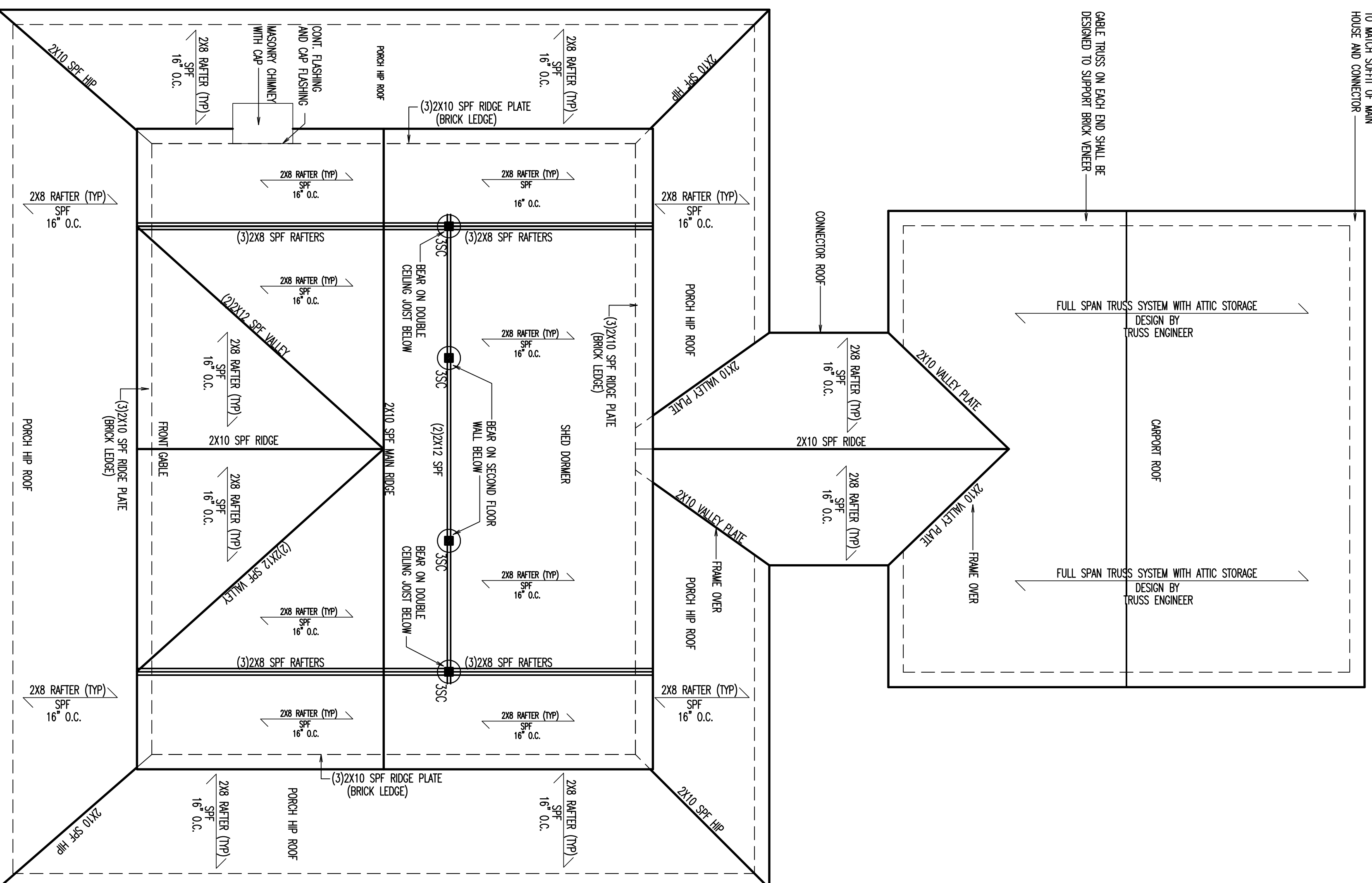


TRUSS SHALL BE DESIGNED TO MATCH SPREAD OF MAIN HOUSE AND CONNECTOR

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



FULL SPAN TRUSS SYSTEM WITH ATTIC STORAGE
DESIGN BY
RUSS ENGINEER

CHOPART ROOF

FULL SPAN TRUSS SYSTEM WITH ATTIC STORAGE
DESIGN BY
RUSS ENGINEER

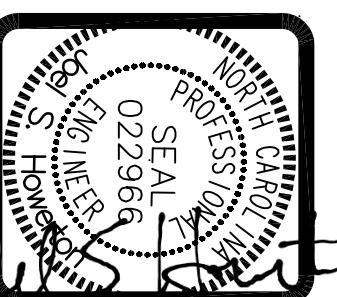
S7
01
ROOF PLAN
3/16" = 1'-0"

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 7/12
21 *LSF* FOR ROOF PROCES FROM 7/12 TO 12/12
 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"	27'-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 DORMERS WITH DOUBLE HEADER.
 9. ATTACH WALTED RAFTERS WITH HARDWARE CIP SIMPSON 7-5" OR EQUIVALENT. PROVIDE DOUBLE OPPOSITE RAFTERS WHERE NOTED.
 10. 2x8 RAFTERS @ CATHEDRAL OR WALTED 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. SHINGLES 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 CONTRACTORS RESPONSIBLE FOR BEARING DIMENSIONS FOR CONSTRUCTION.
 18. CONTRACTOR'S RESPONSIBILITY 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 EMPRIES 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

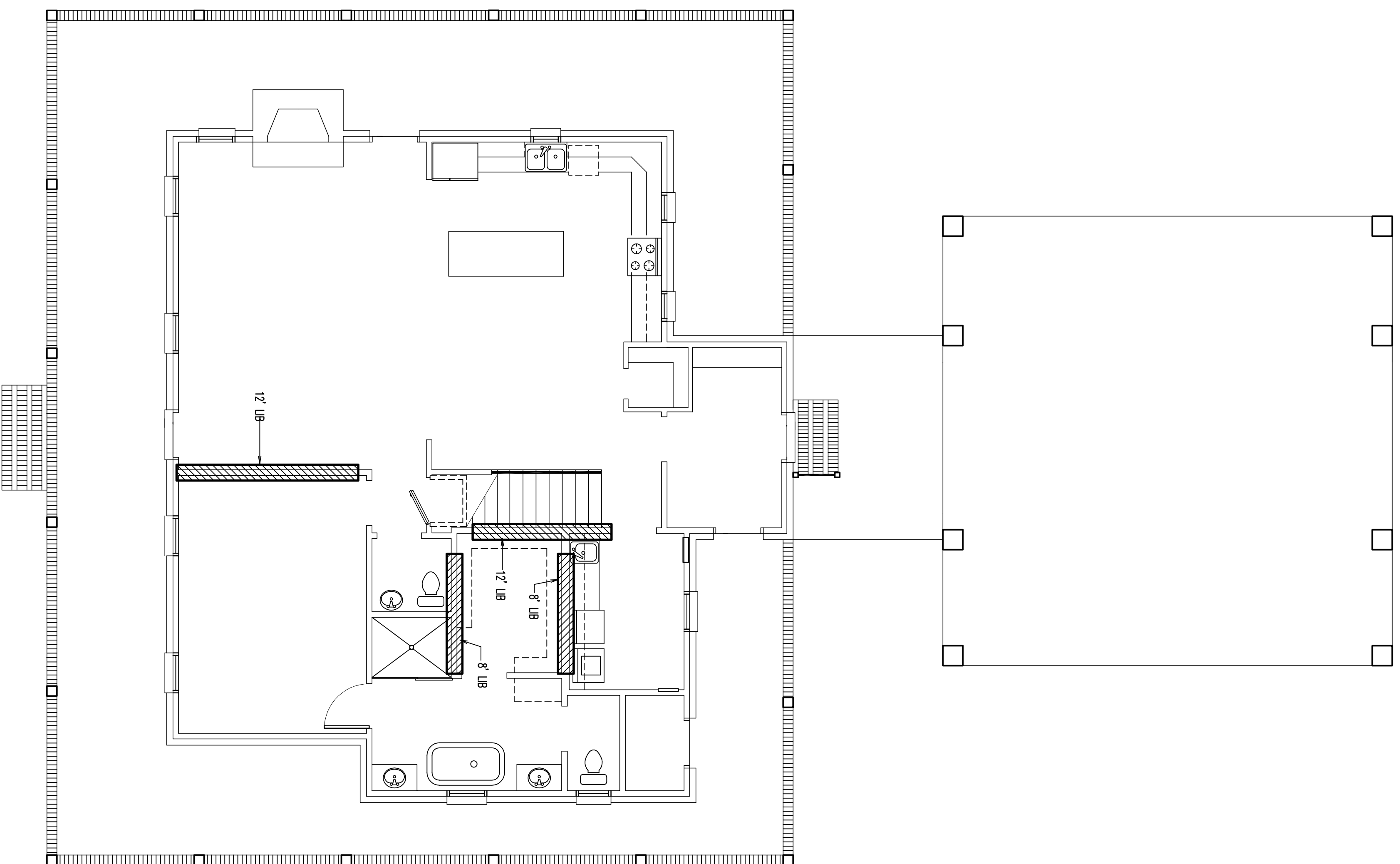
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

PROFESSIONAL
ROOF PLAN

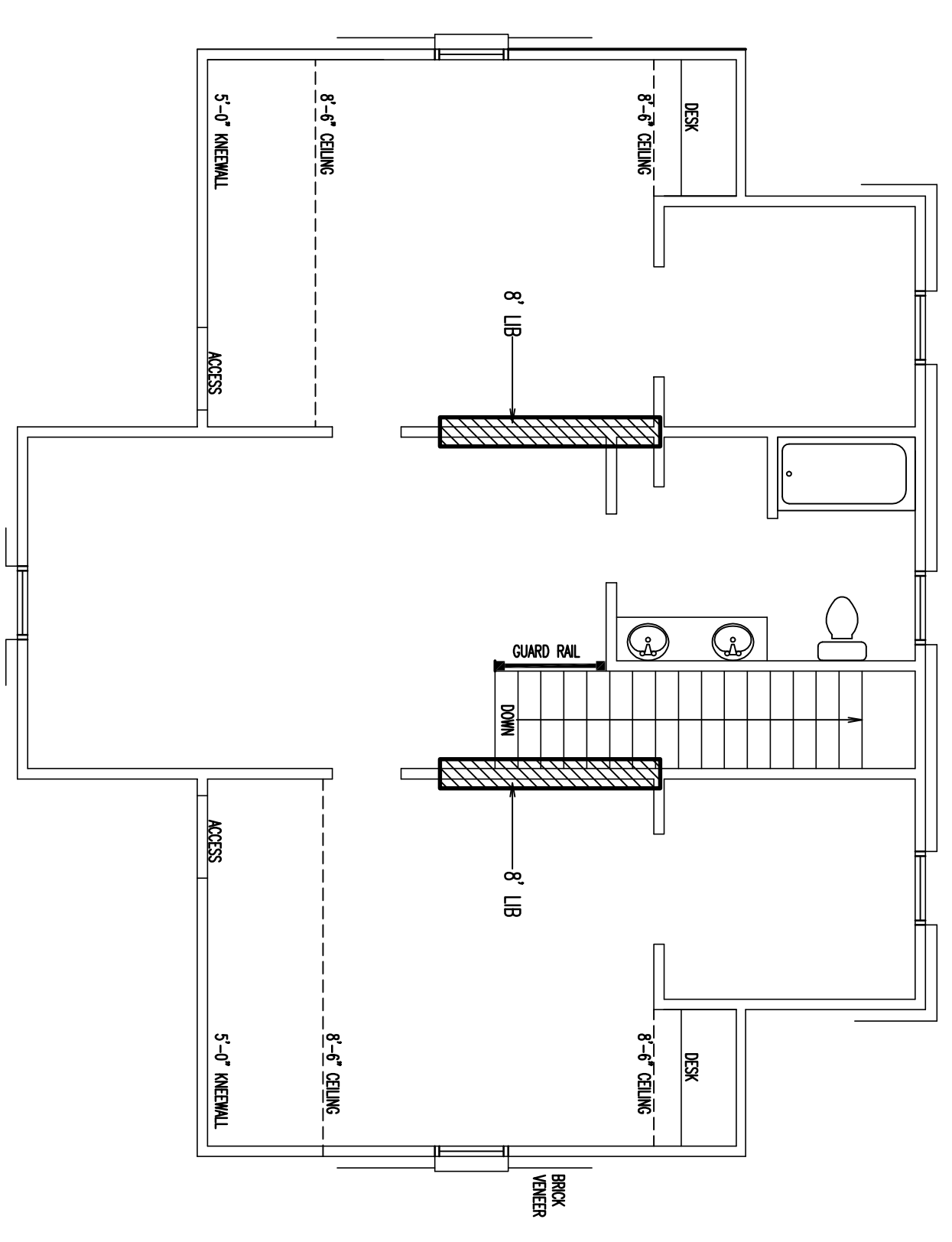
REVISION

DATE
JANUARY 2019

S7



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



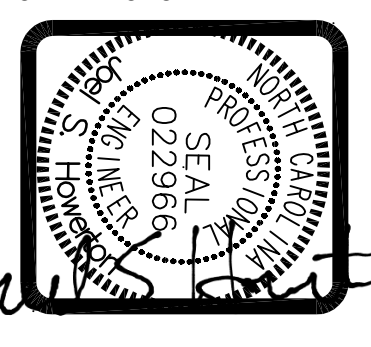
S6
02
BRACING PLAN - UPPER LEVEL
3/16" = 1'-0"

- 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

• 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 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

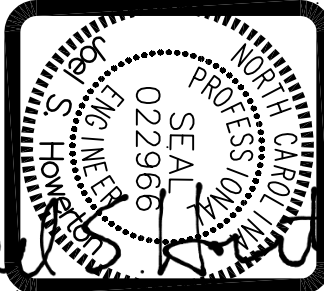
BUILDING DESIGN BY:
S&S CONTRACTING
 6349 RIVER ROAD, FUQUAY, NC 27526

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

PROJNO: S6
 PERSON: S6
 ASSOCIATION: S6
 BRACING PLANS

DATE: JANUARY 2019

S6



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.

