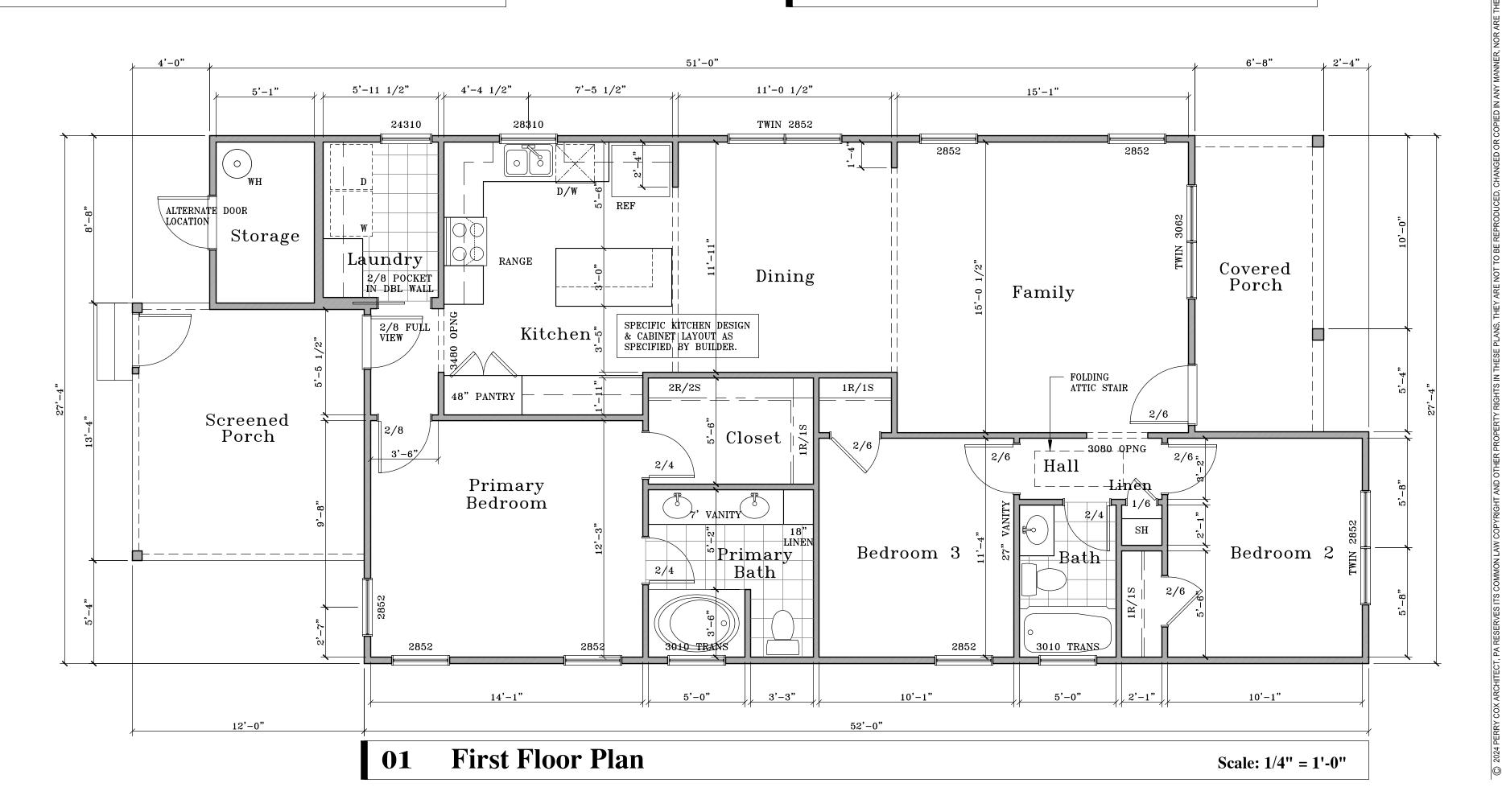


03 Rear Elevation

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

02 Front Elevation

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





Area	Data
1ST FLOOR	1,306
STORAGE	49
FRONT PORCH	102
BACK PORCH	157
TOTAL	1,614



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31 March 2024

A1







Champion Custom Homes, LLC

FOUNDATION STRUCTURAL NOTES: (115 MPH WIND ZONE)

