

**STRUCTURAL NOTES:**

CODE: Comply with the 2006 International Residential Code.

**DESIGN LOADS:**

Dead Load: Roof = 150 psf, Floor = 10.0 psf,  
Live Load: Roof = 450 psf (plus DRH), 1st Floor = 40.0 psf, 2nd Floor = 30.0 psf,  
Wind Load: Building = 20.0 psf

**FOUNDATIONS:**

**1. DO NOT BACKFILL FOUNDATION WALLS UNTIL FIRST FLOOR FRAMING IS COMPLETE.**

2. Adjacent finish or natural grade, which ever is lower. Step footings to achieve these depths as required.

3. Assumed soil bearing pressure = 2,000 psf

4. Place foundation concrete only on clean, firm, dry bearing material.

5. Formwork shall be erected and braced to prevent excessive deflection.

6. Install 4" dia. perforated drain (toe drainage) to top of pipe) on exterior and interior of footing perimeter. Wrap all drain the in filter fabric and encase with 3/4" crushed stone around entire pipe. Create a positive drain to atmosphere or dry well with drainage away from structure. Provide (3) vents through slab for possible use in radon mitigation system. See radon mitigation details for radon gas entry prevention.

7. All foundation wall exteriors shall be coated with dampproofing per manufacturer's spec. Dampproofing shall not be visible above final grade.

8. See architectural drawings for additional information not shown.

**CONCRETE:**

1. Concrete regular weight (144 pcf) with Type II cement per ASTM C150, aggregate per ASTM C33, and potable water. No fly-ash permitted in floor slab. Aggregate size = 1" for foundation wall and 1/2" for footing. 4,000 psi for exterior slab and side walls.

2. Show cast for floor slab control joints (CJ) shall be made as soon as the slab can support the weight of the saw, but no more than 12 hours after placing concrete. Max. 24 sq. ft. of per saw cut area.

3. Provide floor slab 1/4"th, formed over head floor.

4. Slabs shall have vapor retarder with 8" deep cranked stone per manufacturer's requirements.

**REINFORCING:**

1. ASTM A 618 SSI, Grade 60 except #2 and #3 bars ASTM A618 SSI; Grade 40.

2. Steel Pipe Columns: ASTM A 36, Fy = 36 ksi.

3. Bolts and plain anchors: ASTM A 307.

**STEEL:**

1. Steel pipe sections and plates: ASTM A 36, Fy = 36 ksi.

2. Steel Pipe Columns: ASTM A 36, Fy = 36 ksi.

3. Bolts and plain anchors: ASTM A 307.

**WOOD:**

1. General:

a. Each piece of lumber shall be "S-DRY" and bear the grade stamp of a grading rules agency approved by the American Lumber Standards Committee.

b. Double up ends at joints and under beams.

c. Do not nail or drill joists, beams or head bearing studs without approval.

a. Nail roof plywood with 8d common at 6" o.c. at all edges and boundary members and 10" o.c. at intermediate supports.

b. Glue floor plywood to all framing members and nail with 8d common at 6" o.c. at all plywood boundary members and 10" o.c. at intermediate supports.

c. Nail wall plywood with 10d common with 6" o.c. at all edges and boundary members and 12" o.c. at intermediate supports.

3. Structural Sawm Lumber:

a. 2 x 6 from 2 x 4 grade. Spacing: Floor No. 2 with R<sub>s</sub> (repetitive) = 1200 p.s.f.

b. Laminated Veneer Lumber (LVL): R<sub>s</sub> = 2800 psf; R<sub>v</sub> = 285 psf; E = 1,900 ksi

c. Plywood:

a. Roof Sheathing: C-D (N/A) (PS/4) with exterior glue. 5/8" with Identification Index 4824. Lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to provide a minimum of two spans with a minimum width of 1'-0" unless blocking is provided at all joints.