DESCRIPTION:
 UPPER LEVEL
 CEILING FRAMING
 PLAN

DESIGNER:

DATE:
 JANUARY 2019

FORMING:
S5

GENERAL FRAMING NOTES:

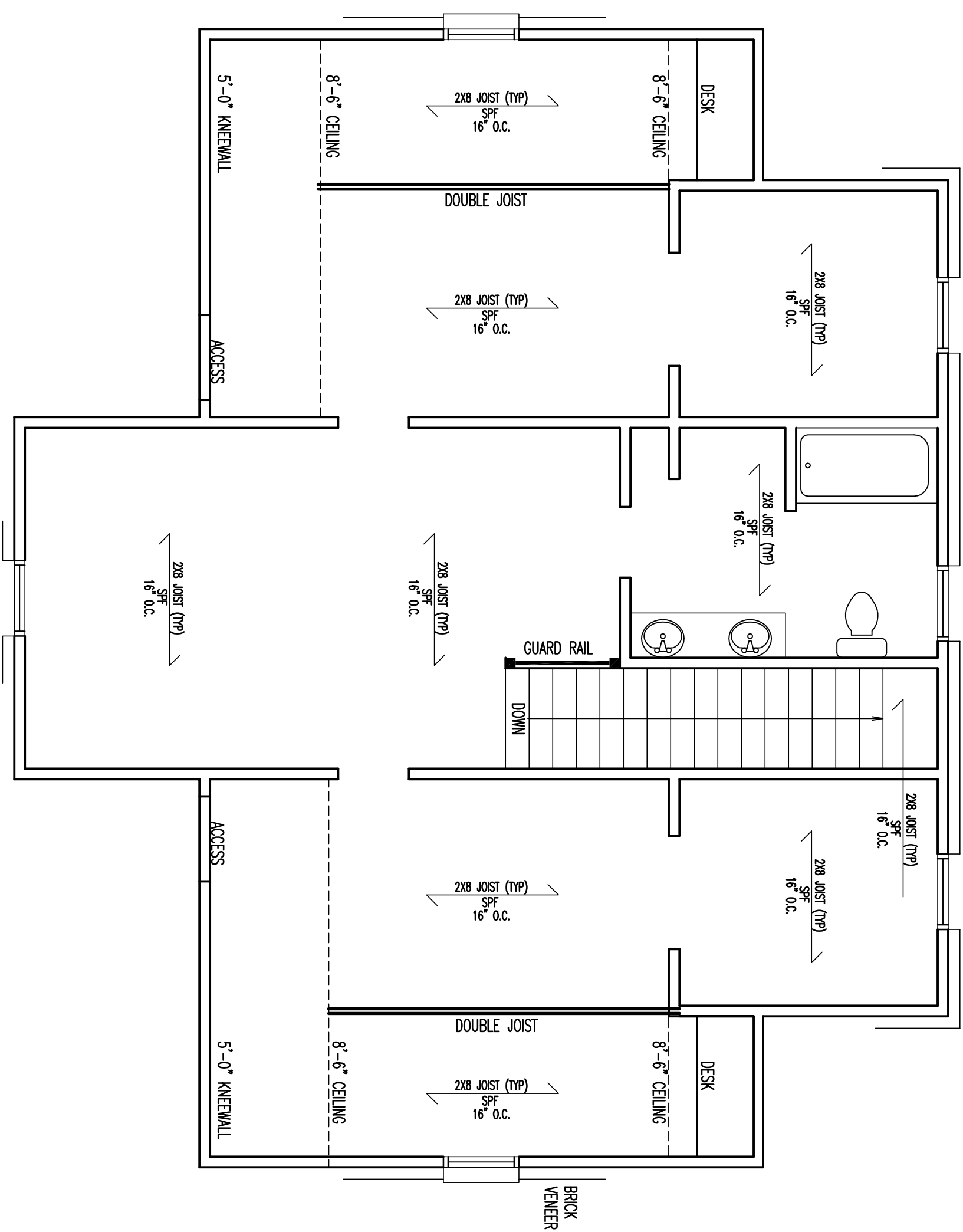
- THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
 - CLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF M1101.2.1, RESIDENTIAL BUILDING, TYPE A-1.
 - WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER.
 - POSITIVE/NEGATIVE PRESSURE.
 - ALL WALLS, FLOORS AND CEILINGS SHALL BE INSULATED IN ACCORDANCE WITH CODE SUMMARY:
- | | | |
|------------------|--------|--------|
| DESIGN CRITERIA: | 0240 | 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:

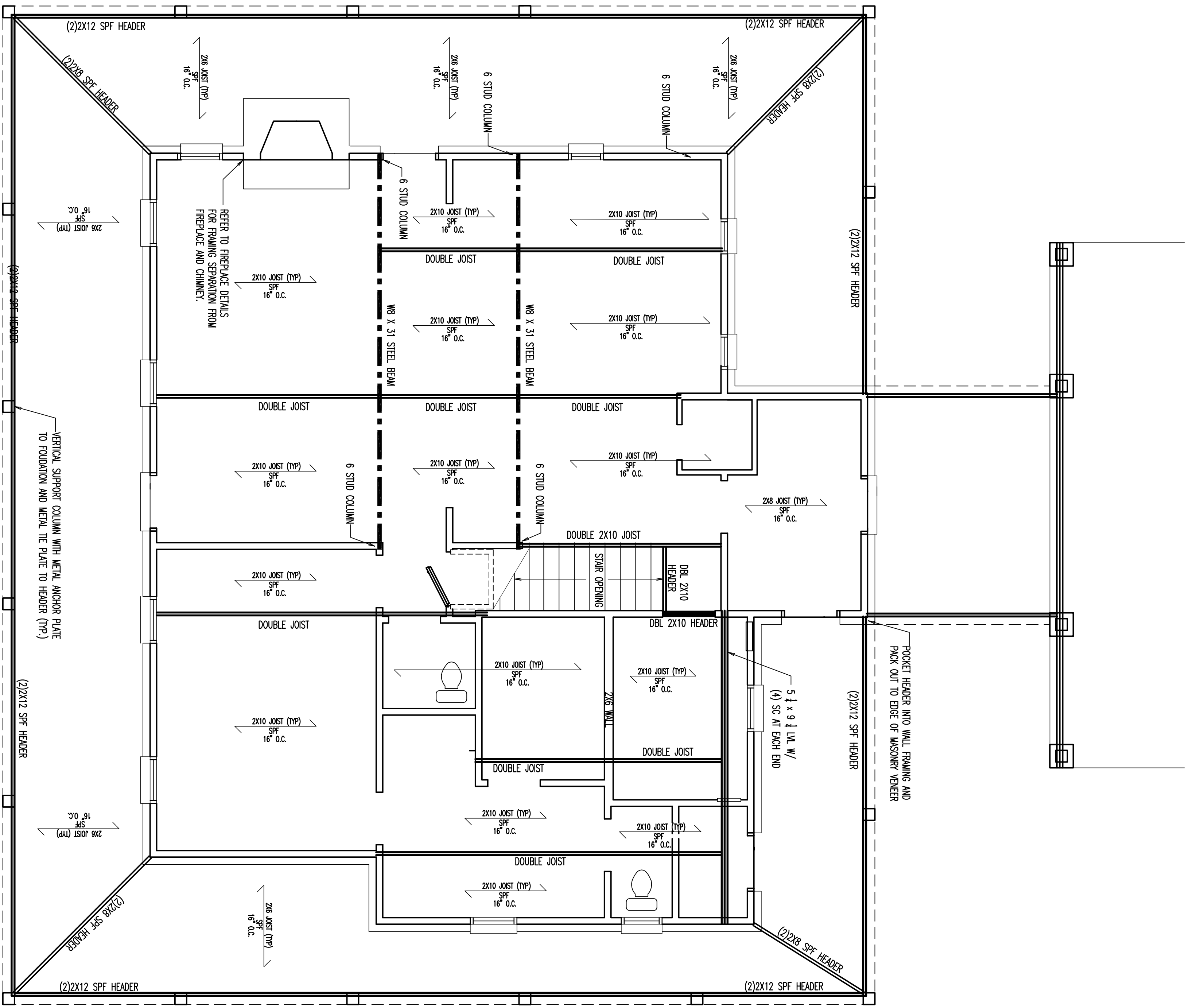
HOWERTON SERVICES, PLLC
 2108 KARNS PLACE, RALEIGH, NC 27614
 LICENSE # P-17176

- 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 REVISIONS 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.

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:

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.
4. ALL WALLS, FLOORS AND CEILING SHALL BE INSULATED IN ACCORDANCE WITH CODE SUMMARY.
5. DESIGN LOADS:

DEAD	10 PSF
LIVE	40 PSF
PRIMARY FLOOR	10 PSF
SECONDARY FLOOR	10 PSF
CEILING AREAS	10 PSF
ATTIC	10 PSF
ROOF	20 PSF

 DELETION LIMITS:

FLOOR	1/2x10
ROOF	1/2x10
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.

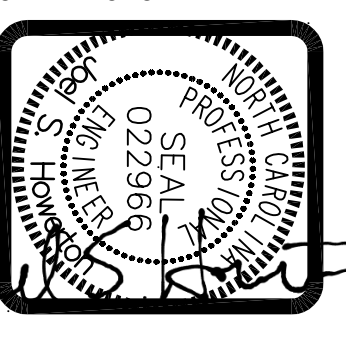
STRUCTURAL EVALUATION BY:

HOWERTON SERVICES, PLLC
2108 KARN'S PLACE, RALEIGH, NC 27614
LICENSE # 1-1718

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 EXPRESSES 02/01/2020 OR UNTIL NEW CODE CYCLE.

INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

01 11 2019



STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, LLC
2108 KARN'S PLACE, RALEIGH N.C. 27614

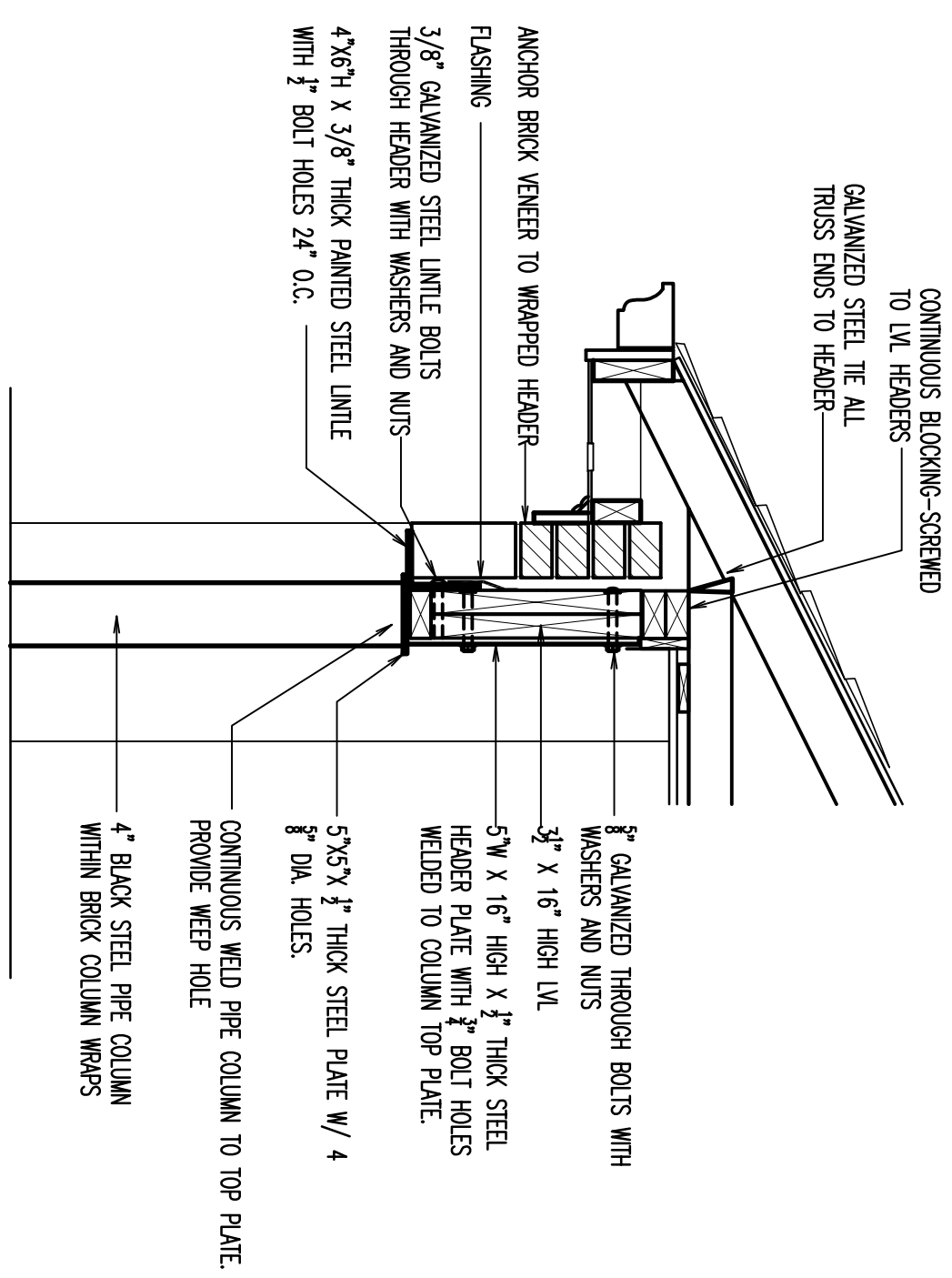
BUILDING DESIGN BY:
S&S CONTRACTING
6349 RIVER ROAD, FUQUAY, NC 27526

JOHNSON FAMILY RESIDENCE

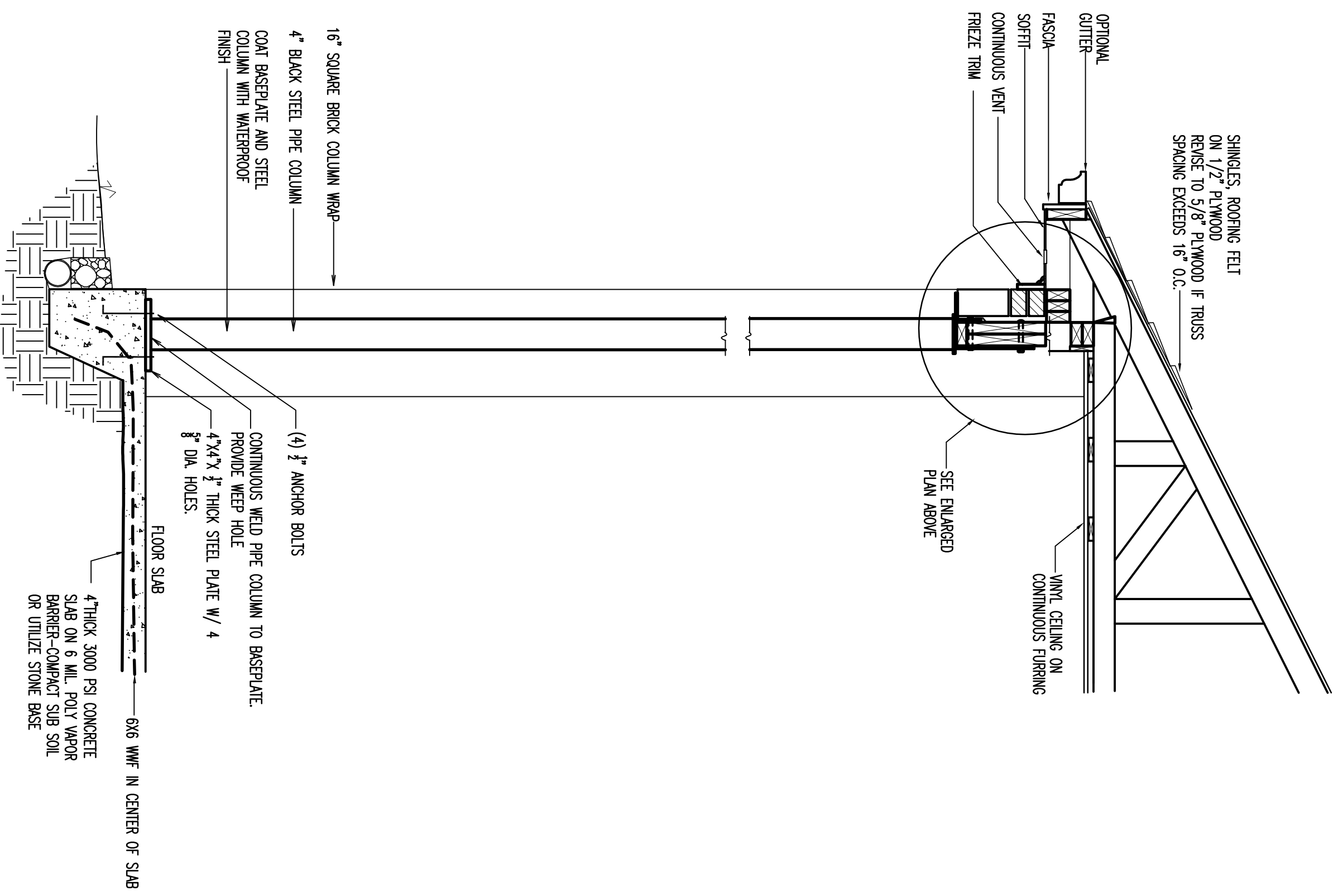
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

