

**15-DAY COMMENT PERIOD
MODIFICATIONS TO EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
STATE HISTORICAL BUILDING SAFETY BOARD
REGARDING THE ADOPTION OF
CALIFORNIA CODE OF REGULATIONS
PART 8 OF TITLE 24**

Legend for Express Terms:

1. **California language brought forward without modification:** *All language will appear in italics.*
 2. **California amendment and new language brought forward with modification:** *All language will appear in italics, modified language is shown underlined.*
 3. **Repealed California language:** *Shown as ~~Strikeout~~.*
 4. **Amended or repealed language for the 15-day public comment:** *Amended, adopted, or repealed language will appear in double underline and ~~double strikeout~~.*
 5. Authority and reference citations are provided at the end of each section.
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**CHAPTER 8-2
DEFINITIONS**

Omit the definition:

~~**BUILDING.** Any structure or property used or intended for supporting or sheltering any use or occupancy.~~

**CHAPTER 8-3
USE AND OCCUPANCY**

Return 8-302.2 back to the 2001 language.

8-302.2 Change in Occupancy. *The use or character of the occupancy of a qualified historical building or property may be changed from or returned to its historical use or character provided the qualified historical building or property conforms to the requirements applicable to the new use or character of occupancy as set forth in ~~this code~~ the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements as set forth in ~~prevailing regular code,~~ provided the new use or occupancy does not create a fire hazard or other condition detrimental to the safety of occupants or of firefighting personnel.*

Provided:

~~1. The new use or occupancy does not create a fire hazard detrimental to the safety of the occupants.~~

~~2. The new use does not present a greater relative degree of hazard; where occupancy groups A and H are rated the most hazardous, then group R, and lowest groups B and M, or~~

~~the table, Hazard categories and Classifications: Life Safety and Exits in the 2006 IEBC. TABLE 912.5, "HEIGHTS AND AREA HAZARD CATEGORIES in the 2006 IEBC may be used in lieu of the above.~~

Change the occupancy references to specific building occupancies.

8-302.5.1 High Rise Buildings. ~~Occupancies B, F-1, F-2 or S in high rise buildings with floors Non-residential and non-hazardous occupancy buildings over 75 feet in height located more than 75 feet above the lowest floor level having building access, may be permitted with only the stories over 75 feet provided with an automatic fire sprinkler system if:~~

- ~~1) the building construction type and the exits conform to regular code and,~~
- ~~2) a complete building fire alarm and annunciation system is installed and,~~
- ~~3) an area separation fire barrier is provided between the sprinklered and non-sprinklered floors.~~

**CHAPTER 8-4
FIRE PROTECTION
SECTION 8-402
FIRE-RESISTIVE CONSTRUCTION**

Omit the added provision and return to the 2001 language.

8-402.1 Exterior Wall Construction. ~~The fire resistance requirement for existing exterior walls and existing opening protection may be satisfied when an automatic fire-extinguishing sprinkler system designed for exposure protection per this code is installed per the CHBC. The automatic sprinklers may be installed on the exterior under the roof line with at least one sprinkler head located over each opening required to be protected. Additional sprinklers heads shall also be distributed along combustible walls under the roof lines that do not meet the fire-resistive requirement due to ~~its their~~ relationship to property lines as required by regular code. Such sprinkler systems may be connected to the an-adequate domestic water supply on the streetsupply-main side of the building shut-off valve. A shut-off valve may be installed for the sprinkler system provided it is locked in an open position. Sprinklers and exterior piping shall be appropriate to the application. Systems requiring two or fewer sprinklers may be installed per this section when supplied off of a 3/4" domestic water main. (See Section 8 410.3 for automatic sprinkler systems)~~

**SECTION 8-403
INTERIOR FINISH MATERIALS**

Return the section to the 2001 language.

~~New non-historical interior wall and ceiling finish shall conform to the provisions of the regular code. Existing non-conforming materials used in interior wall and finishes may be surfaced with an approved fire-retardant to increase the rating of the natural finish to within reasonable proximity of the required rating as finishes shall be allowed to remain unless a distinct hazard is apparent. For wood, lath, and plaster walls, see Section 8-404.~~

**CHAPTER 8-7
STRUCTURAL REGULATIONS
SECTION 8-706
LATERAL LOAD REGULATIONS**

Return the section to the 2001 language.

