

## ***Minimum Plumbing Fixtures for New Buildings, Buildings with Alterations, Repairs or Improvements***

**2013 California Plumbing Code, Chapter 4, Section 422.**

### **General:**

Section 422.1, 2013 CPC, refers to Table 4-1 for the minimum number of plumbing fixtures (*water closets, urinals, lavatories and drinking fountains*).

- A single set of restrooms for customers and employees accessible to both sexes may be permitted without providing restrooms for each individual business and or occupancies. These restrooms must comply with section 422.4 of the CPC and 11B-213 of the CBC.
- Buildings with alterations, repairs or improvements which exceed 50 percent of the square footage of the facility will need to upgrade the accessibility requirements in the restrooms to comply with Section 422.1.1 of the CPC.

### **Determining if separate facilities are required for men and women:**

Separate facilities are required for all occupancy groups with some exceptions:

- A unisex restroom in ***any*** occupancy serving 10 or fewer people including customers and employees may be permitted, when designed for use by no more than one person at a time.
- In ***(B) business and (M) mercantile*** occupancies with a total occupant load of 50 or less including customers and employees, a unisex restroom designed for use by no more than one person at a time may be permitted. ***NOTE: per CBC section 303.1.1 a building or tenant space with an occupant load of 50 or less shall be classified as a (B) business occupancy***
- Unisex restrooms must meet accessibility requirements in CBC11B-213.

The occupant load factors from Table A are to be used for the appropriate occupancy group to determine the number of plumbing fixtures. The total number of occupants is to be rounded to the nearest whole number and then divided to equal 50 percent male and 50 percent female.

## Drinking Fountains:

Drinking fountains are required when the occupant load exceeds 30 (*based on Table A. Occupant load factor*). Drinking fountain requirements are as listed by occupancy type in Table 422.1 (see below)

- Accessibility requirements must comply with *CBC Section 11B-211*.

Exception: An office break room with an accessible sink may be allowed in lieu of the drinking fountain.

**Note:** Drinking fountains are not required in restaurants.

Please continue to the following pages for examples of how to calculate the required number of plumbing fixtures.

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## Examples for determining the number of fixtures:

### Single Use Occupancies

Area of Occupancy:

B Office 10,000 sf

Using Table A:

1. Determine the occupant load:  
 $10,000/200 = 50$  occupants (*25 men & 25 women*) (*includes employees and customers*)  
The occupant load does not exceed 50 so separate facilities are not required. One single user accessible unisex restroom is permitted per 422.2 (3)

PLUMBING FIXTURES AND FIXTURE FITTINGS

TABLE 422.1  
MINIMUM PLUMBING FACILITIES<sup>1</sup>

Each building shall be provided with sanitary facilities, including provisions for persons with disabilities as prescribed by the Department Having Jurisdiction<sup>4</sup>. Table 422.1 applies to new buildings, additions to a building, and changes of occupancy or type in an existing building resulting in increased occupant load.

For requirements for persons with disabilities, Chapter 11A or 11B of the California Building Code shall be used.

The total occupant load shall be determined in accordance with the [BSC, DSA-SS & DSA-SS/CC] Occupant Load Factor Table A.

Exceptions:

- (1) [HCD 1-AC & HCD 2] For applications listed in Sections 1.8.2.1.2 and 1.8.2.1.3 regulated by the Department of Housing and Community Development, each building shall be provided with sanitary facilities, including provisions for persons with disabilities as prescribed by the Department. Covered multifamily dwellings required to be accessible to persons with disabilities shall comply with California Code of Regulations, Title 24, Part 2, Chapter 11A. Permanent buildings in mobilehome parks and special occupancy parks required to be accessible by persons with disabilities, shall comply with California Code of Regulations, Title 24, Part 2, Chapter 11B.
- (2) [HCD 1] For limited density owner-built rural dwelling sanitary facilities, the type, design and number of facilities as required and approved by the local health official shall be provided to the dwelling sites. It shall not be required that such facilities be located within the dwelling.