RESPONSIBLE DESIGNER
DATE
JANUARY 2019
UPPER LEVEL FLOOR FRAMING PLAN
PROJECT

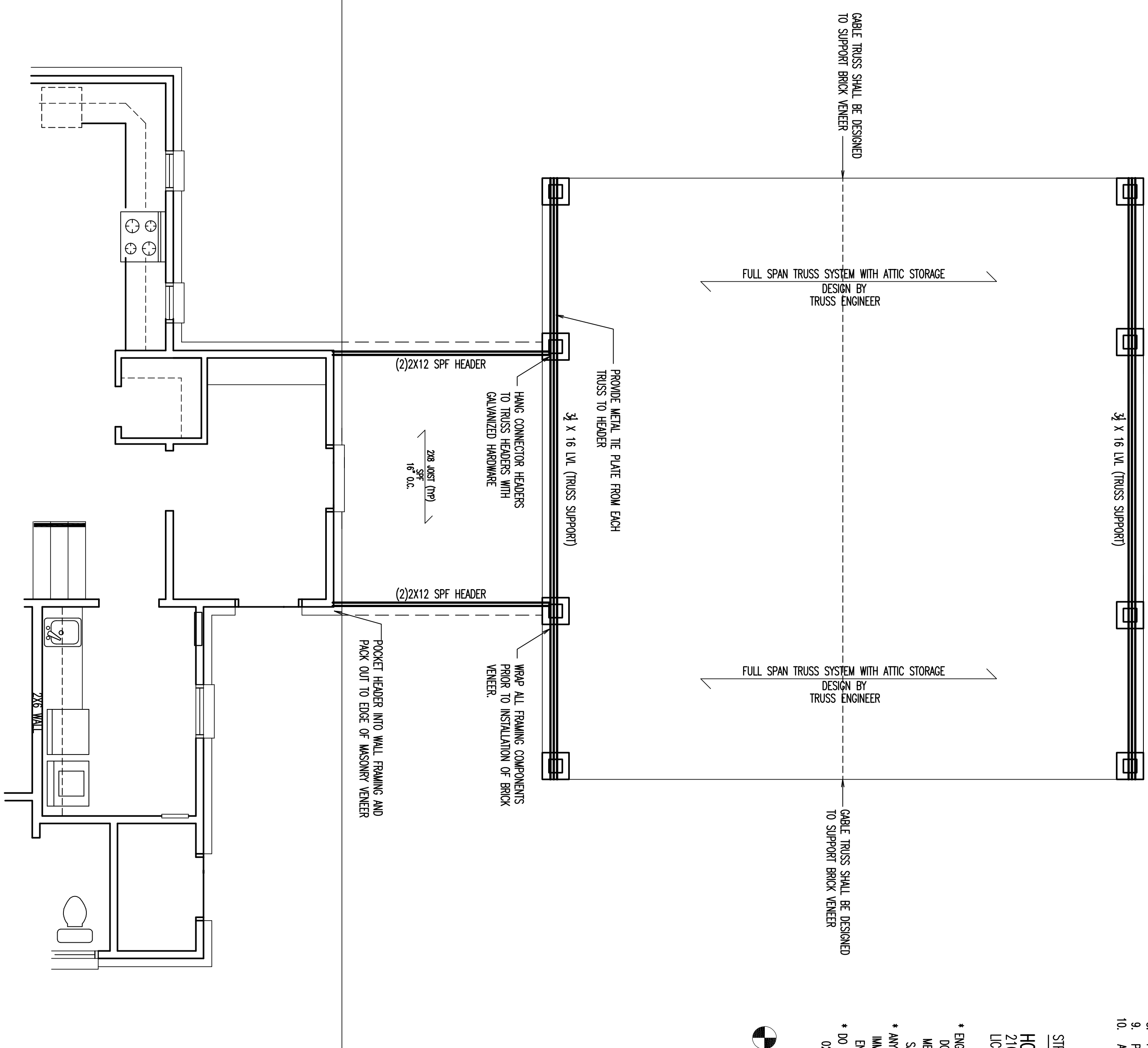
S4



S3
03
CARPORT HEADER SUPPORT-ENLARGED
NTS



S3
02
CARPORT HEADER SUPPORT
NTS



S3
01
CARPORT AND CONNECTOR FRAMING
1/4\"/>

GENERAL FRAMING NOTES:

- THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
- 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 BUILDINGS, TYPE A-1.
- 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\"/>

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.

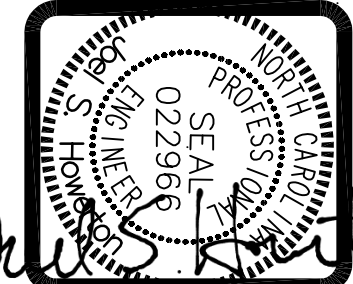
INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

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

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

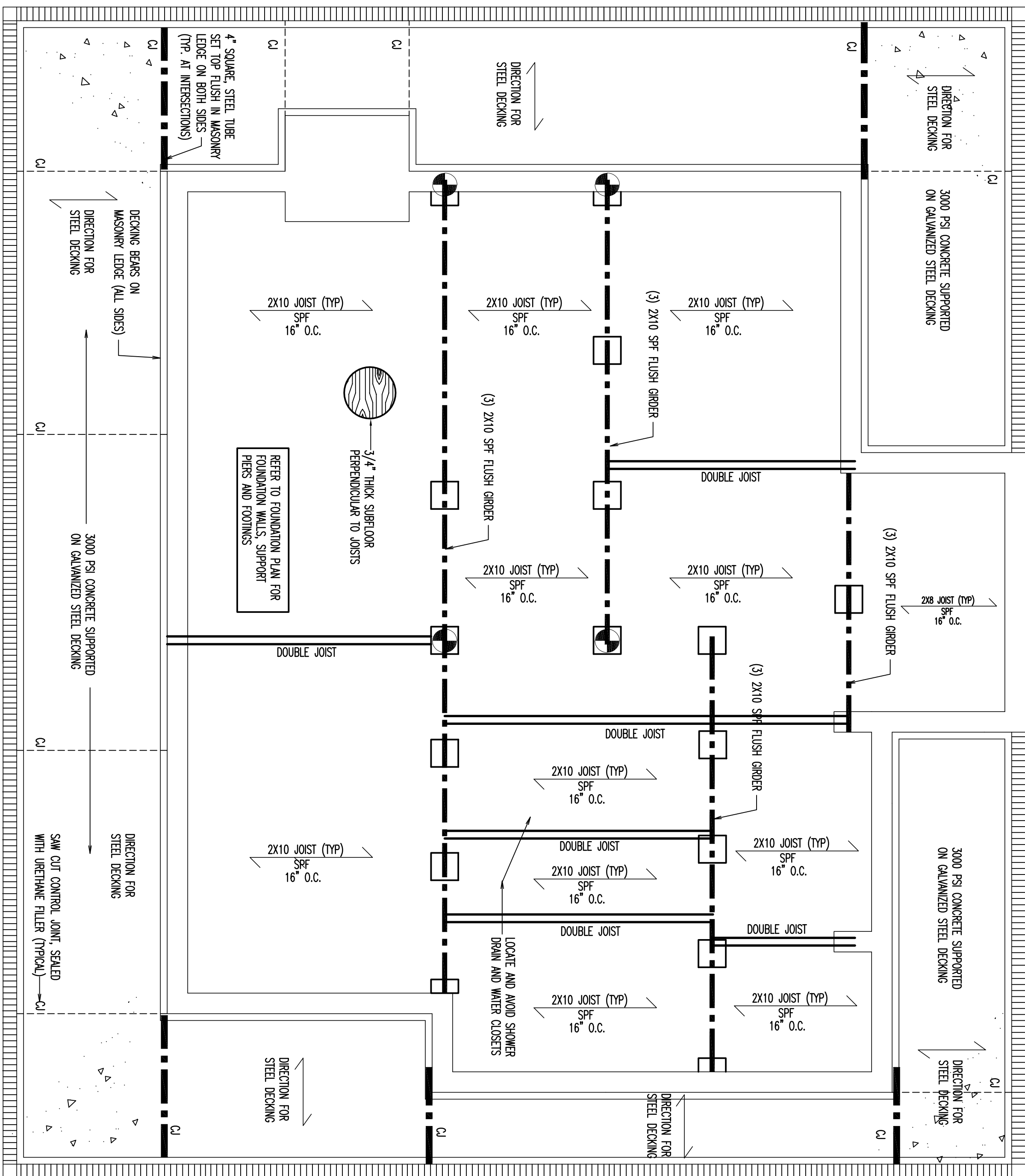
STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, LLC
2108 KARNS PLACE, RALEIGH N.C. 27614

01 11 2019



DESIGNER: **HOWERTON SERVICES, LLC**
DATE: JANUARY 2019
PROJECT: CARPORT CONNECTOR FRAMING PLAN

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
 WIND: 150 PSF
 SNOW: 10 PSF
 SEISMIC: 0 PSF
 ATTIC: 10 PSF
 ROOF: 10 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.

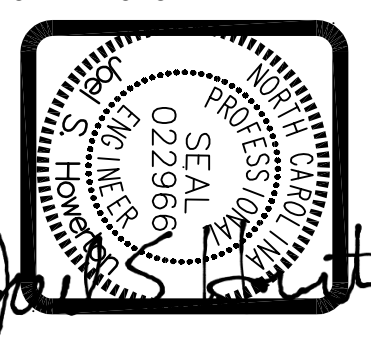
STRUCTURAL EVALUATION BY:

HOWERTON SERVICES, PLLC
 2108 KARN'S PLACE, RALEIGH, NC 27614
 LICENSE # P-17116

- 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 DEMANDS 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 EXPRESSES 02/01/2020 OR UNTIL NEW CODE CYCLE.

INDICATES POINT LOAD ABOVE WHERE SHOWN ON PLANS

01 11 2019



STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, LLC
 2108 KARN'S 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**

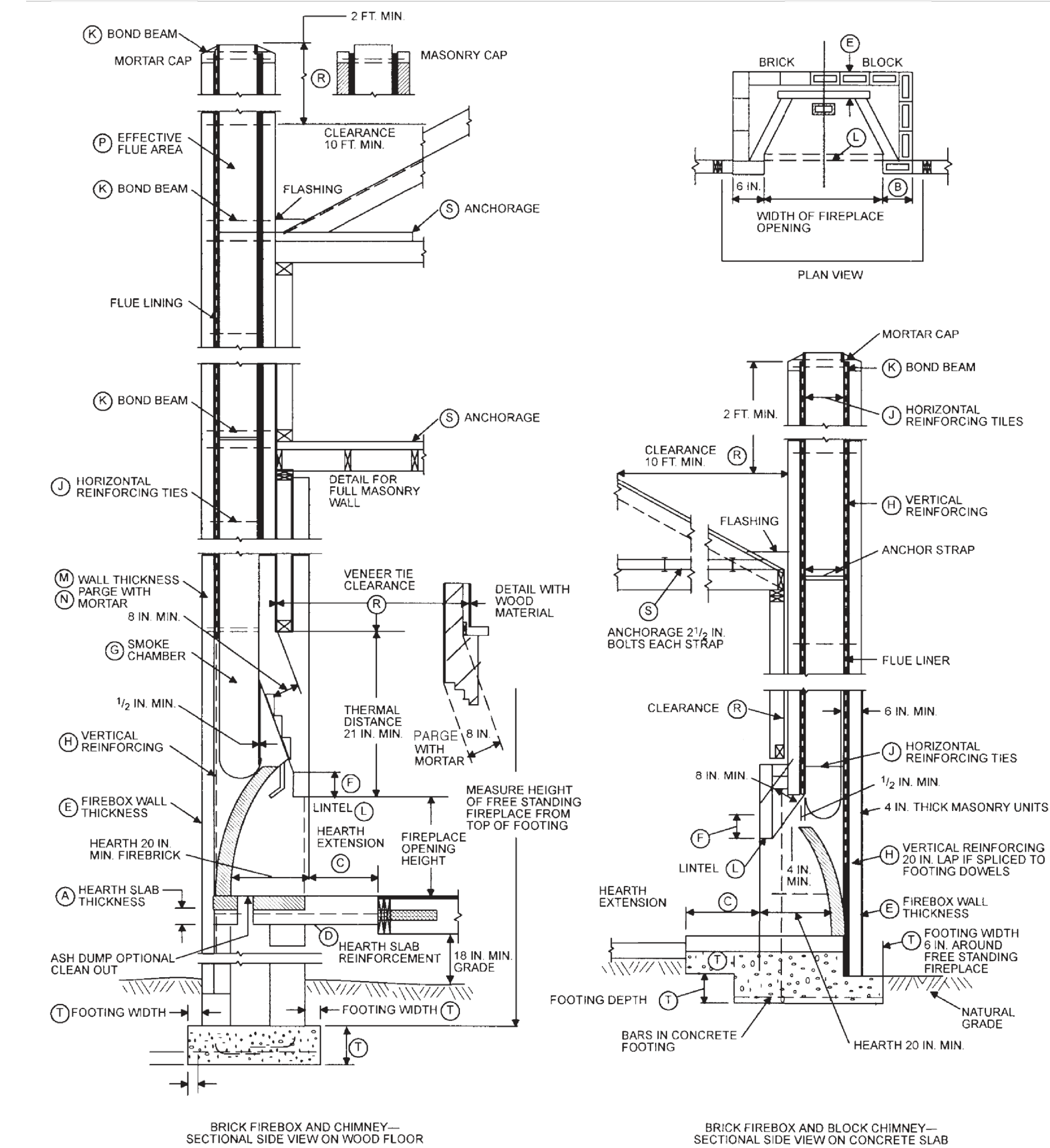
MASONRY

**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 m², 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
2708KARNIS 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.

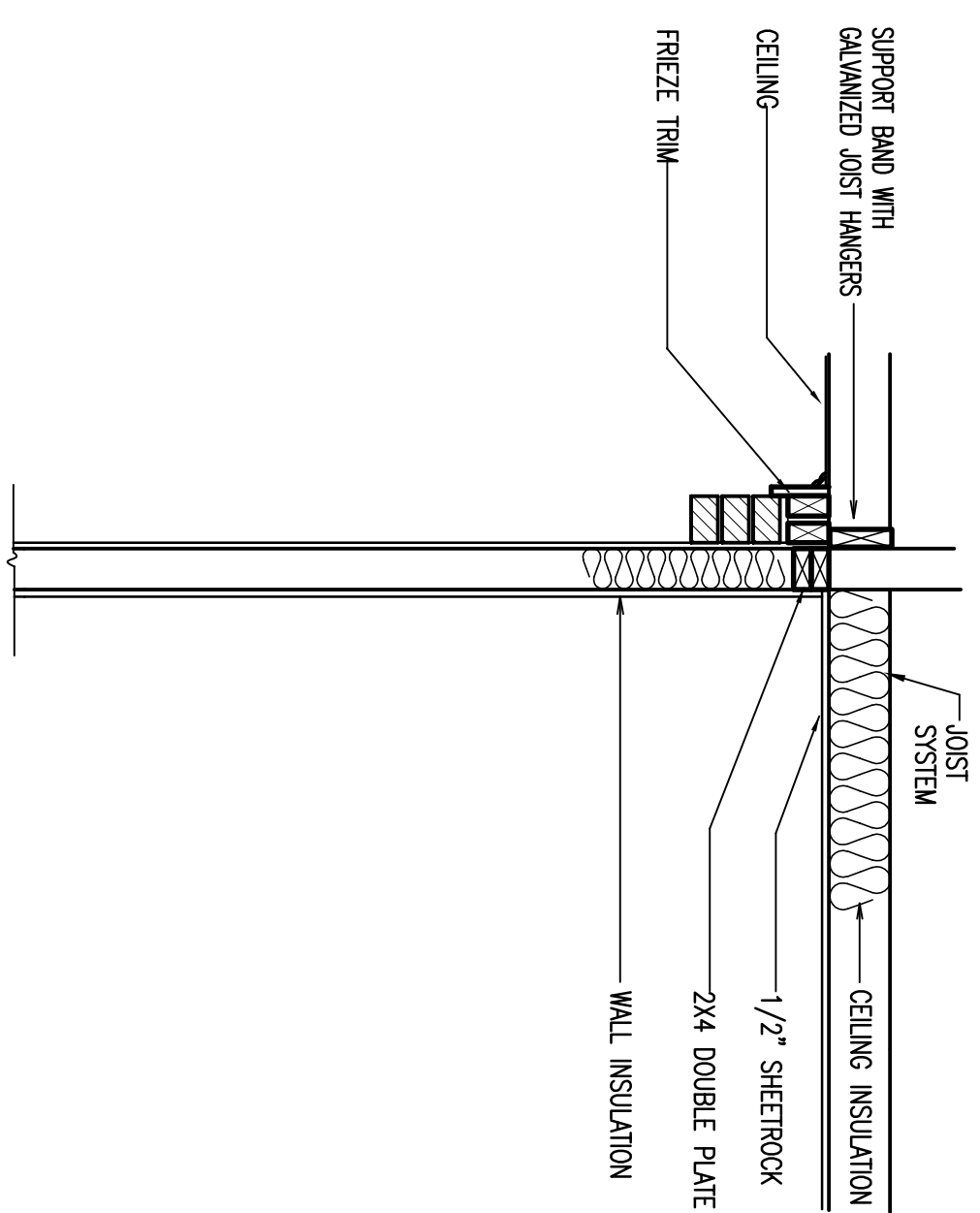
DESCRIPTION:
FIREPLACE DETAILS

REVISION:

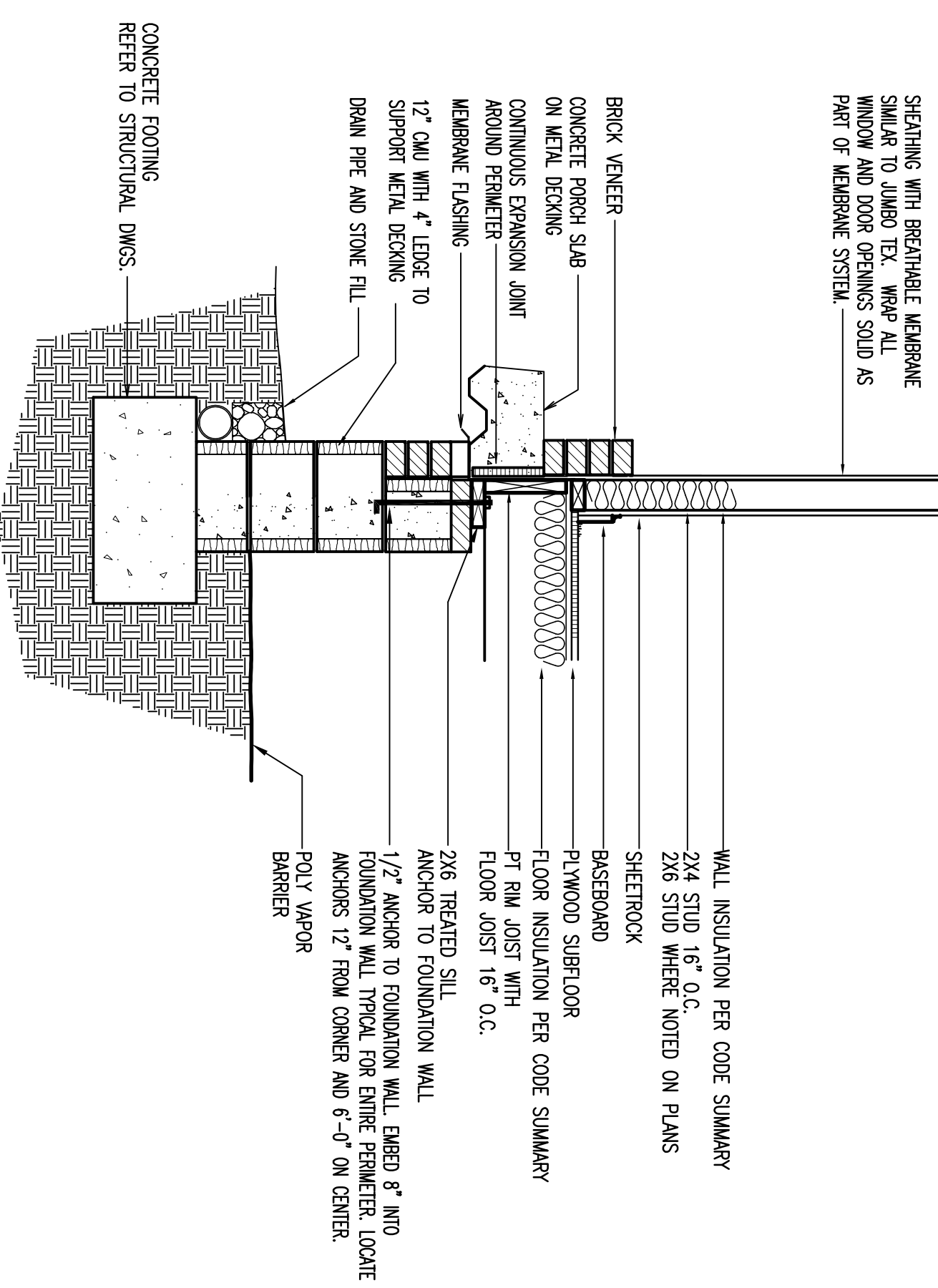
DATE:
JANUARY 2019

DRAWING:

D3

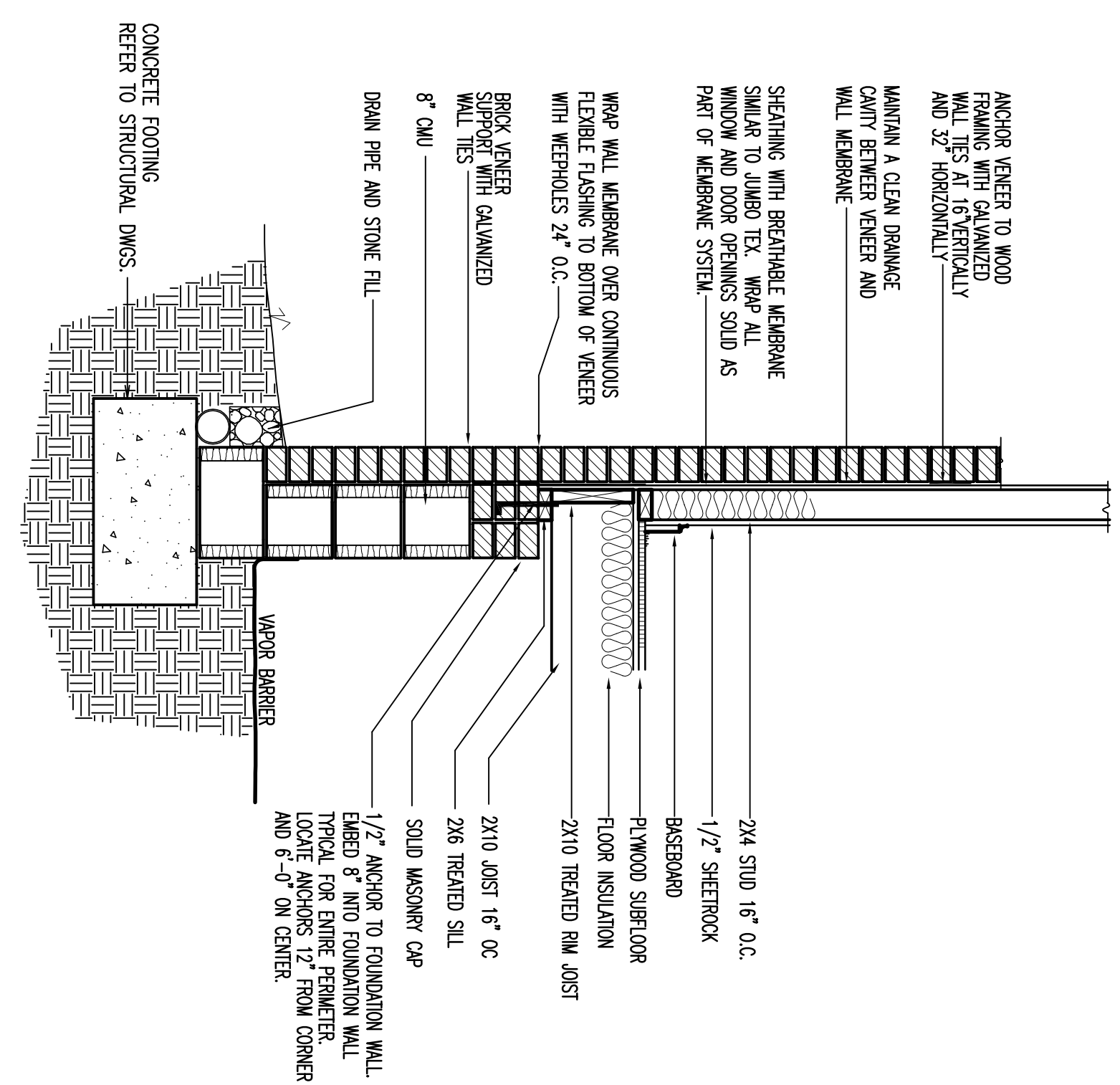
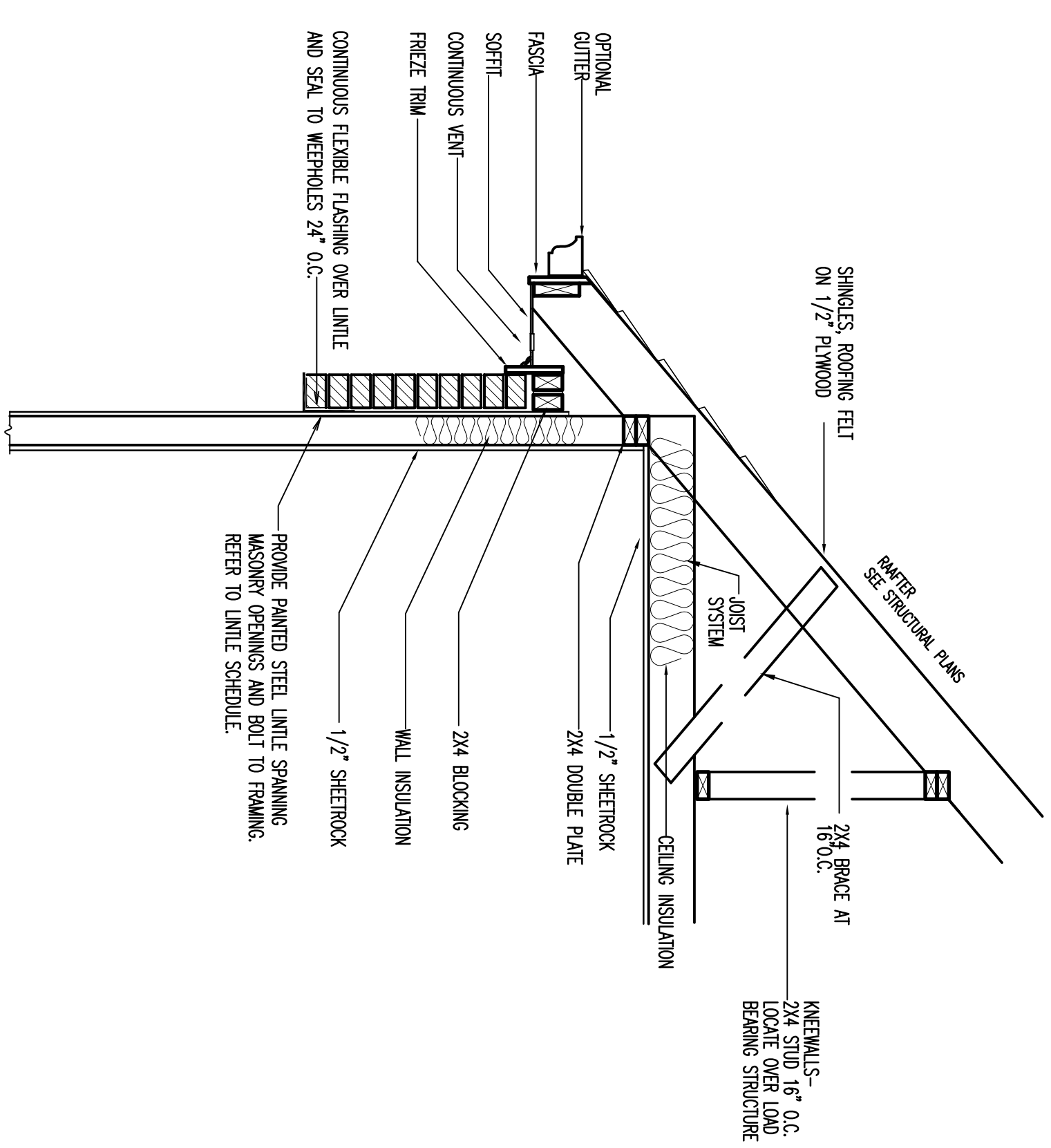