8-706.1 Lateral Loads. *The forces used to evaluate the structure for resistance to wind and seismic loads need not exceed 0.75 times the seismic forces prescribed by the ~~1995 Edition of the California Building Code (CBC), 2007 CBC requirements but the seismic base shear need not exceed 0.45W-0.40W. This limit of 0.45W-0.40W does not include near fault effects and qualified historical structures with limited ductility in their lateral force resisting system within near fault zones (maximum considered earthquake ground motion of 0.2 second spectral response greater than 150% g at 5% damping) shall use a base shear increased by an appropriate amount or utilize additional measures to provide structural stability in near fault earthquakes. The architect or engineer performing the evaluation shall justify the base shear and procedures used in the evaluation.~~ The seismic forces may be computed based on the R_w , R values tabulated in the ~~CBC regular code~~ for similar lateral-force-resisting-systems. All deviations of the detailing provisions of the lateral-force-resisting systems shall be evaluated for stability and the ability to maintain load-carrying capacity at increased lateral loads. Un-reinforced masonry bearing wall buildings shall comply with ~~Appendix Chapter 1 of the Uniform Code for Building Conservation (UCBC), 1994 edition, Appendix A, Chapter A1 of the International Existing Building Code, (IEBC), 2006 edition,~~ and as modified by this code. Reasonably equivalent standards may be used on a case-by-case basis when approved by the authority having jurisdiction.*

**CHAPTER 8-8
ARCHAIC MATERIALS AND METHODS OF CONSTRUCTION
SECTION 8-805
MASONRY**

Return the section to the 2001 language.

8-805.1 Existing Solid Masonry. *Existing solid masonry walls of any type, except adobe, may be allowed, without testing, a maximum value of ~~three nine~~ pounds per square inch (~~20.7 kPa~~) (~~62.1 kPa~~) in shear where there is a qualifying statement by the architect or engineer that an inspection has been made, that mortar joints are filled and that both brick and mortar are reasonably good. The allowable shear stress above applies to un-reinforced masonry, except adobe, where the maximum ratio of un-supported height or length to thickness does not exceed 12, and where minimum quality mortar is used or exists. Wall height or length is measured to supporting or resisting elements that are at least twice as stiff as the tributary wall. Stiffness is based on the gross section. Allowable shear stress may be increased by the addition of 10% ~~percent~~ of the axial direct stress due to the weight of the wall directly above. Higher quality mortar may provide a greater shear value and shall be tested in accordance with ~~UBC Standard 21-6 as referenced in the 1997 UBC, the 2006 IEBC.~~*

Return the section to the 2001 language.

8-805.2.1 Solid-backed Stone Masonry. *Stone masonry solidly backed with brick masonry shall be treated as solid brick masonry as described in Section 8-805.1 and in the ~~UCBC 2006 IEBC,~~ provided representative testing and inspection verifies solid collar joints between stone and brick and that a reasonable number of stones lap with the brick wythes as headers or that steel anchors are present. Solid stone masonry where the Wythes of stone effectively overlap to provide the equivalent header courses may also be treated as solid brick masonry.*

Return the section to the 2001 language.

8-805.2.2 Independent Wythe Stone Masonry. Stone masonry with independent face Wythes may be treated as solid brick masonry as described in Section 805.1 and the UCBC 2006 IEBC, provided representative testing and inspection verify that the core is essentially solid in the masonry wall and that steel ties are epoxied in drilled holes between outer stone Wythes at floors, roof and at not-to-exceed 4 feet (1219 mm) on center in each direction, between floors and roof.

Return the section to the 2001 language.

8-805.2.3 Testing of Stone Masonry. Testing of stone masonry shall be similar to UBC Standard 21-6, as referenced in the 1997 UBC 2006 IEBC requirements for brick masonry, except that representative stones which are not interlocked shall be pulled outward from the wall and shear area appropriately calculated after the test.

**SECTION 8-806
ADOBE**

Return the section to the 2001 language.

8-806.5 Shear Values. Existing adobe may be allowed a maximum value of four twelve pounds per square inch (27.6 92.7 kPa) for shear, with no increase for lateral forces.

**SECTION 8-807
WOOD**

Return the section to the 2001 language.

8-807.1 Existing Wood Diaphragms or Walls. Existing wood diaphragms or walls of straight or diagonal sheathing shall be assigned shear resistance values appropriate with the fasteners and materials functioning in conjunction with the sheathing. The structural survey shall determine fastener details and spacings and verify a load path through floor construction. Shear values of Tables 8-8-A and 8-8-B the 2006 IEBC may be used.

Return the Tables to the 2001 language.

TABLE 8-8-A ALLOWABLE VALUES FOR EXISTING MATERIALS

<u>EXISTING MATERIALS OR CONFIGURATIONS OF MATERIALS¹</u>	<u>ALLOWABLE VALUES</u>
	<u>x14.591 for N/m</u>
<u>1. Horizontal diaphragms²</u>	
<u>1.1 Roofs with straight sheathing and roofing applied directly to the sheathing</u>	<u>100 lbs. Per foot for seismic shear</u>
<u>1.2 Roofs with diagonal sheathing and roofing applied directly to the sheathing</u>	<u>250 lbs. Per foot for seismic shear</u>
<u>1.3 Floors with straight tongue and groove sheathing</u>	<u>100 lbs. Per foot for seismic shear</u>
<u>1.4 Floors with straight sheathing and finished wood flooring with board edges offset or perpendicular</u>	<u>500 lbs. Per foot for seismic shear</u>
<u>1.5 Floors with diagonal sheathing and finished</u>	<u>600 lbs. Per foot for seismic shear</u>
<u>2. Crosswalls^{2,3}</u>	
<u>2.1 Plaster on wood or metal lath</u>	<u>Per side: 200 lbs. Per foot for seismic shear</u>
<u>2.2 Plaster on gypsum lath</u>	<u>175 lbs. Per foot for seismic shear</u>
<u>2.3 Gypsum wallboard, unblocked edges</u>	<u>75 lbs. Per foot for seismic shear</u>

