

2009 CBC SUPPLEMENT

ICC – East Bay
February , 2009

Presented by: Kerwin Lee, Jignish
Maun & Prajakta Dabade
Rolf Jensen & Associates



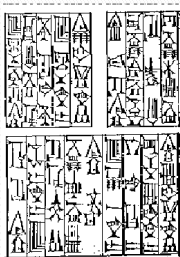
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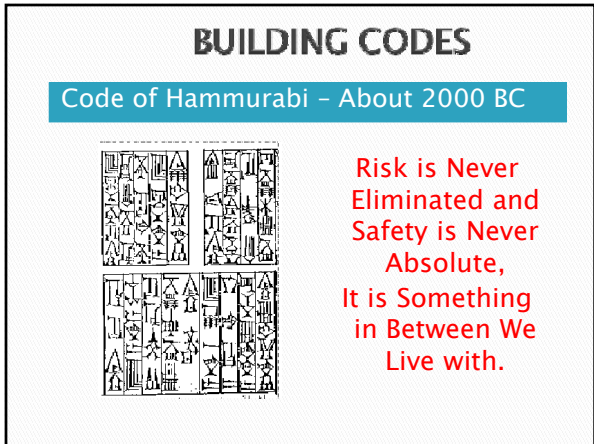


BUILDING CODES

Code of Hammurabi – About 2000 BC



**Risk is Never
Eliminated and
Safety is Never
Absolute,
It is Something
in Between We
Live with.**



2009 SUPPLEMENT

Effective

Date

History

Note

Appendix

Page 673

8. (BSC P01/08, HCD 02/07, OSHPD 02/07, OSHPD 03/07, SFM 01/07, DSA/AC 01/07, DSA/AC EF 01/08) Amended California Building Code Vol. 1 & 2, California Chapter 1, Chapters 2, 3, 4, 5, 6, 7, 7A, 8, 9, 10, 11A, 11B, 11C, 12, 16, 16A, 17, 19A, 21A, 23, 27, 30, 31A, 34, 35, and Appendix Ch. 1, filed with the Secretary of State on September 12, 2008 and effective August 1, 2009. Errata changes to Index for CBC, California Chapter 1, Chapters 3, 4, 7, 9, 10, 16A, 17, 31A, and 34.
9. (CSA 01/06) Amend Chapter 12 (formerly known as Chapter 4A, Section 460A) to add new language to Sections 1230.1.1, 1230.1.5 and 1230.1.10. Approved by the California Building Standards Commission on July 17, 2008. Filed with the Secretary of State on October 21, 2008 and effective 180 days after publication.
10. (SFM EF01-08) Amend Title 24, Part 2, Chapters 2, 4, 7, 9 and 27. Re-approved as an emergency by the California Building Standards Commission on September 11, 2008. Approved as permanent by the California Building Standards Commission on October 27, 2008. Filed with the Secretary of State on November 3, 2008.

January 1st 2009 Supplement

General Changes
Jignish Maun

January 1st 2009 Supplement

A number of changes made to 2007 CBC

Supplement effective date August 1 2009

California Matrix Adoption Table - All Chapters (BSC, SFM, HCD, DSA, OSHPD)

Section 110 OSHPD 1, 2, 3, 4 - Applicable building standards - No more adopts Title 24 Part 10

January 1st 2009 Supplement

- ▶ Group L occupancy is under SFM's jurisdiction
- ▶ Section 202 - Laboratory - A room, building or area where the use and storage of hazardous materials are utilized for testing, analysis, instruction, research or developmental activities.

Chapter 3

- ▶ Table 307.1 (1) & 307.1 (2) describes the maximum allowable quantity per control area of hazardous material.
- ▶ Footnote e - 100 % increase of allowable quantity applicable to all occupancies except Group L occupancies in sprinklered buildings
- ▶ Footnote f - 100 % increase allowed when hazardous materials are stored in approved storage cabinets, gas cabinets or exhausted enclosures.

Chapter 4

- ▶ Section 403 - applicable to High rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department access.
- ▶ Jails, prisons and hospitals are no more exempted from requirements of Section 403.

Chapter 4

- ▶ 403.10.2 – Standby power loads – does not include electrically powered fire pumps
- ▶ 403.11.1 – Emergency power loads – now includes fire pumps
- ▶ Section 425 – Special provisions for licensed 24-hour care facilities in Group I-1, R-3.1 or R-4 modified with respect to building height and area provisions. Table 503 to be used.

