



## **RESIDENTIAL ELECTRICAL SERVICES**

### **Permit Application Guidelines**

Submit the following for review to the Community Development Building Division:

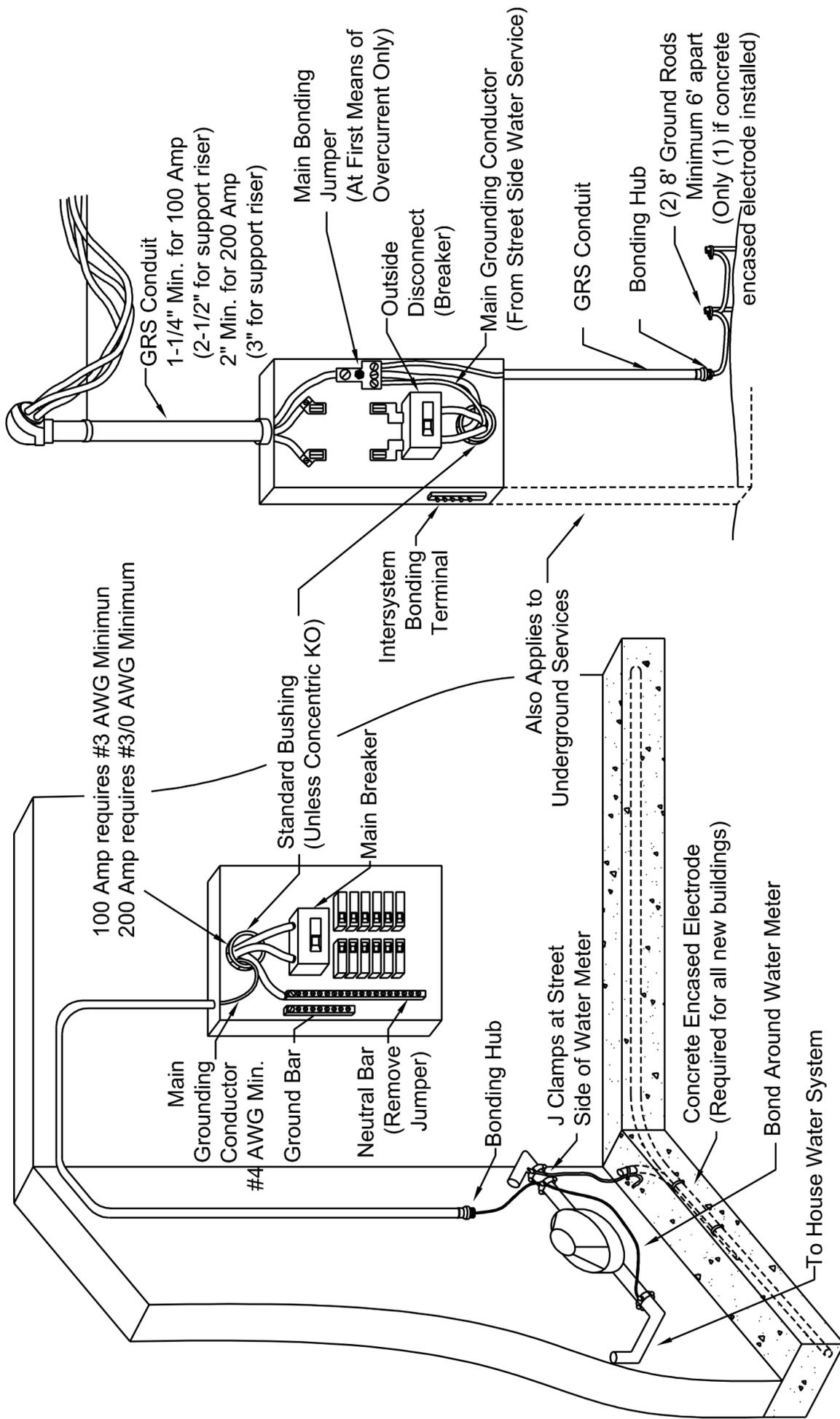
- a. Construction Permit Application indicating existing service size and proposed service size.
- b. Indicate whether existing or new service is overhead or underground.

### **Service Installation Guidelines**

1. Service disconnect (breaker) is required on outside of house. (This is in addition to the main breaker in the electrical panel inside the house.) **2015 Libertyville Municipal Code (LMC) 6-282 Article 230.70(A)(1)**
2. For new houses, a concrete encased electrode is required to be installed in the building footing. **2014 National Electrical Code (NEC) 250.50**
3. If a concrete encased electrode is installed (see #2 above), one ground rod is required. Otherwise, 2 ground rods are required and must be a minimum of 6 feet apart. **NEC 250.53(A) & (B)**
4. Main service bonding to be done at the first over-current device only (outside). Be sure to remove main bonding jumpers in any downstream electrical panels—these will now be treated as feeder panels (sub-panels). **NEC 250.24(B) & 250.28**
5. A grounding terminal bar shall be provided in each electrical panel. This will accommodate any existing or future equipment grounds since they can not be terminated to the neutral bus in a sub-panel. **NEC 408.40**
6. An Intersystem Bonding termination must be installed at or near the meter location. This will allow the phone/cable/etc. utilities a place to terminate their ground wires. **NEC 250.94**
7. Service risers shall be of rigid metal or intermediate metal and be a minimum of 1-1/4" for 100 Amp (2-1/2" for service drop support) and 2" for 200 Amp (3" for service drop support) and must also meet any Commonwealth Edison requirements. **LMC 6-282 Article 230.43**
8. Services for new construction shall be a minimum of 200 Amps. **LMC 6-282 Article 230.79(C)**
9. Services for existing dwellings shall be a minimum of 100 Amps. **LMC 6-282 Article 230.79(E)**

These are some of the highlights of our adopted codes that concern the installation of electric services in Libertyville. Please call the electrical inspector at (847) 918-2021 if you have any questions.

**(SEE DRAWINGS ON NEXT PAGES)**



If using the conduit riser to support the overhead service drop, refer to the drawing below. This drawing is based on Commonwealth Edison's "Service and Meter Requirements", which the Village of Libertyville has incorporated into its code.