PORCH
INTERIOR



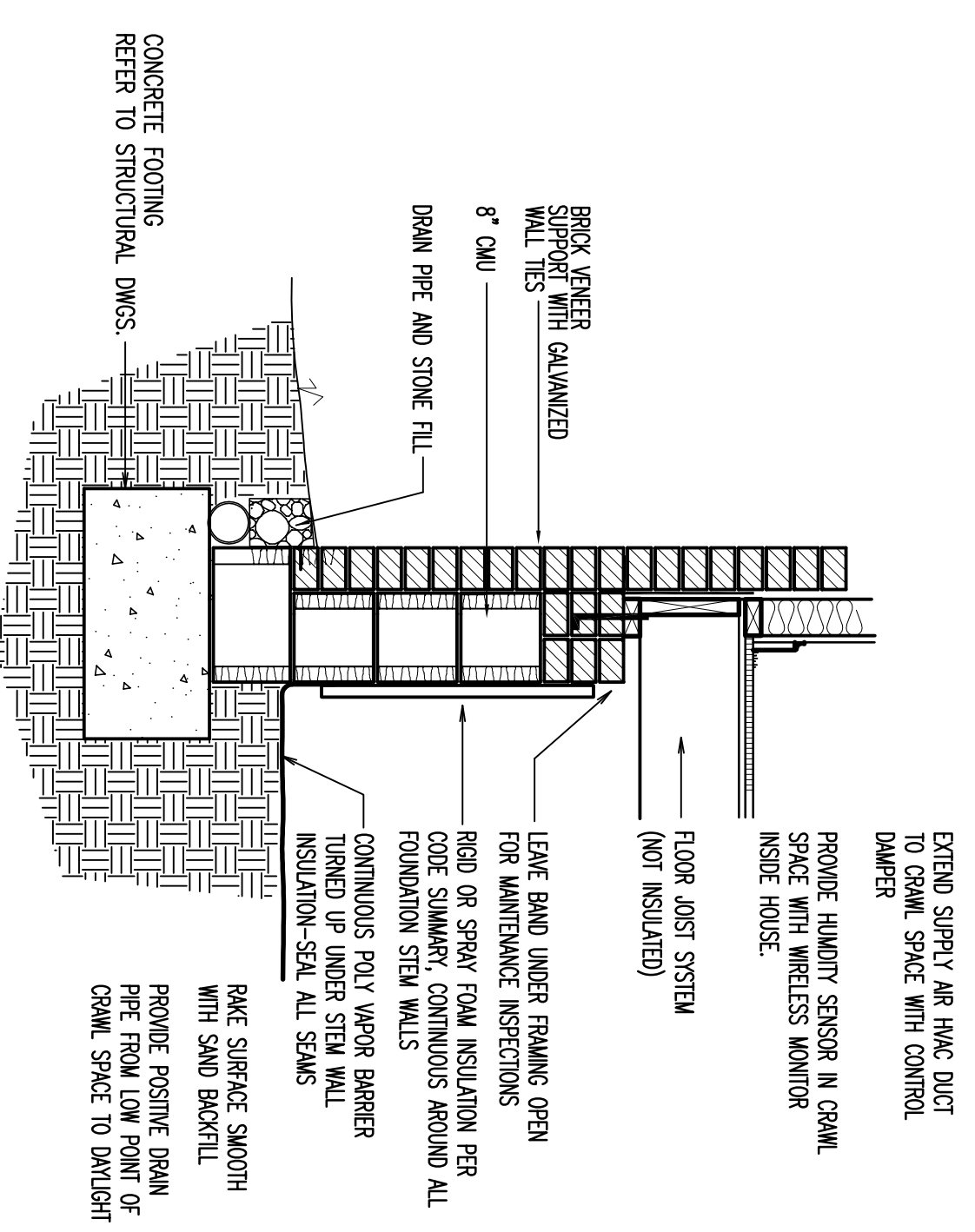
WALL SECTION
PORCH

NTS



WALL SECTION
MAIN HOUSE

NTS



OPTIONAL ENCLOSED
CRAWL SPACE

NTS

D2 WALL SECTIONS
01 NTS

JOHNSON FAMILY RESIDENCE

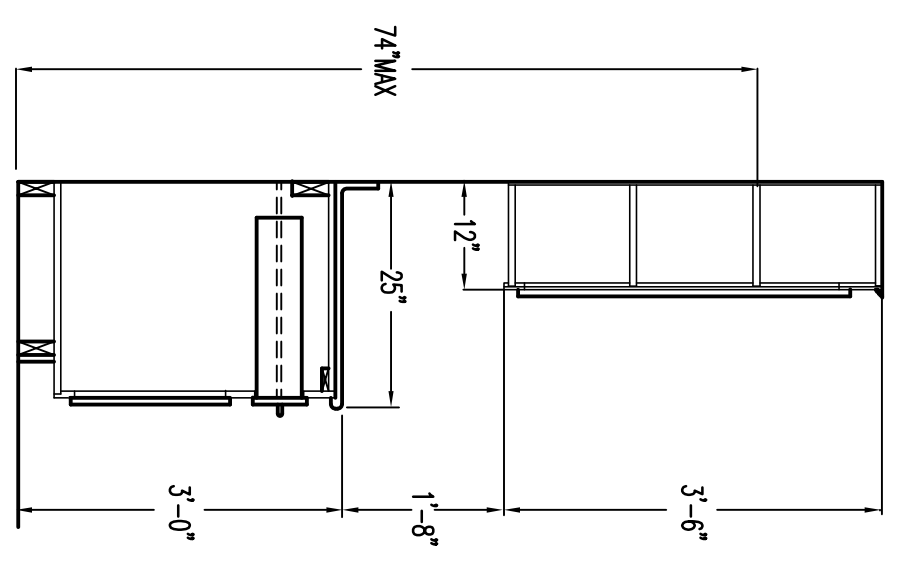
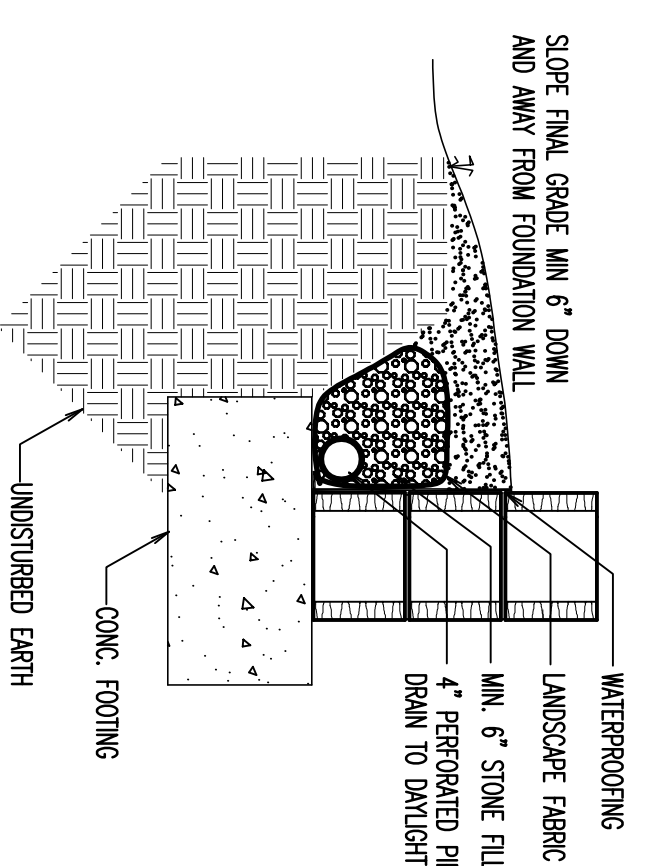
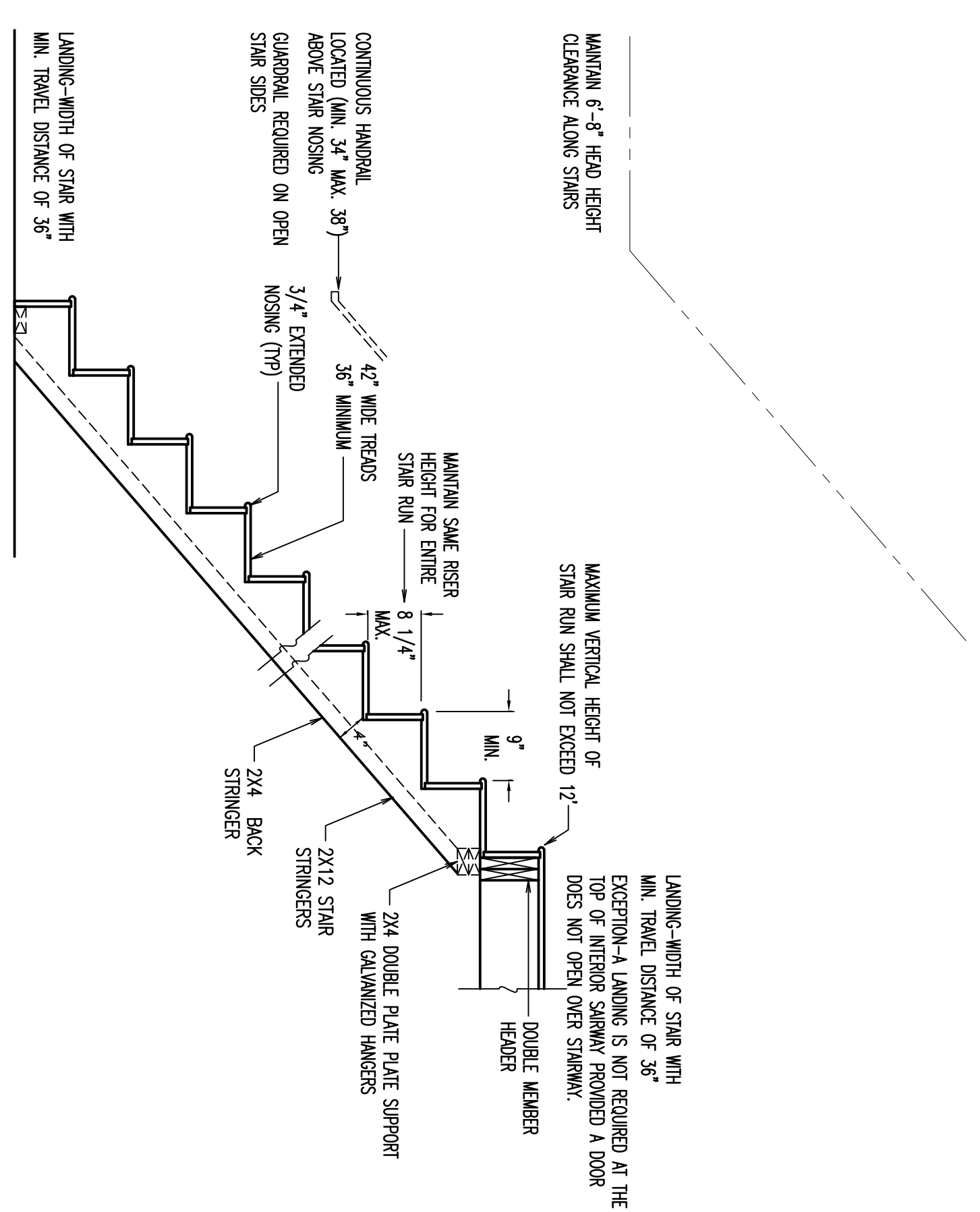
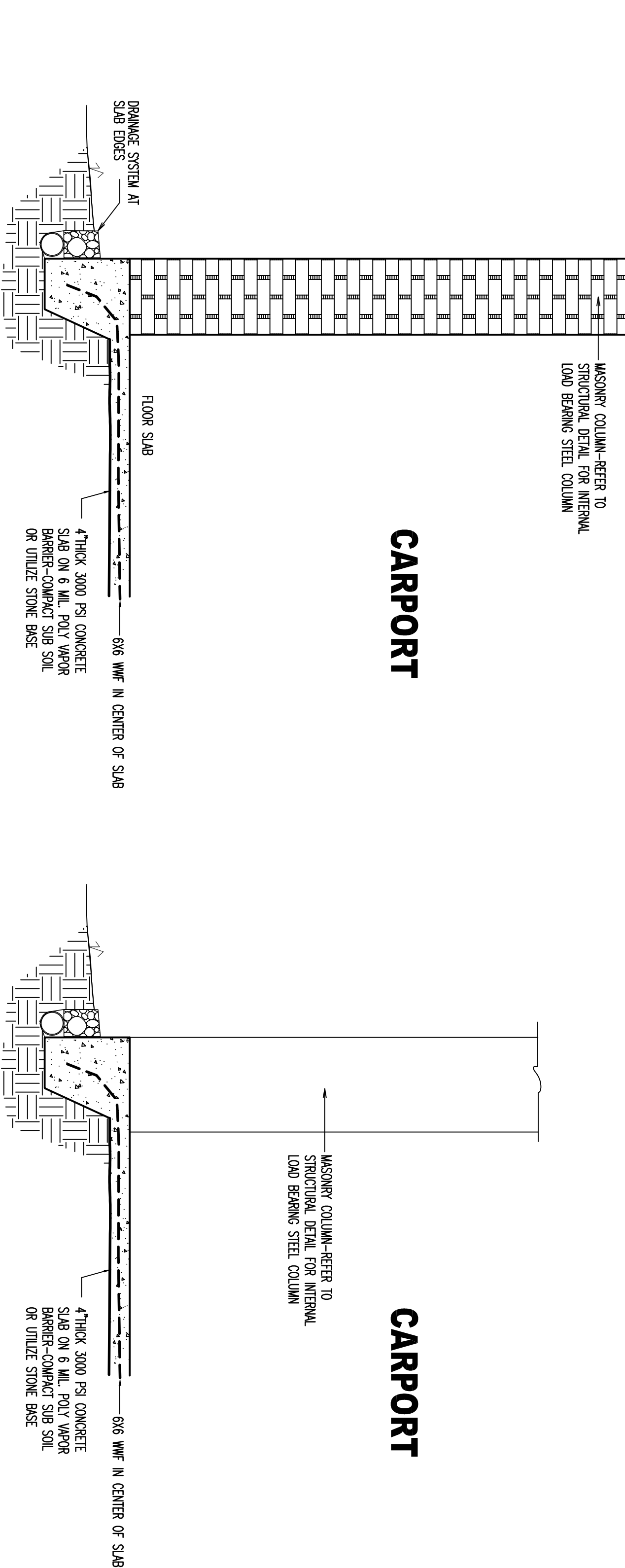
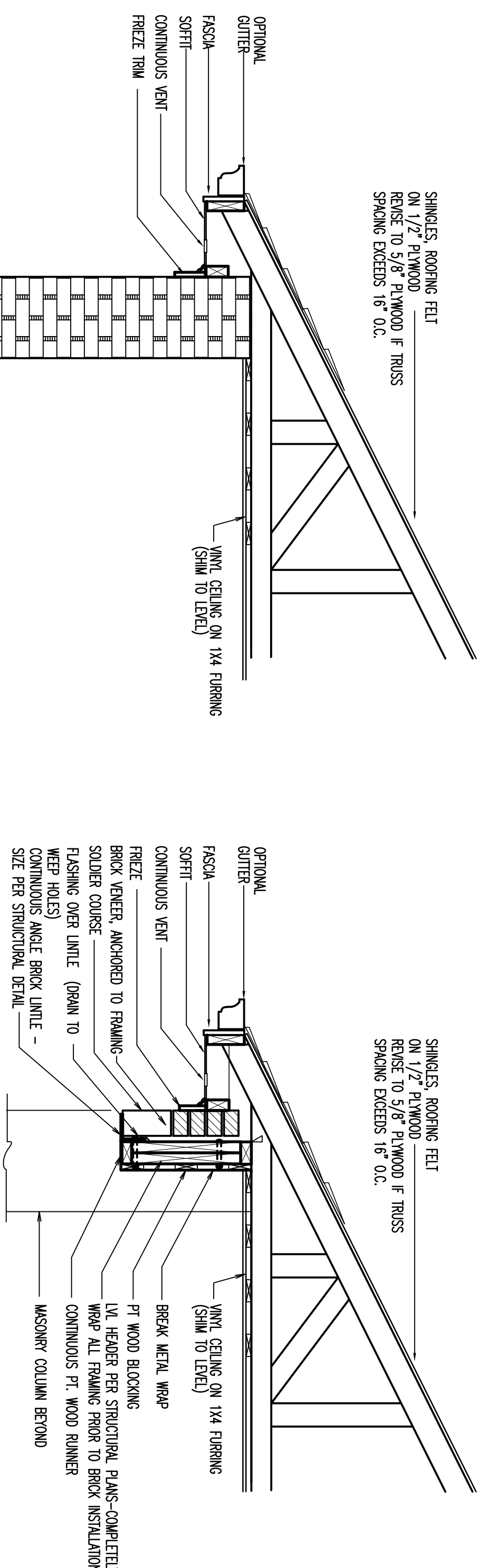
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

