



# California Department of Housing and Community Development

## Summary of Changes to the 2022 California Building Standards Code

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## **2022 California Building Code (CBC), Part 2**

The California Building Standards Code, title 24, part 2, 2022 California Building Code (CBC) adopted by reference from the 2021 International Building Code (IBC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CBC become effective January 1, 2023.

Many changes for the 2022 CBC are related to the repeal of 2019 CBC text addressing tall wood buildings that were early adoptions of the 2021 IBC. These 2019 CBC California amendments are no longer needed due to publication in the 2021 IBC and the California Department of Housing and Community Development's (HCD's) adoption would cause duplication. Many IBC chapters are adopted without changes to existing amendments from the 2019 CBC or adopted without new California amendments. HCD renumbered sections of the CBC to reflect changes made in the 2021 IBC to maintain consistency with the model code.

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### **Chapter 1                      Division II, Scope and Administration.**

#### **Section 110.3.12      Type IV-A, IV-B, and IV-C connection protection inspection.**

HCD repealed the 2019 California amendment related to tall wood connection protection inspection and adopted 2021 IBC section 110.3.5 which includes the same provisions. This change was to avoid duplication in the codes.

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### **Chapter 2                      Definitions.**

HCD repealed the 2019 California amendment for the definition of "mass timber" and adopted the 2021 IBC definition. The California amendment within the definition of "wall, load bearing" was also repealed to avoid duplication in the codes.

#### **Sections 420.12              Construction Waste Management.**

##### **420.13                      Special Provisions for Residential Hotels.**

##### **420.13.1                  Locking Mail Receptacles.**

HCD renumbered these sections to reflect renumbering in the 2021 IBC model code.

#### **Section 420.14              Electric Vehicle (EV) charging for new construction.**

HCD modified the 2019 California amendment to reflect expansion of EV charging provisions that include low-power Level 2 receptacles and installation of EV chargers. This modification includes a pointer to the 2022 CALGreen.



**Sections 915.4.1      Power source. Exception 2.**

**915.5.2      Locations.**

**915.6      Maintenance.**

**915.7      Visible alarms.**

HCD revised these sections with existing California amendments with a modification which replaces a reference to National Fire Protection Association (NFPA) 720 with a reference to NFPA 72.

**Section 1009.6.3      Size.**

HCD revised this section to increase the size of the area of refuge for wheelchairs to 30 inches by 52 inches to reflect changes in the 2021 IBC. This amendment was coordinated with the Office of the State Fire Marshal.

**Sections 1202.2.1      Ventilated Attics and Rafter Spaces. Exception 1.**

**1202.3(4)      Unvented Attic and Unvented Enclosed Rafter Assemblies.**

**Table 1202.3      Insulation for Condensation Control.**

HCD repealed California amendments related to International Climate Zones in these sections and table. The California Energy Commission proposed a new table, Table 1202.3.1 of the International Energy Conservation Code (IECC) vs. Energy Code Climate Zone Comparison. HCD's amendments are no longer needed.

**Sections 1210      Garage Door Springs.**

**1211      Pollutant Control.**

HCD renumbered these two amendments from sections 1211 and 1212, respectively, to align with renumbering in the IBC model code.

**Sections 1511.9      Photovoltaic (PV) panels and modules.**

**1511.9.1      Installation.**

HCD renumbered these sections, in coordination with California Building Standards Commission (CBSC) and the Division of the State Architect (DSA) and are retentions of 2019 CBC sections which have been removed from the 2021 IBC model code. The references to Underwriters Laboratories (UL) standards were updated.



- Section 1705.5.7 Mass Timber Construction.**
- Table 1705.5.7 Required Special Inspections of Mass Timber Construction.**
- Sections 1705.11.1 Structural Wood.**
- 1705.11.2 Cold-formed Steel Light-frame Construction.**
- 1705.12.2 Structural Wood.**
- 1705.12.3 Cold-formed Steel Light-frame Construction.**
- 1705.20 Sealing of Mass Timber.**
- 2304.10.1.2 Connection Fire Resistance Rating.**
- 2304.11.3 Floors.**
- 2304.11.4 Roof Decks.**
- 3102.3 Type of Construction.**
- 3102.6.1.1 Membrane.**

HCD repealed these 2019 California amendments and adopted the similar sections related to tall wood buildings now incorporated into the 2021 IBC model code to avoid duplication in the codes.

