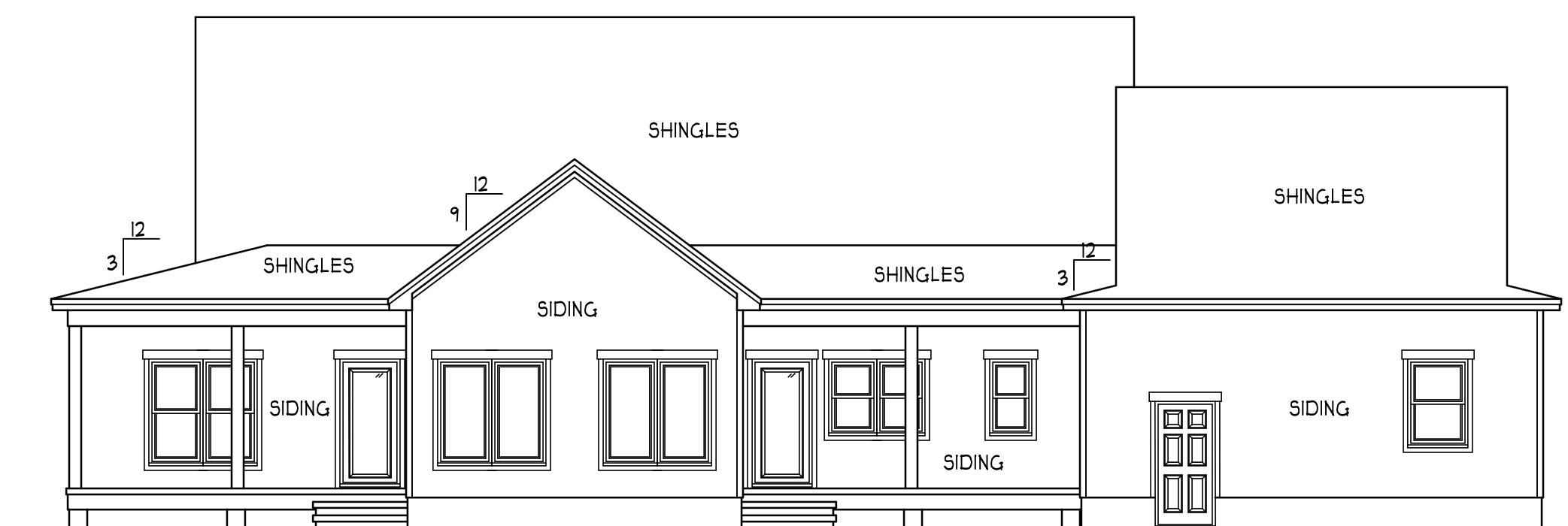




FRONT ELEVATION
SCALE 1/4" = 1'-0"

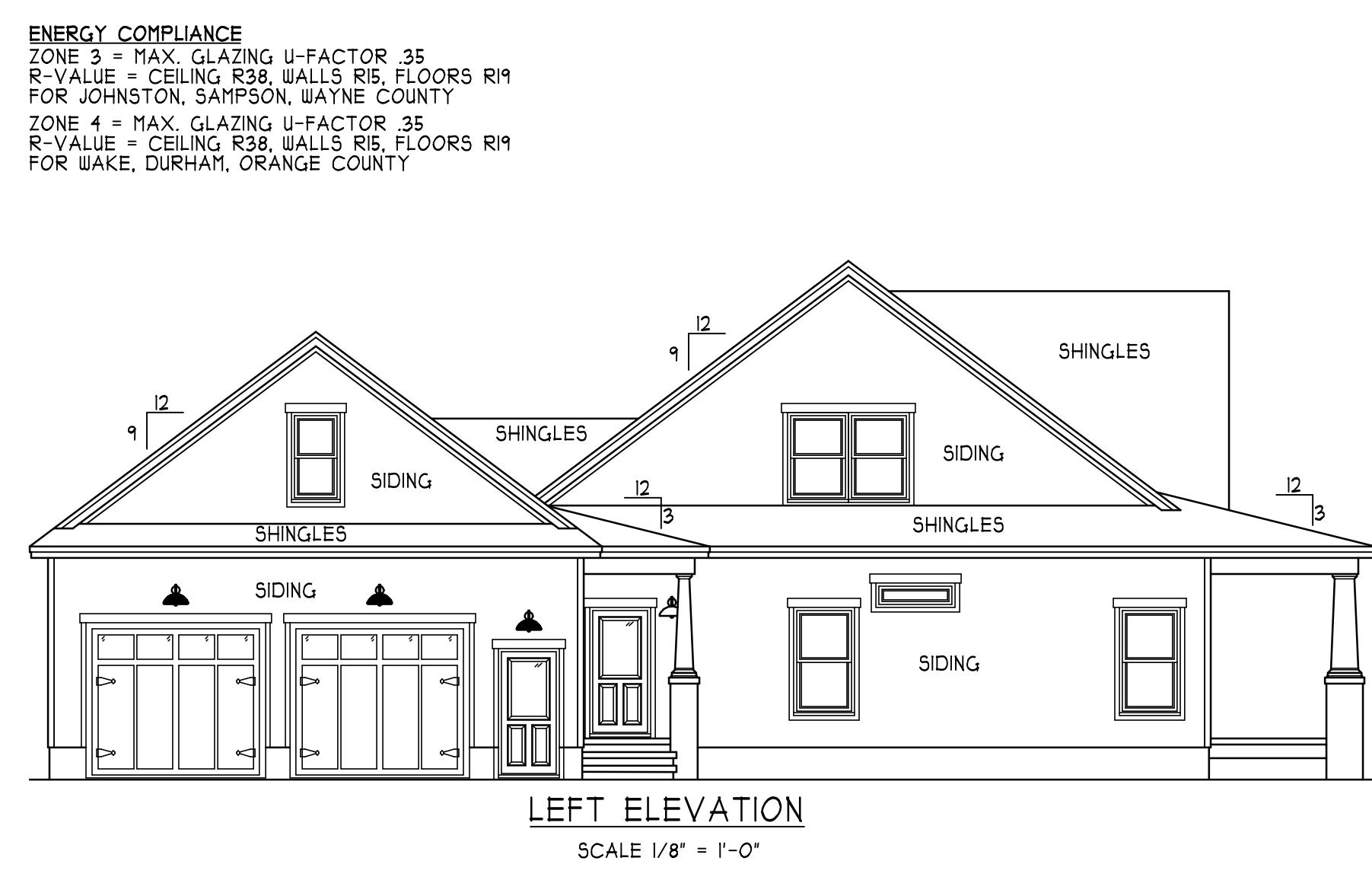


REAR ELEVATION
SCALE 1/8" = 1'-0"

