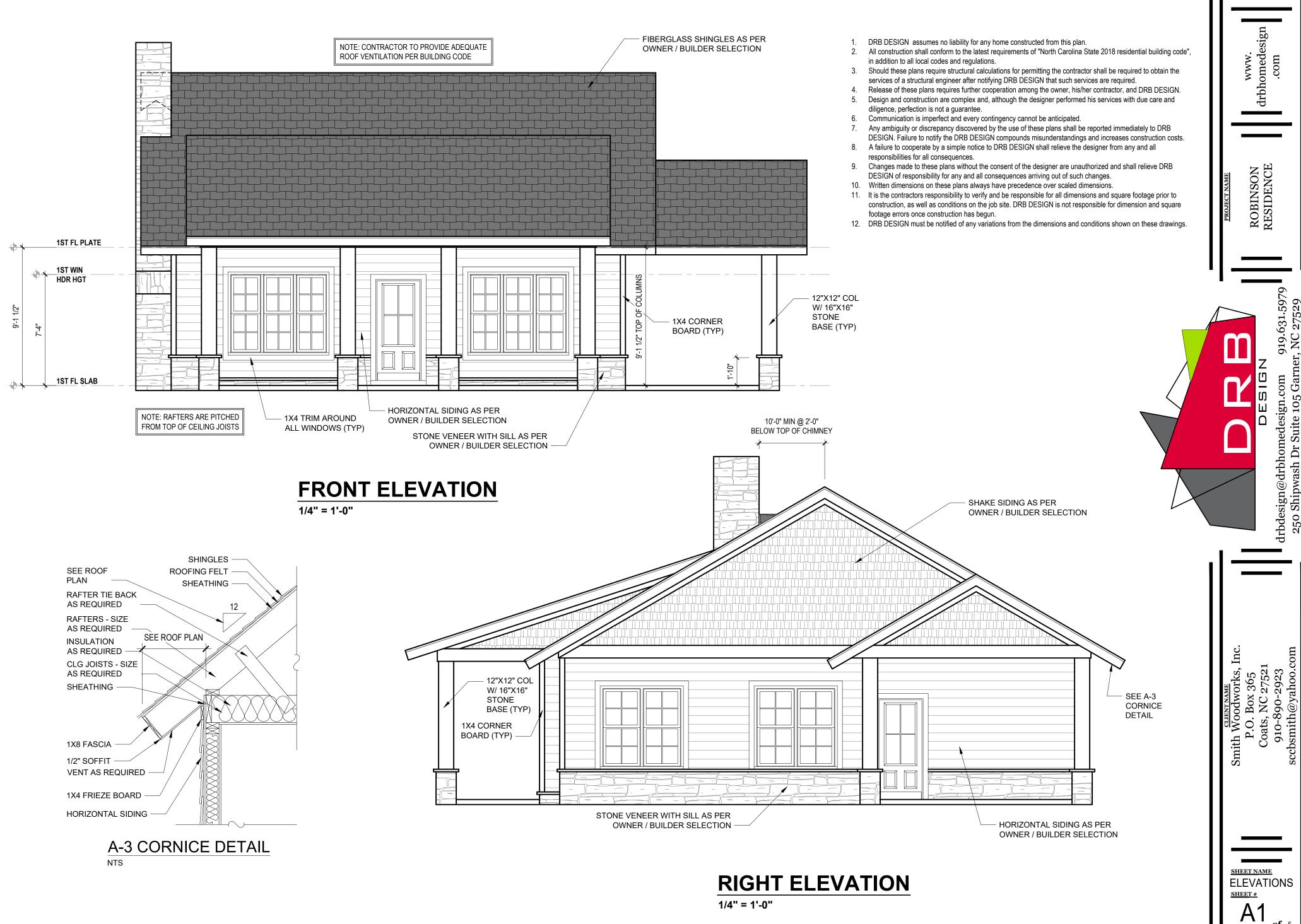
ROBINSON RESIDENCE



DRB2201-0015 03/21/2022 DESIGNED BY CHECKED BY SCALE

ROBINSON RESIDENCE

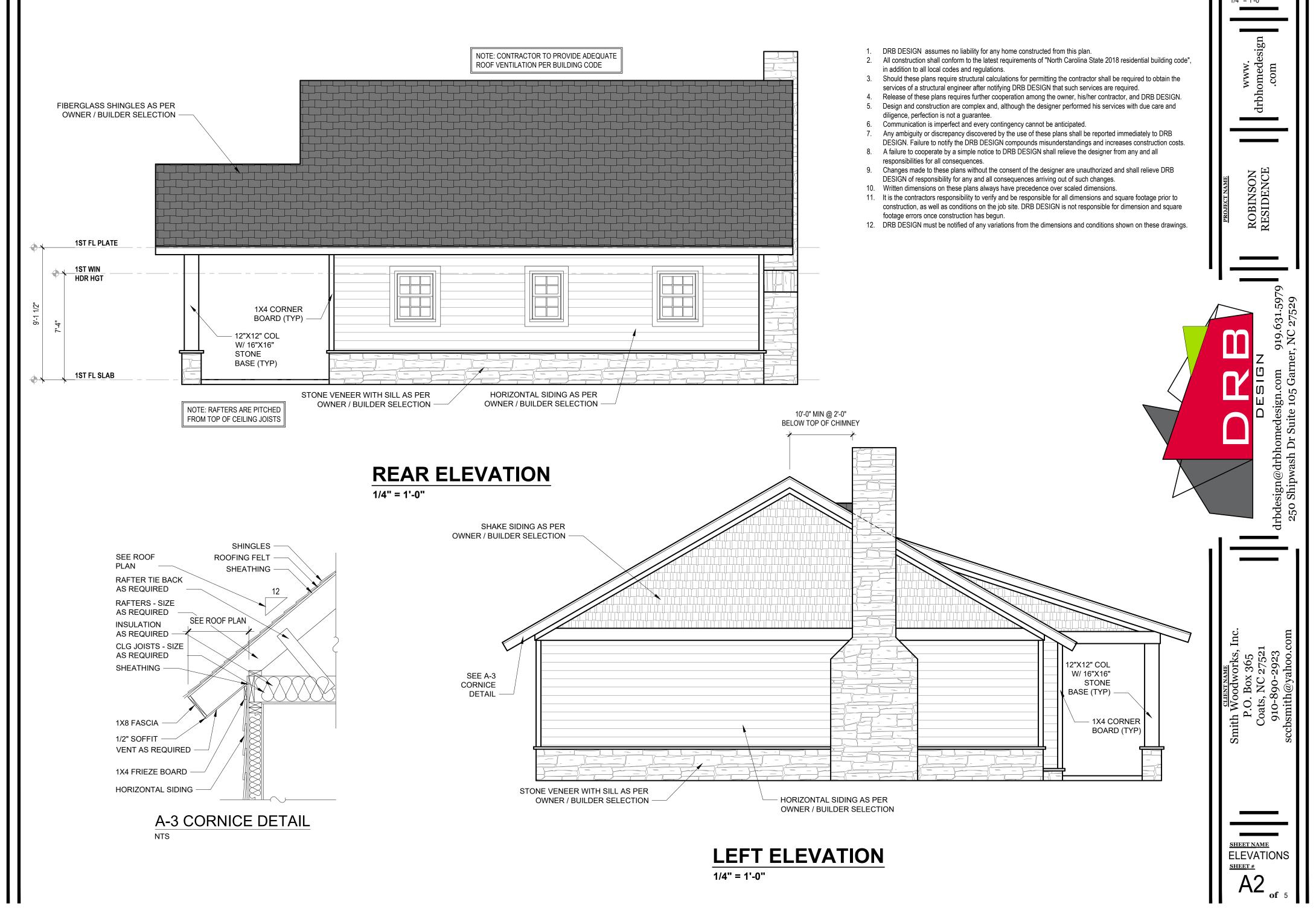
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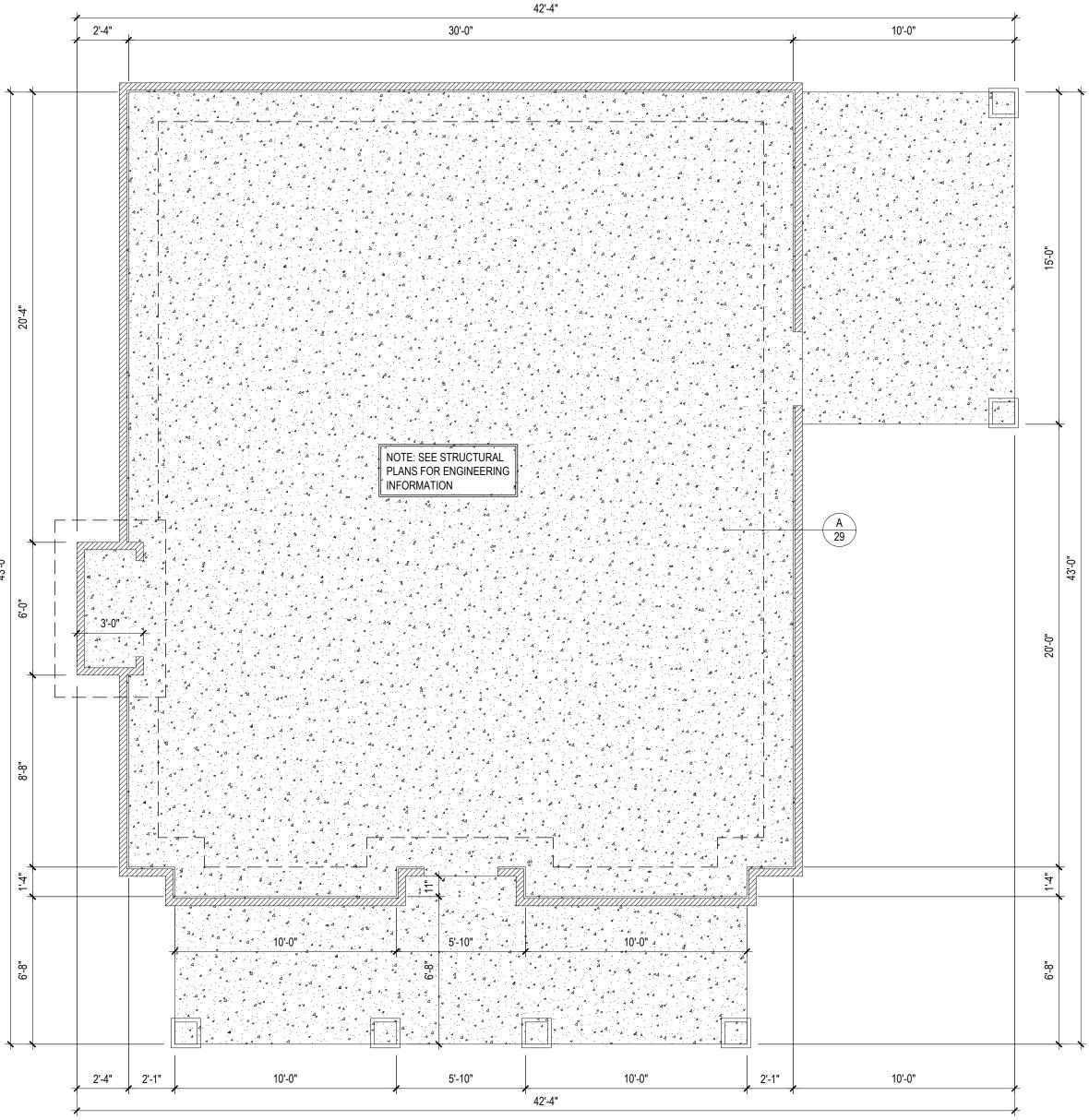
03/21/2022

DESIGNED BY

CHECKED BY

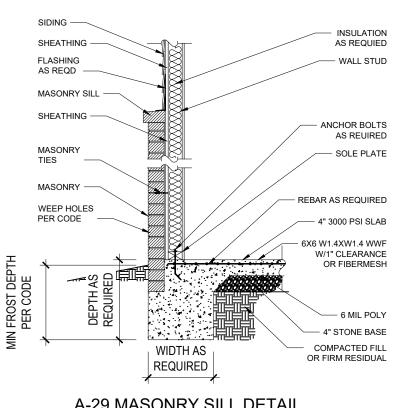
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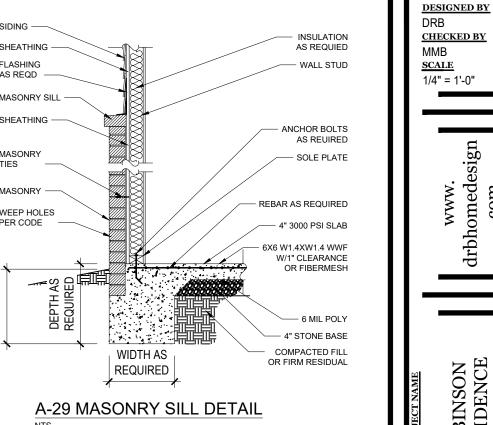


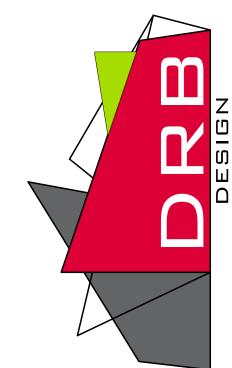


FOUNDATION PLAN

1/4" = 1'-0" MONOLITHIC SLAB







DRB2201-0015

03/21/2022

1. DRB DESIGN assumes no liability for any home constructed from this plan.

2. All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.

3. Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.

4. Release of these plans requires further cooperation among the owner, his/her contractor, and DRB DESIGN. 5. Design and construction are complex and, although the designer performed his services with due care and

diligence, perfection is not a guarantee.

6. Communication is imperfect and every contingency cannot be anticipated. 7. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to DRB DESIGN. Failure to notify the DRB DESIGN compounds misunderstandings and increases construction costs.

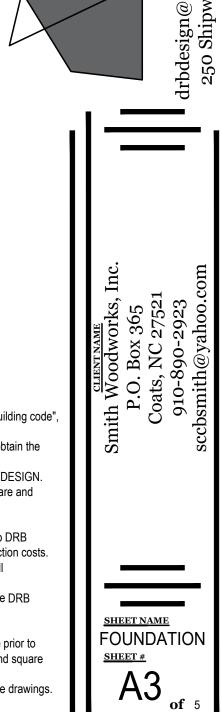
8. A failure to cooperate by a simple notice to DRB DESIGN shall relieve the designer from any and all responsibilities for all consequences.

