GROUNDING ELECTRODE REQUIREMENTS

In order to insure proper grounding of the electrical service equipment for residential structures, the following shall be considered approved grounding electrode installations in Yavapai County for 400 amps or less electrical services. Commercial electrical service grounding shall be installed per the electrical engineering requirements as set forth in the submitted plans and approved by the Yavapai County Building Safety Unit through plan review.

1. A UFER grounding electrode installed in the footing per Section 250.52 (3) 2017 NEC requirements, sized per the main service entrance amperage.

2. Two five-eighths (5/8") inch by eight (8') foot ground rods with approved acorn clamps which are installed six (6) feet apart per Section 250.53 (A)(2) 2017 NEC requirements.

3. **Splices shall not be permitted for solid copper grounding electrode conductors or for splicing solid copper to stranded copper.** When installing a splice from stranded copper grounding electrode conductors to stranded copper, the splice shall be installed with an approved fitting and crimped with an approved crimping tool which meets the requirements of the 2017 NEC. Splices can also be made by cad welding either solid or stranded grounding electrode conductors.

4. Two one-quarter inch (1/4") thick steel plate with 2 square feet of surface area, installed thirty (30") inches below grade with a #4 bare copper brazed to the plate may be used as an alternative grounding electrode conductor. Spacing of plates shall be six (6) feet apart.

5. Additional methods of grounding can be found in Section 250.52 of the 2017 NEC.

6. In the event that a grounding electrode conductor is installed without visual inspection by the building inspector, or there may appear to be some deficiency in the grounding electrode installation, an ohm test performed by a licensed electrical engineer reflecting the maximum 25 ohm requirement will be required.