- $\langle 1 \rangle$ (3) 2 x 10 SPF #2 GIRDER, TYPICAL UNO.
- CONCRETE BLOCK PIER SIZE SHALL BE:

 SIZE HALLOW MASONRY SOLID MASONRY

 8 x 16 UP TO 32" HIGH UP TO 5'-0" HIGH

 12 x 16 UP TO 48" HIGH UP TO 9'-0" HIGH

 16 x 16 UP TO 64" HIGH UP TO 12'-0" HIGH

 24 x 24 UP TO 96" HIGH

 WITH 30" TO 30" TO 10" CONCRETE FOOTING UNIO

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

 $\langle 3 \rangle$ WALL FOOTING AS FOLLOWS:

DEPTH: 8" - UP TO 2-1/2 STORY 10" - 3 STORY

WIDTH: SIDING (OR EQUAL)
- 16" - UP TO 2-1/2 STORY
- 18" - 3 STORY

BRICK VENEER
- 16" - 1 STORY
- 20" - 2 STORY
- 24" - 3 STORY

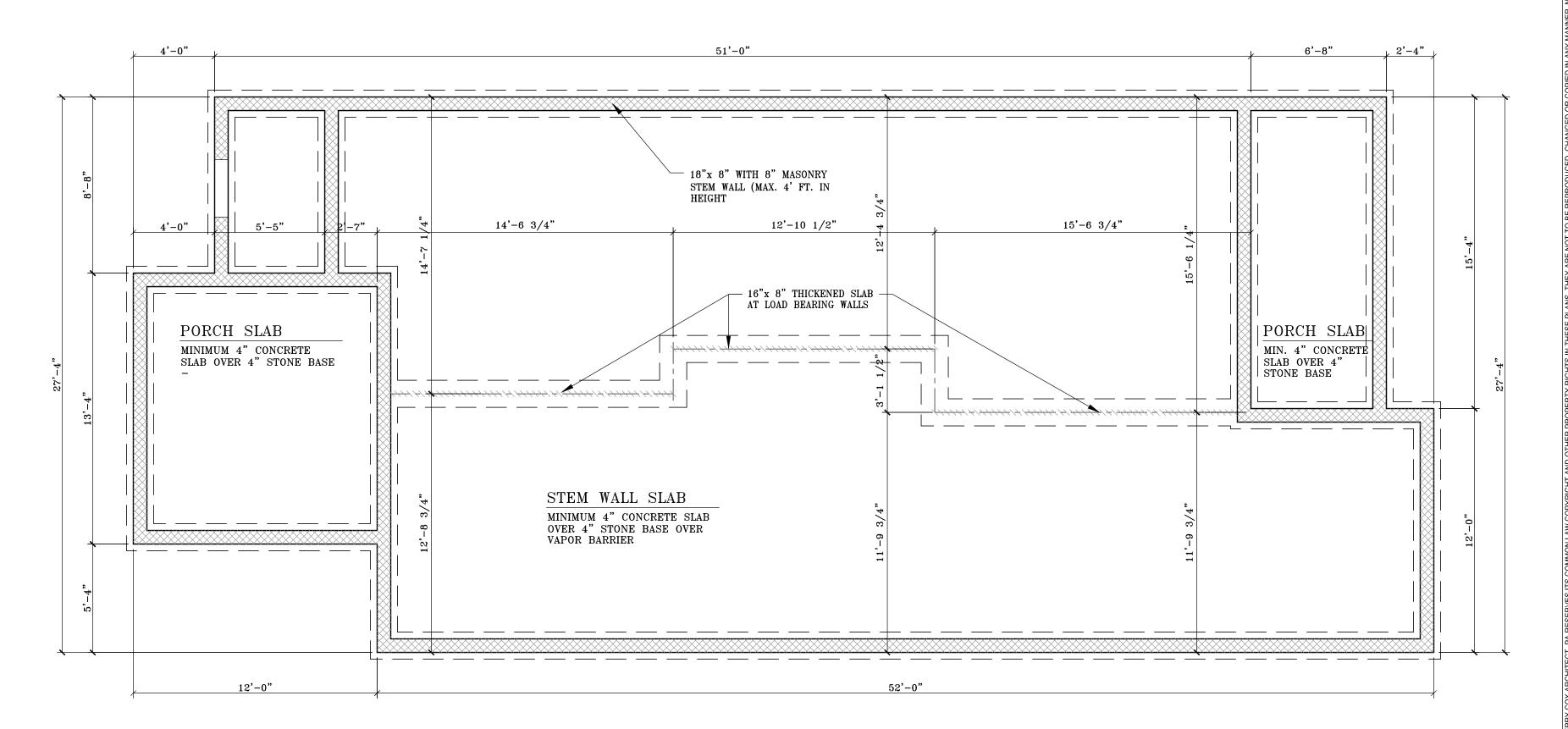
FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO NORTH CAROLINA RESIDENTIAL CODE TABLE R404.1.1 (1 THRU 4) NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.

