FINAL EXPRESS TERMS ADDENDUM
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 06/18) EVCS Addendum

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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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4.106.4.2.1.1 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:

1-2 (No change to text)

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.

Note: Electric vehicle charging stations serving public housing are required to comply with the California Building Code, Chapter 11B.

Rationale: HCD proposes to modify the above referenced section (exception). The newly proposed note provides additional clarification that electric vehicle charging stations (EVCS) serving public housing shall comply with the accessibility requirements in Chapter 11B, and not Chapter 11A and/or CALGreen. The newly proposed note provides clarity to the code users; there is no intended change in regulatory effect.

Initially, HCD proposed to adopt the new exception, referring to California Building Code (CBC), Chapter 11B, as an option for compliance with the California accessibility requirements when EV charging equipment is installed. Currently Section 4.106.4.2.1 mandates the location of EV spaces (1 in 25) when EV charging equipment is installed;

however, the installed charging equipment is also required to comply with the applicable sections in the CBC, Chapter 11A, in order to provide access for persons with disabilities. The Division of State Architect (DSA) developed comprehensive standards for EVCS when EV charging equipment is installed. These standards, located in Chapter 11B, apply to public buildings (including public housing) and public accommodations. The proposed exception allows designers, developers, and owners to design and construct EVCS following the requirements in Chapter 11B, instead of CALGreen and Chapter 11A.

The proposed exception was available for comments and discussions during the CALGreen Focus Group meeting, Code Advisory Committee meeting, and 45-day public comment period. HCD did not receive any comments in opposition or with concerns, and following the requirements in the Building Standards Law and the California Administrative Code, and the Building Standards Commission's procedures, included the proposals in the Final Express Terms. HCD received comment from DSA, with concern that the exception, as written, is misleading because it allows EVCS serving public housing to comply with either Chapter 11A or Chapter 11B, which is incorrect because public housing projects are required to comply with all applicable requirements in Chapter 11B.

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(HCD 06/18)

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 California amendments appear upright, modified language is underlined or shown in ~~strikeout~~.

2. New California amendments appear underlined.

3. Repeal California amendments appear upright and in ~~strikeout~~.

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**.
- Adopt **new** sections into the 2019 CALGreen Code.
- 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. (No change to text).

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. (No change to text).

1. (No change to text)

2. (No change to text)

3. Section 1.8.7, Chapter 1, ~~Administration,~~ Division ~~1~~ I, of the ~~2016~~ *California Building Code*; and Section ~~1.2.6~~ 1.8.7, Chapter 1, ~~Administration,~~ Division ~~1~~ I, of the ~~2016~~ *California Residential Code* for the Department of Housing and Community Development.

4. (No change to text)

SECTION 102
CONSTRUCTION DOCUMENTS AND INSTALLATION VERIFICATION

102.3 Verification. (No change to text).

(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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

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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.

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)

MERV. Filter minimum efficiency reporting value~~, based on ASHRE 52.2 2007~~.

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, 17926, 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, 1101.5, and 1954.201; 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

301.1.1 Additions and alterations. (No change to text)

~~**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. (No change to text).

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, 17926, 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, 1101.5, and 1954.201; 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

4.106.2 Storm water drainage and retention during construction. (No change to text).

1-3 (No change to text)

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:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.4 Electric vehicle (EV) charging for new construction. (No change to text)

Exceptions:

1. 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:

   1.1 Where there is no commercial power supply.

   ~~2.~~ 1.2. 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.

2. 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~~ If residential parking is available, 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.

Notes:

1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2. 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 parking is provided ~~At~~ at least one EV space shall be located in the common use parking 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:

1-2(No change to text)

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.

See Addendum Item 4

4.106.4.2.4 Multiple EV spaces required. (No change to text).

4.106.4.2.5 Identification. (No change to text).

~~**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 (No change to text)

~~**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:~~ Sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.1.4.

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.

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.

SECTION 4.304
OUTDOOR WATER USE

4.304.1 Outdoor potable water use in landscape areas. ~~After December 1, 2015, new r~~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 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) is located in the California Code of Regulations (CCR), Title 23, Chapter 2.7, Division 2.~~and supporting documents are available at: http://www.water.ca.gov/wateruseefficiency/ landscapeordinance/~~

~~2. A water budget calculator is available at: http://www.water.ca.gov/wateruseefficiency/ landscapeordinance/~~

MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/

Division 4.5 – ENVIRONMENTAL QUALITY

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SECTION 4.507
ENVIRONMENTAL COMFORT

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4.507.2 Heating and air-conditioning system design. (No change to text)

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. (No change to text).

Exception: (No change to text).

