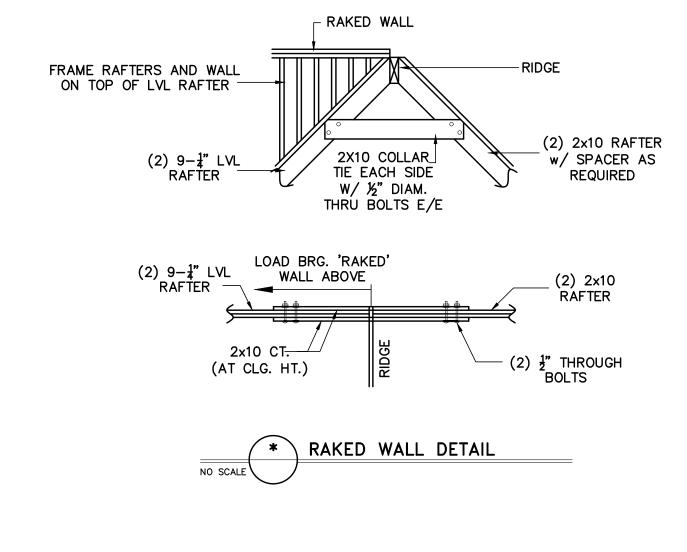
BRACING PANEL LENGTHS REQUIRED: BWL A = 4.0 FT BWL B = 6.7 FT BWL 1 = 4.0 FT BWL 2 = 4.0 FT BRACING PANEL LENGTHS PROVIDED: BWL A = 19.0 FT CS-WSP BWL B = 14.3 FT GB BWL 1 = 21.8 FT CS-WSP BWL 2 = 12.0 FT CS-WSP



SECOND FLOOR PLAN 1/4" = 1'-0" CEILING HT. = 9'-0"