2.4 — Gypsum wallboard, blocked edges	125 lbs. Per foot for seismic shear
Existing footings, wood framing, structural steel and reinforced steel	$f_c = 1,500$ psi (10.34 MPa) unless otherwise shown by tests ⁴
3.1 — Plain concrete footings	Allowable stress same as D.F. No. 1 ⁴
3.2 — Douglas fir wood	$f_t = 18,000$ lbs. Per square inch (124.1 N/mm ²) maximum
3.2 — Reinforcing steel	$f_t = 200,000$ lbs. Per square inch (137.9 N/mm ²) maximum ⁴
3.4 — Structural steel	maximum ⁴

¹Material must be sound and in good condition.

²A one-third increase in allowable stress is not allowed.

³Shear values of these materials may be combined, except the total combined value shall not exceed 300 pounds per foot (4380 N/m).

⁴Stresses given may be increased for combinations of loads as specified in the regular code.

TABLE 8.8 B ALLOWABLE VALUES OF NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION

NEW MATERIALS OR CONFIGURATIONS OF MATERIALS	ALLOWABLE VALUES ¹
1 — Horizontal diaphragms ² Plywood sheathing nailed directly over existing straight sheathing with ends of plywood sheets bearing on joists or rafters and edges of ply. wood located on center of individual sheathing boards Plywood sheathing nailed directly over existing diagonal sheathing with ends of plywood sheets bearing on joists or rafters	225 lbs. Per foot (3283 N/m)
1.3 Plywood sheathing nailed directly over existing straight or diagonal sheathing with ends of ply. wood sheets bearing on joists or rafters with edges of plywood located over new blocking and nailed to provide a minimum nail penetration into framing and blocking of 1 — inches (41 mm)	375 lbs. Per foot (5473 N/m)
Shear walls: (general procedure) Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing	75 percent of the values specified in the regular code 100 percent of the value specified in the regular code for shear walls
3 — Crosswalls: (special procedure only) Plywood sheathing applied directly over wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing Drywall or plaster applied directly over wood studs Drywall or plaster applied to sheathing over existing wood studs	133 percent of the value specified in the regular code for shear walls 100 percent of the values in the regular code The values specified in the regular code reduced as noted ³ (UBC Table 25-1, Footnote 1)
4 — Tension bolts Bolts extending entirely through unreinforced masonry walls secured with bearing plates on far side of a three wythe minimum wall with at least 30 square inches (19,350 mm ²) of area ^{4,5} Bolts extending to the exterior face of the wall with a 2½ inch (63.5 mm) round plate under the head and drilled at an angle of 22½ degrees to the horizontal, installed as specified for shear bolts ^{4,5,7}	1,800 lbs. (8006 N) per bolt ⁶ 900 lbs. (4003 N) per bolt for two wythe walls ⁶ 1,200 lbs. (5338 N) per bolt
5 — Shear bolts Bolts embedded a minimum of 8 inches (203 mm) into unreinforced masonry walls and centered in a 2½ inch diameter (63.5 mm) hole filled with dry pack or nonshrink grout. Through bolts with first 8 inches (203 mm) as noted above and embedded bolts as noted in Item 4.2 ⁸	½ inch (12.7 mm) diameter — 350 lbs. (1557 N) ⁶ ⅝ inch (15.9 mm) diameter — 500 lbs. (2224 N) ⁶ ¾ inch (19 mm) diameter — 750 lbs. (3336 N) ⁶
6 — In-filled walls Reinforced masonry in-filled openings in existing unreinforced masonry walls. Provide keys or dowels to match reinforcing	Same as values specified for unreinforced masonry walls
7 — Reinforced masonry Masonry piers and walls reinforced per the regular code	Same as values specified in the regular code
8 — Reinforced concrete Concrete footings, walls and piers reinforced as specified in the regular code and designed for tributary loads	Same values as specified in the regular code ⁹

¹A one-third increase in allowable stress is not allowed, except as noted.

²Values and limitations are for nailed plywood. Higher values may be used for other fastening systems such as wood screws or staples when approved by the enforcing authority.

³In addition to existing sheathing value.

⁴Bolts to be ½ inch (12.7 mm) minimum diameter.

⁵Drilling for bolts and dowels shall be done with an electric rotary drill. Impact tools shall not be used for drilling holes or tightening anchors and shear bolt nuts.

**Other bolt sizes, values and installation methods may be used provided a testing program is conducted in accordance with regular code standards. Bolt spacing shall not exceed 6 feet (1830 mm) on center and shall not be less than 12 inches (305 mm) on center.*

**Embedded bolts to be tested as specified in regular code standards.*

**Stresses given may be increased for combinations of loads as specified in the regular code*