

STRUCTURAL NOTES:

CODE: Comply with the 2009 International Residential Building Code.

DESIGN LOADS:

Dead Loads: Roof = 15.0 psf., Floor = 12.0 psf.
 Live Loads: Roof = 45.0 psf (Plus Drift), All Floors = 40.0 psf.
 Wind Load: Building = 31.0 psf

FOUNDATIONS:

- Bear footings on firm, undisturbed dense native soil at 4"-6" minimum below lowest adjacent finish or natural grade, which ever is lower. Step footings to achieve these depths as required.
- Assumed soil bearing pressure = 2,000 psf.
- Place foundation concrete only on clean, firm, dry bearing material.
- Engineer shall be notified if stone ledge or marine clay is found during excavation.
- Install 4" dia. perforated drain tile (rotate perforations to top of pipe) on exterior and interior of footing perimeter. Wrap all drain tile 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 (2) stubs through slab for possible use in radon mitigation system. See contractor for mitigation system requirements. Contractor shall be responsible for any additional drainage requirements, such as sump pumps etc.
- All foundation wall exteriors shall be coated with dampproofing per manufacturer's spec. Dampproofing shall not be visible above final grade.
- See architectural drawings for additional information not shown.

CONCRETE:

- 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" maximum for footings and slab. Minimum compressive strength = 3000 psi for foundations and slab on grade and 4,000 psi for exterior slabs and sidewalks.
- Saw cuts 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.
- Pitch all garage floor slabs 1/4"ft. toward over head door.
- Slabs shall bear on 2" rigid insulation with 8" deep compacted crushed stone below.

REINFORCING:

- ASTM A 615-S1, Grade 60 except #2 and #3 bars ASTM A615-S1: Grade 40.
- Lap splices in concrete: 42 bar diameters.
- Provide bent corner reinforcing to match and lap with horizontal reinforcing at corners and intersections of walls, and footings.
- Reinforcing shall be placed with 3" clearance at all surfaces.

STEEL:

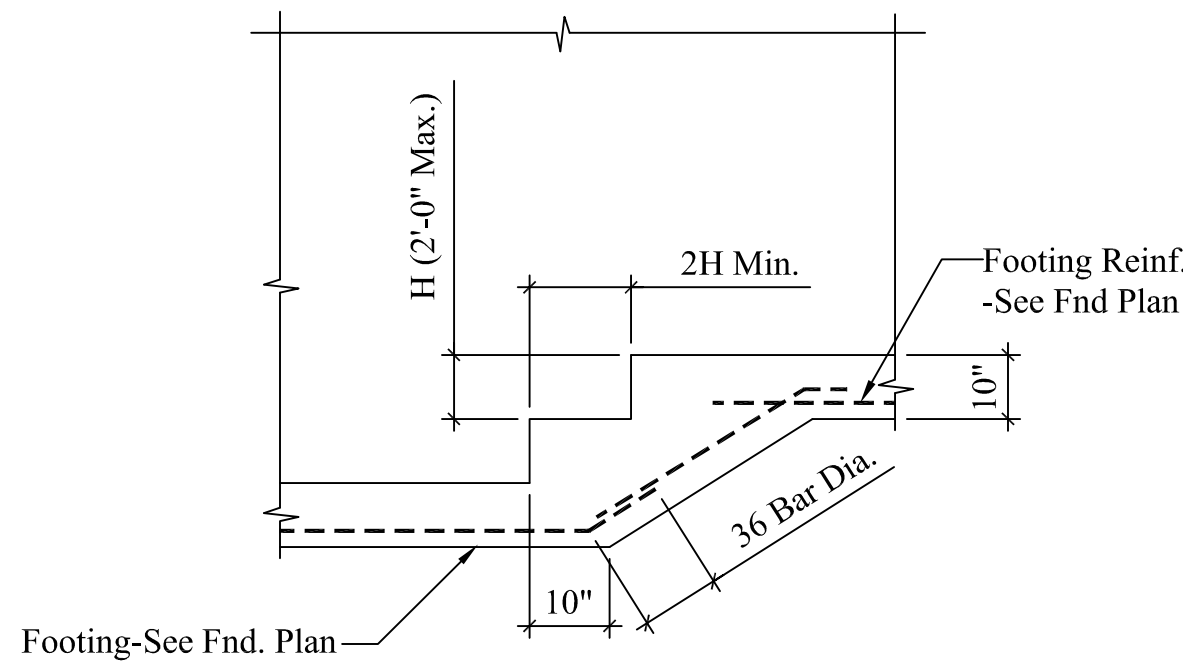
- Rolled sections and plates: ASTM A-36, Fy = 36 ksi.
- Steel Lally Columns: ASTM A513, Fy = 32 ksi. 16 gage steel filled w/ 3,000 psi concrete.
- Steel Pipe Column: (not lally columns) ASTM A-36, Fy = 36 ksi.
- Bolts and plain anchors: ASTM A 307.
- Submit shop drawings. Fabricate after Engineers review.

