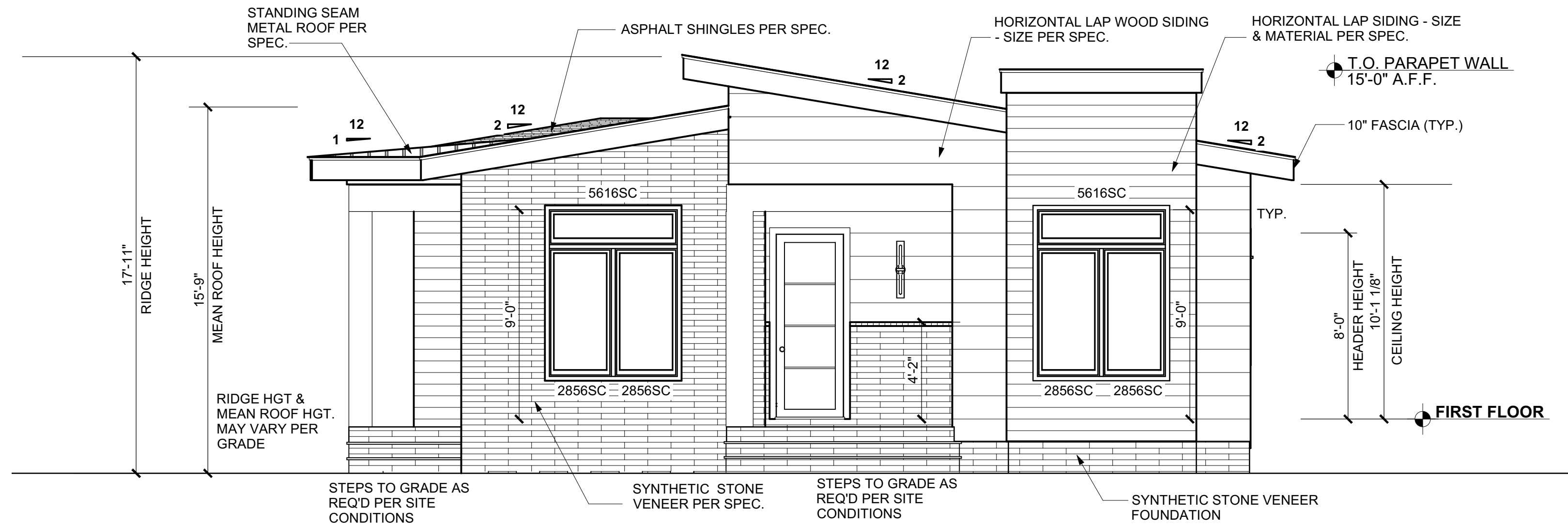
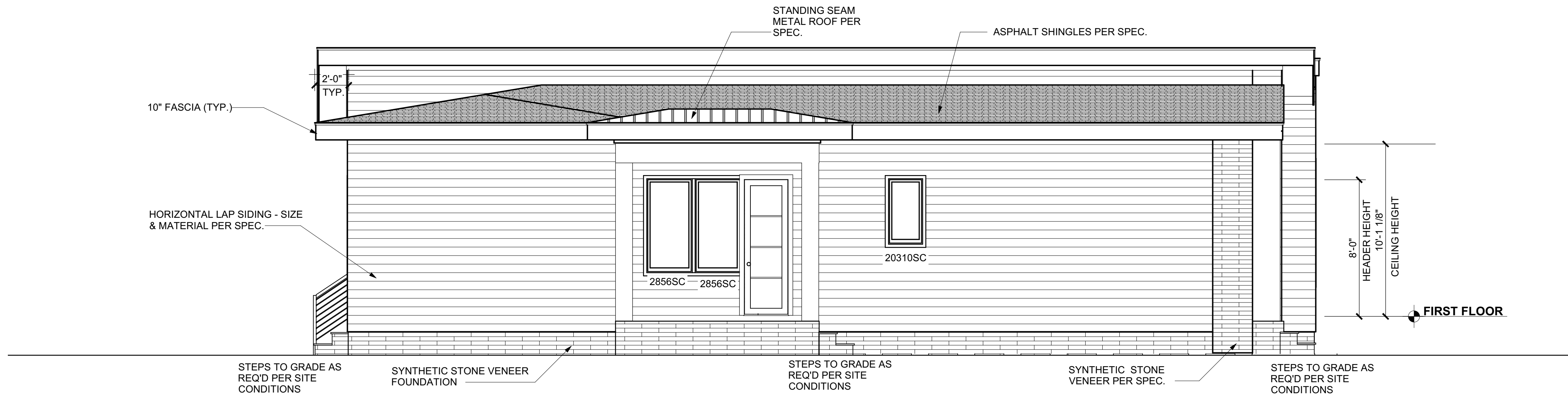




FRONT ELEVATION

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



LEFT ELEVATION

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

ELEVATION NOTES

BUILDING CODES
THIS PLAN HAS BEEN DESIGNED UNDER THE NC BUILDING CODES, 2018 RESIDENTIAL EDITION.

ICE GUARDS:
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) OR GREATER. FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (4:12), DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.

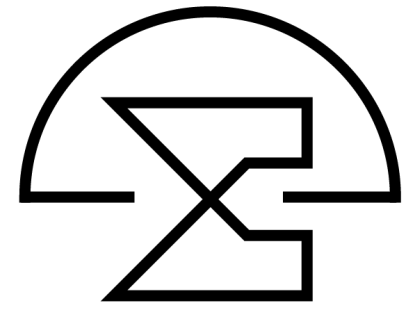
VENTING CALCULATIONS

CRAWL SPACE VENTILATION
THE MIN. NET FREE AREA OF CRAWL VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF CRAWL SPACE AREA.
1692 SQ. FT. CRAWL SPACE AREA / 150
11.28 SQ. FT. NET FREE AREA REQUIRED
*MAY BE REDUCED BY 50% W/ VAPOR BARRIER

ATTIC VENTILATION
1927 SQ. FT. OF ATTIC / 300 = 6.42 SQ. FT. OF INLET AND OUTLET. VENTILATION MAY BE REDUCED 50% WHEN VENTILATORS ARE USED AT LEAST 3'-0" ABOVE THE CORNICE VENTS.

