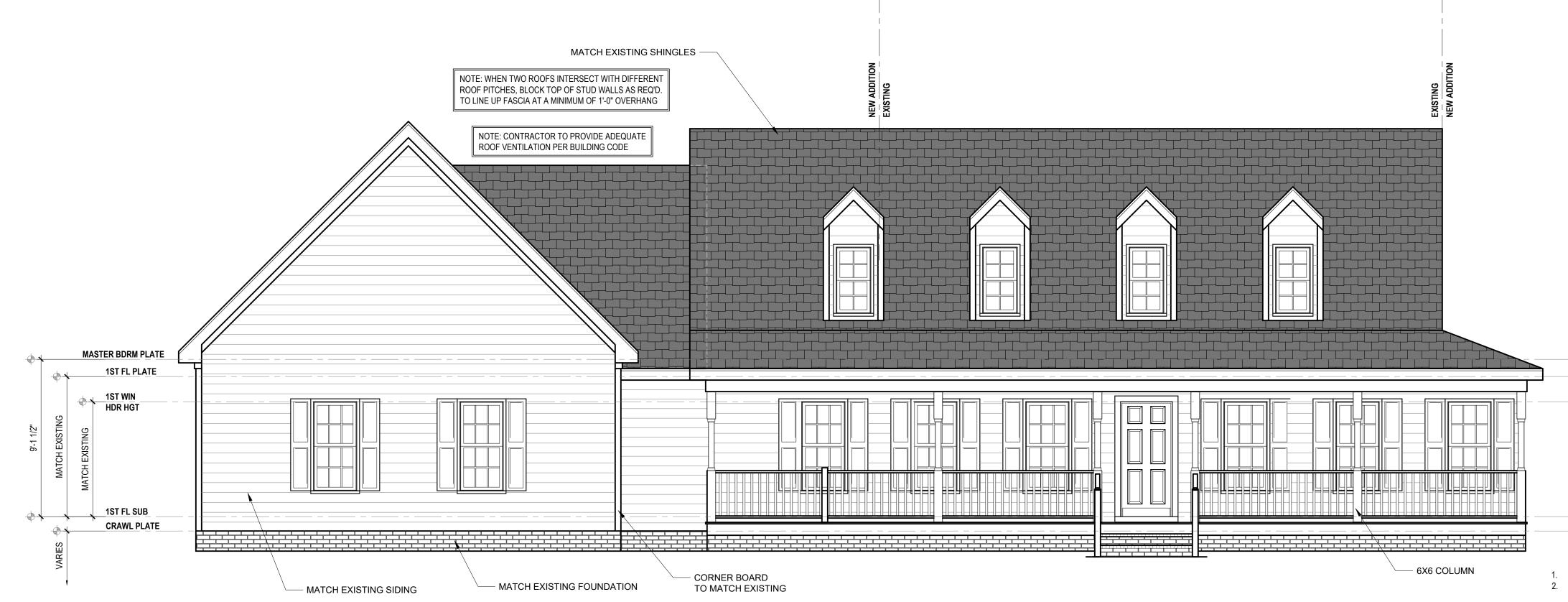
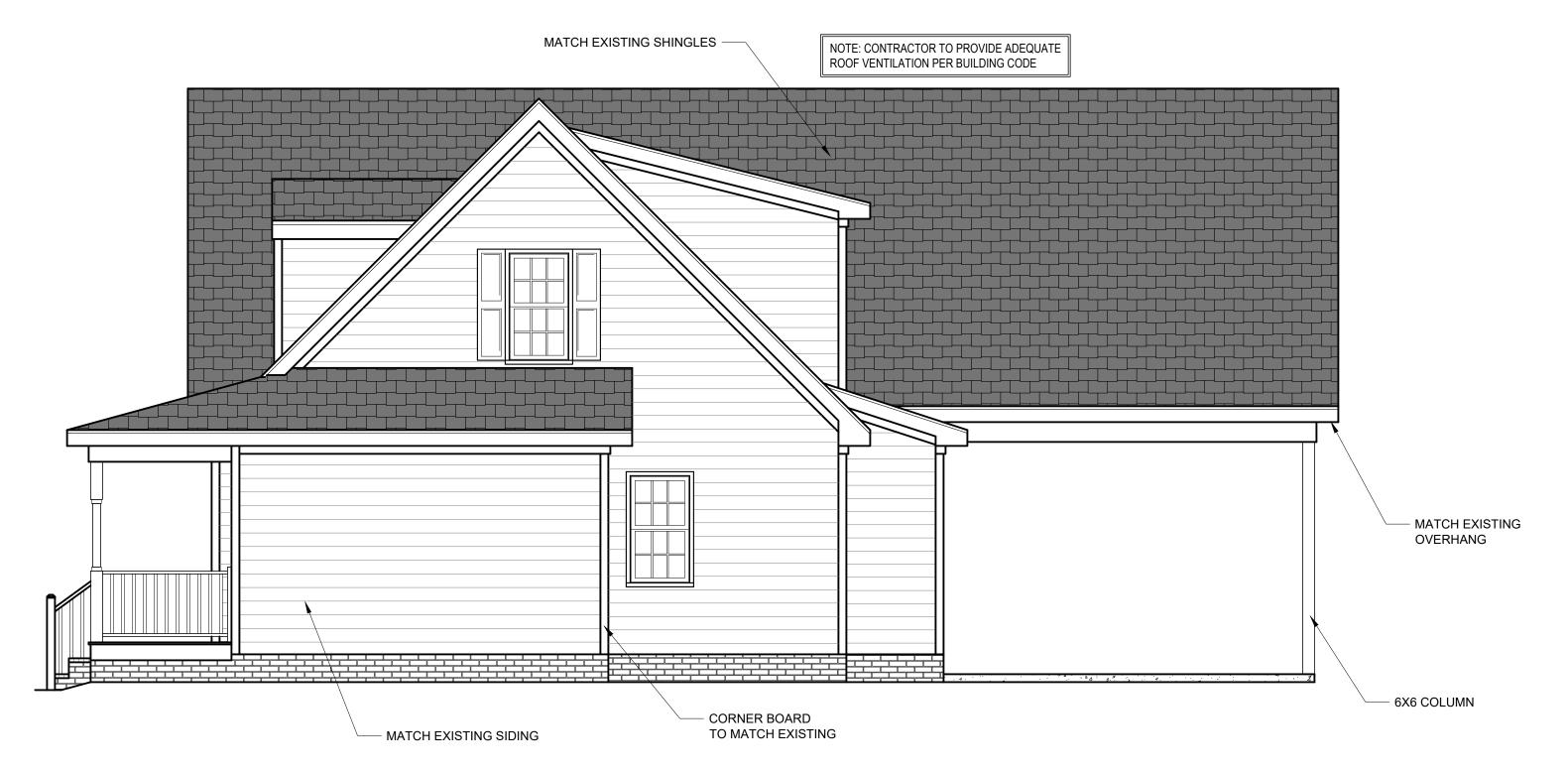
# NEWTON ADDITION



## FRONT ELEVATION 1/4" = 1'-0"



**RIGHT ELEVATION** 1/4" = 1'-0"

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. 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.

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

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.

DRB2101-0255

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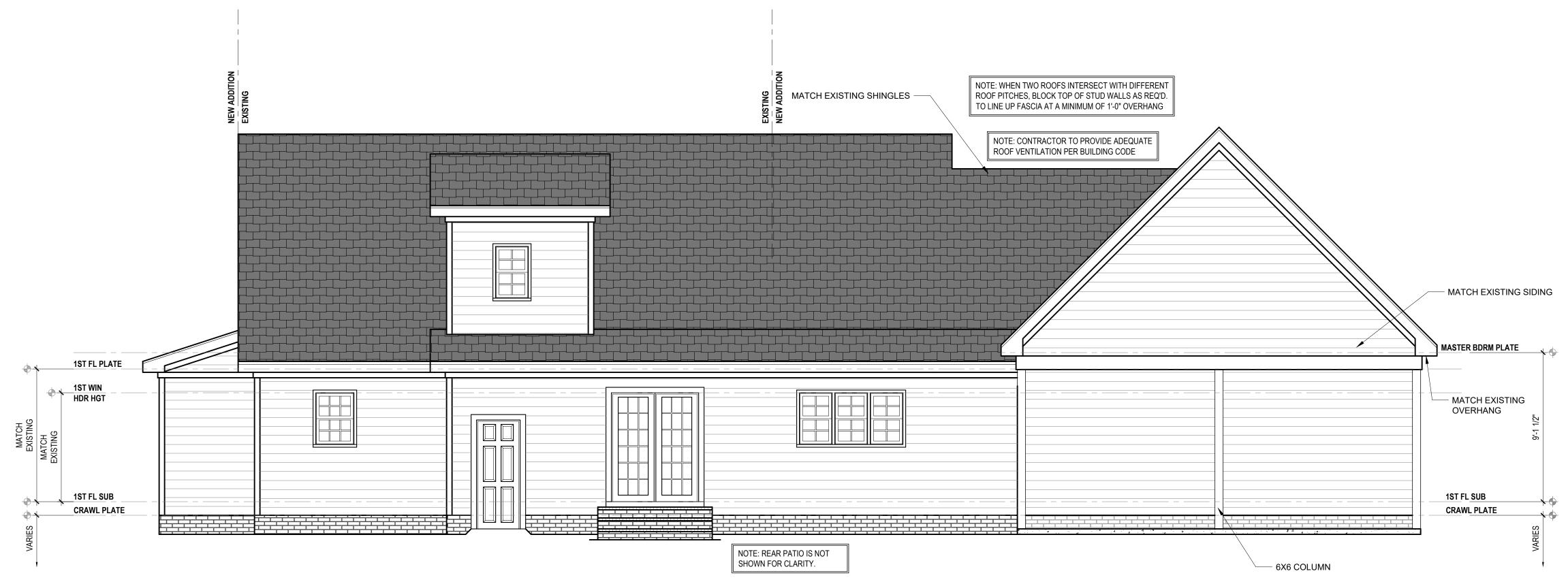
12/13/2021