**Section 3111.1.1 Wind Resistance Exception.**

HCD modified this California amendment with an editorial change and updated a pointer to a relocated California amendment.

**Section 3111.3 Photovoltaic Solar Energy Systems.**

HCD repealed the California amendments within section 3111.3 of the 2019 CBC. This section was deleted from the 2021 IBC and the amendment is no longer valid.

**Sections 3115 Intermodal Shipping Containers.**

**3115.1 General. Exception 5.**

HCD added exception five (5) to clarify that shipping containers constructed or converted off-site that qualify as factory-built housing, pursuant to Health and Safety Code (HSC) section 19971, or commercial modular(s), pursuant to HSC section 18001.8, are required to be approved by HCD.

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**Chapter 31 B Public Pools.**

HCD co-adopted Chapter 31B, currently adopted by the California Department of Public Health with amendments. Chapter 31B will be applicable to public pools in mobilehome



parks and special occupancy parks as defined in HSC sections 18214 and 18862.43, respectively.

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## **Appendix P                      Emergency Housing.**

HCD renamed Appendix O to Appendix P to accommodate appendix labelling in the 2021 IBC model code.



## **2022 California Building Code (CBC), Chapter 11A, Housing Accessibility**

The California Building Standards Code, title 24, part 2, 2022 CBC, Chapter 11A is a California amendment in its entirety. These amendments related to housing accessibility implement, interpret, and make specific provisions of state and federal law and/or to incorporate provisions that benefit the health, safety, and general welfare of the citizens of California. Changes adopted during the 2021 Triennial Code Adoption Cycle for Chapter 11A will become effective January 1, 2023.

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### **Section 1102A.2 Existing Buildings.**

HCD modified this section to align with the Fair Housing Act (FHA). The FHA uses the terminology "...after March 13, 1991."

### **Section 1114A.7 Edge Protection.**

HCD modified the reference to Chapter 10 versus the specific section, as the chapter number will likely not change but the sections have changed and may change again in the future.

### **Section 1134A.2 Number of Complying Bathrooms. Option 1 and Option 2.**

HCD repealed text requiring grab bars since grab bars are not required in division IV dwelling unit bathrooms.



## **2022 California Residential Code (CRC), Part 2.5**

The California Building Standards Code, title 24, part 2.5, 2022 California Residential Code (CRC) adopted by reference the 2021 International Residential Code (IRC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CRC become effective January 1, 2023, unless otherwise noted.

Many changes involved renumbering, editorial corrections, and updates. HCD repealed all existing California amendments from the 2019 CRC related to energy requirements and references to California Climate Zones. The California Energy Commission will be proposing all energy related requirements going forward.

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- Sections R327.1      Aging-in-place Design and Fall Prevention.**
  - R327.1.1      Reinforcement for Grab Bars.**
  - R327.1.1.1      Documentation for Grab Bar Reinforcement.**
  - R327.1.2      Electrical Receptacle Outlet, Switch and Control Heights.**
  - R327.1.3      Interior Doors (Effective July 1, 2024).**
  - R327.1.4      Doorbell Buttons.**

HCD added section R327.1 to implement Senate Bill 280 (Chapter 640, Statutes of 2019) which directed HCD to investigate specified changes to the CRC that promote aging-in-place design (fall prevention).

CRC section R327.1.3 “Interior Doors” will have an effective date of July 1, 2024, instead of the January 1, 2023, effective date to allow time for the design and construction industries to implement the larger interior door requirement.



## **2022 California Electrical Code (CEC), Part 3**

The California Building Standards Code, title 24, part 3, 2022 California Electrical Code (CEC) adopted by reference the 2020 National Electrical Code (NEC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CEC become effective January 1, 2023.

HCD's changes for the 2022 CEC are minimal; editorial corrections, and updating authority and reference citations, revisions for consistency in formatting, and pointers to other relevant codes. HCD is adopting the 2020 NEC with existing or revised amendments carried forward from the 2019 CEC.