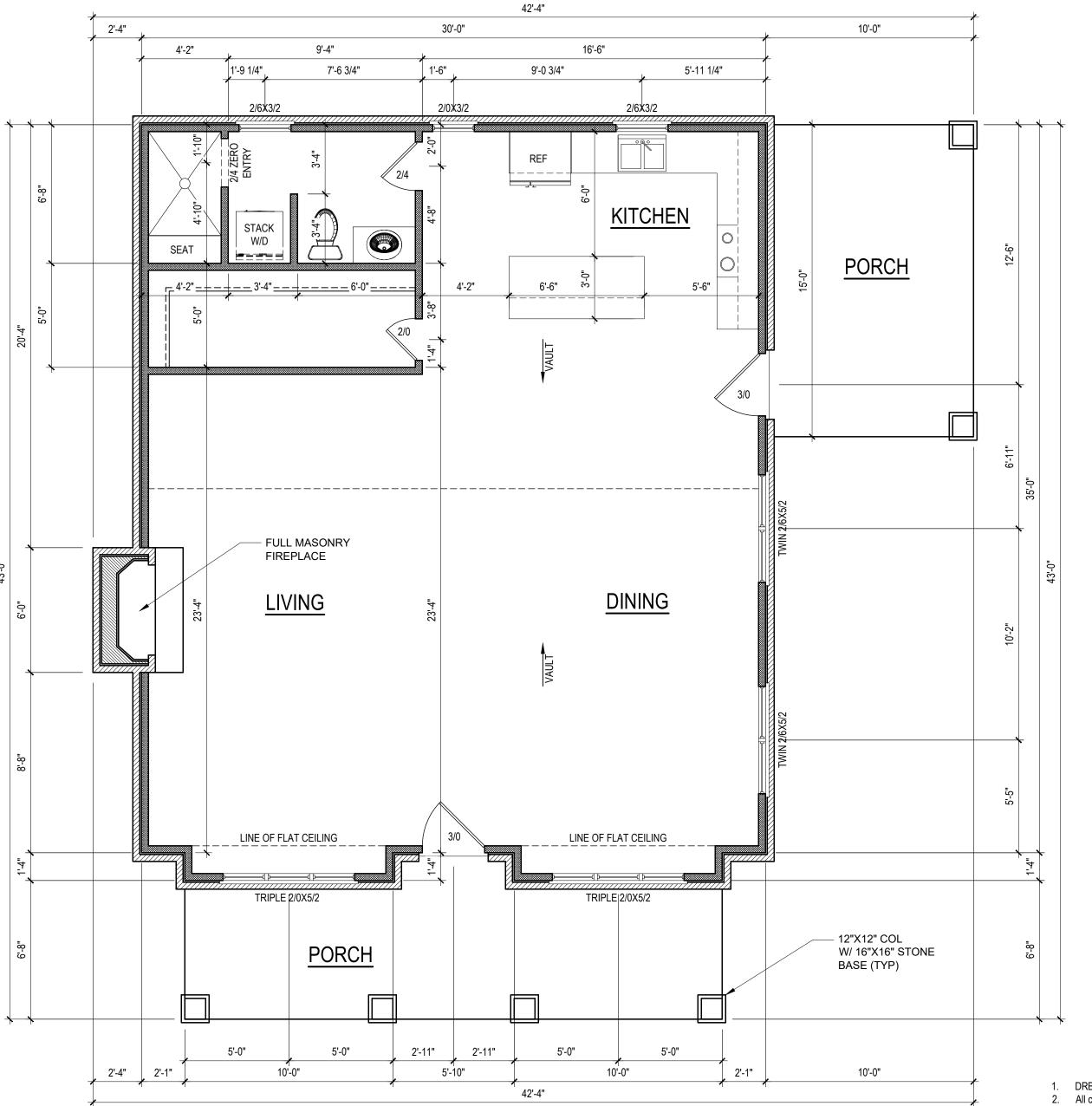
9. Changes made to these plans without the consent of the designer are unauthorized and shall relieve DRB DESIGN of responsibility for any and all consequences arriving out of such changes.

10. Written dimensions on these plans always have precedence over scaled dimensions.

11. It is the contractors responsibility to verify and be responsible for all dimensions and square footage prior to construction, as well as conditions on the job site. DRB DESIGN is not responsible for dimension and square footage errors once construction has begun.

12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.





FIRST FLOOR PLAN

1/4" = 1'-0" CEILING HGT. = 9'-0" UNO

HEATED SQUARE FOOTAGE First Floor TOTAL HEATED UNHTD SQUARE FOOTAGE Front Porch Side Porch TOTAL UNHEATED TOTAL SQ FT

1077 150 330 <u>1407</u>

NOTE: VERIFY WINDOW SILL HEIGHT CLEARANCE ABOVE TUBS AND COUNTERTOPS TO ALLOW FOR TRIM AND/OR BACKSPLASH

NOTE: **ALL EXTERIOR WALLS** ARE NOMINAL 4" UNO

NOTE: **ALL INTERIOR WALLS** ARE NOMINAL 4" UNO

NOTE: ALL DIMENSIONS ARE FRAME TO FRAME

1. DRB DESIGN assumes no liability for any home constructed from this plan.

- All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.
- 3. Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.
- 4. Release of these plans requires further cooperation among the owner, his/her contractor, and DRB DESIGN.
- 5. Design and construction are complex and, although the designer performed his services with due care and diligence, perfection is not a guarantee.
- Communication is imperfect and every contingency cannot be anticipated.
- 7. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to DRB DESIGN. Failure to notify the DRB DESIGN compounds misunderstandings and increases construction costs.
- 8. A failure to cooperate by a simple notice to DRB DESIGN shall relieve the designer from any and all responsibilities for all consequences.
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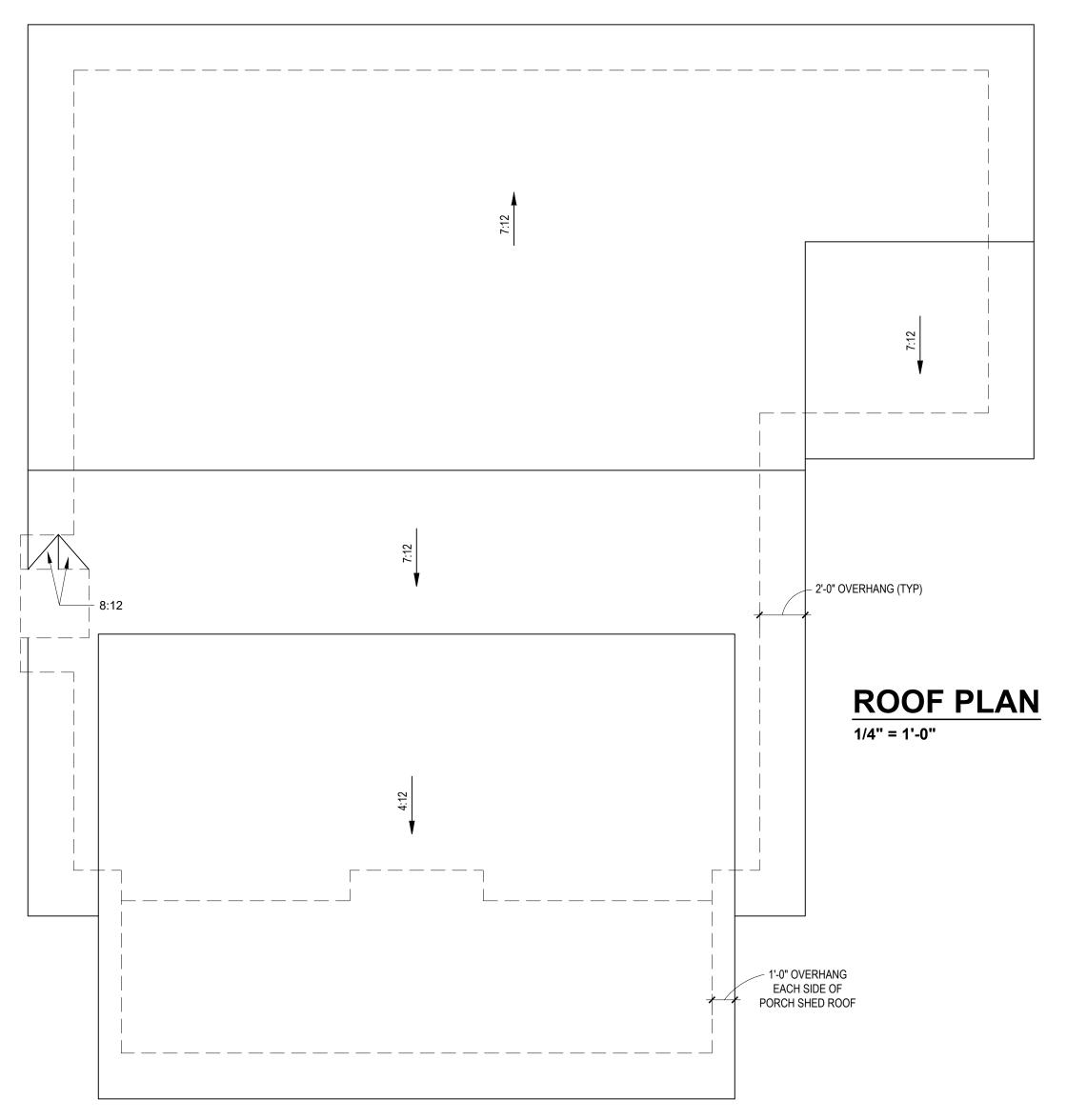
DRB2201-0015