1/4" = 1'-0"

DBL CHECKED BY DRB **SCALE** 

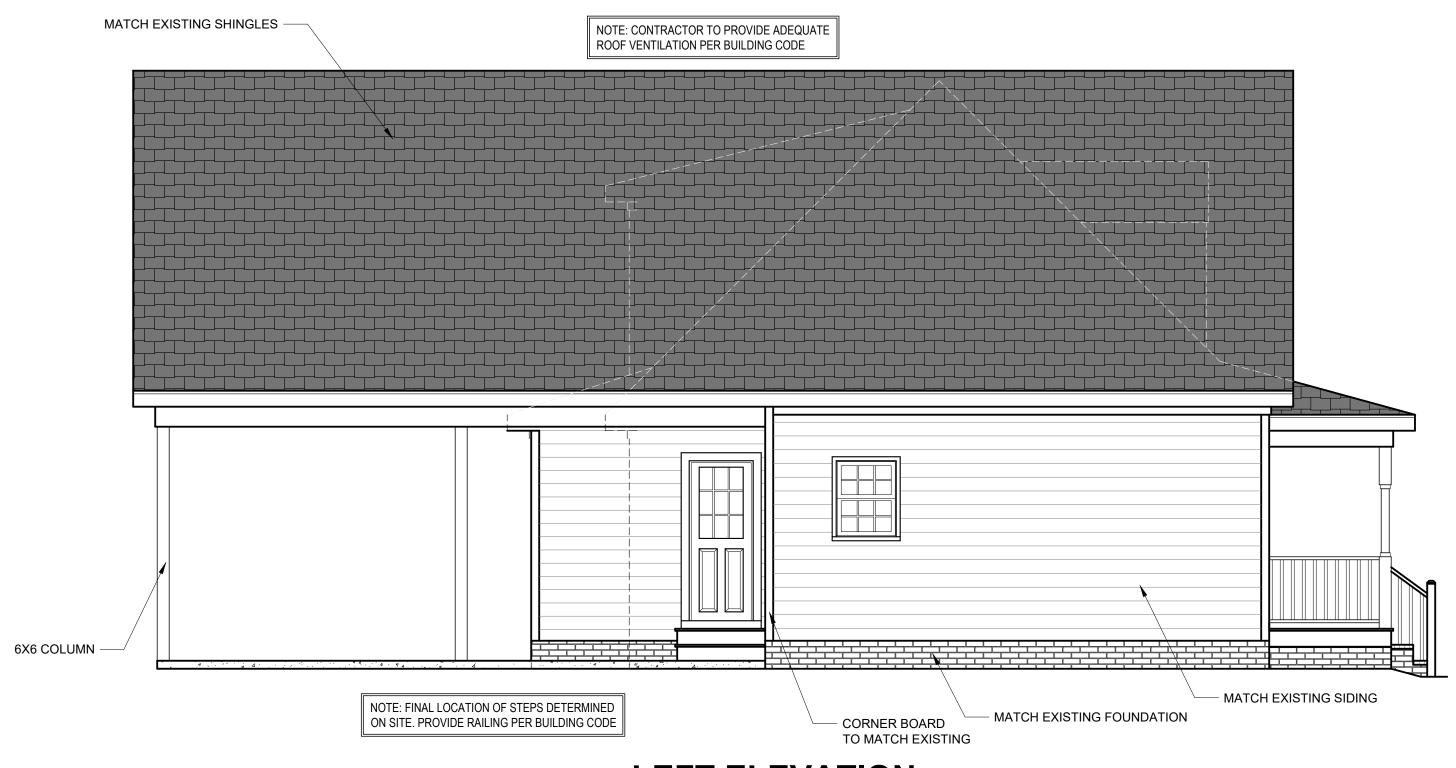
SHEET NAME ELEVATIONS

# NEWTON ADDITION



# **REAR ELEVATION**

1/4" = 1'-0"



**LEFT ELEVATION** 

1/4" = 1'-0"

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.
 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.

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

PROJECT #

DRB2101-0255

DATE

12/13/2021

DRAWN/DESIGNED BY

DBL

CHECKED BY

DRB

SCALE

1/4" = 1'-0"

bhomedesign.con

drb drb

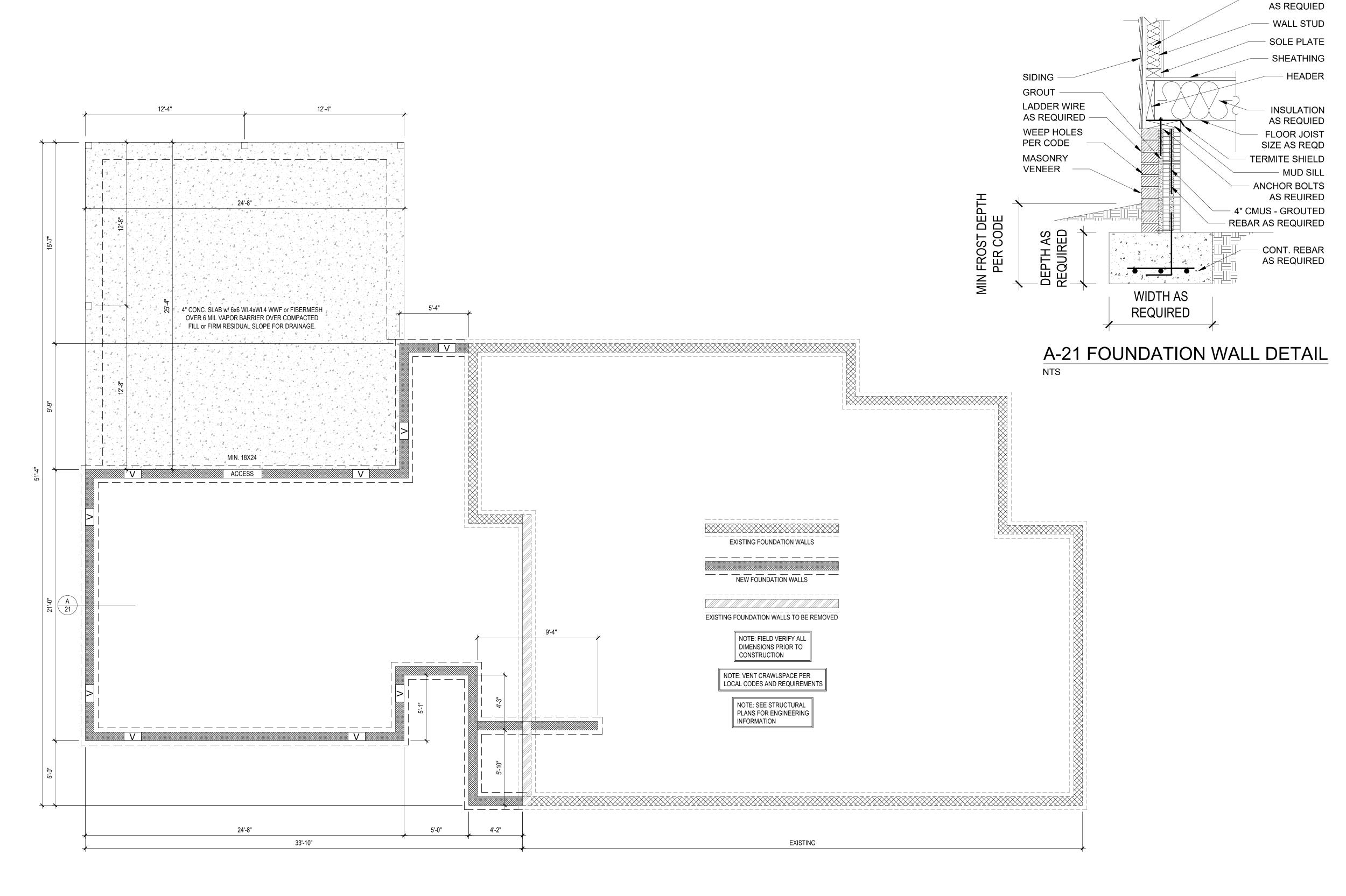
NEWTON ADDITION

sign@drbhomedesign.com 919.631.5979

Ross & Taylor Newton 1098 Raven Rock Road Lillington, NC 27546 oss.newton@ncfbins.com

SHEET NAME
ELEVATIONS
SHEET #

 $A2_{_{of}}$ 



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.
- Release of these plans requires further cooperation among the owner, his/her contractor, and DRB DESIGN.
   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.
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- 12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.