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

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

DATE: JANUARY 2019

D2



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

WALL SECTION CARPORT COLUMN

WALL SECTION CARPORT HEADER

STAIRWAY SECTION

FOUNDATION DRAINAGE

CABINET SECTION

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

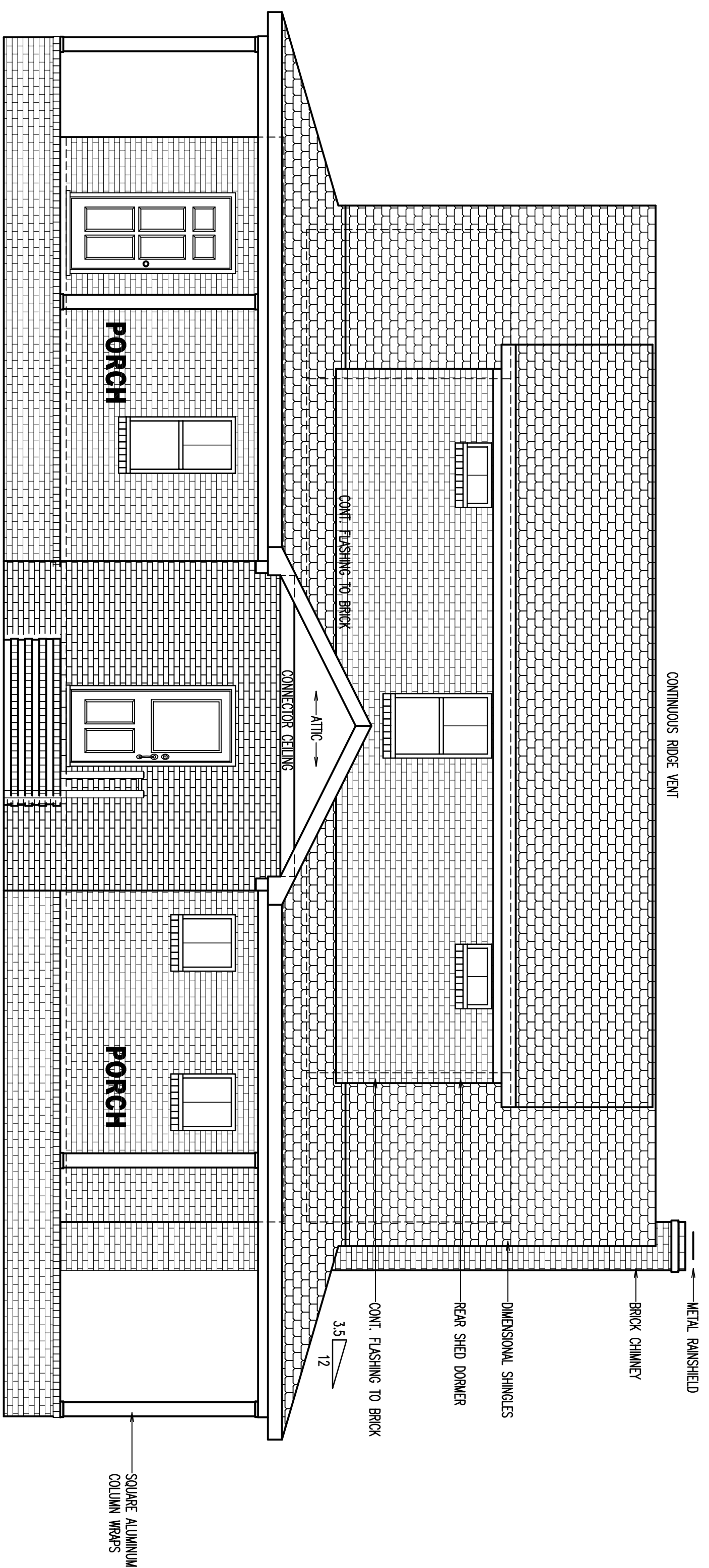
D1

DATE: JANUARY 2019

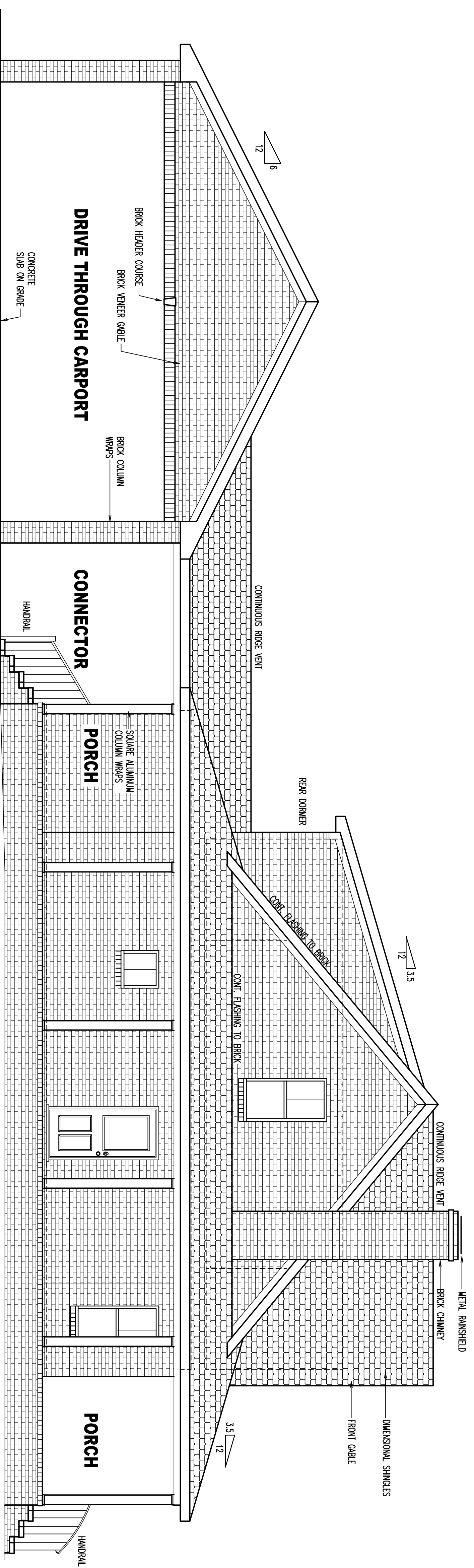
DETAILS/SECTIONS

REVISION

FORMING



REAR OF HOUSE CUT THROUGH CONNECTOR TO CARPORT



LEFT

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

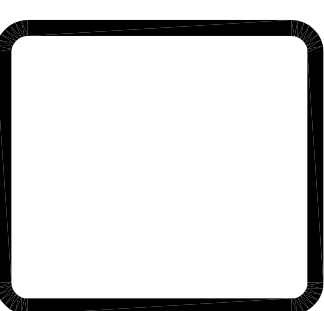
EL2

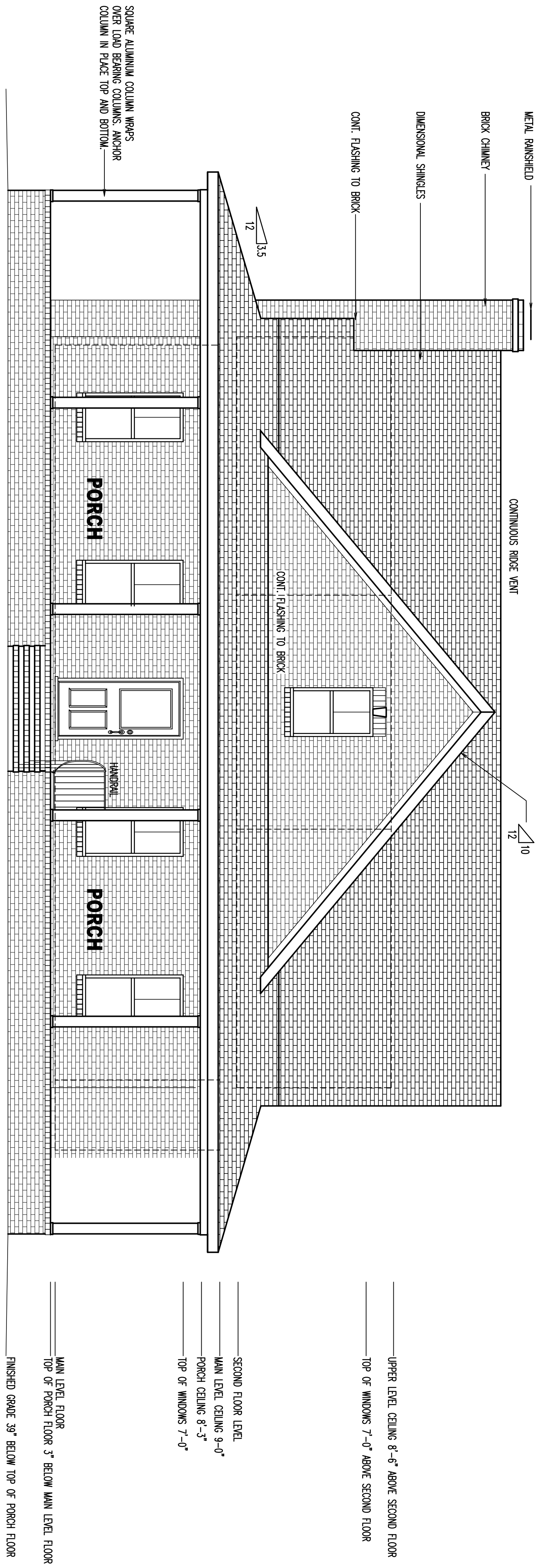
DATE	JANUARY 2019
DESIGNER	
PROJECT	

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

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

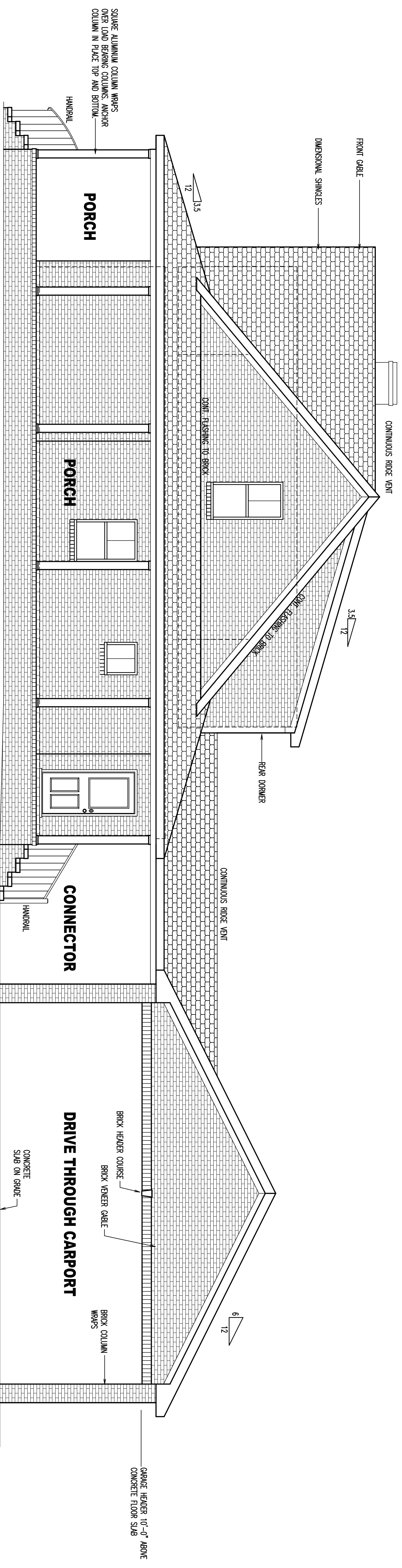
STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, LLC
2108 KARNS PLACE, RALEIGH N.C. 27614





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 30" BELOW TOP OF PORCH FLOOR



RIGHT

EL1
ELEVATIONS
1/4" = 1'-0"
01

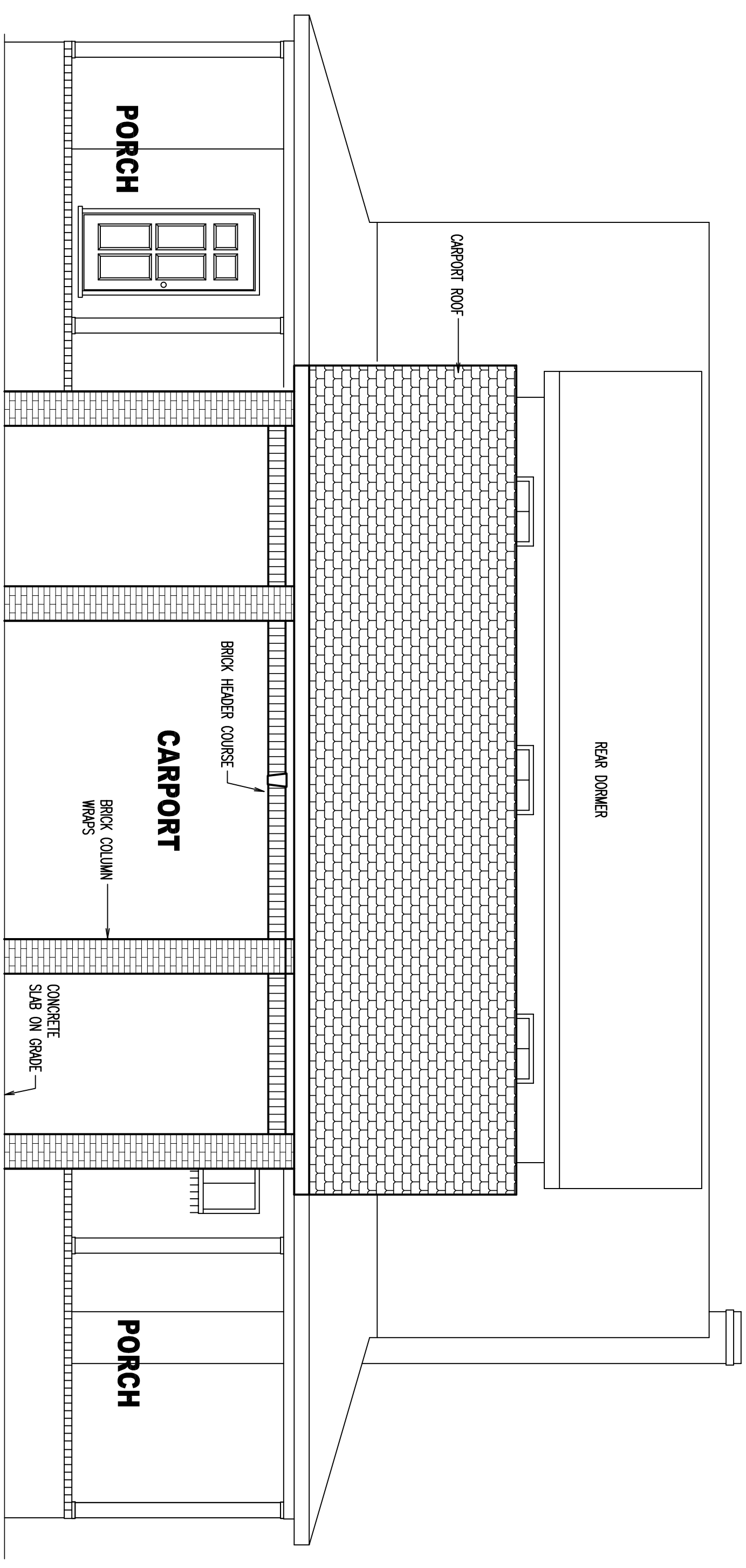
EL1

DATE: JANUARY 2019

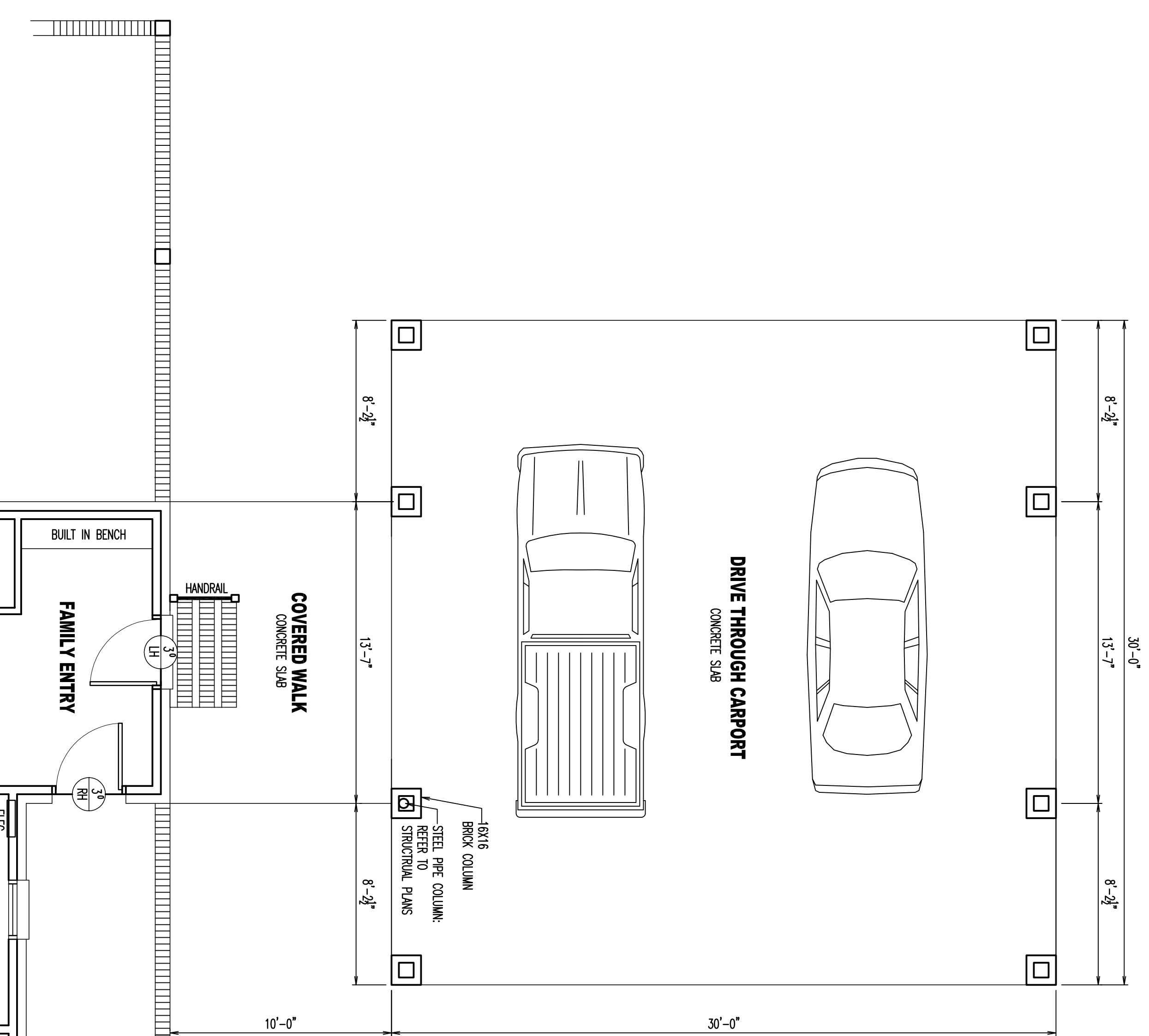
JOHNSON FAMILY RESIDENCE
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

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"