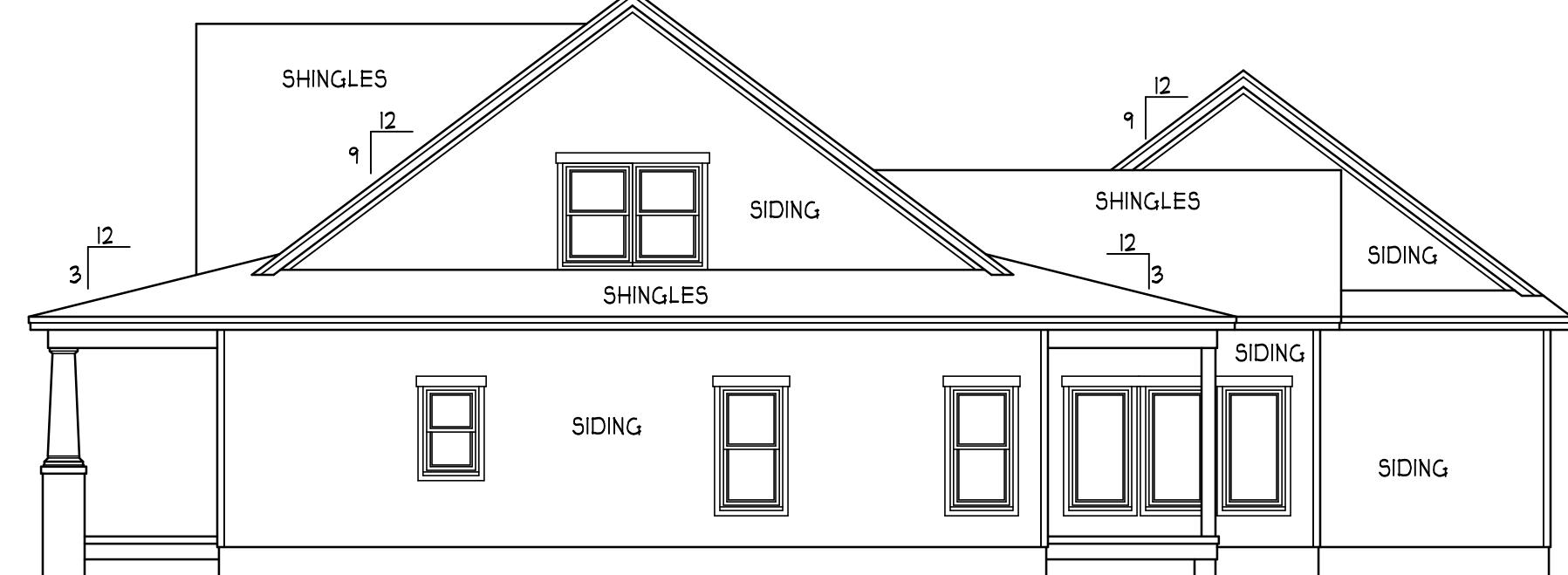
ATTIC VENTILATION:

THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE NO LESS THAN 300 SQ.FT. PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVES OR CORNICE VENTS. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE VENTILATION IS PROVIDED BY EAVES OR CORNICE VENTS.

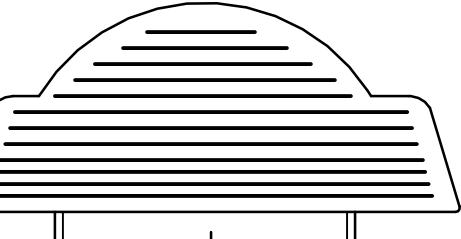
GROSS ATTIC AREA TO BE VENTILATED 4404 SQ.FT.
 $4404/150 = 29.37$ SQ.FT. NET FREE AREA

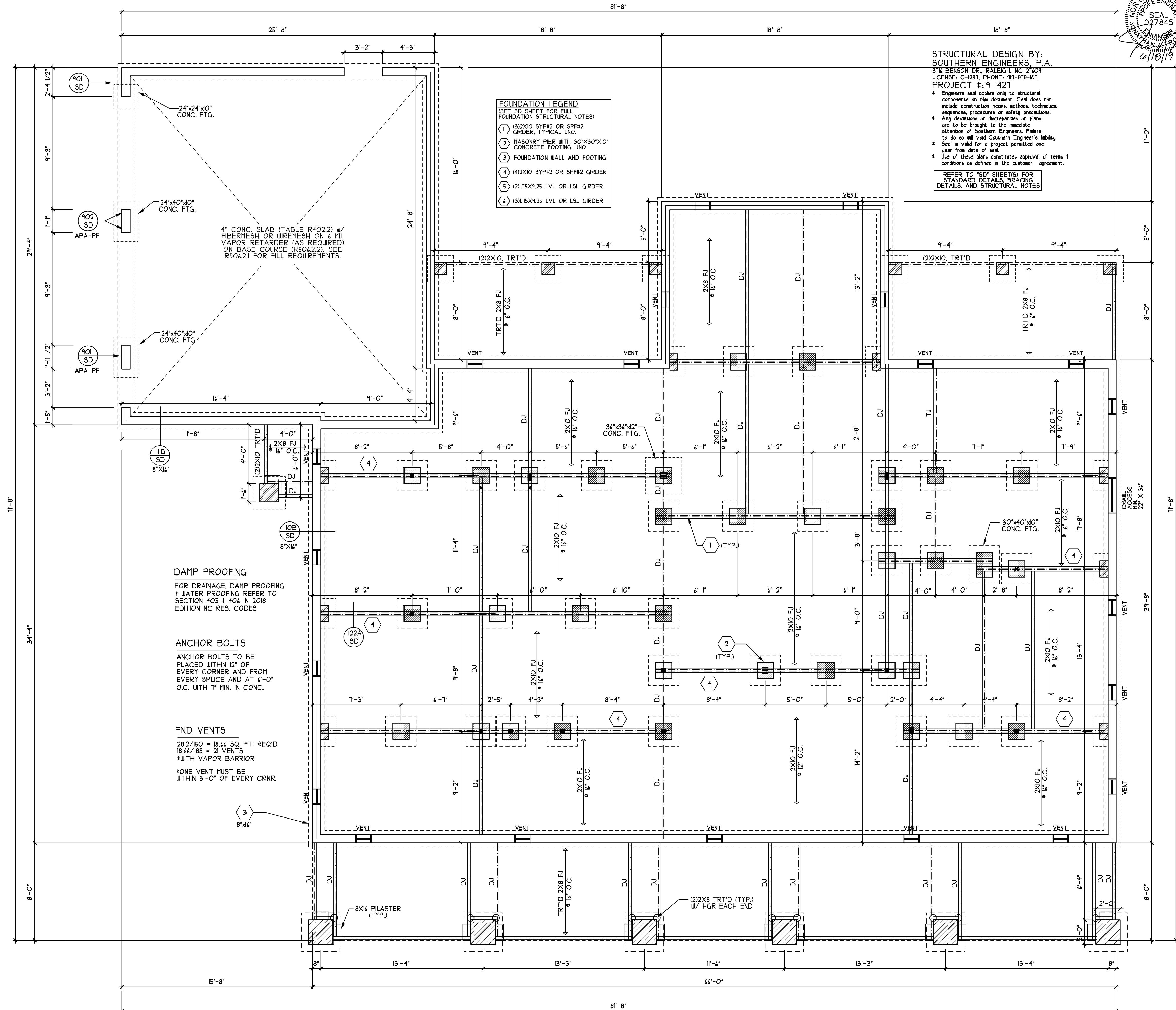


LEFT ELEVATION
SCALE 1/8" = 1'-0"



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

	
#2812	
TERRY & ROSE	WILSON RESIDENCE
HEATED FOOTAGE:	
SQUARE FOOTAGE:	
FIRST FLOOR UNF REC ROOM & HOB ALL PORCHES GARAGE	
= 2812 = 600 = 858 = 748	
HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	
THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2006 EDITION.	
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This plan is to be built by the homeowner or builder as cited in this title block only. Not released for multiple builds.	
DATE: 05/28/19	
FILE: 01119	

