# APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

# JULY 13, 2020

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE,

# CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11

# (HCD 08/19)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout and ellipsis.

## LEGEND for EXPRESS TERMS (California only codes - Parts 1, 6, 8, 11, 12)

* Existing California amendments appear upright
* Amended or new California amendments appear underlined
* Repealed California language appears ~~upright and in strikeout~~
* Ellipsis (…) indicate existing text remains unchanged

## FINAL EXPRESS TERMS

## Item 1 HCD proposes to amend Chapter 2, Section 202, as follows:

**Chapter 2 Definitions**

**Section** **202 Definitions**

**ACCESSORY DWELLING UNIT. [HCD]** An attached or ~~a~~ detached residential dwelling unit~~, which~~ that provides complete independent living facilities for one or more persons and is located on a lot with a proposed or existing primary residence. ~~It~~ Accessory dwelling units shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the ~~primary~~ single-family or multifamily dwelling is or will be situated. (See Government Code Section 65852.2 *~~for details~~.*)[Approved as Amended by the commission, deleting “for details”]

**SUBMETER. [HCD 1]** A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civil Code Section 1954.202(g) and Water Code Section 517 for additional details.)

**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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 1954.202(g); Government Code Sections 12955.1 and 12955.1.1; and Water Code Section 517.

## Item 2 HCD proposes to amend Chapter 4, Division 4.1, as follows:

**CHAPTER 4 Residential Mandatory Measures**

**SECTION 4.106 Site Development**

**4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages.** For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

**Exception:** Araceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

**4.106.4.2 New multifamily dwellings.** (No change to text.)

**Notes:**

1. Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging. (No change to text.)
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use. (No change to text.)
3. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See *Vehicle Code* Section 22511.2 for further details.

**4.106.4.2.3 Single EV space required.** Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The 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. Construction documents shall identify the raceway termination point. The 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. (No change to text.)

**Exception:** Araceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger, at the time of original construction in accordance with the *California Electrical Code*.

**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. (No change to text.)

**Exception:** Araceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger, at the time of original construction in accordance with the *California Electrical Code*.

**4.106.4.3 New hotels and motels.** (No change to text.)

**Notes:**

1. Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging. (No change to text.)
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use. (No change to text.)
3. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See *Vehicle Code* Section 22511.2 for further details.

**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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; Government Code Sections 12955.1 and 12955.1.1; and Vehicle Code Section 22511.2.

## Item 3 HCD proposes to amend Chapter 4, Division 4.3, as follows:

**CHAPTER 4 Residential Mandatory Measures**

**SECTION 4.303** **Indoor Water Use**

**4.303.1.4.5 Pre-rinse spray valves.** When installed, shall meet the requirements in the*California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7), and shall be equipped with an integral automatic shutoff.

**FOR REFERENCE ONLY:** The following table and code section have been reprinted from the *California Code of Regulations, Title 20 (Appliance Efficiency Regulations),* Section 1605.1 (h)(4) and Section1605.3 (h)(4)(A).

**Table H-2**

**Standards for Commercial Pre-rinse Spray Valves Manufactured On or After January 28, 2019**

| **Product Class (spray force in ounce force (ozf))** | **Maximum Flow Rate (gpm)** |
| --- | --- |
| Product Class 1 (≤ 5.0 ozf) | 1.00 |
| Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf) | 1.20 |
| Product Class 3 (> 8.0 ozf) | 1.28 |

Title 20 Section 1605.3 (h)(4)(A): Commercial pre-rinse spray valves manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf) [113 grams-force (gf)].

**4.303.2 Submeters for multifamily buildings and dwelling units in mixed-use residential/commercial buildings.** Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

**4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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.

## Item 4 HCD proposes to amend Chapter 4, Division 4.4, as follows:

**CHAPTER 4 Residential Mandatory Measures**

**SECTION 4.410 Building Maintenance and Operation**

**4.410.1 Operation and maintenance manual.** At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building: (No change to text.)

1. – 10. (No change to text.)

11. Information from ~~CAL FIRE~~ Department of Forestry and Fire Protection on maintenance of defensible space around residential structures. [Approved as amended by the commission, replacing the name of CAL FIRE with the formal name. See addendum to agenda Item 4]

**Notation:**

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, 18873.2, 18873.3, 18873.4, 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.

## Item 5 HCD proposes to amend Chapter 4, Division 4.5, as follows:

**CHAPTER 4 Residential Mandatory Measures**

**SECTION 4.504 Pollutant Control**

**4.504.3 Carpet systems.** All carpet installed in the building interior shall meet the ~~testing and product~~ requirements of ~~one of~~ the ~~following:~~

1. ~~Carpet and Rug Institute’s Green Label Plus Program.~~
2. California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” ~~Version 1.1~~ Version 1.2, ~~February 2010~~ (January 2017) (~~also known as~~ Emission testing method for California Specification 01350.)
3. ~~NSF/ANSI 140 at the Gold level.~~
4. ~~Scientific Certifications Systems Indoor Advantage~~~~TM~~ ~~Gold.~~

(See California Department of Public Health’s website for certification programs and testing labs.)