# **FOUNDATION PLAN**

1/4" = 1'-0"

DRB2101-0255
DATE
12/13/2021
DRAWN/DESIGNED BY
DBL
CHECKED BY
DRB
SCALE
1/4" = 1'-0"

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The project #
DRB2101-0255
DATE
12/13/2021
DRAWN/DESIGNED BY
DRB
SCALE
1/4" = 1'-0"

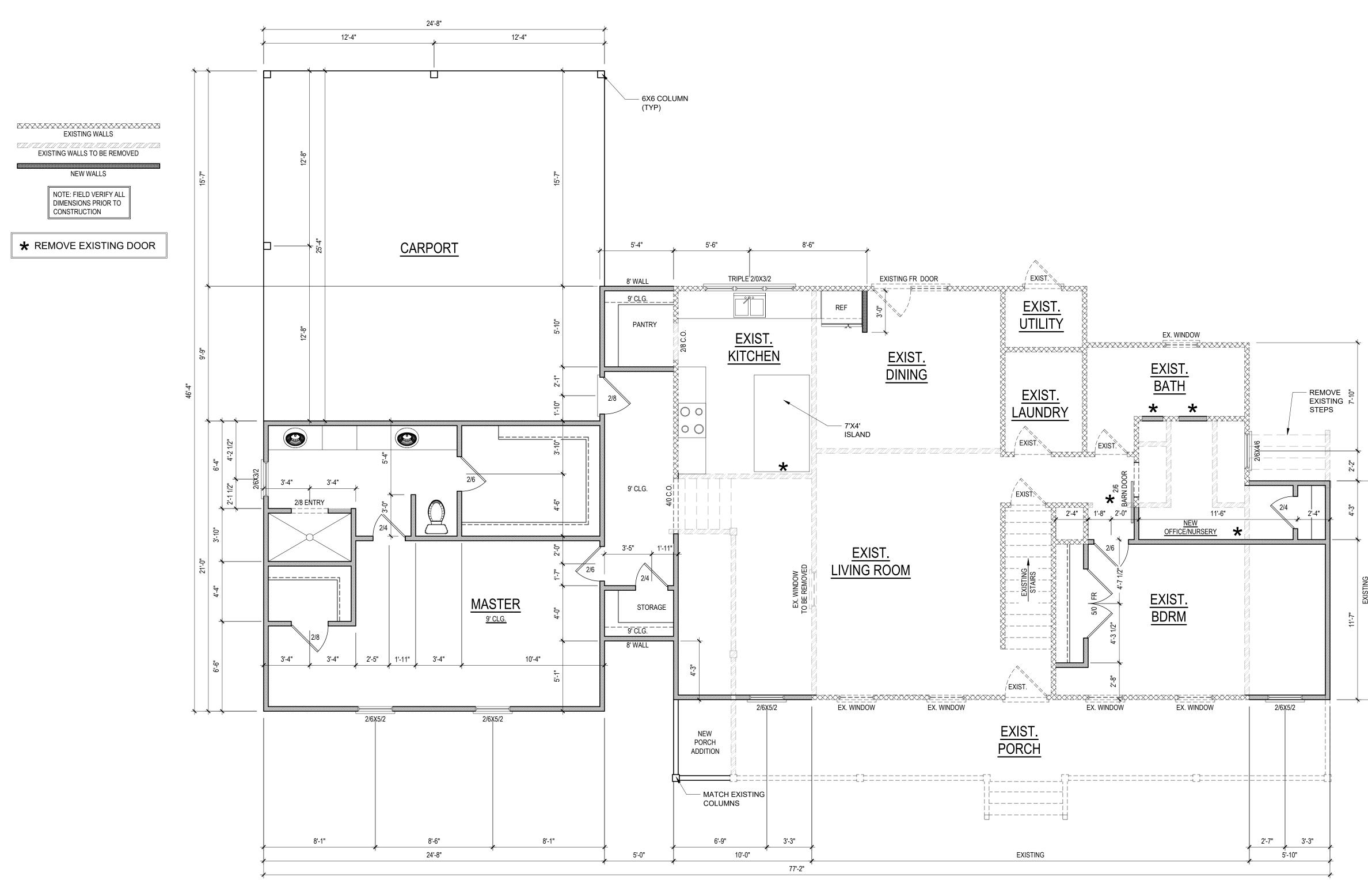
INSULATION

NEWTON ADDITION

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SHEET NAME
FOUNDATION
SHEET #

A3<sub>...</sub>



1/4" = 1'-0"

HEATED/HABITABLE
SQUARE FOOTAGE
First Floor Remodel 764

First Floor Remodel First Floor Addition

TOTAL HEATED 1410

UNHTD SQUARE FOOTAGE
Carport 625

Carport
Front Porch Addition

TOTAL UNHEATED

TOTAL SQ FT 2059

24

649

NOTE: ALL EXTERIOR WALLS ARE NOMINAL 4" UNO

NOTE: ALL INTERIOR WALLS ARE NOMINAL 4" UNO

NOTE: ALL DIMENSIONS ARE FRAME TO FRAME

FIRST FLOOR PLAN

CEILING HGT. = 8'-0"

- 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.
- 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.

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- responsibilities for all consequences.

  9. Changes made to these plans without the consent of the designer are unauthorized and shall relieve DRB
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- 12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.

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1/4" = 1'-0"

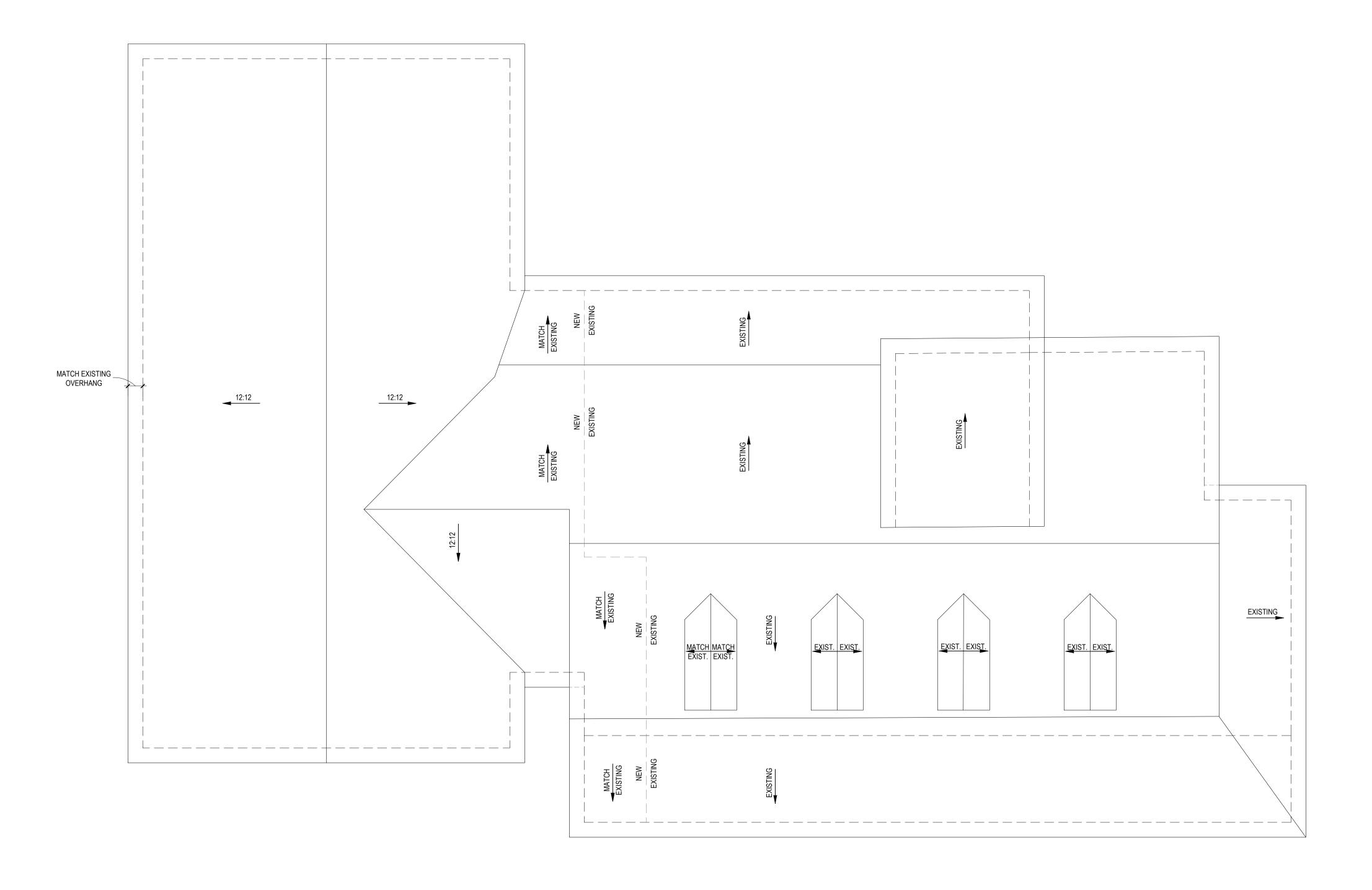
DBL checked by DRB scale

SHEET NAME

1ST\_FLOOR

SHEET #

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m of}}$ 



NOTE: ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

ROOF PLAN
1/4" = 1'-0"

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.

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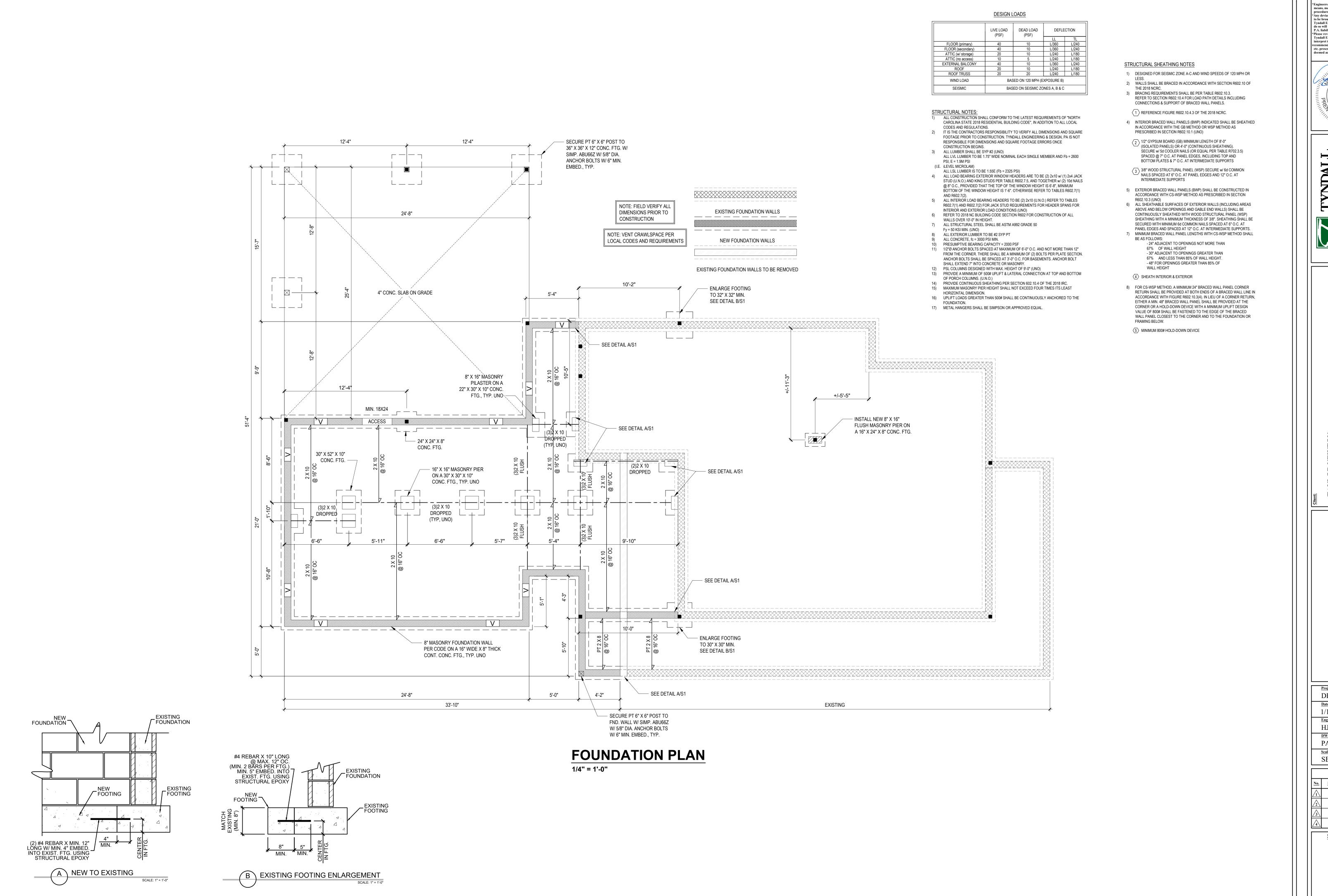
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footage errors once construction has begun. 12. DRB DESIGN must be notified of any variations from the dimensions and conditions shown on these drawings.

