

# FREQUENTLY ASKED QUESTIONS

About CBSC, Title 24 and related subjects



December 2022



**C A L I F O R N I A**  
**BUILDING STANDARDS COMMISSION**

# Acknowledgements

Governor Gavin Newsom

Secretary of the Government Operations Agency, Amy Tong

Director of the Department of General Services, Ana Lasso

Members of the California Building Standards Commission

Chair, Secretary Amy Tong

Vice Chair, Rajesh Patel

Commissioners:

Kent Sasaki

Erick Mikiten

Elley Klausbruckner

Rajesh Patel

Peter Santillan

Juvilyn Alegre

Aaron Stockwell

Laura Rambin

Frank Ramirez

James Haskin

Executive Director, Mia Marvelli

Deputy Executive Director, Kevin Day

The California Building Standards Commission is a commission within the Department of General Services

Visit [our website](http://dgs.ca.gov/BSC) at [dgs.ca.gov/BSC](http://dgs.ca.gov/BSC)

Please submit comments and suggestions for improvements or additions to this publication to [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov)

or mail to

California Building Standards Commission

Mia Marvelli, Executive Director

2525 Natomas Park Drive, Suite 130

Sacramento, CA 95833

Some of CBSC's publications available on the website's [Resources page](#):

Guide to Title 24

Public Guide to the Building

It's Your Building Department

Standards Adoption Process

Guide for Local Amendments of

Frequently Asked Questions

Building Standards

Glossary of Terms

## Table of Contents

<b>Questions About the California Building Standards Commission.....</b>	<b>1</b>
What is the California Building Standards Commission? .....	1
What is the authority of the California Building Standards Commission?.....	2
Are the commissioners of the California Building Standards Commission elected? .....	3
What is the Coordinating Council?.....	3
What is a Code Advisory Committee (CAC)?.....	4
Are California Building Standards Commission committees the same as the code advisory committees?.....	4
Which state agencies are involved in the creation of Title 24?.....	5
Why is the California Health and Safety Code mentioned so often in relation to Title 24 and the activities of the state agencies? .....	6
<b>Questions About Title 24 .....</b>	<b>7</b>
What is Title 24? .....	7
What is the California Code of Regulations?.....	7
How is Title 24 organized?.....	8
What are Errata and Supplements relating to Title 24? .....	8
What is an emergency building standard or emergency regulation?.....	9
What is the difference between the California Building Standards Code and the California Building Code?.....	10
Is Title 24 available online, or must it be purchased? .....	10
Are building standards state laws or state regulations? .....	10
Are all provisions of the International Residential Code enforceable? .....	11
Can model codes be used instead of Title 24? .....	11
<b>Questions about Code Adoption Cycles, Public Participation &amp; Local Amendments.....</b>	<b>12</b>
What do the terms "Triennial" and "Intervening" Code Adoption Cycle mean? .....	12
Who has information about what has changed in the new edition of Title 24?.....	13
How does the public review and comment on proposed Title 24 provisions? .....	13
How do members of the public request a new building code or propose a change to existing building codes? .....	14

When do new Title 24 provisions become effective? .....	14
Does a city or county need to adopt Title 24? .....	15
What is the process for enacting local building standards (ordinances or amendments) more restrictive than in Title 24? .....	16
Which edition of Title 24 applies to new building plans and construction? .....	16
<b>Questions about Title 24 Content, including CALGreen .....</b>	<b>18</b>
What is the purpose of Matrix Adoption Tables in Title 24? .....	18
What do the abbreviations such as HCD 1 and DSA-AC shown in the text of Title 24 stand for? .....	19
What is meant by the bracketed letters like “[F]” and similar symbols in front of various sections of the California Building Standards Code, Title 24? .....	19
The California Building Code (CBC, Part 2 of Title 24) and the California Existing Building Code (CEBC, Part 10) both have chapters with letters following the numbers, and that are not appendices. How are the codes within these chapters to be applied? .....	20
Title 24 sometimes refers to a separate document called a “standard” or “reference standard.” What are these standards? .....	21
What is the purpose of the California Referenced Standards Code, Part 12 of Title 24? .....	22
What is CALGreen and what does it apply to? .....	22
What is meant by “commissioning” a building in compliance with CALGreen? .....	23
Why is Part 7 of Title 24 vacant? .....	23
<b>Questions About Enforcement, Interpretation &amp; Miscellany .....</b>	<b>25</b>
Who enforces building codes? .....	25
Who answers code questions or provides code interpretations? .....	25
How can a member of the public dispute a determination by a local building department? .....	26
Who oversees the local jurisdictions (building departments)? .....	26
Are there criminal or civil penalties for Title 24 violations? .....	27
Who issues contractors’ licenses or other certifications? .....	27
Are solar panels required on all roofs in California now? .....	27

# Questions About the California Building Standards Commission



## What is the California Building Standards Commission?

The California Building Standards Commission (CBSC) is responsible for overseeing the adoption, approval and publication of the provisions in Title 24. CBSC has 10 members appointed by the governor who must be confirmed by the state senate. A chairperson, who is the Secretary of the Government Operations Agency, is also appointed by the governor and confirmed by the state senate. The authority and activities of CBSC are set out in Health and Safety Code (HSC), Division 13, Part 2.5, commencing with Section 18901. This portion of the HSC is known as the California Building Standards Law. The HSC requires that members of CBSC be representative of the general public and regulated industry. Excluding the chairperson, the appointed membership of CBSC must include:

- One Architect
- One Mechanical, Electrical or Fire Protection Engineer
- One Structural Engineer
- One Licensed Contractor
- One Representative from Organized Labor in the building trades
- One Local Building Official
- One Local Fire Official
- Three Representatives of the General Public, of which at least one shall be a person with physical disabilities

Additional requirements are:

1. At least one member shall be experienced and knowledgeable in barrier free architecture and sensitive to the requirements necessary to ensure public buildings are accessible to, and usable by, persons with physical disabilities.
2. At least one member of the commission shall be experienced and knowledgeable in building energy efficiency standards.
3. At least one member of the commission shall be experienced and knowledgeable in sustainable building, design, construction and operation.

The term length for each member is four years and termination dates are staggered. The chairperson, who is the Secretary of the Government Operations Agency, serves at the pleasure of the governor.

CBSC is supported by a staff of 14 state employees guided by an Executive Director appointed by CBSC's commissioners. CBSC oversees a Coordinating Council of state agency representatives, and Code Advisory Committees consisting of volunteers. CBSC also has authority in state law to develop and adopt building standards applicable to certain elements for specified state-owned buildings, as well as nonresidential green building standards for which no other state agency has authority (see the next FAQ for more information).

