



- FOUNDATION NOTES**
- Foundation design based on spread footings bearing on firm, original soil at maximum soil bearing pressure of (2.0) K.S.F. Contractor to verify soil bearing capacity prior to commencing work.
  - Reinforced concrete design and construction to conform to ACI 318-83 with a minimum 3000 p.s.i. concrete strength at (28) days (see specifications) with a minimum of 5 1/2 sacks cement per cubic yard. Reinforcing steel to be A-65-60 and conform to ASTM A-365. Reinforcing steel details per A.C.I. manual. Lap bar splices (74) diameters, (7'-0") minimum, except column splices (36) diameters unless noted. Reinforcing steel protection (to main reinforcing) bottom of footings and grade beams (3") sides of grade beams (2") walls (2") slabs (3/4"), unless noted. Concrete slab design and construction to conform to ACI 302-83 with same properties as above except to have 6 sacks cement per cubic yard and no more than 6 gallons of water per sack of cement. Place reinforcing mesh in slabs per plan and insure that mesh is in proper location by use of chairs or other devices. Lap mesh one full wire space both ends and sides. Mesh crossing control joints to have every other wire strand cut. Newly poured slabs to be sprayed with a heavy coat of curing compound immediately to retain moisture.
  - All fill and back fill under slabs on-grade to be thoroughly compacted by mechanical means to attain 95% minimum compaction as measured by Modified Proctor Test, ASTM D-1557, and non-bearing backfill to 90% of max. dry density as determined by ASTM D698-81.
  - No opening shall be placed in any structural member until the location has been approved by Structural Engineer. Provide sleeves or boxes for all piping and ducts which penetrate footings, slabs, walls, etc., prior to the pouring of concrete. Cutting holes through hardened concrete not permitted, except by special permission, which will be on an individual basis.
  - Contractor must verify locations of all construction joints with Engineer if they vary from what is shown on plans. Maximum length of pours shall be limited to 100'-0" for walls and 25'-0" for slabs. (See plan for Floor Joints).
  - Structural drawings to be used in conjunction with architectural and mechanical drawings. Any discrepancies between drawings are to be reported to the Architect and Engineer for proper interpretation.
  - Design Live Loads: A - Snow Load + 20 psf B - Wind Load + 10 MPH EXP. C - SEISMIC ZONE 2 - ALL PER BOCA 1996 D - COLLATERAL LOAD + 5PSF
  - Anchor Bolts to be set with a template. Do not hand set bolts!
  - Hold down shaded areas thickness of slab and pour with slab.
  - The following tolerances to be met:  
 A) Elev. top of concrete + or - 1/4"  
 B) Foundation for square - diagonal measurement + or - 1/4"  
 C) All other dimensions + or 1/4"
  - All elevations referenced on drawings are in relation to (+0'-0") = finish floor elevation. A plus (+) designates above finish floor and a minus (-) designates below finish floor. Examples: (-4'-0") below finish floor elevation.
  - Contractor to make a minimum of (4) standard 6"x12" test cylinders from each day pour or for each day 50 cu. yd. of concrete placed. The cylinders shall be lab tested at 7 and 28 days and the report shall be submitted to the Engineer for approval. Slump shall be 7" to 4" maximum. Do not add water at job to cause slump to be exceeded.
  - Contractor to verify all B/Ftg. (bottom of footing elevations) to insure a minimum of 7'-6" below grade for frost walls and footings.
  - The Engineer is only responsible for the structure to withstand the assumed design loads specified on the drawing. Any other loadings other than those specified may cause structural damage and the Engineer will not assume any liability for the damage.

**1 FOUNDATION PLAN**  
 SCALE: 3/32" = 1'-0"  
 NORTH

**STRUCTURAL STRAIN ENGINEERING**  
 42 ROLAND DRIVE  
 SAINT PETERS, MO 63301  
 CONTACT: JOE STRAIN, P.E.  
 PHONE (314) 978-9459  
 FAX (314) 978-9459

**LePIQUE & ORNE ARCHITECTS, INC.**  
 ESTABLISHED 1916  
 423 JACKSON STREET, SAINT CHARLES, MO 63301  
 PHONE (636) 947-0099 FAX (636) 947-8700  
 CONTACT: RON POWELL E-ronpowell@andorarchitects.com

**NEW FACILITY FOR  
 WILLERDING WELDING**  
 NORTH I-70 SERVICE ROAD, O'FALLON, MO 63366  
 QUALITY BUILDING SYSTEMS - G.C.

PROJECT NUMBER  
 00-097  
 DATE  
 12-6-00

SHEET  
**S-1**  
 FOUNDATION  
 PLAN & NOTES