- 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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 EDITION.

SQUARE FOOTAGE

HEATED SQUARE FO	<u>OOTAGE</u>	<u>UNHEATED SQUARE</u>	FOOTAC
FIRST FLOOR=	2685	GARAGE=	734
SECOND FLOOR=	384	FRONT PORCH=	351
THIRD FLOOR=	N/A	CVD. PORCH=	330
BASEMENT=	N/A	DECK=	N/A
		STORAGE=	N/A

TOTAL HEATED= 3069 TOTAL UNHEATED= 1415

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

1.78 SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 4 VENTS AT 0.45 SQ. FT. NET FREE

VENTILATION EACH= 1.80 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.

3964 SQ. FT. OF ATTIC/300= 13.21

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

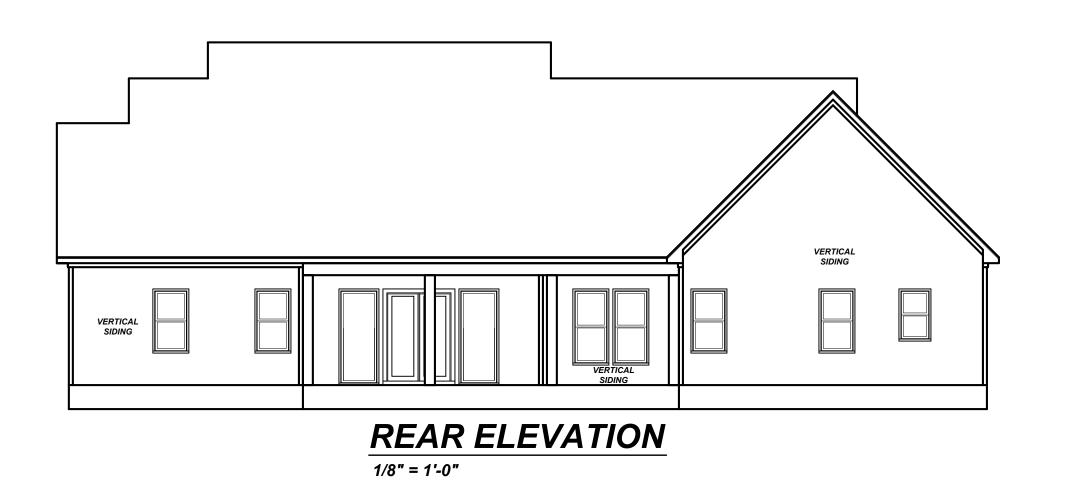
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

