# APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

# AUGUST 13, 2020

# FINAL EXPRESS TERMSFOR PROPOSED BUILDING STANDARDS OF THECALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE 2019 CALIFORNIA BUILDING CODE,

# CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2

# (HCD 01/19)

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, italic and ellipsis.

## LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

* Model Code language appears upright
* Existing California amendments appear in *italic*
* Amended model code or new California amendments appear *underlined & italic*
* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*
* Ellipsis (...) indicate existing text remains unchanged

## FINAL EXPRESS TERMS

Item 1 HCD proposes to amend Chapter 1, Division I, Section 1.1, as follows:

**Section** **1.1 General**

***1.1.9 Effective date of this code.*** *Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code. (No change to existing California amendment.)*

***Exceptions:***

1. ***(HCD 1 & HCD 2)*** *Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.*
2. ***(HCD 1 & HCD 2)*** *Plans approved by the Department of Housing and Community Development or a Department-approved design approval agency for factory-built housing as defined by Health and Safety Code Section 19971. Approved plans, pursuant to the California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 3, Section 3048 remain valid for a period of 36 months from the date of plan approval.*

**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, 17958.12, 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(s): 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 2 HCD proposes to amend Chapter 1, Division I, Section 1.8, as follows:

**SECTION 1.8.4 PERMITS, FEES, APPLICATIONS AND INSPECTIONS**

***1.8.4.1 Permits.*** *A written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, moving or alteration of any building or structure. (No change to existing California amendment.)*

***Exceptions:***

1. *Work exempt from permits as specified in Chapter 1, Division II, Scope and Administration, Section 105.2.(No change to existing California amendment.)*
2. *Changes, alterations or repairs of a minor nature not affecting structural features, egress, sanitation, safety or accessibility as determined by the enforcing agency. (No change to existing California amendment.)*
3. *Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.*

*Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of other provisions of law or this code. (No change to existing California amendment.)*

**SECTION 1.8.9** **UNSAFE BUILDINGS OR STRUCTURES**

***1.8.9.1 Authority to enforce****. Subject to other provisions of law, the administration, enforcement, actions, proceedings, abatement, violations and penalties for unsafe buildings and structures are contained in the following statutes and regulations:*

1. *For applications subject to the State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1. For enforcement related to accessory dwelling units, see Section 17980.12 operative until January 1, 2035.*
2. *through 5. (No change to existing California amendment.)*

**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, 17958.12, 17980.12, 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 3 HCD proposes to amend Chapter 1, Division II, Section 110, as follows:

**SECTION 110 INSPECTIONS**

***110.3.12 Type IV-A, IV-B and IV-C connection protection inspection.*** *In buildings of Type IV-A, IV-B and IV-C Construction, where connection fire resistance ratings are provided by wood cover calculated to meet the requirements of Section 2304.10.1 inspection of the wood cover shall be made after the cover is installed, but before any other coverings or finishes are installed.*

**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 2, Definitions, as follows:

**SECTION 202 DEFINITIONS**

***ACCESSORY DWELLING UNIT. [HCD 1 & HCD 2]*** *An attached or detached residential dwelling unit that provides complete independent living facilities for one or more persons and is located on a lot with a proposed or existing primary residence. Accessory dwelling units shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family or multifamily dwelling is or will be situated. (See Government Code Section 65852.2 ~~for details~~.)*

[Approved as amended by Commission action, August xx, 2020 -- See Addendum]

***MASS TIMBER.*** *Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.*

WALL, LOAD-BEARING. Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any masonry or concrete *or mass timber* wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.

**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, 17980.12, 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, 12955.1.1 and 65852.2.