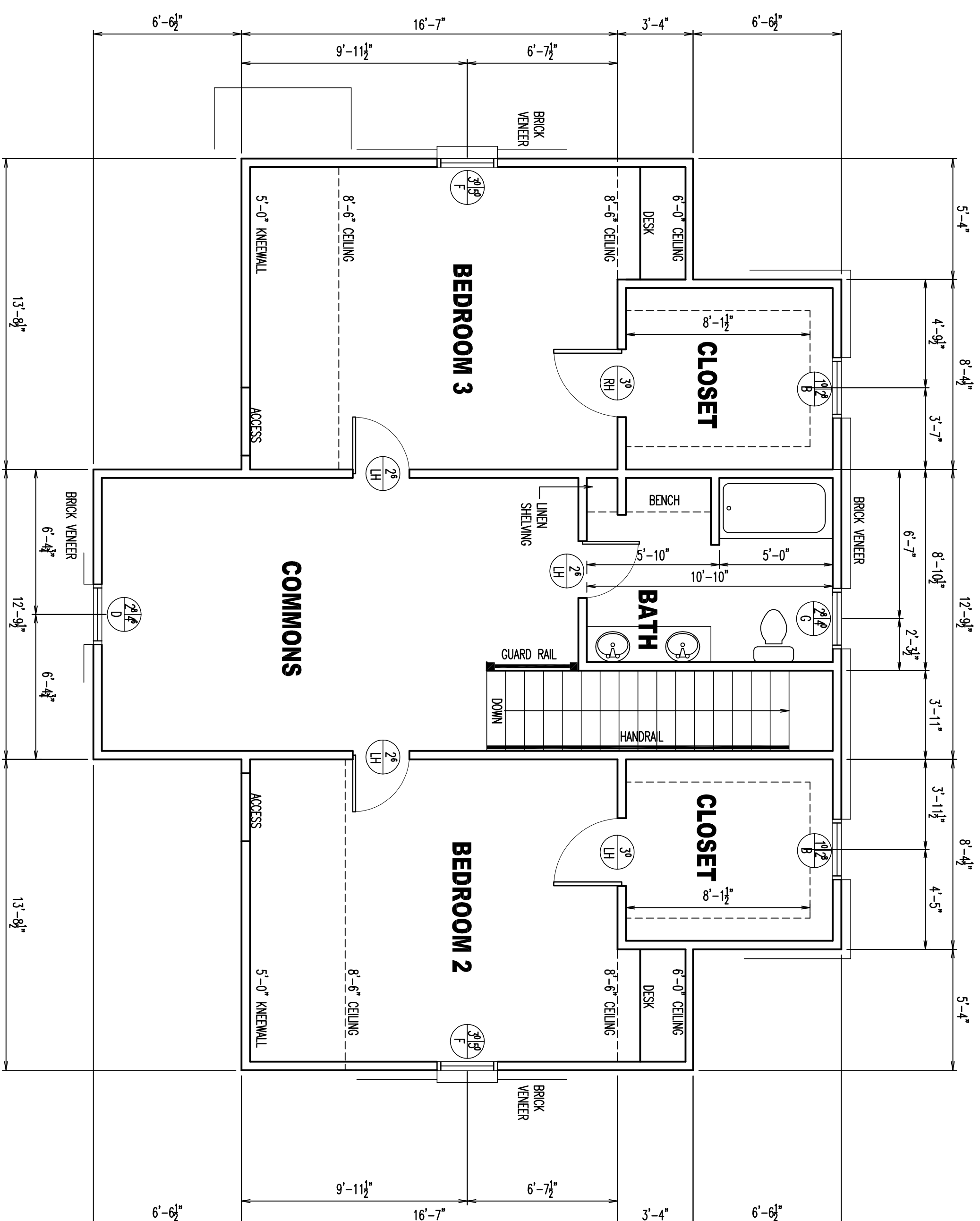
JOHNSON FAMILY RESIDENCE
RAWLS CHURCH ROAD, HARNETT COUNTY, N.C.

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

A4

PROJNO: CARPORT DIMENSIONAL PLAN, ELEVATION
DATE: JANUARY 2019
DESIGNER:



A3
01

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

A3

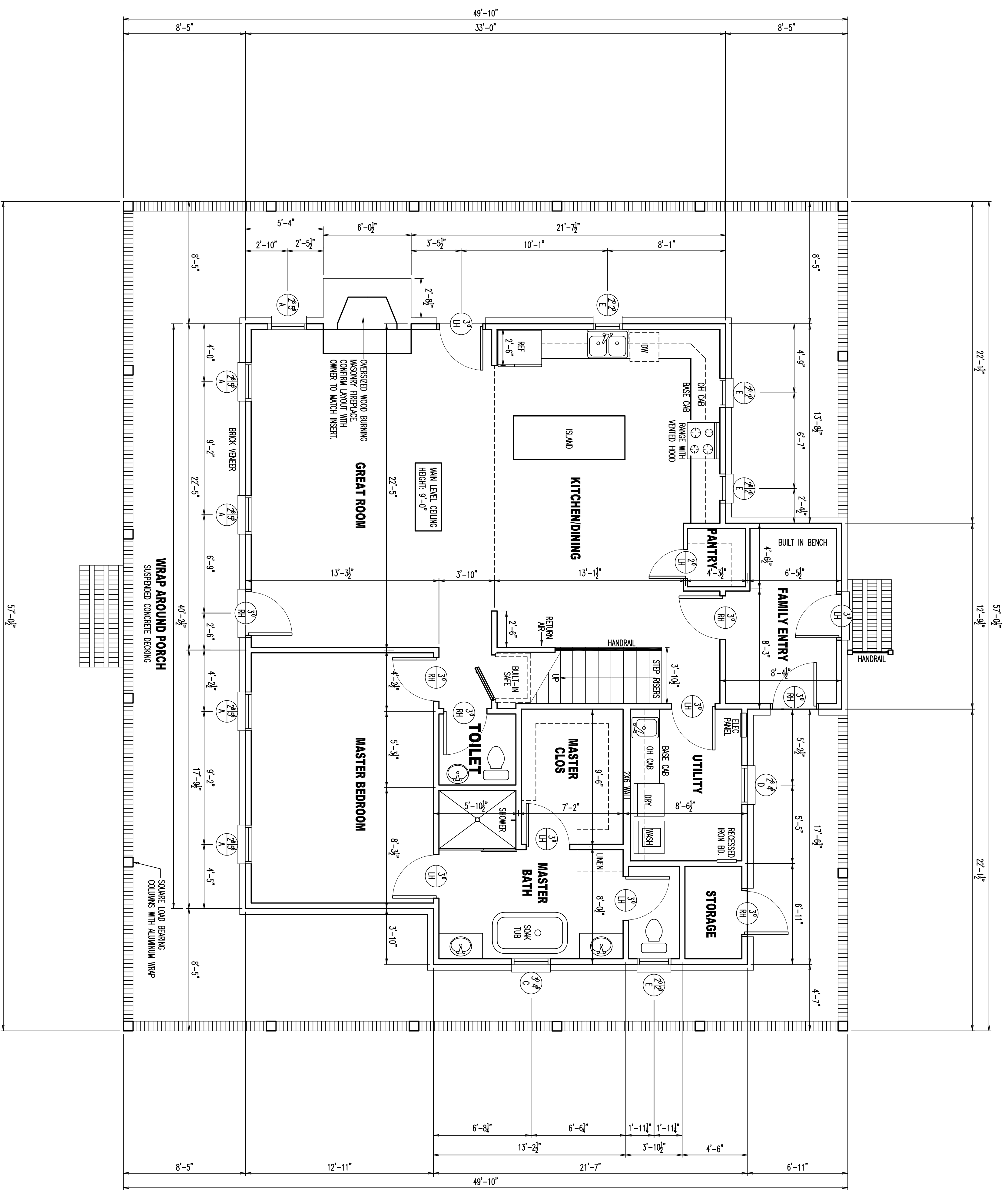
DATE: JANUARY 2019
 DRAWN BY: [REDACTED]
 CHECKED BY: [REDACTED]
 PROJECT: JOHNSON FAMILY RESIDENCE
 UPPER LEVEL DIMENSIONAL PLAN

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

[REDACTED]



A2
01

MAIN LEVEL DIMENSIONAL PLAN
1/4" = 1'-0"

A2

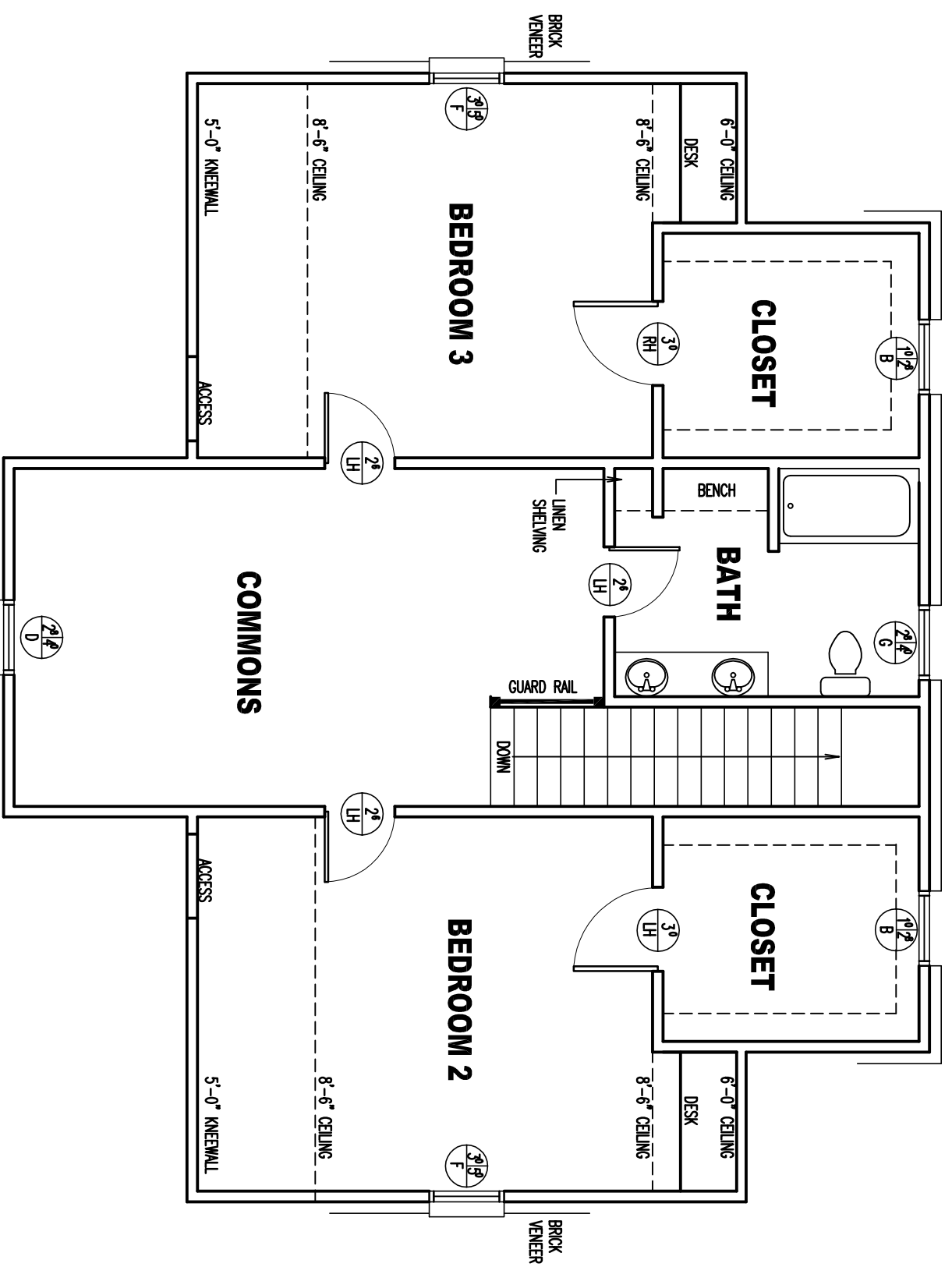
REVISIONS
DATE
DWG

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

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

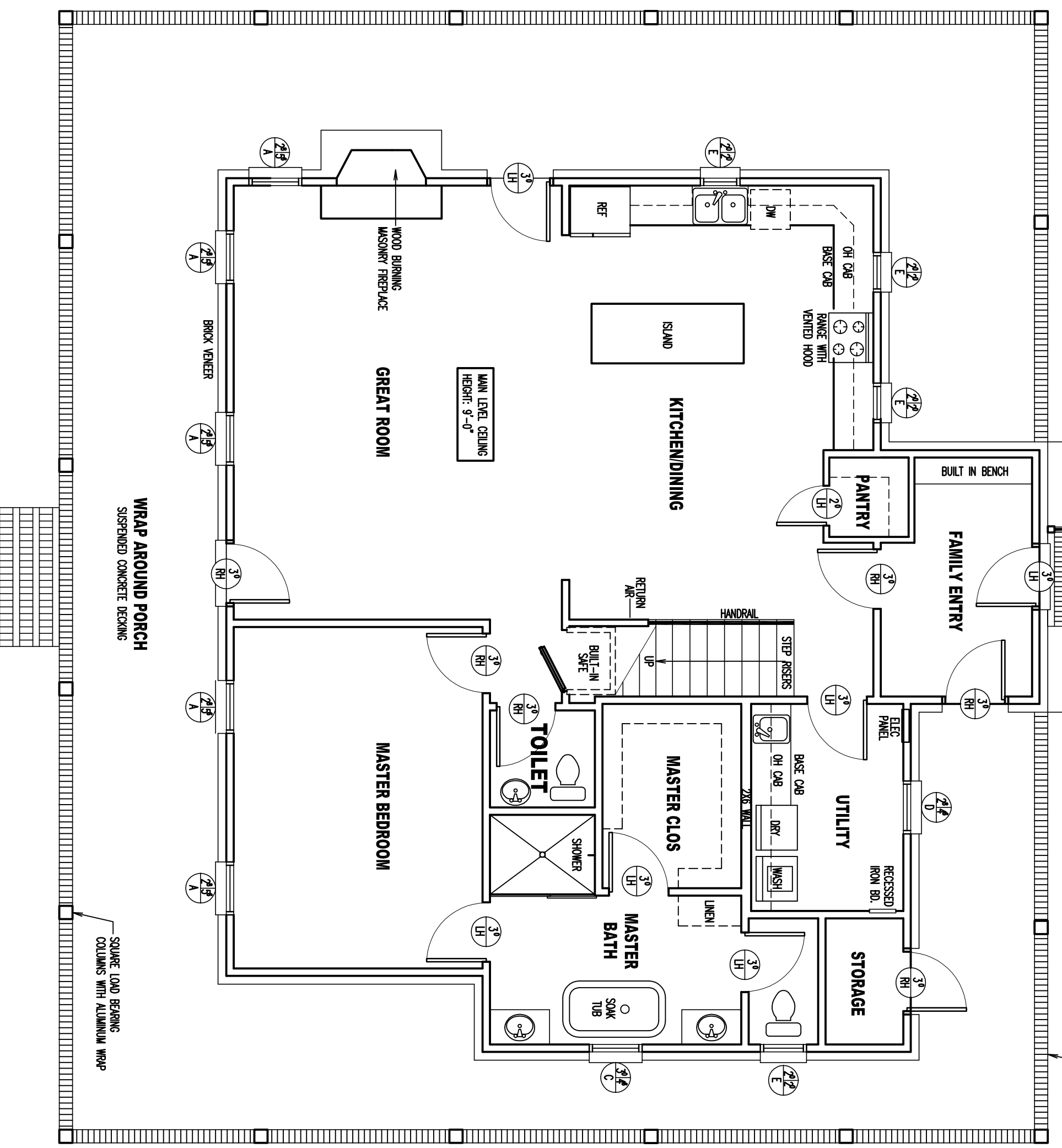
STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, LLC
2108 KARNS PLACE, RALEIGH N.C. 27614

A1
02
OVERALL UPPER LEVEL
3/16" = 1'-0"