Reference:

HSC Sections:

- 18921 – Membership of the commission
- 18922 – Chair of the commission

## **What is the authority of the California Building Standards Commission?**

The authority and activities of the California Building Standards Commission (CBSC) are set out in California Health and Safety Code (HSC), Division 13, Part 2.5, commencing with Section 18901, and known as the California Building Standards Law. In short, CBSC is responsible for overseeing the activities of state agencies involved in the code adoption process, and subsequent publication of the building standards in Title 24 that apply to all building occupancies throughout the state.

CBSC's authority and expertise to develop and propose building standards is limited to the following nonresidential occupancy types and subject areas:

- Specified state buildings as well as buildings constructed by the Trustees of the California State University and the Regents of the University of California.
- Seismic retrofit standards for state buildings including those owned by the University of California and California State University.

- Standards for parking lot lighting systems for the University of California, California State University and California Community Colleges.
- Green building standards for nonresidential occupancy types for which no other state agency has authority. See the FAQ about the meaning of “commissioning” a building for more information regarding CALGreen, the California Green Building Standards Code, Part 11 of Title 24.

References:

HSC Sections:

16600-16604 – Public Postsecondary Buildings

18930.5 & 18934.5 – Powers of the Commission

Government Code Section 14617 – Parking lot lighting

## **Are the commissioners of the California Building Standards Commission elected?**

**No.** The California Building Standards Commission (CBSC) consists of ten commissioners who are appointed by the governor and subject to confirmation by the State Senate. The eleventh member of the commission is the chairperson, who is the secretary of the Government Operations Agency and is also appointed by the governor and subject to confirmation by the State Senate. Except for the chairperson, state law requires that CBSC commissioners be representative of the general public, specific local officials and building industries regulated by Title 24. Each term is four years, and a member may be reappointed to additional terms.

Reference:

HSC Sections 18920 through 18924 – Existence, makeup and terms of commission

## **What is the Coordinating Council?**

The Coordinating Council is comprised of state adopting and proposing agencies involved in the building standards development process established according to California Health and Safety Code Section 18926. The membership of the council consists of the executive director of the California Building Standards Commission (CBSC), who serves as chairperson, and representatives appointed by the directors of the California Department of Public Health, the Office of Statewide Health Planning and Development, the Department of Housing and Community Development, the Department of General Services, the executive director of the State Energy Resources Conservation and Development Commission (California Energy Commission) and the State Fire Marshal. The principle duties of the Coordinating Council are to:

- Ensure coordination between the agencies in the proposal of building standards

- Assist in the development of building standards
- Resolve conflicting building standards

Meetings of the Coordinating Council are open to the public with meeting date, time and location announced by public notice and posted on [CBSC's website](#).

## What is a Code Advisory Committee (CAC)?

California Health and Safety Code (HSC) Section 18927 authorizes the California Building Standards Commission (CBSC) to establish advisory panels (or committees) of volunteers from the general public and the building industries, and state agency ex-officio members, to assist CBSC in carrying out its responsibilities. Six (6) standing code advisory committees have been established:

- Accessibility
- Building, Fire and Other
- Green Building Standards
- Health Facilities
- Plumbing, Electrical, Mechanical and Energy
- Structural Design – Lateral Forces

These committees meet at the request of CBSC to review proposed building standards for Title 24 and provide recommendations to the commissioners. The recommendations are advisory and are not binding on the commissioners. The members of the committees are selected for their expertise and for a balance of interests. For information regarding how to apply for appointment to a CAC, see Sections 1-209 through 1-211 of Chapter 1 of the California Administrative Code, Title 24, Part 1. Vacancies are announced on CBSC's website. Additional ad-hoc code advisory committees are established on an as-needed basis. Visit the [About tab](#) on CBSC's website to view a list of current members of the CACs.

CAC meetings are open to the public and are announced by public notice and posted on [CBSC's website](#).

## Are California Building Standards Commission committees the same as the code advisory committees?

**No.** California Building Standards Commission (CBSC) committees are formed by and comprised of members of the commission (CBSC commissioners) to address specific code-related issues and operations of CBSC. Currently, there are two standing CBSC committees:

The **Code Adoption Committee** identifies means of improving the code adoption process, participates in the model code process, and reviews, nominates and selects



members to the Code Advisory Committees, which are comprised of persons who are not sitting members of the commission (see “What is a Code Advisory Committee?”).

The **Appeals Committee** may administrate petitions and appeals brought forth by persons claiming to be adversely affected by building standards or administrative regulations in Title 24, and issue decisions.

The commission has also formed temporary sub-committees in the past. Examples include the Exterior Elevated Elements (EEE) committee that was formed to review forensic reports and studies specific to the construction and maintenance of exterior elevated elements, and the Strategic Plan committee that reviewed and developed updates to the commission’s strategic plan.

## Which state agencies are involved in the creation of Title 24?

State law requires several state agencies to develop building standards for various building occupancies and building uses. The agencies and their general areas of authority are listed below. Acronyms in parentheses are those used in Title 24, not necessarily the full official acronym of the agency.

- Building Standards Commission (BSC) – State buildings and universities, and green building standards for nonresidential buildings and occupancies not covered by other state agencies
- Department of Housing and Community Development (HCD) – Residential occupancies (hotels, motels, single- and multi-family dwellings), including residential accessibility standards
- Office of the State Fire Marshal (SFM) – Assembly buildings, nursing homes and housing, fire and panic safety
- Division of the State Architect (DSA) – Accessibility for places of public accommodation, public schools, publicly funded housing, state-owned or -leased essential service buildings
- Office of Statewide Health Planning and Development (OSHPD) – Hospitals, clinics, skilled nursing facilities and correctional treatment centers
- Department of Public Health (DPH) – Public swimming pools, organized camps and food establishments
- California Energy Commission (CEC) – Natural resource conservation in buildings (California Energy Code, Part 6 of Title 24)
- State Historical Building Safety Board (SHBSB) – Designated historical buildings and sites
- Department of Food and Agriculture (AGR) – Meat, poultry and dairy processing plants

- Board of State and Community Corrections (BSCC) – Local detention facilities
- Department of Water Resources (DWR) – Water conservation, floodplain management, life safety and flood resilient construction
- California State Library (SL) – State libraries
- Department of Consumer Affairs (DCA) – Barber and beauty shops, pharmacies, acupuncture clinics, veterinary hospitals, insulation standards and structural standards related to pest control
- California State Land Commission (SLC) – Marine oil terminals

Reference: California Administrative Code, Title 24, Part 1, provides each state agency's web address, and more information about their authority and application of their adoptions.