03/21/2022 DESIGNED BY

CHECKED BY

1ST_FLOOR

SHEET #





1. DRB DESIGN assumes no liability for any home constructed from this plan.

2. All construction shall conform to the latest requirements of "North Carolina State 2018 residential building code", in addition to all local codes and regulations.

Should these plans require structural calculations for permitting the contractor shall be required to obtain the services of a structural engineer after notifying DRB DESIGN that such services are required.

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12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.

Smith Woodworks, John Box 365

Coats, NC 27521

910-890-2923

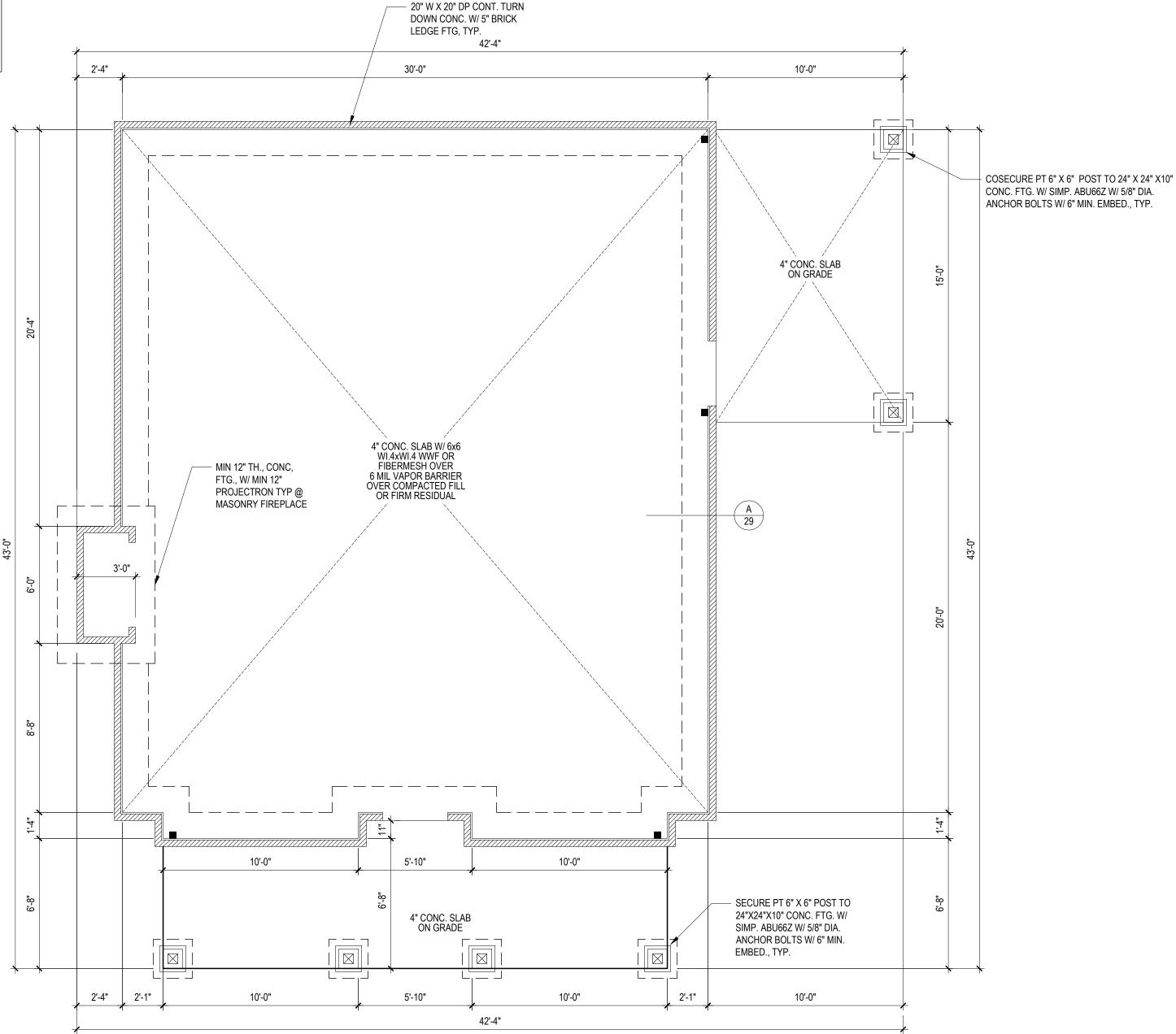
SHEET #

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION		
	, ,	, ,	LL	TL	
FLOOR (primary)	40	10	L/360	L/240	
FLOOR (secondary)	40	10	L/360	L/240	
ATTIC (w/ storage)	20	10	L/240	L/180	
ATTIC (no access)	10	5	L/240	L/180	
EXTERNAL BALCONY	40	10	L/360	L/240	
ROOF	20	10	L/240	L/180	
ROOF TRUSS	20	20	L/240	L/180	
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)				
SEISMIC	BASED ON SEISMIC ZONES A, B & C				

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- ALL LUMBER SHALL BE SYP #2 (UNO) ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600
- (I.E. iLEVEL MICROLAM)
- ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
 ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1)
- ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
- REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
- ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
- Fy = 50 KSI MIN. (UNO) ALL EXTERIOR LUMBER TO BE #2 SYP PT
- ALL CONCRETE, fc = 3000 PSI MIN.
- PRESUMPTIVE BEARING CAPACITY = 2000 PSF
- 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT
- SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
 PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
- PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC.
- MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST
- UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE
- 17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

STRUCTURAL SHEATHING NOTES

- 1) DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- 2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- (1) REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- 4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
- $\begin{tabular}{ll} \hline 2 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). \\ \hline \end{tabular}$ SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS
- $\fbox{3} \ \ \text{3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON } \\ \text{NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT} \\$ INTERMEDIATE SUPPORTS
- 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT. - 48" FOR OPENINGS GREATER THAN 85% OF
- WALL HEIGHT 4 SHEATH INTERIOR & EXTERIOR
- 8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.
- 5 MINIMUM 800# HOLD-DOWN DEVICE



FOUNDATION PLAN

1/4" = 1'-0" **MONOLITHIC SLAB** * Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.

* Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.

* Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction. emed acceptable once construction





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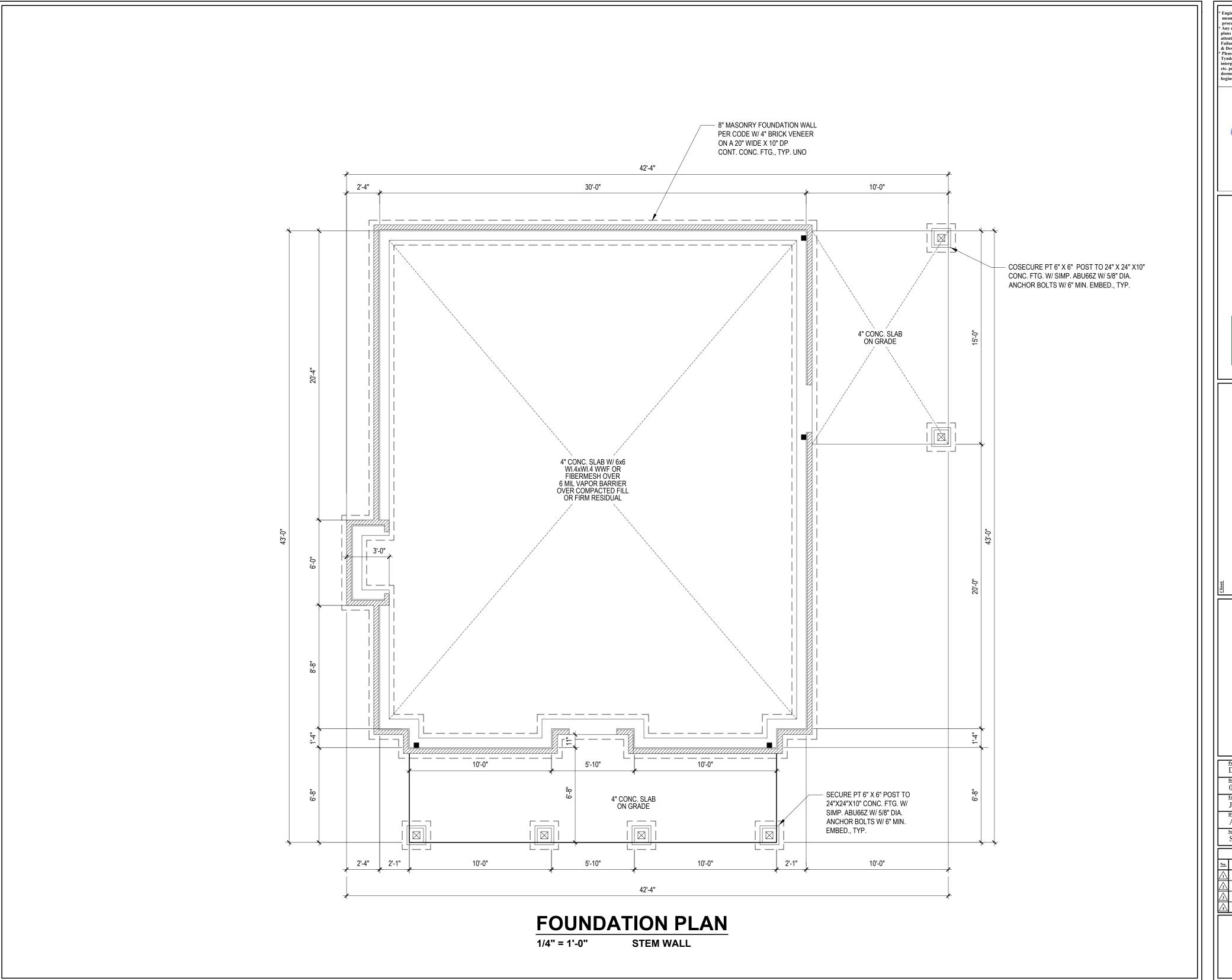
DRB2201-0015 09/21/2022 JΑ DWG. Checked By: AWL

REVISIONS Date:

SEE PLAN

Sheet Number

S1



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TYNDALL
ENGINEERING & DESIGN, P.A.



FDN. STEM

Project #:
DRB2201-0015
DRB2201-0013
Date:
09/21/2022
07/21/2022
Engineered By:
Engineered Dyr
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DWG. Checked By:
AWL SEE PLAN

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S1

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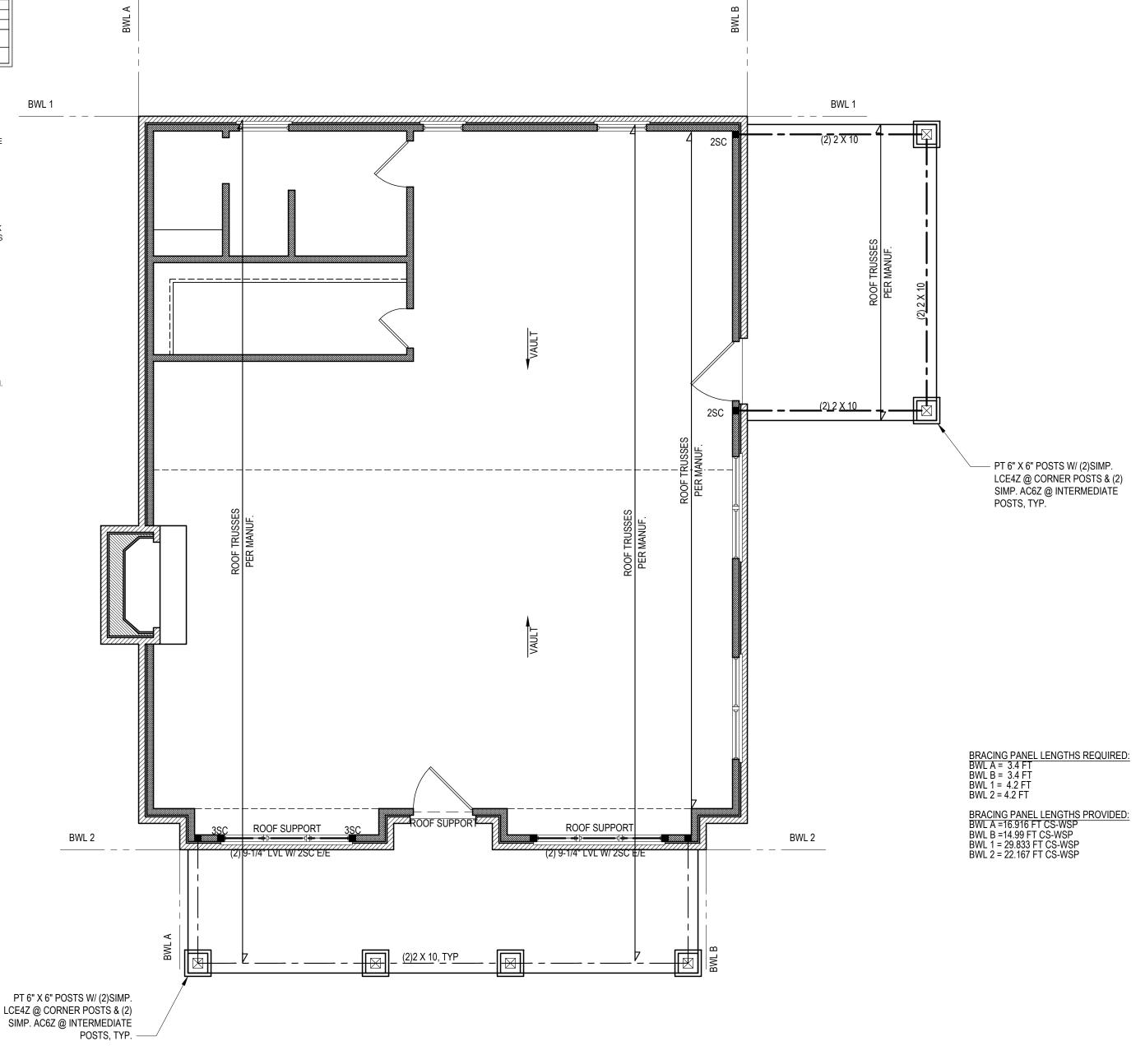
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- PSI, E = 1.9M PSI (I.E. iLEVEL MICROLAM)
- ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
- ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
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- ALL CONCRETE, fc = 3000 PSI MIN.
- PRESUMPTIVE BEARING CAPACITY = 2000 PSF
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- PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
- PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS (U.N.O.)
- PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC. MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST
- HORIZONTAL DIMENSION.
- UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- 17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