TYPE OF OCCUPANCY <sup>2</sup>	WATER CLOSETS (FIXTURES PER PERSON) <sup>3</sup>		URINALS (FIXTURES PER PERSON)	LAVATORIES (FIXTURES PER PERSON)		BATHTUBS OR SHOWERS (FIXTURES PER PERSON)	DRINKING FOUNTAINS/FACILITIES (FIXTURES PER PERSON)	OTHER
	Male	Female		Male	Female			
A-1 Assembly occupancy (fixed or permanent seating)- theatres, concert halls and auditoriums	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-25 2: 26-50 3: 51-100 4: 101-200 6: 201-300 8: 301-400	Male 1: 1-200 2: 201-300 3: 301-400 4: 401-600	Male 1: 1-200 2: 201-400 3: 401-600 4: 601-750	Female 1: 1-100 2: 101-200 4: 201-300 5: 301-500 6: 501-750		1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 750, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.			Over 750, add 1 fixture for each additional 500 persons.	
A-2 Assembly occupancy- restaurants, pubs, lounges, night clubs and banquet halls	Male 1: 1-50 2: 51-150 3: 151-300 4: 301-400	Female 1: 1-25 2: 26-50 3: 51-100 4: 101-200 6: 201-300 8: 301-400	Male 1: 1-200 2: 201-300 3: 301-400 4: 401-600	Male 1: 1-150 2: 151-200 3: 201-400	Female 1: 1-150 2: 151-200 4: 201-400		1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 250 males and 1 fixture for each 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 400, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.			Over 750, add 1 fixture for each additional 500 persons.	
A-3 Assembly occupancy (typical without fixed or permanent seating)- arcades, places of worship, museums, libraries, lecture halls, gymnasiums (without spectator seating), indoor pools (without spectator seating)	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-25 2: 26-50 3: 51-100 4: 101-200 6: 201-300 8: 301-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	Male 1: 1-200 2: 201-400 3: 401-600 4: 601-750	Female 1: 1-100 2: 101-200 4: 201-300 5: 301-500 6: 501-750		1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 750, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.			Over 750, add 1 fixture for each additional 500 persons.	

PLUMBING FIXTURES AND FIXTURE FITTINGS

TABLE 422.1  
MINIMUM PLUMBING FACILITIES<sup>1</sup> (continued)

TYPE OF OCCUPANCY <sup>2</sup>	WATER CLOSETS (FIXTURES PER PERSON) <sup>3</sup>		URINALS (FIXTURES PER PERSON)	LAVATORIES (FIXTURES PER PERSON)		BATHTUBS OR SHOWERS (FIXTURES PER PERSON)	DRINKING FOUNTAINS/FACILITIES (FIXTURES PER PERSON)	OTHER
	Male	Female	Male	Male	Female			
A-4 Assembly occupancy (indoor activities or sporting events with spectator seating)-swimming pools, skating rinks, arenas and gymnasiums	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-25 2: 26-50 3: 51-100 4: 101-200 6: 201-300 8: 301-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	Male 1: 1-200 2: 201-400 3: 401-750	Female 1: 1-100 2: 101-200 4: 201-300 5: 301-500 6: 501-750	—	1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 750, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.			Over 750, add 1 fixture for each additional 500 persons.	
A-5 Assembly occupancy (outdoor activities or sporting events)-amusement parks, grandstands and stadiums	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-25 2: 26-50 3: 51-100 4: 101-200 6: 201-300 8: 301-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	Male 1: 1-200 2: 201-400 3: 401-750	Female 1: 1-100 2: 101-200 4: 201-300 5: 301-500 6: 501-750	—	1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 750, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.			Over 750, add 1 fixture for each additional 500 persons.	
B Business occupancy (office, professional or service type transactions)- banks, vet clinics, hospitals, car wash, banks, beauty salons, ambulatory health care facilities, laundries and dry cleaning, educational institutions (above high school), or training facilities not located within school, post offices and printing shops	Male 1: 1-50 2: 51-100 3: 101-200 4: 201-400	Female 1: 1-15 2: 16-30 3: 31-50 4: 51-100 8: 101-200 11: 201-400	Male 1: 1-100 2: 101-200 3: 201-400 4: 401-600	Male 1: 1-75 2: 76-150 3: 151-200 4: 201-300 5: 301-400	Female 1: 1-50 2: 51-100 3: 101-150 4: 151-200 5: 201-300 6: 301-400	—	1 per 150	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 150 females.		Over 600, add 1 fixture for each additional 300 males.	Over 400, add 1 fixture for each additional 250 males and 1 fixture for each additional 200 females.				
E Educational occupancy-private or public schools	Male 1 per 50	Female 1 per 30	Male 1 per 100	Male 1 per 40	Female 1 per 40	—	1 per 150	1 service sink or laundry tray
F1, F2 Factory or Industrial occupancy-fabricating or assembly work	Male 1: 1-50 2: 51-75 3: 76-100	Female 1: 1-50 2: 51-75 3: 76-100	—	Male 1: 1-50 2: 51-75 3: 76-100	Female 1: 1-50 2: 51-75 3: 76-100	1 shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating material.	1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 100, add 1 fixture for each additional 40 persons.			Over 100, add 1 fixture for each additional 40 persons.			Over 750, add 1 fixture for each additional 500 persons.	

