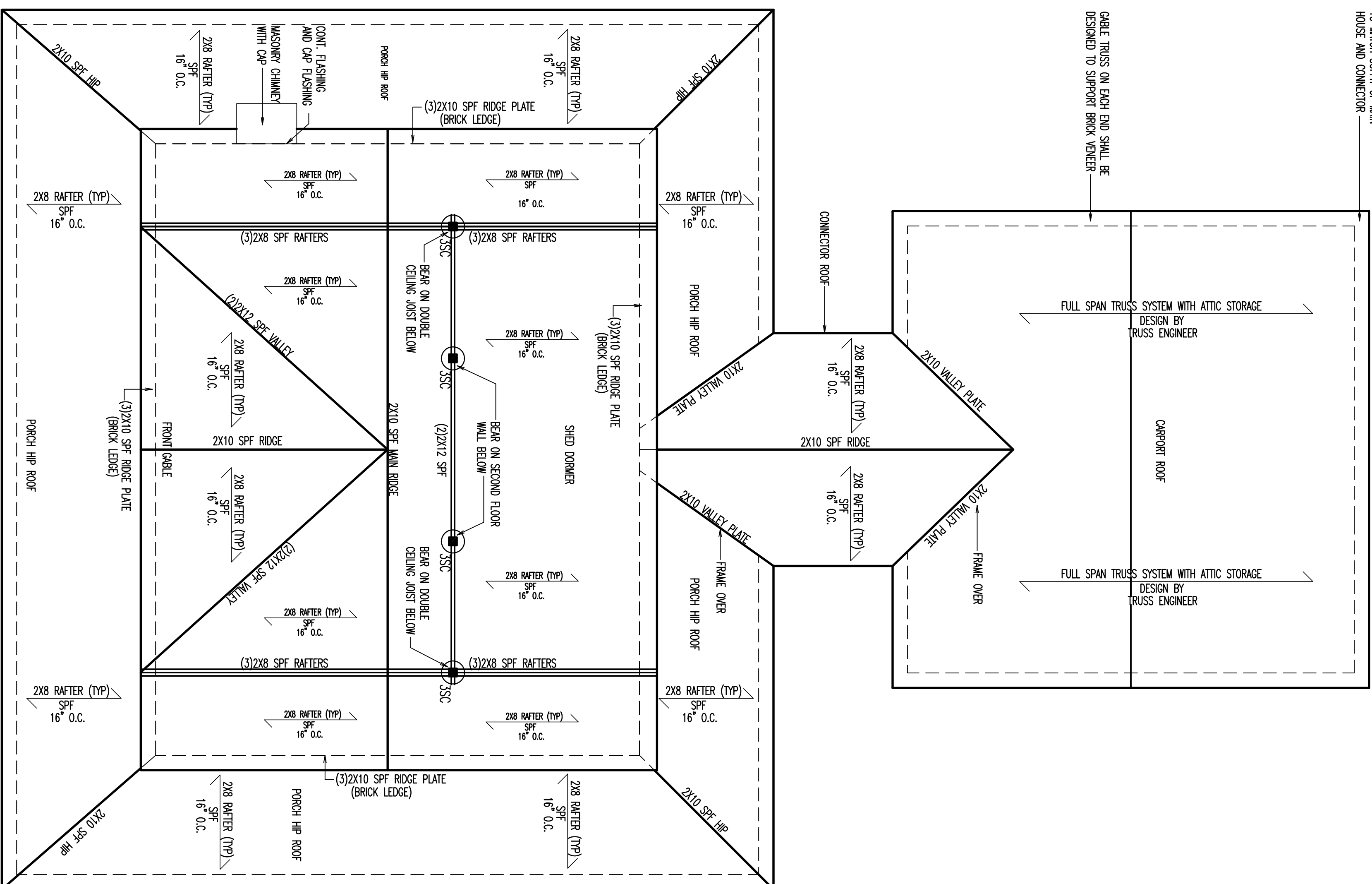


TRUSS SHALL BE DESIGNED TO MATCH SPREAD OF MAIN HOUSE AND CONNECTOR

CABLE TRUSS ON EACH END SHALL BE DESIGNED TO SUPPORT BRICK VENEER



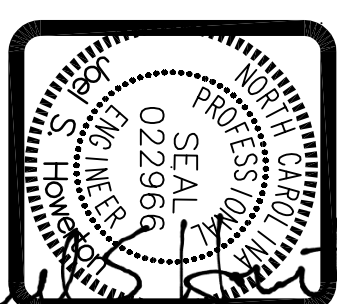
**S7**  
**01**  
**ROOF PLAN**  
3/16" = 1'-0"

**GENERAL ROOF NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE 2018 EDITION.
  2. ROOF CLADDING DESIGN VALUES (POSTING/WEIGHTED) SHALL BE AS FOLLOWS:  
45.5 *LSF* FOR ROOF PROCES FROM 0/12 TO 2/12  
34.5 *LSF* FOR ROOF PROCES FROM 2/12 TO 2/12
  3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE CODE.
  4. ALL LUMBER SHALL BE #2 SPF OR BETTER. RAFTERS MAY BE FINER JOINED PER NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, AND MUST HAVE THE STRUCTURAL CERTIFICATION STAMPED ON THE MEMBER.
  5. RAFTER SIZES, SPANS AND SPACING SHALL NOT EXCEED THE FOLLOWING:  

SIZE	2x6	2x8	2x10
SPACING 12" O.C.	14'-9"	19'-6"	27'-3"
SPACING 16" O.C.	13'-5"	17'-9"	22'-3"
  6. ALL RAFTERS TO BE 2x8 @ 16" O.C. #2 SPF UNLESS NOTED OTHERWISE.
  7. 2-2X10 HIPS MAY BE SPACED WITH A MIN. 6'-0" OVERLAP.
  8. PROVIDE DOUBLE RAFTER EACH SIDE OF DOWNERS WITH DOUBLE HEADER.
  9. ATTACH WALTERED RAFTERS WITH HARDWARE CIP SIMPSON 7-5" OR EQUIVALENT. PROVIDE DOUBLE OPPOSITE RAFTERS WHERE NOTED.
  10. 2X8 RAFTERS @ CATHEDRAL OR WALTERED CEILING TO BE FIRED DOWN 2" OR USE 2X10 RAFTERS FOR INSULATION PER CODE.
  11. PROVIDE 2X4 COLLAR TIES @ 32' O.C. (TYPICAL)
  12. PROVIDE 2X4 RAFTER TIES @ 32' O.C. (TYPICAL)
  13. FRAME RAFTERS ON 2X4 PLATE ON TOP OF CEILING JOISTS UNLESS NOTED OTHERWISE.
  14. SHIMMERS ASSUMED TO BE 240 LB. FIBERGLASS OR EQUAL. MINIMUM ROOF PITCH TO BE AS INDICATED ON ARCHITECTURAL PLAN SHEETS.
  15. PROVIDE DOUBLE LAYER OF ROOF FELT WHERE ROOF PITCH IS LESS THAN 4 /12.
  16. THESE DESIGN DRAWINGS WERE PRODUCED BY HOWERTON CONSULTING ENGINEERS, INC. ASSUMES NO LIABILITY FOR THE CORRECTNESS OF ARCHITECTURAL FEATURES, DIMENSIONS OR FINISHES.
  17. ALL CONTRACTOR RESPONSIBILITIES SHALL BE DOUBLE 2X10 UNLESS NOTED OTHERWISE.
  18. CONTRACTOR RESPONSIBILITIES FOR BEARING DIMENSIONS FOR CONSTRUCTION.
  19. VALLEY RAFTERS WITH SPANS LONGER THAN 15' SHALL BE VIA SHEPPARD AS NOTED. PROVIDE TEMPORARY STEEL KNEE SUPPORT UNTIL ALL SHEPPARD AND RAFTER TIES/COLLARS ARE INSTALLED.
  20. DO NOT SCALE THESE DRAWINGS. IF DISCREPANCIES ARE NOTED, CONTACT THE ENGINEER.
  21. DESIGN BASIS PROVIDED BY ARCHITECT AND ARCHITECT IS RESPONSIBLE FOR ALL ARCHITECTURAL FEATURES, DIMENSIONS, COMPLIANCE WITH ALL ACCESS/EGRESS REQUIREMENTS, FIRE CODE AND LIFE SAFETY DESIGN ISSUES.
- SCC-(3) 2X4 STUD BEARING COLUMN WHERE INDICATED.  
 STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, PLLC**  
 2108 KARNS PLACE, RALEIGH, NC 27614  
 LICENSE # P-1716
- \* ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.  
 \* ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO IMMEDIATE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL VOID ENGINEER'S LIABILITY.  
 \* DO NOT SCALE THESE DRAWINGS - ENGINEERING APPROVAL EXPIRES 02/01/2020 OR UNTIL NEW CODE CYCLE.

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**HOWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**

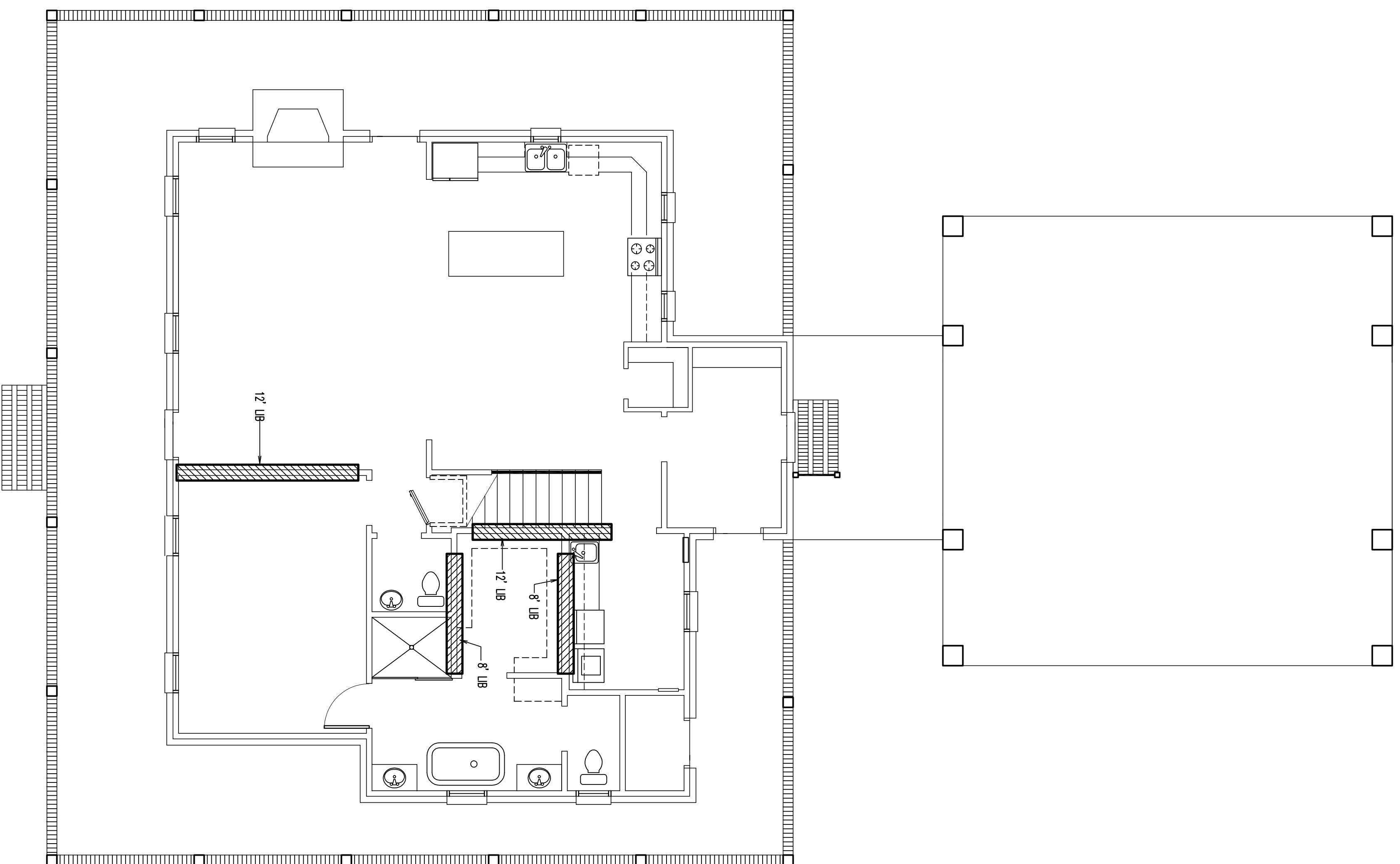
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

PROFESSIONAL  
ROOF PLAN

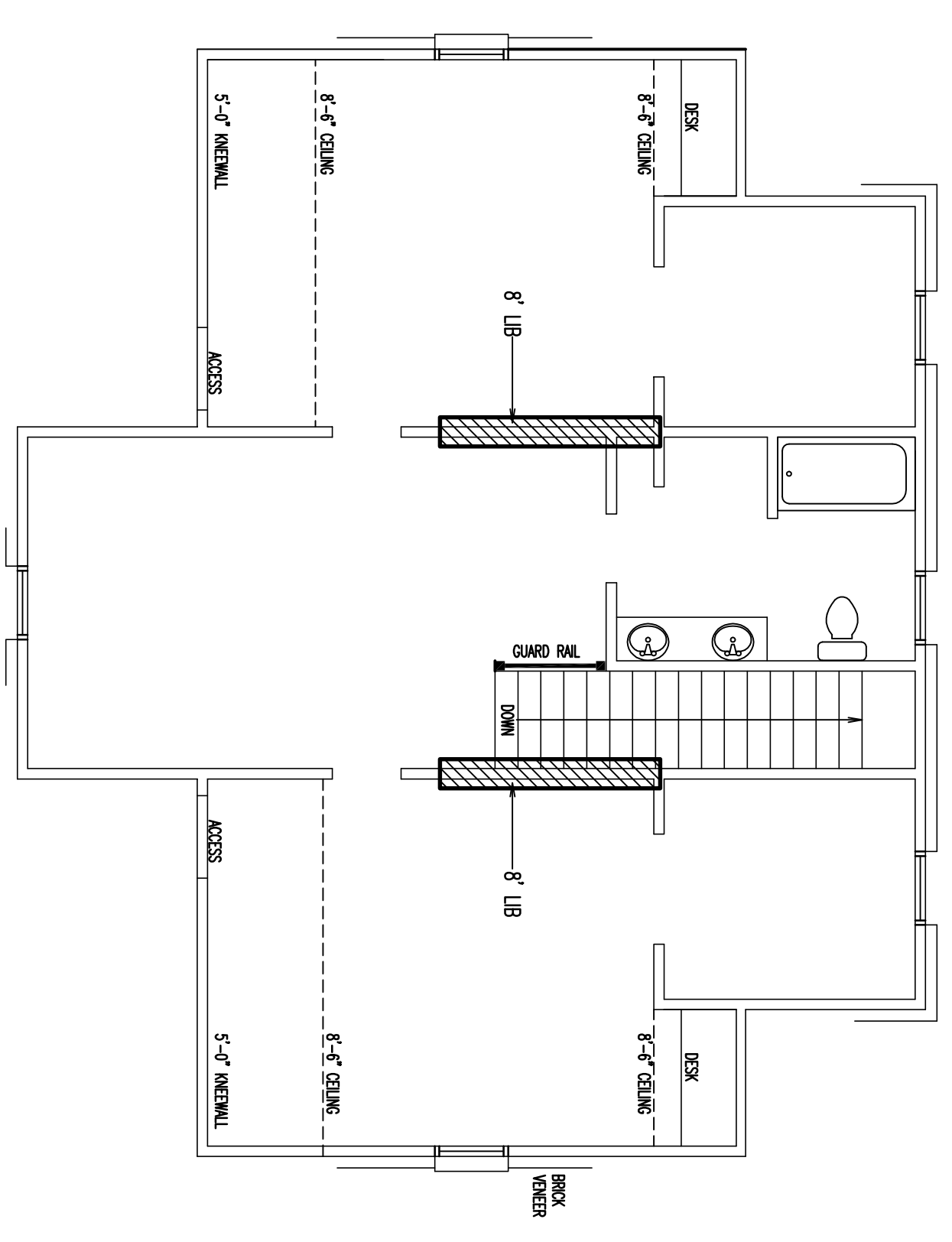
REVISION

DATE  
JANUARY 2019

**S7**



**S6**  
**01**  
**BRACING PLAN - LOWER LEVEL**  
3/16" = 1'-0"



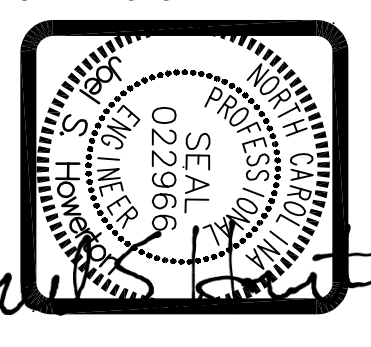
**S6**  
**02**  
**BRACING PLAN - UPPER LEVEL**  
3/16" = 1'-0"

- BRACED WALL NOTES:**
- BRACED WALLS ARE REQUIRED PER SECTION 802.10.1 2018 NBC-RESIDENTIAL CODE.
  - THE EXTERIOR WALL STRUCTURE SHALL BE CONTINUOUSLY SHEARED FULL HEIGHT WITH MIN. THICKNESS 7/16" OSB. THESE WALLS SHALL BE CONSTRUCTED IN CONFORMANCE TO TYPE OS-W87 DETAILS REFER TO PLAN FOR LOCATION OF REQUIRED BRACING LABELED "OS BRACING" AND LENGTH OF WALL BRACING LABELED IN LINEAR FEET.
  - INTERIOR WALLS WHERE NOTED SHALL BE BRACED PER INDICATED METHOD IN REFERENCE TO NBC-RESIDENTIAL CODE, TABLE 802.10.2.
  - SPECIAL BRACING DETAILS ARE ILLUSTRATED IN THE CORE AND ALLOWED WHERE WALLS DO NOT MEET THE MINIMUM REQUIREMENTS FOR SUPPORT.

STRUCUTURAL EVALUATION BY:  
**HOWERTON SERVICES, PLLC**  
 2108 KARNS PLACE, RALEIGH, NC 27614  
 LICENSE # P-1718

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 • DO NOT SCALE THESE DRAWINGS - ENGINEERING APPROVAL EXPRESSES 02/01/2020 OR UNTIL NEW CODE CYCLE.