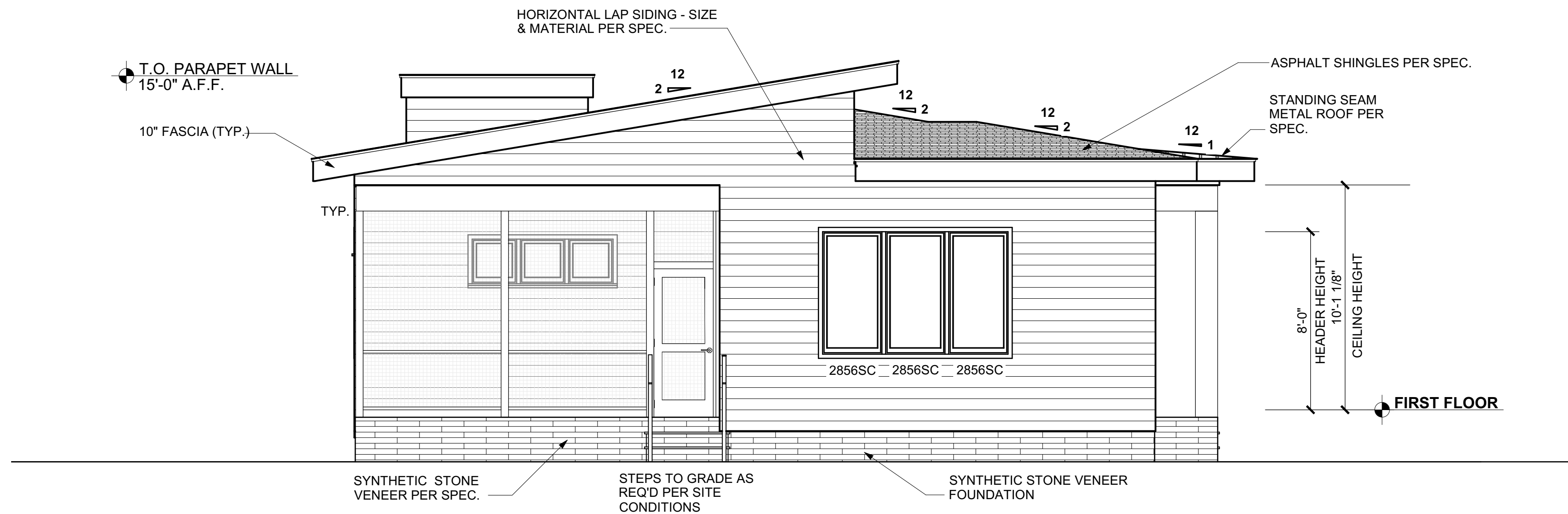
MATERIAL LEGEND

- ASPHALT SHINGLES
- STANDING SEAM METAL ROOF
- HORIZONTAL LAP SIDING
- BOARD & BATTEN SIDING @ 16"O.C.
- SHAKE SIDING
- BRICK VENEER
- SYNTHETIC STONE VENEER
- PARGED BLOCK FOUNDATION



REVISIONS	
NUMBER	DATE

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REAR ELEVATION

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

ELEVATION NOTES

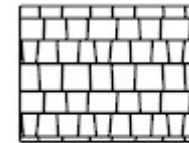
BUILDING CODES

THIS PLAN HAS BEEN DESIGNED UNDER THE NC BUILDING CODES, 2018 RESIDENTIAL EDITION.

ICE GUARDS:

ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) OR GREATER. FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (4:12), DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.

MATERIAL LEGEND



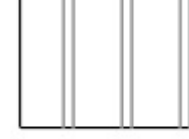
ASPHALT SHINGLES



STANDING SEAM METAL ROOF



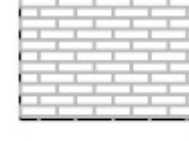
HORIZONTAL LAP SIDING



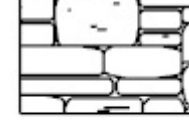
BOARD & BATTEN SIDING @ 16"O.C.