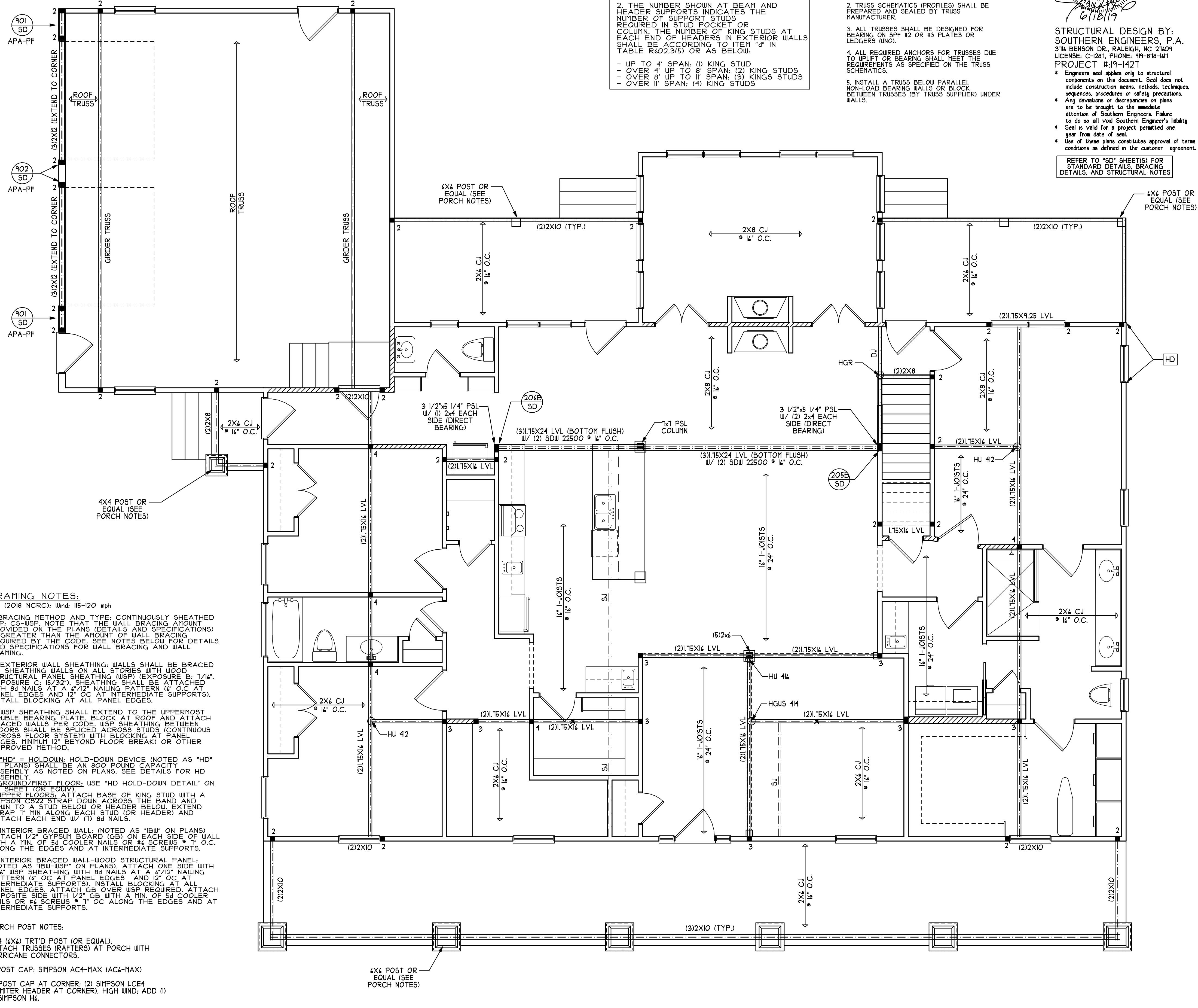


ANY DEVIATION OF THIS PLAN, DIMENSIONS OR OTHERWISE, H SQUARED HOME DESIGN, INC. IS NOT LIABLE.	DATE: 05/28/19	SQUARE FOOTAGE: FIRST FLOOR 2812
This plan is to be built by the homeowner or builder as cited in this title block only. Not released for multiple builds.	FILE: 01119	HEATED FOOTAGE: 600
		UNF REC ROOM & HOBBY 858
		ALL PORCHES 748
		GARAGE
TERRY & ROSE	#2812	WILSON RESIDENCE

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

THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

1 1/2 STORY
FILE: 01119



FIRST FLOOR STRUCTURAL PLAN
SCALE 1/4" = 1'-0"

2812

HEATED FOOTAGE:

SQUARE FOOTAGE:	FIRST FLOOR	= 282
	UNF REC ROOM & HOB	= 600
	ALL PORCHES	= 858
	GARAGE	= 748

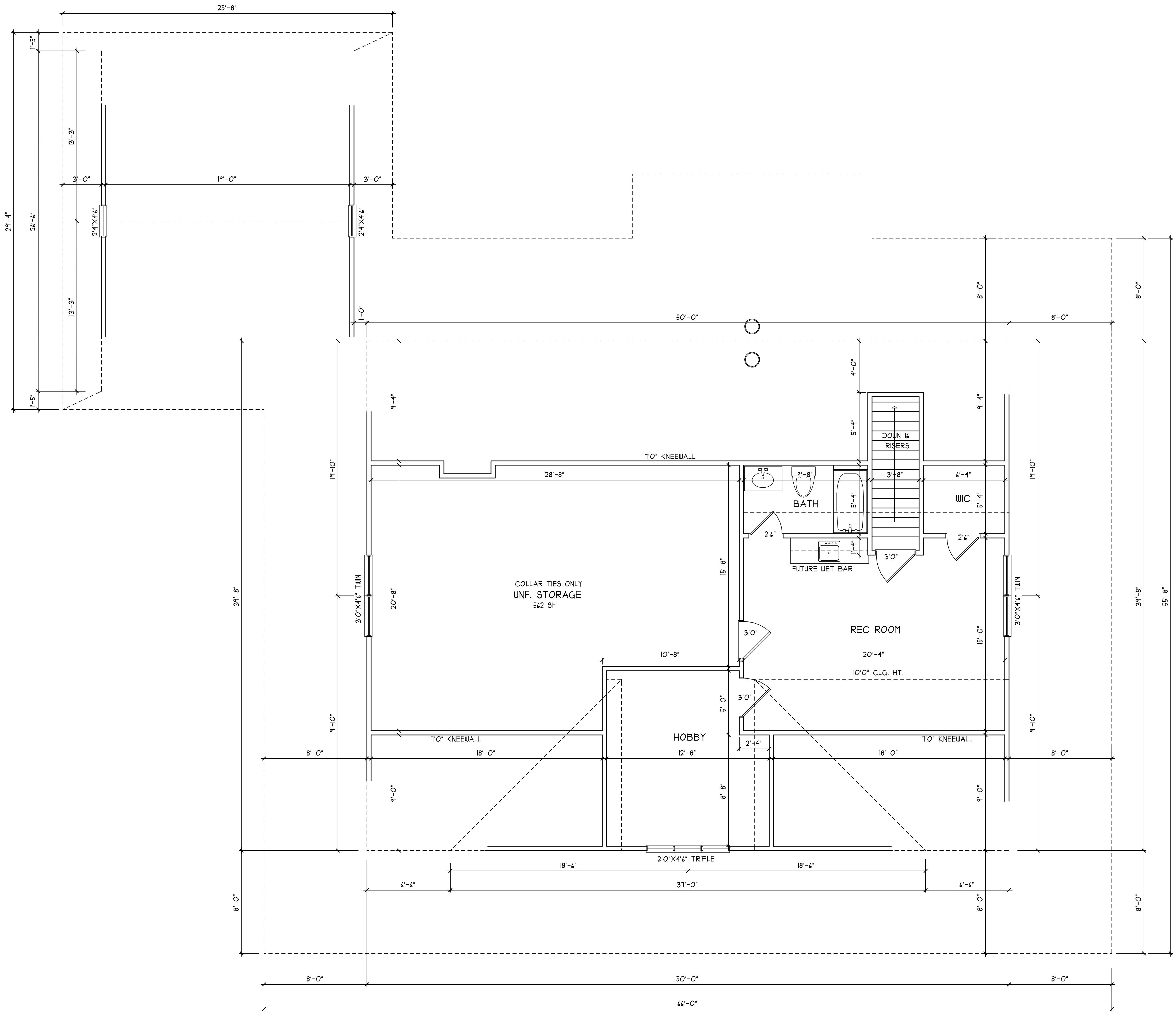
TERRY & ROSE

WILSON RESIDENCE

H SQUARED HOME DESIGN, INC.	HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403
-----------------------------	--------------------------------------------------------------------------