(https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx)

**4.504.3.1 Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the ~~Carpet and Rug Institute’s Green Label Plus program.~~ California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.2, January 2017 (Emission testing method for California Specification 01350.)

(See California Department of Public Health’s website for certification programs and testing labs.)

(https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx)

**4.504.4 Resilient flooring systems**. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall ~~comply with one or more of the following:~~ meet the requirements of

1. ~~Products~~ ~~compliant with~~ the California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” ~~Version 1.1~~ Version 1.2, ~~February 2010~~ January 2017 (~~also known as~~ Emission testing method for California Specification 01350)~~, certified as a (CHPS) Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database~~.
2. ~~Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools program).~~
3. ~~Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.~~
4. ~~Meet the California Department of Public Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.1, February 2010 (also known as Specification 01350).~~

(See California Department of Public Health’s website for certification programs and testing labs.)

(https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx)

**4.504.5 Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB’s Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.)~~, by or before the dates specified in those sections,~~ as shown in Table 4.504.5.

**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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.

## Item 6 HCD proposes to amend Appendix A4, Division A4.1, as follows:

**APPENDIX A4 Residential Voluntary Measures**

**SECTION A4.106 Site Development**

**A4.106.5.3 Solar reflectance index alternative.** (No change to text.)

**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~~ Title24@energy.ca.gov.

**A4.106.8.2 New multifamily dwellings.** (No change to text.)

**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 (Notes), 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.

**~~A4.106.10 Light pollution reduction. (HR)~~** ~~Outdoor lighting systems shall be designed and installed to comply with the following:~~

1. ~~The minimum requirements in the~~ *~~California Energy Code~~* ~~for Lighting Zones 1-4 as defined in Chapter 10 of the~~ *~~California Administrative Code~~*~~; and~~
2. ~~Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and~~
3. ~~Allowable BUG ratings not exceeding those shown in Table A4.106.10; or~~

~~Comply with a local ordinance lawfully enacted pursuant to Section 101.7 of this code, whichever is more stringent.~~

**~~Exceptions:~~**

1. ~~Luminaires that qualify as exceptions in the~~ *~~California Energy Code.~~*
2. ~~Emergency lighting.~~
3. ~~One- and two-family dwellings.~~

**~~Note:~~** ~~The International Dark-Sky Association (IDA) and the Illuminating Engineering Society of North America (IESNA) have developed a Model Lighting Ordinance (MLO). The MLO was designed to help municipalities develop outdoor lighting standards that reduce glare, light trespass, and skyglow. The model ordinance and user guides for the ordinance may be accessed at the International Dark-Sky Association web site.~~

**~~TABLE A4.106.10~~**

**~~MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG RATINGS¹ ²)~~**

**[TABLE, CONTENTS AND FOOTNOTES TO BE REPEALED]**

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**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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.

## Item 7 HCD proposes to amend Appendix A4, Division A4.5, as follows:

**APPENDIX A4 Residential Voluntary Measures**

**SECTION A4.504 Pollutant Control**

**A4.504.2 Resilient flooring systems.** Resilient flooring systems installed in the building shall meet the percentages specified in this section and ~~comply with the VOC-emission limits defined in at least one of the following:~~ meet the requirements of

1. ~~Products compliant with~~ the California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version ~~1.1~~ 1.2, ~~February 2010~~ January 2017 (~~also known as~~ Emission testing method for California Specification 01350)~~, certified as a (CHPS) Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database~~.
2. ~~Products certified UL GREENGAURD Gold (formerly the Greenguard Children & Schools program.~~
3. ~~Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program.~~
4. ~~Meet the California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.1, February 2010 (also known as Specification 01350).~~

(See California Department of Public Health’s website for certification programs and testing labs.)

(https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx)

**Tier 1.** (No change to text.)

**Tier 2.** ~~At least~~ 100 percent of the total area of resilient flooring installed shall comply.

**Exception for Tier 2:** An allowance for up to 5-percent specialty purpose flooring may be permitted. (No change to text.)

**Note:** Documentation must be provided that verifies that finish materials are certified to meet the pollutant emission limits in this section. (No change to text.)

**A4.504.3 Thermal insulation.** Thermal insulation installed in the building shall meet the following requirements: (No change to text.)