SHAKE SIDING



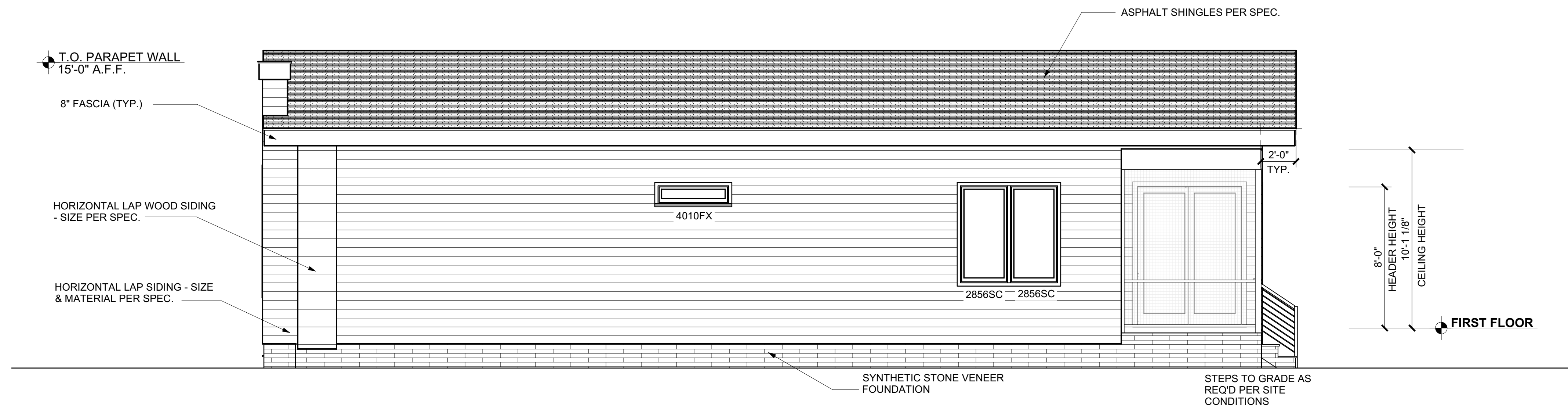
BRICK VENEER



SYNTHETIC STONE VENEER

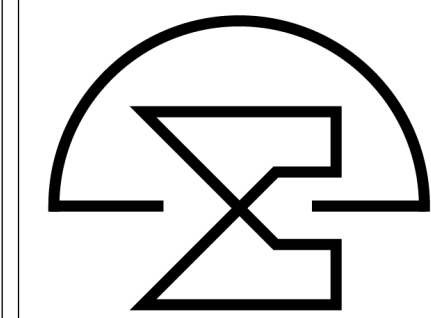


PARGED BLOCK FOUNDATION



RIGHT ELEVATION

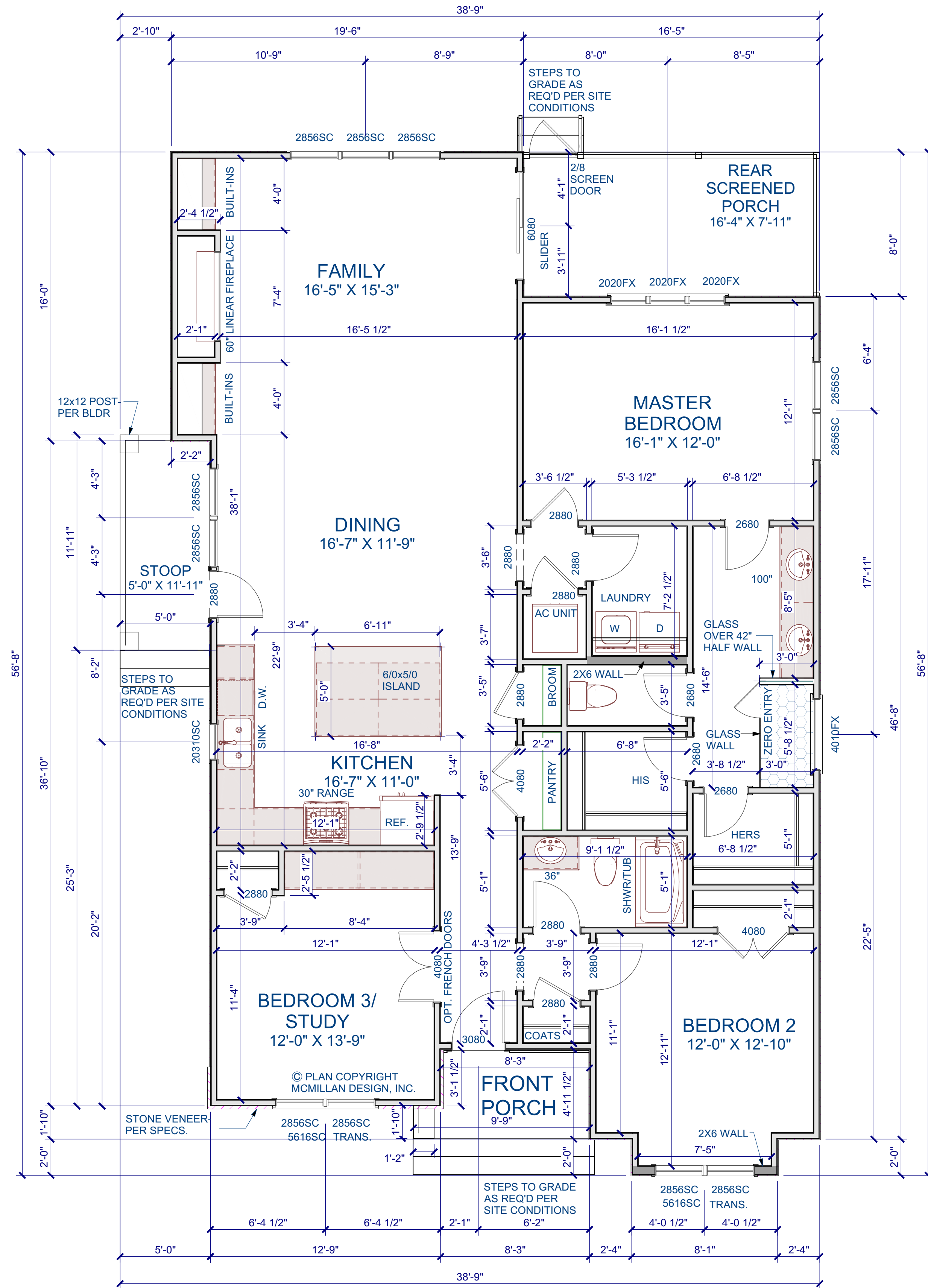
Scale: 1/4" = 1'-0"



REVISIONS

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FIRST FLOOR PLAN

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

GENERAL NOTES

WALLS
ALL WALLS ARE DRAWN 3.5" WIDE (2X4) OR 5.5" WIDE (2X6) U.N.O.
ANGLED WALL ARE DRAWN @45° U.N.O.
EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING. INTERIOR
DIMENSIONS ARE TO FACE OF STUD.