Chapter 5

- ▶ Table 503 Changes – Group I-1, I-2, I-2.1, L
- ▶ Group I-1 – more restrictive – Type IIB, IIIB, IV, VB not permitted anymore. Should be of rated construction.
- ▶ Group L – less restrictive – number of stories and allowable area has increased overall.
- ▶ I-2 and I-2.1 – Foot note f – persons under restraint not permitted in occupancies other than Group I-3 occupancy defined in Section 308.4, which is more restrictive.

Chapter 5/6

- ▶ Non-separated use occupancies – not applicable to Group L Laboratory. Occupancies to be separated based on Table 508.3.3.
- ▶ Table 601 – footnote c is applicable to Roof Construction (supporting beams and joists) Now described as three separate footnotes. c1,c2 and c3. Footnote c1 and c2 is essentially the same.
- ▶ Footnote c3 allows the roof framing system of Type IIA and Type IIIA construction to be of unprotected construction in one-story portions of Group A and E assembly occupancies provided the roof-framing system does not contain concealed spaces.

Chapter 7

▸ Section 705 Fire Walls.

For the purpose of Automatic fire sprinkler system, fire walls cannot be considered to create separate buildings unless the firewall is of 4-hour fire resistive construction. Not addressed in Section 705 anymore.

This requirement is now addressed in Section 903.2 for Group A2, A3, E and M occupancies

Chapter 7

- Changes in Section 707.14.1 Elevator lobbies
- Elevator shaft enclosure connecting more than 2 stories in high-rise buildings, Group A, E, H, I, L, R-1 and R-2 are required to be provided with Elevator lobbies, even in a fully sprinklered building.
- For all other occupancies, lobbies are required when the elevator shaft enclosure connects more than 3 stories.
- In I-2 occupancies, elevator hoistway pressurization is not applicable anymore. Elevator lobbies are required.

Chapter 7/8

- Section 708 Fire Partitions
- Tenant spaces in high-rise buildings and in buildings of Type I, IIA, IIIA, IV and VA in Group A, E, H, I and other buildings regulated by SFM are required to be separated by Fire partitions. (new requirement)
- Table 803.5 now includes requirements for Interior wall and ceiling finish for Group L occupancy.

Chapter 9

- ▶ Section 903.4.2 Sprinkler System Monitoring and Alarms.
- ▶ One exterior approved audible device connected to the automatic sprinkler system in an approved location required.
- ▶ Clarifies that visible alarm notification appliances are not required except when required by Section 907. (Fire Alarm and Detection systems)

Chapter 9

- ▶ Section 907.2.12.1.1 clarifies that smoke detectors are required in sprinklered elevator machine rooms and in elevator lobbies.
- ▶ 907.2.12.1.2 clarifies that smoke detectors used in air duct systems will initiate a visible and audible supervisory signal at a constantly attended location.

Chapter 9

- ▶ Section 907.11 Duct smoke detectors
- ▶ Smoke detectors installed in ducts required to be listed for air velocity, temperature and humidity present in the duct. Clarifies that the smoke detector will initiate a visible and audible supervisory signal at a constantly attended location.

Chapter 9/10

- ▶ Section 910 Smoke and Heat vents
- ▶ Not required if areas of the buildings are protected with ESFR sprinklers. Not applicable in state-owned or state-occupied buildings or buildings under the jurisdiction of the SFM's office.
- ▶ Table 1004.1.1 - includes occupant load factors for Group L occupancies

Chapter 10

- ▶ Section 1008.1.8.6 Delayed egress locks
- ▶ Not permitted in Group L occupancy in addition to Group A, E and H occupancies.
- ▶ Section 1015 Exit and Exit access doorways . At least 2 MOE required when occupant load is more than 20 in detention and correctional facilities (new requirement) in addition to holding cells.

Chapter 10

- ▶ Table 1015.1 , 1016.1 and 1017.1 now includes requirements for Group L occupancies.
- ▶ Section 1017.2 Corridor width 96 inches required in I-2 and also I-3 (new requirement) where the corridor is used for bed movement or if the corridor serves more than one non ambulatory persons.

Chapter 10

- ▶ Section 1017.4 air movement in corridors.
- ▶ Non-rated corridors cannot serve as supply, return, exhaust, relief or ventilation air ducts. (more restrictive)

Group L Occupancies/Laboratory

Presented by :Prajakta Dabade

Group L Occupancy/Laboratory

- ▶ Laboratory Suite Definition (Section 443.2)
 - A laboratory suite is a space within a building or structure, which may include multiple laboratories, offices, storage, equipment rooms or similar support functions, where the aggregate quantities of hazardous materials stored and used do not exceed the quantities set forth in Table 443.7.3.1.

