Electric Vehicle (EV) charging system in One and Two Family Dwellings and Townhouses

An electrical permit is required for an EV charging system to be installed in the garage or carport of a one and two family dwelling and townhouses in accordance with the 2019 California Green Building Standards Code Chapter 4, Division 4.1.

EV Sample Charging System-Levels 1 & 2:

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 systems for SFR-Level 1 (120VAC, 15/20A) and Level 2 (240 VAC, 40A). Level 2 is more likely to be used since it takes less time to charge the vehicle.

The following information is required for a permit to be approved over the counter:

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 an electric panel upgrade is required.
3. Panel upgrade and electrical wiring shall be in conformance with the California Electrical code
4. Clarify EVSE location.

5. The manufacturer's installation guidelines have to be available for the inspector at the site

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