SMOKE DETECTORS
LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

EGRESS
ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH
CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE
CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS
MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.

ATTIC ACCESS
MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED
ON SITE.

WALL/CEILING HEIGHT
WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL
SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS
ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR
INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE
FLOOR DECKING TO THE BOTTOM OF THE FURRING.

WINDOW NOTE LEGEND

DH DOUBLE HUNG
SH SINGLE HUNG
FX FIXED
SC SINGLE CASEMENT
DC DOUBLE CASEMENT
TC TRIPLE CASEMENT

Square Footage	
Heated Square Footage	
First Floor	1692
Total Heated	1692
Unfinished Square Footage	
Front Porch	44
Rear Porch	131
Stoop	60
Total Unfinished	235

Lilium Homes
2588 Lake Royal

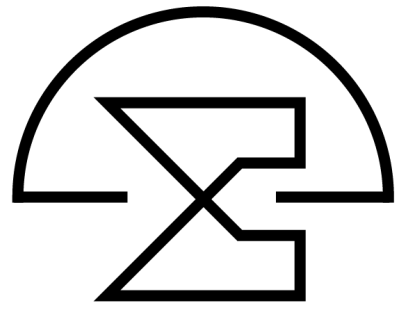
First Floor Plan

REVISIONS	
NUMBER	DATE

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Plan Number
M048-24
Sheet No. A-3
Drawn TB
By:
Date: 5/14/2024
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CONSTRUCTION SPECIFICATIONS

PART 1: GENERAL

- 1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.
- 1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

PART 2: DESIGN LOADS

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES	40	10
GARAGES (PASSENGER CARS ONLY)	50	---
ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)	10	10
ATTICS (WITH STORAGE)	20	10
ROOF	20	10 (15 FOR VAULTS)

NOTES: - INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.

- BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS

- 2.02 INTERIOR WALLS: 5 PSF LATERAL.
- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

PART 3: STRUCTURAL STEEL

- 3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE.
- 3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.
- 3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE
- 3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE
- 3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

PART 4: WELDING

- 4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER

PART 5: CONCRETE AND SLABS ON GRADE

- 5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 6% AIR ENTRAINMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP UNO.
- 5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.
- 5.03 SLABS ON GRADE, IF ANY, SHALL CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS

PART 6: REBAR AND WIRE REINFORCEMENT

- 6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO
- 6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO
- 6.03 WIRE REINFORCEMENT SHALL BE #9 GA AND SHALL CONFORM TO ASTM A1064.

PART 7: MASONRY

- 7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT, FM = 1,500 PSI MIN
- 7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW
- 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN COMPRESSIVE STRENGTH OF 2000 PSI.
- 7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530
- 7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS

PART 8: BOLTS AND LAG SCREWS

- 8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS
- 8.02 LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR SCREW HEAD

- 8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO
- 9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX

PART 9: DRIVEN FASTENERS

PART 10: DIMENSIONAL LUMBER

- 10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.

PART 11: ENGINEERED LUMBER

- 11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.9 X 10⁶ PSI, F_b = 2600 PSI, F_v = 285 PSI, F_c = 750 PSI
LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.5 X 10⁶ PSI, F_b = 1700 PSI, F_v = 400 PSI, F_c = 680 PSI

NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR

2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

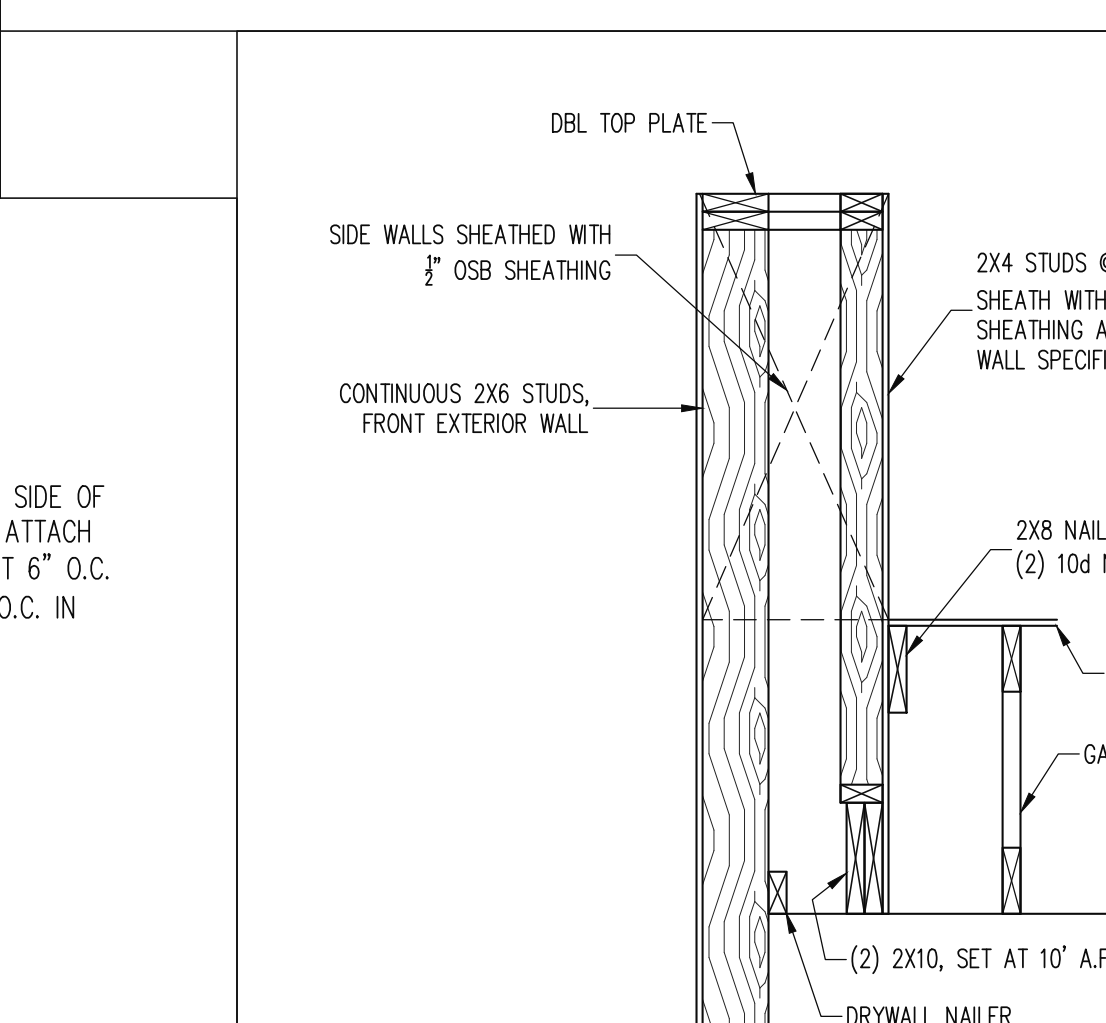
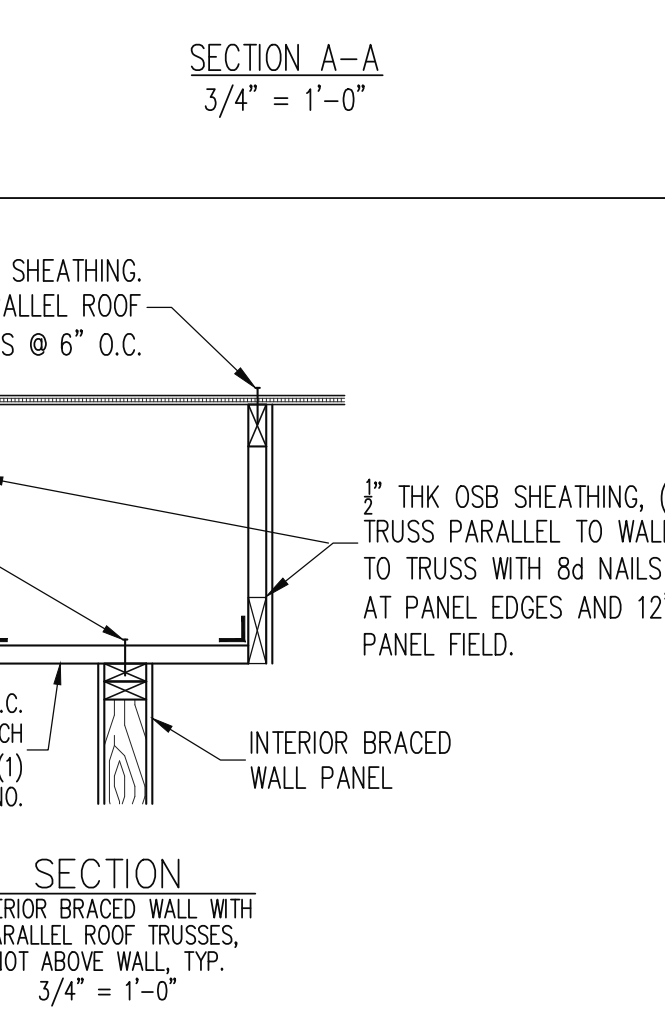
