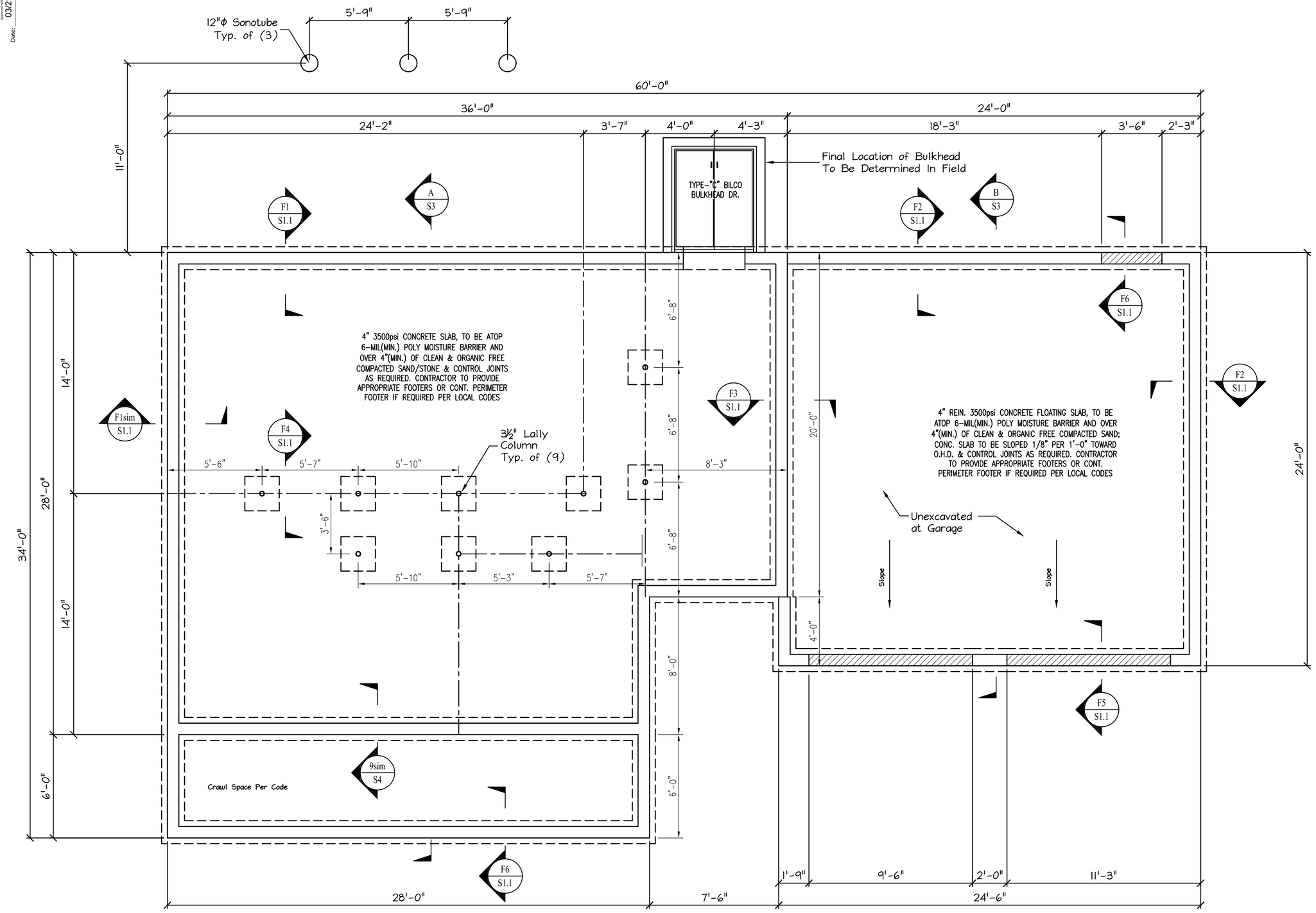

FOUNDATION PLAN

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

GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND PERSONNEL DURING ERECTION. THIS INCLUDES THE ADDITION OF THE NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL CONFORM TO ACI-318.
2. ALL CONCRETE EXCEPT INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 3000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". ALL INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 4000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". MAXIMUM SIZE AGGREGATE SHALL BE ¾" (WALL/FOOTINGS) AND ¾" (SLABS ON GROUND).
3. CONCRETE TO REMAIN EXPOSED TO WEATHER SHALL BE AIR ENTRAINED. NO AIR ENTRAINMENT IN INTERIOR CONCRETE SLABS.
4. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
5. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. DEFORMED BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE TO ACI-315 LATEST EDITION, AND PLACED IN ACCORDANCE WITH ACI-318.
6. SPLICES OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI-318.
7. ANCHOR RODS SHALL CONFORM TO ASTM F1554-36.
8. HOOKS NOT DIMENSIONED SHALL BE ACI STANDARD HOOKS.
9. CONCRETE COVER OVER REINFORCEMENT SHALL BE AS FOLLOWS:
   - CONCRETE CAST AGAINST EARTH = 3"
   - CONCRETE EXPOSED TO EARTH OR WEATHER = 1½"
   - CONCRETE NOT EXPOSED TO EARTH OR WEATHER = ¾"
10. PROVIDE CONTROL JOINTS IN STRUCTURAL SLAB AT 12-0" ON CENTER MAX.

DESIGN NOTES:

1. THIS BUILDING IS DESIGNED TO COMPLY WITH THE 2009 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE.
2. SNOW LOAD
   - a. GROUND SNOW LOAD = 60 PSF
   - b. FLAT ROOF SNOW LOAD = 42 PSF
   - c. SNOW LOAD IMPORTANCE FACTOR I = 1.0
   - d. SNOW EXPOSURE FACTOR Ce = 1.0
   - e. SNOW THERMAL FACTOR Ct= 1.0