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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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

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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–~~2011~~ 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–~~2011~~ 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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

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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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

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

CHAPTER 8
COMPLIANCE FORMS, WORKSHEETS AND REFERENCE MATERIAL

[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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

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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. (No change to text).

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.

(No change to text).

Note: (No change to text).

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.

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.~~

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A4.106.8.2.1 Technical requirements. The EV spaces 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 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 term is defined in Chapter 2.~~ **(Reserved)**

~~**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 be designed to~~ shall comply with the requirements of the *California Building Standards Code* and shall include, but not be limited to, the following:

1-4 (No change to text).

5. Use of drought tolerant plants.

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Division A4.5 – ENVIRONMENTAL QUALITY

SECTION A4.506
INDOOR AIR QUALITY AND EXHAUST

A4.506.1 ~~Filters.~~ ~~Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.~~ **Reserved**

A4.506.2 Construction filter. [HR] Provide filters on return air openings rated at MERV ~~6~~ 8 or higher during construction.

Division A4.6 – TIER 1 AND TIER 2

SECTION A4.601
GENERAL

A4.601.4.2 Prerequisite and elective measures for Tier 1. (No change to text)

1. From Division A4.1, Planning and Design.

1.1-1.3 (No change to text)

1.4 Comply with the Tier 1 electric vehicle (EV) charging requirements in Section A4.106.8.

1.5 (No change to text)

2. From Division A4.2, Energy Efficiency.

2.1 For newly constructed low-rise residential buildings, comply with the energy efficiency requirements in ~~Section A4.203.1.1 and A4.203.1.2.1.~~ Sections A4.203.1.1.1, A4.203.1.1.2, Table A4.203.1.1.1, A4.203.1.2, A4.203.1.3.1 and A4.203.1.4.

~~2.2 For additions to low-rise residential buildings, comply with the energy efficiency requirements in Section A4.204.1.1.~~

3. (No change to text)

A4.601.5.2 Prerequisite and elective measures for Tier 2. (No change to text)

1. From Division A4.1, Planning and Design.

1.1-1.3 (No change to text)

1.4 Comply with the Tier ~~1~~ 2 electric vehicle (EV) charging requirements in Section A4.106.8.

1.5 (No change to text)

2. From Division A4.2, Energy Efficiency.

2.1 For newly constructed low-rise residential buildings, comply with the energy efficiency requirements in Sections ~~A4.203.1.1 and A4.203.1.2.2.~~ A4.203.1.1.1, A4.203.1.1.2, Table A4.203.1.1.1, A4.203.1.2, A4.203.1.3.2 and A4.303.1.4.

~~2.2 For additions to low-rise residential buildings, comply with the energy efficiency requirements in Section A4.204.1.2.~~

3. (No change to text)

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

PLANNING AND DESIGN						
Site Development						
A4.106.4						
A4.106.5 Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum aged Solar Reflectance Index (SRI) equal to or greater than the values specified in ~~Tables A4.106.5.1(1) and A4.106.5.1(2) for low-rise residential buildings and Tables A4.106.5.1(3) and A4.106.5.1(4) for high-rise residential buildings~~ the applicable tables. **Low-Rise Residential** Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(1). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(2). **High-Rise Residential, Hotels and Motels** Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(3). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(4).		☒[2] ☒[2]	☐ ☒[2]	☐ ☐	☐ ☐	☐ ☐
A4.106.7						
A4.106.8.1 ~~**Tier 1 and Tier 2**~~ Tier 1 and Tier 2 for one- and two-family dwellings and townhouses with attached private garages. Install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum per dwelling unit.		☒[2]	☒[2]	☐	☐	☐
A4.106.8.2 ~~**Tier 1 and Tier 2**~~ ~~for multifamily dwellings.~~ Provide capability for future electric vehicle charging in new multifamily dwellings ~~in 5 percent of total parking spaces~~, as specified. Tier 1. In 15 percent of total parking spaces. Tier 2. In 20 percent of total parking spaces.		☒[2] ☒[2]	☐ ☒[2]	☐ ☐	☐ ☐	☐ ☐