01 11 2019



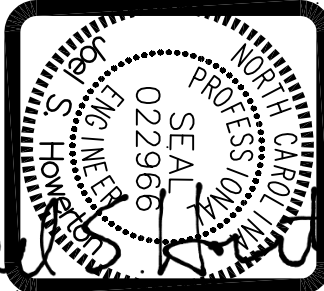
STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
 2108 KARNS PLACE, RALEIGH N.C. 27614

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
 6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**  
 RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

PROJNO: **S6**  
 PERSON: **BRACING PLANS**  
 DATE: **JANUARY 2019**

**S6**



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**JOHNSON FAMILY RESIDENCE**  
 RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

DESCRIPTION:  
 UPPER LEVEL  
 CEILING FRAMING  
 PLAN

DATE:  
 JANUARY 2019

FORMING:  
**S5**

**GENERAL FRAMING NOTES:**

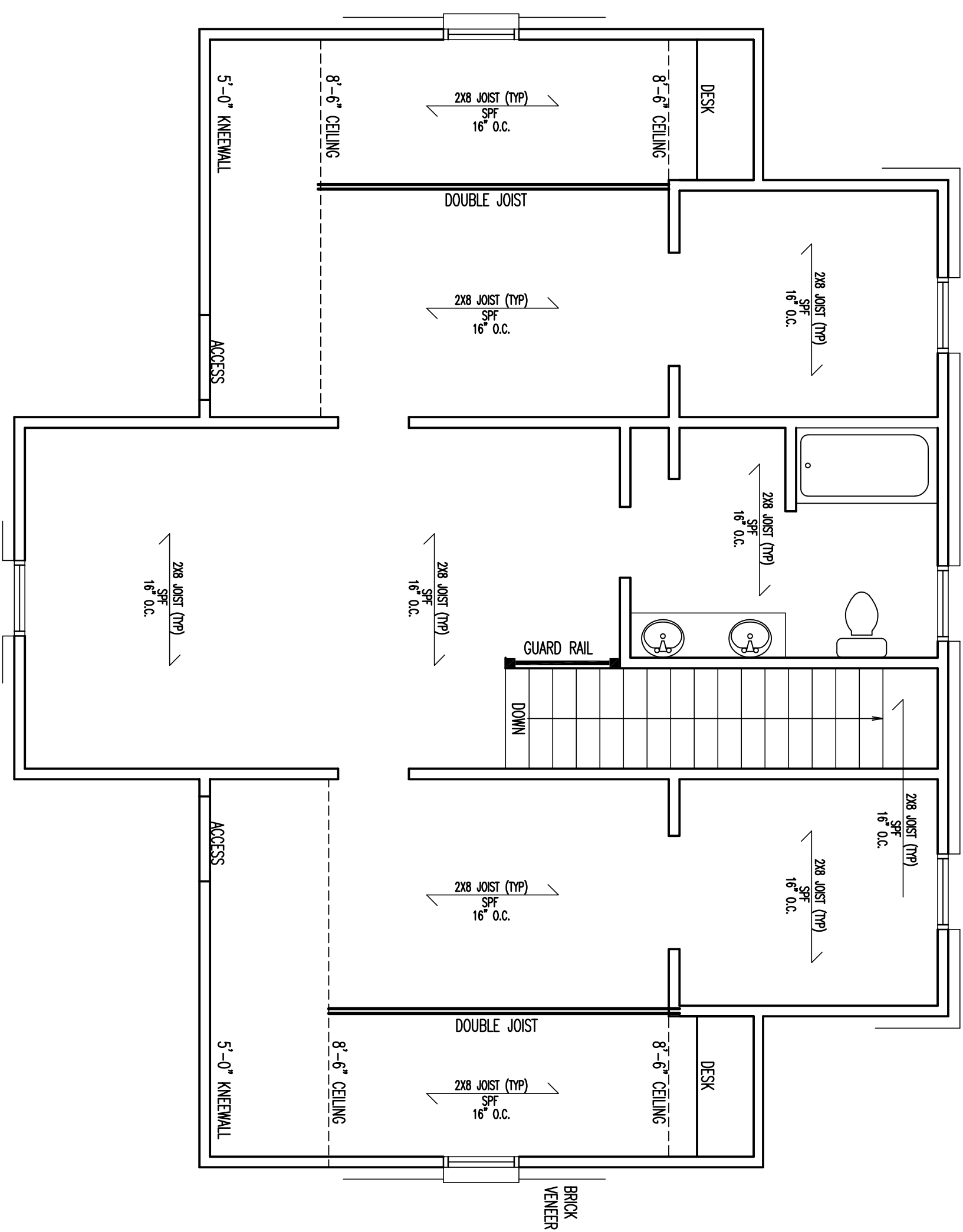
- THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
  - CLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF INT(10)2.1, RESIDENTIAL BUILDING, TYPE A-1.
  - WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER.
  - POSITIVE/NEGATIVE PRESSURE.
  - ALL WALLS, FLOORS AND CEILINGS SHALL BE INSULATED IN ACCORDANCE WITH CODE SUMMARY:
- |                  |        |        |
|------------------|--------|--------|
| DESIGN CRITERIA: | 0/20   | LIVE   |
| PRIMARY FLOOR    | 10 PSF | 40 PSF |
| SECONDARY FLOOR  | 10 PSF | 30 PSF |
| SLEEPING AREAS   | 10 PSF | 20 PSF |
| ROOF             | 10 PSF | 20 PSF |
- DEFLECTION LIMITS: L/360 (LIVE LOAD ONLY)
- FLOOR
  - ROOF
  - ROOF
  - L/240
  - ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10.
  - ALL WALLS ARE 2X4 @ 16" O.C. UNLESS OTHERWISE NOTED.
  - PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
  - PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER.
  - ALL JOISTS TO BE SPF.

**STRUCTURAL EVALUATION BY:**

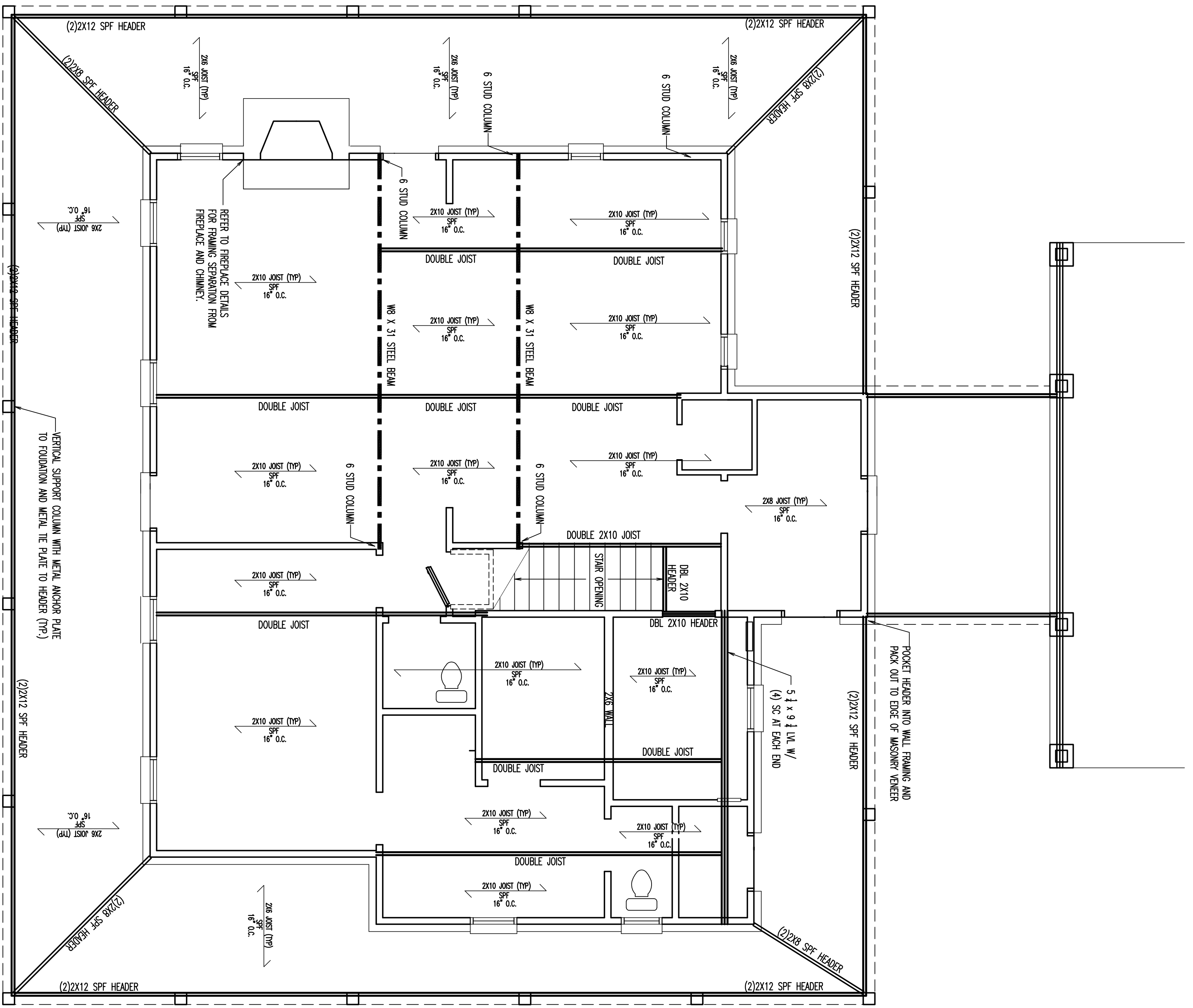
**HOWERTON SERVICES, PLLC**  
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 LICENSE # P-17176

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- DO NOT SCALE THESE DRAWINGS - ENGINEERING APPROVAL EXPIRES 02/01/2020 OR UNTIL NEW CODE CYCLE.

INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS



**S5**  
**01**  
 UPPER LEVEL-CEILING FRAMING  
 1/4" = 1'-0"



**S4**  
**01**  
**UPPER LEVEL - FLOOR FRAMING**  
1/4" = 1'-0"

**GENERAL FRAMING NOTES:**

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2. GLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF N1101.2.1, RESIDENTIAL BUILDING, TYPE A-1.
3. WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER.
4. ALL WALLS, FLOORS AND CEILING SHALL BE INSULATED IN ACCORDANCE WITH CODE SUMMARY.
5. DESIGN CENTER:
 

DEAD	10 PSF
LIVE	40 PSF
PRIMARY FLOOR	10 PSF
SECONDARY FLOOR	10 PSF
CEILING AREAS	10 PSF
ATTIC	20 PSF
ROOF	10 PSF
DELETION LIMITS:	20 PSF
6. ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10.
7. ALL WALLS ARE 2X4 @ 16" O.C. UNLESS OTHERWISE NOTED.
8. PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
9. PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER.
10. ALL JOISTS TO BE SPF.

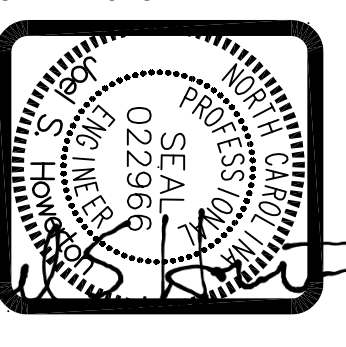
**STRUCTURAL EVALUATION BY:**

**HOWERTON SERVICES, PLLC**  
2108 KARNIS PLACE, RALEIGH, NC 27614  
LICENSE # 1-1718

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INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

01 11 2019



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2108 KARNIS PLACE, RALEIGH N.C. 27614

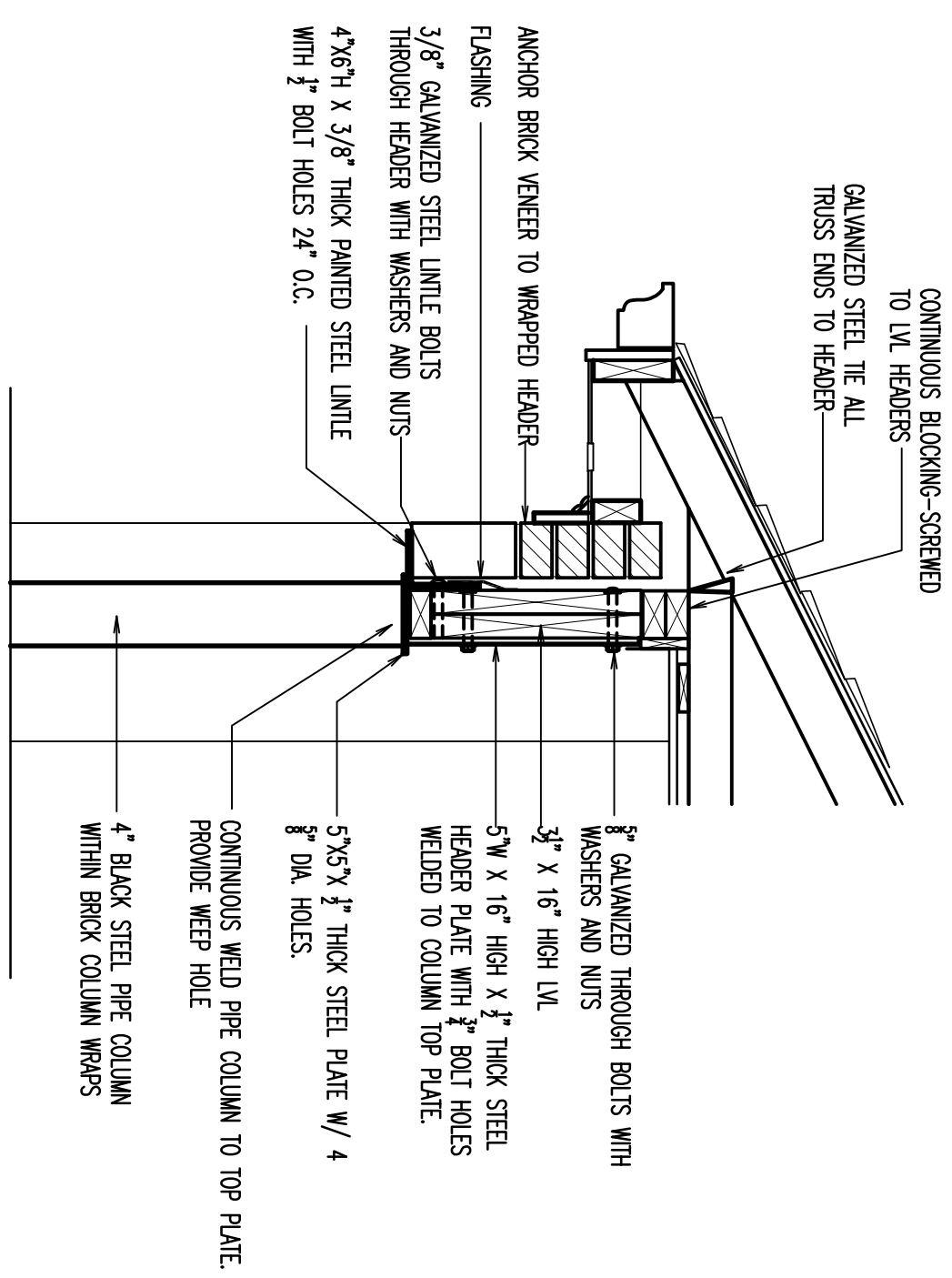
BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**

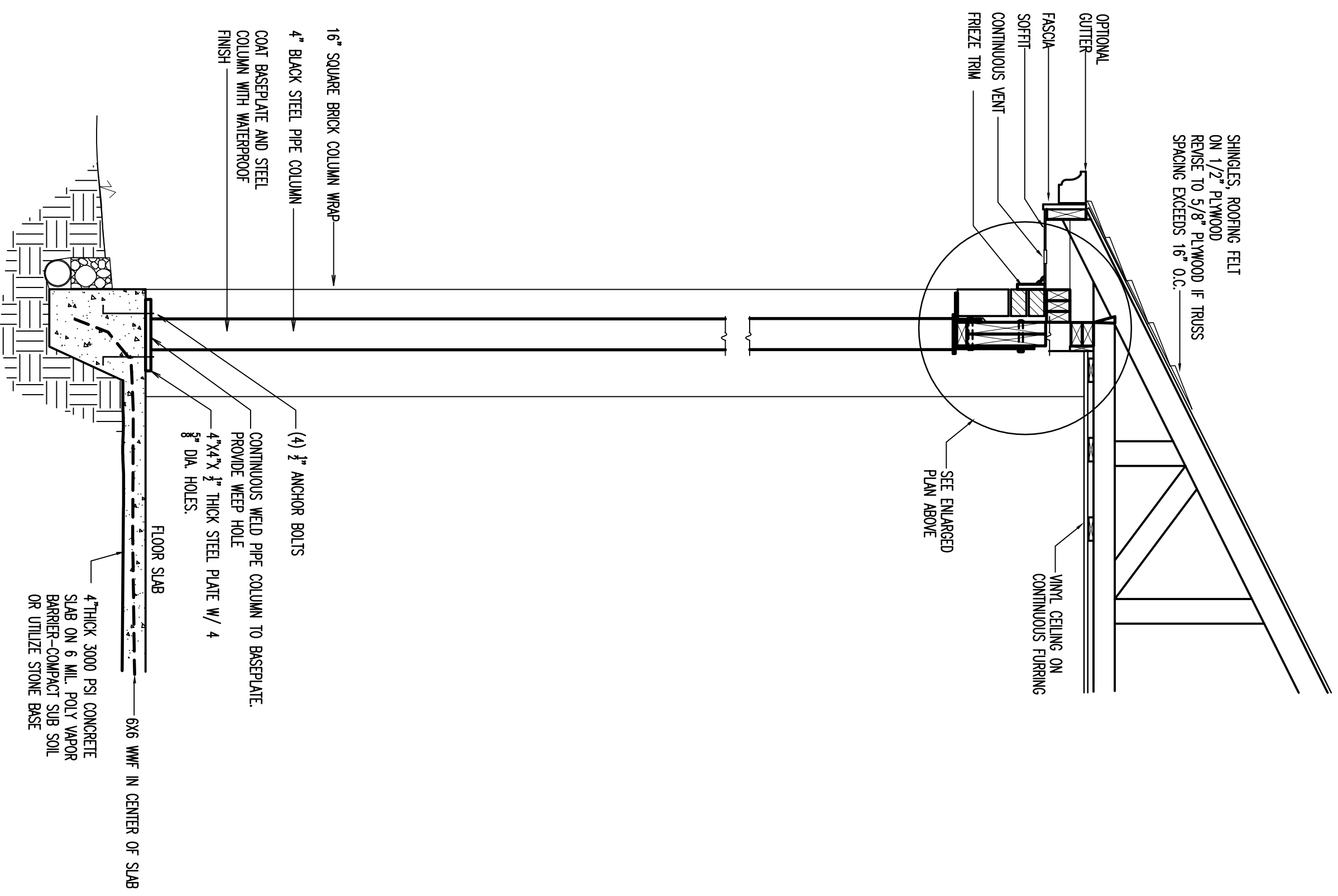
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