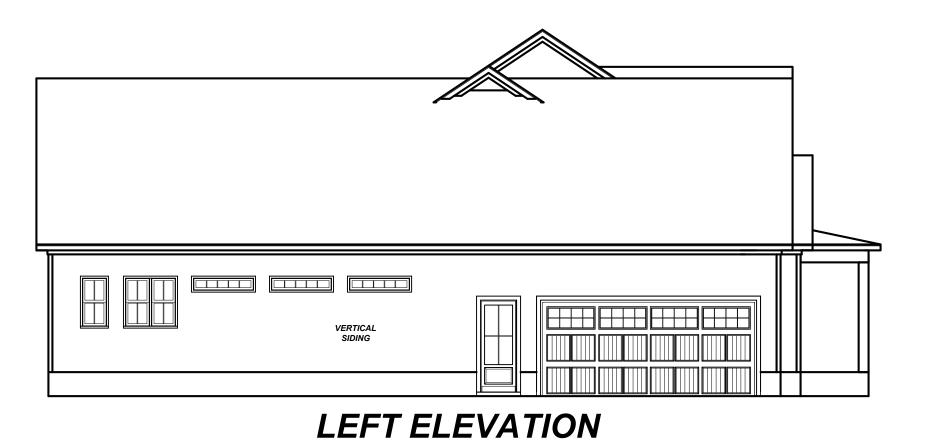
** MEAN ROOF HEIGHT 30' OR LESS



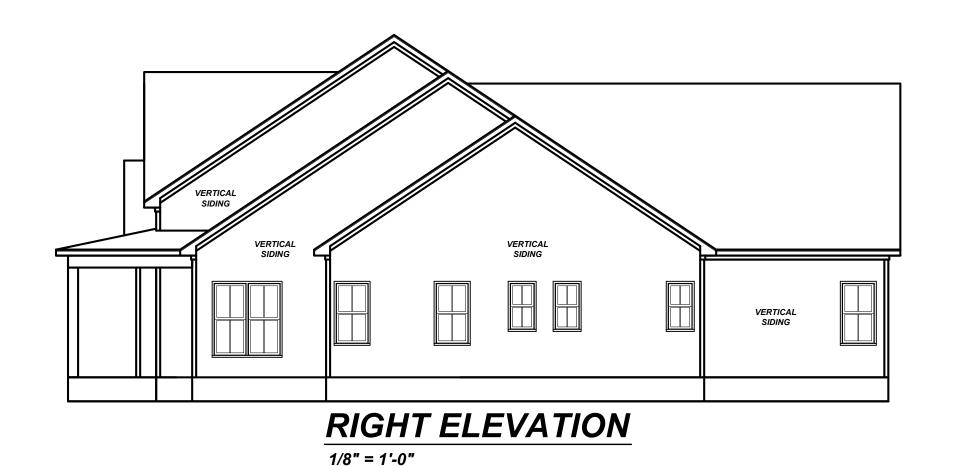
FRONT ELEVATION

1/4" = 1'-0"





1/8" = 1'-0"



Project #:
25-023

Date:
3-4-25

Drawn/Design By:
KBB

Scale:
REFER TO ELEV.

REVISIONS

No. Date: Remarks

1
2
3
4

101 Ten-Ten Rd. taleigh, NC 27603 office: (919) 302-0690



Kesick Residence

> Andrew & Taylor Kesick 40 Senter Farm Ct. Fuquay-Varina, NC 27526

ELEVATIONS

Sheet Numb

Project #: 25-023

3-4-25

Drawn/Design By:

KBB

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

REVISIONS

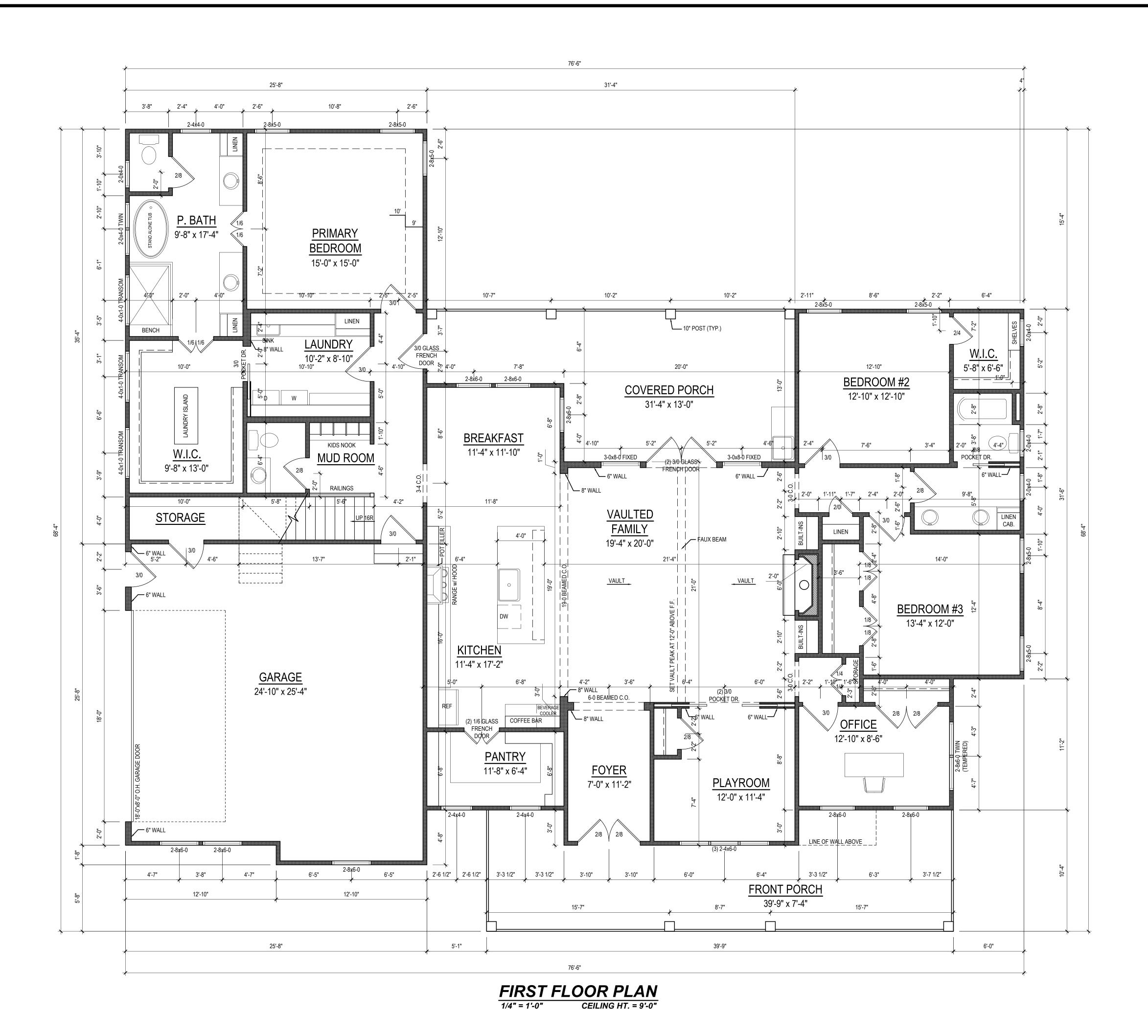
drew & Taylor Kesick 40 Senter Farm Ct. quay-Varina, NC 27526