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DATE: 05/28/19	
1 1/2 STORY	
FILE: 01119	



SECOND FLOOR PLAN

SCALE 1/4" = 1'-0"

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DATE:	05/28/19
FILE:	I 1/2 STORY
O 9	



STRUCTURAL DESIGN BY:
SOUTHERN ENGINEERS, P.A.
3116 BENSON DR., RALEIGH, NC 27609
LICENSE: C-1281, PHONE: 919-816-1411
PROJECT #: 19-1421

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* Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

REFER TO "SD" SHEET(S) FOR
STANDARD DETAILS, BRACING
DETAILS, AND STRUCTURAL NOTES

TERRY & ROSE
WILSON RESIDENCE

#2812

HEATED FOOTAGE:

2812

= 2812

HEATED FOOTAGE:

600

= 600

ALL PORCHES

= 858

GARAGE

= 748

SQUARE FOOTAGE:
FIRST FLOOR
UNF REC ROOM & HOB
ALL PORCHES
GARAGE

HEATHER HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

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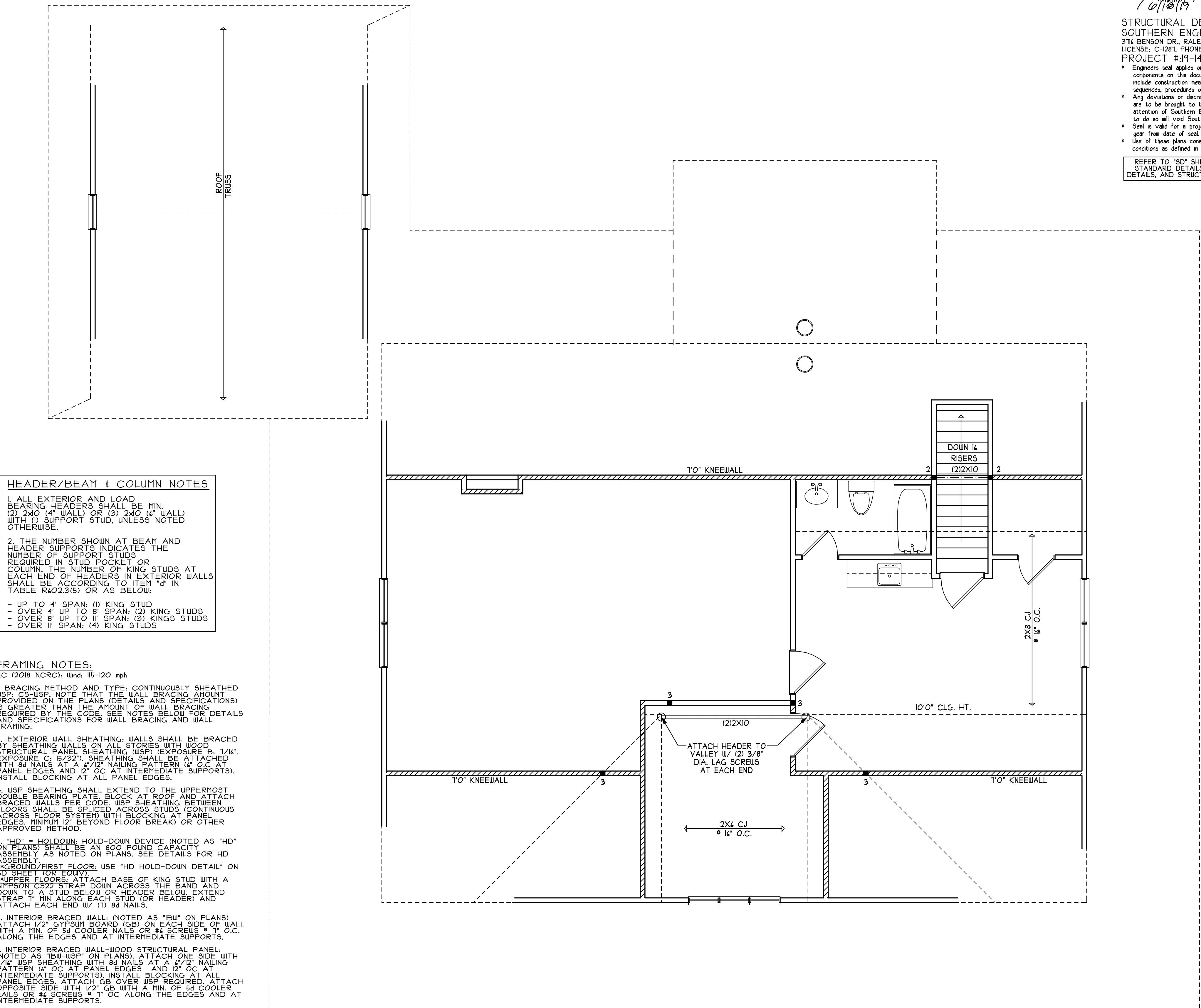
DATE:

05/28/19

1 1/2 STORY

FILE:

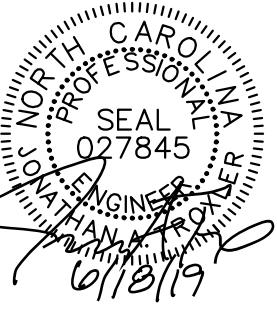
O|||||9



SECOND FLOOR STRUCTURAL PLAN

SCALE 1/4" = 1'-0"

O|||||9



STRUCTURAL DESIGN BY:
SOUTHERN ENGINEERS, P.A.
3116 BENSON DR, RALEIGH, NC 27609
LICENSE: C-1281, PHONE: 919-818-1471
PROJECT #:19-1427

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REFER TO "SD" SHEET(S) FOR
STANDARD DETAILS, BRACING
DETAILS, AND STRUCTURAL NOTES

TERRY & ROSE
WILSON RESIDENCE

#2812

HEATED FOOTAGE:

= 2812

FIRST FLOOR

UNF REC ROOM & HOB

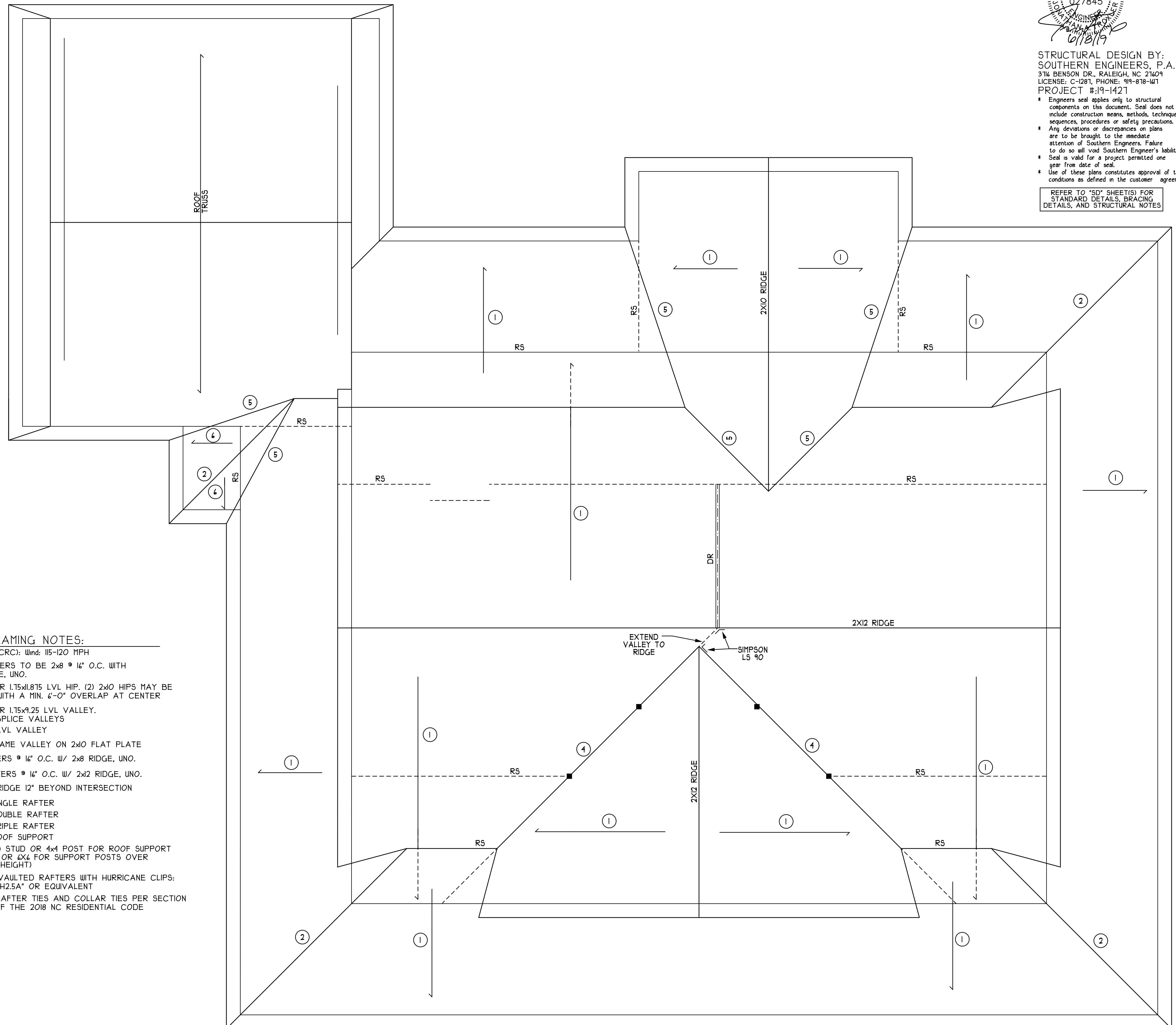
ALL PORCHES

GARAGE

= 600

= 858

= 748



ROOF FRAMING NOTES:

NC (2018 NCRC); Wind: 115-120 MPH

- (1) ALL RAFTERS TO BE 2x8 @ 16" O.C. WITH 2x10 RIDGE, UNO.
- (2) 2x10 OR L15x1815 LVL HIP. (2) 2x10 HIPS MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER
- (3) 2x10 OR L15x1815 LVL VALLEY. DO NOT SPLIC VALLEYS
- (4) L15x1815 LVL VALLEY
- (5) FALSE FRAME VALLEY ON 2x10 FLAT PLATE
- (6) 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
- (7) 2x10 RAFTERS @ 16" O.C. W/ 2x2 RIDGE, UNO.
- (8) EXTEND RIDGE 12" BEYOND INTERSECTION
 - "SR" = SINGLE RAFTER
 - "DR" = DOUBLE RAFTER
 - "TR" = TRIPLE RAFTER
 - "RS" = ROOF SUPPORT
- "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2x6 OR 4x6 FOR SUPPORT POSTS OVER 10'-0" IN HEIGHT)
- ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS: SIMPSON "H2.5A" OR EQUIVALENT
- INSTALL RAFTER TIES AND COLLAR TIES PER SECTION R802.3.I OF THE 2018 NC RESIDENTIAL CODE

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Not released for multiple builds.

DATE:	05/28/19
FILE:	O 9
SCALE 1/4" = 1'-0"	1 1/2 STORY

ROOF PLAN
SCALE 1/4" = 1'-0"

STRUCTURAL NOTES

NC (2018 NCRC): Wind: 115-120 mph

1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.

2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF RESIDENTIAL CODE, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

3. DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)

- ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)
- SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
- ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)
- ATTIC WITHOUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)
- ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
- STAIRS: (40 PSF, 10 PSF, L/360)
- EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)
- DECKS: (40 PSF, 10 PSF, L/360)
- GUARDRAILS AND HANDRAILS: (200 LBS)
- PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)
- FIRE ESCAPES: (40 PSF, 10 PSF, L/360)
- SNOW: (20 PSF)

4. WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.

5. SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.

6. CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP. CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF +30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SAWCUT TO A DEPTH OF 1/D, (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +10'-0" x +10'-0" GRID).

7. ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAINSURFACE WATER AWAY FROM FOUNDATION WALLS.

8. ALL FRAMING LUMBER SHALL BE SPF #2 ($F_b = 875 \text{ PSI}$) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 ($F_d(\text{perp}) = 425 \text{ PSI} - \text{MIN.}$)

9. L.V.L. SHALL BE LAMINATED VENEER LUMBER: $F_b=2600 \text{ PSI}$, $F_v=285 \text{ PSI}$, $E=19x10 \text{ PSI}$.

9.1. P.S.L. SHALL BE PARALLEL STRAND LUMBER: $F_b=2400 \text{ PSI}$, $F_v=240 \text{ PSI}$, $E=2.0x10 \text{ PSI}$.
9.2. L.S.L. SHALL BE LAMINATED STRAND LUMBER: $F_b=2250 \text{ PSI}$, $F_v=400 \text{ PSI}$, $E=1.55x10 \text{ PSI}$.
INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