RESPONSIBLE PERSONNEL	DATE
UPPER LEVEL FLOOR FRAMING PLAN	JANUARY 2019

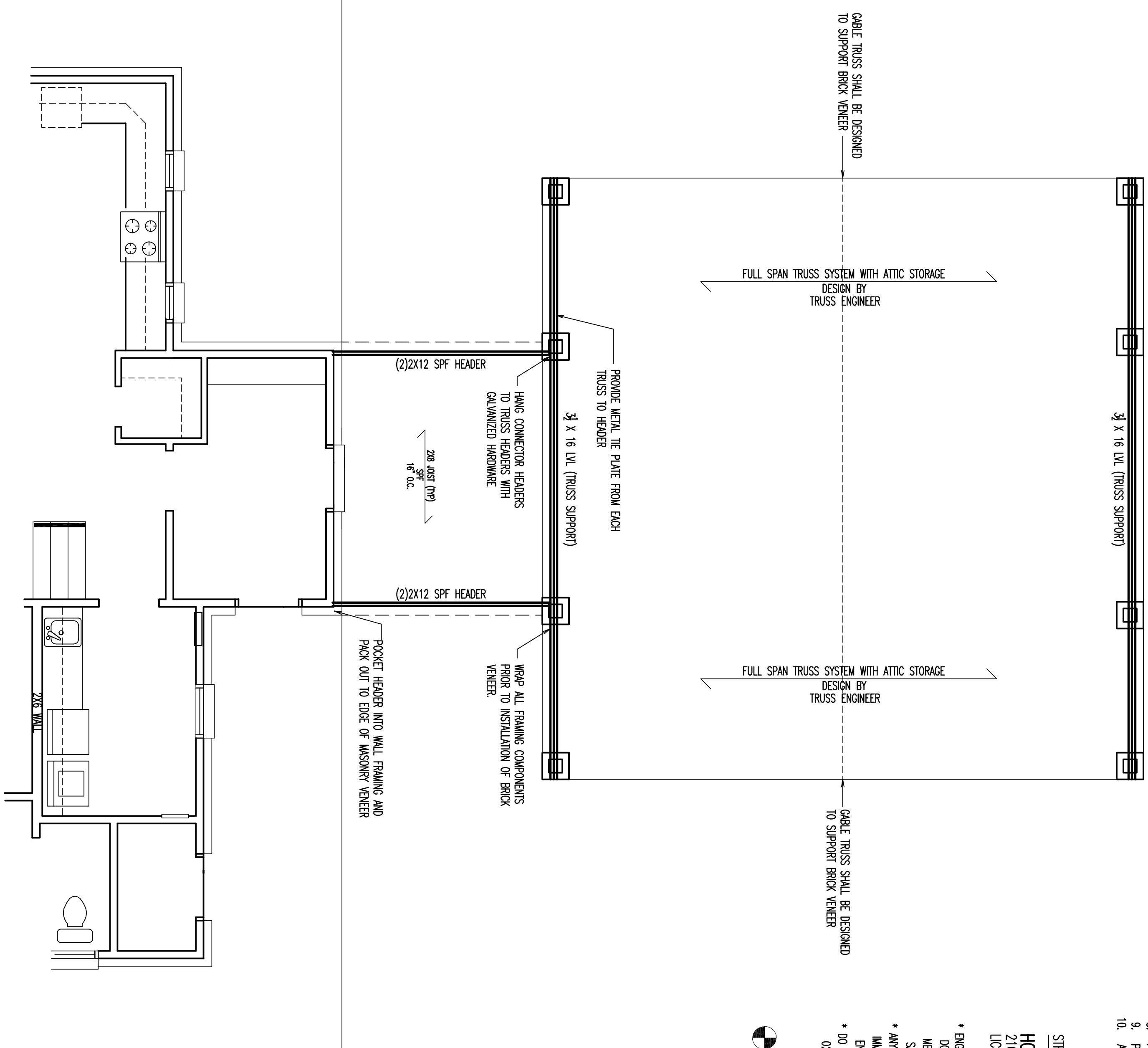
**S4**



**S3**  
**03**  
CARPORT HEADER SUPPORT-ENLARGED  
NTS



**S3**  
**02**  
CARPORT HEADER SUPPORT  
NTS



**S3**  
**01**  
CARPORT AND CONNECTOR FRAMING  
1/4" = 1'-0"

GENERAL FRAMING NOTES:

- THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
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- WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER.
- ALL WALLS, FLOORS AND CEILINGS SHALL BE INSULATED IN ACCORDANCE WITH CODE REQUIREMENTS.
- DESIGN LOADS:  
DESIGN FLOOR: 60.0 LBF  
SECONDARY FLOOR: 10 PSF 40 PSF  
SLEEPING AREAS: 10 PSF 30 PSF  
ATTIC: 10 PSF 20 PSF  
ROOF: 10 PSF 20 PSF
- DEFLECTION LIMITS:  
FLOOR: L/360 (LIVE LOAD ONLY)  
ROOF: L/240
- ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10.
- ALL WALLS ARE 2X4 @ 16" O.C. UNLESS OTHERWISE NOTED.
- PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
- PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER.
- ALL JOISTS TO BE SPF.

STRUCTURAL EVALUATION BY:

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2108 KARNS PLACE, RALEIGH, NC 27614  
LICENSE # P-1716

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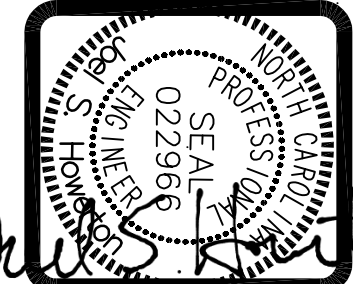
INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614

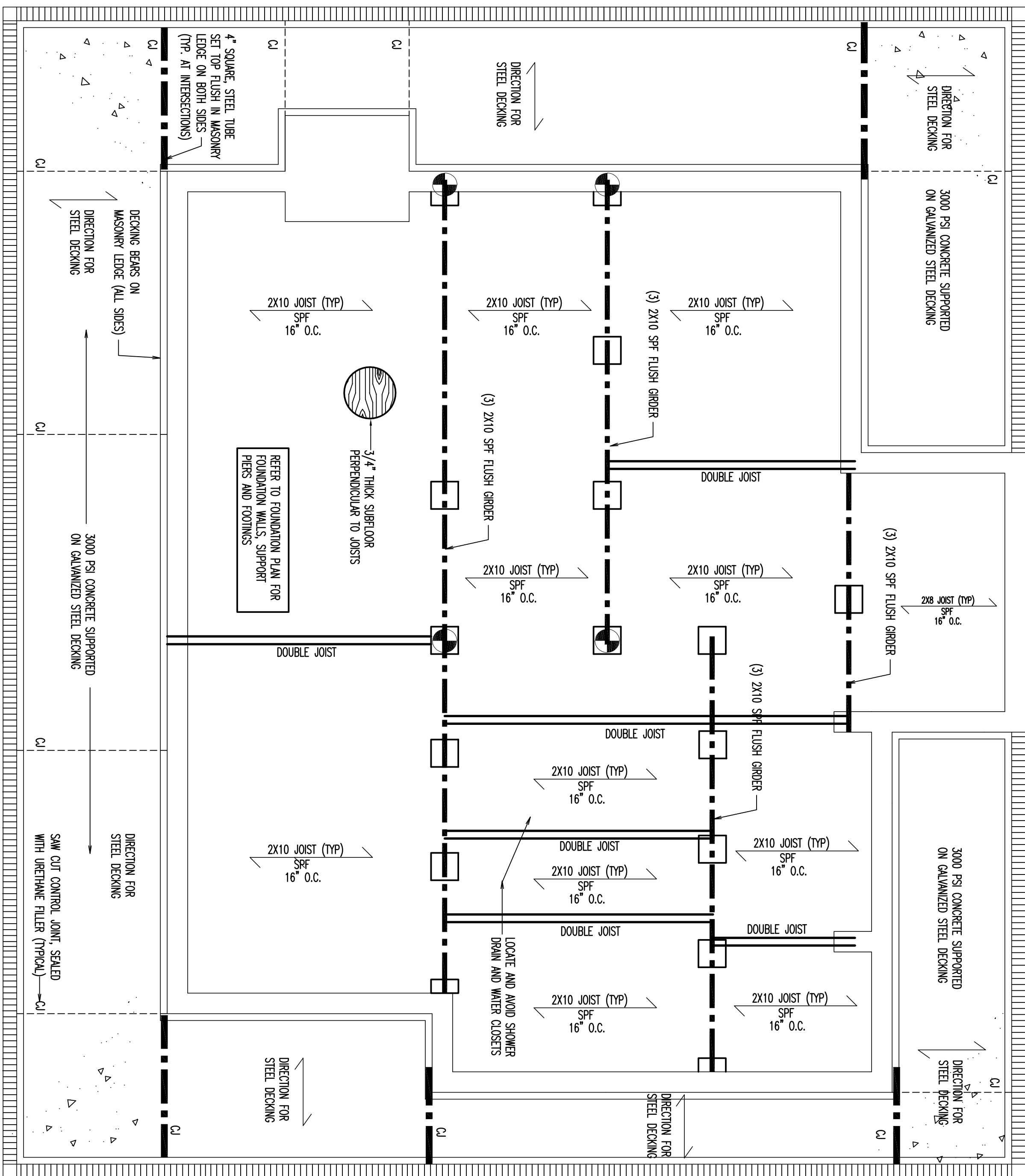
01 11 2019



DESIGNER: **ASSOCIATE ARCHITECT CARPORT CONNECTOR FRAMING PLAN**

DATE: JANUARY 2019

**S3**



**GENERAL FRAMING NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
2. GLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF N1101.2.1, RESIDENTIAL BUILDING, TYPE A-1.
3. WALL CLADDING IS DESIGNED FOR A 24:1 #/SF OR GREATER POSITIVE/NEGATIVE PRESSURE.
4. ALL WALLS, FLOORS AND CEILINGS SHALL BE INSULATED IN ACCORDANCE WITH CODE REQUIREMENTS.
5. DESIGN CRITERIA:  
 DEAD: 10 PSF  
 LIVE: 40 PSF  
 SNOW/ICE LOAD: 10 PSF  
 SHALLOW ANCHOR: 10 PSF  
 SLEEPING AREAS: 30 PSF  
 ATTIC: 10 PSF  
 ROOF: 20 PSF  
 DEFLECTION LIMITS:  
 FLOOR: L/360 (LIVE LOAD ONLY)  
 ROOF: L/240
6. ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10.
7. ALL WALLS ARE 2X4 @ 16" O.C. UNLESS OTHERWISE NOTED.
8. PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
9. PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER.
10. ALL JOISTS TO BE SPF.

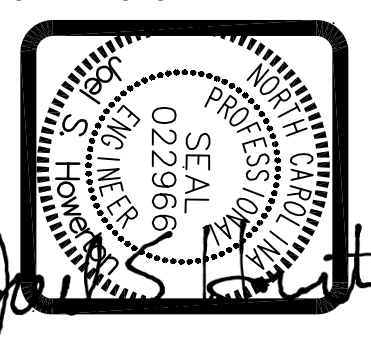
**STRUCTURAL EVALUATION BY:**

**HOWERTON SERVICES, PLLC**  
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 LICENSE # P-17116

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INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

01 11 2019



STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
 2108 KARNS PLACE, RALEIGH N.C. 27614

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
 6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**  
 RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

ASSISTANT: MAIN LEVEL FLOOR FRAMING PLAN  
 DESIGNER:  
 DATE: JANUARY 2019

FORMING: **S2**

**GENERAL FOUNDATION NOTES:**

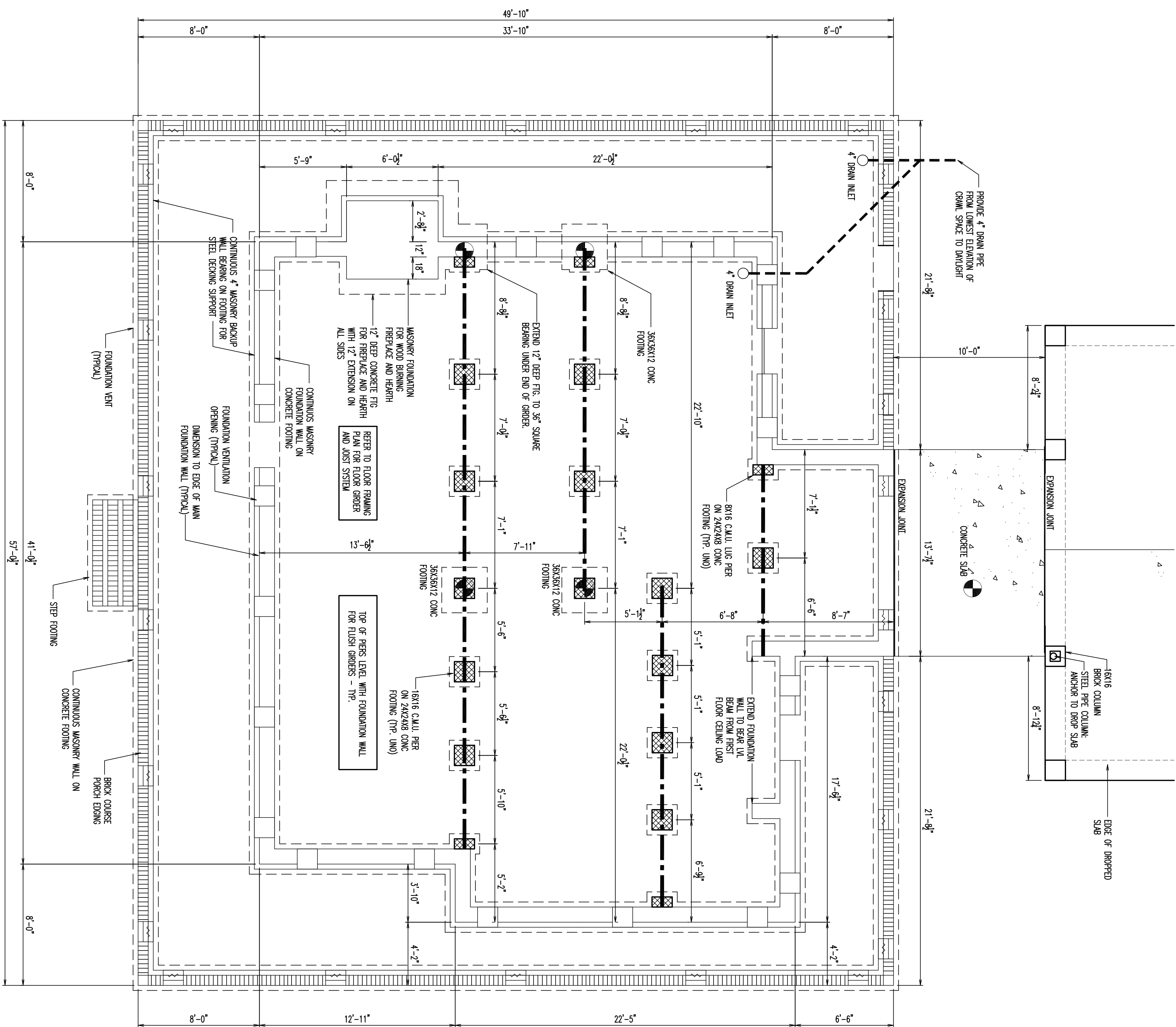
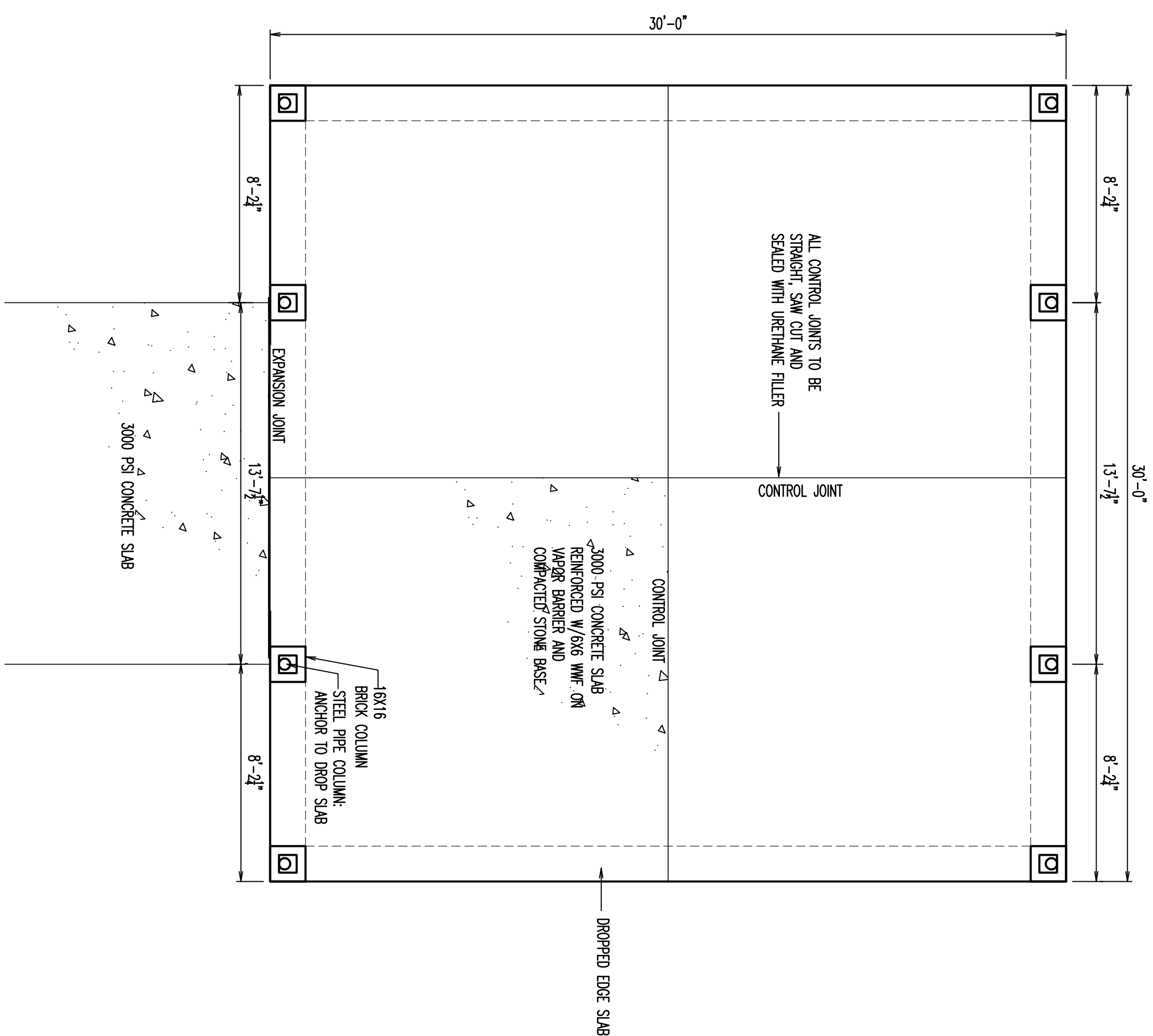
1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING TO BE 24" X 8" 3000 PSI STRUCTURAL CONCRETE UNLESS OTHERWISE NOTED. CONCRETE TO BE PREPARED AND PLACED IN ACCORDANCE WITH A.C.I. 318. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BRICKELL REQUIREMENTS, REFER TO STATE AND LOCAL BUILDING CODES. NOTE: ASSUMED SOIL BEARING CAPACITY=2000 PSF. CONTRACTOR MUST VERIFY SOIL CONDITIONS AND CONTACT SOIL ENGINEER IF MANUAL OR UNSURE SOILS ARE ENCOUNTERED DEEPER ON UNDISTURBED EARTH A MIN. OF 12" BELOW FINISHED FLOOR GRADE OR AS OTHERWISE DIRECTED BY LOCAL INSPECTOR.
3. FOUNDATION BRANKE SHALL BE IN ACCORDANCE WITH SECTION 4. FOUNDATION BRANKE SHALL BE IN ACCORDANCE WITH SECTION 5. THE FOUNDATION SHALL BE TREATED IN ACCORDANCE W/SECTION 6. FOUNDATION WATERPROOFING AND DAMPPROOFING.
4. THIS FOUNDATION DESIGN IS VALID FOR 100 MPH WIND ZONES ONLY. FOUNDATION WALLS SHALL BE 12" IN WIDTH WHERE SUPPORTING FRAMING WITH BRICK VENEER.