WOOD:

- General:
 - 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.
 - Double up studs at jambs and under beams.
 - Do not notch or drill joists, beams or load bearing studs without approval.
- Connections:
 - Nail roof plywood with 8d common at 6" o.c. at all edges and boundary members and 10" o.c. at intermediate supports.
 - Glue floor plywood to all framing members and nail with 8d common at 6" o.c. at all plywood edges and boundary members and 10" o.c. at intermediate supports.
 - Nail wall plywood with 10d common nails at 6" o.c. at all edges and boundary members and 12" o.c. at intermediate supports.
- Structural Sawn Lumber:
 - 2 x 6 thru 2 x 14 joists: Spruce Pine Fir No. 2 with Fb (repetitive) = 1200 p.s.i.
 - Studs: Spruce Pine Fir No. 2 with Fb (repetitive) = 1200 p.s.i.
- Laminated Veneer Lumber (LVL): Fb = 2800 psi, Fv = 285 psi, E = 2,000 ksi
- Plywood:
 - Roof Sheathing: C-D INT-APA (PSI-94) with exterior glue; 5/8" with Identification Index 48/24. Lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to be continuous over a minimum of two spans with a minimum width of 1'-0" unless blocking is provided at all joints.
 - Sub-flooring: C-D INT-APA (PSI-94) with exterior glue; 3/4" with Identification Index 48/24. lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to be continuous over a minimum of two spans with a minimum width of 1'-0" unless blocking is provided at all joints.
 - Wall Sheathing: C-D INT-APA (PSI-74) with exterior glue, 1/2" with Identification Index 24/0. All panel edges backed with 2" nominal or wider framing.

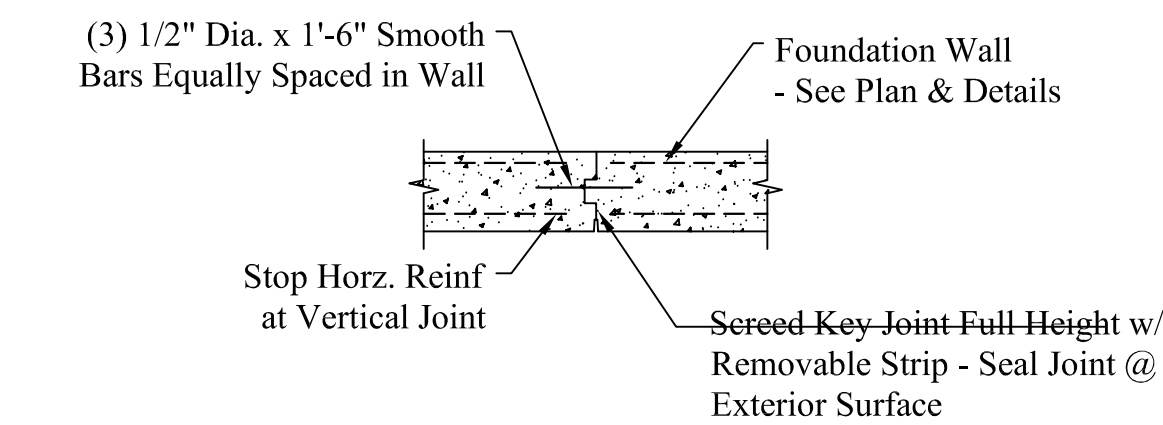
SUPPLEMENTARY NOTES:

- Verify all dimensions and conditions with architectural drawings prior to starting work. Notify the Engineer of any discrepancies or inconsistencies.
- Provide all necessary temporary bracing, shoring, guying or other means to avoid excessive stresses and to hold structural elements in place during construction.



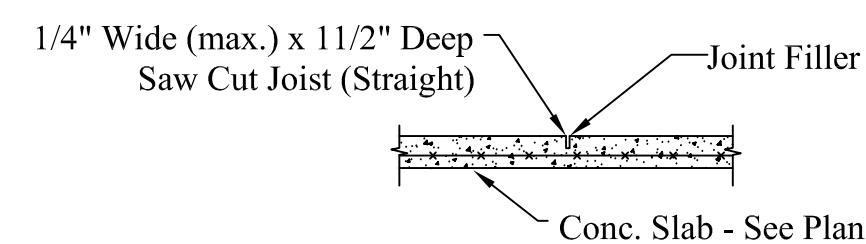
TYP. STEP FOOTING DETAIL

SCALE: 1/2"=1'-0"



NOTE: Provide joint in walls that exceed 60' in length without cross walls.