### **Why is the California Health and Safety Code mentioned so often in relation to Title 24 and the activities of the state agencies?**

The California Health and Safety Code (HSC) is the state law that contains the authority for the California Building Standards Commission and establishes the California Building Standards Code in Title 24 of the California Code of Regulations. It is one of 29 codes of California state laws, each with a name such as Government Code, Civil Code, Penal Code or Water Code. The HSC is a large code with over 130,000 sections divided into Divisions. Division 13, Part 2.5, is named the California Building Standards Law. Division 13, Part 1.5 is named the State Housing Law. These laws establish authority for the Department of Housing and Community Development, the Office of the State Fire Marshal and others to develop building standards for Title 24.

While HSC contains most laws regarding building safety, there are other state codes that establish laws for buildings such as:

- Government Code – Accessibility in public buildings and public housing
- Public Resources Code – Energy conservation
- Education Code – Public schools

## Questions About Title 24



### What is Title 24?

Title 24 is the 24<sup>th</sup> title among the 28 titles of the California Code of Regulations. California Health and Safety Code (HSC) Section 18902 identifies Title 24 of the California Code of Regulations as the “California Building Standards Code.” Title 24 is designated for state regulations that govern the design and construction of buildings, including associated facilities and equipment. These regulations are also known as building standards (see HSC Section 18909). State regulations should not be confused with state laws (statutes) enacted through the legislative process. State regulations are adoptions by state agencies as determined necessary to implement, interpret or make specific the requirements of state law. The California Building Standards Code is published by the California Building Standards Commission (CBSC) and applies to all building occupancies (HSC Sections 18908 and 18938) throughout the State of California.

Some common misunderstandings are that Title 24 relates only to energy conservation, accessibility, or only to state owned buildings and properties. However, all building occupancies in California are subject to Title 24 building standards for design, engineering, construction, maintenance and facility operations. Title 24 also contains regulations for fire and life safety, requirements for energy conservation and sustainability, and standards for building accessibility.

Reference: [CBSC's Guide to Title 24](#)

### What is the California Code of Regulations?

Many state laws require various state agencies to develop regulations necessary to implement, interpret or make specific the intent of state law. The regulations adopted by the state agencies are placed in the California Code of Regulations (CCR). The CCR is divided

into titles 1 through 28. Each title is given a name such as “Public Safety” for Title 21 and “California Building Standards Code” for Title 24. Some titles are reserved for the adopted regulations of one agency. For example, Title 25 contains regulations adopted by the Department of Housing and Community Development. With the exception of Title 24, the CCR is accessible at the [Office of Administrative Law website](http://oal.ca.gov)—oal.ca.gov—where it is searchable by title number, section number, specific word or individual agency.

## How is Title 24 organized?

Title 24 includes requirements for the design and construction of a building’s structural, plumbing, electrical and mechanical systems, fire and life safety, energy conservation, green standards, and accessibility, therefore it is organized into separate parts. Each part is numbered and then named according to its content. Some parts are based on international model codes and some are California-only codes. The parts are:

**Part 1** - California Administrative Code

**Part 2** - California Building Code, Volumes 1 & 2, based on the International Building Code

**Part 2.5** - California Residential Code based on the International Residential Code

**Part 3** - California Electrical Code based on the National Electrical Code

**Part 4** - California Mechanical Code based on the Uniform Mechanical Code

**Part 5** - California Plumbing Code based on the Uniform Plumbing Code

**Part 6** - California Energy Code

**Part 7** - currently vacant (see “Why is Part 7 of Title 24 Vacant?”)

**Part 8** - State Historical Building Code

**Part 9** - California Fire Code based on the International Fire Code

**Part 10** - California Existing Building Code based on provisions from the International Existing Building Code

**Part 11** - California Green Building Standards Code, also called CALGreen

**Part 12** - California Referenced Standards Code

The thirteen parts of Title 24 are published in eleven binders.

Note: From 2007 – 2016, Parts 8 and 10 are contained in the Part 2, Volume 2 binder. Beginning in 2019, Parts 8 and 10 are combined in a binder with Part 12.

## What are Errata and Supplements relating to Title 24?

Errata are Title 24 replacement pages with corrections of non-substantive errors including misspellings, word or phrase omissions, cross referencing or numbering errors, and are printed on buff-colored paper. A Supplement provides new or amended regulatory language

that has been adopted and approved by the California Building Standards Commission (CBSC). Supplements are issued on blue paper and will state the effective date of the new, amended or repealed language. Margin marks identify deletions and new or amended language on these pages, which will also replace existing pages in Title 24.

The cover sheet of each errata or supplement package will provides instructions for how to remove superseded pages and insert replacement or new pages. Both errata and supplements are issued by CBSC.

CBSC posts new errata or supplements to its website where they can be downloaded and printed. However, unless printed on buff or blue paper as appropriate, it will be difficult to distinguish between new and replacement pages in the Title 24 binders without looking at the wording at the bottom of each page.

When purchasing parts of Title 24, it is important to register the purchase to receive issued errata and supplements. There is no additional cost for this service.

## **What is an emergency building standard or emergency regulation?**

The California Health and Safety Code (HSC) authorizes the California Building Standards Commission (CBSC) to adopt emergency building standards (regulations) when a situation requires an immediate regulatory solution in order to preserve the peace, health, safety or general welfare of the public. Emergency building standards differ from regulations adopted through the code adoption cycles because the emergency building standard becomes effective immediately upon adoption and approval by the commissioners and filing with the Secretary of State, or at any future effective date established by CBSC commissioners (see “When Do New Title 24 Provisions Become Effective?”).

Emergency building standards are effective for up to 180 days, and can be extended for two additional 90-day periods under specific circumstances. For emergency building standards to become permanent in Title 24, CBSC must provide to the public a Notice of Proposed Action, a Finding of Emergency, Express Terms and an Initial Statement of Reasons, then conduct a 45-day public comment period, including a public meeting before the commission. The documents and process are much like the normal adoption process, except that the public comment period and meeting typically occur after the emergency adoption. Adoption of emergency building standards for Title 24 is not common.