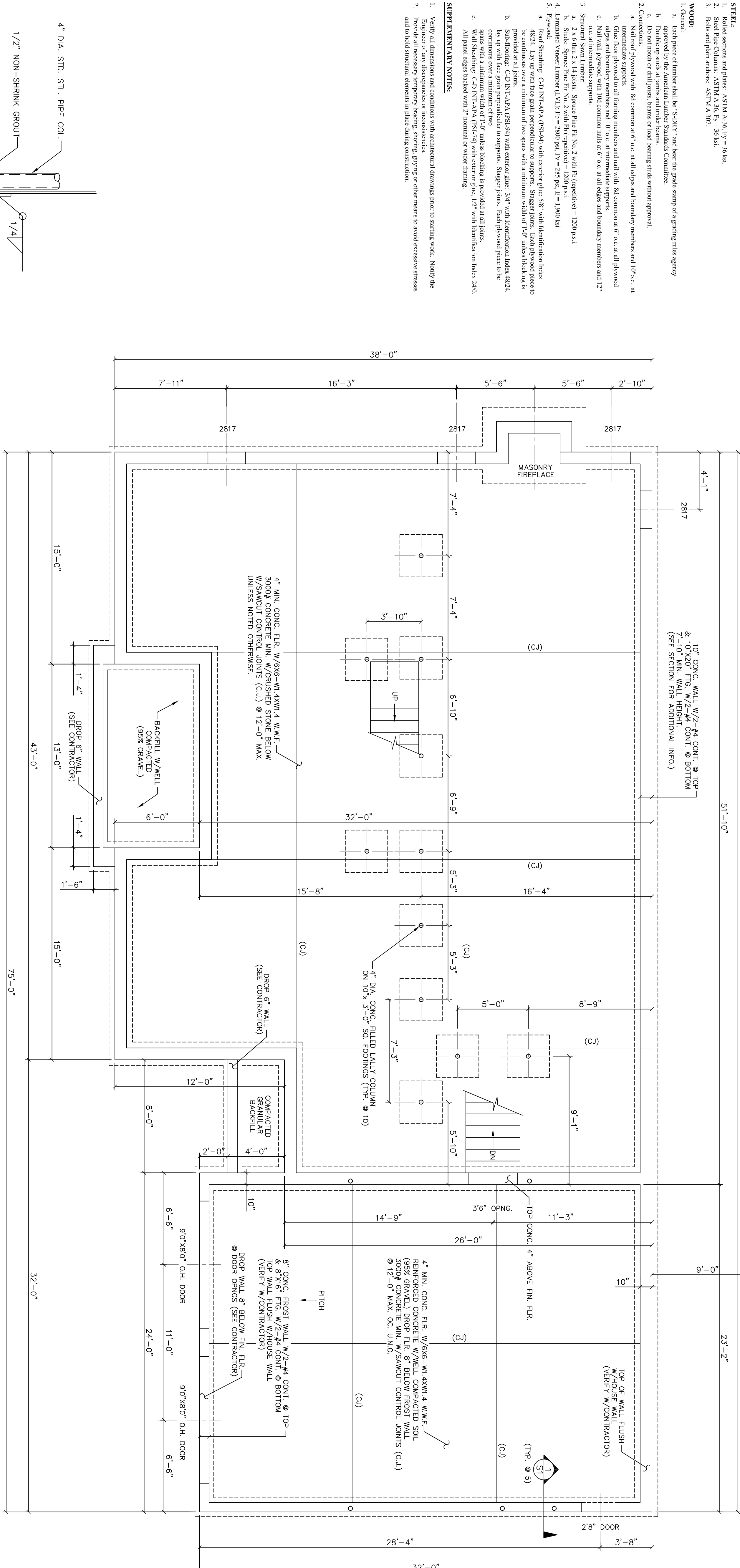
b. Sub-flooring: C-D (N/A) (PS/4) with exterior glue. 3/4" with Identification Index 4824 lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to be continuous over a minimum of two spans including its full width.

c. Wall Sheathing: C-D (N/A) (PS/2) with exterior glue. 1/2" with Identification Index 3410. All panel edges backed with 2" nominal or wider framing.

**SUPPLEMENTARY NOTES:**

1. Verify all dimensions and conditions with architectural drawings prior to starting work. Notify the Engineer of any discrepancies or inconsistencies.

2. Provide all necessary temporary bracing, shoring, guying or other means to avoid excessive stress and to hold structural elements in place during construction.

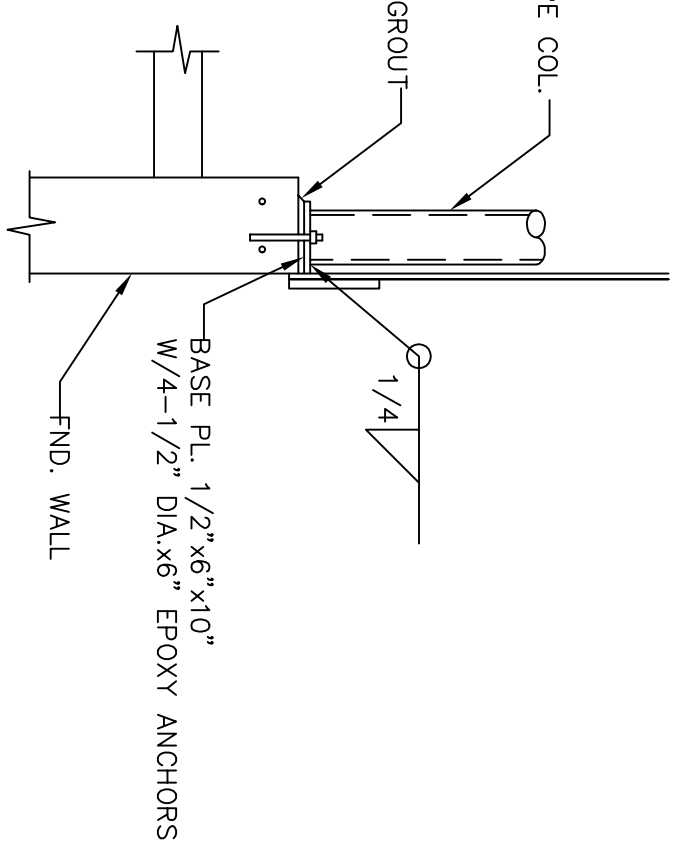


FOUNDATION PLAN

**FOUNDATION NOTES:**

1. See Structural notes sheet S-1.
2. Basement window locations & rough openings shall be checked and verified in field with contractor and owner. If no windows are shown, contractor shall field locate as required.
3. All final daylight basement window sizes and locations, foundation wall and footing considerations shall be determined in field with contractor and owner during construction.
4. Contractor shall verify all manufacturer's installation dimensions and requirements for considered products such as bulkheads, doors, windows and venting etc.
5. All considerations for utilities is the responsibility of the contractor.

1 COLUMN BASE  
SCALE: 3/4"=1'-0"



PROJECT: **LEGERE RESIDENCE**  
56 QUIET LANE, PORTLAND, MAINE

DRAWING: **FOUNDATION PLAN**

**EDP** ENGINEERING DESIGN PROFESSIONALS  
Consulting Engineers  
P.O. BOX 575, FREEPORT, MAINE 04032 • (207) 865-9505

DESIGNED BY: LARRY WICHOSKI, P.E.  
DRAWN BY: J. MORIN  
JOB #: 0909  
SCALE: 1/4"=1'-0"  
DATE: 09-15-09

REVISIONS

SHEET: **S1**