**Fire-resistive Separations
(Section 443.4)**

- ▶ Lab Suite separation from other occupancies Table 508.3.3.
- ▶ Lab Suite from other Lab Suite by 1-hour.
- ▶ Lab Suite from control areas by 2-hour.
 - Exception: Separation could be reduced to 1-hour on floor levels below the 4th story.
- ▶ Lab Suite floor construction and construction supporting the floors - 2-hour.

**Fire-resistive Separations
(Section 443.4)**

- ▶ A 2-hour fire barrier separation on floors above the 4th story.
- ▶ Continuous from exterior wall to exterior wall.
- ▶ Divide the floor so that the square footage on each side of the 2-hour barrier is not less than 30% of the total floor area.
- ▶ The number of Lab Suites on each side of the 2-hour fire barrier not less than 25% of the total number of lab suites on the floor.

**Emergency Response Equipment
Area (Section 443.4.4)**

- ▶ 50 square feet on each floor in an approved location.
- ▶ Access from outside the lab Suite 4 identified with signage.

Group L Occupancy/Laboratory

- ▶ Liquid tight floor (Section 443.4.5)
Where the floor is designed to provide spill control or secondary containment, the floor needs to be designed in accordance with CFC Section 2704.2
- ▶ Emergency Power (Section 443.4.6)
required for mechanical ventilation, egress lighting, etc

Ventilation (Section 443.4.7)

- ▶ For product conveying and other mechanical exhaust duct system used to maintain a safe lab environment.
- ▶ Fire/Smoke dampers not permitted.
- ▶ Exhaust duct penetrating the Lab Suite boundary need to be located within a horizontal assembly having a fire-resistive rating equal to the fire barrier.

Ventilation (Section 443.4.7)

- ▶ Lab Suite exhaust air.
 - Ducted to a point outside the building or a roof top structure.
 - Exception 4: Exhaust duct serving separated Lab Suites on the basement through the 4th story may be connected to a common duct within a rated vertical shaft when sub-duct extend vertically upward at least 22 inches.
 - Exception 5: Exhaust duct serving separate Lab Suites on the 5th story and above may be connected to a common duct that does not exceed 10 vertical feet with a fire rated shaft when the sub-ducts extend vertically upward at least 22 inches.

Means of Egress (Section 443.6)

- ▶ Two exits required for rooms more than 500 square feet in area. (200 square feet earlier)
- ▶ All exits doors swing in the direction of egress travel.
- ▶ Occupant load factor (100 square feet, H-8)
 - Labs/Educational - 50 square feet
 - Labs/Non-Educational - 100 square feet
 - Lab Suite - 200 square feet.
- ▶ 1-hour fire resistance rating for corridors.
- ▶ Travel distance - 200 feet. (100 feet earlier)

Hazardous Materials Per Lab Suite (Table 443.7.3.1)

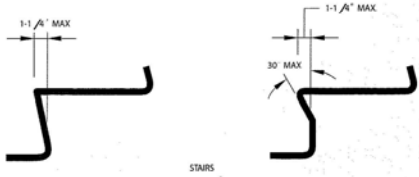
- ▶ Tables 307.1(1) and 307.2(2)
- ▶ Quantities limitation based upon location of the Lab Suites.

CBC – Disabled Access

DWELLINGS
CBC Chapter 11A
Presented by: Kerwin Lee

COMMON USE - CBC

- ▶ Exterior and Interior Stairways
 - ALL stairs are required to be accessible
 - 1 1/4" nosing
 - Open risers

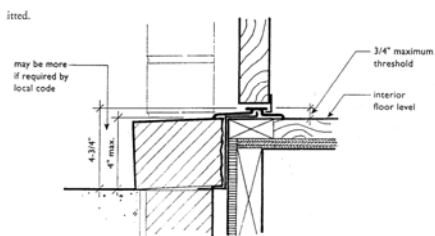


ACCESSIBLE UNIT

- ▶ Dwelling Unit - Accessible Route Garage
 - One of the Following
 1. Direct access from garage to dwelling unit using an accessible door.
 2. Door from garage to unit entry.
 3. Route using garage door to unit entry.

Chapter 11A - Dwellings

- ▶ Threshold & 4 Inch Drop - FHA Drawing



ACCESSIBLE UNIT

- ▶ Dwelling Unit – Decks, Patios, Balconies
 - 1132A.4 Provisions for floor level change

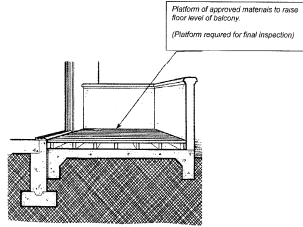


FIGURE 11A-6J—PLATFORM AT SECONDARY EXTERIOR DOOR

ACCESSIBLE UNIT

- ▶ Dwelling Unit – Decks, Patios, Balconies
 - Floor level change—Section 1132A.4, 4.