12/13/2021



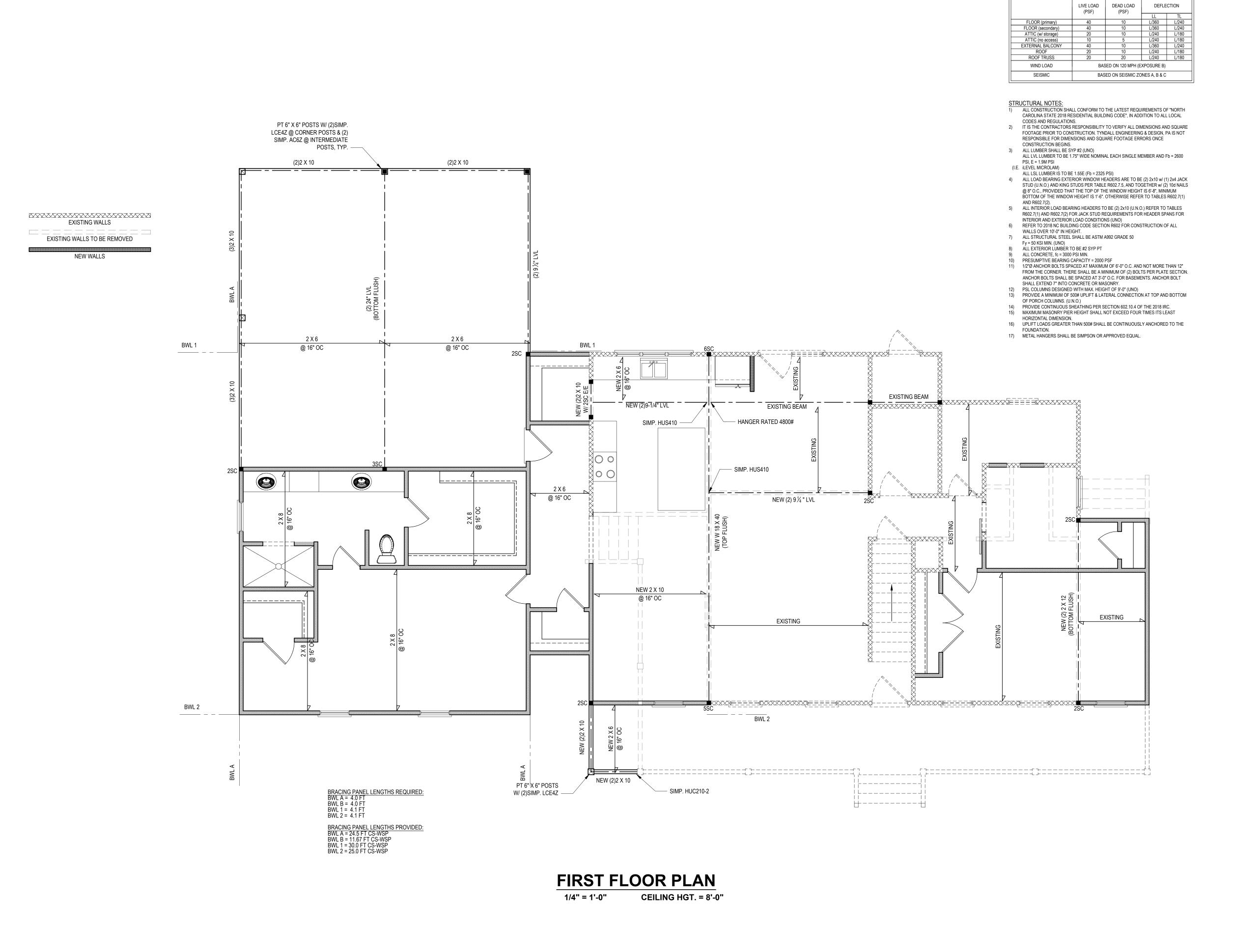
ineers seal does not include construct \*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution. \*Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability. 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



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Sheet Number



STRUCTURAL SHEATHING NOTES

DESIGN LOADS

- 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.
- 3) 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)
- 2 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). 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 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 (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. 7) MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL
- 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

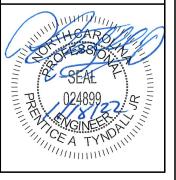
BE AS FOLLOWS:

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.

8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER

5 MINIMUM 800# HOLD-DOWN DEVICE

\*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. 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

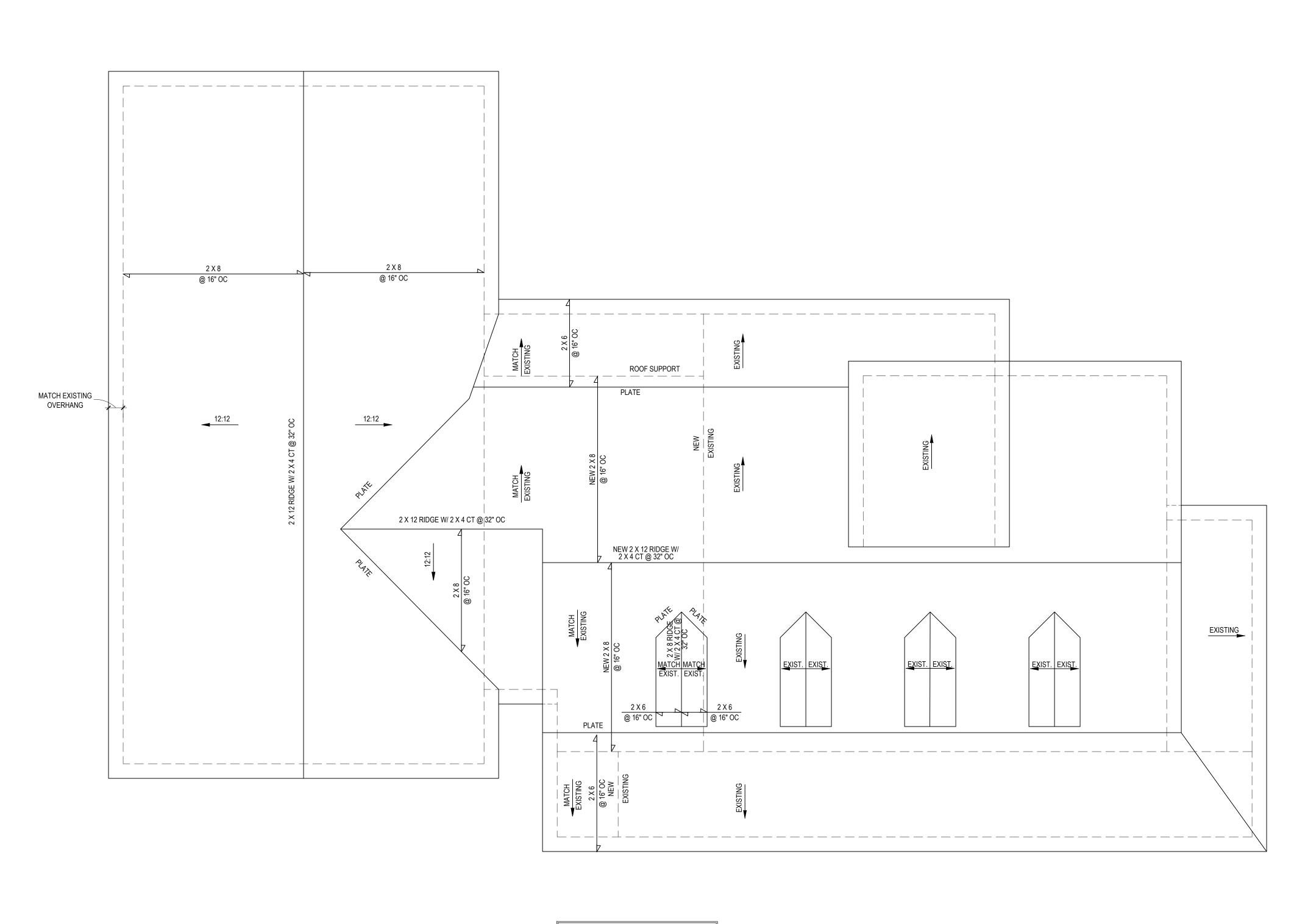


DRB2101-0255 1/13/22 DWG. Checked By:

PAT SEE PLAN

REVISIONS

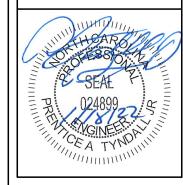
**Sheet Number** 



NOTE: ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

**ROOF PLAN** 1/4" = 1'-0"

\*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 begins.