FIRST FLOOR

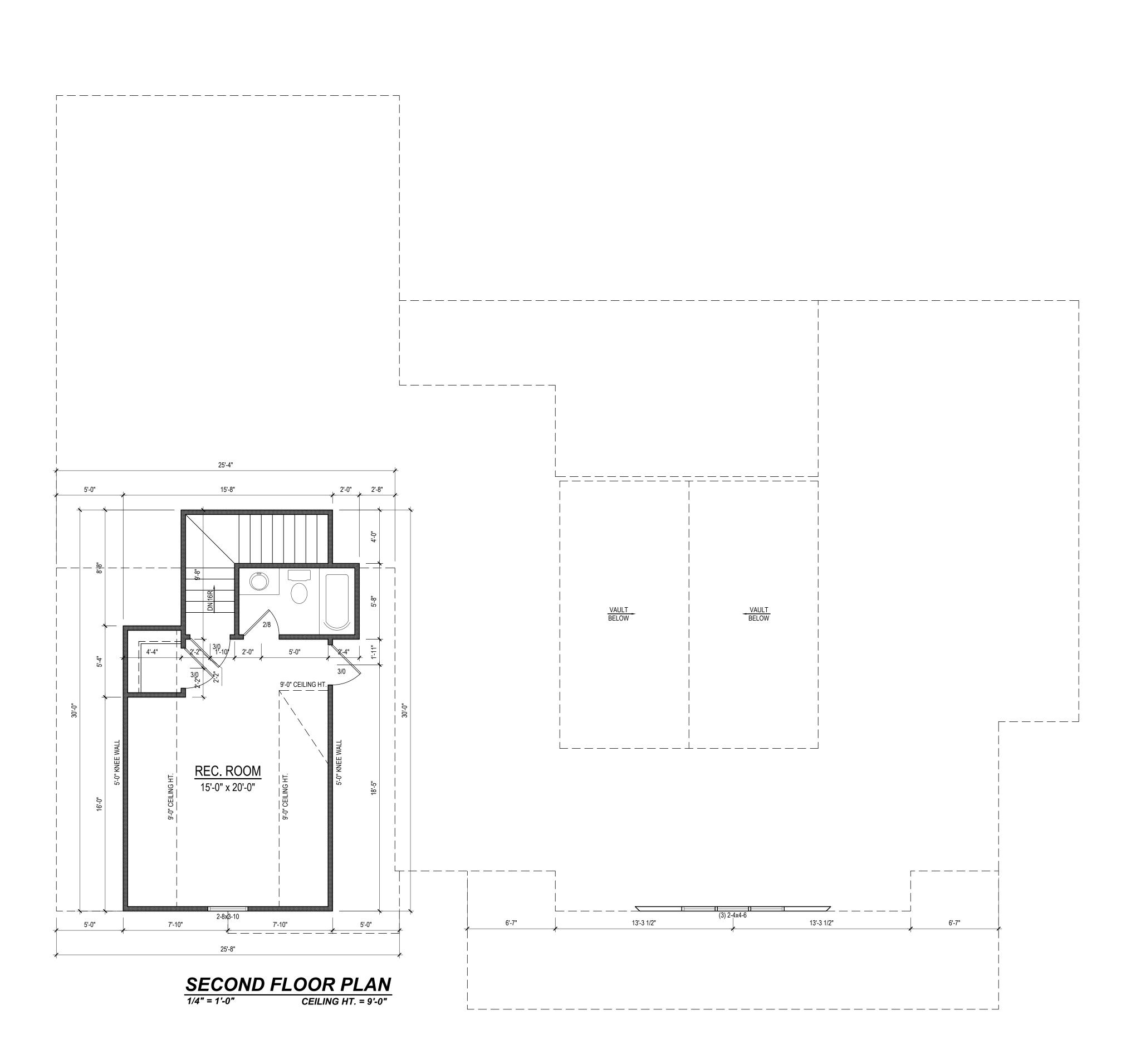
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2