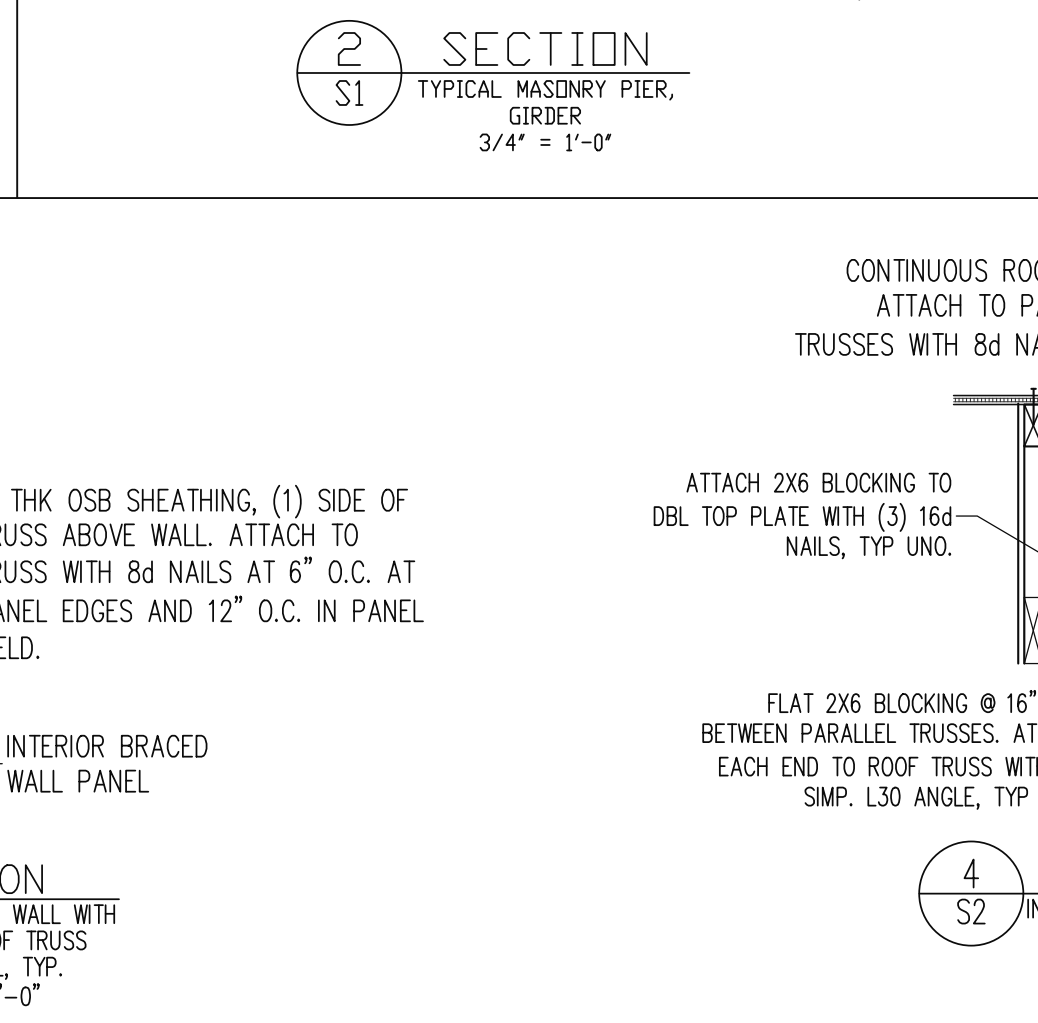
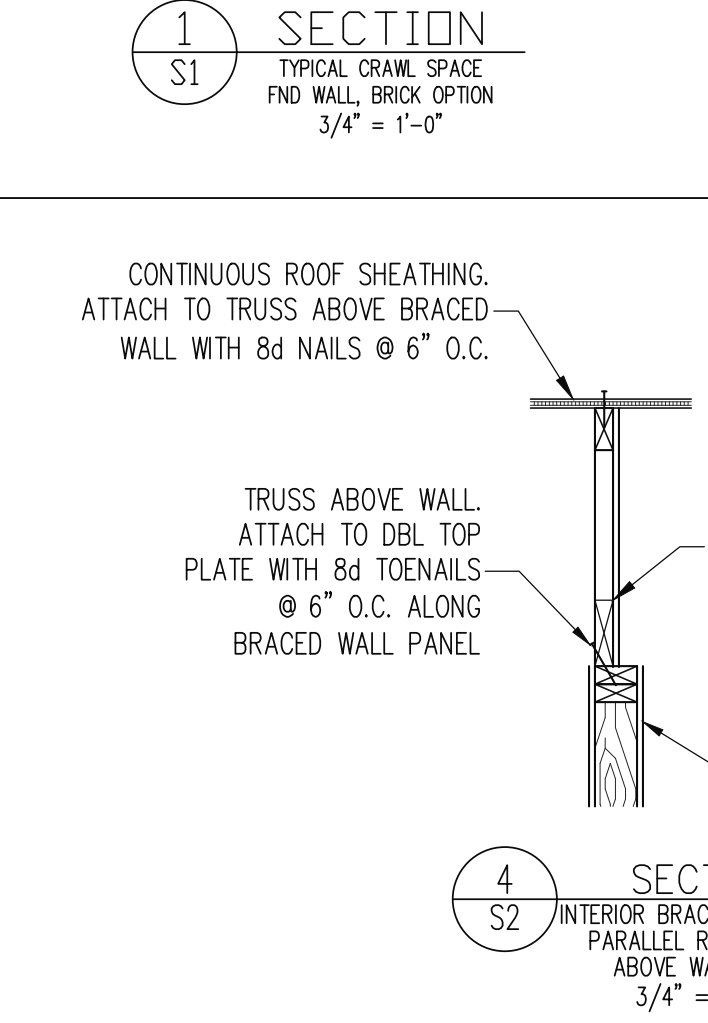
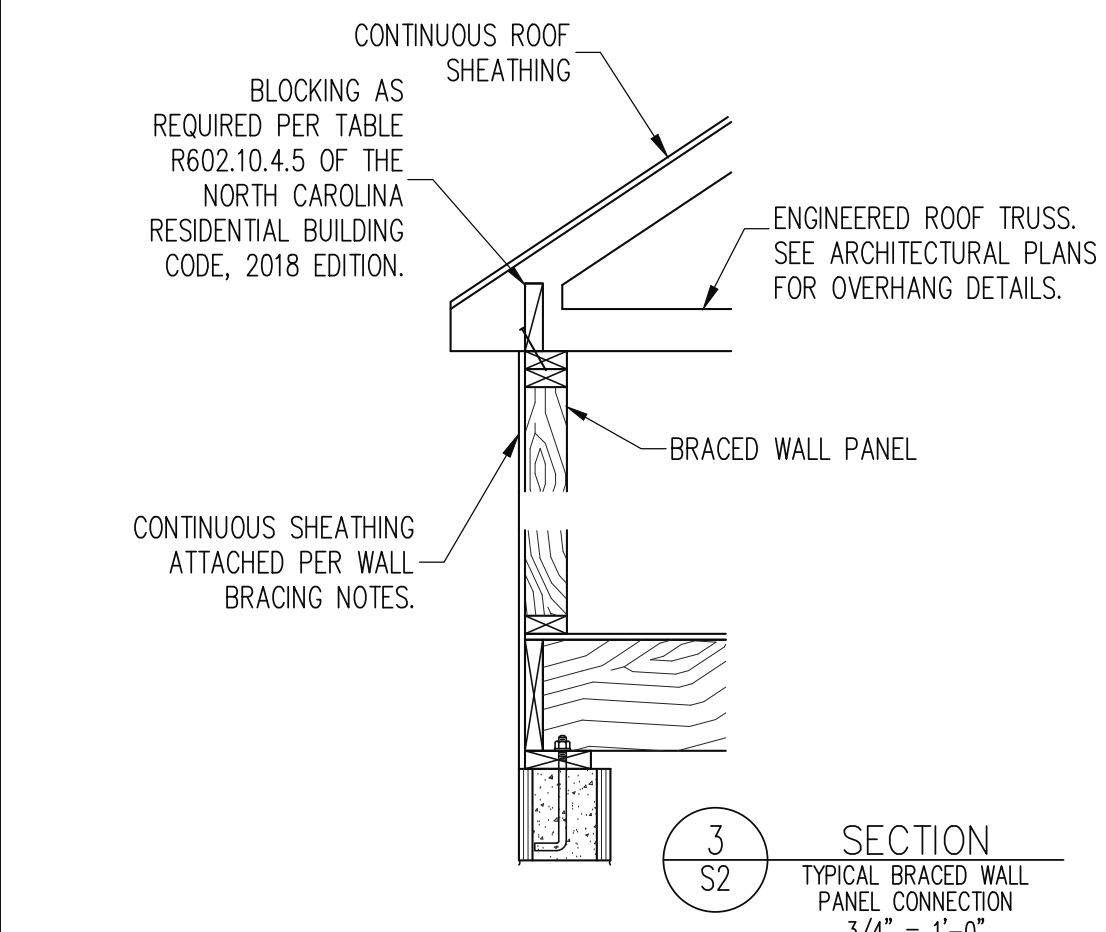
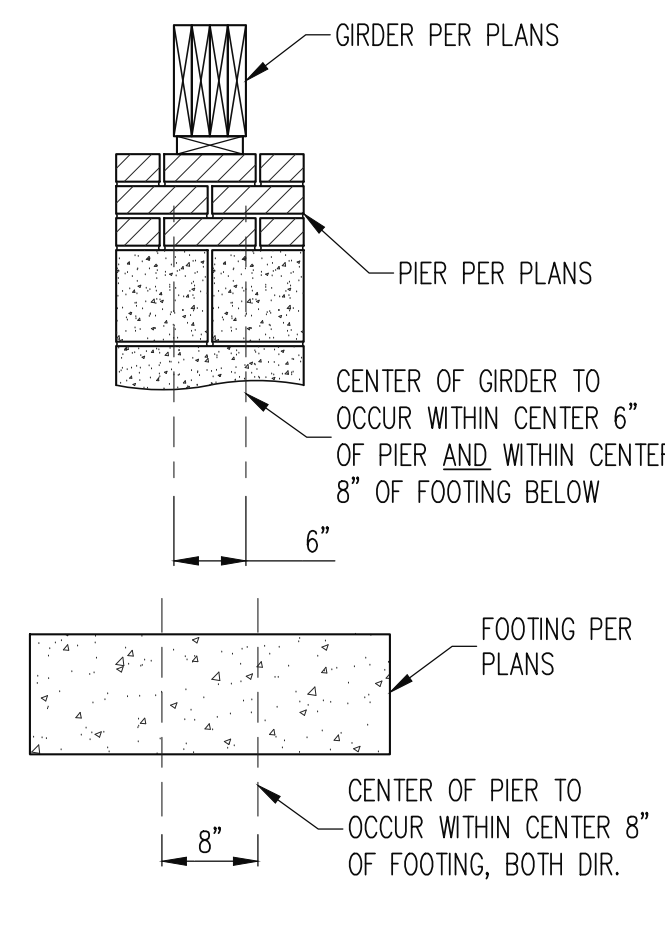
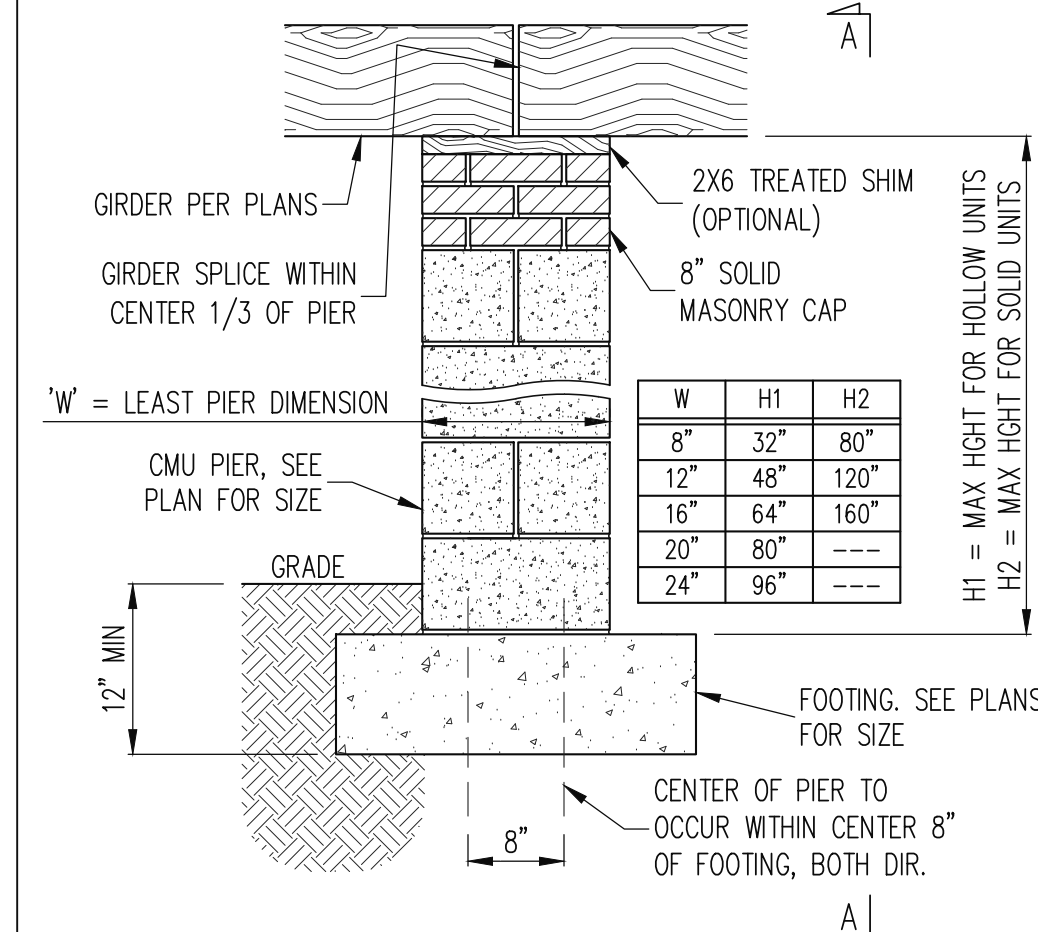