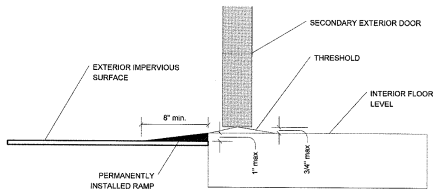


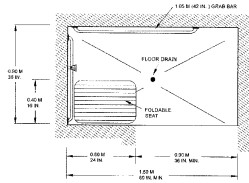
FIGURE 11A-8K—RAMP AT SECONDARY EXTERIOR DOOR

ACCESSIBLE BATHROOM

- ▶ Dwelling Unit – Bathroom, Section 1134A.2
 - Option 1 – All Bathroom, Lower standards
 - Option 2 – One Bathroom, Higher standards
 - One tub and one shower needs to be accessible
 - When Option 2 is used, all additional bathrooms must comply with Items 8-12 of Option 2 of Section 1134A.2

ACCESSIBLE BATHROOM

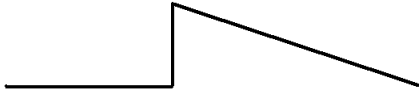
- ▶ Dwelling Unit – Shower Size –
 - At least one shower will comply with one of the following sizes:
 - 42" x 48" with a 36" opening
 - 30" x 60" with a 60" opening
 - 36" x 60" with a 36" opening



ACCESSIBLE BATHROOM

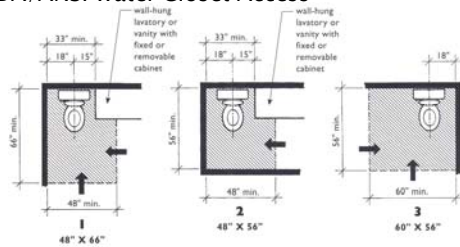
- ▶ Dwelling Unit – Shower threshold – Section
 - May be a maximum 2 inches in height
 - "... have a beveled or sloped angel not exceeding 1 unit vertical to 2 unit horizontal."

◦ ?



OCCUPANT NEEDS

- ▶ ADA/ANSI Water Closet Access



Clear Floor Space at Toilets
(One of the Three Must be Provided in "A" and "B" Bathrooms)

ACCESSIBLE BATHROOM

▶ Dwelling Unit - Water closet floor space

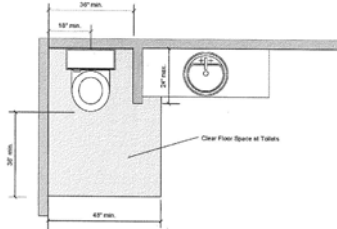
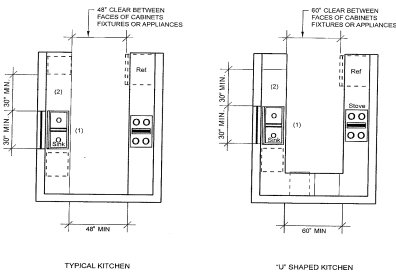


FIGURE 11A-88—WING WALL OR CABINET AT WATER CLOSET

ACCESSIBLE KITCHENS

▶ Galley & "U" Shaped

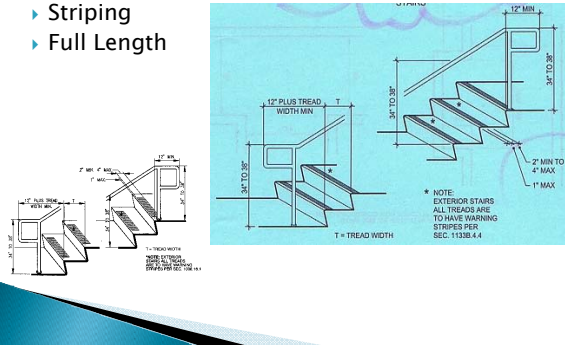


PUBLIC ACCOMMODATIONS

▶ Chapter 11B

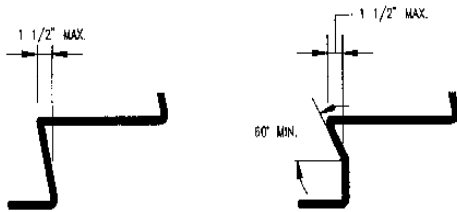
STAIRS

- ▶ Striping
- ▶ Full Length



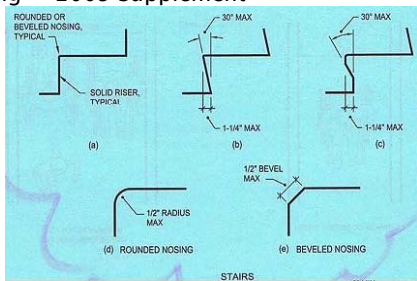
STAIRS NOSING – OLD

- ▶ Nosing is not required, but...



