City of Fayetteville Building Safety Division

POLICY & PROCEDURE

Underground Electrical Service Risers and Proximity to Structure

The NEC says that raceways must closely follow the structure. The best method is to plan ahead to avoid the situation where the underground electrical service riser must pass over a portion of the footing before it continues vertical to the service or meter. There are 3 methods commonly used in this situation.

1. Install a short horizontal run across the top of the footing and then continue vertical. This practice shall be limited to 12" of offset between vertical sections. **If the offset is over 12" horizontal then the installation must meet the NEC for buried underground service conductors.** 2" of concrete cover is a common remedy.

2. Install conduit at an angle from the edge of the footing to the service or meter.

3. Install 2- 45deg elbows to change from horizontal to vertical.

In 2 & 3: These practices have limited application. **The conduit must be no greater than one diameter away from the structure when measured a ground level.** This means that if a 2" PVC raceway is installed that it must no greater than 2 ½" (the outside diameter of the pipe) from the structure. This may require a horizontal section (option 1) for remedy.

Mechanical Adapters (mac-adapts) are required by City ordinance for transition from aluminum conductors to panel lugs. As an alternative, the inspector may witness the torque limits at his discretion.

Approved By

_____ Building Official