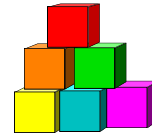


BUILDING BLOCKS



SUBJECT: Grounding & Bonding for Existing Buildings or Structures when Electrical Service is changed, upgraded, altered, or repaired.

AUTHORITY: Florida Statute 553.70; Florida Building Code, Chapter 27; & NFPA 70 requirements of the National Electrical Code, Part III, Article 250.50

PURPOSE: To establish minimum grounding & bonding guidelines under National Electrical Code Articles 250.50 & 250. 52 for owner builders & electrical contractors when electrical service equipment for an existing building or structure is upgraded altered, repaired, or replaced. **(503) – Service Change Inspection**

- **Service Repairs** are defined as replacement of meter socket, service disconnect enclosure, replacement of main breaker, or replacement of internal components of either without increase in size or relocation of equipment. Replacement of damaged, burned out, or corroded conductors of the same ampacity or replacement of service raceways (i.e. riser or lateral conduit including weather heads) is also a service repair.

Service Repairs must include upgrade to grounding system to current NEC standards, including 2 – 8ft. ground rods and cold water bonding, if metal water pipe is present in building and intersystem bond terminal installed to current NEC standards including FPL & LCEC requirements.

- **Service Changes or Upgrades** are defined as replacement of main service panel, service disconnect & enclosure, riser or lateral conduits including service entrance conductors where the ampacity of the service is increased or the size of the service is increased for future load.

If any or all the service equipment is relocated, increased in ampacity, added to or upgraded, it is classified a Service Change or Service Upgrade and all NEC requirements for grounding and bonding of a new service are required to be installed, except for a concrete encased electrode which is not required to be bonded for existing buildings or structures where reinforcing steel or bars are not accessible without disturbing the concrete in footings or foundation in accordance with the exception to NEC 250.50.