STRUCTURAL SHEATHING NOTES

- 1) DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR
- 2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- (1) REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- 4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
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- $\begin{tabular}{ll} \hline 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT 2/40 AND 12" O.C. AT 2/40 AND 12" O.C. AT 2/40 AND 12" O.C. AT 4/40 AND 12" O.C. AT $4$$
- 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
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- 4 SHEATH INTERIOR & EXTERIOR

WALL HEIGHT

- FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR
- (5) MINIMUM 800# HOLD-DOWN DEVICE



FIRST FLOOR PLAN

1/4" = 1'-0" CEILING HGT. = 9'-0" UNO

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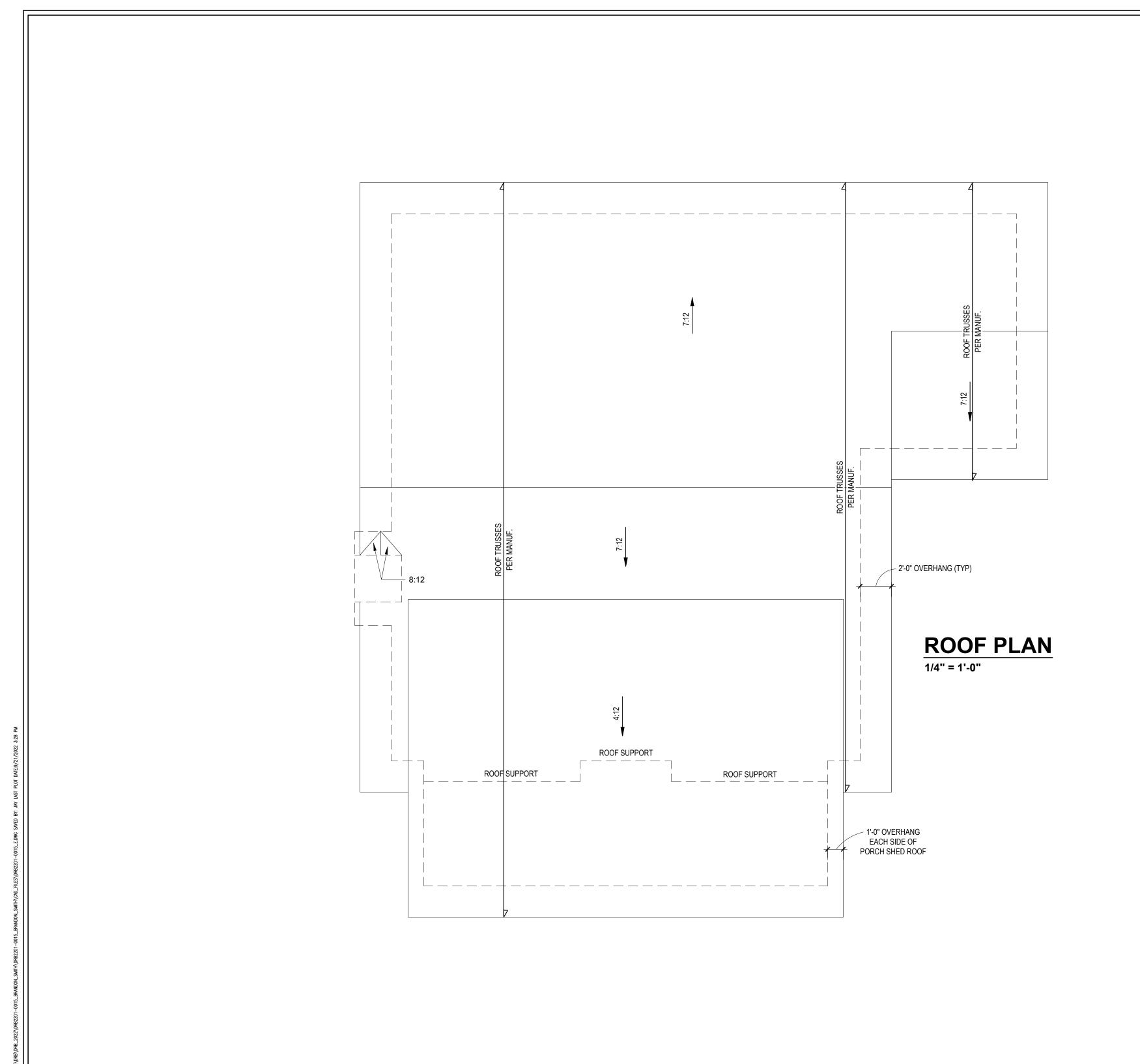
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SEE PLAN

REVISIONS Date: Remarks

Sheet Number



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ENGINEERING & DESIGN, P.A.

1 919 778-1200 = # 919 778-9658

Drive = Gerner = North Caroline = 27529



ROBINSON RESIDENCE

ROOF PLAN

Project #:
DRB2201-0015

Date:
09/21/2022

Engineered By:

JA

DWG. Checked By:

AWL

SEE PLAN

REVISIONS						
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Sheet Number

S3

STRUCTURAL NOTES

ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION		
	(- /	(- /	LL	TL	
ALL FLOORS	40	10	L/360	L/240	
ATTIC (w/ walk up stairs)	30	10	L/360	L/240	
ATTIC (pull down access)	20	10	L/240	L/180	
ATTIC (no access)	10	5	L/240	L/180	
EXTERNAL BALCONY	40	10	L/360	L/240	
ROOF	20	10	L/240	L/180	
ROOF TRUSS	20	20	L/240	L/180	
WIND LOAD		BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	SEISMIC ZONES A, B & C				

- 3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES
- BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- 6) ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI, BASED ON 2x10) UNO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.
 ALL LUV LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.)
 ALL LISL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.)
 ALL PSI LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)
- ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10. (U.N.O.) REFER TO TABLE R602.7(1) & (2) FOR JACK STUD
- REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS. 8) ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50.
- ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- 9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2") A" 1 CNDI, LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- 10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2"Ø ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3"-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- 11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- 12) WALL AND ROOF CLADDING VALUES:
 WALL CLADDING SHALL BE DESIGNED FOR 28.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE.
 ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
 39.0 LBS/SQFT FOR ROOF PITCHES 01/2 TO 1.5/12
 36.0 LBS/SQFT FOR ROOF PITCHES 1.5/12 TO 6/12
 18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12
 "MEAN ROOF HEIGHT 30'-0" OR LESS
- 13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- 14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.
- 15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCRC.
- 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- 17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.
- 18) PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)
- 19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- 21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

