



Concrete Encased Electrode Installation (UFER) Checklist

Per the National Electrical Code (NEC), this Checklist may be completed as an alternative to an onsite inspection for the Concrete Encased Electrode Installation (UFER). This checklist must be completed by the Permit Holder's Master Electrician of Record.

Note: DSD Building Inspections reserves the right to conduct onsite inspections as part of this program.

National Electrical Code (NEC)

III. Grounding Electrode System and Grounding Electrode Conductor

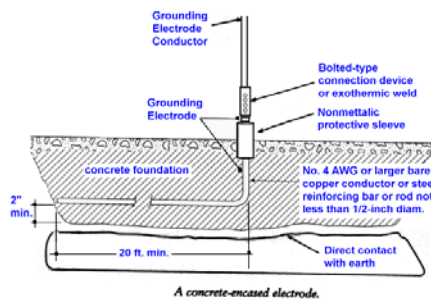
250.50 Grounding Electrode System

All grounding electrodes as described in 250.52(A) (1) through (A) (7) that are present at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A) (4) through (A) (8) shall be installed and used.

Exception: Concrete-encased electrodes of existing buildings or structures shall not be required to be part of the grounding electrode system where the steel reinforcing bars or rods are not accessible for use without disturbing the concrete.

Checklist

- 1. Concrete encased Electrode is at least 6.0m (20ft) in length. Yes No N/A
- 2. Electrode (?) Consists of one or more bare or zinc galvanized or other conductive coated steel reinforcing bars or rods not less than 13mm (1/2"), # 4 re-bar. Yes No N/A



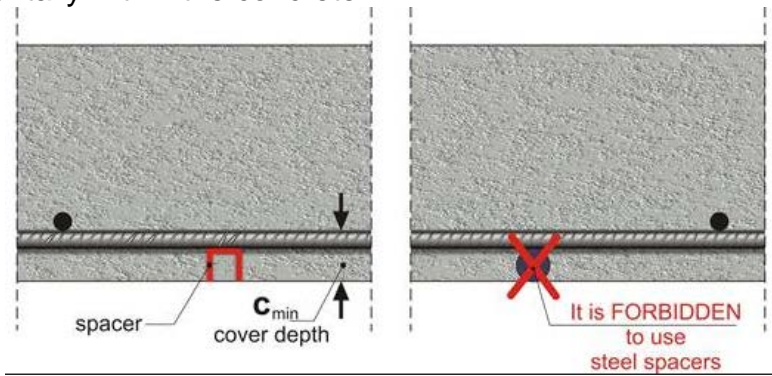
BAR SIZE DESIGNATION*	WEIGHT (LBS/FOOT)	BAR DIAMETER (INCHES)	CROSS-SECTIONAL AREA (SQ. IN.) PER FT.	
			AT 12" C.C.	AT 6" C.C.
#3	0.376	0.375	0.11	0.22
#4	0.668	0.500	0.20	0.40
#5	1.043	0.625	0.31	0.62
#6	1.502	0.750	0.44	0.88
#7	2.044	0.875	0.60	1.20
#8	2.670	1.000	0.79	1.58
#9	3.400	1.128	1.00	2.00
#10	4.303	1.270	1.27	2.54
#11	5.313	1.410	1.56	3.12
#14	7.650	1.693	2.25	4.50
#18	13.600	2.257	4.00	8.00

- 3. Bare copper conductor is not smaller than 4 AWG. Yes No N/A

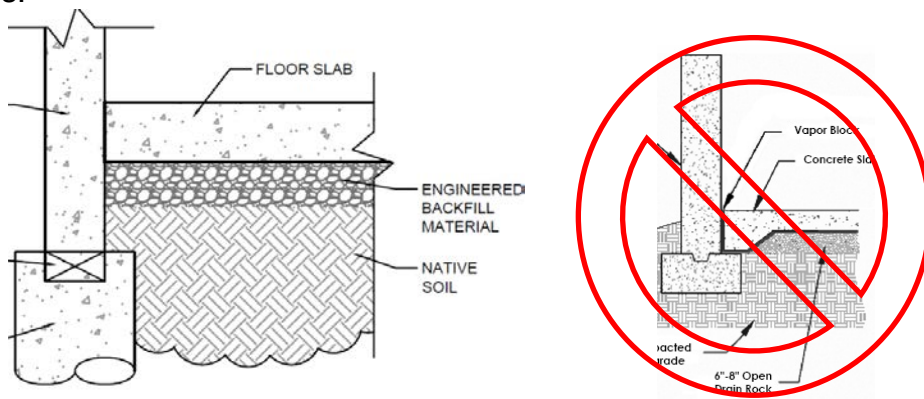
Solid Bare Copper
Single Grounding Wire



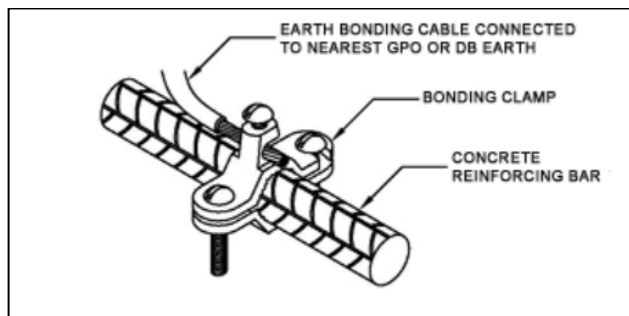
4. Metallic components are encased by at least 50 mm (2") of concrete and laid horizontally within the concrete. Yes No N/A



5. Concrete foundation is not separated from direct contact with the earth by any means such as insulation, vapor barriers, films or other similar items. Yes No N/A



6. Listed connection use for transition from concrete encased electrode to grounding electrode conductor. Yes No N/A

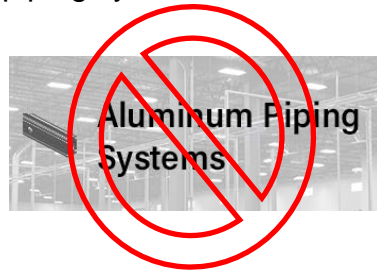


7. Nonmetallic sleeve installed for grounding electrode conductor when passing through the foundation/slab on grade floor. Yes No N/A



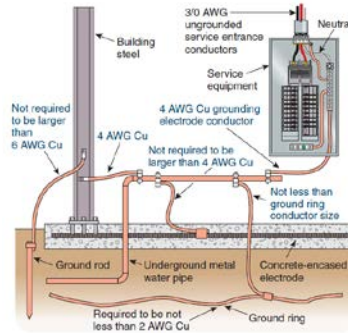
8. None of the material used for the grounding electrodes are part of a metal underground gas piping system or are aluminum.

Yes No N/A



9. All grounding electrode systems will be bonded together with properly sized bonding jumpers in accordance with 250.53 (C).

Yes No N/A



I hereby certify the Electrical work described in this checklist has been inspected and verified. I assume full responsibility for ensuring the grounding and bonding system for the permit and address listed below has been installed as required per the adopted NEC.

Project Name: _____

Address: _____

Permit Number: _____

Master Electrician License number: _____

Print Name of License holder: _____

Signature of License Holder: _____ Date: _____