ATTACH SILL PLATE WITH 1/2"dia. ANCHOR BOLTS AT 6'-0" CENTERS (7" EMBEDMENT) AND 12" FROM EACH PLATE END. (SECTION R 403.1.6)

- 4 "
 " 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.
- 5 ABBREVIATIONS:

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

 $\langle 6 \rangle$ (4) 2 x 10 SPF #2 GIRDER, TYPICAL UNO.



Foundation Plan



Atef Takla, PE
Structural Engineer

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Durham, NC 27712
P: 919.358.1758



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31 March 2024

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STRUCTURAL NOTES

- 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 AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
- 2) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE 2018 EDITION, 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.

)	DESIGN LOADS (R301.4)	LIVE LOAD	DEAD LOA	
		(PSF)	(PSF)	(LL)
	ROOMS (other than sleeping)	40	10	L/360
	SLEEPING ROOMS	30		L/360
	ATTIC WITH STORAGE	20	10	L/240
	ATTIC WITHOUT STORAGE	10	10	L/240
	STAIRS	40	10	L/240
	EXTERIOR BALCONIES	60	10	L/360
	DECKS	40	10	L/360
	GUARDRAILS & HANDRAILS	200		<u>-</u> _
	PASSENGER VEHICLE GARAGES	50	10	L/360
	FIRE ESCAPES	40	10	L/360
	SNOW	15		
	WIND LOAD	(BASED ON	115 MPH WIND '	VELOCITY)

4) FOR WALL BRACING REQUIREMENTS, REFER TO SECTION R602.10 OF THE NORTH CAROLINA STATE RESIDENTIAL CODE — 2018 EDITION

- 5) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO).
- 6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 1000 PSI) UNLESS NOTED OTHERWISE (UNO).
- 7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN, (2) STUDS FOR BEAM SPAN GREATER THAN 6'-0" (UNO). ALL BEARING HEADERS AND HEADERS OVER 6'-0" IN LENGTH SHALL BE (2) 2x10's (UNO).
- 8) L.V.L. SHALL BE LAMINATED VENEER LUMBER OR PARRALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING PROPERTIES: Fb = 2800 PSI, Fv = 285 PSI, E = 1,900,000 PSI.

 INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- 8) 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. .
- 9) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THHREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED TOP AND AT BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
- 10)BRICK LINTELS 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 GREATER THAN 6'-0" (UNO).

Header Schedule

- ALL HEADERS IN EXTERIOR WALLS ARE (2) 2x10, UNLESS NOTED OTHERWISE
- ALL HEADERS IN INTERIOR LOAD BEARING WALLS ARE (2) 2x10, U.N.O.
- HEADERS FOR INTERIOR NON-LOAD BEARING WALLS ARE AS LISTED BELOW, U.N.O.:

DELOW, C.N.C
SIZE
(2) 2x4
(2) 2x6
(2) 2x8
(2) 2x10

NOTE: NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET.