Project #: DRB2101-0255 1/13/22

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**REVISIONS** 

**Sheet Number** 

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DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLE	CTION
	( - /	( - /	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 UNLESS NOTED OTHERWISE. (U.N.O.)
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL 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 LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.) ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)
- 7) 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"Ø x 4" LONG). 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 0/12 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 b,j	SKYLIGHT <sup>b</sup> U-FACTOR	GLAZED FENESTRATION SHGC <sup>b,k</sup>	CEILING <sup>m</sup> R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT <sup>C,Q</sup> WALL R-VALUE	SLAB <sup>d</sup> 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	<u>5/13 or</u> <u>5/10 cont</u>	19	<u>5/13</u> f	0	5/13
4	0.35	0.55	<u>0.30</u>	38 or 30 cont	15 or 13 + <u>2.5</u> h	<u>5/13 or</u> <u>5/10 cont</u>	19	<u>10/15</u>	10	<u>10/15</u>
5	0.35	0.55	NR	38 or 30 cont	<sup>n</sup> <u>19, or 13 + 5</u> <u>or 15 + 3</u>	13/17 <u>or</u> 13/12.5 cont	<b>30</b> <sup>g</sup>	10/15	10	10/19

- \* TABLE N1102.1 CLIMATE ZONES 3-5
- a. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS
  OF THE INSULATION, THE INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.
- b. THE FENESTRATION U-FACTOR COLUMN EXCLUDED SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION. c. \*\*10/15" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME
- OR R-15 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.

  d. FOR MONOLITHIC SLABS, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM.
- OF THE FOOTING OR A MAXIMUM OF 24" BELOW GRADE WHICHEVER IS LESS. FOR FLOATING SLABS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24", WHICHEVER IS LESS. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.
- e. DELETED
- f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.7 AND TABLE N1101.7.
- g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19  $\operatorname{MINIMUM}$ h. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION, SO "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED
- SHEATHING. "15+3" MEANS R-15 CAVITY INSULATION. PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR  $\underline{\textbf{INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT AND ADDRESS MORE THAN 25 PERCENT ADDRESS MORE THAN 25 PERCENT$
- i. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALI
- j. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.55 SHALL BE
- $\underline{\textbf{PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY}.$ k. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.70 SHALL BE
- PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY. R-30 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE

  AT THE EAVES. OTHERWISE R-38 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION BAFFLE OR WITHIN 1 INCH
- m. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF; THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.

  1. R.-19 FIBERGLASS BATTS COMPRESSED AND INSTALLED IN A NOMINAL 2 × 6 FRAMING CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTS RATED R-19 OR HIGHER COMPRESSED

  AND INSTALLED IN A 2X4 WALL IS NOT DEEMED TO COMPLY.

9. BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.

694 SQ. FT. OF CRAWL SPACE / 150 = 4.6 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION

## 4.6 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 5.3 VENTS REQ'D (BASED ON 8" X 16" VENTS)1

694 SQ. FT. OF CRAWL SPACE / 1500 = 0.46 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION 0.46 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 0.53 VENTS REQ'D (BASED ON 8" X 16" VENTS)2

- PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.
- 2) THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE CRAWL SPACE GROUND AREA WHERE THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE CRAWL SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. ONE FOUNDATION VENT SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. TO PREVENT RAINWATER ENTRY WHEN THE CRAWL SPACE IS BUILT ON A SLOPED SITE, THE UPHILL FOUNDATION WALLS MAY BE CONSTRUCTED WITHOUT WALL VENT OPENINGS. VENT DAMS SHALL BE PROVIDED VHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 4 INCHES ABOVE THE FINISHED
- WALL VENTED CRAWL SPACES REQUIRE FULL COVERAGE GROUND VAPOR RETARDERS.



- -- SQ. FT. OF ATTIC / 300 = -- SQ. FT. INLETS/OUTLETS REQUIRED
- HE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED
- CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN
  THE BOTTOM OF THE ROOF DECK AND THE INSULATION.
- \* ATTIC VENTILATION CALCULATION



MAXIMUM CANTILEVER MINIMUM **CEILING JOIST** ON CENTER CONCRETE MASONRY UNIT CMU POINT LOAD COL COLUMN CONC CONCRETE PRESSURE TREATED CONTINUOUS REINFORCED COLLAR TIE REQD REQUIRED ROOF JOIST DOUBLE ROOF SUPPORT DIAMETER DOUBLE JOIS STUD COLUMN DOUBLE RAFTER SCHEDULE FACH SPECIFIED THICK FLOOR JOIST TRIPLE JOIST FOUNDATION TREATED TYPICAL FOOTING UNLESS NOTED OTHERWISE GALV GALVANIZED WIDE FLANGE BEAM HORIZ HORIZONTAL HEIGHT WELDED WIRE FABRIC MANUFACTURER EXTRA JOIST

# 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"		

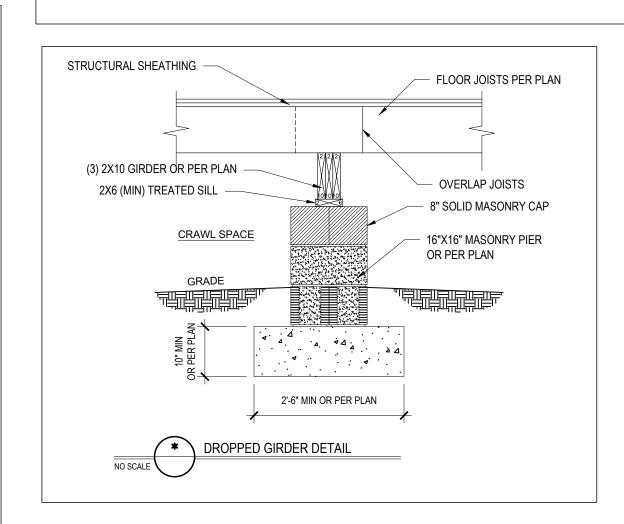
- THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET
- WHICH MAY BE LOCATED AT DIFFERENT LEVELS. FROM TOP OF FOOTING TO BOTTOM OF GIRDER
- \*\*\* DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- 2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF
- THESE METHODS: A. 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 REQUIRED. B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE 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
- BOLT AT EACH END OF THE BRACE. C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE

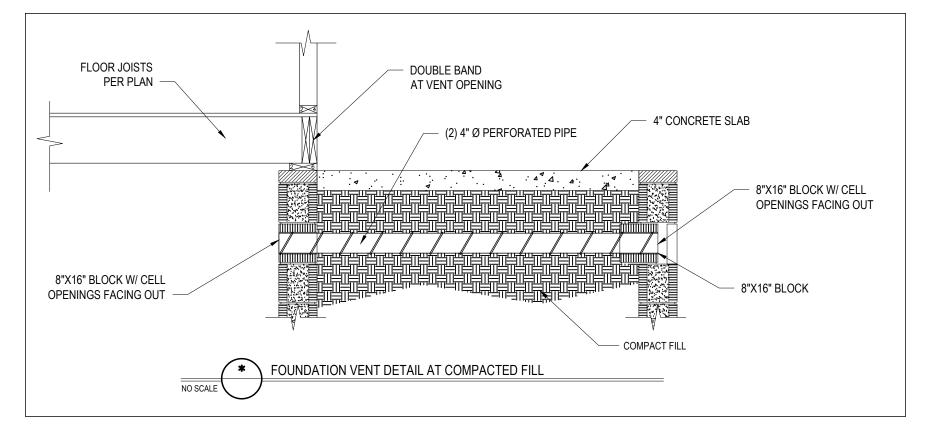
45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED

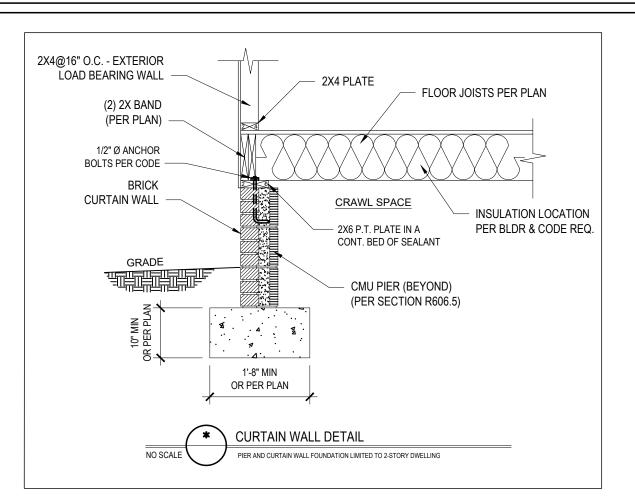
TO THE POST AND GIRDER WITH ONE 5/8"Ø HOT DIPPED GALVANIZED

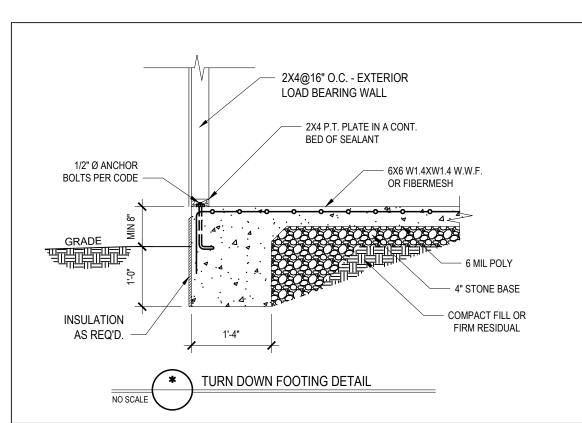
POSTS IN ACCO	RDANCE WITH THE FOLLOW	/ING:		
POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 x 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6 x 6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