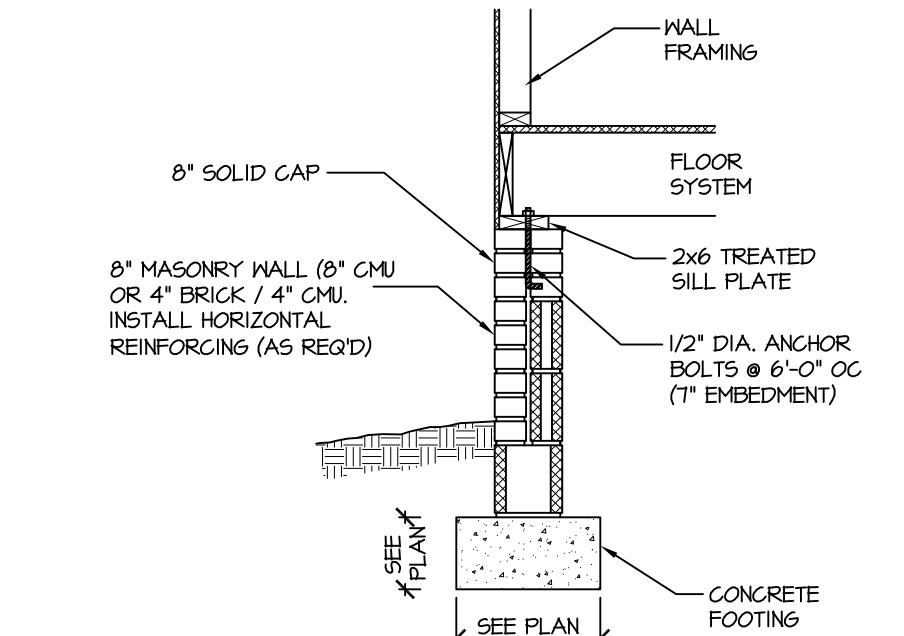
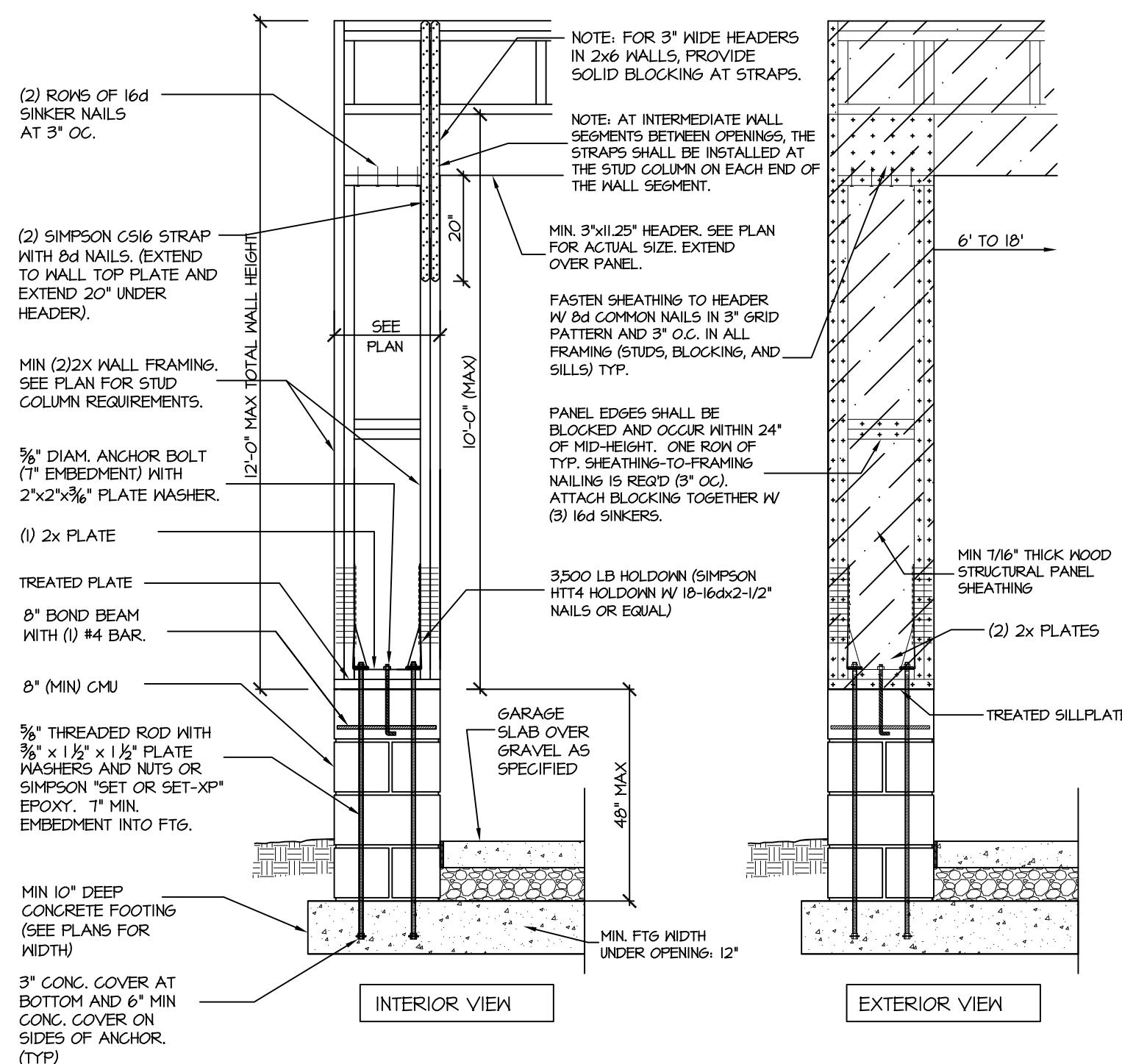
10. ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.

11. ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER X 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.

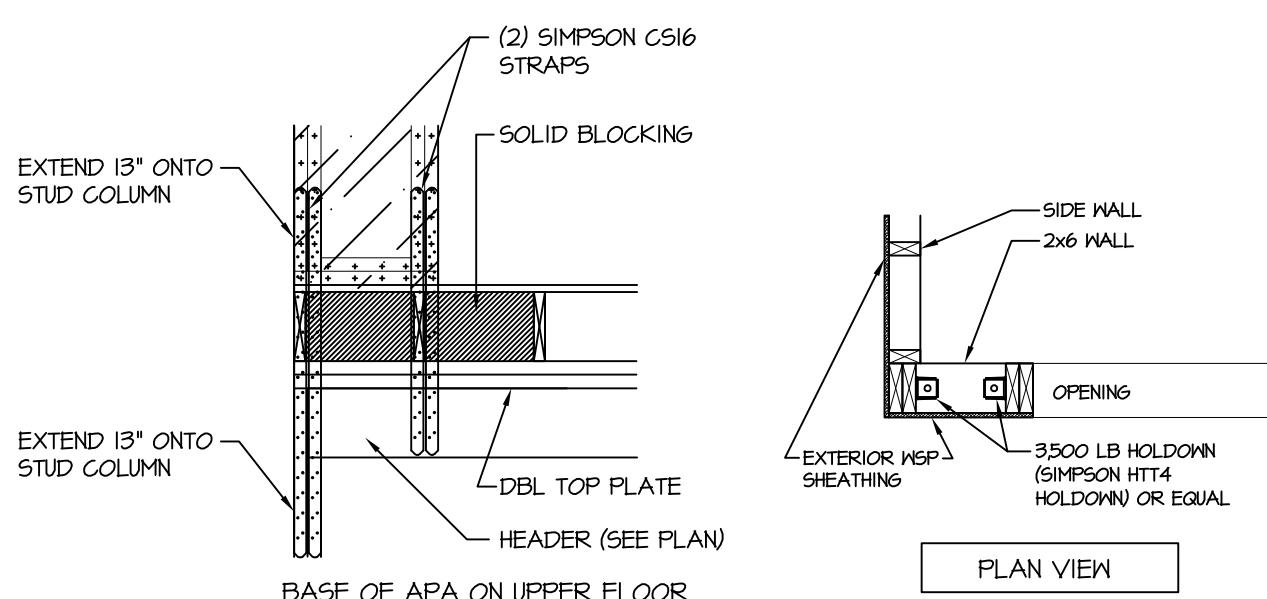
12. REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60.

13. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6' FROM EACH END.

14. BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2" x 3 1/2" x 1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS FOR SPANS OVER 9'-0". SEE ALSO SECTION R103.7.3 LINTELS.