### References:

#### HSC Sections:

18937 – Emergency standards

18938(d) – Emergency standards; effective date

Government Code Sections 11346.1 and 11349.6

California Administrative Code, Title 24, Part 1, Chapter 1, Section 1-419

## **What is the difference between the California Building Standards Code and the California Building Code?**

“California Building Standards Code” is the name for all 13 parts of Title 24, and the name “California Building Code” is Part 2 only. The name “California Building Standards Code” is assigned to Title 24 of the California Code of Regulations by California Health and Safety Code (HSC) Section 18902. Title 24 contains building standards published by the California Building Standards Commission (CBSC) that apply to all building occupancies throughout the state. Each individual part of Title 24 is also given a name. Part 2 of Title 24 is named the “California Building Code.”

Another related term you may hear is the California Building Standards Law, which is the name given to the body of state law in HSC, Division 13, Part 2.5, commencing with Section 18901. This law establishes the authority of CBSC and the application of the California Building Standards Code contained in Title 24.

## **Is Title 24 available online, or must it be purchased?**

The [Codes tab](#) of the California Building Standards Commission website—[dgs.ca.gov/BSC](http://dgs.ca.gov/BSC)—provides links to all parts of Title 24 available from the International Code Council (ICC), International Association of Plumbing and Mechanical Officials (IAPMO) and the National Fire Protection Association (NFPA). Although viewable online, these codes are not downloadable due to copyright agreements with the publishers. For activities such as design engineering, plan review or building inspections, Title 24 is available for purchase from the publisher(s) in full or in part.

## **Are building standards state laws or state regulations?**

The building standards in Title 24 are state regulations, not state laws.

State laws are established by the legislative process involving the Senate and Assembly houses of the legislative branch of state government, and by the Governor and Secretary of State in the executive branch of state government.

State regulations are developed and adopted by the agencies of the executive branch of state government for the purpose of implementing, interpreting or making specific the intent of state law. In the case of Title 24, the California Building Standards Commission coordinates, approves, adopts and publishes building standards, which are state regulations. Other state agencies involved in the process include the Office of the State Fire Marshal, Department of Housing and Community Development, Division of the State Architect and Office of Statewide Health Planning and Development (see “Which State Agencies Are Involved in the Creation of Title 24?”).

The California Building Standards Law in California Health and Safety Code (HSC) Division 13, Part 2.5, establishes the processes to be followed for the development, public evaluation, commission review and adoption of Title 24 building standards.

References:

HSC Sections:

18930 through 18934.8 – Powers of the Commission

California Administrative Code, Title 24, Part 1, Chapter 1, Article 4

Government Code, commencing with Section 11340, Administrative Procedure Act

## **Are all provisions of the International Residential Code enforceable?**

**No.** Only Chapters 1 through 10, Chapter 44 and Appendices H and S of the International Residential Code (IRC) are adopted for use in California and are contained in Part 2.5 of Title 24 (California Residential Code). Part 2.5 is based on the IRC and is applicable to detached one- and two-family dwellings, accessory dwelling units, and townhomes not more than three stories above grade plane in height with a separate means of egress, and structures accessory thereto. Only the Department of Housing and Community Development (HCD) and the Office of the State Fire Marshal (SFM) adopt provisions in Part 2.5. Thus, none of the IRC provisions for plumbing, mechanical, energy or electrical are adopted. This may be seen by reviewing the Matrix Adoption Tables provided for each chapter and appendix within Part 2.5. When a Matrix Adoption Table is not provided for a model code chapter or article, or a provided Matrix Adoption Table is blank, the chapter is not adopted for buildings under the authority of HCD or SFM.

Reference: California Residential Code, Title 24, Part 2.5, Sections 1.1, 1.8 and 1.11.

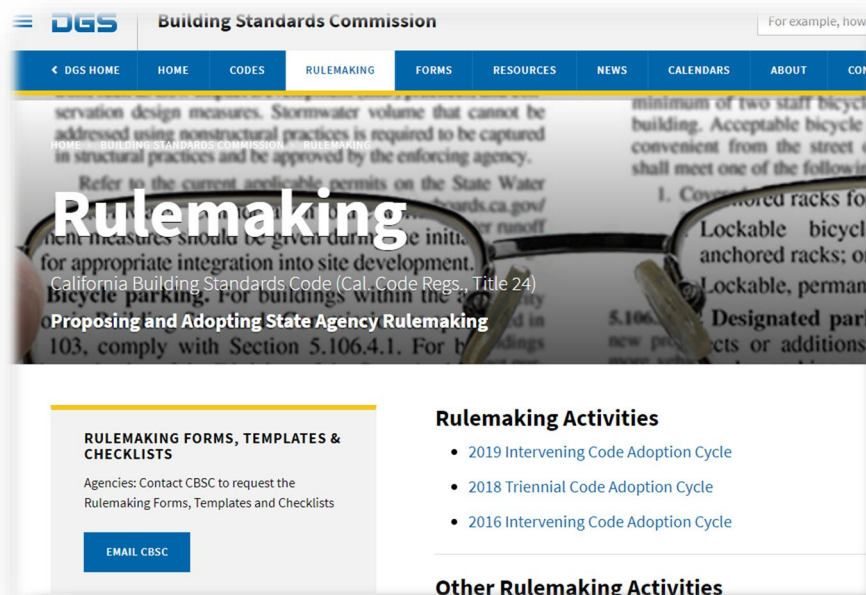
## **Can model codes be used instead of Title 24?**

**No.** The model codes as published by their originators do not include California amendments. Further, not all model code provisions are adopted in California because of conflicts with state laws or the lack of specificity required by state law. You must use Title 24 as currently published by the California Building Standards Commission to know and apply California amendments and model code provisions that are adopted.

For example, the energy conservation, mechanical, fuel gas, plumbing and electrical provisions of the International Residential Code (IRC) that is used as the basis for the California Residential Code (Part 2.5 of Title 24) are not printed in Part 2.5 and are not adopted for use in California. Other provisions of the IRC are adopted for such applications in one- and two-family dwellings in California (see Chapter 1, Division 1 of the California Residential Code for application details).

In addition, Parts 1, 6, 8, 11 and 12 of Title 24 are California-only codes that are not based on model codes. Using Title 24 for design, engineering, plan review and inspection activities is essential for lawful and consistent enforcement statewide.

# Questions about Code Adoption Cycles, Public Participation & Local Amendments



## What do the terms "Triennial" and "Intervening" Code Adoption Cycle mean?

The code adoption cycles are named this way to indicate the type of updates being made to Title 24 during the cycle.

In the building code industry, new model codes are issued on a three-year cycle. When new editions of the model codes become available, the California Building Standards Commission (CBSC), along with the state adopting and proposing agencies, conducts a Triennial Code Adoption Cycle to adopt a new edition of Title 24 incorporating the new editions of selected model codes (see "How is Title 24 Organized?"), and new amendments and adoptions by the state agencies.