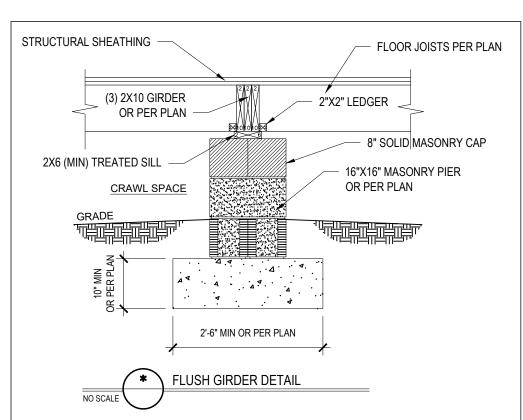
- D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"Ø HOT
- DIPPED GALVANIZED BOLT AT EACH END OF EACH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

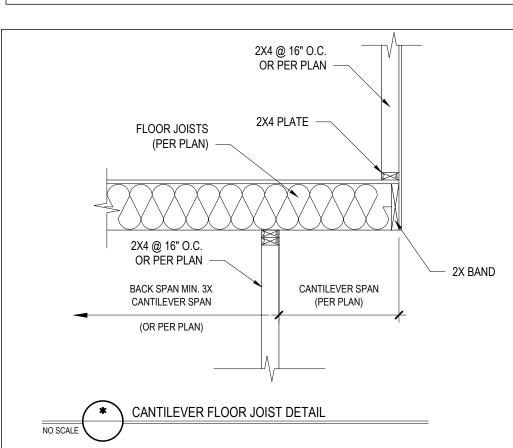


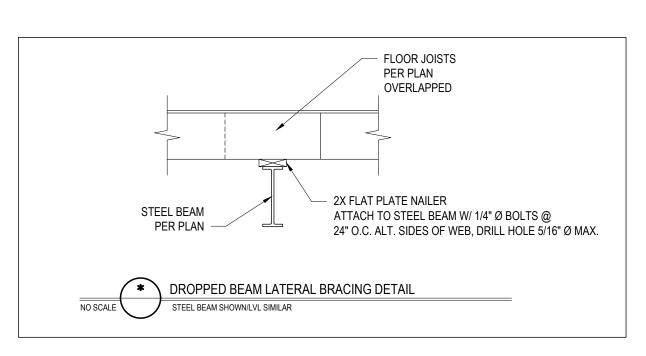


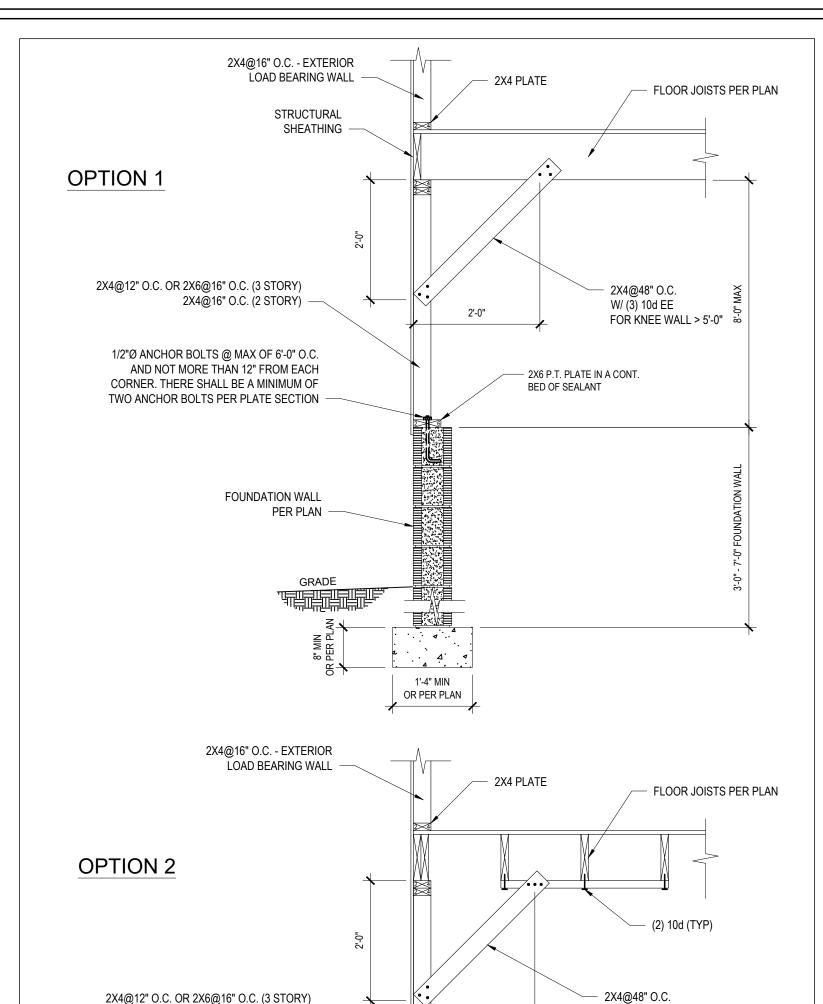






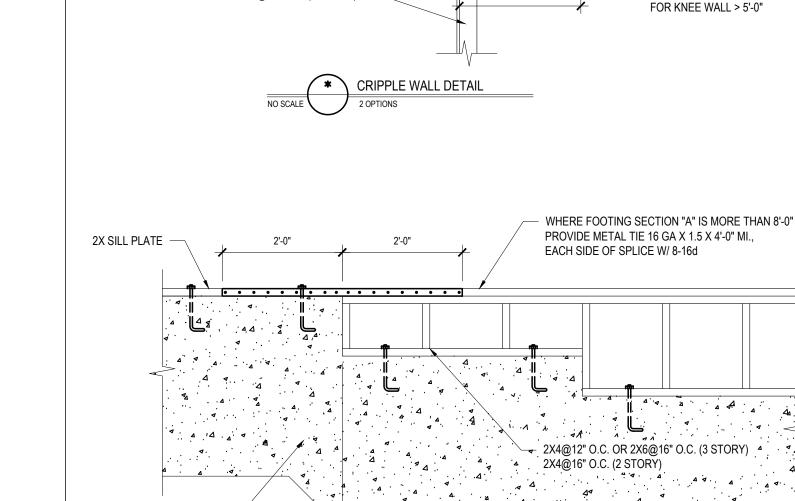






2'-0"

W/ (3) 10d EE



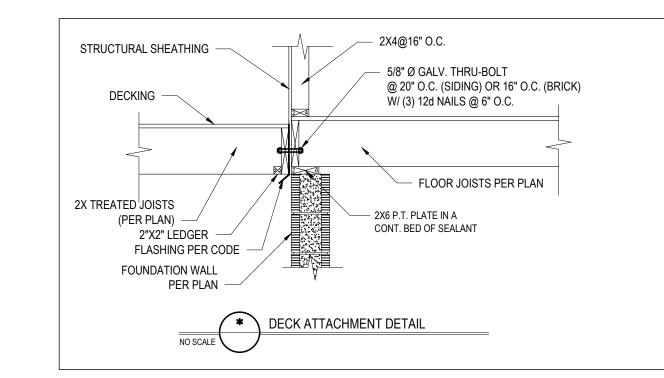
CONCRETE

FOOTING SECTION A

STEPPED FOOTING

2X4@16" O.C. (2 STORY) -

STEP DOWN FOUNDATION AT CRIPPLE WALL USED WITH BOTH OPTIONS ABOVE



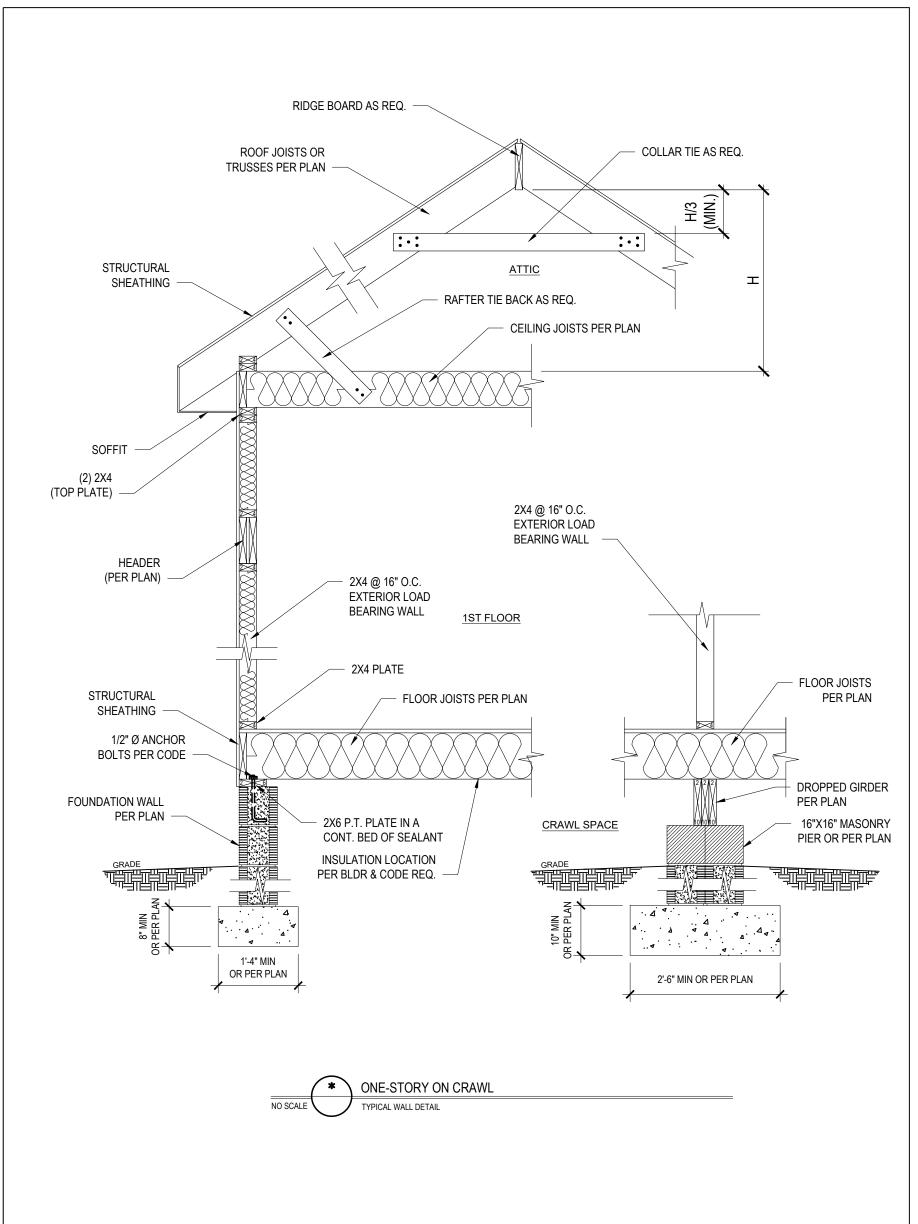
ocedures or safety precaution. Any deviations or discrepancies on plans ar o be brought to the immediate attention of Please review these documents carefully Tyndall Engineering & Design, P.A. will interpret that all dimensions, etc. presented in these documents were