**Tier 1**. Install thermal insulation ~~in compliance with~~ that meet the requirements of the California Department of Public Health, “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version ~~1.1~~ 1.2, ~~February 2010~~ January 2017 (~~also known as~~ Emission testing method for California Specification 01350)~~, certified as a (CHPS) Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database; products certified under the UL GREENGUARD Gold (formerly Greenguard Children & Schools program); or meet California Department of Public health, “Standard method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.1, February 2010 (also known as Specification 01350)~~.

(See California Department of Public Health’s website for certification programs and testing labs.)

(https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx)

**Tier 2.** (No change to text.)

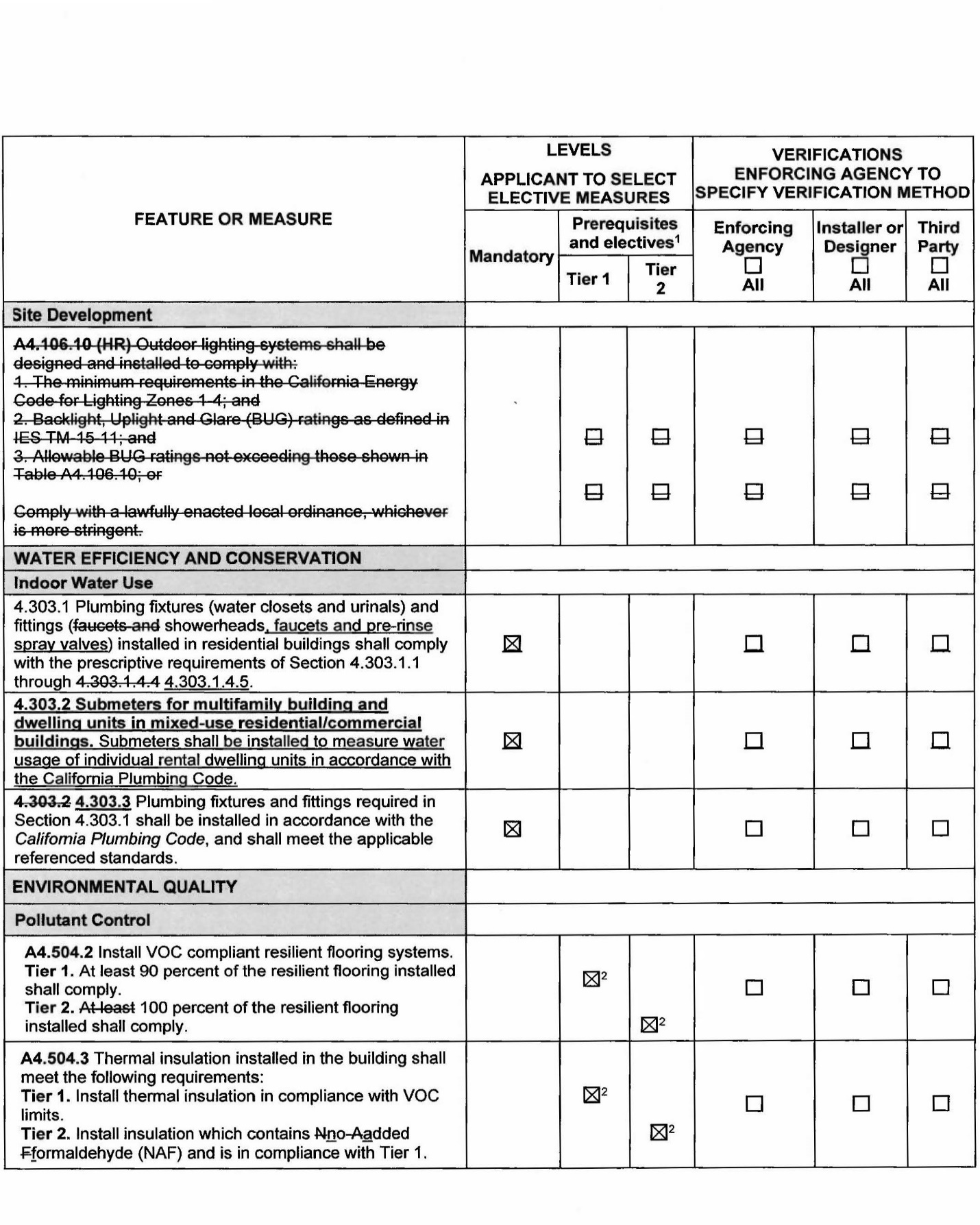
**Note:** (No change to text.)

**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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.

## Item 8 HCD proposes to amend Appendix A4, Division A4.602, RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST, by reflecting all of the changes from; Items 6, section A4.106.10 (HR); Item 3, sections 4.303.1, 4.303.2, and 4.303.3; and Item 7, section A4.504.2 and A4.504.3.



**Notation:**

Authority: 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, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

References: 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.