PLUMBING FIXTURES AND FIXTURE FITTINGS

TABLE 422.1  
MINIMUM PLUMBING FACILITIES<sup>1</sup> (continued)

TYPE OF OCCUPANCY <sup>2</sup>	WATER CLOSETS (FIXTURES PER PERSON) <sup>3</sup>		URINALS (FIXTURES PER PERSON)	LAVATORIES (FIXTURES PER PERSON)		BATHTUBS OR SHOWERS (FIXTURES PER PERSON)	DRINKING FOUNTAINS/FACILITIES (FIXTURES PER PERSON)	OTHER
	Female	Male		Female	Male			
I-1 Institutional occupancy (houses more than 16 persons on a 24-hour basis)- substance abuse centers, assisted living, group homes, or residential facilities.	Female 1 per 15	Male 1 per 15	—	Female 1 per 15		1 per 8	1 per 150	1 service sink or laundry tray
I-2 Institutional occupancy- medical, psychiatric, surgical or nursing homes	Hospitals and nursing homes-individual rooms and ward room	1 per room	—	1 per room		1 per room	1 per 150	1 service sink or laundry tray
		1 per 8 patients	—	1 per 10 patients		1 per 20 patients		
	Hospital Waiting or Visitor Rooms	1 per room	—	1 per room		—	1 per room	—
	Employee Use	Male 1: 1-15 2: 16-35 3: 36-55  Over 55, add 1 fixture for each additional 40 persons.	Female 1: 1-15 3: 16-35 4: 36-55	—	Male 1 per 40	Female 1 per 40	—	—
I-3 Institutional occupancy (houses more than 5 people)	Prisons	1 per cell	—	1 per cell		1 per 20	1 per cell block/floor	—
	Correc-tional facilities or juvenile center	1 per 8	—	1 per 10		1 per 8	1 per floor	1 service sink or laundry tray
	Employee Use	Male 1: 1-15 2: 16-35 3: 36-55  Over 55, add 1 fixture for each additional 40 persons.	Female 1: 1-15 3: 16-35 4: 36-55	—	Male 1 per 40	Female 1 per 40	—	1 per 150
I-4 Institutional occupancy (any age that receives care for less than 24 hours)	Male 1: 1-15 2: 16-35 3: 36-55  Over 55, add 1 fixture for each additional 40 persons.	Female 1: 1-15 3: 16-35 4: 36-55	—	Male 1 per 40	Female 1 per 40	—	1 per 150	1 service sink or laundry tray

PLUMBING FIXTURES AND FIXTURE FITTINGS

TABLE 422.1  
MINIMUM PLUMBING FACILITIES<sup>1</sup> (continued)

TYPE OF OCCUPANCY <sup>2</sup>	WATER CLOSETS (FIXTURES PER PERSON) <sup>3</sup>		URINALS (FIXTURES PER PERSON)	LAVATORIES (FIXTURES PER PERSON)		BATHTUBS OR SHOWERS (FIXTURES PER PERSON)	DRINKING FOUNTAINS/FACILITIES (FIXTURES PER PERSON)	OTHER	
	Male	Female		Male	Female				
M Mercantile occupancy (the sale of merchandise and accessible to the public)	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-100 2: 101-200 4: 201-300 6: 301-400	Male 0: 1-200 1: 201-400	Male 1: 1-200 2: 201-400	Female 1: 1-200 2: 201-300 3: 301-400	—	1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray	
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each 200 females.		Over 400, add 1 fixture for each additional 500 males.	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each 400 females.		—	Over 750, add 1 fixture for each additional 500 persons.	—	
R-1 Residential occupancy (minimal stay)-hotels, motels, bed and breakfast homes	1 per sleeping room		—	1 per sleeping room		1 per sleeping room	—	1 service sink or laundry tray	
R-2 Residential occupancy (long-term or permanent)	Dormitories	Male 1 per 10	Female 1 per 8	1 per 25	Male 1 per 12	Female 1 per 12	1 per 8	1 per 150	1 service sink or laundry tray
		Add 1 fixture for each additional 25 males and 1 fixture for each additional 20 females.		Over 150, add 1 fixture for each additional 50 males.	Add 1 fixture for each additional 20 males and 1 fixture for each additional 15 females.				
	Employee Use	Male 1: 1-15 2: 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	—	Male 1 per 40	Female 1 per 40	—		
	Over 55, add 1 fixture for each additional 40 persons								
Apartment house/unit	1 per apartment		—	1 per apartment		1 per apartment	—	1 kitchen sink per apartment. 1 laundry tray or 1 automatic clothes washer connection per unit or 1 laundry tray or 1 automatic clothes washer connection for each 12 units	
R-3 Residential occupancy (long-term or permanent in nature) for more than 5 but does not exceed 16 occupants)	Male 1 per 10	Female 1 per 8	—	Male 1 per 12	Female 1 per 12	1 per 8	1 per 150	1 service sink or laundry tray	
	Add 1 fixture for each additional 25 males and 1 fixture for each additional 20 females.			Add 1 fixture for each additional 20 males and 1 fixture for each additional 15 females.					
R-3 Residential occupancy (one and two family dwellings)	1 per one and two family dwelling		—	1 per one and two family dwelling		1 per one and two family dwelling	—	1 kitchen sink and 1 automatic clothes washer connection per one and two family dwelling	