CLIMATE ZONES	FENESTRATION U-FACTOR	SKYLIGHT b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,k}	CEILING ^m R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE i	FLOOR R-VALUE	BASEMENT ^{c,Q} WALL R-VALUE	SLAB ^d R-VALUE AND DEPTH	CRAWL SPACE C WALL R-VALUE
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5 h	5/13 or 5/10 cont	19	<u>5/13</u> f	0	5/13
4	0.35	0.55	0.30	38 or 30 cont j	15 or 13 + <u>2.5</u> h	5/13 or 5/10 cont	19	<u>10/15</u>	10	<u>10/15</u>
5	0.35	0.55	NR	38 or 30 cont	n 19, or 13 + 5 or 15 + 3	13/17 <u>or</u> 13/12.5 cont	30 ^g	<u>10/15</u>	10	10/19

- b. THE FENESTRATION U-FACTOR COLUMN EXCLUDED SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

* TABLE N1102.1 CLIMATE ZONES 3-5

- C "1915" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-15 CANTY INSULATION AT THE INTERIOR OF THE BASSIMENT WAIL OR CORM. SPACE WAIL OF DRINGOULTHOUSEAS INSULATION SHALL BE APPLIED FROM THE RESPECTION OR DOWNMARD TO THE ROTTOM OF THE FOOTING OR ALMANIAM OF AY BELLOW GRADE WHICHES IS LESS FOR FLOATING SLASS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WAIL OR R'Y WHICHES ELSS. R'S SHALL BE ADDED TO THE REQUIRED SLAS BODG RAYAULES FOR HEATED SLASS.
- g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19 MINIMUM.
- . THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION, SO 153-57 MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. 15-57 MEANS R-15 CAVITY INSULATION PLUS R-3 INSULATED SHEATHING. IS TRUCTURED, SHEATHING COVERED 25% OR LESS OF THE EXTERIOR. SHEATHING COVERED 25% OR LESS OF THE EXTERIOR. SHEATHING COVERED WHERE THE SHEATHING COVER MORE THAN 25 PERCENT. OF THE EXTERIOR, SHEAL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R2. "13 25" MEANS R-13 CAVITY INSULATION LUD R2 R3 SHEATHING.
- FOR MASS WALLS. THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL
- I. PLAN MASS VANCE, IT & SOUTH PAYABLE PAYABLE PAYABLE AND THE RISEASON OF IT THE RISEASO
- R-09 SHALL IS DEEMED TO SATISTY THE CELLING INSLATION REQUIREMENT IMPROVED THE PLUE HEIGHT OF MOODMENSEED R-30 INSLATION EXTENDS OVER THE WALL TO PLATE AT THE EXHIST OTHERWISE RS INSLATION INSTEAD OF THE WALL TO PLATE AT THE EXHIST OTHERWISE RS INSLATION IS RECORDED WHERE REQUIRE CLEARANCE EXISTS OF INSLATION MUST EXTEND TO EITHER THE INSLATION BAFFLE OR WITHIN TINCH OF THE RATE DOOD TOOL. OF THE ATTIC ROOF DECK.

 TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PTICH OF THE ROOF, THERE THE INSLATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.

 R-19 FERENASS BATTS COMPRESSED AND RETAILED BY A HOMINING 2 - 6 FRANING CAVITY IS DEEMED TO COMPLY. FIBERING ASS BATTS RATED R-19 OR HIGHER COMPRESSED.

 AND INSTALLED IN AZ VIMIL IS NOT DEEMED TO COMPLY.
- SS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT
- 1044.156 SQ. FT. OF ATTIC / 300 =3.480 SQ. FT. INLETS/OUTLETS REQUIRED



DEFINITIONS FOR COMMON ABBREVIATIONS CANT CJ CMU COL CONC CONT CT MINIMUM NOMINAL ON CENTER CEILING JOIS' CONCRETE MASONRY UNIT COLUMN POINT LOAD PRESSURE TREATED REINF REQD REINFORCED REQUIRED COLLAR TIE REQUIRED ROOF JOIST ROOF SUPPORT STUD COLUMN SCHEDULE SPECIFIED THICK TRIPLE JOIST TREATED TYPICAL UNLESS NOTED OTHERWISE WIED FLANGE BEAM WELDED WIRE FABRIC EXTRA JOIST DOUBLE JOIST DOUBLE RAFTER EACH EACH END FLOOR JOIST FOUNDATION FOOTING GALVANIZED HORIZONTAL HEIGHT MANUFACTURER

MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**	
4 x 4	8'-0"	
6 x 6	20'-0"	
***	OVER 20'-0"	

- THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.
- THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.

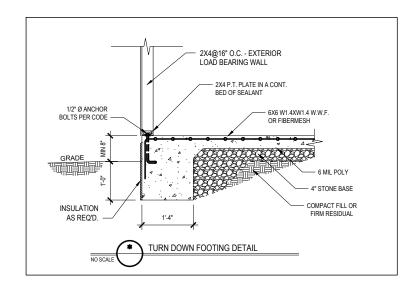
 MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET
 WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
 FROM TOP OF FOOTING TO BOTTOM OF GIRDER
 DECKS WITH POST HEIGHTS OVER 20°0 SHALL BE DESIGNED AND
 SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:
- THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS
 ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4)
 ABOVE. LATERAL BRACING IS NOT RECURIED.
 4 x 4 WOOD KINEE BRACES MAY BE PROVIDED ON EACH COLUMN IN
 BOTH DIRECTIONS. THE KNIEE BRACES SHALL ATTACH TO EACH POST
 AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE
 TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN
 45" AND 60" FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED
 TO THE POST AND GIRDER WITH ONE 56"0 HOT DIPPED GALVANIZED

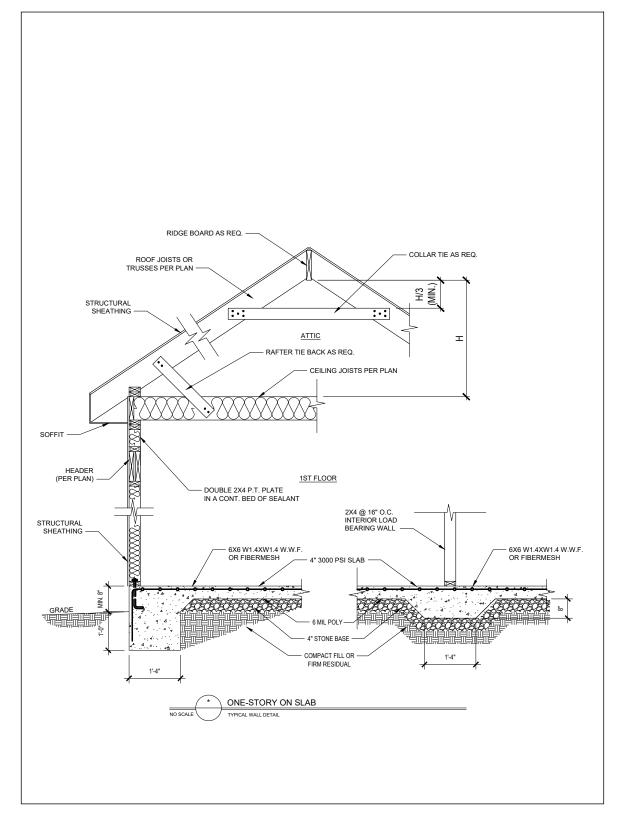
TO THE POST AND GIRDER WITH ONE 5/8"Ø HOT DIPPED GALVANIZED

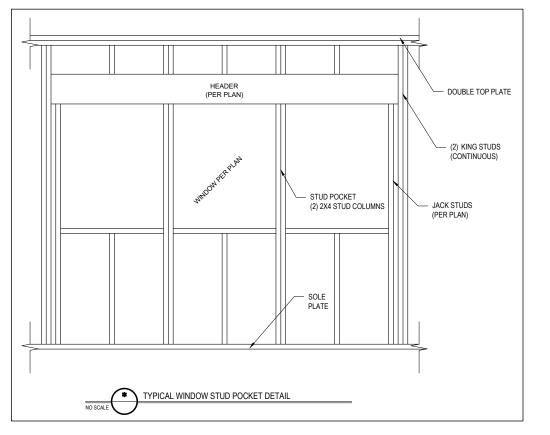
BOLT AT EACH END OF THE BRACE.
C. FOR TREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 x 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6 x 6	120 SO FT	6'-0"	3'-6"	1'-8"

- D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"0 HOT
- DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER. E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.







