ELECTRIC VEHICLE CHARGING STATIONS

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BACKGROUND

The Tri-Chapter Uniform Code Committee (TUCC) approved the Electric Vehicle (EV) charging system guidelines on August 12, 2010. This is the second part of the guideline for commercial and multi-family electric vehicle charging system. The employment of electrical vehicles will greatly help to reduce the air pollutants to meet the State and Federal emission targets. Efficient permitting and inspection for EV electric charging system will help encourage the use of EV in California. Currently, there are no clear requirements in the building code regarding accessibility for the installation of EV charging stations. A policy will provide consistency in EV permit approval in the Tri-chapter area.

CODE REFERENCE(S):

- 2013 California Building Code (CBC)
- 2013 California Electrical Code (CEC)
- 2013 California Green Building Standards Code (CalGreen)
- Underwriters Laboratory (UL) listed charging system

PERMIT REQUIREMENTS:

An alternate energy permit is required for an EV charging system. The following is a list of requirements needed to obtain this type of permit:

1. Provide a completed building permit application.
2. Provide three sets of completely dimensioned site plans showing the location of all new and existing EV Charging stations on the site. Show the required path of travel from the accessible EV Charging station to the accessible entrance of the closest building. The path of travel shall be along an accessible path
3. The EV parking stall shall have a maximum 2% slope and cross-slope.
4. EV system with UL listed number or other approved nationally recognized testing agency shall be provided on plan.
5. Identify if site is in the flood zone. If so, charging station shall be elevated or designed according to the flood requirement.
6. Provide electrical load calculations for the charging stations. New dedicated branch circuits from the central meter distribution panel to the charging station may be required.
7. Planning approval may be required.
8. EV charging systems installed within a single family or multi-family dwelling garage governed by a Homeowner's Association shall provide a letter of approval from the HOA.

ACCESSIBILITY REQUIREMENTS:

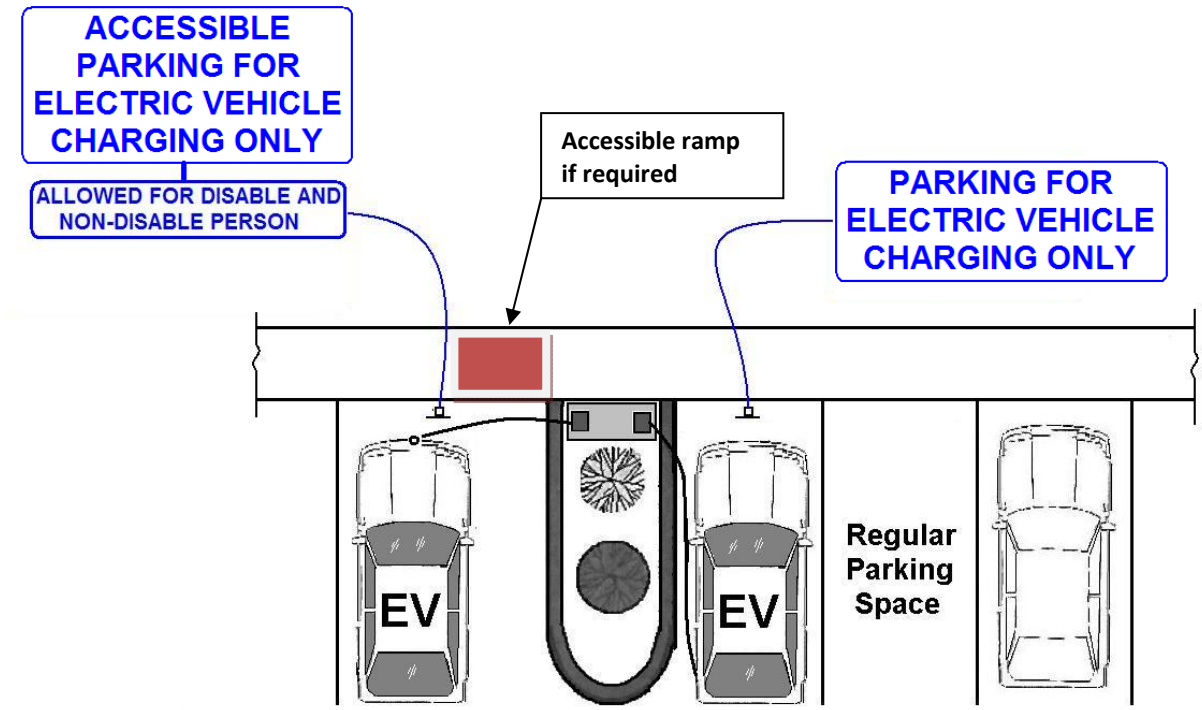
If an EV charging station is provided on a site, the minimum number of accessible charging stations required for that site is one. The accessible EV charging station parking space shall not be counted as one of the required accessible parking spaces required by the CBC, because the space is allowed to be used by non-disabled persons. The size of the accessible EV charging station parking stall and its access aisle and other accessible requirements shall be in compliance with the current CBC for van accessible parking stalls, except that it need not be striped or provided with signage as required for accessible parking spaces. An informational sign shall be posted with suggested wording: ”Parking for Electrical Vehicle charging only”. Suggested wording for the accessible space: “Accessible parking for Electrical Vehicle charging only”.

The accessible charging station equipment shall meet all applicable reach range provisions and accessible path under the current CBC accessibility requirement.

The EV charging parking space(s) may be counted towards the number of required low-emitting/fuel-efficient parking in the CGBSC.

OTHER REQUIREMENTS:

- Charging system equipment, EVSE (Electric Vehicle Service Equipment), installed inside individual garage of a single family or multi-family dwellings shall follow TUCC policy #17.
- Charging stations installed outside the multi-family dwelling buildings shall follow this guideline.
- Publicly available charging system shall follow this guideline. But lighting and shelter are important consideration at public sites.
- Identify if a second electric meter is required to be installed because of electric utility rate for EV charging.
- EVSE shall be installed in accordance with manufacturer’s guideline and shall be suitable for the environment (indoor/outdoor).
- Manufacturer installation guideline shall be available for the inspector at the site.



SAMPLE EV CHARGING PARKING SPACES