of 3



SECOND FLOOR



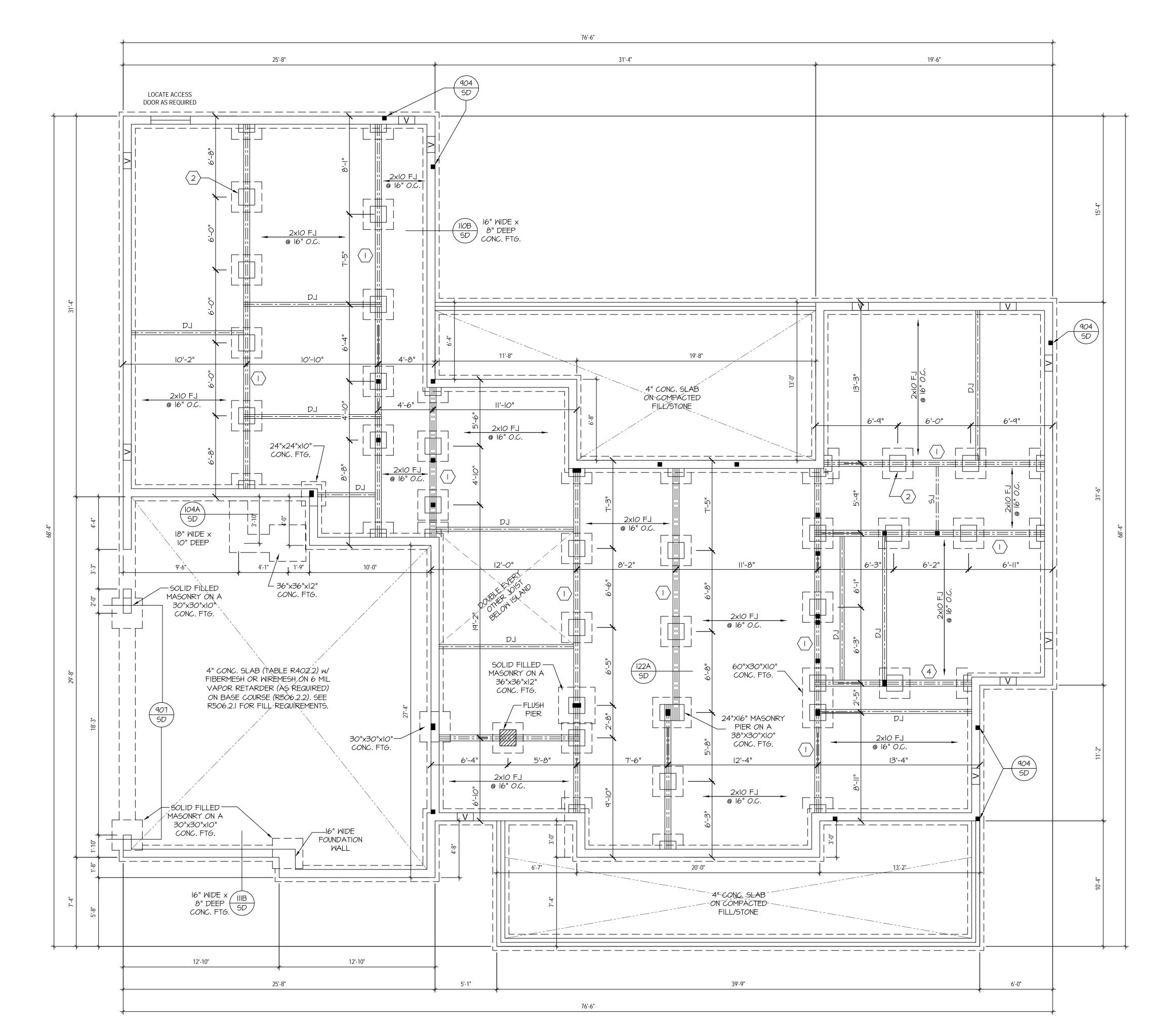
Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer liability.

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www.southernengineers.com

K&A HOME DESIGN, INC.

Kesick Residence 185 Buie Farm Lane Lillingtin, North Carolina

S₋₁



SEAL 033153

O WGINER MINSHITTER CAROLING

FOUNDATION STRUCTURAL NOTES
NC (2018 NCRC): Wind: 115-120 mph - CRAWL

(3)2xIO SYP#2 OR SPF#2 GIRDER, TYPICAL UNO.

CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE HOLLOW SOLID

SXI6 UP TO 32" UP TO 5'-0"

12xI6 UP TO 48" UP TO 9'-0"

16xI6 UP TO 64" UP TO 12'-0"

24x24 UP TO 96"

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

 WALL FOOTING AS FOLLOWS.

③ WALL FOOTING AS FOLLOWS● DEPTH: 8" - UP TO 2 STORYIO" - 3 STORY

•• MIDTH:
•• SIDING: I6" - UP TO 2 STORY
20" - 3 STORY
•• BRICK: I6" - I STORY
20" - 2 STORY
24" - 3 STORY

FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.I.I (I 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) 2xIO SPF #2 OR SYP #2 GIRDER

(5) (2) 1.75x9.25 LVL OR LSL GIRDER

(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

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

FRAMING NOTE: ALL DIMENSIONAL LUMBER ON THIS SHEET MAY BE SPF #2 OR SYP #2, UNLESS SPECIFICALLY NOTED OTHERWISE.

I6" MAX UNBALANCED FILL RECOMMENDED FOR HOLLOW 8" MASONRY STEMWALLS SHOWN ON NOTED DETAILS AND AT PORCHES. HIGHER UNBALANCED FILL MAY BE UTILIZED AT THE BUILDER'S AND/OR OWNER'S DISCRETION PROVIDED THAT CONSTRUCTION IS WITHIN THE CONSTRAINTS OF THE 2018 NC RESIDENTIAL CODE, ANY LOCAL CODES, DESIGN BY OTHERS, AND/OR THE BUILDING INSPECTOR'S INTERPRETATION OR APPROVAL.

FOUNDATION STRUCTURAL PLAN

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

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

EQUAL). SEE "PORCH POST NOTES"



FRAMING NOTES

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

BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED MSP: CS-MSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.

- SEE DETAILS FOR HD ASSEMBLY.
- **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS20 OR CSHP20 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.
- INTERMEDIATE SUPPORTS.
- PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH SCREMS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
 - THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:

PORCH POST NOTES

- ATTACH TRUSSES (RAFTERS) AT PORCH WITH HURRICANE CONNECTORS.
- SIMPSON H6. . <u>POST BASE</u>: SIMPSON ABU44 (ABU66). 3.1. MONO: %" ANCHOR (EMBED 7")
- 3.2. <u>CMU</u>: %" ANCHOR (EXTEND TO FOOTING -HIGH WIND ONLY)
- EACH POST (UPPER AND LOWER) OR TO GIRDER.
- SUGGESTIONS. EQUIVALENT CONNECTORS THAT MEET THE REQUIREMENTS OF THE NC RESIDENTIAL BUILDING CODE, LOCAL CODES, AND/OR ARE APPROVED BY THE BUILDING INSPECTOR MAY BE SUBSTITUTED.

FRAMING NOTE: ALL DIMENSIONAL LUMBER ON THIS SHEET MAY BE SPF #2 OR SYP #2, UNLESS SPECIFICALLY NOTED OTHERWISE.

LVL CONNECTION LEGEND

- . (2) PLY 1.75" LVL BEAMS:
- SCREWS @ 16" O.C. FOR BEAMS UP TO 18" • (3) ROWS OF SIMPSON SDW22338 (OR EQUAL)
- 2. *(*3) PLY 1.75" LVL BEAMS:
- (2) ROWS OF SIMPSON SDW22634 (OR EQUAL)

FIRST FLOOR STRUCTURAL PLAN

SCALE: 1/4"=1'-0" REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

Residence

Kesick

185 Buie Farm Lane Lillingtin, North Caroli

PROJECT #

25-1215

trn Engineers, on Drive, Raleigh, NC hone: (919) 878-1617
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Southern 3716 Benson D

HOME

DESIGN

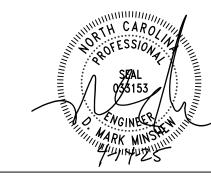
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (MSP) (EXPOSURE B: 7/16". EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/I2" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS.
- **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET
- INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH I/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/6" WSP SHEATHING WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL OPPOSITE SIDE WITH I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6

HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x6 (4" WALL) OR (3)2x6 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- •• UP TO 3' SPAN: (I) KING STUD OVER 3' UP TO 6' SPAN: (2) KING STUDS OVER 6' UP TO 9' SPAN: (3) KING STUDS
- OVER 9' UP TO 12' SPAN: (4) KING STUDS OVER 12' UP TO 15' SPAN: (5) KING STUDS

