

DOCKETED

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Filer:	Danuta Drozdowicz
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EXHIBIT B

CHAPTER 15.38—GREEN BUILDING CODE

- 15.38.010. Title.
- 15.38.020. Adoption by Reference.
- 15.38.030. Definitions.
- 15.38.040. Residential mandatory measures—Electric vehicle (EV) charging.
- 15.38.050. Non-residential mandatory measures—Electric vehicle (EV) charging.

15.38.010. Title.

This chapter shall be known and may be cited and referred to as the “Green Building Code” for the City of Santa Clara.

15.38.020. Adoption by reference.

The “2019 California Green Building Standards Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 11 is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the Green Building Code of the City of Santa Clara.

15.38.030. Definitions.

2019 California Green Building Standards Code Section 202 (Definitions) is hereby amended by adding the following definitions:

EV Capable: A parking space linked to a listed electrical panel with sufficient capacity to provide at least 110/120 volts and 20 amperes to the parking space. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least 1” in diameter and may be sized for multiple circuits as allowed by the California Electrical Code. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as “EV CAPABLE.” Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways. The parking space shall contain signage with at least a ½” font adjacent to the parking space indicating the space is designated as EV Capable for future connection of infrastructure at the designed voltage and amperage levels.

Level 1 EV Ready Space: A parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity, overprotection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled “Electric Vehicle Outlet” with at least a ½” font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE).

Low Power Level 2 EV Ready Space: A parking space served by a complete

electric circuit with 208/240 volt, 20 ampere minimum branch circuit capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 15 amperes.

Level 2 EV Ready Space: A parking space served by a complete electric circuit with 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

Level 3/Direct Current Fast Charger (DCFC): A parking space that includes the installation of a charger with the capacity to provide at least 80 kW of output.

Electric Vehicle Charging Station (EVCS): A parking space that includes installation of electric vehicle supply equipment (EVSE) with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

Automatic Load Management Systems (ALMS): A control system which allows multiple EV chargers or EV-Ready electric vehicle outlets to share a circuit or panel and automatically reduce power at each charger, providing the opportunity to reduce electrical infrastructure costs and/or provide demand response capability. ALMS systems must be designed to deliver at least 1.4kW to each EV Capable, EV Ready or EVCS space served by the ALMS. ALMS systems must be designed to meet the requirements of California Electrical Code Article 625. The connected amperage on-site shall not be lower than the required connected amperage per Part 11, 2019 California Green Building Standards Code for the relevant building types.

Affordable Housing: Residential buildings that entirely consist of units below market rate and whose rents or sales prices are governed by local agencies to be affordable based on area median income.

15.38.040. Residential mandatory measures—Electric vehicle (EV) charging.

- (a) 2019 California Green Building Standards Code Section 4.106.4 (Electric vehicle (EV) charging for new construction) is hereby amended to read as follows:

4.106.4. Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to

facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

Exceptions:

As per the CalGreen code, the Chief Building Official will make determination of exceptions.

1. Where there is no commercial power supply.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities, and without electrical panel upgrade or new panel installation. ADUs and JADUs without additional parking but with electrical panel upgrades or new panels must have reserved breakers and electrical capacity according to the requirements of 4.106.4.1.
3. Multifamily residential building projects with valid entitlements granted by the City that have not otherwise expired before the effective date of this ordinance shall provide at least ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, with Level 2 EV Ready Circuits. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.
4. Spaces Accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.

- (b) 2019 California Green Building Standards Code Section 4.106.4.1 (New one- and two-family dwellings and townhouses with attached private garages) is hereby amended to read as follows:

4.106.4.1. New one- and two-family dwellings and townhouses.

1. In private garages with two or more parking spaces, install one Level 2 EV Ready Space and one Level 1 EV Ready Space.
2. For each dwelling unit with only one parking space, install a Level 2 EV Ready Space
3. For parking spaces not assigned to a dwelling unit:
 - a. 25% of the unassigned parking space(s) shall be Level 2 EV Ready Space(s)
 - b. 75% of the unassigned space(s) shall be Low Power Level 2 EV Ready Space(s)

Calculations for the required minimum number of EV Ready spaces shall be rounded up to the nearest whole number.

- (c) 2019 California Green Building Code Section 4.106.4.1.1 (Identification) is hereby amended to read as follows:

4.106.4.1.1. Identification. The raceway termination location shall be permanently and visibly marked as "Level 2 EV-Ready".

- (d) 2019 California Green Building Code Section 4.106.4.2 (New multifamily dwellings) is hereby amended to read as follows:

4.106.4.2. New multifamily dwellings. The following requirements apply to all new multifamily dwellings:

1. For multifamily buildings with less than or equal to 20 dwelling units, one parking space per dwelling unit with parking shall be provided with a Level 2 EV Ready Space.
2. When more than 20 multifamily dwelling units are constructed on a building site:
 - a. Provide one Level 2 EV Ready Space for each of the first 20 dwelling units with parking space(s)
 - b. For all additional dwelling units above 20 with parking space(s):
 - i. 25% of dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space
 - ii. 75% of dwelling units with parking spaces shall be provided with at least one Low Power Level 2 EV Ready Space
3. Additionally, all multifamily residential developments shall include secured bicycle parking with 110v electrical outlets.

Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number.

Exception: For all Multifamily Affordable housing, 10% of dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number. The remaining dwelling units with parking space(s) shall each be provided with at least one Level 1 EV Ready Space.

Notes:

1. ALMS may be installed to decrease electrical service and transformer costs associated with EV Charging Equipment subject to review of the authority having jurisdiction.

2. Installation of Level 2 EV Ready Spaces above the minimum number required level may offset the minimum number Level 1 EV Ready Spaces required on a 1:1 basis.
 3. The requirements apply to multifamily buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.
 4. In order to adhere to accessibility requirements in accordance with California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 1 or Level 2 EV Ready Spaces.
- (e) 2019 California Green Building Code Section 4.106.4.2.2 (Electric vehicle charging space (EV space) dimensions) is hereby amended to add an Exception to the end of the Section:

Exception: Where the City's Municipal Code permits parking space dimensions that are less than the minimum requirements stated in this section 4.106.4.2.2, and the compliance with which would be infeasible due to particular circumstances of a project, an exception may be granted while remaining in compliance with 2019 California Building Code Section Table 11B-228.3.2.1 and 11B-812, as applicable.

- (f) 2019 California Green Building Code Section 4.106.4.2.3 (Single EV space required) is hereby replaced to read as follows:

4.106.4.2.3 Automated Load Management Systems. As defined in Section 2, ALMS shall be allowed to meet the requirements of 4.106.4.2.

- (g) 2019 California Green Building Code Section 4.106.4.3 (New Hotels and Motels) is hereby amended to read as follows:

4.106.4.3 New Hotels and Motels: In residential new construction buildings designated primarily for hotel and motel use with parking spaces:

1. 10% of parking spaces shall be Level 2 EVCS.
2. An additional 50% of parking spaces shall be EV Capable spaces.

Calculations for the required minimum number of spaces equipped with Level 2 Ready Space and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1" and sufficient for installation of Level 2 Ready

Space and all required EV Capable spaces; 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 EVs at all required EV spaces including EV Capable spaces; and 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.

Notes:

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.
- (h) The following sections of the 2019 California Green Building Code Section are deleted in their entirety: 4.106.4.3.1 (Number of required EV spaces), 4.106.4.3.3 (Single EV space required), 4.106.4.3.4 (Multiple EV spaces required), and 4.106.4.3.5 (Identification).

15.38.050. Nonresidential mandatory measures—Electric vehicle (EV) charging.

- (a) 2019 California Green Building Code Section 5.106.5.3 (Electric vehicle (EV) charging) is hereby amended to read as follows:

5.106.5.3. Electric vehicle (EV) charging. New construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation and use of EVSE.

Exceptions:

1. Where there is no commercial power supply.
 2. Spaces accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.
 3. Installation of each Level 3/Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 11 Level 2 EVCS spaces after a minimum of 11 Level 2 EVCS spaces are installed.
- (b) 2019 California Green Building Code Section 5.106.5.3.1 (Single charging space requirements) is hereby amended to read as follows:

5.106.5.3.1. Office buildings: In nonresidential new construction buildings designated primarily for office use with parking:

1. 35% of parking spaces shall be provided with at least one Level 2 EVCS.
2. An additional 35% of parking spaces shall be EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1" and sufficient for installation at all required EVCS; 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 EVs at all required EVCE including EV Capable spaces; and 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.

Notes:

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

- (c) 2019 California Green Building Code Section 5.106.5.3.2 (Multiple charging space requirements) is hereby amended to read as follows:

5.106.5.3.2. Other nonresidential buildings. In nonresidential new construction buildings that are not designated primarily for office use, such as retail or institutional uses:

1. 35% of parking spaces shall be provided with at least one Level 2 EVCS.
2. An additional 35% of parking spaces shall be EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS shall be rounded up to the nearest whole number

Notes:

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

(d) 2019 California Green Building Code Section 5.106.5.3.3 (EV charging space calculation) is hereby amended to read as follows:

5.106.5.3.3. Clean Air Vehicle Parking Designation. EVCS qualify as designated parking as described in Section 5.106.5.2 (Designated parking for clean air vehicles).

Notes:

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. www.dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0018447-13-01-a11y.pdf
2. See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
3. The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.
4. Section 11B-812 of the California Building Code requires that a facility providing EVCS for public and common use also provide one or more accessible EVCS as specified in Table 11B-228.3.2.1.
5. It is encouraged that shared parking, EV Ready are designated as "EV preferred."

(e) 2019 California Green Building Code Section 5.106.5.3.4 (Identification) is hereby amended to read as follows:

5.106.5.3.4. Identification. The raceway termination location shall be permanently and visibly marked as "EV Ready".

(f) 2019 California Green Building Code Section 5.106.5.3.5 (Future charging stations) is hereby deleted in its entirety and replaced with the following:

5.106.5.3.5 Automated Load Management Systems. As defined in Section 2, ALMS shall be allowed to meet the requirements of 5.106.5.3.1