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TYNDALL ENGINEERING & DESIGN, P.A.	7 919 778-1200 = ⊭ 919 778-9688 250 Shipwash Drive = Garner = North Carolina = 27829 www.tyndellengineering.com	
<u>client:</u> KRISTEN ARNOTT	Plan: ARNOTT RESIDENCE	
2ND FLOOR HEADER 2ND FLR. CLG. FRAMING		
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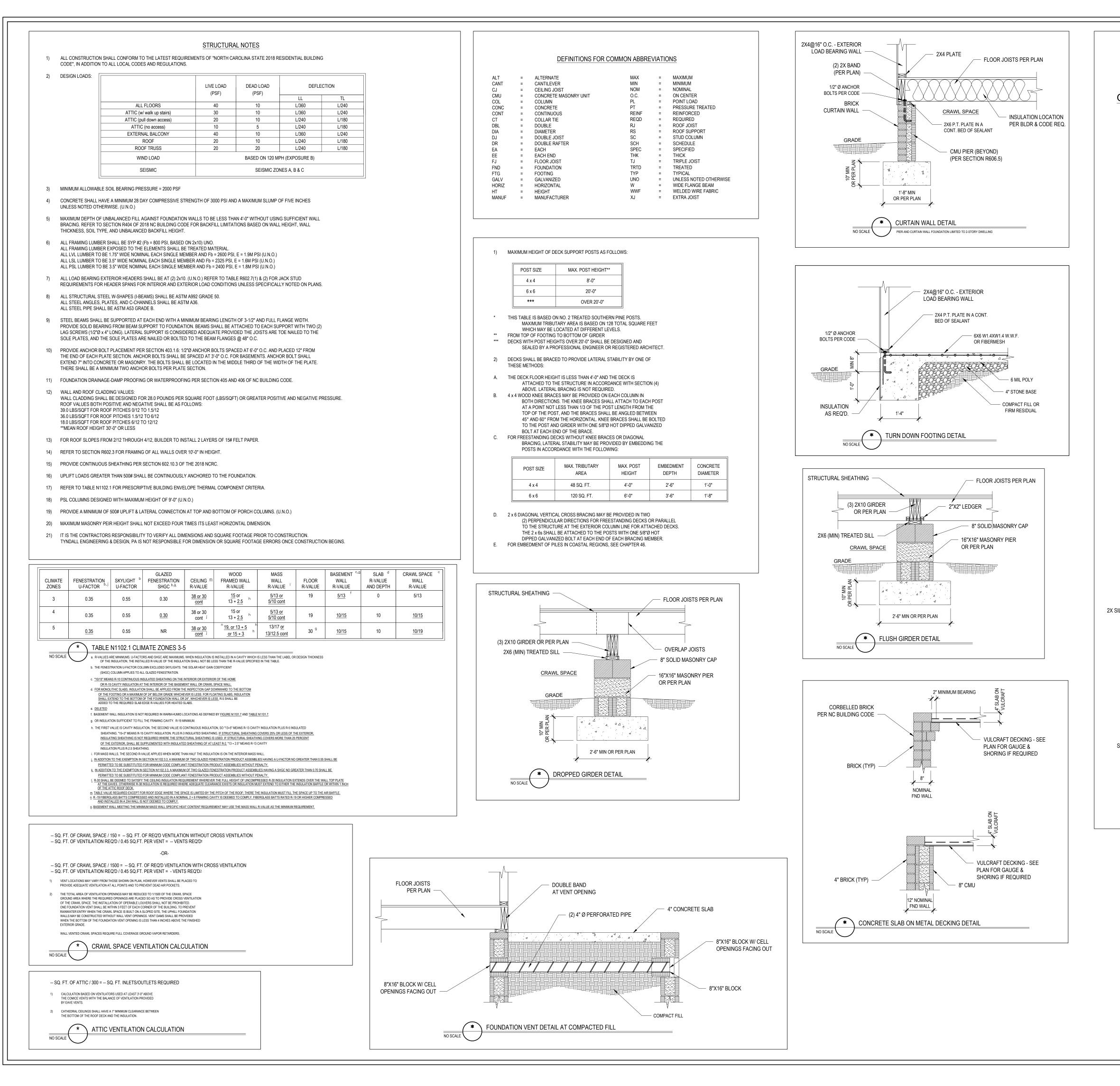