- 4X4 (6x6) TRT'D POST (OR EQUAL).
- POST CAP: SIMPSON AC4-MAX (AC6-MAX)
- POST CAP AT CORNER: (2) SIMPSON LCE4 (MITER HEADER AT CORNER). HIGH WIND; ADD (I)
- POST BASE: WOOD FOUNDATION: (2) SIMPSON CSI6 STRAPS AT POSTS. EXTEND 12" ONTO
- NOTE: THE ABOVE CONNECTORS ARE

- (3) ROWS OF IOD NAILS @ 12" O.C. OR • (2) ROWS OF SIMPSON SDW22338 (OR EQUAL)
- SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".
- (3) ROWS OF IOD NAILS @ 8" O.C. ON EACH SIDE OR • (2) ROWS OF SIMPSON SDW22500 (OR EQUAL)
- SCREWS @ 16" O.C. FOR BEAMS UP TO 18" • (3) ROWS OF SIMPSON SDW22500 (OR EQUAL SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".
- 3. (4) PLY 1.75" LVL BEAMS:
- SCREWS @ 16" O.C. FOR BEAMS UP TO 18" • (3) ROWS OF SIMPSON SDW22634 (OR EQUAL SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".



FRAMING NOTES

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

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP: CS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (MSP) (EXPOSURE B: 1/16". EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
- **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET
- **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS20 OR CSHP20 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.
- INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "<u>IBW-WSP</u>" ON PLANS). ATTACH ONE SIDE WITH %" WSP SHEATHING WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE

HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x6 (4" WALL) OR (3)2x6 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:

 •• UP TO 3' SPAN: (I) KING STUD
- OVER 3' UP TO 6' SPAN: (2) KING STUDS OVER 6' UP TO 9' SPAN: (3) KING STUDS
- OVER 9' UP TO 12' SPAN: (4) KING STUDS OVER 12' UP TO 15' SPAN: (5) KING STUDS

FRAMING NOTE: ALL DIMENSIONAL LUMBER ON THIS SHEET MAY BE SPF #2 OR SYP #2, UNLESS SPECIFICALLY NOTED OTHERWISE.

irn Engineers, on Drive, Raleigh, NC 2hone: (919) 878-1617
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> INC HOME DESIGN,

Residence 185 Buie Farm Lane Lillingtin, North Caroli Kesick

SECOND FLOOR STRUCTURAL PLAN

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

- (4) 1.75x11.875 LVL OR (2)1.75x9.25 LVL VALLEY
- 5. FALSE FRAME VALLEY ON 2x10 FLAT PLATE
- 6. 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
- 8) EXTEND RIDGE 12" BEYOND INTERSECTION

- R802.3.1 OF THE 2018 NC RESIDENTIAL CODE.

FRAMING NOTE: ALL DIMENSIONAL LUMBER ON THIS SHEET MAY BE SPF #2 OR SYP #2, UNLESS SPECIFICALLY NOTED OTHERWISE.

2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.

(2) 2x10 OR 1.75x11.875 LVL HIP. (2) 2x10 HIPS MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER

3) (2) 2×10 OR 1.75×9.25 LVL VALLEY. DO NOT SPLICE VALLEYS

7. 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE, UNO.

"SR" = SINGLE RAFTER
"DR" = DOUBLE RAFTER
"TR" = TRIPLE RAFTER

"RS" = ROOF SUPPORT

2x10 RIDGE

RS_

12:12

12:12

12:12

RS

12:12

____RS__

(2) 1.75x16 LVL RIDGE

4 12:12

2xIO RIDGE

RS

12:12

(5)

"■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2X6 STUDS OR 6X6 POST FOR SUPPORT OVER IO'-O" IN

HEIGHT)

• ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS:
SIMPSON "H-2.5A" OR EQUIVALENT. TIES TO BE INSTALLED
ON THE OUTSIDE FACE OF FRAMING.

