

**INITIAL EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE ADOPTION OF THE
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen)
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11

(HCD/XXX)**

The Department of Housing and Community Development (HCD) proposes to make necessary changes to be included into the 2019 edition of the California Green Building Standards Code (CALGreen) as presented on the following pages, including any necessary amendments.

LEGEND FOR EXPRESS TERMS:

1. **Existing text or language being modified:** All language is shown in normal Arial 9 point; modified language is underlined or shown in ~~strikeout~~, with vertical bar in left margin.
 2. **Existing text not being modified:** All language not displayed in full is shown as “...” (i.e., ellipsis).
 3. **Repealed text:** All language appears in ~~strikeout~~, with vertical bar in left margin.
 4. **Amended, adopted or repealed language after 45-day public comment period or public hearing:** All language is shown in double underline or ~~double-strikeout~~, with vertical bar in left margin.
 5. **Notation:** Authority and Reference citations are provided at the end of each section.
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SUMMARY OF REGULATORY ACTION

HCD PROPOSES TO:

- Bring forward existing sections from the 2016 CALGreen Code for adoption into the 2019 CALGreen Code **without modifications.**
- Bring forward existing sections from the 2016 CALGreen Code for adoption into the 2019 CALGreen Code **with nonsubstantive editorial modifications.**
- Bring forward existing sections from the 2016 CALGreen Code for adoption into the 2019 CALGreen Code **with modifications.**

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- Adopt **new** sections into the 2019 CALGreen Code.

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2	202	Definitions	4
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- Repeal and **not** bring forward into the 2019 CALGreen Code existing sections which are no longer necessary.

1. HCD proposes to continue adoption of Chapter 1 from the 2016 CALGreen Code into the 2019 CALGreen Code with modifications as follows:

**CHAPTER 1
ADMINISTRATION**

**SECTION 101
GENERAL**

101.1 Title. These regulations shall be known as the California Green Building Standards Code, and may be cited as such, and will be referred to herein as “this code.” It is intended that it shall also be known as the CALGreen Code. The California Green Building Standards Code is Part 11 of thirteen parts of the official compilation and publication of the adoption, amendment and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code.

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101.3.1 State-regulated buildings, structures and applications. Provisions of this code shall apply to the following buildings, structures and applications regulated by state agencies as specified in Sections 103 through 106, except where modified by local ordinance pursuant to Section 101.7. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by statute.

1. (No change to text)
2. (No change to text)
3. All residential buildings constructed throughout the State of California, including but not limited to, hotels, motels, lodging houses, apartment houses apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities regulated by the Department of Housing and Community Development. See Section 104 for additional scoping provisions.
4. (No change to text)
5. (No change to text)
6. (No change to text)
7. (No change to text)
8. (No change to text)

101.4 Appendices. Provisions contained in the appendices of this code are not mandatory unless specifically adopted by a State agency or adopted by a city, county, or city and county in compliance with *Health and Safety Code* Sections 18930 and 18941.5, respectively, for Building Standards Law; *Health and Safety Code* Section 17950 for State Housing Law; and *Health and Safety Code* Section 13869.7 for Fire Protection Districts. See Section 101.7 of this code.

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101.8 Alternate materials, designs and methods of construction. The provisions of this code are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternate shall be approved on a case-by-case basis where the enforcing agency finds that the proposed alternate is satisfactory and complies with the intent of the provisions of this code and is at least the equivalent of that prescribed in this code in planning and design, energy, water, material conservation and resource efficiency, environmental air quality, performance, safety and the protection of life and health. Consideration and compliance provisions for occupancies regulated by adopting state agencies are found in the sections listed below.

1. Section 1.2.2 in the *California Building Code* (CBC) for the California Building Standards Commission.
2. Section 104.11 of Chapter 1, Division II for the Division of the State Architect.
3. Section 1.8.7, Chapter 1, Administration, Division 4 I, of the 2016 *California Building Code*, and Section 4-2.6 1.8.7, Chapter 1, Administration, Division 4 I, of the 2016 *California Residential Code* for the Department of

Housing and Community Development.

4. Section 7-104, 2013 *California Administrative Code* for the Office of the Statewide Health Planning and Development.

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SECTION 102 CONSTRUCTION DOCUMENTS AND INSTALLATION VERIFICATION

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102.3 Verification. Documentation of conformance for applicable green building measures shall be provided to the enforcing agency. Alternate methods of documentation shall be acceptable when the enforcing agency finds that the proposed alternate documentation is satisfactory to demonstrate substantial conformance with the intent of the proposed green building measure.