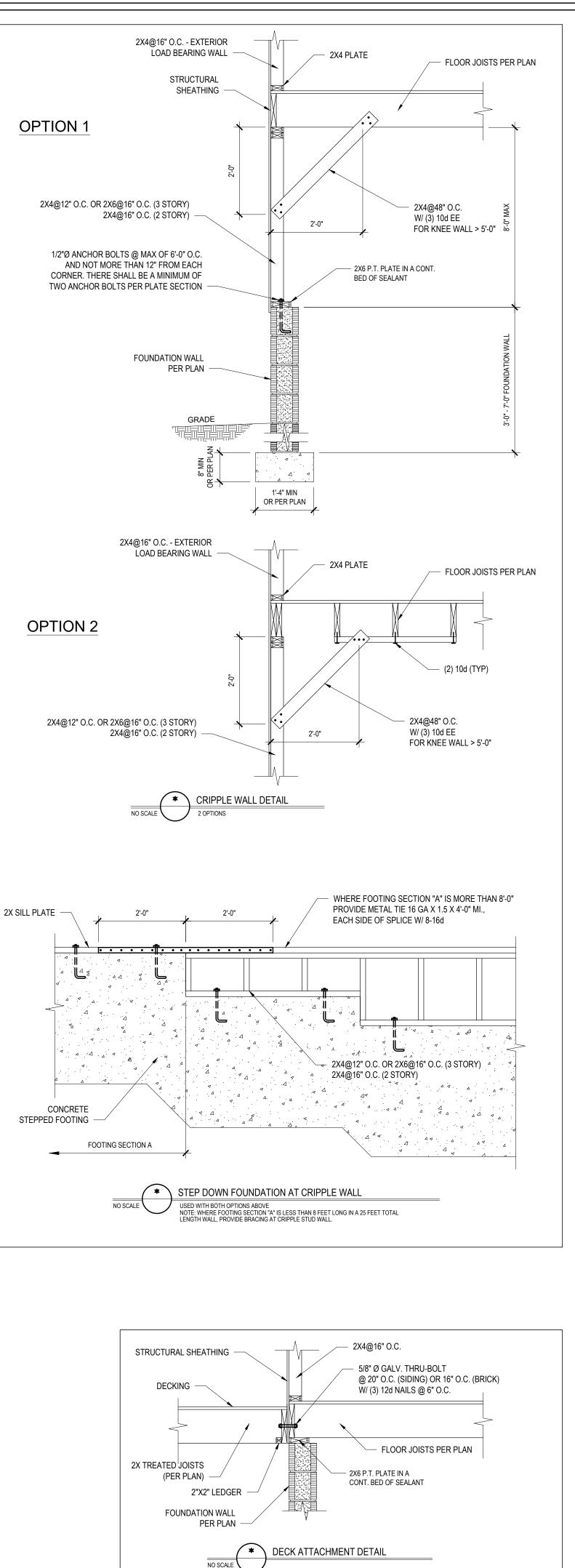


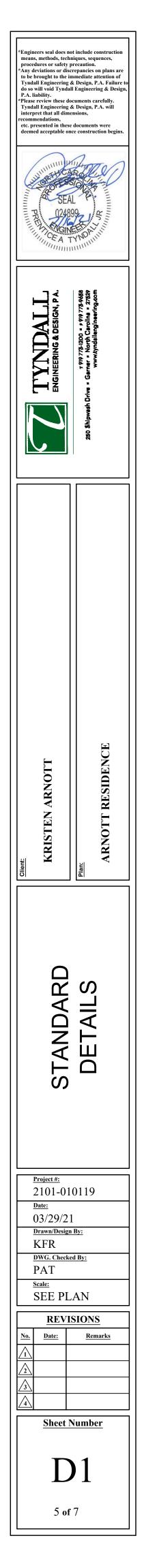
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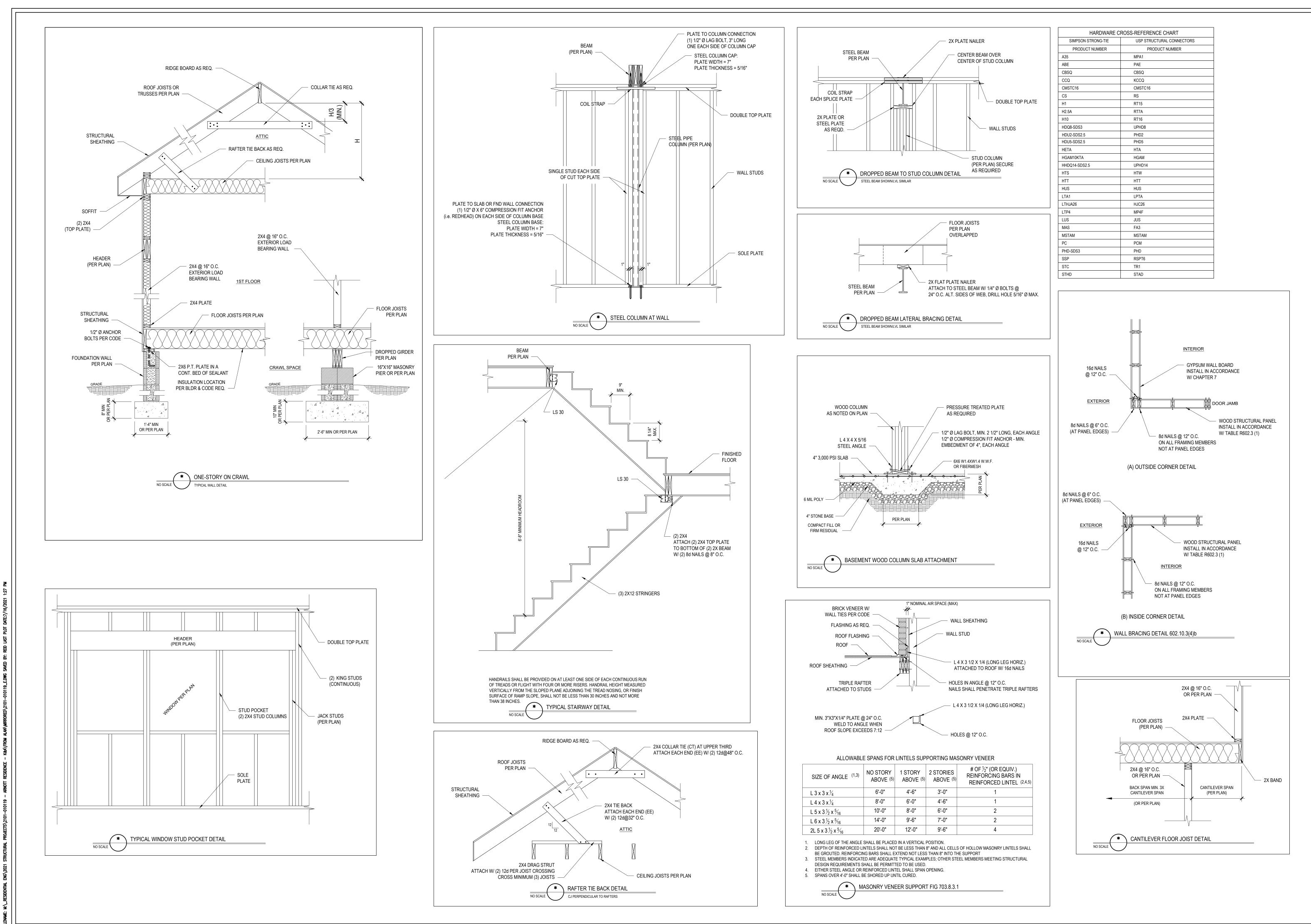
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TYNDALL ENGINEERING & DESIGN, P.A.	