

**INITIAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS
OF THE DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION/
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT
REGARDING THE 2025 CALIFORNIA BUILDING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2, VOLUME 2
(OSHPD 03/25)**

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS

Government Code Section 11346.2(b)(1) requires a statement of specific purpose of each adoption, amendment, or repeal and the problem the agency intends to address and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose and address the problem for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.

ITEM 1

CHAPTER 16A STRUCTURAL DESIGN

SECTION 1603A—CONSTRUCTION DOCUMENTS

1603A.1.5 Earthquake design data. and 1603A.1.6 Geotechnical information.

ASCE 7-22 has revised the equations for design of nonstructural components in buildings. The updated equations now require the building's fundamental period to calculate the forces acting on non-structural components. To simplify this process, the non-structural equipment designer should not be responsible for determining the building's period, whether during construction or afterward. Instead, this information should be included in the drawings, as indicated in Item 17. The engineer of record (EOR) will already have this information when designing the structure, so no additional effort is required. During the review of this list, several other important items were identified that should also be documented for future evaluations or renovations, as well as for peer reviews, plans examiners, and building officials. Section 1603A.1.6 is also updated to satisfy the statutory mandate to write regulations in plain language. This amendment is for clarification only and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-1 & 1-2):

Approve.

Agency Response:

Accept.

SECTION 1605A—LOAD COMBINATIONS

1605A.1 General. Exceptions: 1.

In 2011, The Masonry Design Standard, TMS 402, increased the allowable stress for commonly used Grade 60 tension reinforcement from 40% to 53% of the specified yield

(Fy). Consequently, ASCE 7 Exception 2 in Section 2.4.5 is now unjustified and should be removed as outlined in the ASCE 7-22 Commentary. This amendment is necessary to rectify an error and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-3):

Approve.

Agency Response:

Accept.

SECTION 1607A—LIVE LOADS

TABLE 1607A.1 —MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L_0 , AND MINIMUM CONCENTRATED LIVE LOADS

This addresses an error from the California Building Code (CBC) 2019 Code Cycle and will not have any regulatory impact. These requirements were included in the CBC 2016 and earlier code cycles but were inadvertently omitted from the CBC 2019 without any departmental action or amendments. HCAI is proposing to correct this oversight (or printing error) bringing the language back to the code to continue enforcing these existing regulations without solely relying on standard comments during plan check review. This amendment does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-4):

Approve.

Agency Response:

Accept.

SECTION 1617A—MODIFICATIONS TO ASCE 7

1617A.1.3 ASCE 7, Section 11.2 [OSHPD 1 & 4]

A new definition is a proposed addition to clarify that when ASCE refers to acceleration when used as demand due to a seismic force, it is the total acceleration experience by the object relative to a stationary state not the relative to acceleration at the base of the structure. Projects submitted to HCAI have incorrectly used relative acceleration when it is the “Total acceleration” that is required to be used. This is well understood by design professionals with knowledge of structural dynamics and how accelerations are measured using seismic instrumentation. This could have a big impact on the design of non-structural components and diaphragms if incorrectly applied. This clarification will remove any ambiguity on how the term “acceleration” is to be used. This amendment does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-5):

Further Study Required under criteria #6, recommendation to reconsider the use of the term “absolute acceleration” and consider revising this term to “total acceleration” for accuracy.

Agency Response:

Accept. Revised “Absolute” to “Total” and modified definition accordingly.

1617A.1.5 ASCE 7 Section 12.2.3.2 [OSHPD 1 & 4]

HCAI did an early adoption of the Two-Stage analysis procedure in the 2022 CBC based on passed ballots that have now been incorporated in ASCE 7-22. New hospital buildings using these provisions identified unnecessary conservatism in the requirements. HCAI, therefore, investigated the issue and performed rigorous nonlinear dynamic time history studies on structures that qualify for a Two-Stage analysis. The results from that investigative study show that when the reactions from the upper structure to the lower structure are amplified in accordance with Section 12.3.3.4, further amplification by the ratio of R_{Upper} to R_{Lower} is not required for the design of the transfer diaphragm. Having a robust and strong transfer diaphragm is essential, however adding more mass, strength and stiffness to the transfer diaphragm beyond a certain point does not improve the seismic vulnerability of the building and in fact could reduce the seismic performance. HCAI is currently approving projects as an alternate method of compliance to address this issue. Therefore, HCAI is proposing this clarification to the application of the additional amplification requirement in ASCE 7-22 in the 2025 CBSC Intervening Code Cycle in line with the intent of the ballot change proposal in ASCE-22. These results were presented to the Hospital Building Safety Board and were endorsed by the Board. This amendment improves safety in the design and is in conformance with current practice. This amendment does not materially alter the intent of existing code provisions or impact the cost of compliance as 2025 CBC code provisions are not enforced as currently written when applicable and instead these revised provisions are enforced through alternative means and methods.

CAC Recommendation (CAM ITEM 1-6):

Approve.

Agency Response:

Accept.

1617A.1.11a ASCE 7 Section 12.8.1.1 [OSHPD 1 & 4]

The Modal Response Spectrum Analysis (MRSA) results have to be scaled to the Equivalent Lateral Force (ELF) base shear, and confusion has arisen concerning the proper method for computing the ELF base shear. This proposal makes it clear that even when using the Multi-Period Spectrum (MPS) to compute the ELF base shear, S_{Ds} may be used as an upper bound. This amendment is for clarification only and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-7):

Approve.