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### **Sections 89.101.7.3 Conflicts. Exception.**

#### **89.101.7.3.1 Detached One- and Two-Family Dwellings.**

HCD added section 89.101.7.3.1 as a new California amendment which incorporated language from the exception in section 89.101.7.3 for format consistency with other parts of title 24. The exception in section 89.101.7.3 was repealed.

### **Section 90.2(B)(1) Scope.**

HCD added a new California amendment to reflect provisions of section 89.101.3.3 as related to structures under the jurisdiction of HCD.





## **2022 California Mechanical Code (CMC), Part 4**

The California Building Standards Code, title 24, part 4, 2022 California Mechanical Code (CMC) adopted by reference the 2021 Uniform Mechanical Code (UMC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CMC become effective January 1, 2023.

HCD's changes to the CMC were minimal editorial corrections, renumbering, and updating authority and reference citations. HCD repealed the 2019 California amendments providing references to the California Energy Code and California Climate Zones since the California Energy Commission is taking a more active role in coordinating the CMC with provisions in the California Energy Code.

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<b>Sections 311.2</b>	<b>Air Filters.</b>
<b>601.2</b>	<b>Sizing requirements. Exception.</b>
<b>603.10.1.1</b>	<b>Duct Leakage Tests for Residential Buildings.</b>
<b>1217.5.2</b>	<b>Insulation.</b>
<b>1217.7</b>	<b>Wall and Ceiling Panels.</b>
<b>1220.4.5</b>	<b>Insulation.</b>

HCD repealed amendments in these sections referencing the California Energy Code. The California Energy Commission will be amending these sections that require modification to align with the 2022 California Energy Code. Therefore, HCD's amendments are no longer needed.

### **Section 405.3 Bathroom Exhaust.**

HCD modified this new 2021 UMC (model code) section with an HCD amendment, moved from section 402.5 "Bathroom Exhaust Fans," which is a pointer to 2022 CALGreen.



## **2022 California Plumbing Code (CPC), Part 5**

The California Building Standards Code, title 24, part 5, 2022 California Plumbing Code (CPC) adopted by reference the 2021 Uniform Plumbing Code (UPC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CPC become effective January 1, 2023.

HCD's changes to the CPC were minimal; editorial corrections, renumbering, and updating authority and reference citations. No major changes were made by HCD in the 2022 CPC.

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### **Chapter 2                      Definitions.**

#### **Section 203.0                Alternate Water Source.**

HCD repealed this California amendment definition and adopted the 2021 UPC definition with an HCD amendment to modify the model code definition to be identical to the repealed 2019 CPC definition.

#### **Table 707.2                Cleanout Materials or Drain, Waste, and Vent.**

HCD added a note to this table clarifying that acrylonitrile butadiene-styrene (ABS) and polyvinyl chloride (PVC) installations are limited to not more than two stories for residential accommodations.

#### **Section 1501.2              System Design.**

HCD modified this section to permit alternate water source systems to be designed by a registered design professional or licensed person who demonstrates competency, to reflect the provisions in the 2019 CPC.

#### **Section 1501.7              Minimum Water Quality Requirements.**

HCD adopted this model code section with California amendments. The amendments delete reference to the Environmental Protection Agency (EPA) water reuse guidelines, and references water quality requirements in CPC section 1506.9.2 for on-site treated nonpotable graywater, however, retain the use of National Sanitation Foundation (NSF) 350 in the absence of local water quality requirements.

#### **Section 1503.2.2            Diversion.**

HCD modified California amendments to remove the reference to the International Association of Plumbing and Mechanical Officials (IAPMO) PS 59 standard.



## **Section 1601.2 System Design.**

HCD added a California amendment to this 2021 model code section to permit rainwater catchment systems to be designed by a person registered or licensed to perform plumbing design work or who demonstrates competency to design the rainwater catchment system to reflect the provisions in the 2019 CPC.



## **2022 California Existing Building Code (CEBC), Part 10**

The California Building Standards Code, title 24, part 10, 2022 California Existing Building Code (CEBC) adopted by reference the 2021 International Existing Building Code (IEBC) with California amendments. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CEBC become effective January 1, 2023.