+ 919778-1200 = # 919778-9688 250 Shipwash Drive = Garner = North Carolina = 27829 www.tyndallenginaering.com	
client: KRISTEN ARNOTT	Pan: ARNOTT RESIDENCE	
ROOF PLAN		
$\frac{\frac{\text{Project #:}}{2101-010119}}{\frac{\text{Date:}}{03/29/21}}$ $\frac{\text{Drawn/Design By:}}{\text{KFR}}$ $\frac{\text{DWG. Checked By:}}{\text{PAT}}$ $\frac{\text{Scale:}}{\text{SEE PLAN}}$ $\frac{\text{REVISIONS}}{\frac{1}{2}}$ $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{\text{Sheet Number}}{\text{SA4}}$ $4 \text{ of } 7$		

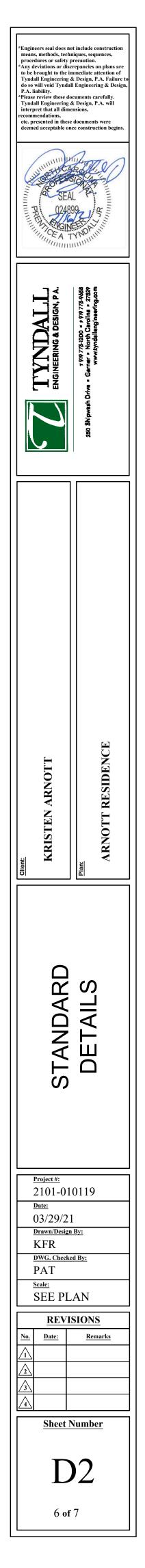


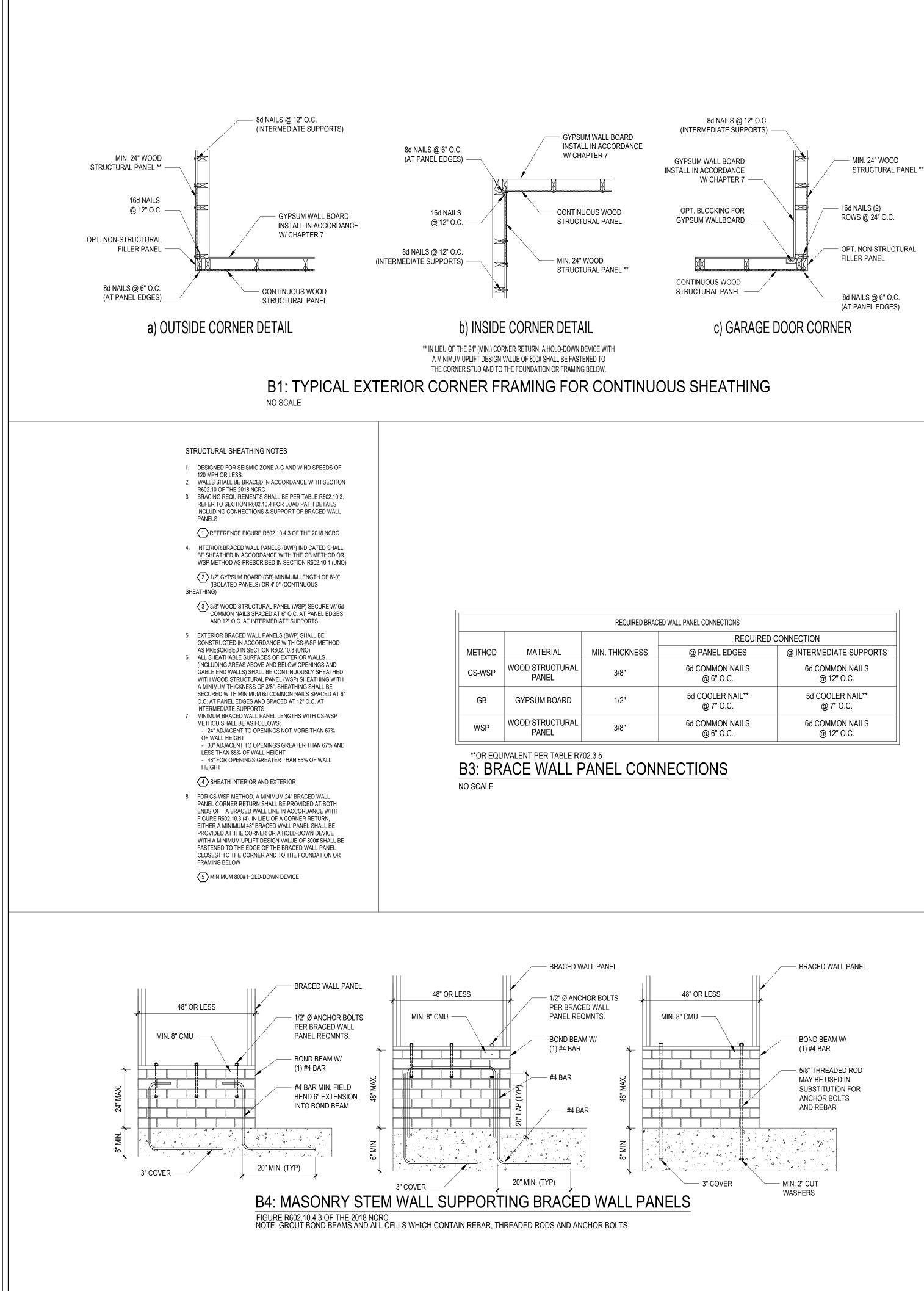






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