   - f. BALANCE AND UNBALANCED SNOW LOADS IN ACCORDANCE WITH ASCE 7/05
3. WIND LOADS:
   - a. BASIC WIND SPEED V = 95 MPH
   - b. WIND LOAD IMPORTANCE FACTOR I = 1.0
   - c. WIND INTERNAL PRESSURE COEFFICIENT GCPi = ±.18
   - d. Wind Exposure = B
4. ROOF DEAD LOAD
   - a. TOP CHORD = 10.0 PSF
   - b. BOTTOM CHORD = 15.0 PSF
   - c. HVAC UNIT(S) = TO BE DETERMINED
5. FLOOR LIVE LOAD
   - a. 2nd FLOOR = 30.0 PSF AT SLEEPING AREAS
   - b. 1st FLOOR = 40.0 PSF
6. EARTHQUAKE LOAD:
   - a. DESIGN OF EARTHQUAKE LOAD IN ACCORDANCE WITH ASCE 7/05
   - b. SEISMIC IMPORTANCE FACTOR I = 1.0
   - c. 0.2s MAPPED SPECTRAL RESPONSE ACCELERATION Ss = per code
   - d. 1.0s MAPPED SPECTRAL RESPONSE ACCELERATION S1 = per code
   - e. SITE CLASS = CLASS D.
   - f. SPECTRAL RESPONSE COEFFICIENT SDS = per code
   - g. SPECTRAL RESPONSE COEFFICIENT SD1 = per code
   - h. SEISMIC DESIGN CATEGORY = CATEGORY B
   - i. BASIC SEISMIC FORCE RESISTING SYSTEM: BEARING WALL SYSTEM = LIGHT FRAMED WALL SYSTEMS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
   - j. RESPONSE MODIFICATION FACTOR R = 6
   - k. DEFLECTION AMPLIFICATION FACTOR CD = 4
   - l. ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE
7. DEFLECTION CRITERIA
   - a. ROOF (LIVE) = L/360
   - b. ROOF (TOTAL) = L/240

ISSUED FOR PERMIT
10/19/17

3 _____
2 _____
1 _____

STATE OF MAINE
BRUCE W. MACLEOD
No. 5422
LICENSED
PROFESSIONAL ENGINEER

MACLEOD
STRUCTURAL ENGINEERS, PA
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Reaves Residence
Lot 33 Pamela Road
Portland, Maine

TITLE: FOUNDATION PLAN

DATE: 10.16.17	DRAWN BY: BWM	DRAWING NUMBER:
SCALE: as noted	PROJ NO: 2017-081	S-1

Date: 03/21/18
Reviewed for Code Compliance
Approved with Conditions
Not Approved