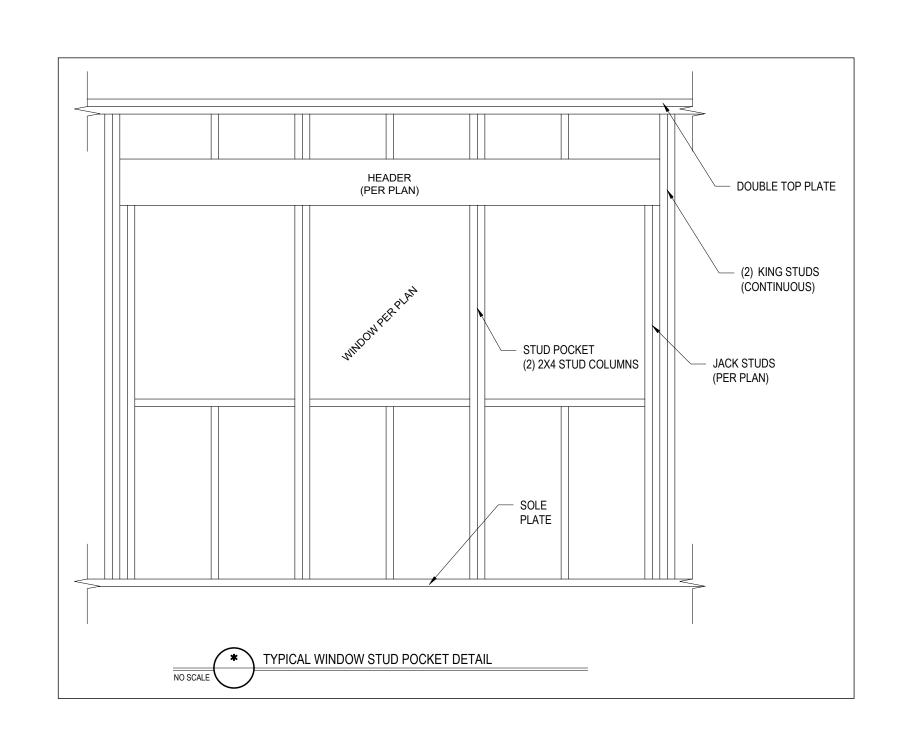
DRB2101-0255 1/13/22 **Engineered By:** HJS DWG. Checked By:

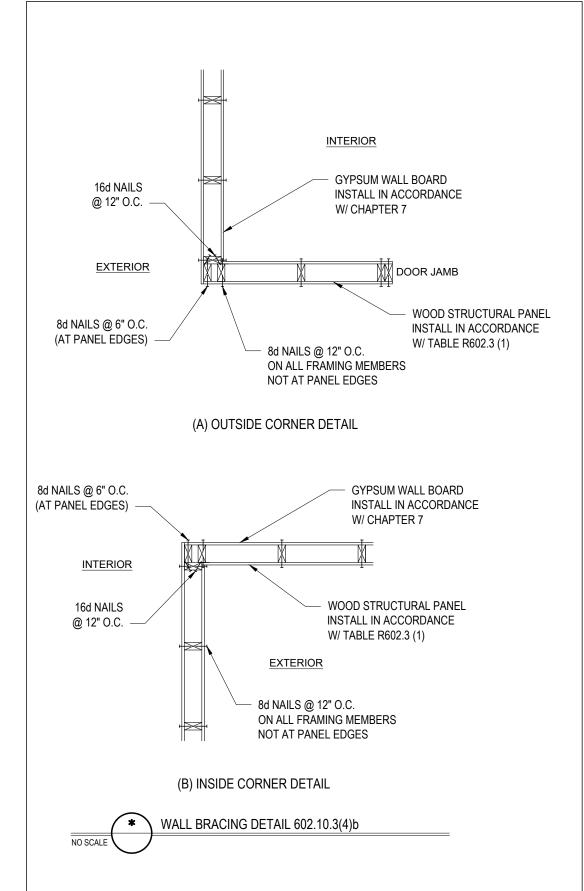
PAT SEE PLAN REVISIONS

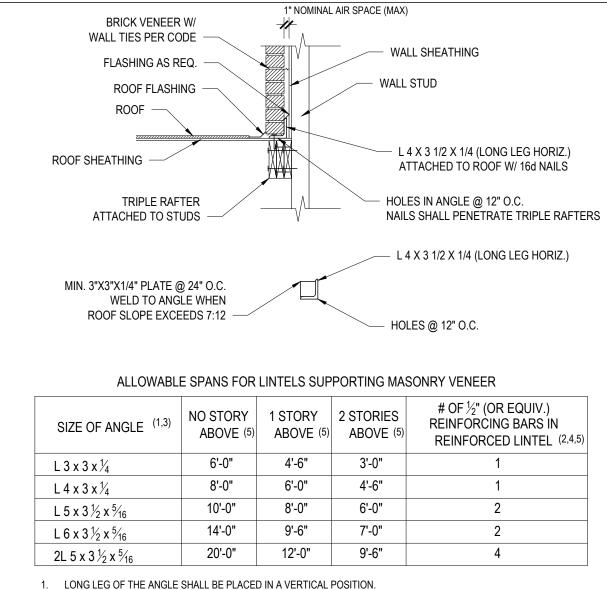
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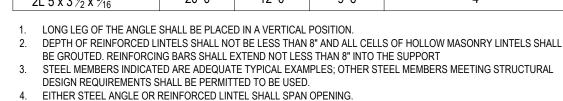
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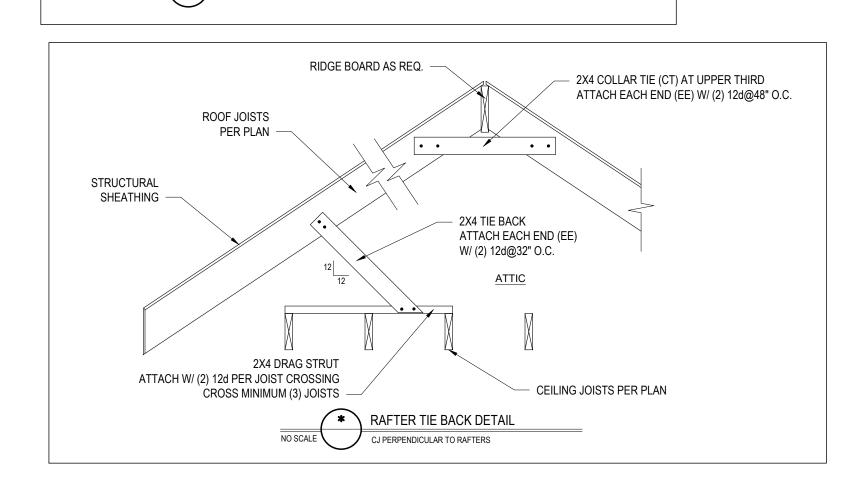






\* MASONRY VENEER SUPPORT FIG 703.8.3.1

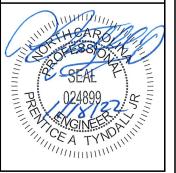
5. SPANS OVER 4'-0" SHALL BE SHORED UP UNTIL CURED.