**STRUCTURAL EVALUATION BY:**

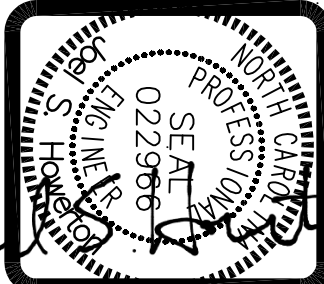
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 2108 KARNS PLACE, RALEIGH, NC 27614  
 LICENSE # P-17110

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INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS



01 11 2019



STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
 2108 KARNS PLACE, RALEIGH N.C. 27614

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
 6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**

RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

FOUNDATION PLAN

DATE:  
 JANUARY 2019

**S1**

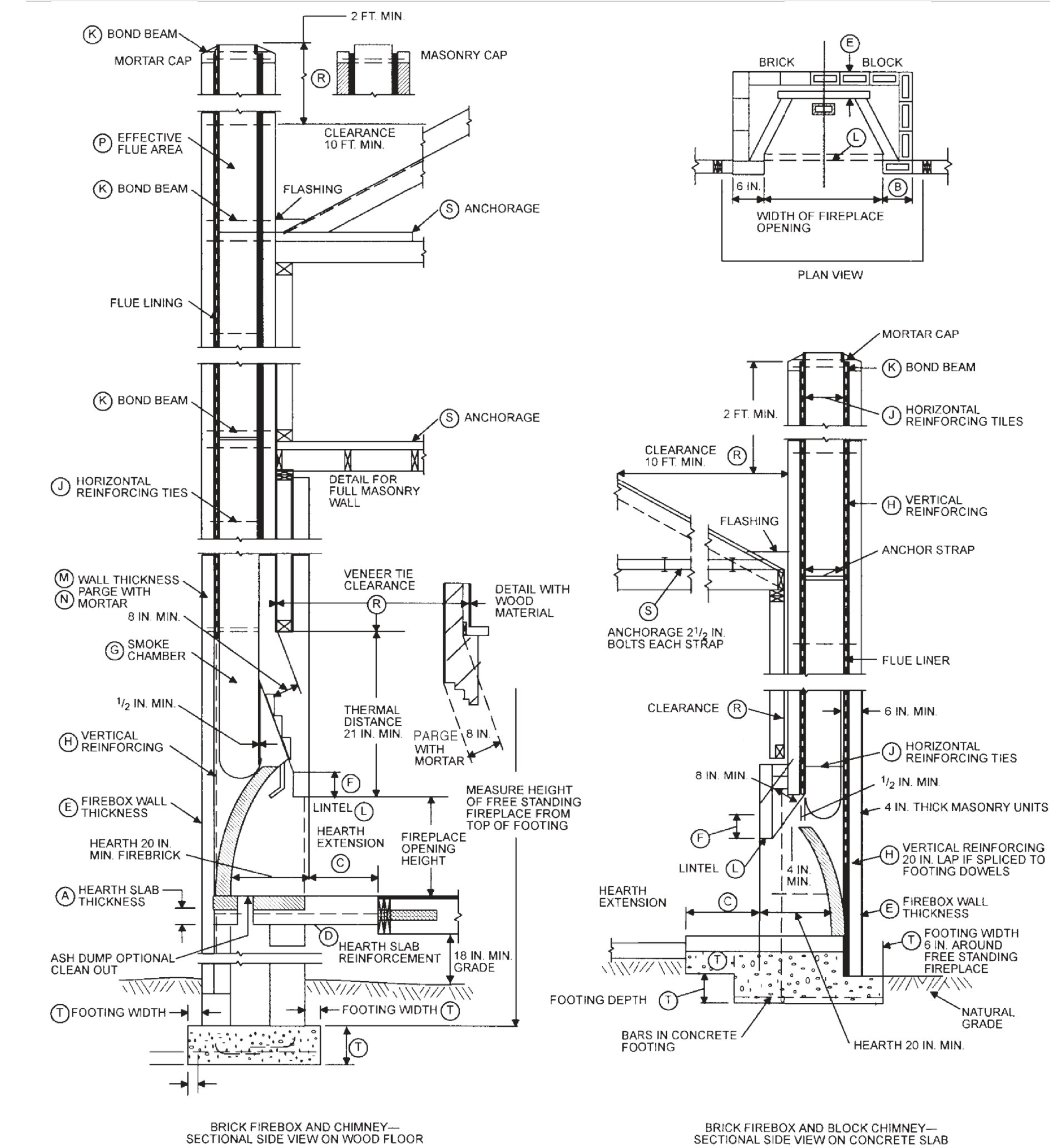
MASONRY

**TABLE 2111.1  
SUMMARY OF REQUIREMENTS FOR MASONRY FIREPLACES AND CHIMNEYS\***

ITEM	LETTER	REQUIREMENTS	SECTION
Hearth and hearth extension thickness	A	4-inch minimum thickness for hearth, 2-inch minimum thickness for hearth extension.	2111.9
Hearth extension (each side of opening)	B	8 inches for fireplace opening less than 6 square feet, 12 inches for fireplace opening greater than or equal to 6 square feet.	2111.10
Hearth extension (front of opening)	C	16 inches for fireplace opening less than 6 square feet, 20 inches for fireplace opening greater than or equal to 6 square feet.	2111.10
Firebox dimensions	—	20-inch minimum firebox depth, 12-inch minimum firebox depth for Rumford fireplaces.	2111.6
Hearth and hearth extension reinforcing	D	Reinforced to carry its own weight and all imposed loads.	2111.9
Thickness of wall of firebox	E	10 inches solid masonry or 8 inches where firebrick lining is used.	2111.5
Distance from top of opening to throat	F	8 inches minimum.	2111.7 2111.7.1
Smoke chamber wall thickness dimensions	G	6 inches lined; 8 inches unlined. Not taller than opening width; walls not inclined more than 45 degrees from vertical for prefabricated smoke chamber linings or 30 degrees from vertical for corbeled masonry.	2111.8
Chimney vertical reinforcing	H	Four No. 4 full-length bars for chimney up to 40 inches wide. Add two No. 4 bars for each additional 40 inches or fraction of width, or for each additional flue.	2111.3.1 2113.3.1
Chimney horizontal reinforcing	I	1/2-inch ties at each 18 inches, and two ties at each bend in vertical steel.	2111.3.2 2113.3.2
Fireplace lintel	L	Noncombustible material with 4-inch bearing length of each side of opening.	2111.7
Chimney walls with flue lining	M	4-inch-thick solid masonry with 3/8-inch fireclay liner or equivalent, 1/2-inch grout or airspace between fireclay liner and wall.	2113.11.1
Effective flue area (based on area of fireplace opening and chimney)	P	See Section 2113.16.	2113.16
Clearances	R	From chimney	2 inches interior, 1 inch exterior or 12 inches from lining.
From fireplace		2 inches back or sides or 12 inches from lining.	
From combustible trim or materials		6 inches from opening	
Above roof		3 feet above roof penetration, 2 feet above part of structure within 10 feet.	
Anchorage strap	S	Number required	3/16 inch by 1 inch
Embedment into chimney		Two	
Fasten to		12 inches hooked around outer bar with 6-inch extension, 4 joists.	
Number of bolts		Two 1/2-inch diameter.	
Footings	T	Thickness	12-inch minimum.
Width		12 inches each side of fireplace wall.	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>, 1 degree = 0.017 rad.  
 a. This table provides a summary of major requirements for the construction of masonry chimneys and fireplaces. Letter references are to Figure 2111.1, which shows examples of typical construction. This table does not cover all requirements, nor does it cover all aspects of the indicated requirements. For the actual mandatory requirements of the code, see the indicated section of text.

MASONRY



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

**FIGURE 2111.1  
FIREPLACE AND CHIMNEY DETAILS**

DETAILS REFERENCED FROM NC BUILDING CODE

**D3**  
**01** FIREPLACE DETAILS  
NTS

STRUCTURAL EVALUATION BY:  
HOWERTON SERVICES, LLC  
2708 KARNIS PLACE, RALEIGH, N.C.

BUILDING DESIGN BY:  
S&S CONTRACTING  
6349 RIVER ROAD, FOUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

DESCRIPTION:  
FIREPLACE DETAILS

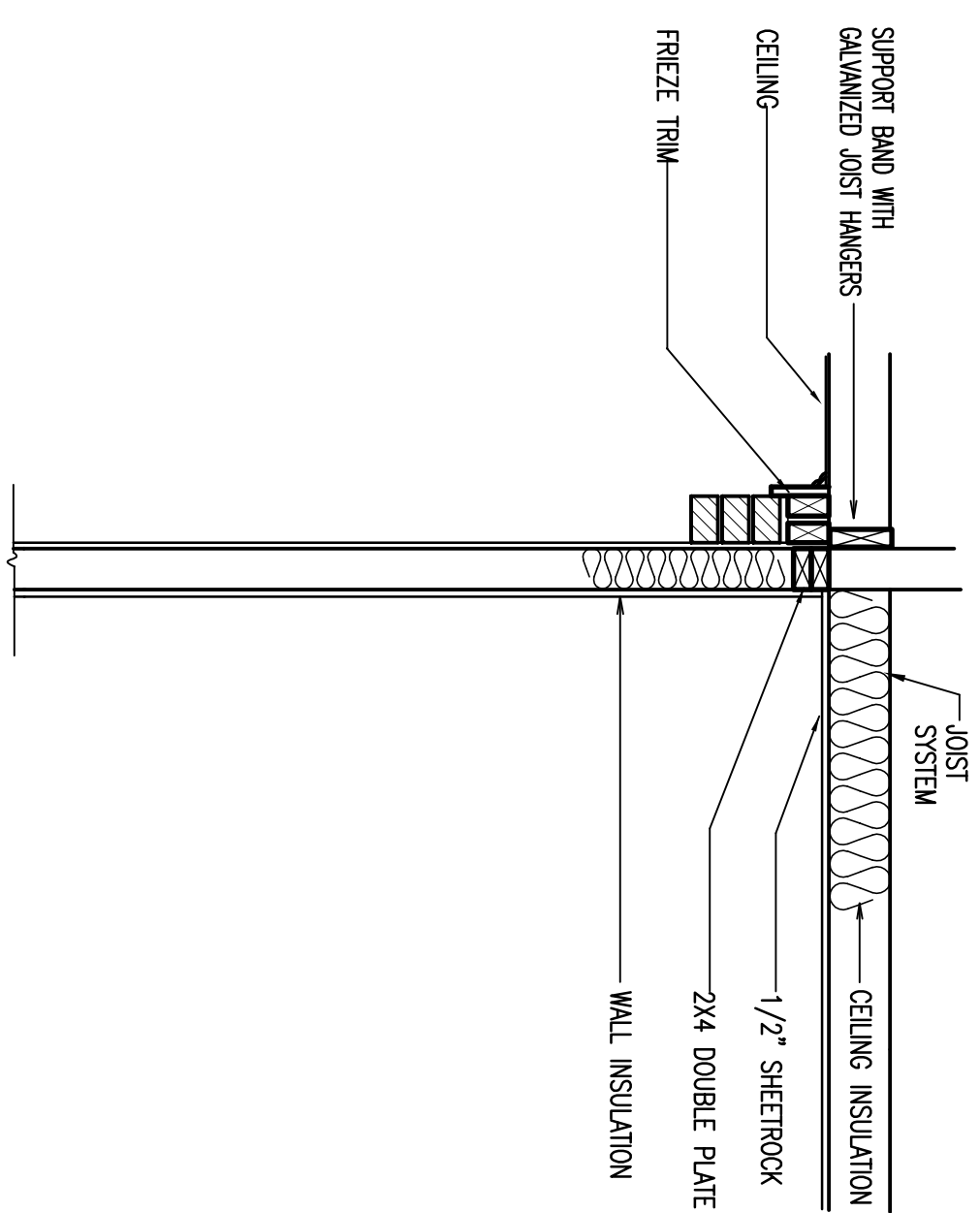
REVISION:

DATE:  
JANUARY 2019

DRAWING:

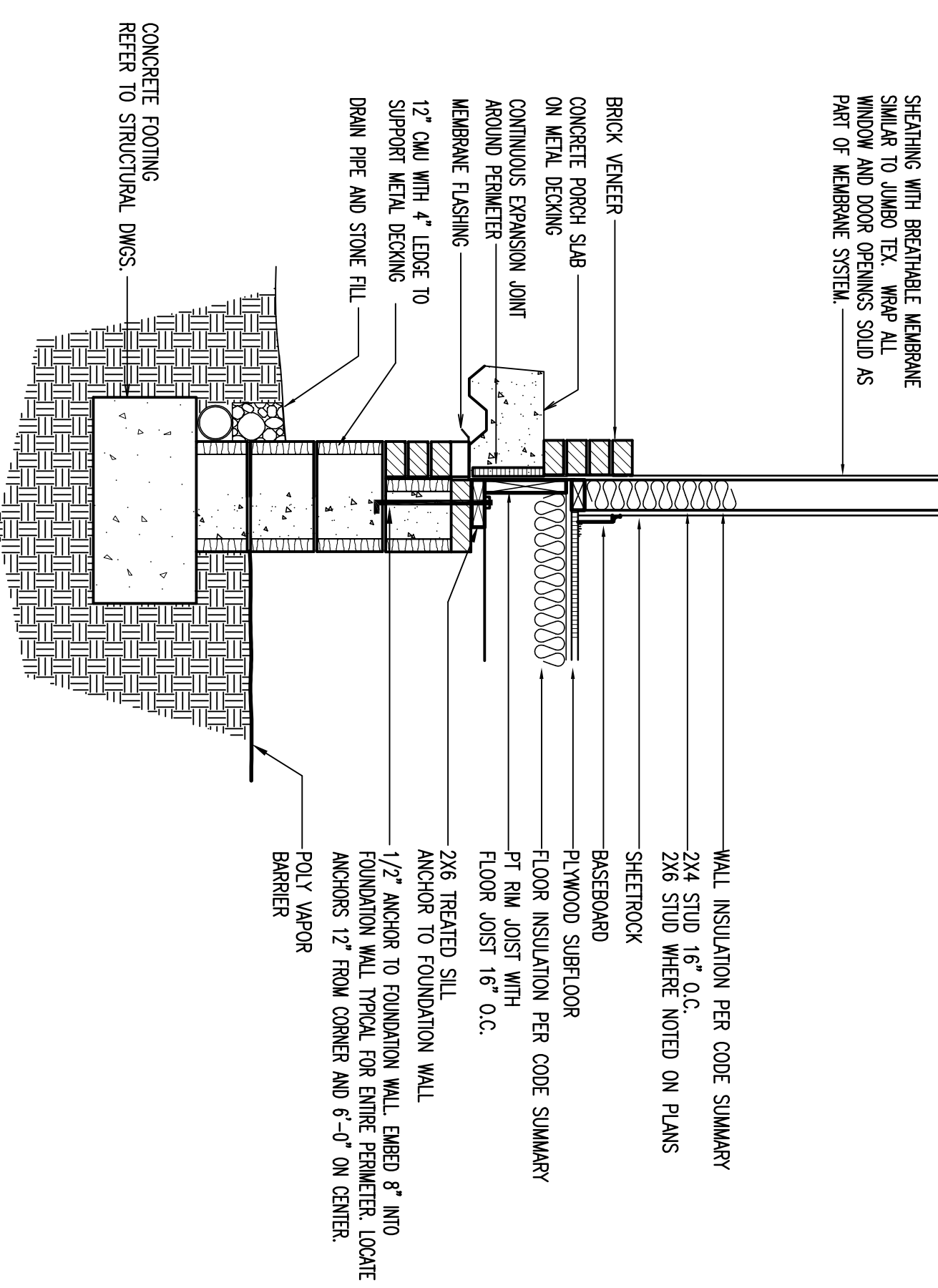
**D3**





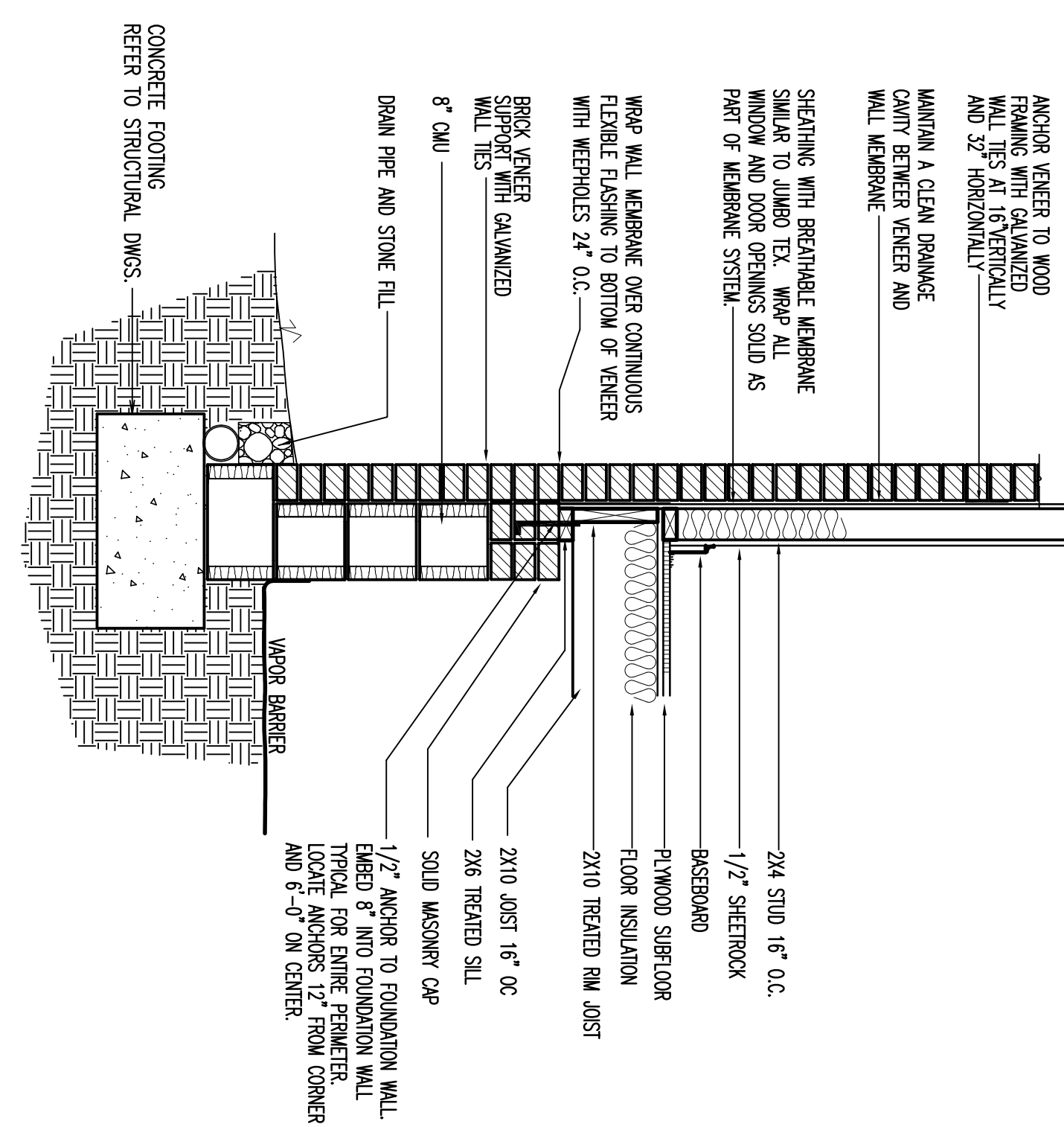
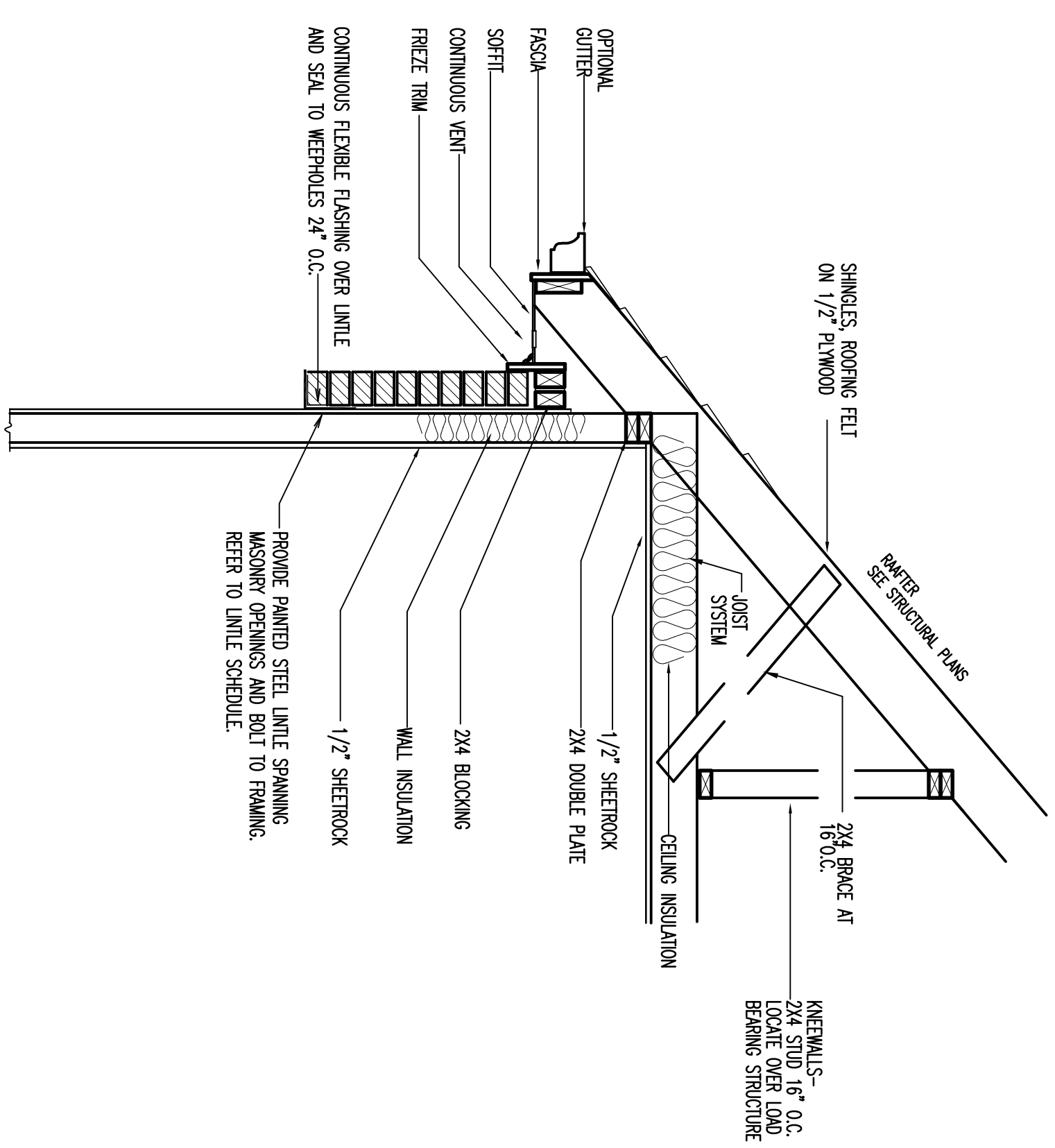
PORCH

INTERIOR



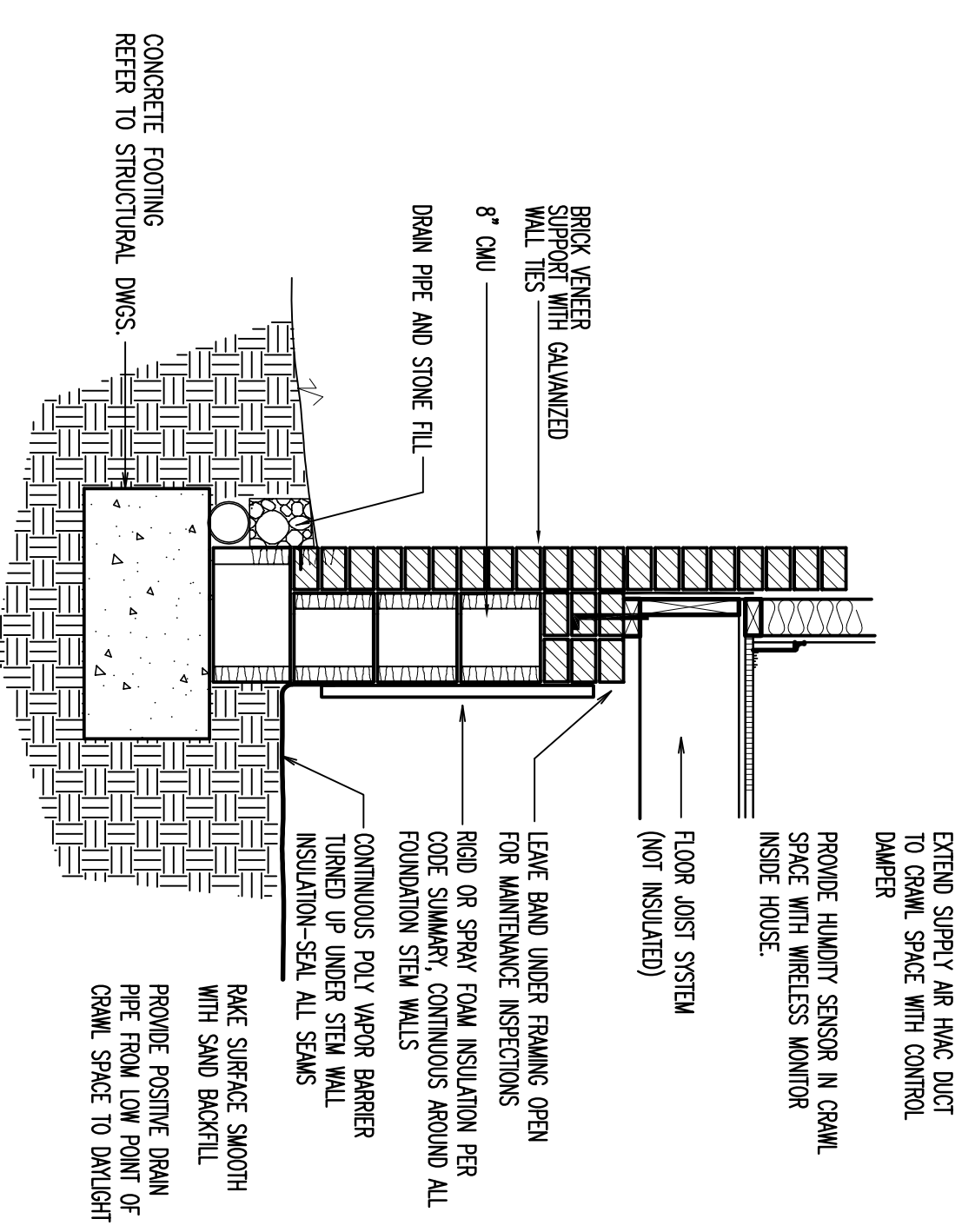
WALL SECTION  
PORCH

NTS



WALL SECTION  
MAIN HOUSE

NTS



OPTIONAL ENCLOSED  
CRAWL SPACE

NTS

**D2** WALL SECTIONS  
**01** NTS

# JOHNSON FAMILY RESIDENCE

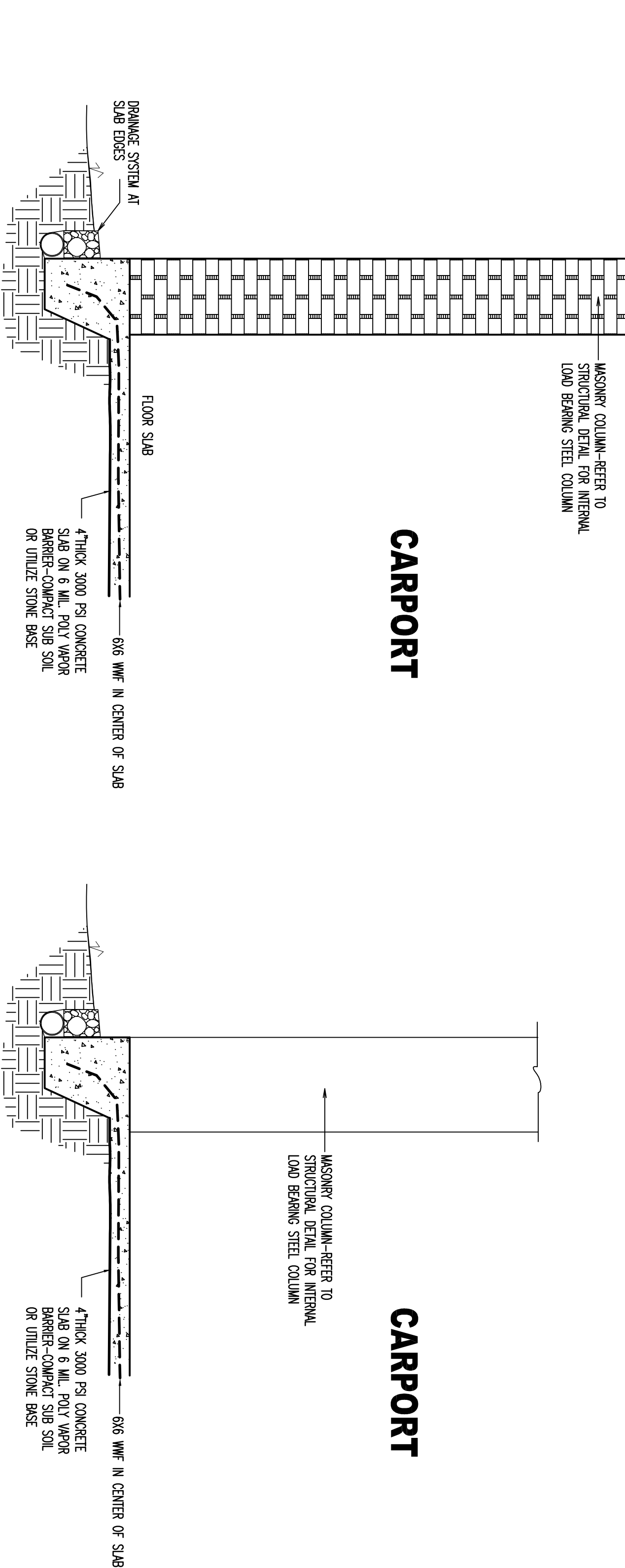
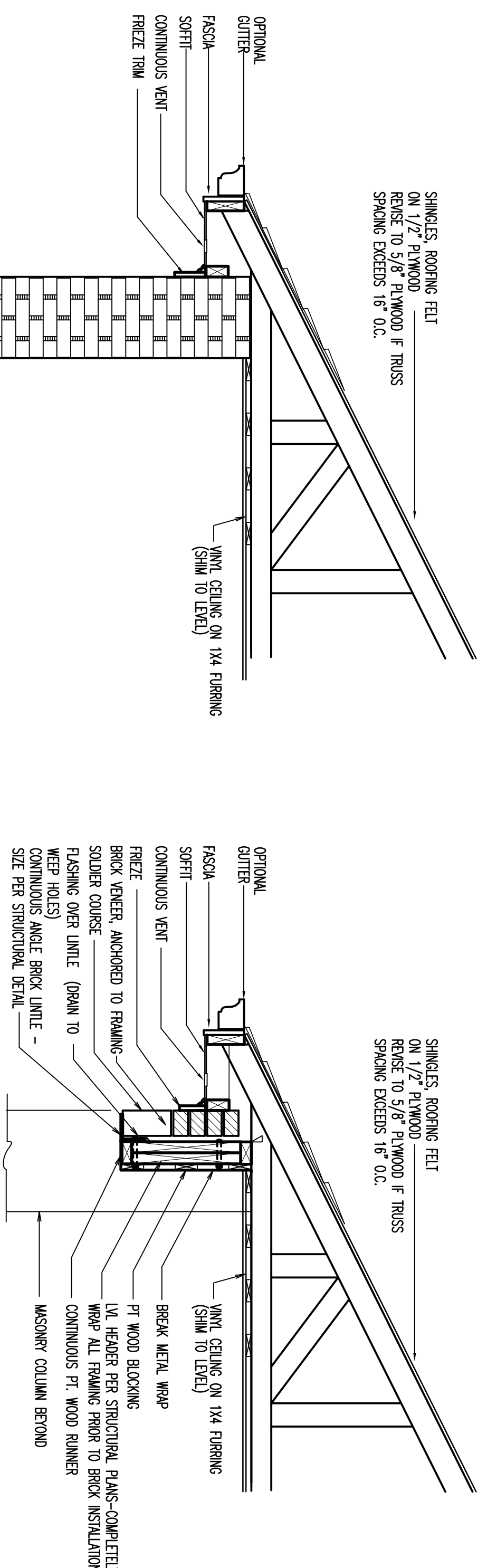
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

STRUCTURAL EVALUATION BY:  
**HÖWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614

