

**DIVISION OF THE STATE ARCHITECT
2018 TRIENNIAL CODE CYCLE
GREEN BUILDING FOCUS GROUP
WORKSHOP #2**

**January 18, 2018, 2017 – Agenda Item 2
*Electric Vehicles' Infrastructure***

**DRAFT EXPRESS TERMS for the 2018
CALIFORNIA GREEN BUILDING STANDARDS CODE
(CALGreen Code) PART 11
TITLE 24, CALIFORNIA CODE OF REGULATIONS**

Proposed code language for the 2018 Intervening Code Cycle

LEGEND FOR DRAFT EXPRESS TERMS

1. Existing CALGreen code language is shown without underline or strikeout.
2. Proposed new CALGreen amendments is shown underlined.
3. Proposed repealed CALGreen text appears in ~~strikeout~~.

...
**CHAPTER 3
GREEN BUILDING**

...

301.4 Public schools and community colleges. [DSA] Newly constructed buildings and facilities on new or existing sites shall comply with Chapter 5. Alterations of or additions to existing buildings shall only be required to comply with Chapter 5, Section 5.304.6, ~~Outdoor Water Use~~. Staff and student parking areas on new or existing sites shall comply with Chapter 5, Section 5.106.5.3 include:

1. New parking areas on new or existing sites
2. Additions to existing parking areas
3. Replacement projects with removal and replacement of asphalt, soil, or landscapes areas.
 - a. Exception: Asphalt repair, resurfacing or stripping projects

301.4.1 Minimum rehabilitated landscape area requirement for existing sites [DSA-SS] ...

The code language proposed by the DSA for the Electric Vehicles, Section 5.106 (shown below) is intended to be the same language co-adopted with the California Building Standards Commission during their 2018 Triennial Rulemaking Cycle.

**Electrical Vehicles
Section 5.106
SITE DEVELOPMENT**

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1”
4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40-ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculation. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

1. Where there is insufficient electrical supply.
2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

Table 5.106.5.3.3

<u>Total number of actual parking spaces</u>	<u>Number of required spaces</u>
<u>0-9</u>	<u>0</u>
<u>10-25</u>	<u>1</u>
<u>26-50</u>	<u>2</u>
<u>51-75</u>	<u>4</u>
<u>76-100</u>	<u>5</u>
<u>101-150</u>	<u>7</u>
<u>151-200</u>	<u>10</u>
<u>201 and over</u>	<u>6 Percent of total¹</u>

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as “EV CAPABLE”. The raceway termination location shall be permanently and visibly marked as “EV CAPABLE.”

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking.

For discussion: Note that DSA does not currently adopt 5.106.5.2 Designated parking. This may cause some confusion; however, it will be useful when adopted.