HCD's changes to the CEBC were minimal such as editorial corrections, renumbering, and updating authority and reference citations. Minor changes were made by HCD in the 2022 CEBC.

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### **Section 301.3 Alteration, Addition or Change of Occupancy.**

HCD added a pointer to this section to direct the code user to the CBC, Chapter 11A for alterations.

### **Section 301.5 Compliance with Accessibility.**

HCD repealed the California amendment in this section. The model code language has been removed and, therefore, the amendment is no longer necessary.

### **Section 308.2 Carbon Monoxide Alarms in Existing Portions of a Building.**

HCD co-adopted this section with the Office of the State Fire Marshal. This is existing language from section 502.7 in the 2019 CEBC and has been relocated to section 308.2 for the 2022 CEBC due to model code reformatting.

### **Section 501.5 Carbon Monoxide Alarms.**

HCD relocated this amendment that was formerly an amendment to model code section 503.15, which was removed. HCD moved this amendment due to model code reformatting to the general section of Chapter 5 since carbon monoxide alarms are required in all existing residential buildings in accordance with HSC section 17926.

### **Section 502.7 Carbon Monoxide Alarms in Existing Portions of a Building.**

HCD repealed this 2019 California amendment. Model code language has been removed; therefore, this amendment is no longer necessary in the 2021 CEBC.



## **2022 California Green Building Standards Code (CALGreen), Part 11**

The California Building Standards Code, title 24, part 11, 2022 California Green Building Standards Code (CALGreen) is a California amendment in its entirety and has changed significantly in the 2021 Triennial Code Adoption Cycle. Progressive changes related to electric vehicle (EV) charging account for the Governor's Executive Orders to include, achieving over 1.5 million zero emission vehicles (ZEVs) on California roadways by 2025, 5 million ZEVs on California roadways by 2030, and to support use and sale of passenger vehicles and trucks in California to reach 100 percent ZEVs by 2035. Changes adopted during the 2021 Triennial Code Adoption Cycle for the CALGreen become effective January 1, 2023.

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### **Section 202 Definitions.**

HCD added new definitions for Automatic Load Management System (ALMS), Electric Vehicle (EV) Capable Space, Electric Vehicle (EV) Ready Space, Level 2 Electric Vehicle Supply Equipment (EVSE), and Low Power Level 2 Electric Vehicle (EV) Charging Receptacle.

### **Section 301.1.1 Additions and Alterations.**

HCD added clarification that CALGreen provisions may apply to additions or alterations of existing parking facilities or new parking facilities added to existing multifamily residential buildings. Clarification is also added for the types of repairs that would not be subject to this requirement (restriping, repainting, etc.). This is an incremental step for providing EV charging for existing parking facilities.

HCD reformatted the EV regulations. The 2019 CALGreen separated apartments and townhouses from hotels/motels. The 2022 CALGreen now combines EV charging provisions for apartments and townhouses with hotels and motels, but differentiates between projects with less than 20 units and projects with 20 or more units. The reformatted text includes both existing provisions from the 2019 CALGreen as well as new requirements in the 2022 CALGreen.

### **Section 4.106.4 Electric Vehicle (EV) Charging for New Construction.**

HCD modified exception 1 in this section to address situations in which there is no local utility power supply or when the local utility is unable to supply adequate power. HCD also repealed references to a specific dollar amount qualifying for exception from EV charging requirements.



## **Section 4.106.4.2 New Multifamily Dwellings, Hotels and Motels and New Residential Parking Facilities.**

HCD modified this section as an introduction to the EV charging requirements in subsequent sections addressing both multifamily dwellings and hotels/motels and new residential parking facilities.

### **Section 4.106.4.2.1 Multifamily Development Projects with less than 20 Dwelling Units; and Hotels and Motels with less than 20 Sleeping Units or Guest Rooms.**

HCD retained the ten percent of the total number of parking spaces required to be EV charging spaces capable of Level 2 EVSE (EV Capable Spaces) for multifamily. However, this is an increase from six percent to ten percent for hotels and motels.

HCD added a requirement for 25 percent of the total number of parking spaces to be equipped with Low Power Level 2 EV charging receptacles. No more than one receptacle is required per dwelling unit when more than one space is provided for a single dwelling unit.