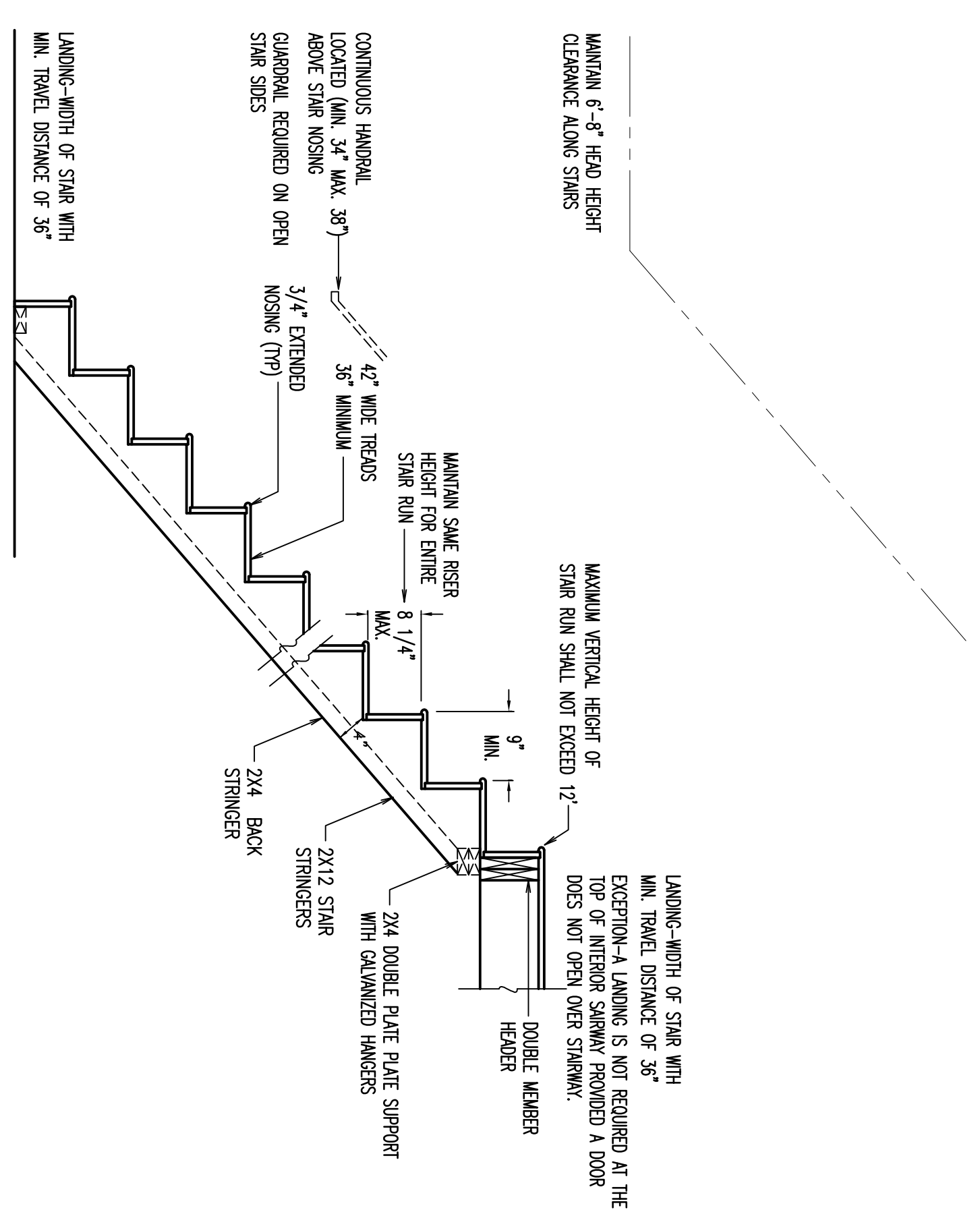
DATE: JANUARY 2019

**D2**

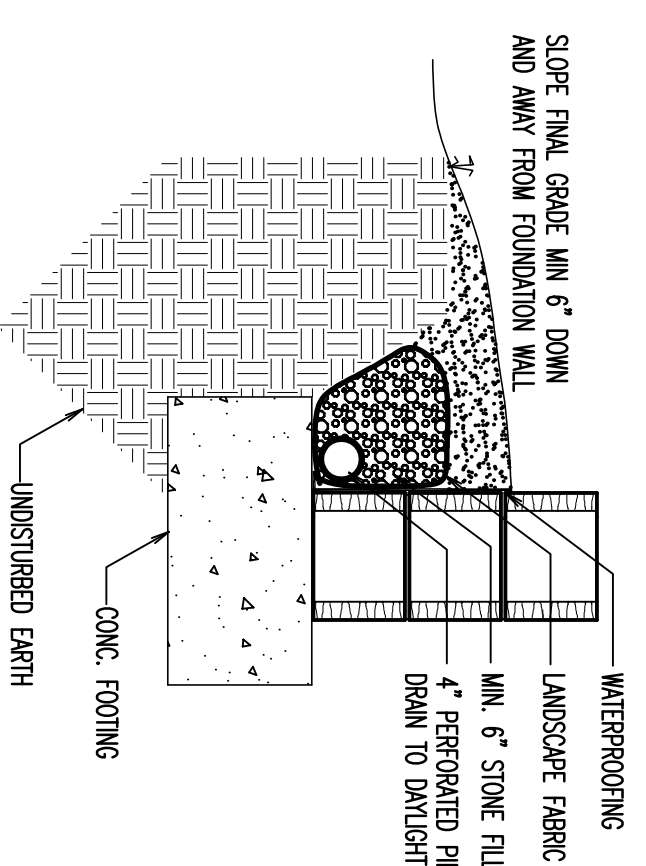


WALL SECTION  
CARPORT COLUMN

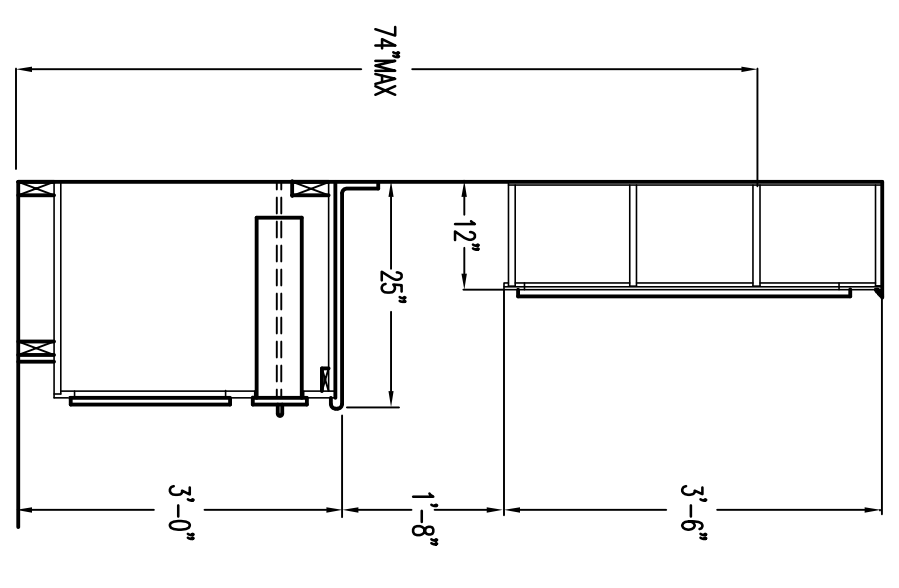
WALL SECTION  
CARPORT HEADER



STARWAY  
SECTION



FOUNDATION  
DRAINAGE



CABINET  
SECTION

APPLICATION	SIZE OF ANGLE	NOTES
6'-0" MAX. SPAN	3 1/2" X 3 1/2" X 1/4"	2,3,4
10'-0" MAX. SPAN	5" X 3 1/2" X 5/16"	1,2,3,4
ABOVE GARAGE DOOR	6" X 3 1/2" X 5/16"	1,2,3,4

- NOTES:
1. LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL
  2. SPANS OVER 4' SHALL BE SHORED UP UNTIL CURED
  3. ALL ANGLES SHALL BE PRIME PAINTED
  4. ATTACH TO FRAMING HEADERS WITH 1/2" GALVANIZED BOLTS @24" O.C.

LINTLE  
SCHEDULE

STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614

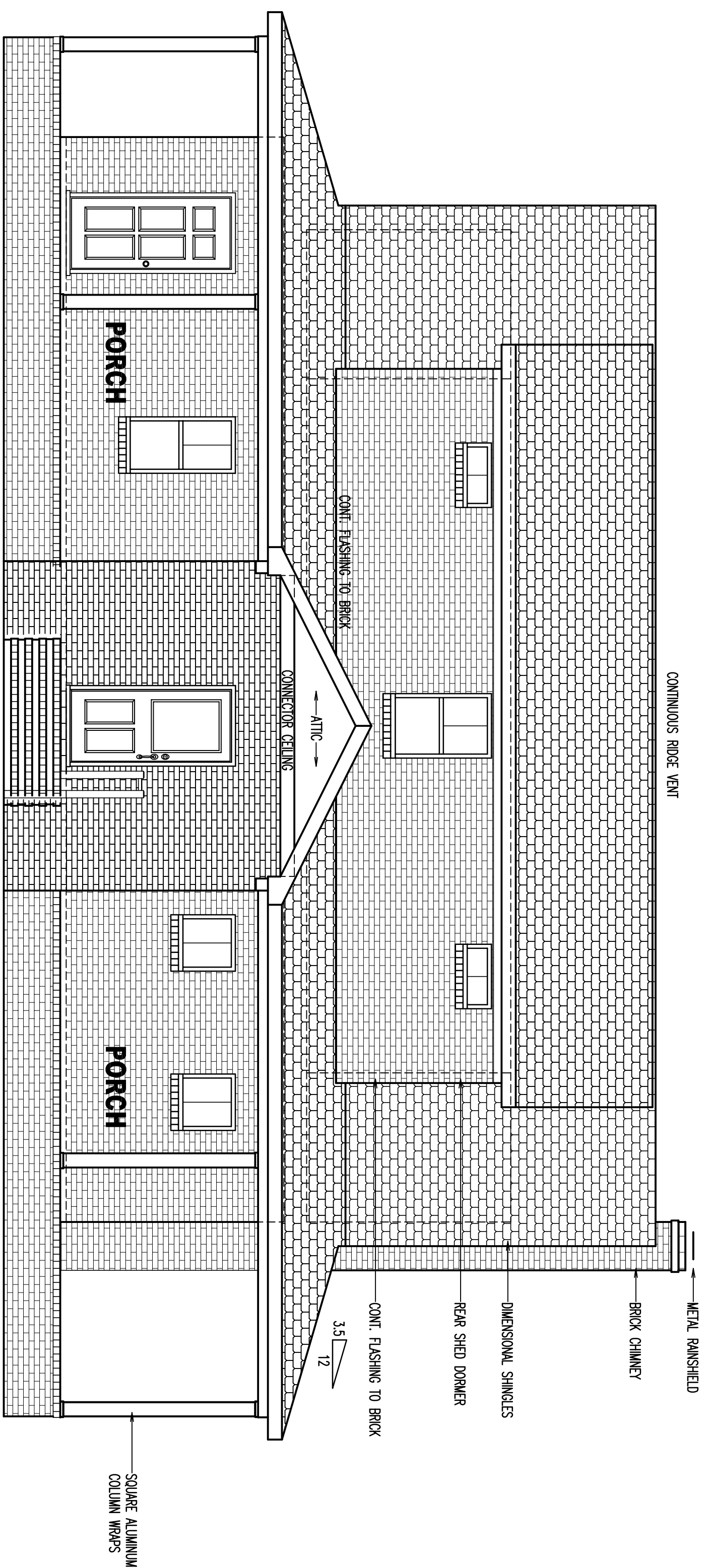
BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

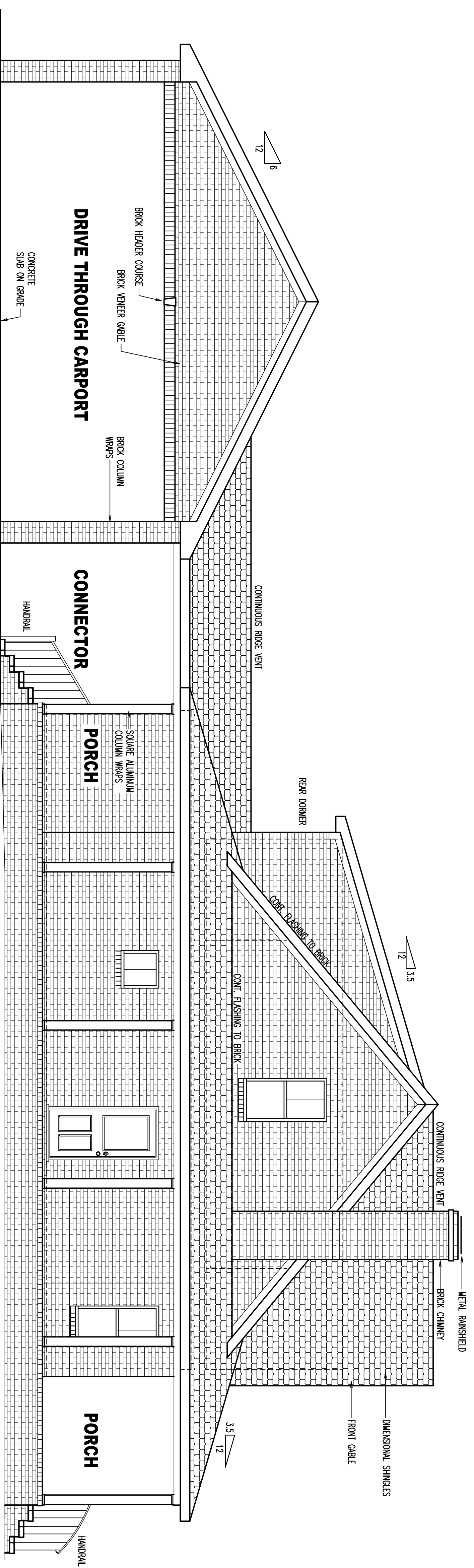
**D1**

REVISIONS  
DATE: JANUARY 2019

DETAILS/SECTIONS



REAR OF HOUSE CUT THROUGH CONNECTOR TO CARPORT



LEFT

**EL2**  
01  
ELEVATIONS  
1/4" = 1'-0"

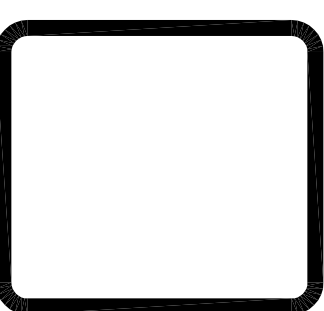
**EL2**

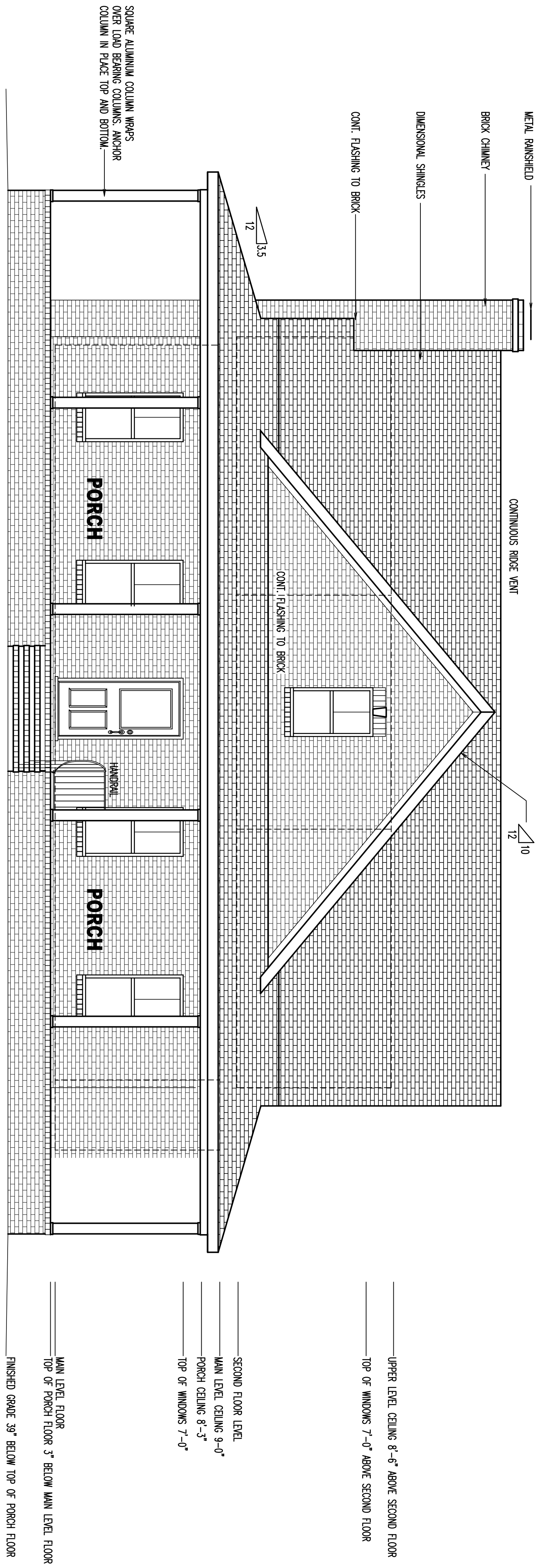
DATE JANUARY 2019	DESIGNER S&S CONTRACTING	PROJECT JOHNSON FAMILY RESIDENCE
----------------------	-----------------------------	-------------------------------------

**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

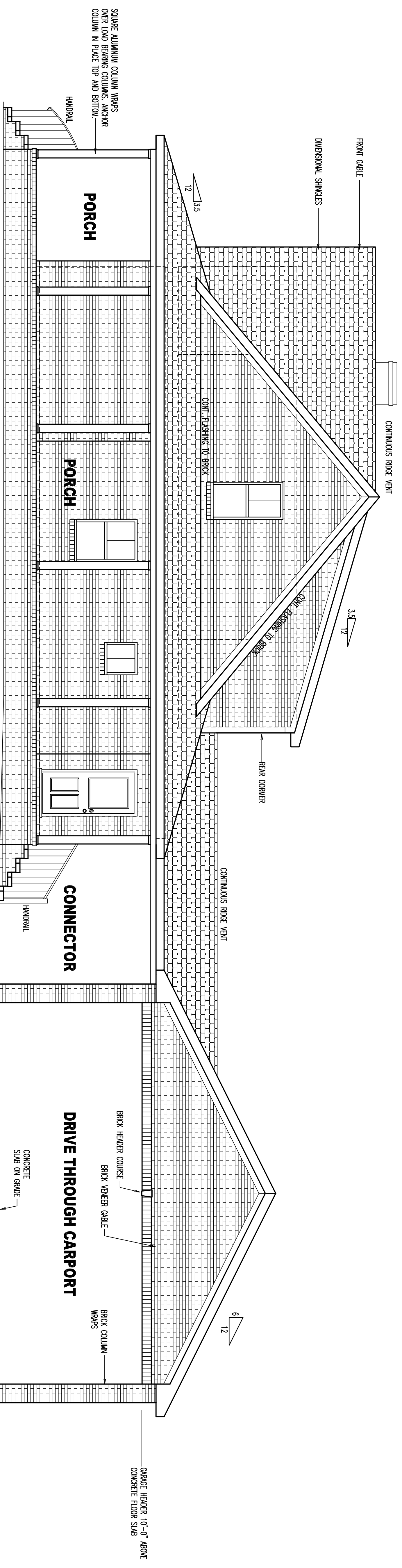
STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614





**FRONT**

- UPPER LEVEL CEILING 8'-6" ABOVE SECOND FLOOR
- TOP OF WINDOWS 7'-0" ABOVE SECOND FLOOR
- SECOND FLOOR LEVEL
- MAIN LEVEL CEILING 9'-0"
- PORCH CEILING 8'-3"
- TOP OF WINDOWS 7'-0"
- MAIN LEVEL FLOOR
- TOP OF PORCH FLOOR 3' BELOW MAIN LEVEL FLOOR
- FINISHED GRADE 3" BELOW TOP OF PORCH FLOOR