The Intervening Code Adoption Cycle occurs between triennial cycles, and does not involve adoption of model codes. This cycle results in supplements to Title 24, which are amendments to the current edition that may be necessary due to new laws, executive orders, technological advances or other reasons.

Therefore, code adoption cycles run continuously with the beginning of a new cycle perhaps overlapping the ending of the previous cycle.

On CBSC's website, both the Triennial and Intervening cycles are listed under "Rulemaking Activities" on the [Rulemaking tab](#).



Prior to passage of AB 1693 (Chapter 145, Statutes of 2010) that amended the California Building Standards Law (California Health and Safety Code, Division 13, Part 2.5 Section 18929.1), CBSC conducted two annual code adoption cycles between each triennial code adoption cycle. On and after January 1, 2011, only one intervening cycle is conducted between triennial code adoption cycles.

## **Who has information about what has changed in the new edition of Title 24?**

There is not one source for code updates when a new edition of Title 24 is published, or when supplements are issued. Changes to the code from one edition to the next are indicated in the code by margin marks and other visual cues. Review each code for instructions on how to recognize code changes.

To follow changes impacting a particular application of the code, such as schools or energy, it may be beneficial to participate in the code development process in order to keep informed of proposals and adoptions. To determine which agency to contact, see the FAQ about which state agencies are involved in the creation of Title 24 to establish which one is responsible for the area of interest in the code.

Most state agencies publish summaries of their code changes as appropriate. In addition, the [International Code Council](http://shop.iccsafe.org) (ICC at shop.iccsafe.org) publishes significant code changes for the California Building Code, California Residential Code and California Fire Code after a triennial edition of Title 24 is published. Each year, the [International Association of Plumbing and Mechanical Officials](http://iapmomembership.org/store) (IAPMO at iapmomembership.org/store) has a list of significant updates on its website where Parts 4 and 5 can be purchased.

## **How does the public review and comment on proposed Title 24 provisions?**

The building standards development and adoption process is designed to involve the public and is governed by state law.

The process begins when a Notice of Proposed Action (NOPA) is published in the Office of Administrative Law's (OAL) [California Regulatory Notice Register](http://oal.ca.gov) (oal.ca.gov), and also posted on the [California Building Standards Commission's \(CBSC\) website](http://www.cbcs.org). The notice provides the public with the subject of the proposal, how to obtain a copy of the proposed code language and the reason(s) for the proposal, in addition to the date, time and location of any public hearing.

By law, a public comment period of no less than 45 days is provided during which the public may submit written comment on the proposal. Additionally, the public may testify at a public hearing in support of or opposition to the proposal, or offer suggested amendments. Public comments often result in amendments to the originally proposed code language, in which case another public comment period will be held for either 15 or another 45 days.

When a NOPA is posted, the public can find out about it in several different ways:

1. By [signing up](#) to receive email notification from the California Building Standards Commission (CBSC) or other agencies proposing building standards;
2. By checking [CBSC's website](#); or,
3. By checking the [California Regulatory Notice Register](#) published by the Office of Administrative Law at [oal.ca.gov](http://oal.ca.gov).

References:

HSC Sections:

18930 through 18934.8 – Powers of the Commission

CBSC's [A Public Guide to the Building Standards Adoption Process](#)

Visit [CBSC's website](#) to sign up to receive email notices: [dgs.ca.gov/BSC/Contact](http://dgs.ca.gov/BSC/Contact)

## **How do members of the public request a new building code or propose a change to existing building codes?**

The California building Standards Commission publishes [A Public Guide to the Building Standards Adoption Process](#) which offers details on how individuals can participate in the rulemaking process. Refer to the FAQ about which state agencies are involved in the creation of Title 24 to determine which agency handles the part of the code of interest, and then attend their workshops and participate in public comment periods.

Sign up for [CBSC's](#) and other agencies' mailing lists to stay apprised of upcoming rulemaking actions to ensure that input and comments are submitted during the appropriate time period.

Participation in the model code process is also an option for those interested in influencing more than just California standards and amendments. Visit the websites of [ICC](#) ([iccsafe.org/products-and-services/i-codes/code-development](http://iccsafe.org/products-and-services/i-codes/code-development)), [IAPMO](#) ([iapmo.org/codes-standards-development](http://iapmo.org/codes-standards-development)) and [NFPA](#) ([nfpa.org/Codes-and-Standards](http://nfpa.org/Codes-and-Standards)) for more information regarding their code development processes.

## **When do new Title 24 provisions become effective?**

The effective date for newly adopted or approved building standards (including amendments) in the California Building Standards Code (Title 24) can be no sooner than 180 days from the publication date, with some exceptions. The publication date set by the California Building Standards Commission (CBSC) is the official date when new code provisions are published in print and available to the public for purchase. CBSC usually sets an effective date that is at least 180 days from the publication date, and customarily uses January 1 or July 1. Building standards are effective on the established effective date, not on the adoption date or the publication date.

There are occasions when emergency building standards are approved or adopted when a situation requires an immediate regulatory solution in order to preserve the health and safety or general welfare of the public. Emergency building standards differ from building standards adopted through the regular code adoption cycles provided for in law. Emergency building standards become effective immediately upon approval or adoption by CBSC and filing with the Secretary of State, or at any future effective date established by CBSC. Emergency regulations are discussed more in the FAQ “What is an Emergency Building Standard or Emergency Regulation?”. Additionally, supplemental codes in the California Administrative Code (Title 24, Part 1) become effective 30 days after filing with the Secretary of State.

References:

HSC Sections:

18917.3 – Publication; publish

18937 – Emergency standards

18938 – Filing and codification; publication, effective date; emergency standards; application of section

18938.5 – Application of standards; local ordinances; and model codes

18941.5(a) – Amendments, additions, deletions to standards; effective date; publication date; more restrictive standards

## Does a city or county need to adopt Title 24?

Generally, **yes**. A jurisdiction must adopt Title 24 if they intend to change it by enacting an ordinance to restrict codes further based on local conditions (see “What is the Process for Enacting Local Building Standards More Restrictive Than in Title 24?”). While there is no mandate that Title 24 be adopted, state law does mandate that local government enforce Title 24. Therefore, Title 24 applies where no local adoption ordinance exists. To carry out enforcement activities, it is a general practice for a city, county, or city and county to ratify an adoption ordinance making Title 24 the applicable code and enacting any local amendments. Then local government may utilize administrative and criminal enforcement authority, as necessary.

