



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

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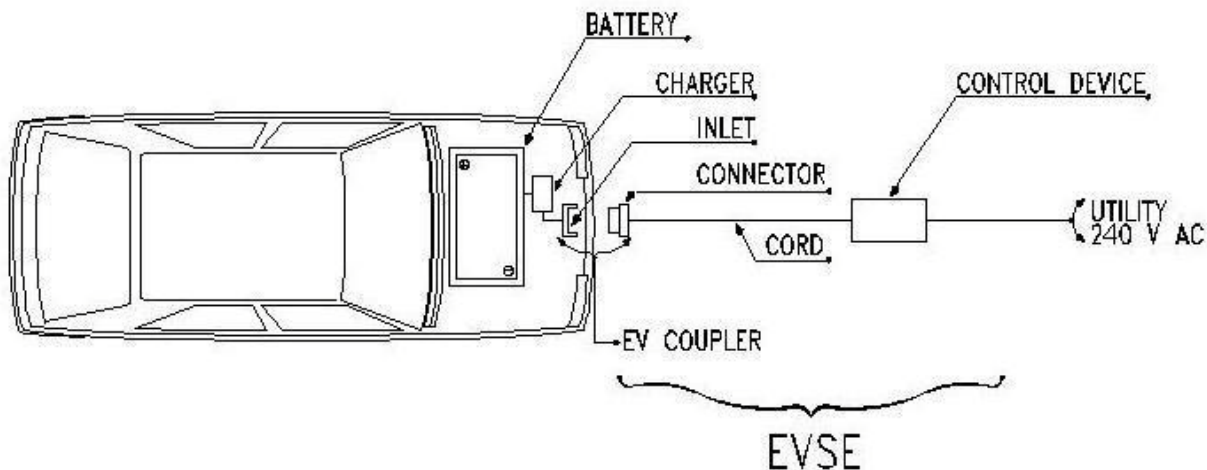
ELECTRICAL VEHICLE CHARGING SYSTEM

An electrical permit is required for an EV charging system to be installed in the garage or carport of a SFD. The following information is required for a permit:

1. EV charging system information : level 1 or 2, EVSE system with UL listed number or other approved nationally recognized testing laboratory, in compliance with UL2202, “Standard for Electric Vehicle (EV) Charging System Equipment”
2. Existing electrical service panel information at the residence. Include EVSE load and circuit size to determine if electric panel upgrade is required. See the [Electrical Load Calculation Worksheet](#)
3. Panel upgrade and electrical wiring shall be in conformance with the California Electrical code
4. Identify if a second electric meter is required to be installed because of electric utility rate for EV charging. See the [Service Requirement form](#) .
5. Clarify EVSE location
6. Manufacturer installation guideline has to be available for the inspector at the site.

EVSE shall be installed in accordance with manufacturer’s guideline and must be suitable for the environment (indoor/outdoor).

EV Sample Charging System:



Electric Vehicle Supply Equipment (EVSE) consists of the connector, cord, and interface to utility power. Currently the interface between the EVSE and utility power will be directly hard-wired to the control device, and each automaker has its own EVSE design. A single design called the J1772 Standard EV coupler will be available soon that will be applicable for all electric vehicles.

There are 2 levels of charging system for SFR – Level 1 (120 VAC, 15/20 A) and Level 2 (240 VAC, 40A). Level 2 is most likely be used because of less time to charge the vehicle.