(HCD) Documentation of conformance for applicable green building measures shall be provided to the enforcing agency. All projects shall submit a completed Residential Occupancies Application Checklist that includes Chapter 4 residential mandatory measures and Tier 1 or Tier 2, as applicable. References to the measure-specific documentation used to show compliance shall be included. Alternate methods of documentation shall be acceptable when the enforcing agency finds that the proposed alternate documentation is satisfactory to demonstrate substantial conformance with the intent of the proposed green building measure.

Note: HCD's Residential Occupancies Application Checklist that includes the minimum criteria for documentation is available at: <http://www.hcd.ca.gov/building-standards/calgreen/cal-green-forms.shtml>

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

2. HCD proposes to continue adoption of Chapter 2 from the 2016 CALGreen Code into the 2019 CALGreen Code with new modifications as follows:

CHAPTER 2 DEFINITIONS

SECTION 202 DEFINITIONS

Note: Definitions amended by the Emergency Supplement are effective July 23, 2015.

ACCESSORY DWELLING UNIT. [HCD] An attached or a detached residential dwelling unit, which provides complete independent living facilities for one or more persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the primary single-family dwelling is situated. (See Government Code Section 65852.2.)

ACCESSORY OCCUPANCIES. [HCD] Occupancies that are ancillary to the main occupancy of residential building(s) or portions thereof. Accessory occupancies shall include, but not limited to, Group U occupancies. (See Section 312 of the California Building Code.)

ACCESSORY STRUCTURE. [HCD] A structure that is accessory to and incidental to that of the dwelling(s) and that

is located on the same lot.

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ALTERNATE WATER SOURCE. Nonpotable source of water that includes but is not limited to gray water, on-site treated non-potable gray water, rainwater, and reclaimed (recycled) water.

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JUNIOR ACCESSORY DWELLING UNIT. [HCD] A unit that is no more than 500 square feet in size and contained entirely within an existing single-family structure. A junior accessory dwelling unit may include separate sanitation facilities, or may share sanitation facilities with the existing structure. (See Government Code Section 65852.22)

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ON-SITE TREATED NON-POTABLE GRAY WATER. [HCD 11.] Nonpotable water that has been collected, treated, and intended to be used on-site and is suitable for direct beneficial use. Sources for on-site treated nonpotable water include, but are not limited to, gray water; rainwater; stormwater; reclaimed (recycled) water; cooling tower blow-down water; and foundation drainage.

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Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

3. HCD proposes to continue adoption of Chapter 3 from the 2016 CALGreen into the 2019 CALGreen with new modifications as follows:

**CHAPTER 3
GREEN BUILDING**

**SECTION 301
GENERAL**

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301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions or improvements shall replace noncompliant plumbing fixtures with water conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

**SECTION 302
MIXED OCCUPANCY BUILDINGS**

302.1 Mixed occupancy buildings. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:

1. **[HCD]** Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. **[HCD]** For the purposes of CALGreen, live/work units, complying with Section 419 of the California Building Code, shall not be considered mixed occupancies. Live/work units shall comply with Chapter 4 and Appendix A4, as applicable.

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

4. HCD proposes to continue adoption of Chapter 4 from the 2016 CALGreen into the 2019 CALGreen with new modifications as follows:

**CHAPTER 4
RESIDENTIAL MANDATORY MEASURES**

Division 4.1 – PLANNING AND DESIGN

**SECTION 4.106
SITE DEVELOPMENT**

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4.106.2 Storm water drainage and retention during construction. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.
(Website: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml)

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

1. Where there is no commercial power supply.
2. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than \$400.00 per dwelling unit.
3. **Newly constructed Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.**

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4.106.4.2 New multifamily dwellings. **Where 17 or more multifamily dwelling units are constructed on a building site, 3 Ten (10) percent of the total number of parking spaces on a building site,** provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Note: 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.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. **Where common use areas are provided At at least one EV space shall be located in the common use areas and shall be** available for use by all residents.

4.106.4.2.1.1 Electric vehicle 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 one of the following options:

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

Exception: **Electric vehicle charging stations 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.**

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4.106.4.2.4 Multiple EV spaces required. 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 that the 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. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: **Capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE is not required when an energy management system is installed in accordance with the California Electrical Code.**

4.106.4.2.5 Identification. The 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*.

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. Website: <http://www.dot.ca.gov/trafficops/policy/13-01.pdf>

2. See Vehicle Code Section 22511 for EV charging space signage in off-street parking facilities and for use of EV charging spaces.