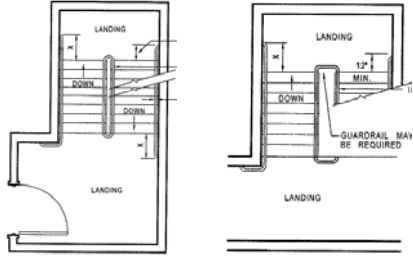
STAIR NOSINGS – NEW

- ▶ Nosing – 2009 Supplement



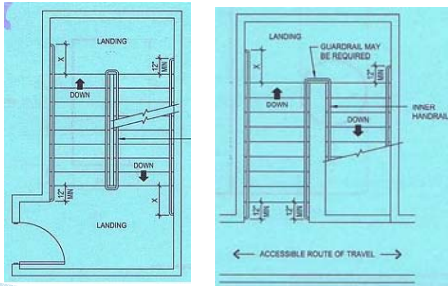
STAIR HANDRAILS

▶ OLD CBC



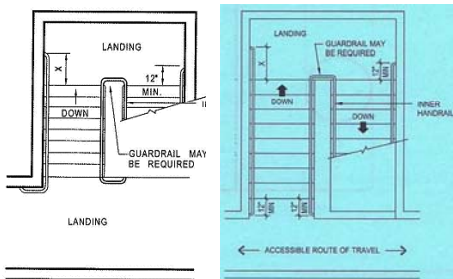
STAIR HANDRAILS

▶ New - 2009 Supplement



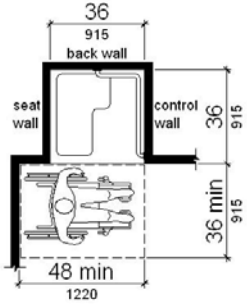
STAIR HANDRAILS

▶ Difference



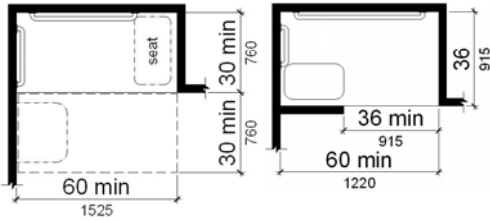
ACCESSIBLE BATHROOMS

► Showers – ADA



ACCESSIBLE BATHROOMS

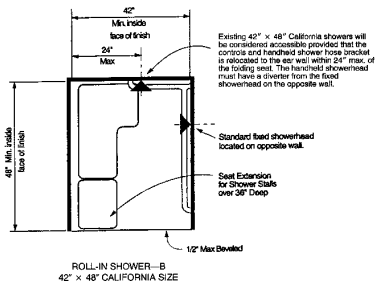
► ADA – Roll-in Showers



ACCESSIBLE BATHROOM

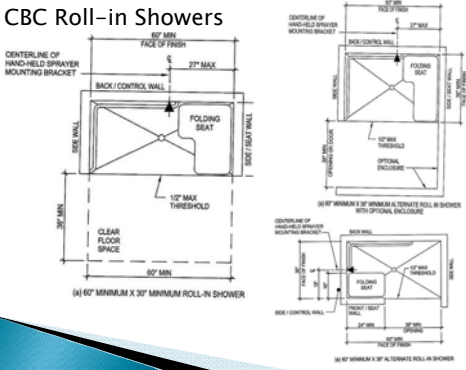
► CBC – Chapter 11A/Dwellings only

- 42 x 48



ACCESSIBLE BATHROOM

▶ CBC Roll-in Showers



ICC – Code Change Cycle

Code Group A – IBC, fuel gas, IMC, IPC, private sewage disposal codes

Code Group B – IFC, energy, IRC, existing, performance, wildland interface, and zoning codes.

- ▶ **2009 Proposal Deadline:** April 24
Committee hearing: October
- ▶ **2010 April/May** – Group A Codes: Final hearing
- ▶ **Sept/Oct** – Group B Codes: Final hearing
- ▶ Code published **2011**

Thank You For Your Time!

Questions?

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