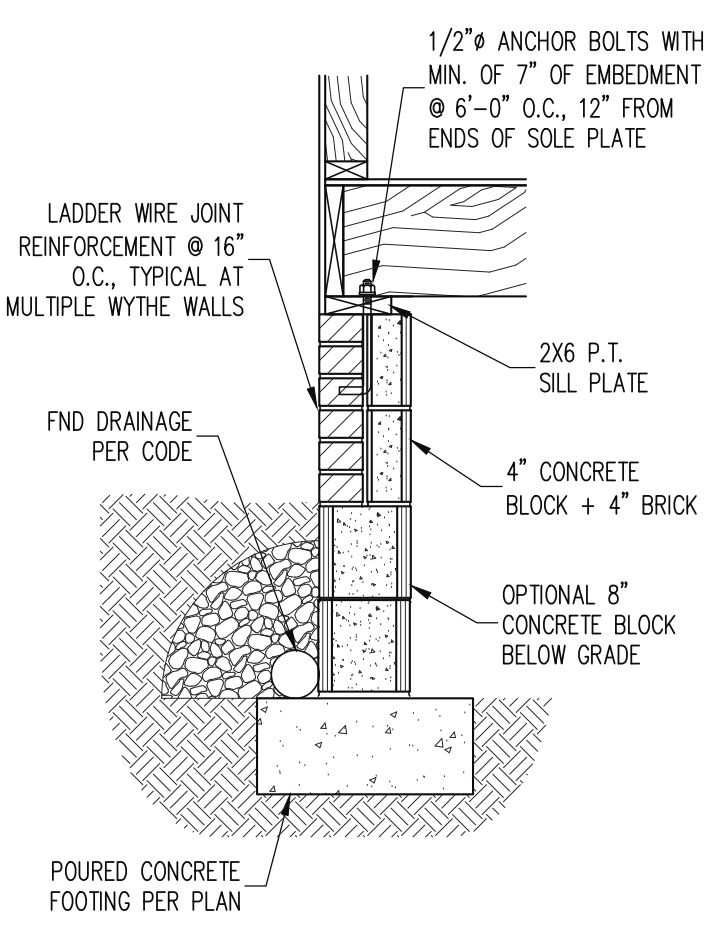
ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ANY REVISIONS ISSUED BY THE EOR ARE PROMPTLY DISTRIBUTED TO THE SUBCONTRACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

