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September 22, 2000

Kenneth W. Anderson
Electrical Inspector
Jackson County Roads, Parks, and Planning
10 South Oakdale
Medford, Oregon 97501

Dear Ken;

I was contacted this morning by Poly-Form & Supply of White City regarding grounding for a project which uses the "FastFoot" foundation forming method. Apparently, there is a concern regarding the effectiveness of the concrete-encased electrode (required under 918-305-0160(4) of the ORS) when the footing form system is a woven poly-fabric material. I'm certain that the concern would relate to the statement in 250-50(2)(c) of the National Electrical Code, which states that the concrete foundation or footing is to be "in direct contact with the earth".

In discussing this with representatives of Poly-Form and FastFoot, I understand that the form fabric may be excluded from the bottom of the footing for the 20 ft. required by the NEC for an effective ground. That being the case, it would seem that the Code provisions would be satisfied by simply excluding that amount of form from the bottom. Although the Code does not require any specific maximum resistance of a concrete-encased electrode to ground, there are provisions in 250-56 for 'made' electrodes that exceed 25 ohms to ground. In those cases, a single additional electrode (rod, pipe, or plate) may be installed in order to satisfy the grounding requirements. It would then seem that the installer could either provide an additional electrode to this "FastFoot ground", or test the "FastFoot ground" after installation to see if it meets the 25 ohm requirement for 'made' electrodes.

Your earliest review of this, and your reply, would be appreciated. Please call me to discuss this today, if your time allows.

Sincerely,

MARQUESS & ASSOCIATES, INC.

Oscar J. Zuniga Jr., P.E.