TABLE 422.1  
MINIMUM PLUMBING FACILITIES<sup>1</sup> (continued)

TYPE OF OCCUPANCY <sup>2</sup>	WATER CLOSETS (FIXTURES PER PERSON) <sup>3</sup>		URINALS (FIXTURES PER PERSON)	LAVATORIES (FIXTURES PER PERSON)		BATHTUBS OR SHOWERS (FIXTURES PER PERSON)	DRINKING FOUNTAINS/FACILITIES (FIXTURES PER PERSON)	OTHER
	Male	Female		Male	Female			
R-4 Residential occupancy (residential care or assisted living)	Male 1 per 10	Female 1 per 8	—	Male 1 per 12	Female 1 per 12	1 per 8	1 per 150	1 service sink or laundry tray
	Add 1 fixture for each additional 25 males and 1 fixture for each additional 20 females.			Add 1 fixture for each additional 20 males and 1 fixture for each additional 15 females.				
S-1, S-2 Storage occupancy-storage of goods, warehouse, aircraft hanger, food products, appliances	Male 1: 1-100 2: 101-200 3: 201-400	Female 1: 1-100 2: 101-200 3: 201-400	—	Male 1: 1-200 2: 201-400 3: 401-750	Female 1: 1-200 2: 201-400 3: 401-750	—	1: 1-250 2: 251-500 3: 501-750	1 service sink or laundry tray
	Over 400, add 1 fixture for each additional 500 males and 1 fixture for each additional 150 females.			Over 750, add 1 fixture for each additional 500 persons.			Over 750, add 1 fixture for each additional 500 persons.	

Notes:

- <sup>1</sup> The figures shown are based upon one fixture being the minimum required for the number of persons indicated or any fraction thereof.
- <sup>2</sup> A restaurant is defined as a business that sells food to be consumed on the premises.
  - a. The number of occupants for a drive-in restaurant shall be considered as equal to the number of parking stalls.
  - b. Hand-washing facilities shall be available in the kitchen for employees.
- <sup>3</sup> The total number of required water closets for females shall be not less than the total number of required water closets and urinals for males. [BSC] This requirement shall not apply when single occupancy toilet facilities are provided for each sex in an A or E occupancy with an occupant load of less than 50. Either
  - a. The required urinal shall be permitted to be omitted or
  - b. If installed, the urinal shall not require a second water closet to be provided for the female.
- <sup>4</sup> [BSC, DSA-AC, DSA-SS, DSA-SS/CC, HCD 1 & HCD 2, OSHPD 1, 2, 3 & 4] In accordance with Sections 1.8.7 and 301.2, the Authority Having Jurisdiction may approve alternative designs criteria when determining the minimum number of plumbing fixtures.

TABLE A.  
OCCUPANT LOAD FACTOR:  
[BSC, DSA-SS & DSA-SS/CC]

OCCUPANCY <sup>**</sup>	OCCUPANT LOAD FACTOR (square feet) (CBC 2001, Table A-29A)
<b>Group A</b>	
1. Auditoriums, convention halls; dance floors, lodge rooms, stadiums, and casinos (where no fixed seating is provided) (use 1/2 "one-half" the number of fixed seating)	15
2. Conference rooms, dining rooms, drinking establishments, exhibit rooms, gymnasiums, lounges, stages, and similar uses, including restaurants classified as Group B occupancies	30
3. Worship places; principal assembly area, educational and activity unit (where no fixed seating is provided) (use 1/2 "one-half" the number of fixed seating)	30
<b>Group B</b>	
Office or public buildings (area accessible to the public)	200
<b>Group E</b>	
Schools for day care, elementary, secondary	50
<b>Educational Facilities Other than Group E</b>	
Colleges, universities, adult centers, etc.	50
<b>Group F</b>	
Workshops, foundries and similar establishments	2,000
<b>Group H</b>	
Hazardous materials fabrication and storage	2,000
<b>Group I</b>	
Hospital general use area, health care facilities	200
<b>Group M</b>	
Retail or wholesale stores	200
<b>Group R</b>	
Congregate residence, Group R-1	200
<b>Group S</b>	
Warehouse	5,000

\* Any uses not specifically listed shall be based on similar uses listed in this table.

\*\* For building or space with mixed occupancies, use appropriate occupancy group for each area (for example, a school may have an "A" occupancy for the gymnasium, a "B" occupancy for the office, an "E" occupancy for the classrooms, etc.) Accessory areas may be excluded (for example: hallway, restroom, stair enclosure)