JOINT @ FDN WALL



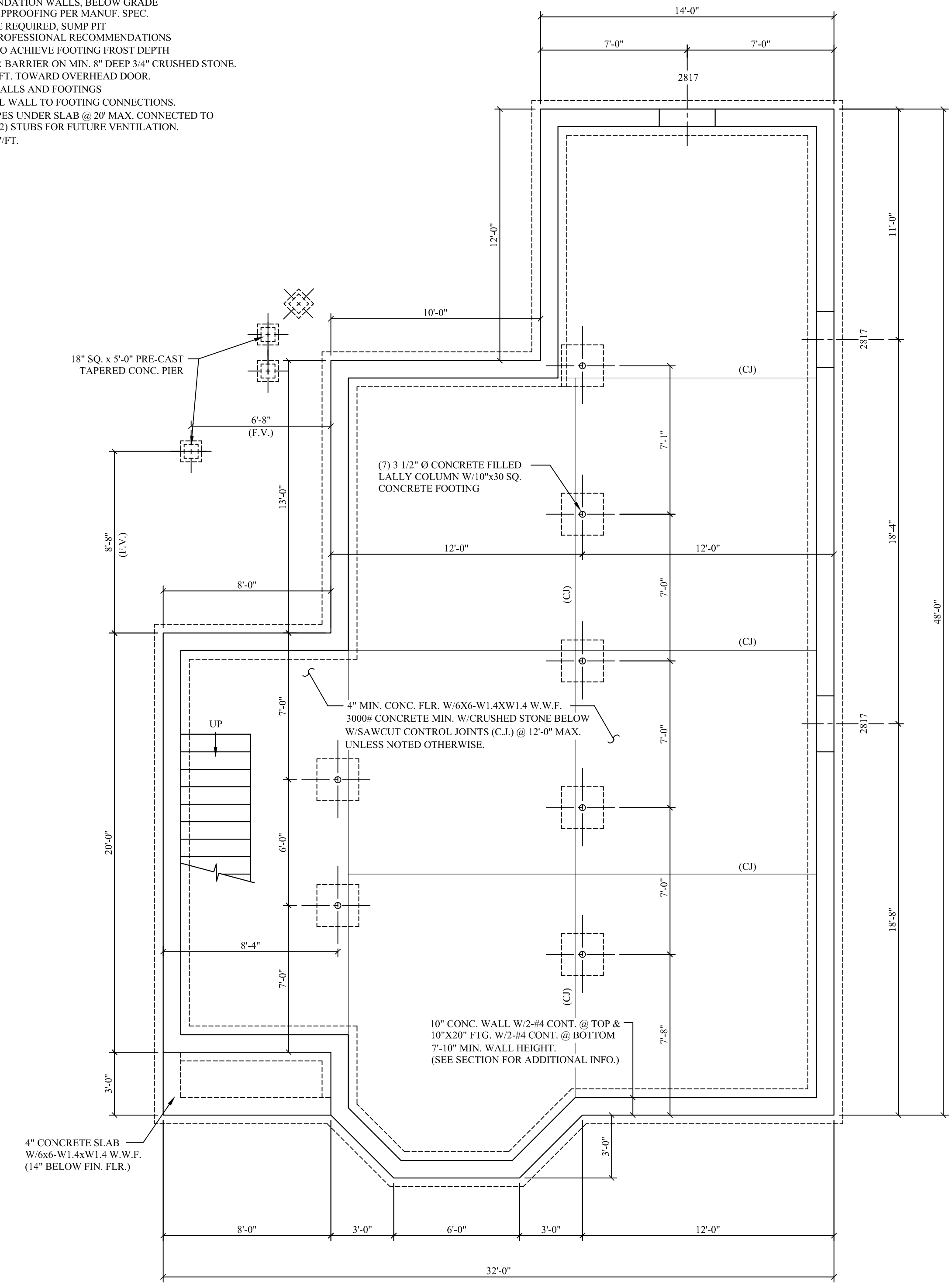
JOINT @ SLAB ON GRADE

TYP. FLOOR & WALL JOINTS

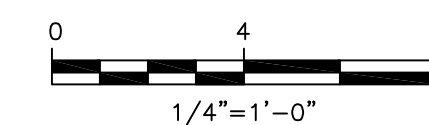
SCALE: 1/2"=1'-0"

FOUNDATION NOTES:

- (DO NOT) BACKFILL MORE THAN 3'-0" BEFORE 1ST FLR. FRAMING-JOIST & SUBFLOOR IS COMPLETE.
- ALL FINISH WALL, FOOTING & FLOOR HEIGHTS & ELEVATIONS SHALL BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO EXCAVATION.
- BASEMENT WINDOW LOCATIONS & AND ROUGH OPNGS. SHALL BE CHECKED & VERIFIED IN FIELD WITH CONTRACTOR. OTHERWISE IF NOT SHOWN SHALL BE DETERMINED IN FIELD BY CONTRACTOR.
- ALL ANCHOR BOLTS SHALL BE 1/2"x1'-0" HOOKED OR EQUIVALENT. 4'-0" MAX. OC. & 1'-0" MIN. FROM ALL CORNERS.
- ALL LALLY COLUMNS, FOOTINGS, WALLS & BEAMS SHALL BE CHECKED & ENGINEERED BY CONTRACTOR BEFORE FORMS HAVE BEEN SET.
- ALL DAYLIGHT BASEMENT CONSIDERATIONS TO BE DETERMINED IN FIELD BY CONTRACTOR IF APPLICABLE.
- ALL CONSIDERATIONS FOR UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH FLOOR PLAN & VERIFY PRODUCT (IE. BULKHEAD, DOORS ETC.) DIMENSIONS & SPECS. BEFORE FORMS ARE SET.
- CONTRACTOR SHALL ADJUST WALL AND FOOTINGS SIZES TO SOIL BEARING CAPACITIES AS REQ'D.
- DRAIN TILE SHALL BE PLACED ON INTERIOR AND EXTERIOR OF FOUNDATION. ALL DRAIN TILE PIPE SHALL BE WRAPPED IN FILTER FABRIC. FABRIC SHALL ENCASE 3/4" CRUSHED STONE AROUND ENTIRE DIA. PIPE DRAIN TO ATMOSPHERE OR TO DRY WELL.
- SEE ARCHITECTURAL FOR DIMENSIONS & ADDITIONAL INFORMATION.
- ALL CONCRETE SLABS SHALL HAVE (CJ) SAW-CUT CONTROL JOINTS @ 12'-0" MAX., SAWN WITHIN 6 HOURS OF SLAB POUR, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR CONCRETE FOUNDATION WALLS, BELOW GRADE SHALL BE COATED WITH DAMPPROOFING PER MANUF. SPEC.
- ADDITIONAL DRAINAGE MAYBE REQUIRED. SUMP PIT CONSULT CONTRACTOR FOR PROFESSIONAL RECOMMENDATIONS.
- STEP FOOTINGS AS REQUIRED TO ACHIEVE FOOTING FROST DEPTH.
- 4" CONC. SLAB ON 6 MIL. VAPOR BARRIER ON MIN. 8" DEEP 3/4" CRUSHED STONE.
- PITCH ALL GARAGE SLABS 1/4" FT. TOWARD OVERHEAD DOOR.
- CONCRETE MIN. 3000 PSF FOR WALLS AND FOOTINGS.
- 2"x4" TAPERED KEYWAY AT ALL WALL TO FOOTING CONNECTIONS.
- 4" DIA. PERFORATED RADON PIPES UNDER SLAB @ 20" MAX. CONNECTED TO UNDERDRAIN. PROVIDE TWO (2) STUBS FOR FUTURE VENTILATION.
- PITCH ALL EXTERIOR SLABS 1/4" FT.



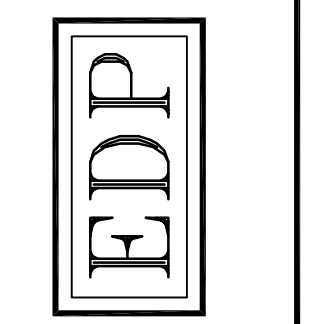
FOUNDATION PLAN



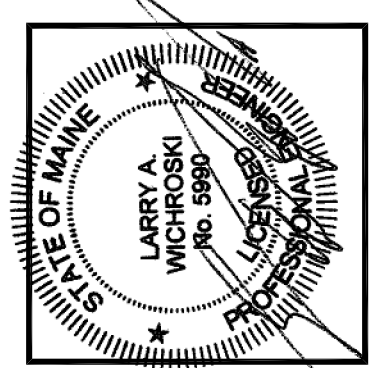
ISSUED FOR CONSTRUCTION

09-30-2013

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



PROJECT: **MAINE INVESTMENT PROPERTIES L.L.C.**
 PORTLAND, MAINE
 DRAWING: 126 VERANDA ST. PORTLAND, MAINE
 FOUNDATION PLAN AND GENERAL NOTES



DESIGNED BY: LARRY WICHROSKI, P.E.
 DRAWN BY: J. MORIN
 JOB #: 04413
 SCALE: 1/4"=1'-0"
 DATE: 09-30-2013

REVISIONS
 SHEET: **S1**