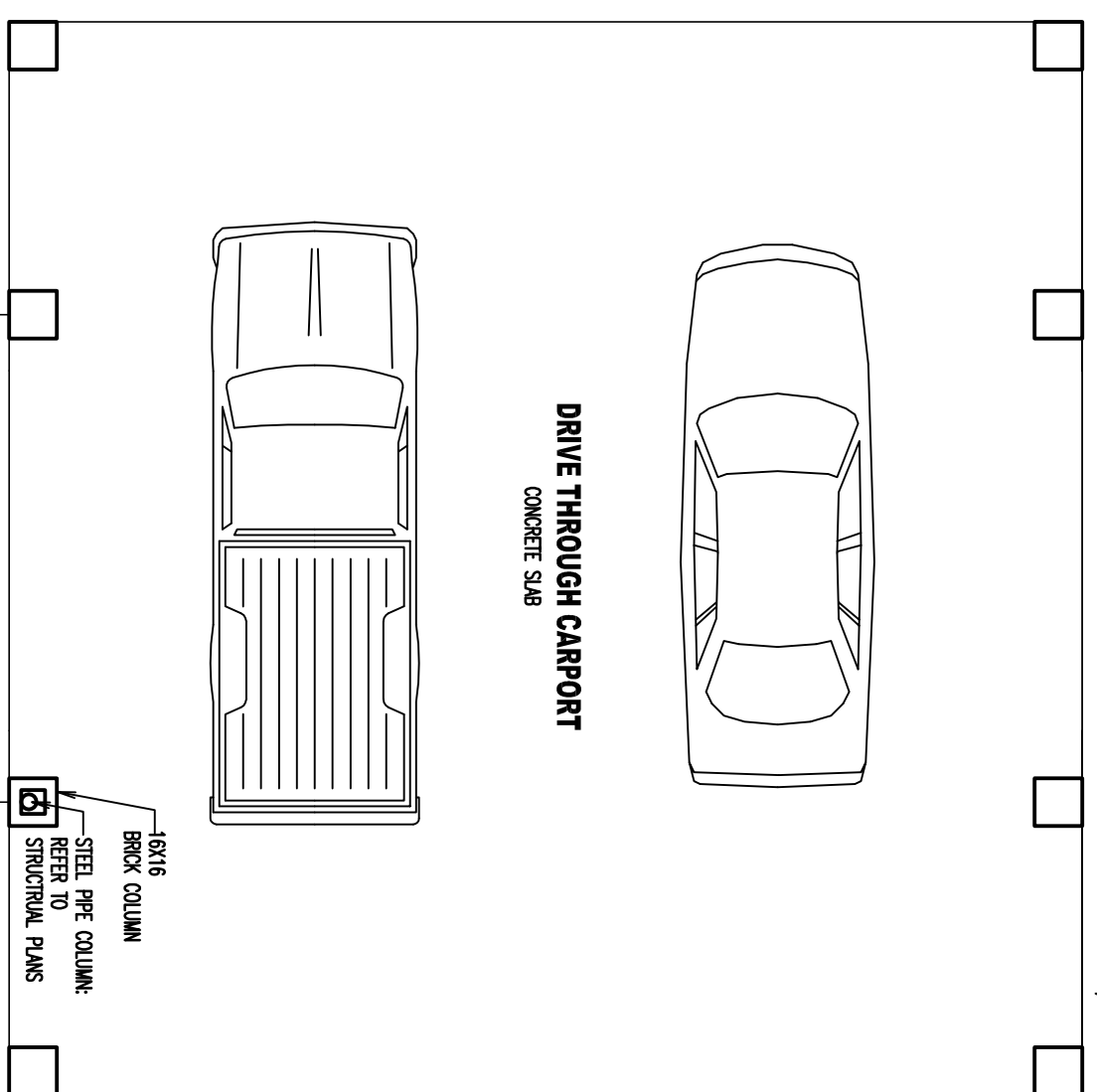


REFER TO A3 FOR UPPER LEVEL DIMENSIONAL PLAN

A1
01
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

PERSON: ARCHITECT
OVERALL FLOOR 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:
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:

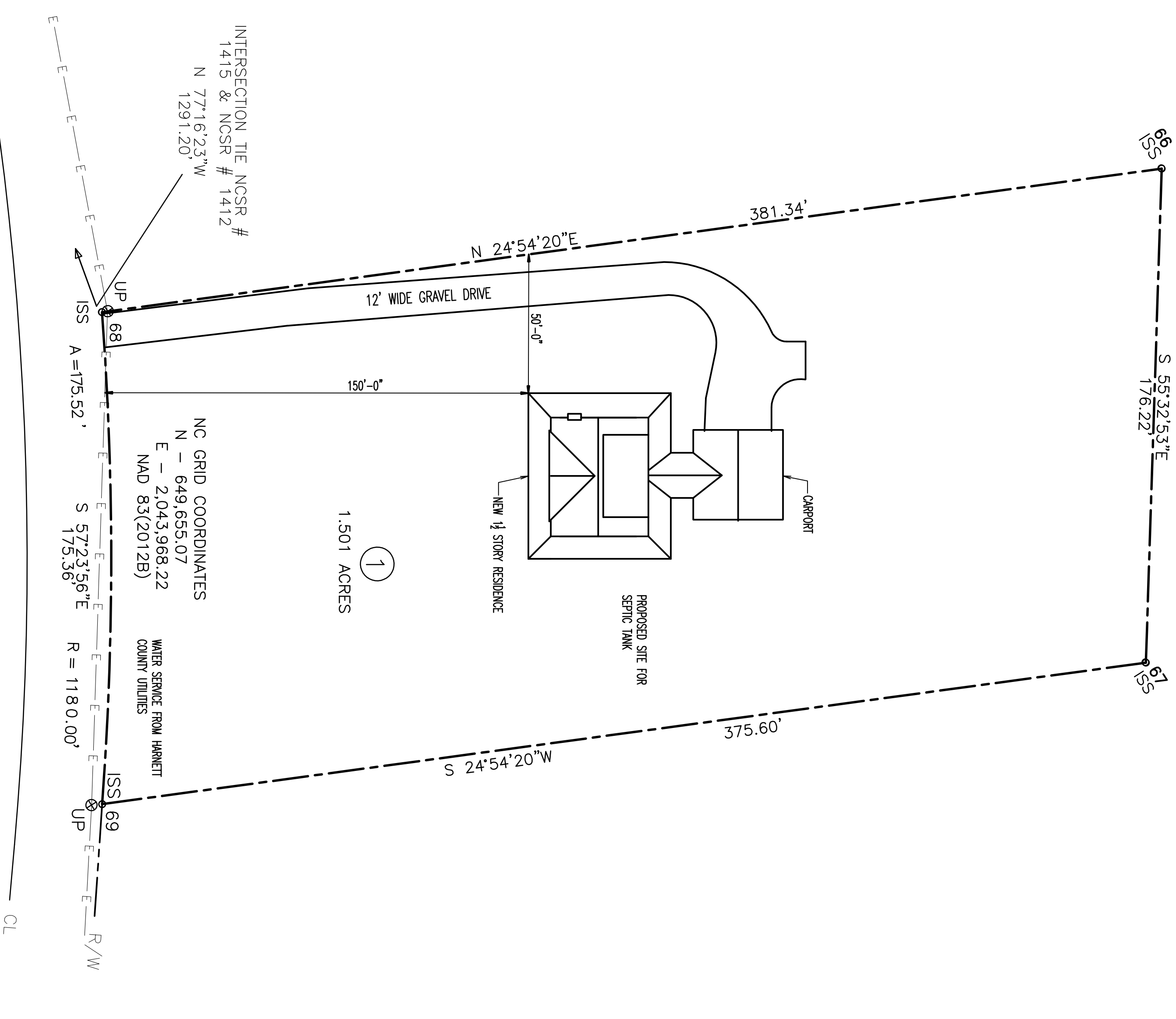
1. ACTUAL VENT QUANTITY MAY BE REDUCED IF CRAWL SPACE VAPOR BARRIER IS INSTALLED. VENTS MAY BE DELETED IF CRAWL SPACE IS ENCLOSED, INSULATED AND CONDITIONED.

WINDOW SCHEDULE

MARK	SIZE	DESCRIPTION	NOTES	WIDTH	HEIGHT
A	2'-8"W X 5'-6"H	DOUBLE HUNG	1.3.4.5	24"	5'-6"
B	2'-8"W X 1'-0"H	TRANSOM ONLY	1.4.5	8"	1'-0"
C	3'-0"W X 4'-6"H	DOUBLE HUNG	1.4.5	30"	4'-6"
D	2'-8"W X 4'-6"H	DOUBLE HUNG	1.4.5	24"	4'-6"
E	2'-0"W X 2'-0"H	SINGLE FIXED	1.4.5	20"	2'-0"
F	3'-0"W X 5'-0"H	DOUBLE HUNG	1.4.5	30"	5'-0"
G	2'-8"W X 4'-0"H	DOUBLE HUNG	1.4.5	24"	4'-0"

WINDOW SCHEDULE NOTES:

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

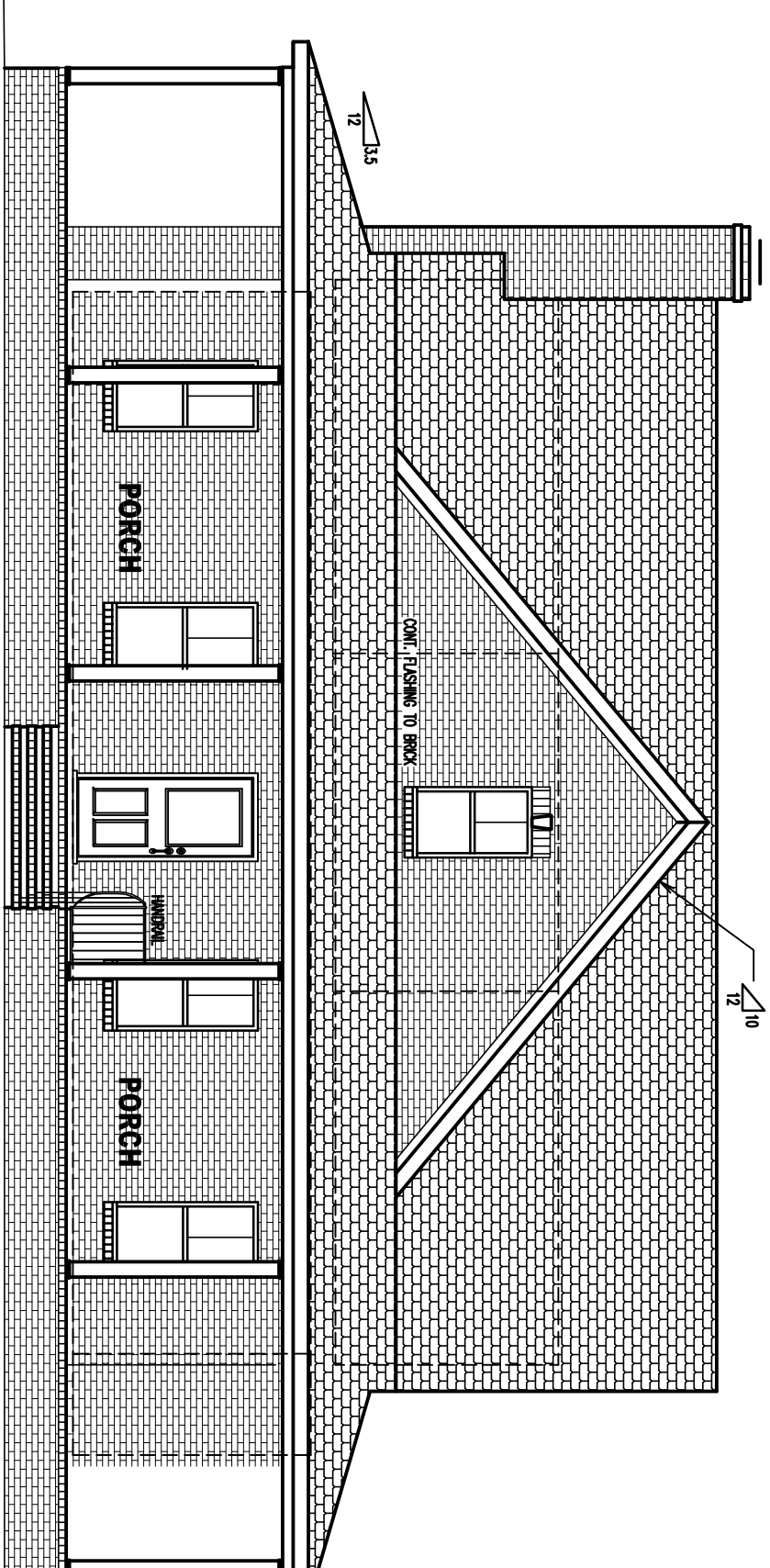


NCSR # 1415
RAWLS CHURCH ROAD
60' PUBLIC R/W

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"

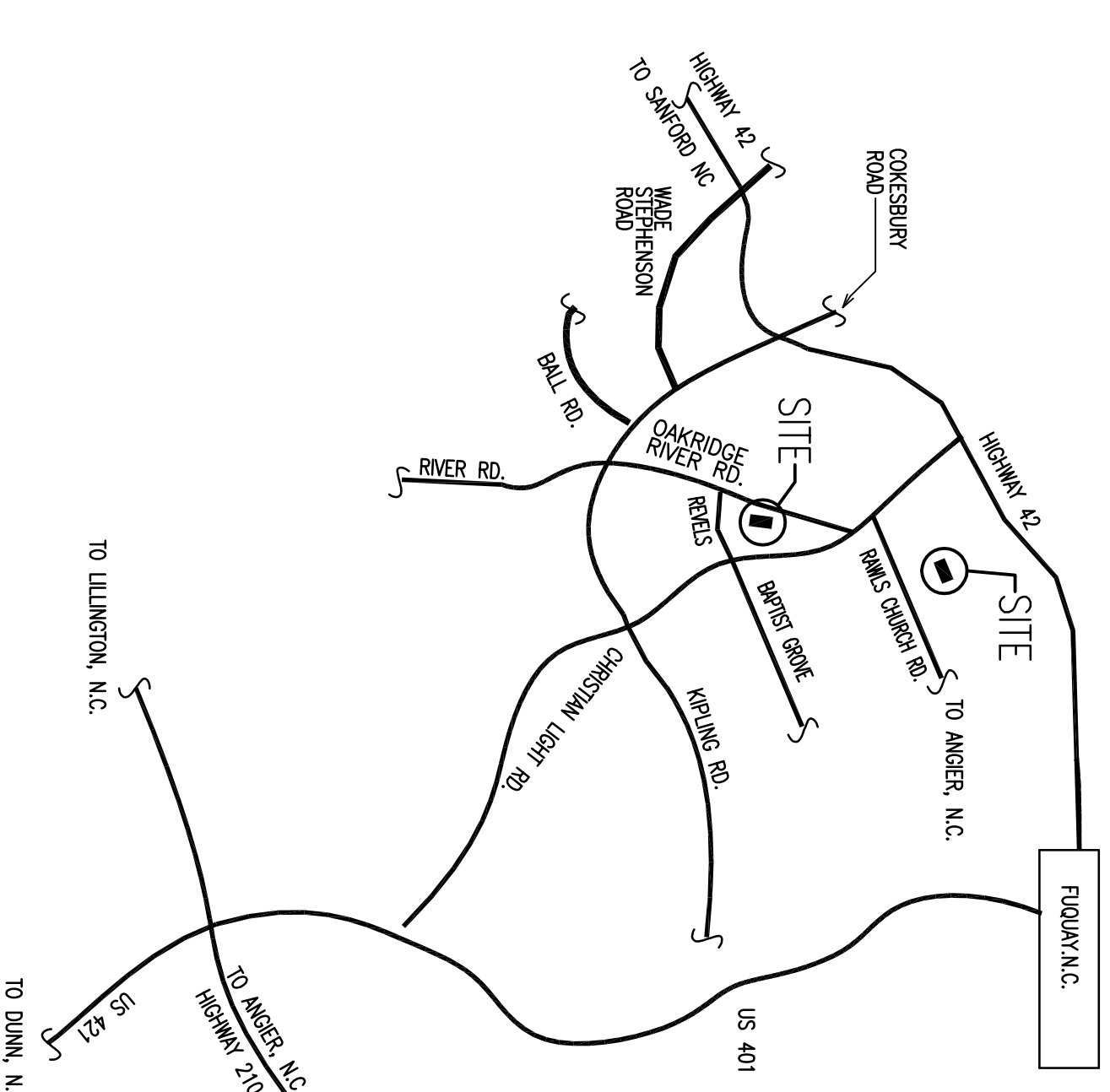


REFER TO ELEVATION SHEET FOR DETAILED FRONT VIEW

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	BRAING PLAN
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