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RESIDE

WOODWORKS,

R S \triangleleft

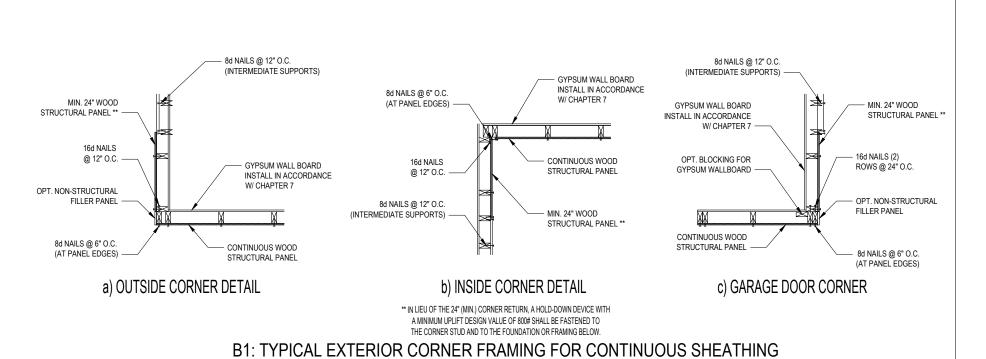
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STRUCTURAL SHEATHING NOTES

NO SCALE

- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
 WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC
 BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.

The reference figure R602.10.4.3 OF THE 2018 NCRC.

- INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
- 2) 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING
- (3) 3/8° WOOD STRUCTURAL PANEL (WSP) SECURE W/ 6d COMMON NAILS SPACED AT 6° O.C. AT PANEL EDGES AND 12° O.C. AT INTERMEDIATE SUPPORTS
- 5. EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD
 AS PRESCRIBED IN SECTION R602.10.3 (UNO)

 6. ALL SHEATHABLE SURFACES OF EXTERIOR WALLS ALL SHEATHABLE SUNFALES OF EATERION WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE
- A MINIMUM THICKNESS OF 30°S. SHEATHING SHALL BE SECURED WITH MINIMUM 64 COMMON NAILS SPACED AT 6°O.C. AT PANEL EDGES AND SPACED AT 12°O.C. AT INTERNIEDIATE SUPPORTS.

 MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 24°ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 30°ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 65% OF WALL HEIGHT
 48° FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT

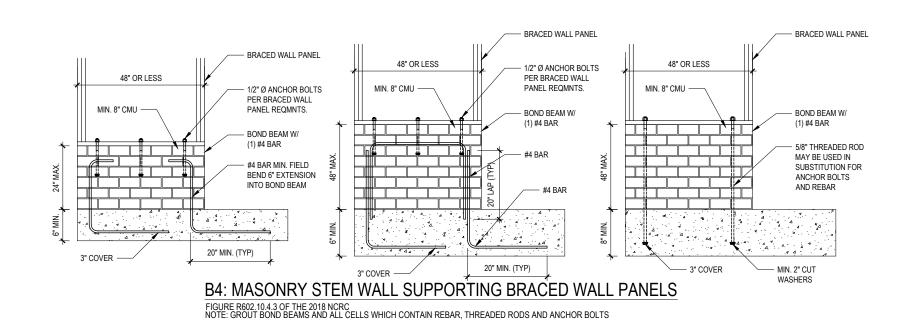
4 SHEATH INTERIOR AND EXTERIOR

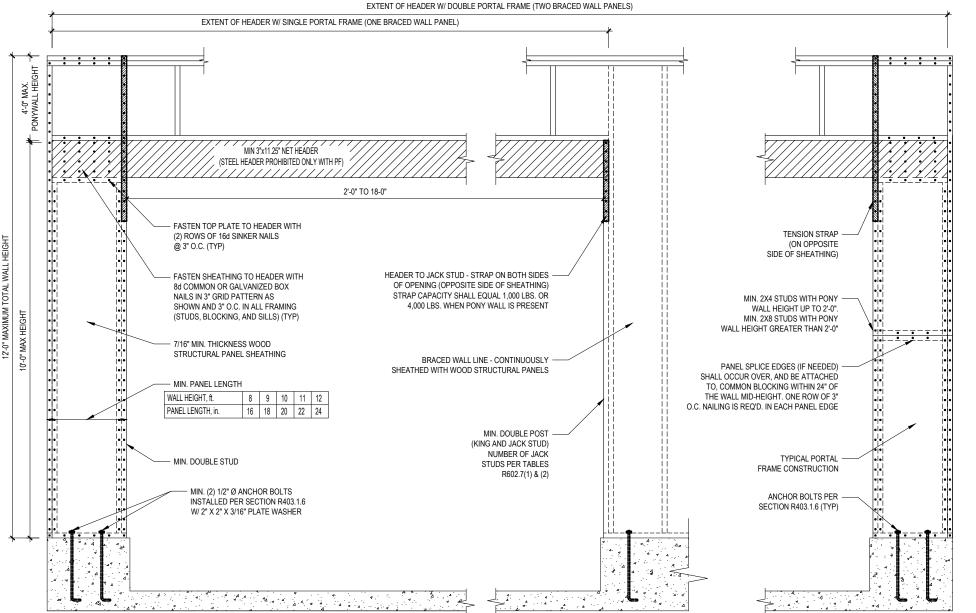
8. FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602-10.3 (4). IN LIEU OF A CORNER RETURN, EITHER A MINIMUM 49" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW

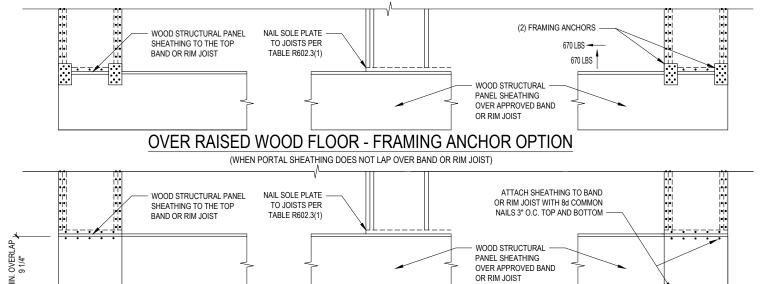
5 MINIMUM 800# HOLD-DOWN DEVICE

REQUIRED BRACED WALL PANEL CONNECTIONS						
				REQUIRED CONNECTION		
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	@ INTERMEDIATE SUPPORTS		
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.		
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** @ 7" O.C.	5d COOLER NAIL** @ 7" O.C.		
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.		

OR EQUIVALENT PER TABLE R702.3.5 **B3: BRACE WALL PANEL CONNECTIONS NO SCALE







OVER CONCRETE OR MASONRY BLOCK FOUNDATION

OVER RAISED WOOD FLOOR - OVERLAP OPTION (WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME

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