References:

HSC Sections:

18938(b) – Title 24 applies to all occupancies and is enforceable as published by the California Building Standards Commission.

18942 – Requires local government to obtain and maintain Titles 8, 19, 20, 24, and 25 of the California Code of Regulations.

[Building Standards Information Bulletin 19-05](#) – Information on the application of Title 24 and local amendments thereto.

## What is the process for enacting local building standards (ordinances or amendments) more restrictive than in Title 24?

State law authorizes local government to adopt via ordinance amended building standards that are reasonably necessary because of local climatic, geological or topographical conditions, and environmental conditions for green building standards. The amendment and express finding of need is not effective and lawfully enforceable until filed with the California Building Standards Commission or other appropriate state agency.

### References:

#### HSC Sections:

13143.5 – Fire and panic safety amendments by a city, county or city and county

13869.7 – Fire and panic safety amendments by a fire protection district

17958 – Title 24 is applicable and enforceable, whether or not adopted

17958.5 – Amendments are reasonably necessary because of local climatic, geological, or topographical conditions

17958.7 – Express findings required

18938(b) – Filing and codification; publication, effective date; emergency standards; application of section

18941.5 – Amendments, additions, deletions to standards; effective date; publication date; more restrictive standards

[CBSC Information Bulletin 19-05](#) dated June 24, 2019

California Green Building Standards Code (CALGreen), Title 24, Part 11, Sections 101.7 and 101.7.1

CBSC's [Guide for Local Amendments of Building Standards](#) provides detailed information about the requirements that apply to local amendments to building standards. It is available on [CBSC's website](#): [dgs.ca.gov/BSC/Resources](https://dgs.ca.gov/BSC/Resources).

## Which edition of Title 24 applies to new building plans and construction?

State law in California Health and Safety Code (HSC) Section 18938.5 establishes that the codes and local ordinances in effect on the date of application submittal for a building permit are the codes to be applied to the plans and construction of the building. Check first with the local jurisdiction to find out if they have enacted building codes (ordinances) that are more restrictive than Title 24. If not, the codes within Title 24 apply to all building occupancies, and related features and equipment, throughout the state. The date of plan submittal will dictate which edition of Title 24 to use.

Exceptions are:

- An issued permit has expired because the associated construction was abandoned or did not begin within 12 months of the permit issuance.
- The building official has suspended or revoked a permit that was issued in error.

If either of these events occurs, the plans and construction associated with a new permit application will be subject to the codes in effect on the date of the new application.

References:

HSC Sections:

18938.5 (b)(2)(B) – Application of standards; local ordinances; and model codes

18938.6 (new in 2019) – Validity of permit; 12-month time period; extension

[California Building Standards Commission Information Bulletin 19-03](#)

## Questions about Title 24 Content, including CALGreen



### What is the purpose of Matrix Adoption Tables in Title 24?

Matrix Adoption Tables play an important role in assisting with the proper use of Title 24, Parts 2, 2.5, 3, 4, 5, 9, 10 and 11. The adoptions of model code language and/or California amendments by state agencies are identified in Matrix Adoption Tables located at the beginning of each chapter, or division within a chapter or article, of the code. The tables identify code provisions that are adopted and not adopted by various state agencies. Adopted code provisions may be applied to building types or building features that are within the jurisdiction of each state agency. The tables are non-regulatory and serve only to assist the user in the proper application of Title 24 requirements.

A Matrix Adoption Table is provided only for adopted model code chapters, or divisions within a chapter or article. If there is no Matrix Adoption Table for a printed model code chapter, or the provided Matrix Adoption Table is blank, that means the chapter or article has not been adopted for application to buildings subject to a state agency's jurisdiction. There are also Matrix Adoption Tables for chapters that are entirely California amendments.

For those building occupancies or building features not subject to the adoptions by a state agency, the published model code provisions apply. For example, no state agency has authority to regulate the structural system of a Group B, M, or S Occupancy (unless part of a state regulated building occupancy such as a school or hospital), thus the published model code provisions apply.

There are no Matrix Adoption Tables in Parts 1, 6, 8 or 12 of Title 24 because these parts do not contain a mixture of model code text and California amendments, or they are a California-developed standard with the application explained within the code.

Learn more about Title 24 and how to use Matrix Adoption Tables in our [Guide to Title 24](#).

## **What do the abbreviations such as HCD 1 and DSA-AC shown in the text of Title 24 stand for?**

The state adopting agency acronyms (also called abbreviations in some areas of Title 24) are used in the text of a California amendment and in the Matrix Adoption Tables of Title 24. The state agency acronyms are used as a means of identifying California amendment adoptions that apply to buildings, or features of buildings, subject to that state agency's regulatory jurisdiction. Some agencies use more than one acronym in order to distinguish adoptions for different applications. The Department of Housing and Community Development uses three acronyms: HCD 1, HCD 2 and HCD 1/AC. The Division of the State Architect also uses three acronyms: DSA SS, DSA SS/CC and DSA AC. Each of these acronyms has a different meaning and application in Title 24.

For example, the HCD 1 acronym identifies adoptions by HCD that apply to hotels, motels, condominiums, apartments and other residential occupancies. With the exception of Parts 1, 8 and 12, the first chapter or article of each part of Title 24 will explain the use of acronyms in that part.

Reference: California Building Code, Title 24, Part 2, Title 24, Sections 1.2 through 1.14

## **What is meant by the bracketed letters like “[F]” and similar symbols in front of various sections of the California Building Standards Code, Title 24?**

The symbols identify the International Code Council (ICC) Code Development Committees that, in addition to the committee with the primary responsibility for the section, also have an interest in the contents of the section. The seven ICC committees identified in the International Building Code, which is used as the basis for the California Building Code, are:

- [A] Administrative Code Development
- [E] International Energy Conservation Code Development
- [EB] International Existing Building Code Development
- [F] International Fire Code Development
- [FG] International Fuel Gas Code Development
- [M] International Mechanical Code Development
- [P] International Plumbing Code Development

Information regarding the various ICC code development committees and their responsibilities is provided in the preface of each part of Title 24 that is based on an ICC model code.

**The California Building Code (CBC, Part 2 of Title 24) and the California Existing Building Code (CEBC, Part 10) both have chapters with letters following the numbers, and that are not appendices. How are the codes within these chapters to be applied?**

The chapters in these parts of Title 24 that have letters following the chapter numbers, and that are not appendices, are specially designated chapters within Title 24 that address California amendments, agency requirements, and regulations for specific occupancies under different state agencies' authority. Some of these chapters are based on model code language with California amendments, while other chapters are California-authored amendments in their entirety. The chapters based on model code language are printed in upright type style with California amendments in italics, and California-authored chapters are printed in all italic text.