Agency Response:

Accept.

1617A.1.18a ASCE 7 Section 13.3.1.5. [OSHPD 1 & 4]

1) The demand on nonstructural components is based on the “total” or “absolute” floor accelerations not relative floor accelerations obtained from a nonlinear time history analysis. The definition of “total acceleration” is a proposed addition in section 1617A.1.3. This language clarifies that distinction as it may be inaccurately interpreted and enforced. No change in regulatory effect is intended.

2) Equation 13.3-7 can be used for determining the horizontal design force F_p for buildings from a Nonlinear Time History Analysis (NLTHA) at the design earthquake ground motion level. However, F_p determined using this procedure still needs to satisfy the lower limit calculated using Equation 13.3-3. This equation often governs the design of nonstructural components in base-isolated structures. It is well established that base isolation lowers the accelerations and inter-story drifts in the structure above the isolation plane. However, no adjustment to the lower limit is made to account for this effect.

This change aligns only the lower limit for F_p in base-isolated structures to a maximum of half that for a non-isolated building. As such, does not change the provisions on how demands on nonstructural components from a nonlinear analysis are determined. It aligns the relative magnitude of risk between base isolated structures and fixed based structures. This amendment satisfies the target reliability of ASCE 7 Section 1.3 for risk category IV buildings and as such has no change in regulatory effect.

CAC Recommendation (CAM ITEM 1-8):

Approve.

Agency Response:

Disagree. Changed “absolute” to “total” in #1 to match the new definition in Section 1617A.1.3.

1617A.1.37a ASCE 7, Section 18.4 [OSHPD 1 & 4]

There is a discrepancy in ASCE 7, between Chapter 16 and Chapter 18, where the maximum drift in Chapter 16 can be taken as two times the drifts given in Table 12.12-1. For Risk Category IV buildings, the maximum allowable drift is 1.0 percent at the design earthquake, which makes the maximum drift at 2.0 percent in a Maximum Credible Earthquake (MCE) when using Chapter 16. However, if Chapter 18 is used, the drift limit is 1.9. This amendment is a clarification of two conflicting sections in the code and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 1-9):

Approve.

Agency Response:

Accept.

ITEM 2

CHAPTER 17A SPECIAL INSPECTIONS AND TESTS

SECTION 1705A—REQUIRED SPECIAL INSPECTION AND TESTS

1705A.5.5 Structural glued laminated and cross-laminated timber.

Exception. Clarifying that Special Inspection (SI) exemptions should only be based on glulams that meet the size limitation requirement and not on the procurement method. Therefore, the requirement for the glulams to be sourced from general inventory is repealed. This amendment is for clarification only and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 2-1):

Approve.

Agency Response:

Accept.

ITEM 3

CHAPTER 35 REFERENCED STANDARDS

ACI American Concrete Institute ...

318—19 (22): Building Code Requirements for Structural Concrete

This incorporates updates to ACI 318 for consistency with its reference standards. Aside from the changes to the references, ACI 318-19 and ACI 318-19 (22) contain identical requirements. This amendment is for clarification only and does not materially alter the intent of existing code provisions or impact the cost of compliance.

CAC Recommendation (CAM ITEM 3-1):

Approve.

Agency Response:

Accept.

STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS

Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.

The proposed changes do not mandate any specific technologies or equipment and do not require any prescriptive standards.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

Government Code Sections 11346.2(b)(2) and 11346.3(b)(1)

HCAI has assessed whether and to what extent this proposal will affect the following:

A. The creation or elimination of jobs within the State of California.

The proposed regulations will not create or eliminate jobs within the State of California.

B. The creation of new businesses or the elimination of existing businesses within the State of California.

The proposed regulations will not create new businesses or eliminate existing businesses with the State of California.

C. The expansion of businesses currently doing business within the State of California.

The proposed regulations will not cause expansion of businesses currently doing business with the State of California.

D. The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.

The proposed building standards and regulations regarding the design and construction of licensed health facilities ensure protection of the public's health,

safety, and welfare of California residents through updated amendments. The regulations will not affect worker safety, or the state's environment.

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS

Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

There are no formal studies, reports, or documents to be identified as the basis for the proposed amendments.

CONSIDERATION OF REASONABLE ALTERNATIVES

Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.

There were no alternatives for consideration by HCAI. The proposed amendments will provide clarification and consistency within the code and are in alignment with national standards.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.

All items have no adverse impact on small business. Alternatives were not explored.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON BUSINESS

Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.

HCAI has identified that there will be no adverse economic impact on businesses on the basis that the provisions proposed are clarifications only and do not materially alter the intent of existing code provisions or impact the cost of compliance.

ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS

Government Code Section 11346.2(b)(5)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.

HCAI finds that the proposed building standards will result in no cost and/or cost that is reasonable if the facility chooses to incorporate a specific building standard into the project design. The proposed amendments are for clarification only and do not materially alter the intent of existing code provisions or impact the cost of compliance.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.

The proposed regulations do not duplicate or conflict with Federal regulations.