## Item 5 HCD proposes to amend Chapter 4, Section 406, as follows:

**SECTION 406 MOTOR-VEHICLE-RELATED OCCUPANCIES**

**406.2.1 Automatic garage door openers and vehicular gates.** Automatic garage door openers shall be listed and labeled in accordance with UL 325. Where provided, automatic vehicular gates shall comply with Section 3110. *See Health and Safety Code Sections 19890 ~~and~~, 19891, and 19892 for additional provisions for residential garage door openers.*

**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, 19890, 19891, 19892, 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 proposed to amend Chapter 17, as follows:

**SECTION 1705 REQUIRED SPECIAL INSPECTIONS AND TESTS**

***1705.5.7 Mass timber construction.*** *Special inspections of Mass Timber elements in Types IV-A, IV-B and IV-C construction shall be in accordance with Table 1705.5.3.*

***TABLE 1705.5.7***

*REQUIRED SPECIAL INSPECTIONS OF MASS TIMBER CONSTRUCTION*

| ***Type*** | ***Continuous Special Inspection*** | ***Periodic Special Inspection*** |
| --- | --- | --- |
| 1. *Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.*
 | Blank | *X* |
| 1. *Inspect erection of mass timber construction.*
 | Blank | *X* |
| 1. *Inspection of connections where installation methods are required to meet design loads.*
 | Blank | Blank |
| *3.1 Threaded fasteners.* | Blank | Blank |
| *3.1.1 Verify use of proper installation equipment.* | Blank | *X* |
| *3.1.2 Verify use of pre-drilled holes where required.* | Blank | *X* |
| *3.1.3 Inspect screws, including diameter, length, head type, spacing, installation angle, and depth.* | Blank | *X* |
| *3.2 Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads.* | *X* | Blank |
| *3.3 Adhesive anchors not defined in 3.2.* | Blank | *X* |
| *3.4 Bolted connections.* | Blank | *X* |
| *3.5 Concealed connections.* | Blank | *X* |

**…**

**1705.11.1 Structural wood.** Continuous special inspection is required during field gluing operations of elements of the main wind force-resisting system. Periodic special inspection is required for nailing, bolting, anchoring and other fastening of elements of the main wind force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs. (No change to existing text.)

**Exception:** Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the main wind force-resisting system, where the *lateral resistance is provided by the structural sheathing and the* specified fastener spacing at panel edges is more than 4 inches (102 mm) on center.

**1705.11.2 Cold-formed steel light-frame construction.** Periodic special inspection is required for welding operationsof elements of the main wind force-resisting system.Periodic special inspection is required for screw attachment,bolting, anchoring and other fastening of elementsof the main wind force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs. (No change to existing text.)

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screwing, bolting, anchoring and other fastening to components of the wind force resisting system, where either of the following applies: (No change to existing text.)

1. The sheathing is gypsum board or fiberboard. (No change to existing text.)
2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the *specified* fastener spacing ~~of~~ *at* the ~~sheathing~~ *panel or sheet edges* is more than 4 inches (102 mm) on center (o.c.).

**1705.12.2 Structural wood.** For the seismic force-resisting systems of structures assigned to Seismic Design Category C, D, E or F: (No change to existing text.)

1. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system. (No change to existing text.)
2. Periodic special inspection shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs. (No change to existing text.)

**Exception:** Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the seismic force-resisting system, where the *lateral resistance is provided by structural sheathing, and the specified* fastener spacing ~~of~~ *at* the ~~sheathing~~ *panel edges* is more than 4 inches (102 mm) on center.

**1705.12.3 Cold-formed steel light-frame construction.** For the seismic force-resisting systems of structuresassigned to Seismic Design Category C, D, E or F, periodicspecial inspection shall be required for both: (No change to existing text.)

1. Welding operations of elements of the seismic force-resisting system. (No change to existing text.)
2. Screw attachment, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs. (No change to existing text.)

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screw installation, bolting, anchoring and other fastening to components of the seismic force-resisting system, where either of the following applies: (No change to existing text.)

* 1. The sheathing is gypsum board or fiberboard. (No change to existing text.)
	2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the *specified* fastener spacing ~~of~~ *at* the ~~sheathing~~ *panel or sheet edge* is more than 4 inches (102 mm) on center.