### **Section 4.106.4.2.2 Multifamily Development Projects with 20 or more Dwelling Units, Hotels and Motels with 20 or more Sleeping Units or Guest Rooms.**

HCD retained the ten percent of the total number of parking spaces required to be EV charging spaces capable of Level 2 EVSE (EV Capable Spaces) for multifamily. However, this is an increase from six percent to ten percent for hotels and motels.

HCD added a requirement for 25 percent of the total number of parking spaces to be equipped with Low Power Level 2 EV charging receptacles. No more than one receptacle is required per dwelling unit when more than one space is provided for a single dwelling unit.

HCD added a requirement for five percent of the total number of parking spaces to be equipped with Level 2 Electric Vehicle Supply Equipment (chargers).

HCD added an option to use Automatic Load Management Systems (ALMS) when receptacle or chargers are installed beyond the minimum required.

### **Sections 4.106.4.2.2.1 Electric Vehicle Charging Stations (EVCS).**

#### **4.106.4.2.2.1.1 Location.**

#### **4.106.4.2.2.1.2 Electric Vehicle Charging Stations (EVCS) Dimensions.**

HCD's re-adoption of these sections as renumbered and relocated, provides the requirements for location of spaces adjacent to an accessible parking space or on an



accessible route, and space dimension requirements, only apply to spaces with EV chargers.

HCD included references to CBC, chapter 11A and 11B, to provide guidance for accessibility requirements depending on whether the project is a privately funded multifamily project, public housing, or public accommodation (hotel or motel).

### **Section 4.106.4.2.3 EV Space Requirements.**

HCD provides requirements in this new section for EV infrastructure and construction documents for single and multiple EV spaces. Applies to EV capable spaces, and spaces with receptacles or chargers.

### **Sections 4.106.4.2.4 Identification.**

#### **4.106.4.2.5 Electric Vehicle Ready Space Signage.**

HCD provides requirements for identification of the overcurrent protective device for panel spaces reserved for future EV (EV Capable) charging.

HCD requires and references the California Department of Transportation's Traffic Operations Policy Directive 13-01 for signage and pavement markings for EV ready spaces.

### **Section 4.106.4.3 New Hotels and Motels.**

HCD repealed this section, and subsections, addressing EV charging for hotels and motels.

### **Section 4.106.4.3 Electric Vehicle Charging for Additions and Alterations of Parking Facilities Serving Existing Multifamily Buildings.**

HCD added this section to provide conditions under which EV charging spaces (EV spaces) capable of supporting future Level 2 EVSE are to be added.

### **Section 4.410.1 Operation and Maintenance Manual.**

HCD added new item number 11 to this section requiring information and/or drawings identifying the location of grab bar reinforcements to be placed in the building. This new subsection is related to the Fall Prevention measures in the 2022 CRC.

### **Sections A4.106.8.2 New Multifamily Development Projects and Hotels and Motels.**

#### **A4.106.8.2.1 Multifamily Development Projects and Hotels and Motels.**

HCD repealed Tier 1 and Tier 2 provisions for EV charging capability in section A4.106.8.2 and renamed the section to apply to both new multifamily development projects and hotels/motels.



HCD relocated provisions for Tier 1 and Tier 2 into section A4.106.8.2.1 with new requirements for Low Power Level 2 EV charging receptacles and EV chargers. Tier 1 requires 35 percent of the total number of parking spaces to be equipped with Low Power Level 2 receptacles; and for projects with 20 or more units, 10 percent of the total number of parking spaces to be equipped with EVSE. Tier 2 requirements are 40 percent and 15 percent for receptacles and chargers, respectively.

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*[This summary only addresses code changes proposed by the California Department of Housing and Community Development (HCD-) and approved and adopted by the California Building Standards Commission (CBSC). For a complete list of HCD and other state agency changes, see the [California Building Standards Commission website](#) for the 2021 Triennial Code Adoption Cycle [December 2021 meeting](#) and [January 2022 meeting](#), Approved Express Terms for each code and each state agency. These changes will be reflected in the 2022 California Building Standards Code published in July 2022.]*