



Electric Vehicle Charging Systems

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Building Official

Effective: July 1, 2019

This policy establishes the permitting and plan review submission requirements for installation of Residential Electric Vehicle Charging Systems in existing residential dwellings in accordance with the International Residential Code.

Electrical Permit Application

An Electrical Permit is not required if the Electric Vehicle Charging System is cord and plug connected to an existing circuit that meets the requirements of the manufacturer's installation instructions.

An Electrical Permit Application and Electrical Plan Submittal prepared by a Virginia Professional Engineer, Class A – Electrical Contractor, Master Electrician or Homeowner are required when:

1. A circuit or feeder is added or extended to supply the electric vehicle charging system.
2. The Electric Vehicle Charging System is hard wired.

(SPECIAL NOTE: Since an Electrical Plan Submittal is required, Electrical Permits for Electric Vehicle Charging Systems cannot be issued through the County's ePermits System.)

Electrical Plan Submittal

The Electrical Plan Submittal for Residential Electric Vehicle Charging Systems will be reviewed as a Walk-Thru Plan Review. There is no Plan Review Filing Fee for the Walk-Thru Plan Review. For Electric Vehicle Charging Systems that are 20 amperes or less, submit the Electric Vehicle Charging System equipment manufacturer's installation instructions.

For Electric Vehicle Charging Systems that are greater than 20 amperes, submit the following:

1. Electric Vehicle Charging Station System equipment manufacturer's installation instructions
2. [Residential Load Calculation Worksheet](#) – A load calculation must be prepared and submitted to include the load of the Electric Vehicle Charging System at 125 percent of the nameplate rating.

(SPECIAL NOTE: The manufacturer's installation instructions and the approved [Residential Load Calculation Worksheet](#) must be provided to the Inspector during the inspection.)

Attachments/Hyperlinks:

- [Residential Load Calculation Worksheet](#)
- [Registered Design Professional Sealing of Plans Policy, Chart B – Electrical Design](#)