

### 2019 CALGREEN RESIDENTIAL MANDATORY MEASURES **EFFECTIVE JANUARY 1. 2020**

HCD SHL 615 (New 01/20)

See specific referenced sections for complete details on CALGreen mandatory requirements.

	CODE

	2019 CALGINEEN CODE
SECTION	REQUIREMENTS
Chapter 1 – A	ADMINISTRATION
	Scope
101.3.1	Applies to ALL newly constructed residential buildings: low-rise, high-rise, and hotels/motels.
102.3	Requires a completed Residential Occupancies Application Checklist or alternate method acceptable to the enforcing agency to be used for documentation of conformance.
Chapter 3 – 0	GREEN BUILDING

301.1.1	Additions and alterations
	Applies to additions or alterations of residential buildings where the addition or alteration increases the building's conditioned area, volume, or size.
	Requirements only apply within the specific area of the addition or alteration.
	Low-rise and high-rise residential buildings
301.2	

#### Requires each portion of mixed occupancy buildings to comply with CALGreen measures applicable for the specific occupancy.

302.1

## **Exceptions:**

 Accessory structures and accessory occupancies serving residential buildings to comply with Chapter 4 and Appendix A4, as applicable.

Mixed occupancy buildings

Banners identify provisions applying to low-rise only [LR] or high-rise only [HR].

 Live/work units complying with the California Building Code Section 419 shall not be considered a mixed occupancy. Live/work units are required to comply with Chapter 4 and Appendix A4, as applicable.

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0000	2019 CALGREEN CODE		
SECTION	REQUIREMENTS		
Single EV space required			
	Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.		
	Raceway shall not be less than trade size 1 (nominal 1-inch inside diameter).		
4.106.4.2.3	<ul> <li>Raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV space.</li> </ul>		
	Construction documents shall identify the raceway termination point.		
	<ul> <li>Service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.</li> </ul>		
	Multiple EV spaces required		
4.106.4.2.4	<ul> <li>Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics, and electrical load calculations to verify electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE.</li> </ul>		
	Plan design shall be based upon a 40-ampere minimum branch circuit.		
	<ul> <li>Required raceways and related components planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.</li> </ul>		
	Identification		
4.106.4.2.5	Service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in		

accordance with the California Electrical Code.



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SECTION	REQUIREMENTS	
Chapter 4 – RESIDENTIAL MANDATORY MEASURES		
Division 4.1	– PLANNING AND DESIGN	
	Storm water drainage and retention during construction	
4.106.2	Projects which disturb less than 1 acre of soil and are not part of a larger common plan of development shall manage storm water drainage during construction.	
	Grading and paving	
4.106.3	Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings.	
	Exception: Additions and alterations which do not alter the existing drainage path.	
	Electric vehicle (EV) charging for new construction	
	Comply with Section 4.106.4.1, 4.106.4.2 or 4.106.4.3 for 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:	
4.106.4	On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon 1 of the following:	
	1.1. Where there is no commercial power supply.	
	1.2. Verification that meeting requirements will alter the local utility infrastructure design requirements on the utility side of the meter increasing costs to the homeowner/developer by more than \$400.00 per dwelling unit.	
	Accessory Dwelling Units and Junior Accessory Dwelling Units without additional parking facilities.	

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CALGreen Chapter 2.

Note: For definitions of Accessory Dwelling Units and Junior Accessory Units, see



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•	2019 CALGREEN CODE

SECTION	REQUIREMENTS
	EV charging for hotels and motels
	Applies to all newly constructed hotels and motels.
4.106.4.3	Construction documents shall identify the location of EV spaces.
	<b>Note:</b> Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.
	Number of required EV spaces
4.106.4.3.1	<b>Table 4.106.4.3.1</b> shows the number of required EV spaces based on the total number of parking spaces provided for all types of parking facilities.
	EV charging space (EV space) dimensions
	EV spaces shall be designed to comply with the following:
4.106.4.3.2	Minimum length of each EV space shall be 18 feet.
	Minimum width of each EV space shall be 9 feet.
	Single EV space required (similar to 4.106.4.2.3)
	<ul> <li>Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.</li> </ul>
4.106.4.3.3	Raceway shall not be less than trade size 1 (nominal 1-inch inside diameter).
	<ul> <li>Raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV space.</li> </ul>
	Construction documents shall identify the raceway termination point.
	Service panel and/or subpanel shall provide capacity to install a 40-ampere



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SECTION	REQUIREMENTS		
	EV charging: 1- & 2-family dwellings/townhouses with attached private garages		
	<ul> <li>Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit.</li> </ul>		
	Raceway shall not be less than trade size 1 (nominal 1-inch inside diameter).		
4.106.4.1	<ul> <li>Raceway shall originate at the main service or subpanel and terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an E\ charger.</li> </ul>		
	Raceways are required to be continuous at enclosed, inaccessible, or concealed areas and spaces.		
	Service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.		
	Identification		
4.106.4.1.1	Convice panel or subpanel circuit directory shall identify the every protective		
4.106.4.1.1	Service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."		
4.106.4.1.1	device space(s) reserved for future EV charging as "EV CAPABLE". The raceway		

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SECTION	REQUIREMENTS
	EV charging space (EV space) locations
4.106.4.2.1	Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least 1 EV space shall be located in the common use parking areas and shall be available for use by all residents.