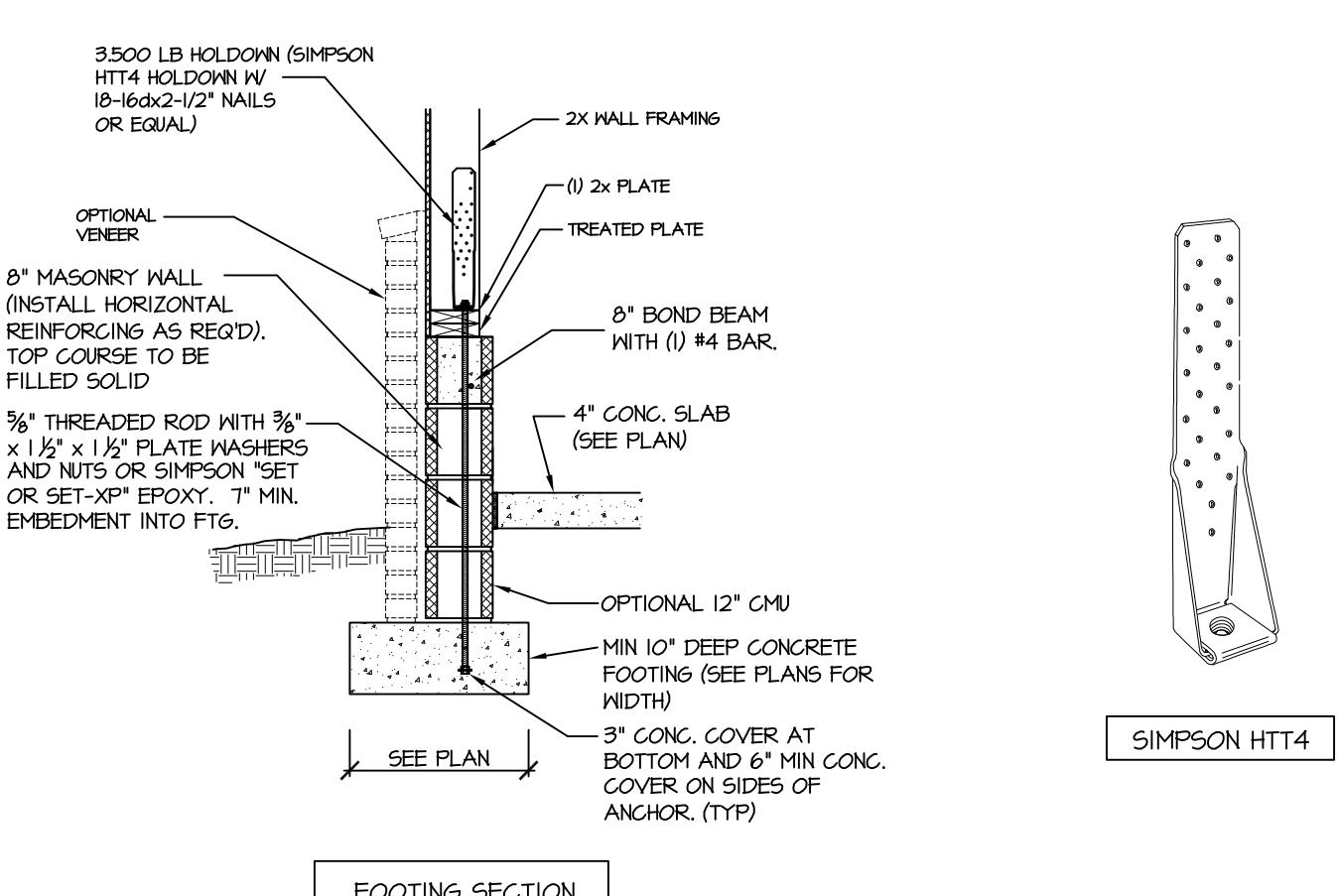


115-120 MPH
110B SD
(SIDING w/ BRICK SKIRT)
CRAWL SPACE FOOTING

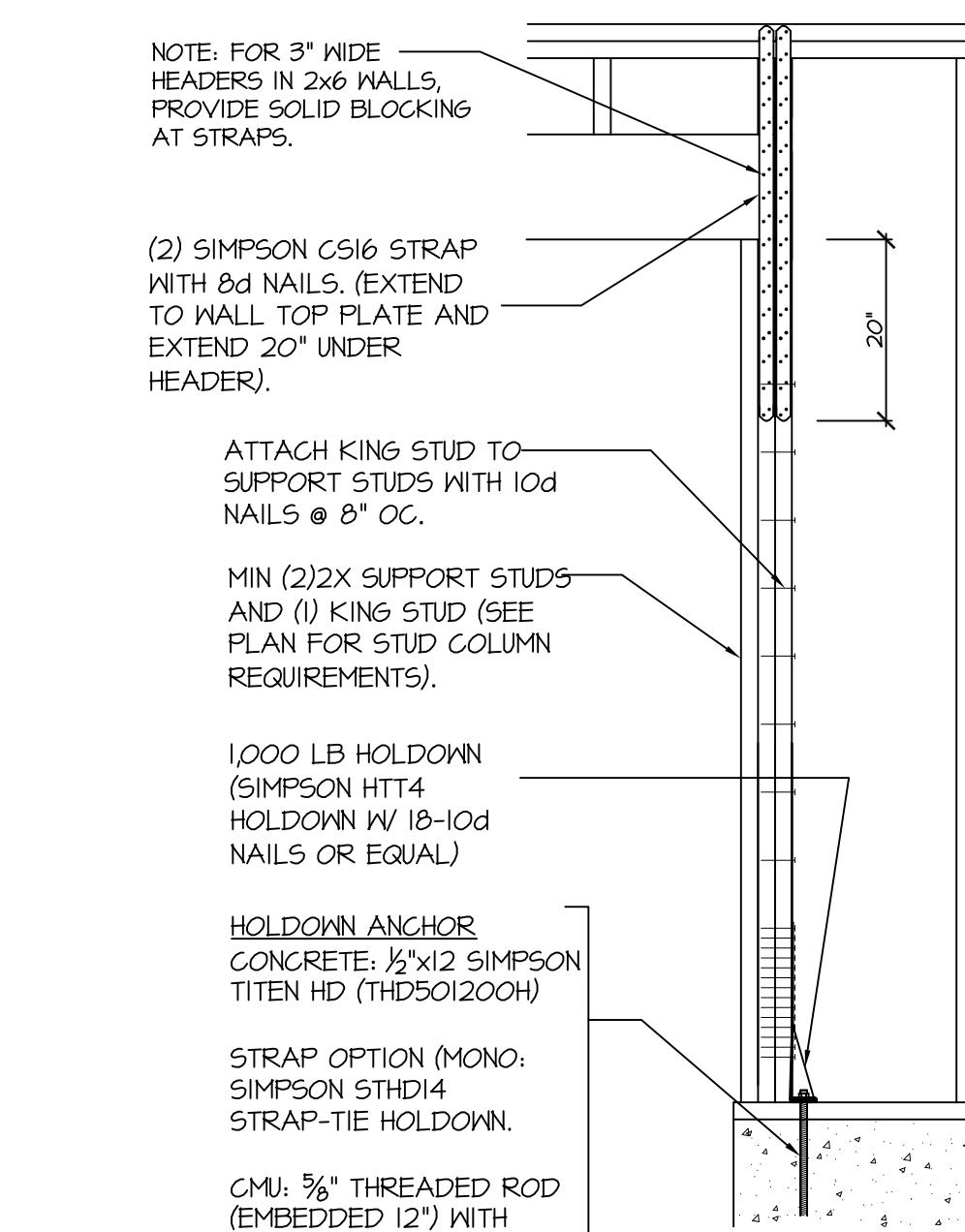


115-120 MPH
111B SD
(SIDING w/ BRICK SKIRT)
GARAGE WALL FOOTING

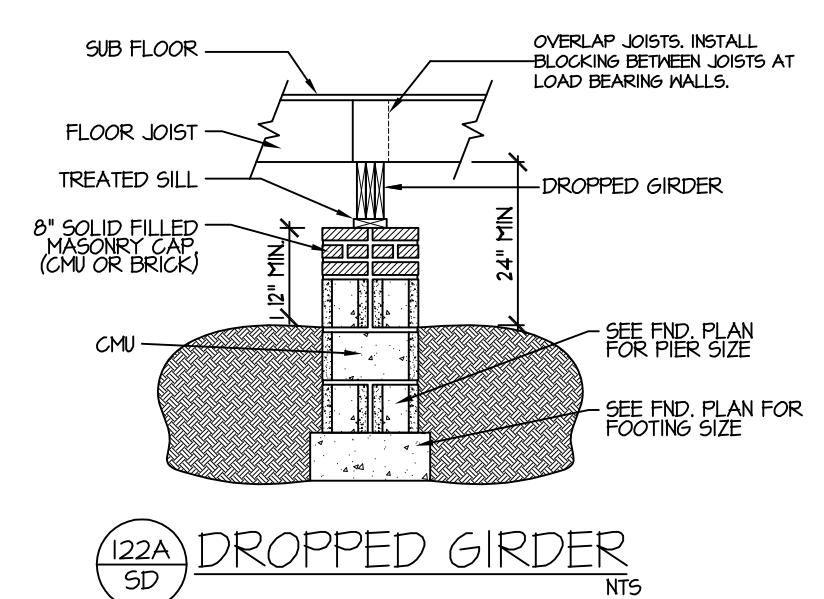
ELEVATION 901
SD
APA PORTAL FRAME w/ HOLD-DOWNS
DETAIL AND APPLICATION BASED ON APA TT-100F WITH USE OF TABLE I FOR APA PORTAL FRAME WITH HOLD-DOWN CAPACITIES.



SECTION 901
SD
APA PORTAL FRAME w/ HOLD-DOWNS
DETAIL AND APPLICATION BASED ON APA TT-100F WITH USE OF TABLE I FOR APA PORTAL FRAME WITH HOLD-DOWN CAPACITIES.



1102 SD
END CONDITION DETAIL
(FOR USE WITH SINGLE APA PORTAL FRAME CONDITION)
DETAIL AND APPLICATION BASED ON APA TT-100F WITH USE OF TABLE I FOR APA PORTAL FRAME WITH HOLD-DOWN CAPACITIES.



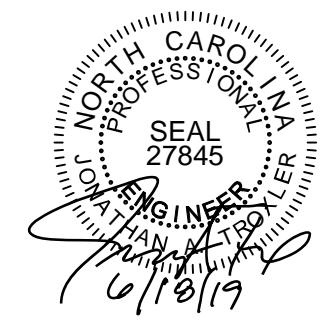
122A SD
DROPPED GIRDER
NTS

Southern Engineers, P.A.
3716 Benson Drive, Raleigh, NC 27609
Phone: (919) 878-1617
License: C-1287
www.southernengineers.com

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165 Heatherstone Ct,
Benson, NC 27504
Phone: (919) 207-1403

Terry & Rose Wilson Residence

SD



PROJECT #
19-1427

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FOUNDATION STRUCTURAL NOTES

NC (2018 NCRC); Wind: 115-120 mph - CRANL