• INSTALL RAFTER TIES AND COLLAR TIES PER SECTION

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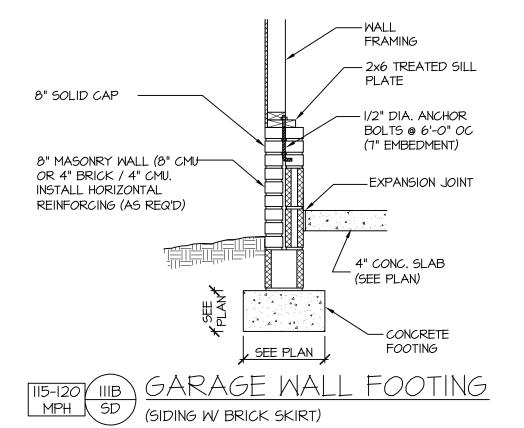
Kesick Residence 185 Buie Farm Lane Lillingtin, North Carolina

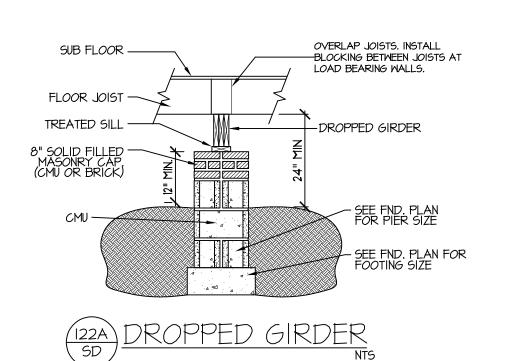
ROOF STRUCTURAL PLAN

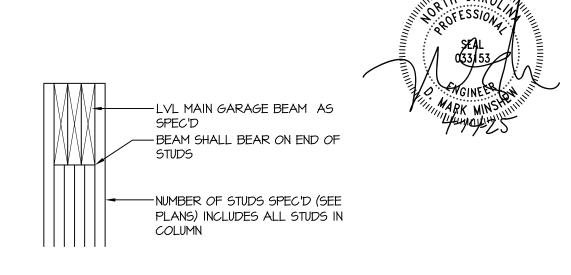
SCALE: 1/4"=1'-0" REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

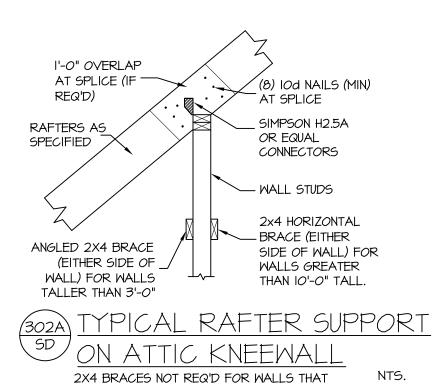
FRAMING 8" SOLID CAP ---SYSTEM - 2x6 TREATED 8" MASONRY WALL (8" CMU SILL PLATE OR 4" BRICK / 4" CMU. INSTALL HORIZONTAL - 1/2" DIA. ANCHOR REINFORCING (AS REQ'D) BOLTS @ 6'-0" OC (7" EMBEDMENT) FOOTING

(SIDING W/ BRICK SKIRT)









ARE SHEATHED W/ WSP OR DRYWALL.

- 2x6 WALL FRAMING-

- OPTIONAL WALL PLATE. -

IN OPTIONAL PLATE.

TREATED SILLPLATE

OPTIONAL BRICK

(OR OTHER) -

MAY COUNTERSINK BOLT

%" THREADED ROD WITH

2" CUT WASHERS

CONCRETE FOOTING

CONC. COVER (TYP)

(SEE PLANS)

<u>SECTION</u>

OR SIMPSON "SET OR

- TREATED SILL

- THICKENED SLAB

PLATE

≠ SEE PLAN-

(INTERIOR BEARING WALL)

THICKENED SLAB

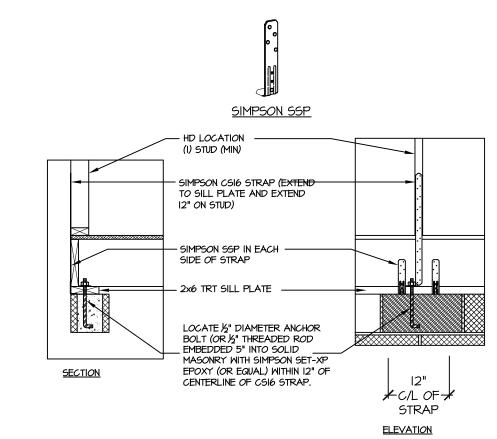
½" DIAMETER ANCHOR

BOLTS (7" EMBEDMENT)

6'-0 OC. (ALT. ANCHOR:

SIMPSON THD50600H

TITEN HD OR EQUAL)