**RIGHT**

**EL1**  
ELEVATIONS  
1/4" = 1'-0"

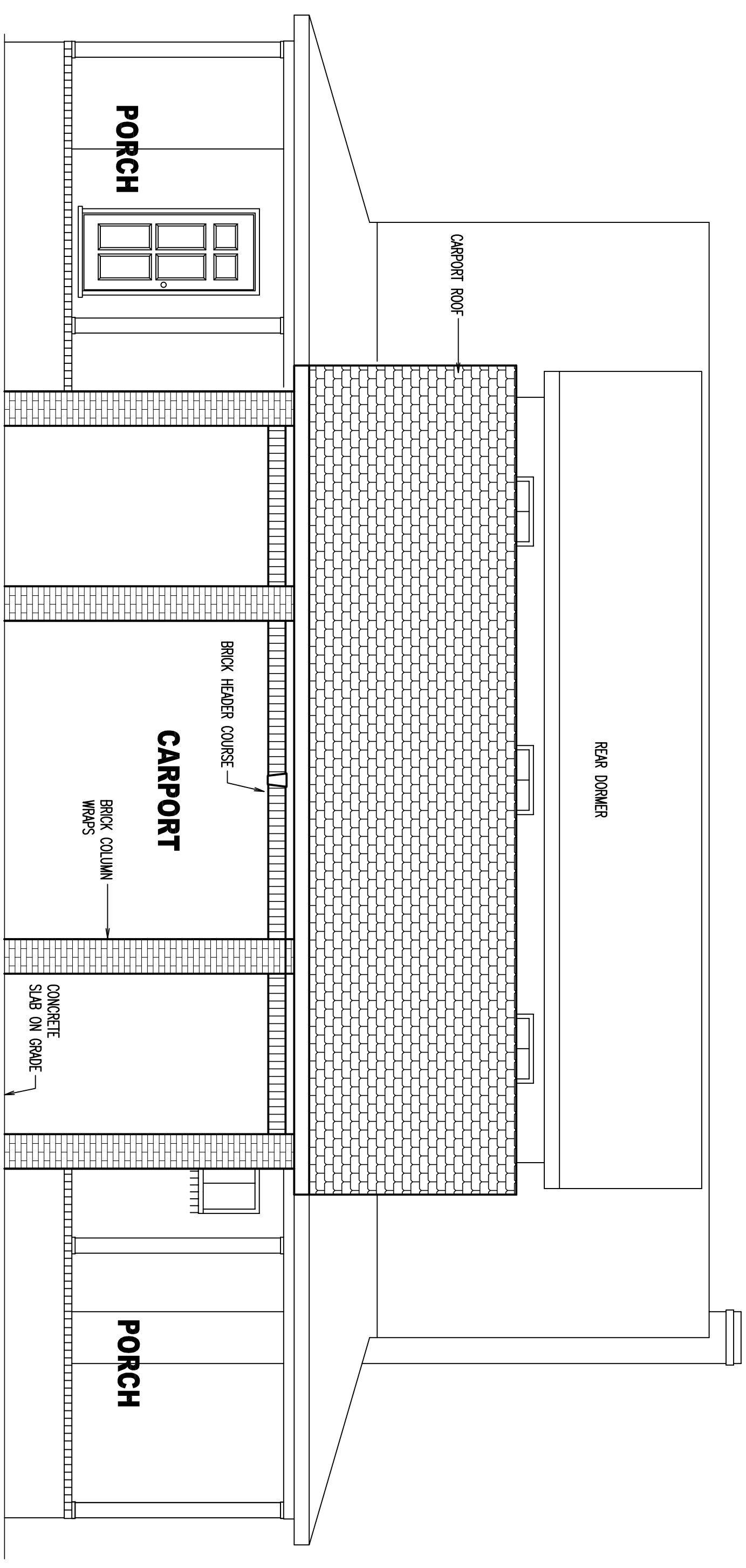
**EL1**

DATE: JANUARY 2019

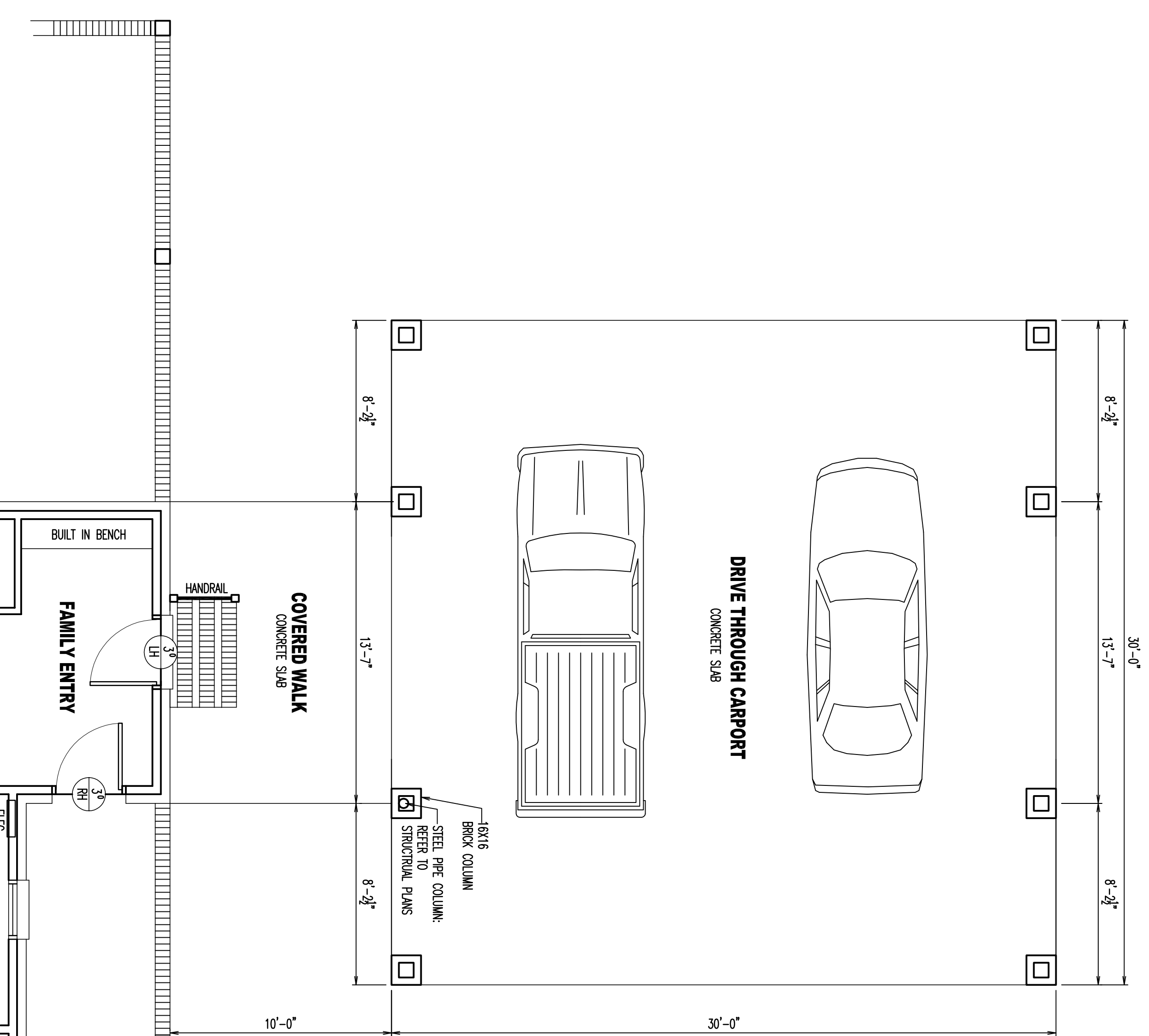
**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

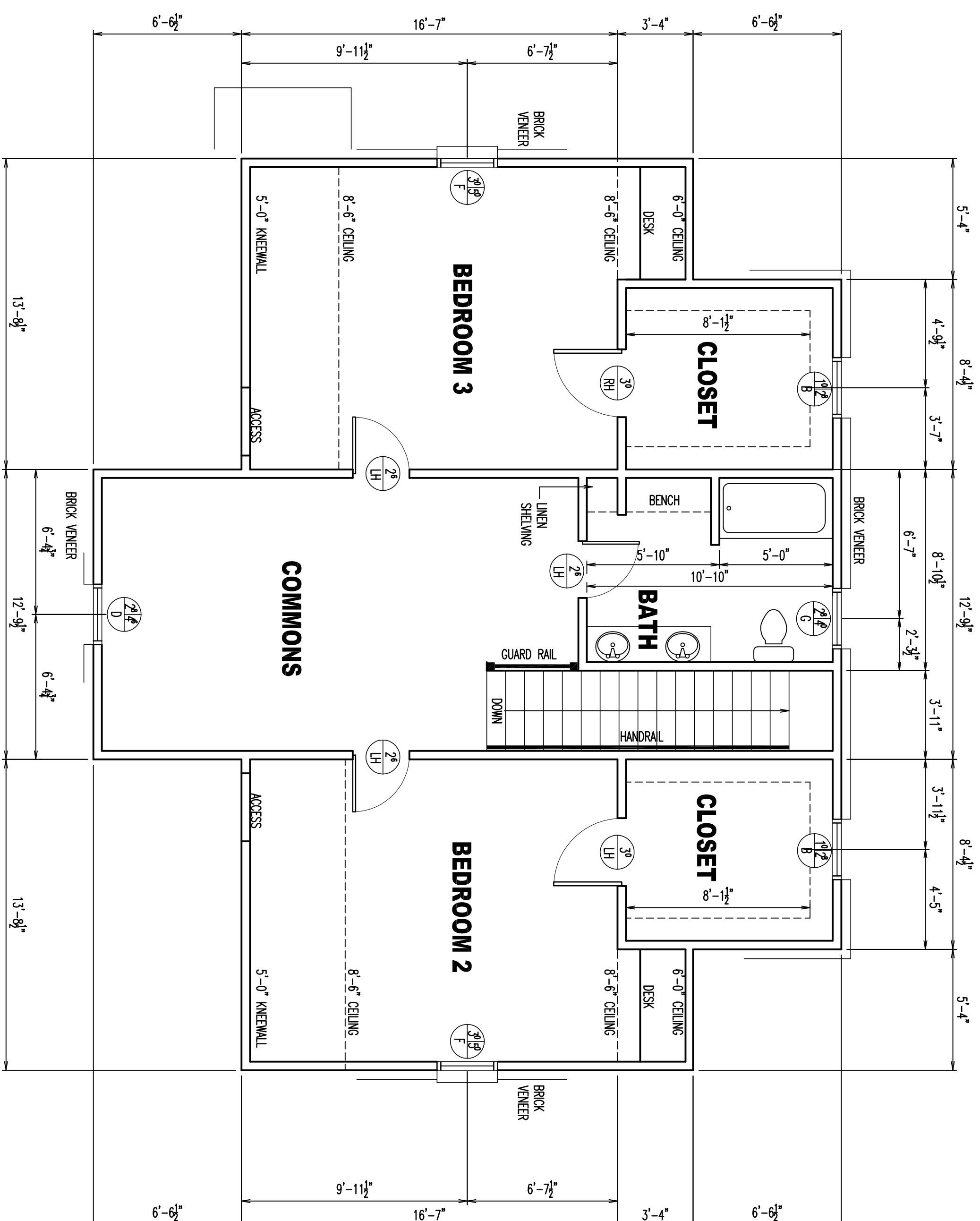
STRUCTURAL EVALUATION BY:  
**HÖWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614



**A4**  
**02** CARPORT REAR ELEVATION  
1/4" = 1'-0"



**A4**  
**01** CARPORT DIMENSIONAL PLAN  
1/4" = 1'-0"



**A3**  
**01**

**UPPER LEVEL DIMENSIONAL PLAN**  
1/4" = 1'-0"

**A3**

DATE: JANUARY 2019  
 DRAWN BY: [REDACTED]  
 CHECKED BY: [REDACTED]  
 PROJECT: JOHNSON FAMILY RESIDENCE

**JOHNSON FAMILY RESIDENCE**  
 RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

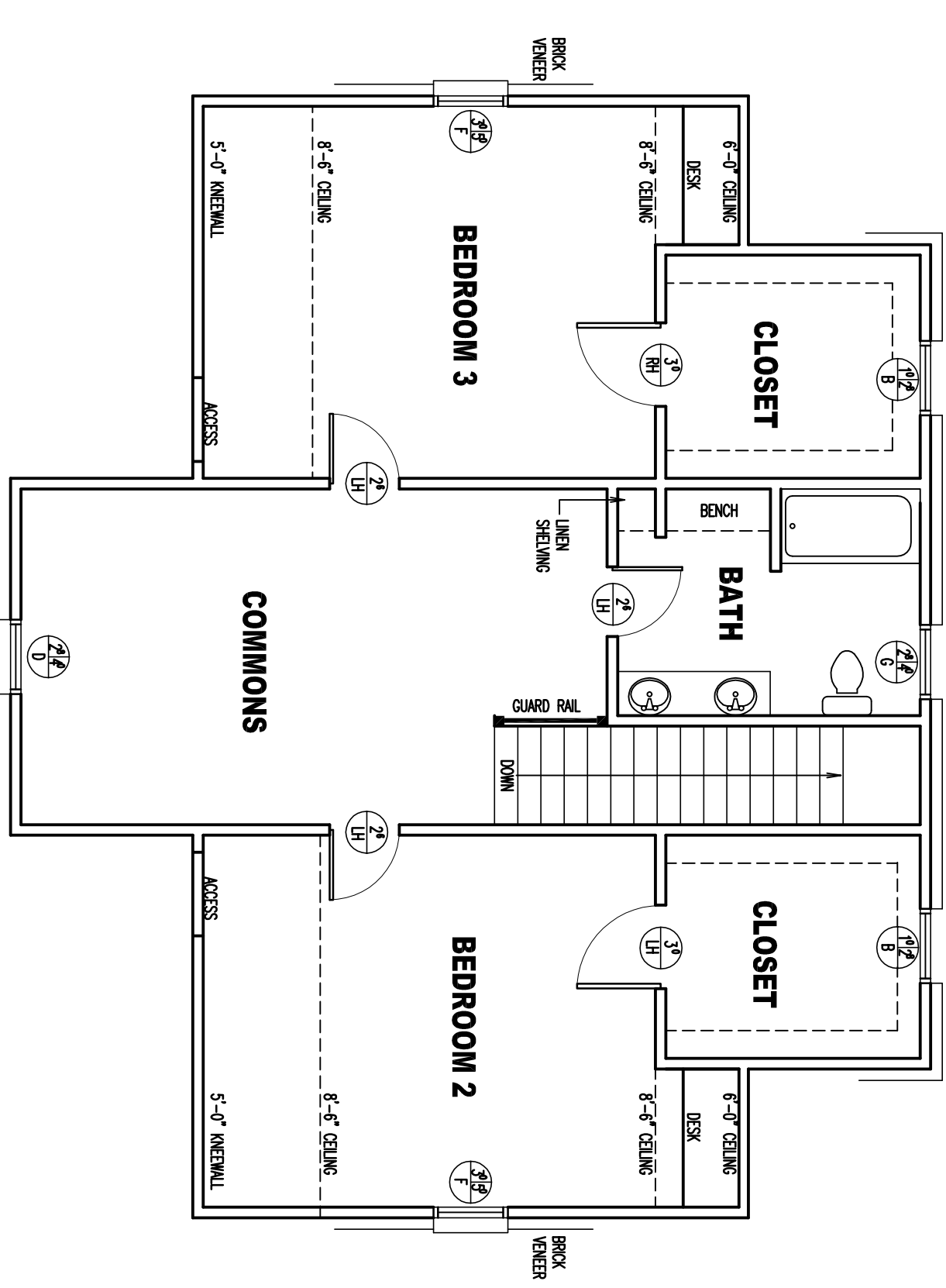
BUILDING DESIGN BY:  
**S&S CONTRACTING**  
 6349 RIVER ROAD, FUQUAY, NC 27526

STRUCTURAL EVALUATION BY:  
**HOWERTON SERVICES, LLC**  
 2108 KARNS PLACE, RALEIGH N.C. 27614

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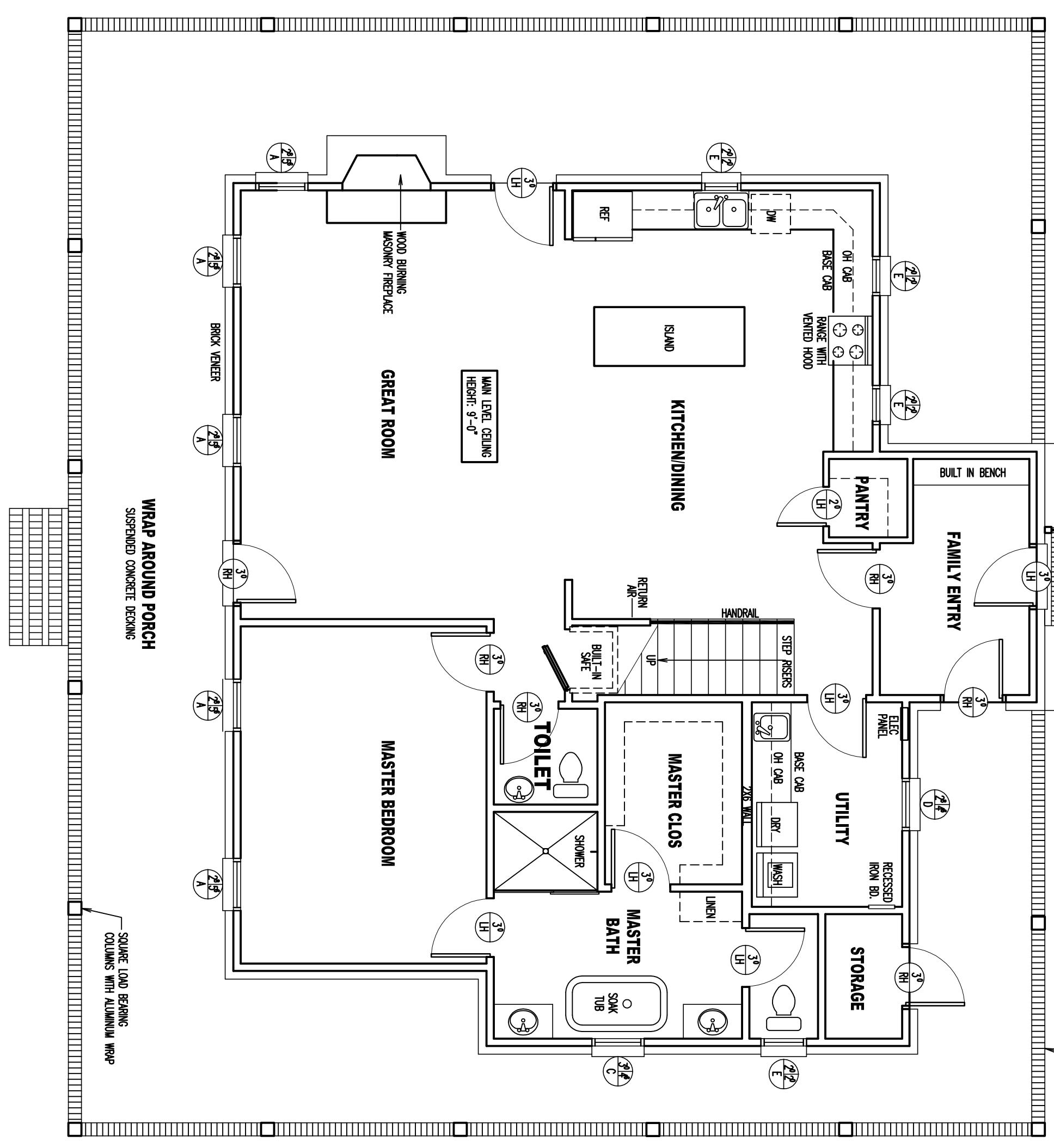


**A1** OVERALL UPPER LEVEL  
3/16" = 1'-0"

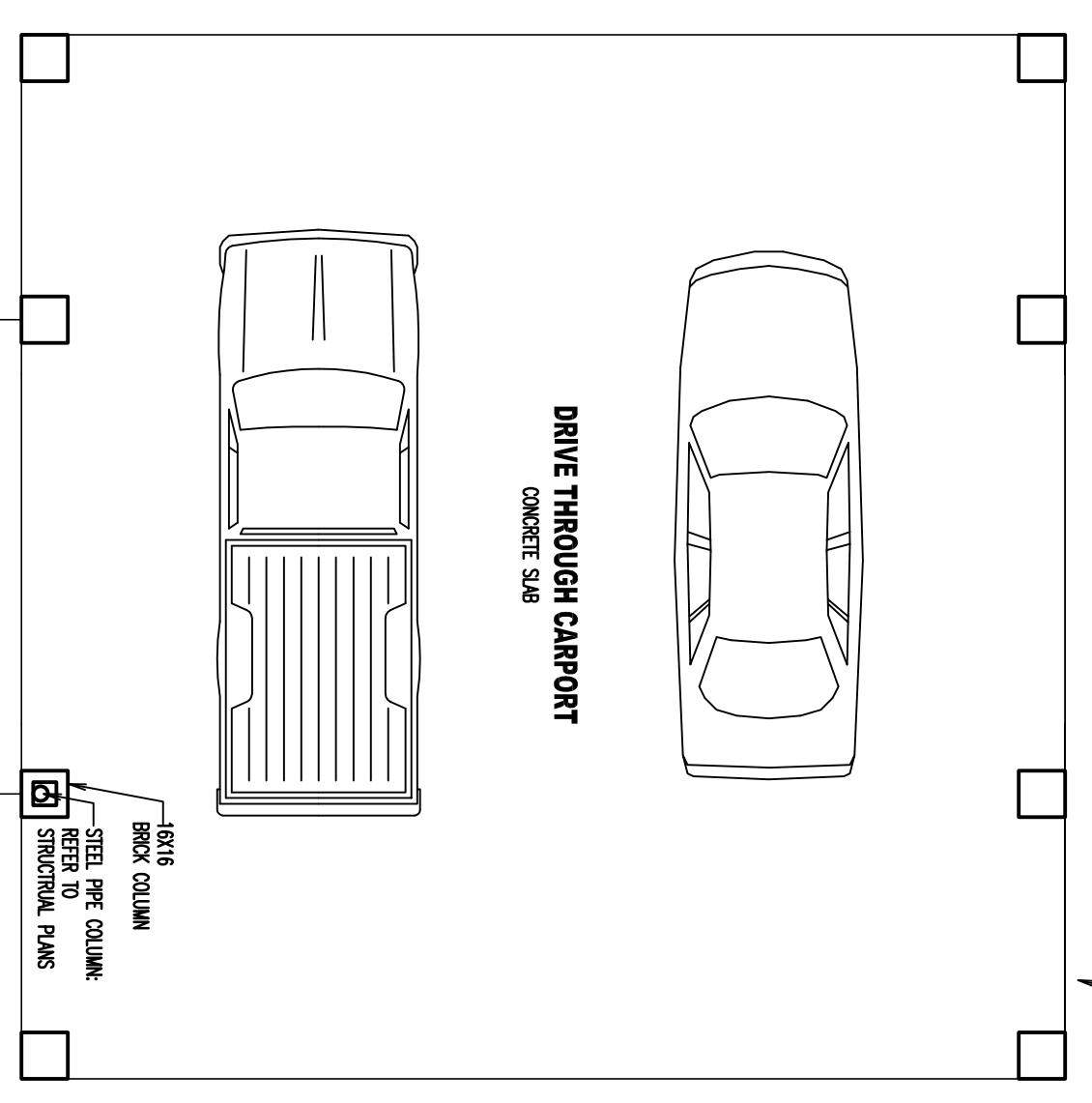


REFER TO A3 FOR UPPER LEVEL DIMENSIONAL PLAN

**A1** OVERALL MAIN LEVEL  
3/16" = 1'-0"



REFER TO A2 FOR MAIN LEVEL DIMENSIONAL PLAN



REFER TO A4 FOR CARPORT DIMENSIONAL PLAN

**A1**

DATE: JANUARY 2019  
REVISION:

**JOHNSON FAMILY RESIDENCE**  
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
**S&S CONTRACTING**  
6349 RIVER ROAD, FUQUAY, NC 27526

STRUCTURAL EVALUATION BY:  
**HÖWERTON SERVICES, LLC**  
2108 KARNS PLACE, RALEIGH N.C. 27614



# RESIDENTIAL CODE SUMMARY

PLANS ARE DESIGNED TO MEET REQUIREMENTS OF 2012 NORTH CAROLINA RESIDENTIAL CODE

STRUCTURE IS DESIGNED TO WITHSTAND 100 MPH, 3 SECOND GUST (85 FASTEST WIND), EXPOSURE B

ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER & SHALL EXTEND A MINIMUM 7" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6" O.C. AND WITHIN 12" OF THE CORNERS.