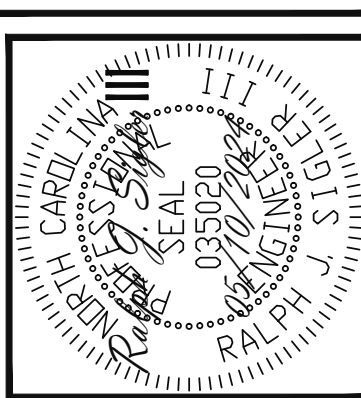
ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

ABBREVIATIONS

ABV	ABOVE	FND	FOUNDATION	TJ	TRIPLE JOIST
B	BOTH	FTC	FOOTING	TYP	TYPICAL
B.E.	BOTH ENDS	HOG	HOT DIPPED	TRPL	TRIPLE
BTWN	BETWEEN	GALV	GALVANIZED	TSP	TRIPLE STUD POCKET
CIP	CAST IN PLACE	HGR	HANGER	UNO	UNLESS NOTED OTHERWISE
CONC	CONCRETE	LVL	LAMINATED VENEER LUMBER	XJ	EXTRA JOIST
CS	CONTINUOUS SHEATHING	NTS	NOT TO SCALE		
DIA	DIAMETER	O.C.	ON CENTER		
DBL	DOUBLE	PSL	PARALLEL STRAND LUMBER		
DJ	DOUBLE JOIST	PT	PRESSURE TREATED		
DSP	DBL STUD POCKET	QJ	QUAD JOIST		
EQ	EQUAL	SP	STUD POCKET		
EA	EACH	SQ	SQUARE		
FLG	FLANGE				
FL PL	FLUTCH PLATE				
FLR	FLOOR				



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Engineering Tech Associates, P.A.

SCOPE:	LILUUM HOMES			
	STRUCTURAL ADDENDUM			
	REV #	REF	PROJ #	DATE
LOC:	2588 LAKE ROYALE			

ENG: RJS
DATE: 05-10-2024

PLAN
M048-24

PROJECT NO.
24-21-128

SHEET NO.
SD1
3 of 3