NOTES:

ALL FRAMING MEMBERS (JOISTS, GIRDERS AND HEADERS) ARE # 2 S.P.F. UNLESS NOTED

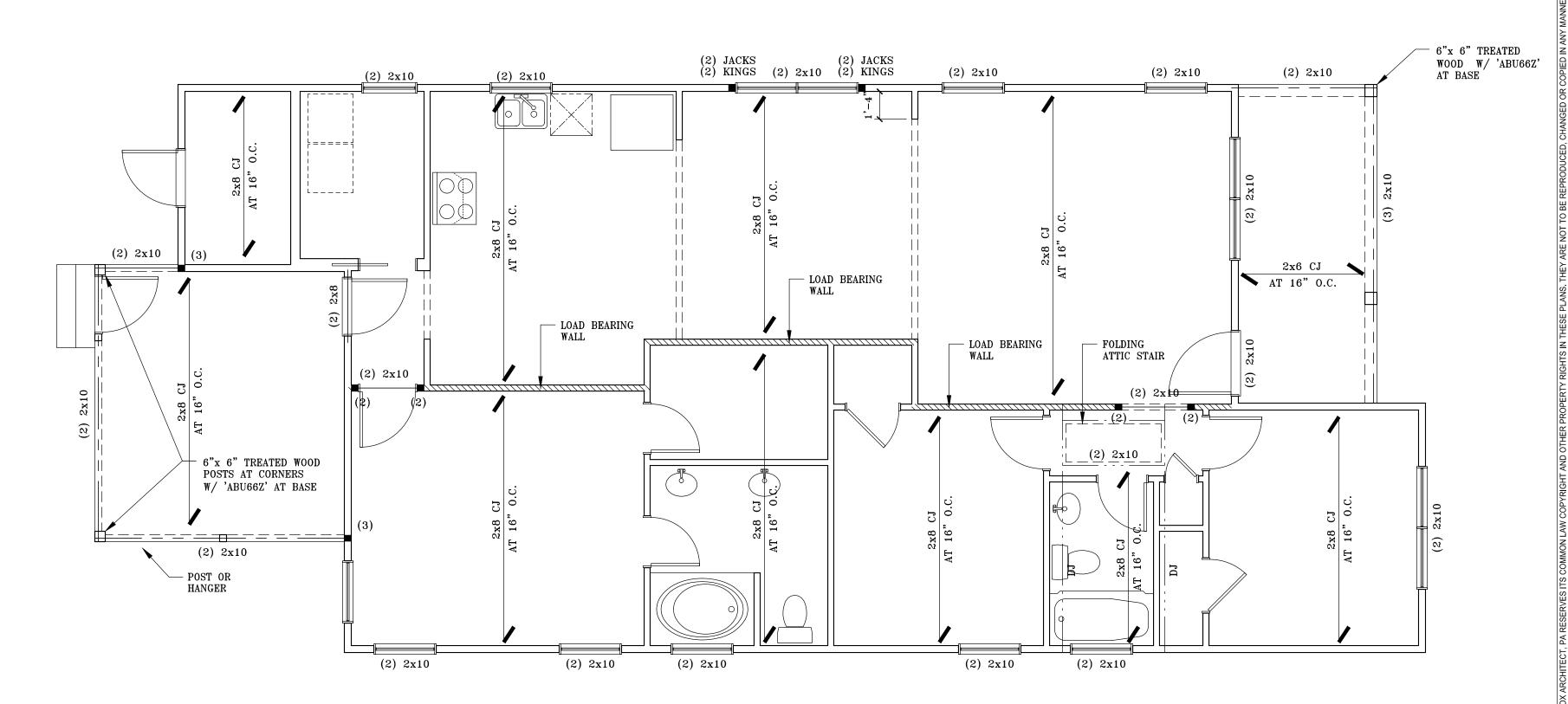
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FOOTING SIZES BASED ON 2,000 psf ALLOWABLE SOIL BEARING PRESSURE.

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Champion Custom Homes, LLC

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-31 March 2024

S2

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HALLS AND AS LISTED	DELON, C.N.C
SPAN	SIZE
Less than 3'-0"	(2) 2x4
3'-0" to 4'-0"	(2) 2x6
4'-0" to 5'-0"	(2) 2x8
5'-0" to 8'-0"	(2) 2x10

NOTE: NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET.

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