***1705.20 Sealing of mass timber.*** *Periodic* [Editorial correction made during August 13, 2020 meeting by the Agency and accepted by the Commission] *special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.9 is applied to mass timber building elements as designated in the approved construction documents.*

**…**

## Item 7 HCD proposed to amend Chapter 23, as follows:

**SECTION 2304 GENERAL CONSTRUCTION REQUIREMENTS**

***2304.10.1.2 Connection fire resistance rating.*** *Fire resistance ratings for connections in Type IV-A IV-B, or IV-C construction shall be determined by one of the following:*

1. *Testing in accordance with Section 703.2 where the connection is part of the fire resistance test.*
2. *Engineering analysis that demonstrates that the temperature rise at any portion of the connection is limited to an average temperature rise of 250°F (139°C) and a maximum temperature rise of 325° F (181 °C) for a time corresponding to the required fire resistance rating of the structural element being connected. For the purposes of this analysis the connection includes connectors fasteners and portions of wood members included in the structural design of the connection.*

**…**

**2304.11.3 Floors.** Floors shall be without concealed spaces~~.~~ *or with concealed spaces complying with Section 602.4.4.4.* Wood floors shall be constructed in accordance with Section 2304.11.3.1 or 2304.11.3.2.

**2304.11.4 Roof decks.** Roofs shall be without concealed spaces *or with concealed spaces complying with Section 602.4.4.4.* ~~and~~ *~~r~~R*oof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be an alternative that provides equivalent fire resistance and structural properties. Where supported by a wall, roof decks shall be anchored to walls to resist forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or approved hardware of sufficient strength to resist prescribed forces.

**…**

## Item 8 HCD proposes to amend Chapter 31, as follows:

**SECTION 3102 MEMBRANE STRUCTURES**

**3102.3 Type of construction**. Noncombustible membrane structures shall be classified as Type IIB construction. Noncombustible frame or cable-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IIB construction. Heavy timber frame-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IV*-HT* construction. Other membrane structures shall be classified as Type V construction.

**Exception:** Plastic less than 30 feet (9144 mm) above any floor used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701. (No change to existing text.)

**3102.6.1.1 Membrane.** A membrane meeting the fire propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 shall be permitted to be used as the roof or as a skylight on buildings of Type IIB, III, IV*-HT* and V construction, provided that the membrane is not less than 20 feet (6096 mm) above any floor, balcony or gallery.

## Item 9 HCD proposes to amend Chapter 33, as follows:

**SECTION 3307 PROTECTION OF ADJOINING PROPERTY**

**3307.1 Protection required.** Adjoining public and private property shall be protected from damage during construction, remodeling and demolition work. Protection shall be provided for footings, foundations, party walls, chimneys, skylights and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities. The person making or causing an excavation to be made shall provide written notice to the owners of adjoining buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. Said notification shall be delivered not less than 10 days prior to the scheduled starting date of the excavation. *(No change to existing text.)*

***(HCD 1 & HCD 2) Note:*** *See Civil Code Section 832 for additional requirements related to adjoining properties and excavations.*

**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 832(3), 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## Item 10 HCD proposes to amend Chapter 35, as follows:

**CHAPTER 35 REFERENCED STANDARDS**

**APA**

**…**

***ANSI/APA PRG 320-18: Standard for Performance-rated Cross-Laminated Timber***

*2303.1.4*

**ASTM**

***D3498-03(2011):*** *Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems*

**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 832(3), 1101.4 and 1101.5; and Government Code Sections 12955.1 and 12955.1.1.

## Item 11 HCD proposes to amend Appendix O, as follows:

**SECTION O103 EMERGENCY HOUSING**

***O103.3 Occupant load.*** *Except as otherwise stated in this appendix, the maximum occupant load allowed in buildings and structures used as emergency housing shall be determined by the enforcing agency, but the interior floor area shall not be less than 70 square feet (6.5 m2) for one occupant. Where more than one person occupies the building/structure, the required floor area shall be increased at the rate of 50 square feet (4.65 m2) for each occupant in excess of one. (No proposed change to existing California amendment.)*

***Exceptions:***

1. *Tents. (No change to existing California amendment.)*
2. *Recreational vehicles and park trailers designed for human habitation that meet the requirements in the Health and Safety Code, Sections 18009.3 and 18010, as applicable. (No change to existing California amendment.)*

*3. For emergency housing, including emergency sleeping cabins, the minimum interior floor area may be reduced to 53 square feet (4.9 m2) if the enforcing agency determines that 53 square feet (4.9 m2) is adequate space for a single-occupancy sleeping unit.*

**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 832(3), 1101.4 and 1101.5; and Government Code Sections 8698.3, 12955.1, and 12955.1.1.