BRACED WALL END CONDITION " HD' HOLD-DOWN DETAII

- GARAGE SLAB

SPECIFIED

OVER GRAVEL AS

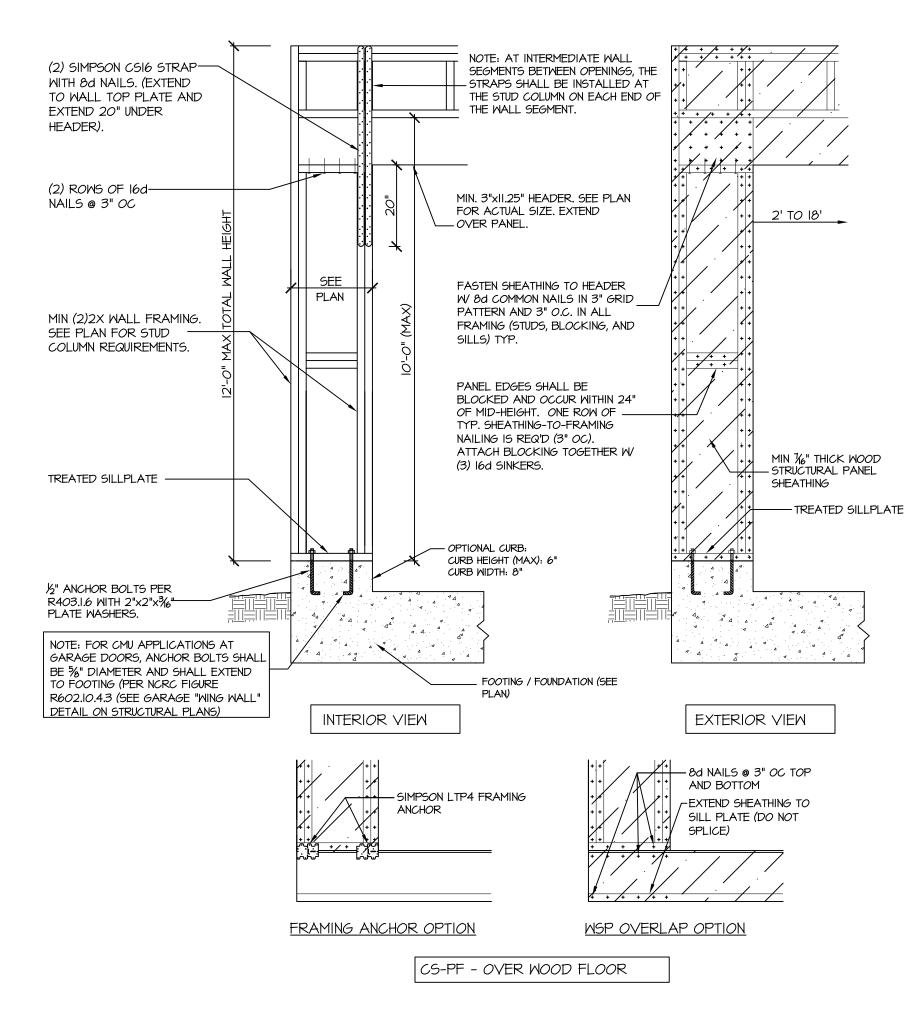
NOTE: SIMPSON DTT-IZ IS ACCEPTABLE ALTERNATE NOTE: ALTERNATE HD HOLD-DOWN DEVICES OR SYSTEMS MAY BE USED TO MEET THE CODE REQUIRED 800 LB CAPACITY IN LIEU OF THE ABOVE DETAIL.





48" MAX

ELEVATION



CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION DETAIL AND APPLICATION BASED ON NORC FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION

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

- I. 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.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NO 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, IO PSF, L/360) SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
- ATTIC WITH PERMANENT STAIR: (40 PSF, IO PSF, L/360) ATTIC WITHOUT PERMANENT STAIR: (20 PSF, IO PSF, L/360)
- STAIRS: (40 PSF, IO PSF, L/360)
- DECKS AND EXTERIOR BALCONIES: (40 PSF, IO PSF, L/360) PASSENGER VEHICLE GARAGES: (50 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 I/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +-10'-0" x +-10'-0" GRID).
- 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 DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.
- 8. ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).
- 9. L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=I,9xI0 PSI. 9.I. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10 PSI. 9.2. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55xI0 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- IO. 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.
- II. 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 JOIST 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.
- 12. REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.
- 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"x3 1/2"x1/4" 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 R703.8.3 LINTELS.
- 15. METAL CONNECTORS REFERENCED ON PLANS CORRESPOND TO SIMPSON STRONG-TIE BRAND. CONNECTORS OF EQUAL OR BETTER CAPACITY ARE ACCEPTABLE. CORROSION RESISTANCE PER CODE AND AS RECOMMENDED BY MANUFACTURER.