MEAN ROOF HEIGHT=26'-11"

COMPONENT AND CLADDING ARE DESIGNED FOR THE FOLLOWING LOADS:

MEAN ROOF HEIGHT	UP TO 30'	30'-1'-35'	35'-1'-40'	40'-1'-45'
ZONE 1	16.5-18.0	17.3-18.9	18.0-19.6	18.5-20.2
ZONE 2	16.5-21.0	17.3-22.1	18.0-22.9	18.5-23.5
ZONE 3	16.5-21.0	17.3-22.1	18.0-22.9	18.5-23.5
ZONE 4	18.0-19.5	18.9-20.5	19.6-21.3	20.2-21.8
ZONE 5	18.0-24.1	18.9-25.3	19.6-26.3	20.2-27.0

MINIMUM VALUES FOR ENERGY COMPLIANCE

ZONE 4  
MAXIMUM GLAZING U-FACTOR=0.35  
CEILING R-30 (UNCOMPRESSED)  
WALLS R-13 CAVITY + R-2.5 SHEATHING OR R15 CAVITY  
FLOORS R-19

MAIN FLOOR AREA (AREAS CALCULATED TO INSIDE CORNERS OF FRAMED WALLS)

CONDITIONED  
FRONT AND SIDE PORCH 1441 SF  
EXTERIOR STORAGE 225 SF  
25 SF

UPPER LEVEL AREA:  
FINISHED 1017 SF

CONNECTOR:

OPEN 141 SF

CAR PORT: 898 SF

OPEN 898 SF

ATTIC SPACE VENTILATION  
MAIN HOUSE

1/150 X 1536 SQ.FT. ATTIC AREA=10.24 SQ.FT. NET FREE AREA OF LOWER REOD

PORCH 1/150 X 1235 SQ.FT. ATTIC AREA=8.23 SQ.FT. NET FREE AREA OF LOWER REOD

CONNECTOR AND CARPORT 1/150 X 1039 SQ.FT. ATTIC AREA=6.93 SQ.FT. NET FREE AREA OF LOWER REOD

CRAWL SPACE VENTILATION - HOUSE AND PORCH 2824 SQ. FT. / 150

47 SQ. FT. NET FREE AREA PER VENT = 40 CRAWL SPACE VENTS CALCULATED

NOTES:

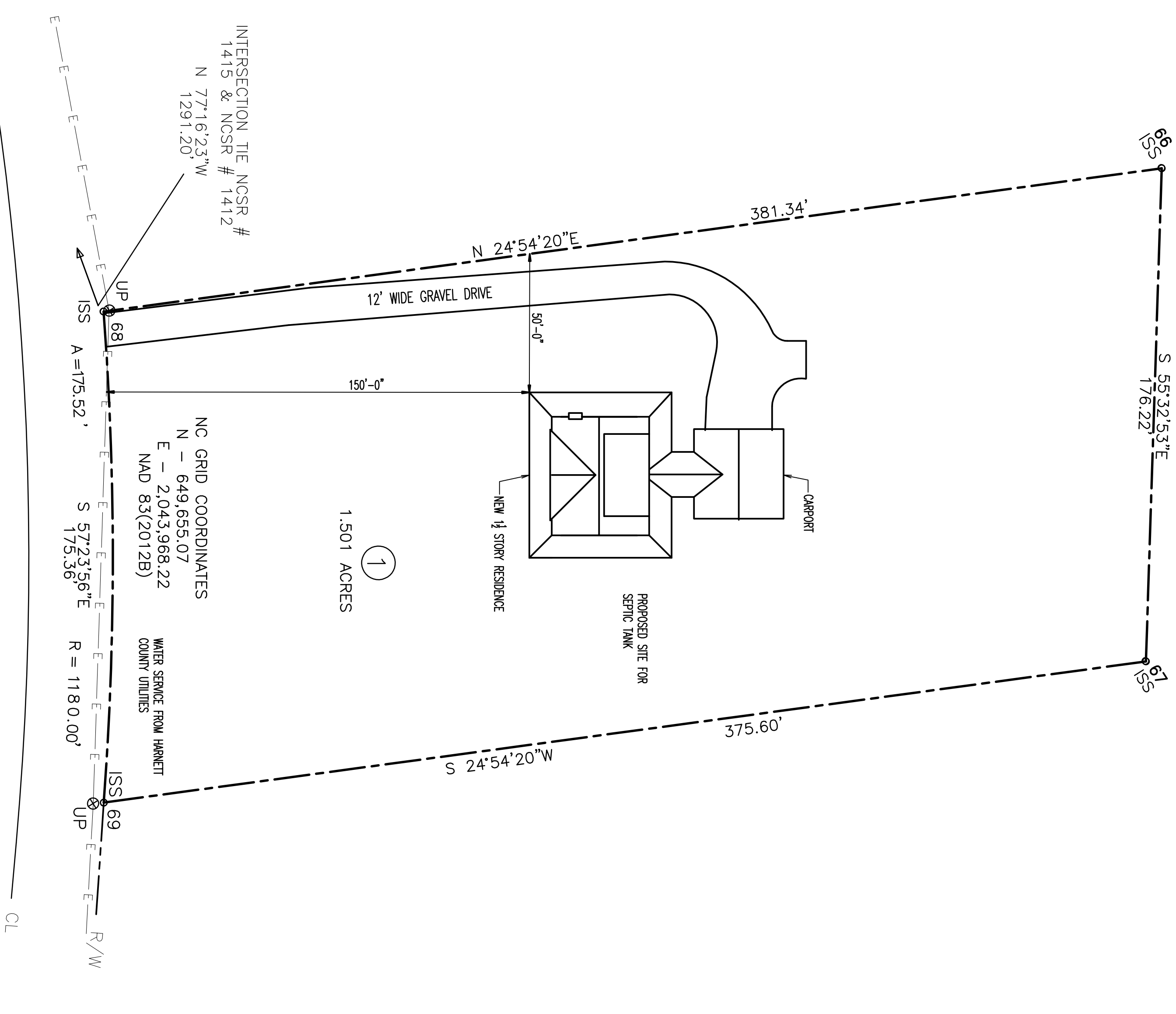
- ACTUAL VENT QUANTITY MAY BE REDUCED IF CRAWL SPACE VAPOR BARRIER IS INSTALLED. VENTS MAY BE DELETED IF CRAWL SPACE IS ENCLOSED, INSULATED AND CONDITIONED.

## WINDOW SCHEDULE

MARK	SIZE	DESCRIPTION	NOTES	WIDTH	HEIGHT
A	2'-8"W X 5'-6"H	DOUBLE HUNG	1.34.5	24"	8'
B	2'-8"W X 1'-0"H	TRANSOM ONLY	1.4.5		
C	3'-0"W X 4'-6"H	DOUBLE HUNG	1.4.5		
D	2'-8"W X 4'-6"H	DOUBLE HUNG	1.4.5		
E	2'-0"W X 2'-0"H	SINGLE FIXED	1.4.5		
F	3'-0"W X 5'-0"H	DOUBLE HUNG	1.4.5		
G	2'-8"W X 4'-0"H	DOUBLE HUNG	1.4.5		

WINDOW SCHEDULE NOTES:

- ALL WINDOWS SHALL BE LOW E, DOUBLE INSULATED
- PROVIDE SAFETY GLAZING FOR ALL HAZARDOUS LOCATIONS DEFINED IN GLAZING SECTION OF NC BUILDING CODE-RESIDENTIAL CODE.
- ALL EGRESS WINDOWS SHALL BE SIZED AND MOUNTED TO MEET THE EMERGENCY ESCAPE AND RESCUE OPENING REQUIREMENTS OF NC BUILDING CODE-RESIDENTIAL CODE.
- MULTION PATTERNS TO BE SELECTED BY THE OWNER.
- PROVIDE BRICK MOLDING STYLE EXTERIOR TRIM.

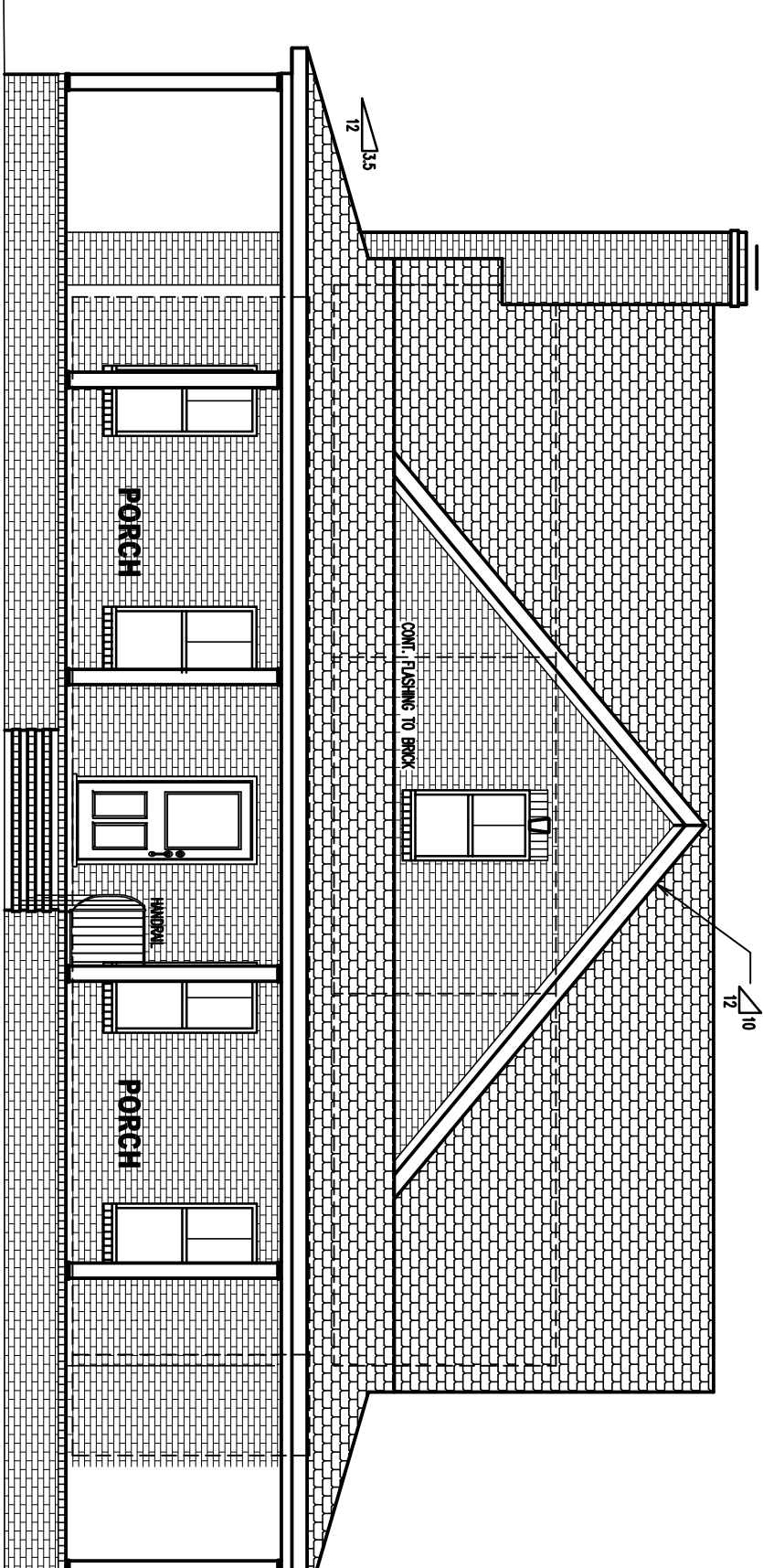


NCSR # 1415  
RAWLS CHURCH ROAD  
60' PUBLIC R/W

SITE INFORMATION REFERENCED FROM SURVEY DRAWING BY:  
BENJAMIN W. DEMAR AND ASSOCIATES  
PROFESSIONAL LAND SURVEYOR  
5920 HONECUTT ROAD  
HOLLY SPRINGS, NC 27540  
PH. # (919) 552-9813

## SITE PLAN

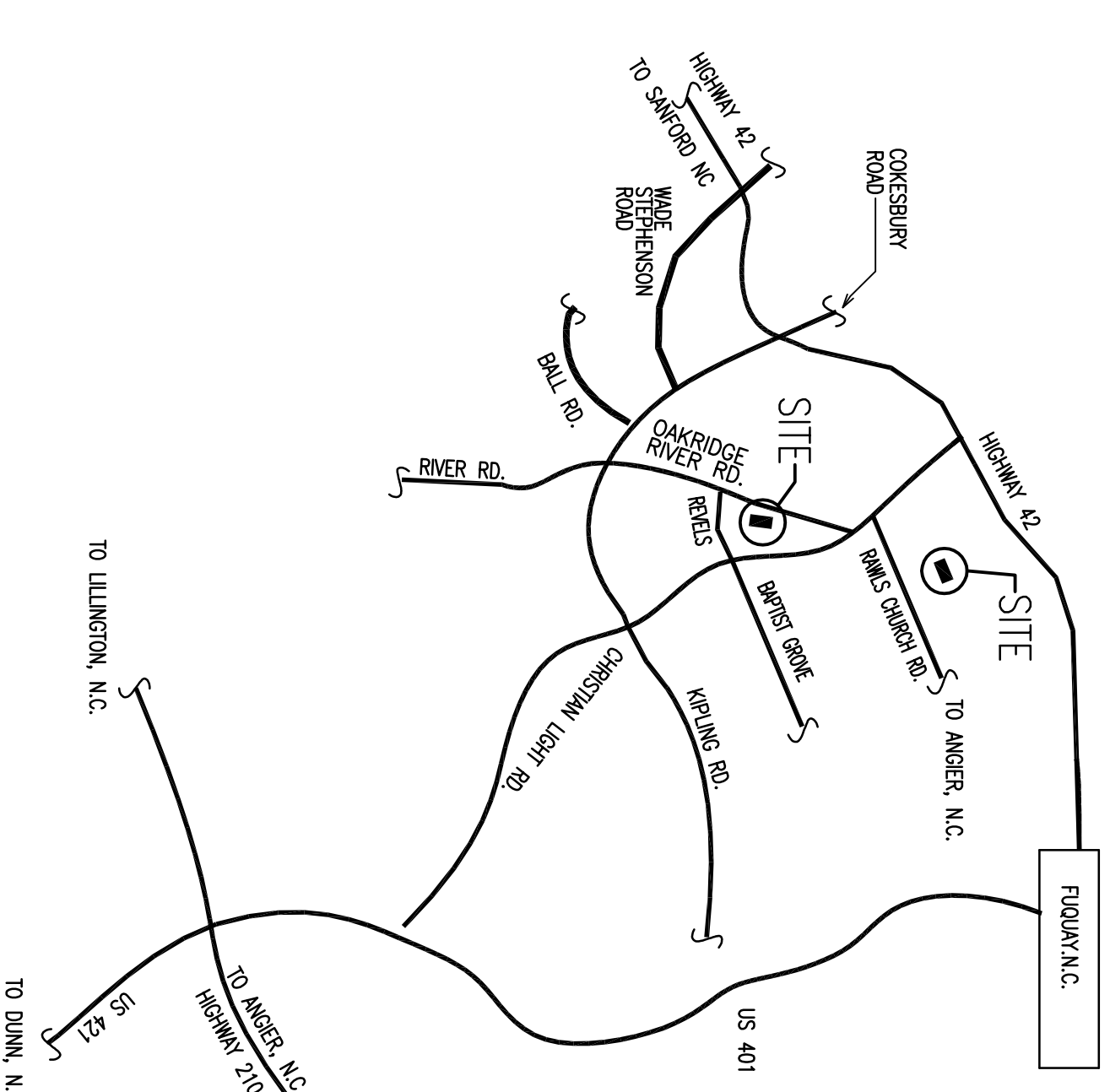
1"=30'-0"



REFER TO ELEVATION SHEET FOR DETAILED FRONT VIEW

## JOHNSON CUSTOM RESIDENCE N/S

## VICINITY MAP



## SHEET SCHEDULE

DESCRIPTION	COVER SHEET
CS	COVER SHEET, SITE AND DATA
A1	OVERALL FLOOR PLANS
A2	MAIN LEVEL DIMENSIONAL PLAN
A3	UPPER LEVEL DIMENSIONAL PLAN
A4	CARPORT DIMENSIONAL PLAN, ELEVATION
E1.1	ELEVATIONS
E1.2	ELEVATIONS
D1	DETAILS, SECTIONS
D2	WALL SECTIONS
D3	FIREPLACE DETAILS
S1	FOUNDATION PLAN
S2	MAIN LEVEL FLOOR FRAMING PLAN
S3	CARPORT, CONNECTOR FRAMING PLAN
S4	UPPER LEVEL FLOOR FRAMING PLAN
S5	UPPER LEVEL CEILING FRAMING PLAN
S6	BRAONG PLANS
S7	ROOF PLAN

# JOHNSON FAMILY RESIDENCE

RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

BUILDING DESIGN BY:  
S&S CONTRACTING  
6349 RIVER ROAD, FUQUAY, NC 27526

STRUCTURAL EVALUATION BY:  
HOWERTON SERVICES, LLC  
2108 KARNS PLACE, RALEIGH N.C. 27614

CS

DATE  
JANUARY 2019