The regulations within these chapters are to be applied according to each agency's authority and each chapter has a Matrix Adoption Table (MAT). The MATs are intended to show the code user which state agencies have adopted and/or amended given sections of the chapter. An agency's statutory authority for certain occupancies or building applications determines which chapter or section may be adopted, repealed, amended or added. In both the CBC and the CEBC, see Chapter 1, Division I, Sections 1.2 through 1.14 for agency authority, building applications and enforcement responsibilities. Also at the beginning of each chapter, there is usually a section outlining the purpose, use and/or limitations of the provisions contained within the chapter. This section may be titled "Application," "Scope," "Applicability" or "Purpose." It is strongly recommended that code users read these sections as the requirements within these specially designated chapters are to be applied exclusively to structures under specific conditions and only within the authority of the specific California agency identified.

For example, the California Building Code (CBC) Chapter 19A is based on the International Building Code (IBC) Chapter 19 and adopted and amended by two California state agencies—the Division of the State Architect (DSA) and the Department of Health Care Access and Information (formerly the Office of Statewide Health Planning and Development - OSHPD)—to be used for DSA-SS and OSHPD 1 and 4 occupancies only. See the Chapter 19A MAT below.

**CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE  
CHAPTER 19A – CONCRETE**

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user. See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4								
Adopt entire chapter								X		X												
Adopt entire chapter as amendeded (amended sections listed below)																						
Adopt only those sections that are listed below																						
Chapter / Section																						



Alternatively, Chapter 19 in the CBC is also based on Chapter 19 of the IBC, but its requirements are applicable to all occupancies and applications throughout the state that are not regulated by a state agency. Additionally, CBC Chapter 19 contains *different* California amendments adopted by many state agencies and applicable to their specific occupancies. The same concept applies to several other chapters with letters in the CBC and CEBC. As an example, all the code requirements in CEBC Chapter 3A apply only to building applications classified as an OSHPD 1 facility.

CBC Chapter 11A, on the other hand, is a California-authored amendment in its entirety. The housing accessibility requirements in Chapter 11A were developed by California state agencies and apply to all building applications under the Department of Housing and Community Development's (HCD 1-AC) authority. See CBC Sections 1.8.2.1.2 Housing accessibility and 1101A Application.

It is necessary for code users to understand each state agency's authority relative to the different building applications, and their adoption of these specially designated chapters. Sections 1.2 through 1.14 in Chapter 1, Division 1, of the CBC and CEBC explain the state agency acronyms used in the code and in the MATs, as well as the application of state agency adoptions to building occupancies or building features, and the respective enforcement agency as designated by state law.

## **Title 24 sometimes refers to a separate document called a “standard” or “reference standard.” What are these standards?**

Many products and assemblies used in the construction of a building come to the construction site in a form that cannot be inspected because of concealed parts, or non-identifiable characteristics. Such products and assemblies are required by Title 24 to meet nationally recognized standards, or possibly state agency standards, developed specifically for that product or assembly. In addition to state agencies, independent entities such as Underwriters Laboratories (UL), American Society of Testing and Materials (ASTM) and the American National Standards Institute (ANSI) may develop these standards.

The typical process is for a product or method/process to be tested to an appropriate standard by a testing agency. Products meeting the standard are then listed in a directory published by a listing agency. Generally, the product will bear a listing agency label affixed by the manufacturer to identify that the product meets a referenced standard. Some testing agencies are also listing agencies. Listing agencies perform inspections of the product's manufacturing to ensure continued compliance with the design that was tested and approved as meeting the applicable standard.

Independent testing, labeling, and listing, via referenced standards, are the means of ensuring that products such as light fixtures and fire doors are evaluated to meet specific criteria. This eliminates the need for both model codes and California amendments to replicate the information, and serves as a shorthand method to establish consistent and acceptable performance levels. It also eliminates the need for an individual inspection of

products, methods or assemblies at each construction site. The standard, independent testing, labeling and listing are the means of ensuring that products meet the code's requirements. The process eliminates the need for an individual inspection of products, methods or assemblies at each construction site.

Reference:

HSC Sections 17920(g), (h), (i) and (n) for definitions of labeled, listed, listing agency and testing agency.

## **What is the purpose of the California Referenced Standards Code, Part 12 of Title 24?**

Referenced standards (Title 24, Part 12) are standards that are referred to in one or more parts of Title 24. Some referenced standards are national standards reprinted with permission from the originator of the standard, such as Underwriters Laboratories. Some are created by California state agencies because there is no national standard available.

The reasons for creating a separate part of Title 24 to hold referenced standards include avoiding unnecessary duplication, and saving space and resources when publishing the code books.

Part 12 contains various standards developed or adopted by state agencies, and also contains national standards, which identify the appropriate and minimum standards for a particular material or process/method. Examples of referenced standards include chapters developed by the State Fire Marshal for "releasing systems for security bars in dwellings," "stage and platforms," and "emergency exit and panic hardware." The Division of the State Architect's referenced standards include those for "detectible warning surface materials" and "automatic gas shutoff."

References: Government Code Section 4460 and California Health and Safety Code Section 18940.6 are examples of state law mandating the development of building standards by state agencies.

## **What is CALGreen and what does it apply to?**

The California Green Building Standards Code, also known as CALGreen, is Part 11 of Title 24. It is the first-in-the-nation green building code that promotes reductions in energy and water consumption, along with lowered greenhouse gas emissions from buildings. CALGreen includes mandatory requirements for most buildings, along with additional voluntary standards (Tier 1 and Tier 2) that may be adopted and made mandatory by local jurisdictions.

New construction of residential occupancies subject to CALGreen includes hotels, motels, apartments, one- and two-family dwellings and other types of residential occupancies listed in Section 104 of CALGreen. New construction of nonresidential buildings subject to the mandatory provisions of CALGreen include state-owned buildings, state university and

community college buildings, and most occupancy classifications of privately-owned buildings. Some addition and alteration projects are also subject to CALGreen requirements. See Sections 103 and 106 of CALGreen for more application information.

The California Building Standards Commission and the Department of Housing and Community Development each publish guides to CALGreen upon the release of a new edition of Title 24 (every three years). Professionally printed and bound guides are available to purchase from the publisher, the [International Code Council](#).