A4.106.8.3 Provide electric vehicle spaces for new hotels and motels. Tier 1. Install EV spaces per Table A4.106.8.3.1. Tier 2. Install EV spaces per Table A4.106.8.3.2.		☒[2]	☒[2]	☐ ☐	☐ ☐	☐ ☐
ENERGY EFFICIENCY						
Performance Approach for Newly Constructed Buildings						
A4.203.1.1.1 ~~An~~ Tier 1 and Tier 2. Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) for the Proposed Design Building is included in the Certificate of Compliance documentation.		☒[2]	☒[2]	☐	☐	☐
A4.203.1.1.2 ~~QII~~ Tier 1 and Tier 2. Quality Insulation Installation procedures specified in the Building Energy Efficiency Standards Reference ~~Residential Appendix~~ Appendices RA3.5 are completed.		☒[2]	☒[2]	☐	☐	☐
A4.203.1.2 Tier 1 and Tier 2 Prerequisite Options. One of the following options is required. • Roof deck insulation or ducts in conditioned space. • High performance walls. • HERS-verified compact hot water distribution system. • HERS-verified drain water heat recovery.		☒[2]	☒[2]	☐	☐	☐
~~A4.203.1.2.1~~ **A4.203.1.3.1 Tier 1.** Buildings complying with the first level of advanced energy efficiency shall have ~~either an Energy Budget that is no greater than 85 percent of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 15% or greater reduction in its Energy Budget component compared to the Standard Design Building,~~ additional integrated efficiency and onsite renewable energy generation to achieve a Total EDR for Tier 1 as specified in Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.		☒[2]		☐	☐	☐

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~~A4.203.1.2.2~~ A4.203.1.3.2 Tier 2. Buildings complying with the second level of advanced energy efficiency shall have ~~either an Energy Budget that is no greater than 70 percent of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 30% or greater reduction in its Energy Budget component compared to the Standard Design Building,~~ additional integrated efficiency and onsite renewable energy generation to achieve a Total EDR for Tier 2 as specified in Table A4.203.1.1.1 or lower as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission. This Total EDR is in addition to meeting the Efficiency EDR.			☒[2]	☐	☐	☐
A4.203.1.4 Local jurisdictions adopting Tier 1 or Tier 2, or considering community shared solar or storage options as specified, shall consult with the local electric service for acceptance.		☒[2]	☒[2]	☐	☐	☐
~~**A4.203.1.2.3 Zero Net Energy Design (elective):** Shall comply with all of the following:~~ ~~1. Section A4.203.1.1 (Prerequisite) and;~~ ~~2. Section A4.203.1.2.1~~ ~~• for single family buildings in Climate Zones 6 and 7, and low-rise multifamily buildings in Climate Zones 3, 5, 6, and 7~~ ~~or Section A4.203.1.2.2~~ ~~• for single family buildings in Climate Zones 1-5 and 8-16, and low-rise multifamily buildings in Climate Zones 1, 2, 4, and 8-16~~ ~~3. Energy Design Rating of zero (0) or less.~~		☐	☐	☐	☐	☐
~~**Performance Approach for Additions**~~						
~~**A4.204.1.1 Tier 1.**~~ ~~If only one mechanical system is added or modified, the Energy Budget is no greater than 95 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building.~~		☒[2]		☐	☐	☐
~~**A4.204.1.2 Tier 2.**~~ ~~If only one mechanical system is added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Standard Design Building.~~			☒[2]	☐	☐	☐

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~~WATER EFFICIENCY AND CONSERVATION~~						
Indoor Water Use						
4.303.2						
A4.303.1 ~~Kitchen faucets.~~ The maximum flow-rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi. **Note:** Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.		☐	☐	☐	☐	☐
4.303.1.4.3 Metering faucets in residential buildings shall not deliver more than 0.2 gallons per cycle.	☒			☐	☐	☐
Outdoor Water Use						
4.304.1 ~~After December 1, 2015,new residential~~ 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 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 2500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.~~	☒			☐ ⊟	☐ ⊟	☐
~~WATER REUSE SYSTEMS~~ Water Reuse Systems						
4.305.1 Newly constructed residential developments, where disinfected tertiary recycled water is available from a municipal source to a construction site, may be required to have recycled water supply systems installed, allowing the use of recycled water for residential landscape irrigation systems.	☒					
ENVIRONMENTAL QUALITY						
Indoor Air Quality and Exhaust						

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4.506.1 Each bathroom shall be provided with the following: 1. ENERGY STAR fans ducted to terminate outside the building. 2. Fans must be controlled by a humidity control (separate or built-in); OR functioning as a component of a whole house ventilation system. 3. Humidity controls with manual or automatic means of adjustment, capable of adjustment between a relative humidity range of ≤ 50 percent to a maximum of 80 percent.	☒					
A4.506.1. ~~Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.~~ **Reserved.**		☐	☐	☐	☐	☐
A4.506.2 (HR). Provide filters on return air openings rated at MERV ~~6~~ 8 or higher during construction when it is necessary to use HVAC equipment.		☐	☐	☐	☐	☐
Environmental Comfort						
4.507.2. Duct systems are sized, designed and equipment is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J - ~~2011~~ 2016 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 Manual D - ~~2014~~ 2016 or equivalent. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 or equivalent.	☒			☐	☐	☐

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, 17926, 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, 1101.5, and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.