



Building Guide

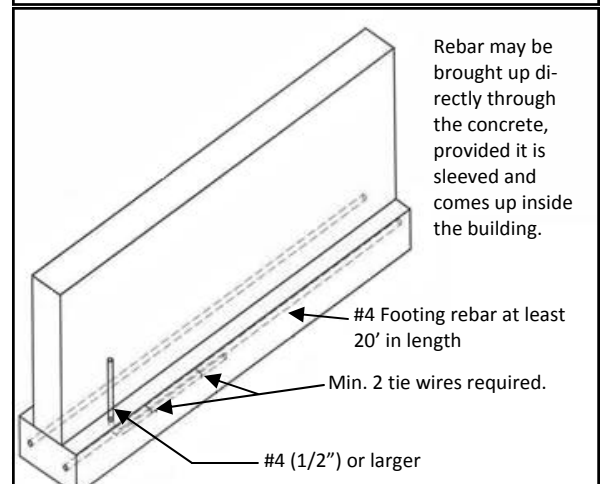
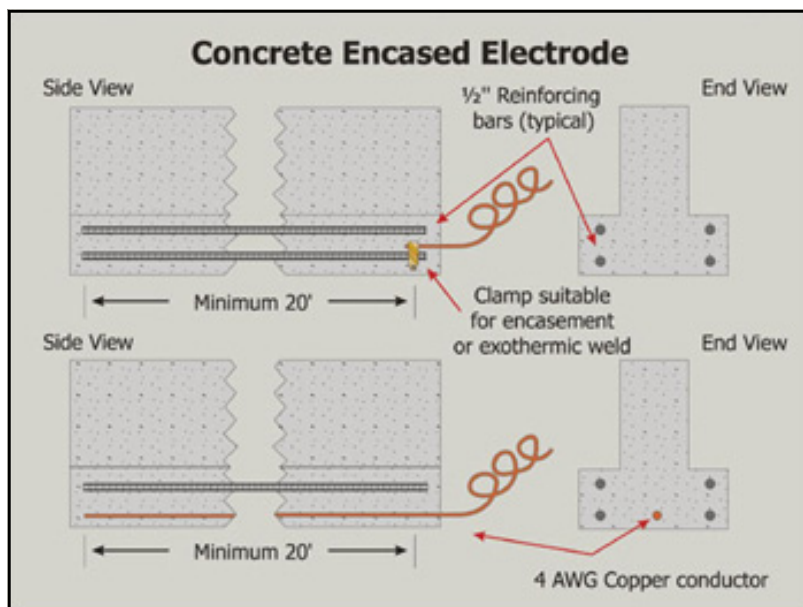
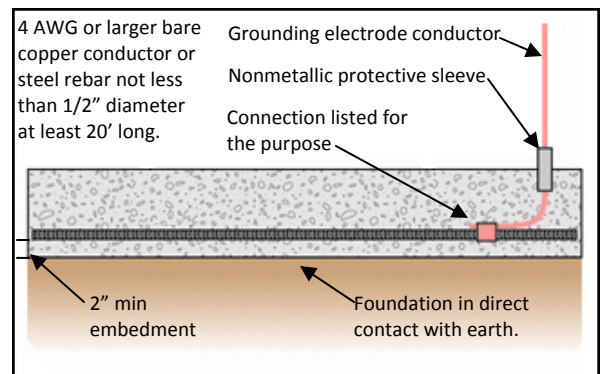
ILLOWA Chapter of ICC



Single Family Residential Ufer Ground Requirements

The following are minimum requirements for new electrical services for new structures:

1. Section 250.52 of the National Electrical Code requires that the concrete encased reinforcing steel be included in the grounding electrode system... This means that you must have “an electrode encased by at least 50 mm (2 in.) of concrete, located horizontally near the bottom or vertically, and within that portion of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 6.0 m (20 ft) of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods of not less than 13 mm (1/2 in.) in diameter, or consisting of at least 6.0 m (20 ft) of bare copper conductor not smaller than 4 AWG.
2. Reinforcing bars shall be permitted to be bonded together by the usual steel tie wires or other effective means. Where multiple concrete-encased electrodes are present at a building or structure, it shall be permissible to bond only one into the grounding electrode system.” Proper lap splices are required (IRC404.1.2.3.7.5).
3. This will require an inspection before you pour concrete. If this inspection does not take place, you will have to cut into the concrete to provide proof that this connection has been properly made.



DISCLAIMER: ILLOWA Chapter of the ICC has created this handout to assist with plans submittal under the 2008 National Electrical Code, and it is not intended to cover all circumstances. Please check with the Department of Building Safety for additional requirements.