3. The Governor’s Office of Planning and Research (OPR) published a “Zero-Emission Vehicle Community Readiness Guidebook” which provides helpful information for local governments, residents and businesses. Website: http://opr.ca.gov/docs/ZEV_Guidebook.pdf.

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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.

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. Website: <http://www.dot.ca.gov/trafficops/policy.html>

2. See Vehicle Code Section 22511 for EV charging space signage in off-street parking facilities and for use of EV charging spaces.

3. The Governor’s Office of Planning and Research (OPR) published a “Zero-Emission Vehicle Community Readiness Guidebook” which provides helpful information for local governments, residents and businesses. Website: https://opr.ca.gov/docs/ZEV_Guidebook.pdf.

4. The Governor’s Interagency Working Group on Zero-emission Vehicles, 2016, “2016 ZEV Action Plan, An Updated Roadmap toward 1.5 Million Zero Emission Vehicles on California Roadways by 2025.” https://www.gov.ca.gov/docs/2016_ZEV_Action_Plan.pdf

Division 4.3 – WATER EFFICIENCY AND CONSERVATION

**SECTION 4.303
INDOOR WATER USE**

4.303.1 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

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4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.25 0.2 gallons per cycle.

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**SECTION 4.304
OUTDOOR WATER USE**

4.304.1 Outdoor potable water use in landscape areas. After December 1, 2015, new New residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options:

1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELo), whichever is more stringent; or
2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWELo's Appendix D Prescriptive Compliance Option.

Notes:

1. The Model Water Efficient Landscape Ordinance (MWELo) and supporting documents are available at: <https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency>
2. A water budget calculator is available at: <https://www.water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency>

Division 4.5 – ENVIRONMENTAL QUALITY

**SECTION 4.507
ENVIRONMENTAL COMFORT**

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4.507.2 Heating and air-conditioning system design. Heating and air-conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J—2011 2016 (*Residential Load Calculation*), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D—2014 2016 (*Residential Duct Systems*), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S—2014 (*Residential Equipment Selection*) or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the systems function are acceptable.

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Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

5. HCD proposes to continue adoption of Chapter 6 from the 2016 CALGreen into the 2019 CALGreen with modifications.

**CHAPTER 6
REFERENCED ORGANIZATIONS AND STANDARDS**

ORGANIZATION	STANDARD	REFERENCED SECTION
ACCA Air Conditioning Contractors of American		
2800 Shirlington Road, Suite 300 Arlington, VA 22206 www.acca.org	ANSI/ACCA 2 Manual J- 2014 2016 ANSI/ACCA 1 Manual D- 2014 2016 ANSI/ACCA 3 Manual S-2014	4.507.2 4.507.2 4.507.2
ANSI American National Standards Institute		
Operations Office 25 West 43rd Street, Fourth Floor New York, NY 10036 www.ansi.org	ANSI/AHAM DW-1-2010 NSF/ANSI 140-2014 ANSI/ACCA 2 Manual J- 2014 2016 ANSI/ACCA 1 Manual D- 2014 2016 ANSI/ACCA 3 Manual S-2014	202 4.504.3, 5.504.4.4 4.507.2 4.507.2 4.507.2
NSF International		
789 Dixboro Rd. Ann Arbor, MI 48113-0140 http://www.nsf.org/	NSF/ANSI 140- 2007 2014	4.504.3, 5.504.4.4

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

6. HCD proposes to continue adoption of Chapter 7 from the 2016 CALGreen into the 2019 CALGreen without modification.

**CHAPTER 7
INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS**

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

7. HCD proposes to continue to not adopt Chapter 8.

**CHAPTER 8
COMPLIANCE FORMS, WORKSHEETS AND REFERENCE MATERIALS**

[HCD 1] Sample forms located at www.hcd.ca.gov/CALGreen.html www.hcd.ca.gov/building-standards/calgreen/cal-green-forms.shtml may be used to assist in documenting compliance with CALGreen.