#### **EV charging stations (EVCS)**

When EV chargers are installed, EV spaces (required by Section 4.106.4.2.2, Item 3,) shall comply with at least 1 of the following options:

### 4.106.4.2.1.1

4.106.4.2.2

2. The EV space shall be located on an accessible route to the building, as defined in the California Building Code, Chapter 2.

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of

**Exception:** EVCS designed and constructed in compliance with the California Building Code Chapter 11B are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

### **EV charging space (EV space) dimensions**

EV spaces shall be designed to comply with the following:

the EV charger from the accessible parking space.

#### 1. The minimum length of each EV space shall be 18 feet.

- 2. The minimum width of each EV space shall be 9 feet.
- 3. 1 in every 25 EV spaces, but not less than 1, shall also have an 8-foot wide minimum aisle. A 5-foot wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet.
  - a. Surface slope for this EV space and aisle shall not exceed 1 unit vertical
  - in 48 units horizontal (2.083% slope) in any direction.

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SECTION	REQUIREMENTS
4.106.4.3.4	<ul> <li>Multiple EV spaces required (similar to 4.106.4.2.4)</li> <li>Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE.</li> <li>Plan design shall be based upon a 40-ampere minimum branch circuit.</li> <li>Required raceways and related components planned to be installed underground, enclosed, inaccessible or, in concealed areas and spaces shall be installed at the time of original construction.</li> </ul>
4.106.4.3.5	time of original construction.  Identification (similar to 4.106.4.2.5)
	Service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.
4.106.4.3.6	Accessible EV spaces
	In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for EV charging stations in the California Building Code, Chapter 11B.
Division 4.2 –	ENERGY EFFICIENCY
	Scope
4.201.1	Energy efficiency requirements for low-rise residential (Section 4.201.1) and high-rise residential/hotels/motels (Section 5.201.1) are now in both residential and

Standards for residential buildings do not require compliance with levels of

minimum energy efficiency beyond those required by the 2019 California Energy

nonresidential chapters of CALGreen.

5.201.1

vision 4.3 – WATER EFFICIENCY AND CONSERVATION

# CALGreen.

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SECTION	REQUIREMENTS	

	Water conserving plumbing fixtures and fittings
	Plumbing fixtures and fittings shall comply with the following:
	<ul> <li>4.303.1.1 – Water closets: ≤ 1.28 gal/flush.</li> <li>4.303.1.2 – Wall mounted urinals: ≤ 0.125 gal/flush; all other urinals ≤ 0.5 gal/flush.</li> </ul>
.303.1	<ul> <li>4.303.1.3.1 – Single showerheads: ≤ 1.8 gpm @ 80 psi.</li> <li>4.303.1.3.2 – Multiple showerheads: combined flow rate of all showerheads controlled by a single valve shall not exceed 1.8 gpm @ 80 psi, or only 1 shower outlet is to be in operation at a time.</li> </ul>
	<b>4.303.1.4.1</b> – Residential lavatory faucets: maximum flow rate ≤ 1.2 gpm @ 60 psi; minimum flow rate ≥ 0.8 gpm @ 20 psi.
	<b>4.303.1.4.2</b> – Lavatory faucets in common and public use areas of residential buildings: ≤ 0.5 gpm @ 60 psi.
	<b>4.303.1.4.3</b> – Metering faucets: ≤ 0.2 gallons per cycle.

### Standards for plumbing fixtures and fittings Plumbing fixtures and fittings shall be installed in accordance with the California

gpm allowed but shall default to 1.8 gpm.

**4.303.1.4.4** − Kitchen faucets: ≤ 1.8 gpm @ 60 psi; temporary increase to 2.2

### Plumbing Code, and shall meet applicable standards referenced in Table 1701.1 of the California Plumbing Code.

### Outdoor potable water use in landscape areas New residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water

Efficient Landscape Ordinance (MWELO), whichever is more stringent.

### Division 4.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY Rodent proofing Annular spaces around pipes, electric cables, conduits or other openings in

sole/bottom plates at exterior walls shall be closed with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency to prevent passage of

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branch circuit overcurrent protective device.

minimum dedicated branch circuit and space(s) reserved to permit installation of a

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