### STRUCTURAL SHEATHING NOTES

- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR
- 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.
- 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)
  - , 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). 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
- 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
- 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
- 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

procedures or safety precaution. Any deviations or discrepancies on plans a o be brought to the immediate attention of ecommendations, etc. presented in these documents wer

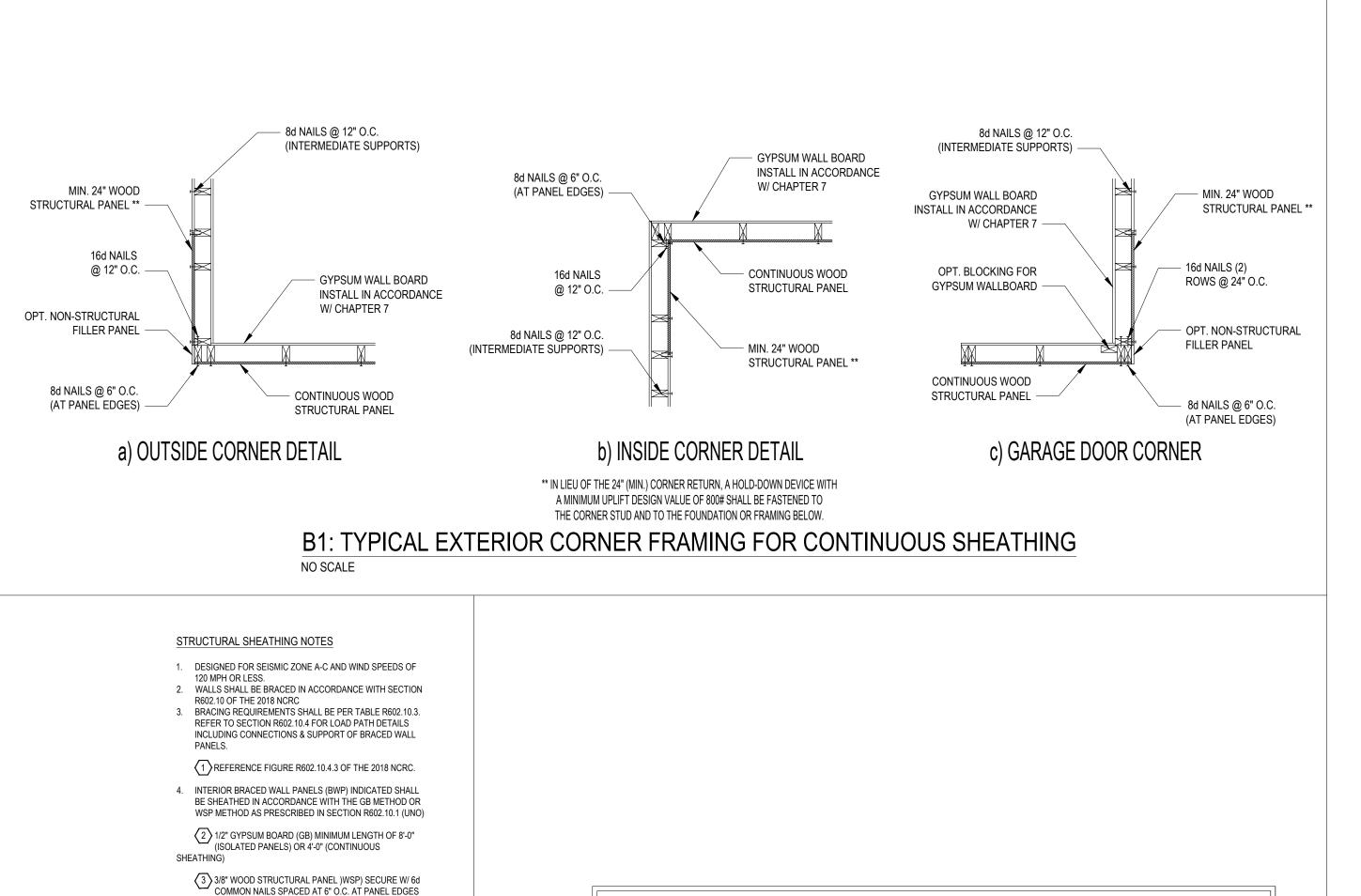


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DRB2101-0255 1/13/22 DWG. Checked By: PAT SEE PLAN

REVISIONS Date:

**Sheet Number** 



		REQUIRED BRAC	ED 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 SCAL

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
(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 M 61 COMMON NAILS SPACED AT 6"

O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT

'. MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP

- 24" ADJACENT TO OPENINGS NOT MORE THAN 67%

- 48" FOR OPENINGS GREATER THAN 85% OF WALL

PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH

ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH

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

FIGURE R602.10.3 (4). IN LIEU OF A CORNER RETURN, EITHER A MINIMUM 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE

- 30" ADJACENT TO OPENINGS GREATER THAN 67% AND

INTERMEDIATE SUPPORTS.

OF WALL HEIGHT

METHOD SHALL BE AS FOLLOWS:

LESS THAN 85% OF WALL HEIGHT

 $\overline{\langle 4 \rangle}$  SHEATH INTERIOR AND EXTERIOR

5 MINIMUM 800# HOLD-DOWN DEVICE

8. FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL

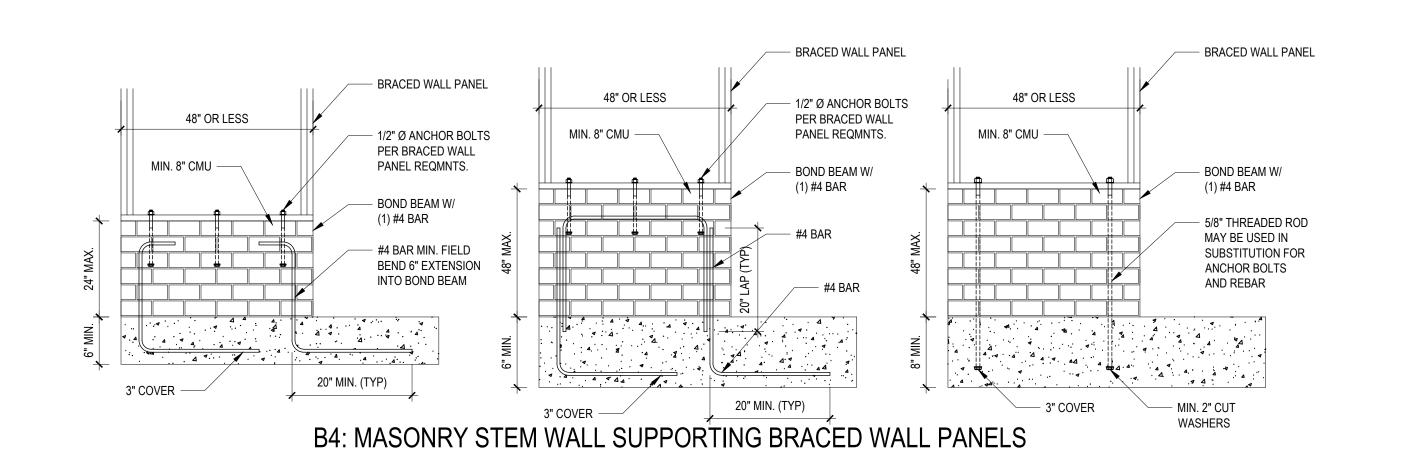


FIGURE R602.10.4.3 OF THE 2018 NCRC NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

EXTENT OF HEADER W/ DOUBLE PORTAL FRAME (TWO BRACED WALL PANELS) EXTENT OF HEADER W/ SINGLE PORTAL FRAME (ONE BRACED WALL PANEL) MIN 3"x11.25" NET HEADER (STEEL HEADER PROHIBITED ONLY WITH PF) 2'-0" TO 18-0" FASTEN TOP PLATE TO HEADER WITH TENSION STRAP -(2) ROWS OF 16d SINKER NAILS (ON OPPOSITE @ 3" O.C. (TYP) SIDE OF SHEATHING) HEADER TO JACK STUD - STRAP ON BOTH SIDES -- FASTEN SHEATHING TO HEADER WITH OF OPENING (OPPOSITE SIDE OF SHEATHING) 8d COMMON OR GALVANIZED BOX STRAP CAPACITY SHALL EQUAL 1,000 LBS. OR NAILS IN 3" GRID PATTERN AS MIN. 2X4 STUDS WITH PONY 4,000 LBS. WHEN PONY WALL IS PRESENT SHOWN AND 3" O.C. IN ALL FRAMING WALL HEIGHT UP TO 2'-0". (STUDS, BLOCKING, AND SILLS) (TYP) MIN. 2X8 STUDS WITH PONY WALL HEIGHT GREATER THAN 2'-0" 7/16" MIN. THICKNESS WOOD STRUCTURAL PANEL SHEATHING BRACED WALL LINE - CONTINUOUSLY PANEL SPLICE EDGES (IF NEEDED) -SHEATHED WITH WOOD STRUCTURAL PANELS SHALL OCCUR OVER, AND BE ATTACHED MIN. PANEL LENGTH TO, COMMON BLOCKING WITHIN 24" OF WALL HEIGHT, ft. 8 9 10 11 12 THE WALL MID-HEIGHT. ONE ROW OF 3" O.C. NAILING IS REQ'D. IN EACH PANEL EDGE PANEL LENGTH, in. | 16 | 18 | 20 | 22 | 24 MIN. DOUBLE POST (KING AND JACK STUD) NUMBER OF JACK TYPICAL PORTAL - MIN. DOUBLE STUD STUDS PER TABLES FRAME CONSTRUCTION R502.5(1) & (2) - MIN. (2) 1/2" Ø ANCHOR BOLTS ANCHOR BOLTS PER -INSTALLED PER SECTION R403.1.6 SECTION R403.1.6 (TYP) W/ 2" X 2" X 3/16" PLATE WASHER OVER CONCRETE OR MASONRY BLOCK FOUNDATION (2) FRAMING ANCHORS -NAIL SOLE PLATE -WOOD STRUCTURAL PANEL SHEATHING TO THE TOP TO JOISTS PER BAND OR RIM JOIST TABLE R602.3(1) 670 LBS WOOD STRUCTURAL PANEL SHEATHING OVER APPROVED BAND OR RIM JOIST

OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION

(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)

WOOD STRUCTURAL PANEL SHEATHING TO BAND OR RIM JOIST WITH 8d COMMON SHEATHING TO THE TOP BAND OR RIM JOIST TABLE R602.3(1)

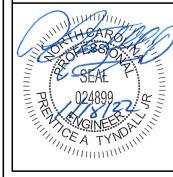
WOOD STRUCTURAL PANEL SHEATHING TO BAND OR RIM JOIST TABLE R602.3(1)

WOOD STRUCTURAL PANEL SHEATHING OVER APPROVED BAND OR RIM JOIST

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

B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME FIGURE R602.10.1

\*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. Failuret 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 begins.



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WTON ADDITION

SHEATHING DETAILS

Project #:

DRB2101-0255

Date:

1/13/22

Engineered By:

HJS

DWG. Checked By:

DATE

PAT
Scale:
SEE PLAN

REVISIONS

Date: Remarks

Sheet Number

D3