- ① (3)2x10 SYP#2 OR SPF#2 GIRDER, TYPICAL UNO.

- ② CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE	HOLLOW	SOLID
8x16	UP TO 32"	UP TO 5'-0"
12x16	UP TO 48"	UP TO 9'-0"
16x16	UP TO 64"	UP TO 12'-0"
24x24	UP TO 96"	

WITH 30" x 30" x 10" CONCRETE FOOTING, UNO.

- ③ WALL FOOTING AS FOLLOWS

DEPTH: 8" - UP TO 2 STORY

10" - 3 STORY

WIDTH:

SIDING: 16" - UP TO 2 STORY

20" - 3 STORY

BRICK: 16" - 1 STORY

20" - 2 STORY

24" - 3 STORY

- FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.I.I (1 THRU 4). NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.

- ④ (4) 2x10 SPF #2 OR SYP #2 GIRDER

- ⑤ (2) 1.75x9.25 LVL OR LSL GIRDER

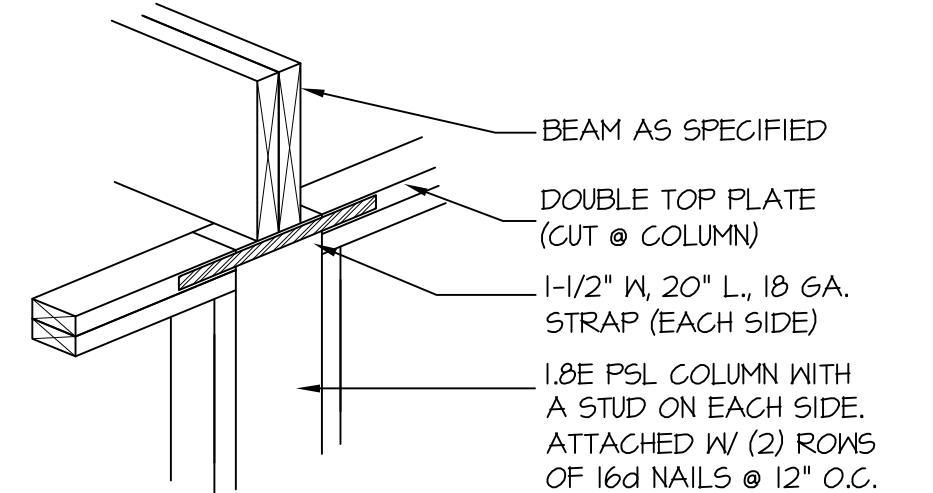
- ⑥ (3) 1.75x9.25 LVL OR LSL GIRDER

7. "■" DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FND, TYPICAL.

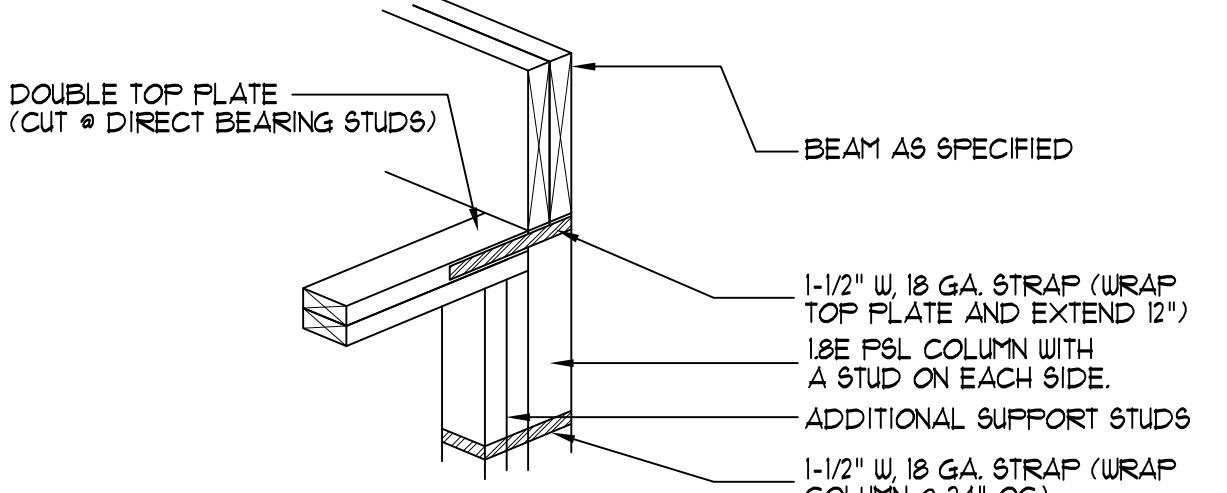
8. ABBREVIATIONS:

- "SJ" = SINGLE JOIST
- "DJ" = DOUBLE JOIST
- "TJ" = TRIPLE JOIST

9. ADJUST SUBFLOOR THICKNESS OR JOIST SPACING AS REQ'D FOR FLOOR FINISH MATERIALS.



205B
SD
DIRECT BEAM BEARING
NTS



206B
SD
PSL COLUMN
DIRECT BEAM BEARING
NTS

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Terry & Rose
Wilson Residence

SD

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