## What is meant by “commissioning” a building in compliance with CALGreen?

Commissioning requirements apply to new nonresidential buildings. Commissioning is a quality assurance process that ensures that buildings and components perform to their designed capacity, including documentation for building owners and property managers.

The Commissioning Plan specifies the roles of a commissioning coordinator and a commissioning team that includes the building's owner or owner's representative, the building's facilities and maintenance staff, design professionals, contractors, equipment manufacturers, and testing specialists. All have roles specified in the Commissioning Plan. The commissioning process also documents the operating and maintenance procedures and training for the building operator. When a project is complete, a commissioning report is prepared and provided to the owner or owner's representative.

Commissioning is very complex, so CBSC has developed commissioning reference standards for **non-energy related** systems, which include sample forms and templates for commissioning. These are printed in Chapter 8 of CALGreen. Commissioning for **energy-related** systems is required by the California Energy Code, and the regulations can be found in Part 6 of Title 24.

References:

California Green Building Standards Code (CALGreen), Chapter 5, Sections 5.410.2 through 5.410.2.6

CALGreen Section 5.410.4

## Why is Part 7 of Title 24 vacant?

In past editions of Title 24, Part 7 contained elevator construction standards, which duplicated standards in the California Code of Regulations, Industrial Regulations, Title 8, Chapter 4, Subchapter 6, commencing with Section 3000 (viewable at the [Office of Administrative Law website](#)—oal.ca.gov—or the [Department of Industrial Relations website](#)—dir.ca.gov). Title 8 standards for elevators are developed and adopted by the California Department of Industrial Relations, Division of Occupational Safety and Health, better known as Cal/OSHA. These Cal/OSHA standards apply to conveyances including elevators, escalators, dumbwaiters and stairway chairlifts. These standards are not building

standards because the definition of the term building standard provided by California Health and Safety Code Section 18909 (j) excludes standards promulgated by Cal/OSHA.

## Questions About Enforcement, Interpretation & Miscellany



### Who enforces building codes?

The local government building or planning department that has jurisdiction for where the building or residence is located handles code enforcement. Most state agencies, including the California Building Standards Commission, have no building code enforcement authority, although exceptions do exist for hospitals and public schools (K-12 and community colleges). Local enforcement agencies should be contacted first; if they are not the appropriate enforcement entity, they can provide information regarding the correct state agency to contact.

### Who answers code questions or provides code interpretations?

Begin with the local jurisdiction's building or planning department. Many jurisdictions make the building standards in Title 24 more restrictive for specific circumstances in their area, so it is best to start locally. For general Title 24 questions, different state agencies handle different parts of the code. See the FAQ about the process for enacting local building standards for more information regarding local amendments, and the FAQ about which state agencies are involved in the creation of Title 24 for each agency's specific area(s) of the codes. A list of state agencies' contact information is also printed at the beginning of each part of Title 24 and posted on the California Building Standards Commission's website on the [Contact tab](#).

## How can a member of the public dispute a determination by a local building department?

1. If the subject is residential construction, California Health and Safety Code (HSC) Section 17925 provides for an appeal process with a local housing appeals board or local appeals board. Contact the local government enforcement agency for its appeal process.
2. Any dispute over the enforcement or interpretation of a building standard by the local enforcement agency may be pursued through the hierarchy of the local jurisdiction, which may include the City Manager, City Council, County Administrator or Board of Supervisors.
3. Any person who believes they have been adversely affected by the enforcement of building standards may appeal to the California Building Standards Commission (CBSC). However, the commissioners may only issue a recommendation that the matter be reconsidered by the local jurisdiction's authorities. CBSC has no lawful authority to overrule the decisions of a local building department. An appeal form is available on the [Codes](#) or [Forms](#) tab of CBSC's website.

### References:

#### HSC Sections:

18931 – Duties

18945 – Right to appeal

18946 – Hearing; reference; decision

18949 – Fee schedule

California Administrative Code, Title 24, Part 1, Article 3, commencing with Section 1-301

California Building Code, Title 24, Part 2, Chapter 1, Division II, Part 2, Section 113 - Board of Appeals

## Who oversees the local jurisdictions (building departments)?

Local building officials normally report to the City Council or City Manager, or the county's Board of Supervisors. Complaints against, or compliments for, local enforcement officials should be directed to the jurisdiction's locally elected officials. The state does not have any authority over local building departments or officials.

There is also an organization called [California Association of Code Enforcement Officers \(CACEO\)](#). They have no legal authority over building officials, but their membership is interested in promoting and advancing the profession of code enforcement.

## **Are there criminal or civil penalties for Title 24 violations?**

**Yes.** The building standards in Title 24 are state regulations that frequently implement state laws. There are criminal or civil penalties for violating most state laws.

Some state laws impose a misdemeanor crime punishable by monetary fines or imprisonment, or both. Additionally, these state laws further assert that a violation of the state regulations (including building standards that implement state laws) is also a misdemeanor punishable by a monetary fine or imprisonment, or both.

Examples of building standards that impose penalties for violations are those adopted by the State Fire Marshal and the Department of Housing and Community Development to implement the State Housing Law (SHL) in California Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910. HSC Section 17995 establishes a misdemeanor crime for violations of SHL and the provisions of Title 24 that implement SHL.

There are other examples of state laws implemented by Title 24 provisions with criminal and civil penalties, and there are building standards implementing state laws that do not provide for criminal or civil penalties. The Title 24 user must review the state law that is implemented by the building standard in order to verify whether or not the state law establishes a criminal or civil penalty for violations of that law and the implementing Title 24 building standard. This may be done by first identifying the state law used by the adopting state agency, as shown in the Authority and Reference portion of each appropriate part of Title 24.

Reference: California Building Code, Title 24, Part 2, Chapter 1, Division II, Part 2, Section 114 - Violations

## **Who issues contractors' licenses or other certifications?**

The [Contractors' State License Board](http://cslb.ca.gov) (cslb.ca.gov) issues licenses in over 44 building trades and regulates the state's construction industry. Training to become licensed or certified in a trade or trades is available from many different vendors. An internet search will provide numerous sources for training to pass a CSLB licensing test.

Sources for California licenses and certifications in the building design trades are the [California Architects Board](http://cab.ca.gov) (cab.ca.gov) and the [Board of Professional Engineers, Land Surveyors and Geologists](http://bpelsg.ca.gov) (bpelsg.ca.gov).

## **Are solar panels required on all roofs in California now?**

This will depend on the type of project. The 2019 California Energy Code, Part 6 of Title 24, contains the mandatory solar regulations. Additional information may be obtained from the [California Energy Commission](http://energy.ca.gov) at energy.ca.gov.