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

8. HCD proposes to continue adoption of Appendix Chapter A4 from the 2016 CALGreen into the 2019 CALGreen with new modifications as follows:

**APPENDIX A4
RESIDENTIAL VOLUNTARY MEASURES**

Division A4.1 – PLANNING AND DESIGN

**SECTION A4.106
SITE DEVELOPMENT**

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A4.106.5.3 Solar reflectance index alternative. Solar Reflectance Index (SRI) equal to or greater than the values specified in Tables A4.106.5.1(1) and A4.106.5.1(3) for Tier 1 and Tables A4.106.5.1(2) and A4.106.5.1(4) for Tier 2 may be used as an alternative to compliance with the 3-year aged solar reflectance values and thermal emittance.

SRI values used to comply with this section shall be calculated using the Solar Reflectance Index (SRI) Calculation Worksheet (SRI-WS) developed by the California Energy Commission or in compliance with ASTM E1980-01 as specified in the [2016 2019 California Energy Code](#). Solar reflectance values used in the SRI-WS shall be based on the aged reflectance value of the roofing product or the equation in Section A4.106.5.1 if the CRRC certified aged solar reflectance are not available. Certified thermal emittance used in the SRI-WS may be either the initial value or the aged value listed by the CRRC.

Solar reflectance and thermal emittance may also be certified by other supervisory entities approved by the Commission pursuant to Title 24, Part 1, *California Administrative Code*.

Note: The Solar Reflectance Index Calculation Worksheet (SRI-WS) is available by contacting the Energy Standards Hotline at 1-800-772-3300, website at www.energy.ca.gov or by email at Title24@energy.state.ca.us.

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A4.106.8 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections A4.106.8.1 **and**, A4.106.8.2 **or** [A4.106.8.3](#), to facilitate future installation and use of electric vehicle chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625.

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A4.106.8.2 New multifamily dwellings.

Tier 1 and Tier 2. Where 17 or more multifamily dwelling units are constructed on a building site, 5 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Tier 1. 15 percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Tier 2. 20 percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

See Section 4.106.4.2 for additional requirements related to EVCS for multifamily dwellings.

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. Website: <http://www.dot.ca.gov/hq/traffops/policy.htm>
2. See Vehicle Code Section 22511 for EV charging space signage in off-street parking facilities and for use of EV charging spaces.
3. The Governor’s Office of Planning and Research (OPR) published a “Zero-Emission Vehicle Community Readiness Guidebook” which provides helpful information for local governments, residents and businesses. Website: http://opr.ca.gov/docs/ZEV_Guidebook.pdf.

A4.106.8.2.1 Technical requirements. The EV spaces and EVCS required by Section A4.106.8.2 shall be designed and constructed in accordance with Sections 4.106.4.2.1, 4.106.4.2.2, 4.106.4.2.3, 4.106.4.2.4, and 4.106.4.2.5.

A4.106.8.3 New hotels and motels.

Tier 1. Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table A4.106.8.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE A4.106.8.3.1

TOTAL NUMBER OF PARKING SPACES	TIER 1 NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	2
26-50	3
51-75	5
76-100	7
101-150	10
151-200	14
201 and over	8 percent of total

Tier 2. Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table A4.106.8.3.2. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE A4.106.8.3.2

TOTAL NUMBER OF PARKING SPACES	TIER 2 NUMBER OF REQUIRED EV SPACES
0-9	1
10-25	2
26-50	4
51-75	6
76-100	9
101-150	12
151-200	17
201 and over	10 percent of total

A4.106.8.3.1 Technical requirements. The EV spaces and EV charging station(s) required by Section A4.106.8.3 shall be designed and constructed in accordance with Sections 4.106.4.3, 4.106.4.3.2, 4.106.4.3.3, 4.106.4.3.4, 4.106.4.3.5, and 4.106.4.3.6.

Division A4.3 – WATER EFFICIENCY AND CONSERVATION

**SECTION A4.302
DEFINITIONS**

A4.302.1 Definition. The following terms are defined in Chapter 2.

ALTERNATE WATER SOURCE.

ON-SITE TREATED NON-POTABLE GRAY WATER

REFERENCE EVAPOTRANSPIRATION (ETo)

**SECTION A4.304
OUTDOOR WATER USE**

...

A4.304.2 Potable water elimination. When landscaping is provided and as allowed by local ordinance, a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment ~~should shall~~ be provided. Methods used to accomplish the requirements of this section ~~must shall~~ be designed to the requirements of the *California Building Standards Code* and shall include, but not be limited to, the following:

...

**SECTION A4.602
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST
Effective July 1, 2015 January 1, 2020**

The complete checklist is to be amended to correspond with proposed changes in Chapter 4 and Appendix A4.

Note:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.